

Including  
the Corporate Social Responsibility  
and Sustainable Development Report

2014  
**REFERENCE DOCUMENT**



*Creative Oxygen*

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# 2014 Reference document

## including the Corporate Social Responsibility and Sustainable Development Report

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**World leader in gases, technologies and services for Industry and Health, Air Liquide** is present in **80 countries** with more than **50,000 employees** and serves more than **2 million customers and patients**. Oxygen, nitrogen and hydrogen have been at the core of the Company's activities since its creation in 1902. Air Liquide's ambition is to be the leader in its industry, **delivering long-term performance and acting responsibly**.

Air Liquide ideas create value over the long term. At the core of the Company's development are the commitment and constant inventiveness of its people.

**Air Liquide anticipates the challenges of its markets**, invests locally and globally, and delivers high-quality solutions to its customers and patients, and the scientific community.

The Company relies on **competitiveness** in its operations, **targeted investments** in growing markets and **innovation** to deliver profitable growth over the long-term.

Air Liquide's revenues amounted to 15.4 billion euros in 2014, and its solutions that protect life and the environment represented more than 40% of sales. Air Liquide is listed on the Paris Euronext stock exchange (compartment A) and is a member of the CAC 40 and Dow Jones Euro Stoxx 50 indexes.

 **Meet us on our website**  
[www.airliquide.com](http://www.airliquide.com)



The original French version of this Reference document was filed with the French financial market Authority (AMF), on March 16, 2015, in accordance with Article 212-13 of its General regulations. It may be used in support of any financial transaction if it is supplemented by a prospectus approved by the AMF. This document contains all information required for the **Financial Annual report**. It was prepared by the issuer and its signatories assume responsibility for it.

*This document is a free translation from French into English and has no other value than an informative one. Should there be any difference between the French and the English version, only the text in French language shall be deemed authentic and considered as expressing the exact information published by Air Liquide.*

*A financial and technical glossary is provided at the end of the document – pages 354 to 358.*



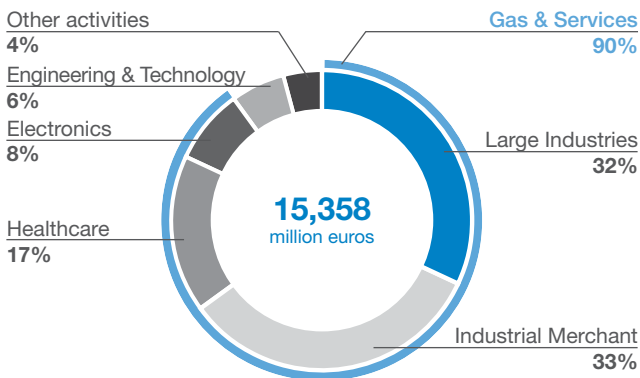
## A GLOBAL PRESENCE

Present in **80 countries**

**50,300** employees

**World leader** in **gas and services** for **Industry and Health**

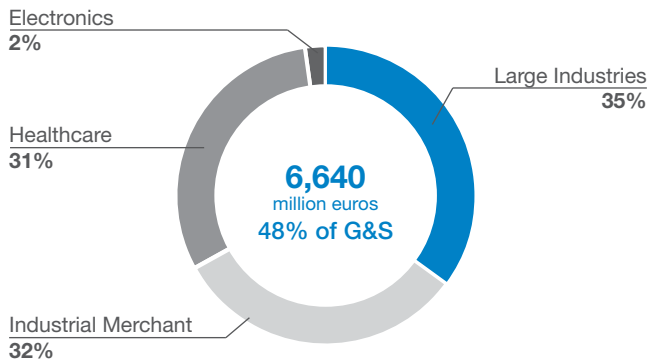
### 2014 Group revenue by activity



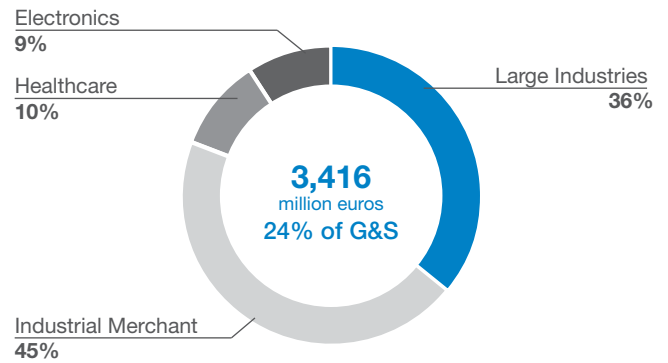
**29.5%** of revenue for Gas & Services for Industry<sup>(a)</sup> realized in developing economies

### 2014 Group revenue by region and by activity, for Gas & Services (G&S)

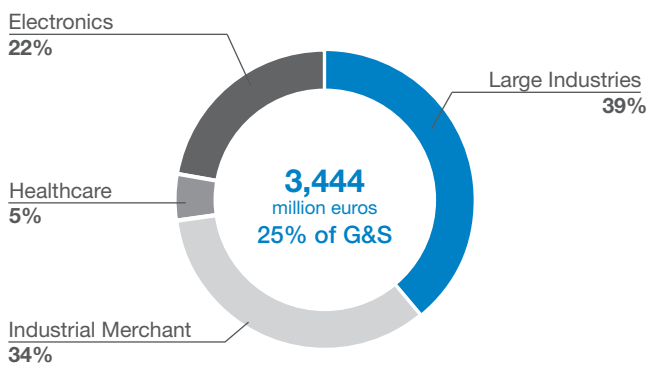
#### ■ Europe



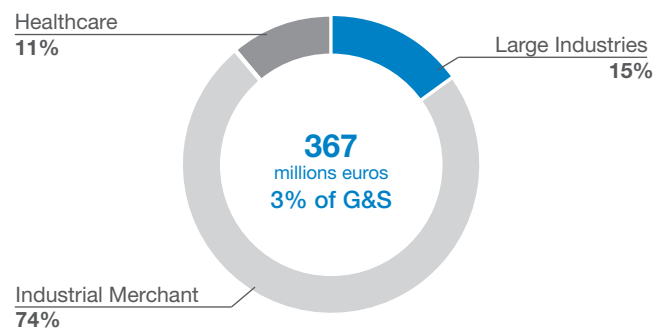
#### ■ Americas



#### ■ Asia-Pacific



#### ■ Middle East & Africa



(a) Gas and Services for Industry (GSI) : Large Industries, Industrial Merchant, Electronics.



## A **WIDE RANGE** OF MARKETS AND A **STRONG** BUSINESS MODEL...

### KEY ELEMENTS BY BUSINESS LINE

#### > LARGE INDUSTRIES

36% of G&S // 4,980 million euros // +1% in 2014 // +9% on average over 5 years



- High **capital intensity**
- **Customers** in metals, chemicals, refining and energy
- **Industrial basin** and **pipeline network** strategy
- **Long-term contracts** (15 years) and **take-or-pay** clauses

#### > INDUSTRIAL MERCHANT

37% of G&S // 5,083 million euros // +0% in 2014 // +4% on average over 5 years



- More than 1 million **customers**
- Activity relating to gas **applications** and **logistics**
- **Synergies** with Large Industries
- Short- or medium-term **contracts**

#### > HEALTHCARE

18% of G&S // 2,570 million euros // -4% in 2014 // +7% on average over 5 years



- **Medico-technical services** activity in a regulated sector
- 1.2 million **patients**
- Geographical **density**
- **IT** systems essential for the activity

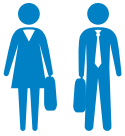
#### > ELECTRONICS

9% of G&S // 1,234 million euros // +9% in 2014 // +7% on average over 5 years



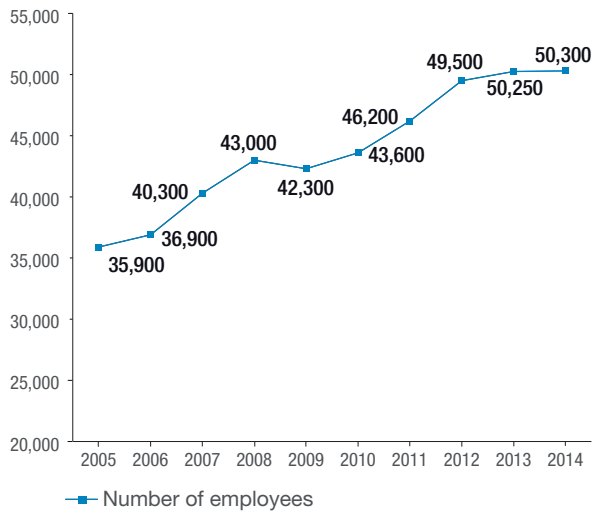
- Technology barrier due to **ultra-purity gases** and **adapted molecules**
- **Long-term contracts** for nitrogen
- Concentration of the activity in **Asia**

## KEY FIGURES

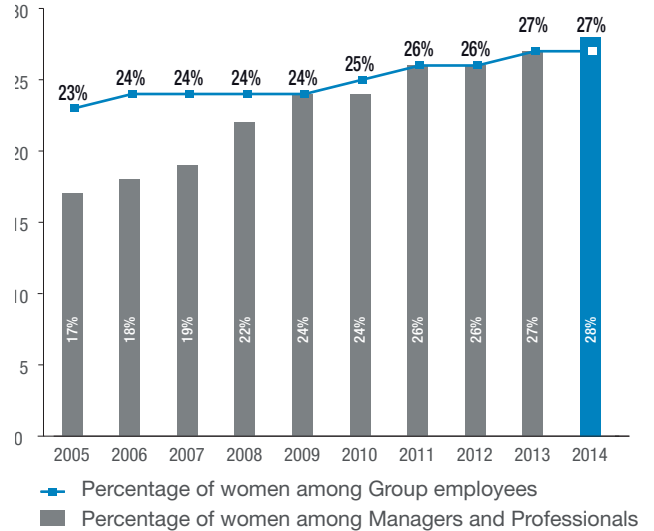


# ...DRIVEN BY INVOLVED WOMEN AND MEN

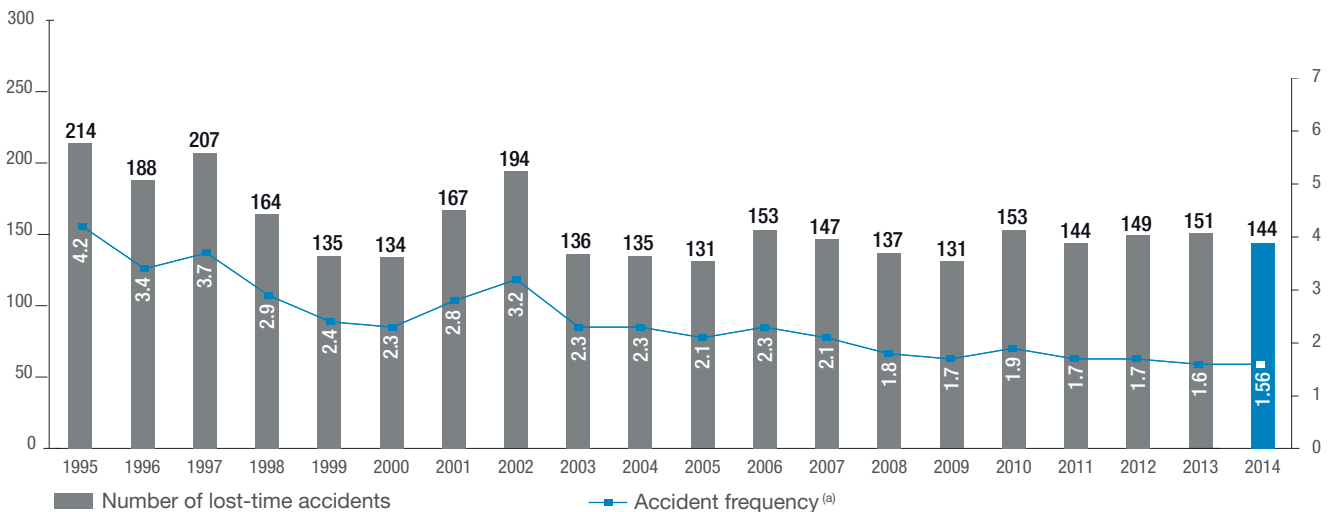
### Number of employees since 2005 (10 years)



### Diversity evolution since 2005 (10 years) - % of women among Group employees



### Number and frequency of lost-time accidents of Group employees since 1995 (20 years)



(a) Number of lost-time accidents with at least one lost-day per million hours worked by Group employees.

**Air Liquide Foundation**

**180 projects**

in 42 countries since its creation

**220 employees** involved

### Corporate Governance in 2014

**83%** of Board members are independent Directors

**33%** of Board members are women

**58%** of Board members are of foreign nationality (non-French)

### Internal Governance in 2014

**94%** of the Group's employees belong to an entity that has a local Code of Conduct

**93%** of the Group's revenues have been covered by the Industrial Management System (IMS) over the last five years

**>90%** of revenues have been subject to internal control system processes



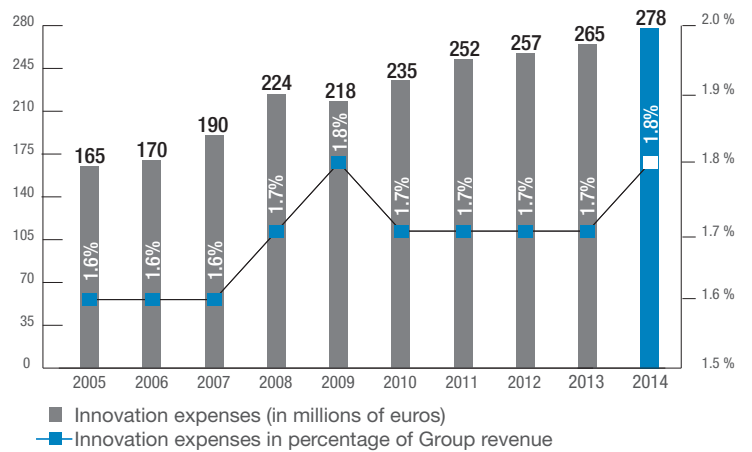
AN **INNOVATIVE** COMPANY

INNOVATION EXPENSES



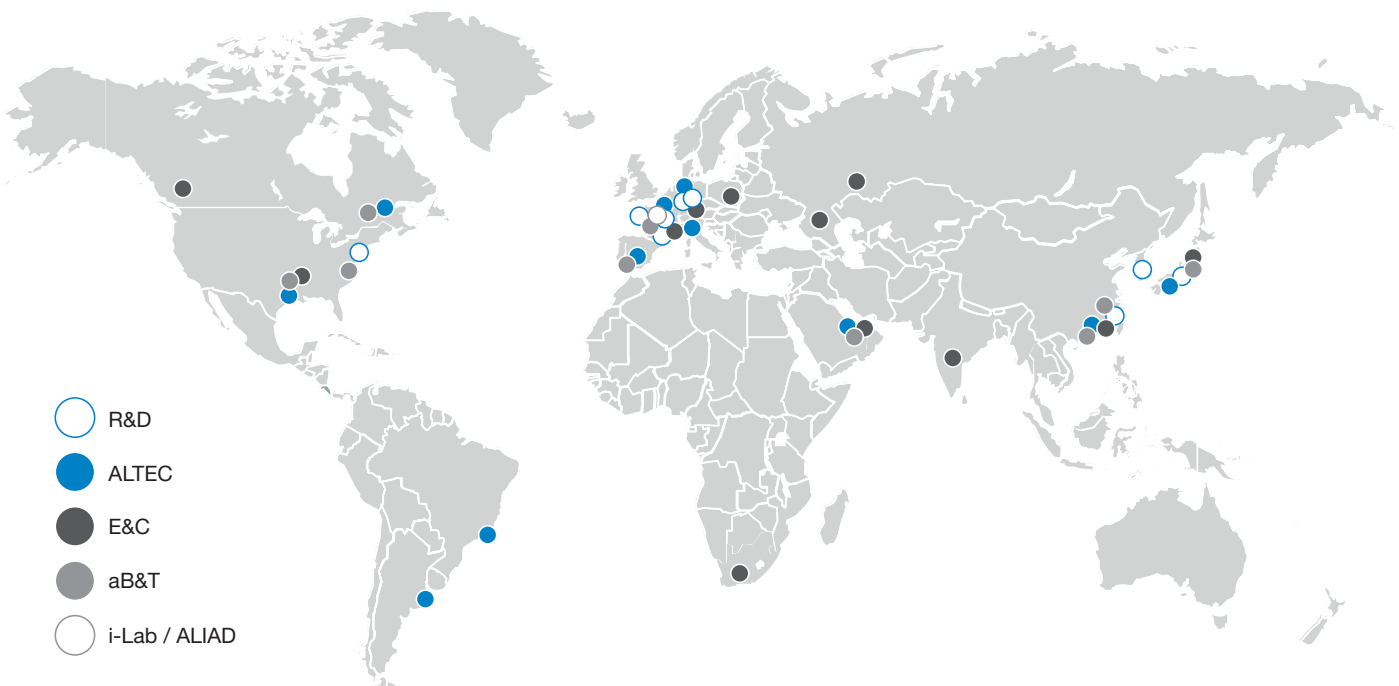
**287** new patents filed in 2014

Innovation expenses (10 years)



GLOBAL NETWORK SUPPORTING INNOVATION

> **6,200** EMPLOYEES





# REGULAR AND SUSTAINED PERFORMANCE

Established in **1902**

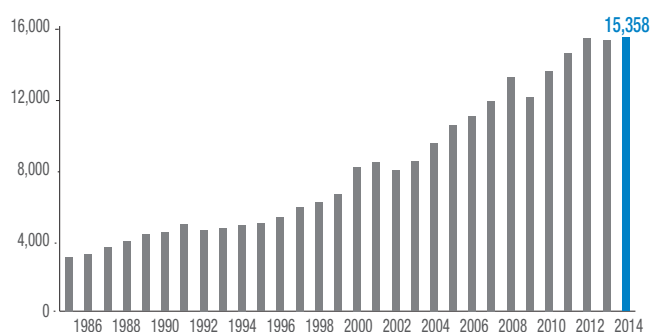
**19.7%** Gas & Services Operating Margin / Revenue

## PERFORMANCE REGULARITY OVER 30 YEARS

**Revenue** (in millions of euros)

Compound annual growth over 30 years: **+5.6%**

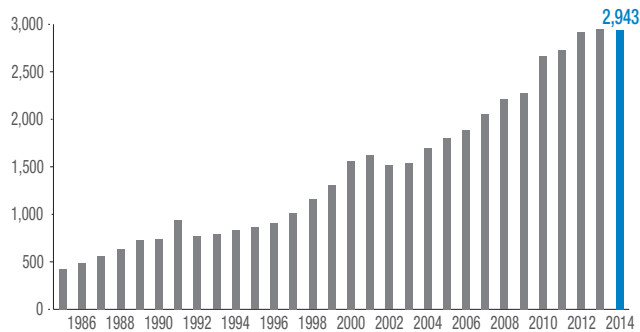
2014-2013 growth: **+0.9%**



**Cash Flow from operating activities before changes in working capital requirement** (in millions of euros)

Compound annual growth over 30 years: **+6.9%**

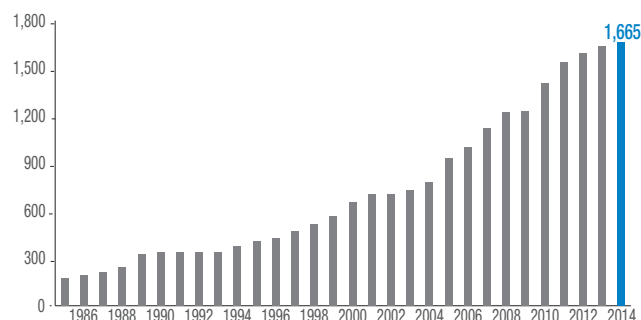
2014-2013 growth: **-0.2%**



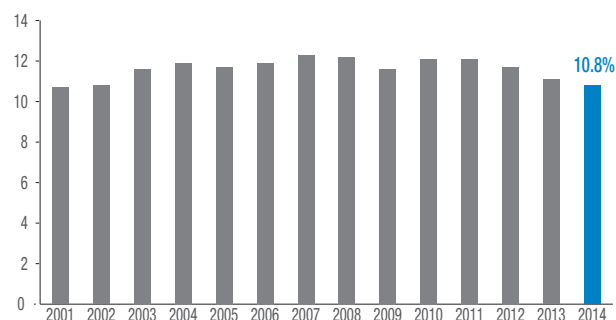
**Net profit (Group share)** (in millions of euros)

Compound annual growth over 30 years: **+8.3%**

2014-2013 growth: **+1.5%**



**Return on Capital Employed** <sup>(a)</sup>



### TSR

Total Shareholder Return for one registered share

**+13.2%** over 5 years <sup>(b)</sup>

**+12.4%** over 10 years <sup>(c)</sup>

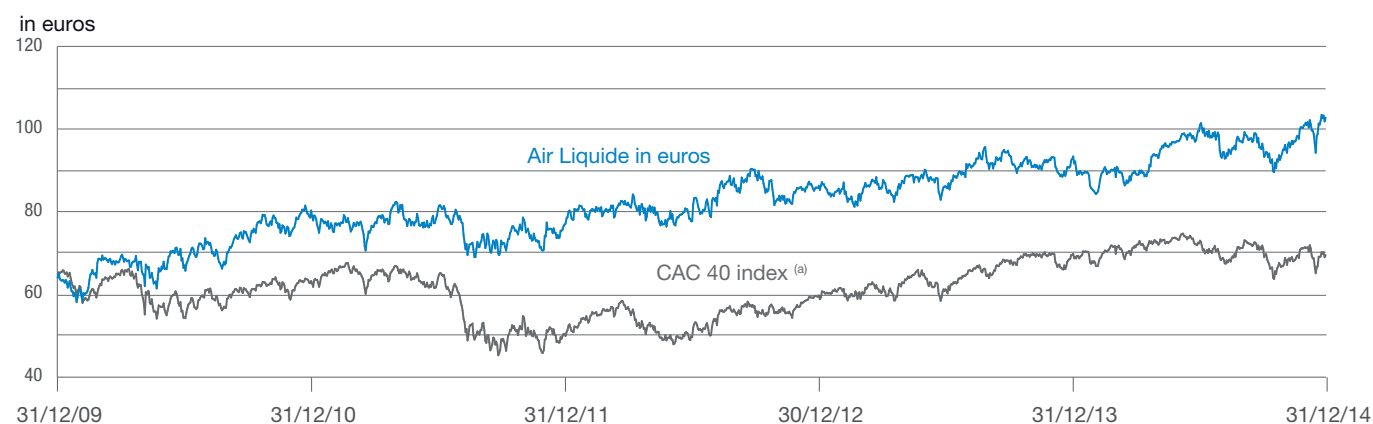
(a) See ROCE definition on page 356.

(b) At December 31, 2014, for an invested capital since December 31, 2009.

(c) At December 31, 2014, for an invested capital since December 31, 2004.



## Stock market performance



(a) CAC 40 index based on Air Liquide share price, December 31, 2009.

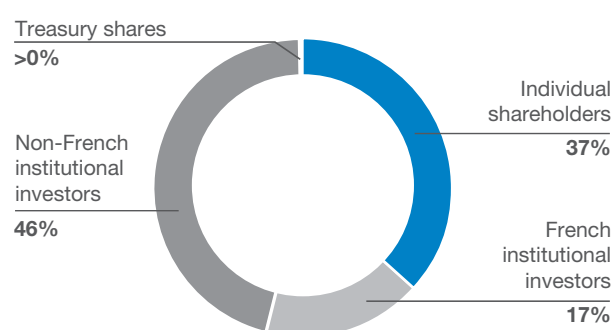
	2010	2011	2012	2013	2014
Market capitalization at December 31 (in millions of euros)	26,887	27,130	29,682	32,159	35,470
Adjusted closing share price <sup>(a)</sup> (in euros)	high	81.62	82.45	90.47	103.60
	low	58.21	69.12	76.47	84.45
At December 31	78.04	78.82	86.41	93.45	102.85
Net earnings per share <sup>(b)</sup> - EPS (in euros)	4.10	4.47	4.63 <sup>(c)</sup>	4.79	4.85
Net dividend per share <sup>(b)</sup> - DPS (in euros)	1.93	2.06	2.27	2.31	2.55
Pay-out ratio	48.7%	47.5%	49.9%	49.7%	54.0%
Dividend yield	2.5%	2.6%	2.6%	2.5%	2.5%
Ex-dividend date	May 11, 2011	May 11, 2012	May 16, 2013	May 16, 2014	May 18, 2015

(a) Adjusted following current Euronext regulation.

(b) Adjusted for previous two-for-one share splits and free share attributions.

(c) 2012 restated for the effects of the IAS19 "Employee benefits" revision.

## Share ownership breakdown at December 31, 2014



## FREE SHARE ATTRIBUTION IN JUNE 2014

On June 2, 2014, each shareholder received one free share for 10 existing shares. Registered shareholders having held their shares continuously since December 31, 2011 also received a 10% loyalty premium (1 additional share for 100 shares held). As a result of this attribution, the total number of shares increased by 10.28%.

To take into account this increase in the number of shares, historical EPS and DPS have been adjusted according to IFRS by dividing the number by 1.1028.

Free share attributions do not modify the value of a shareholder's portfolio as the stock market price adjusts to the increased number of outstanding shares on the day of the share grant.



# AIR LIQUIDE APPROACH TO SUSTAINABLE DEVELOPMENT

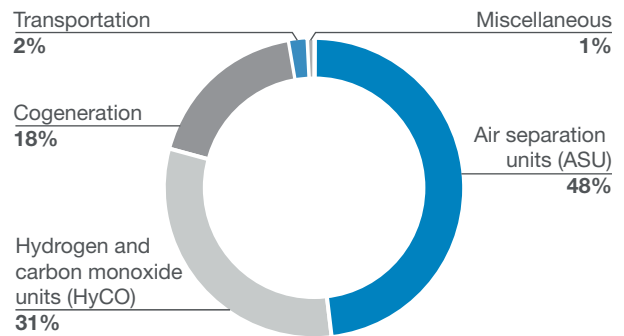


## ENVIRONMENTAL FOOTPRINT

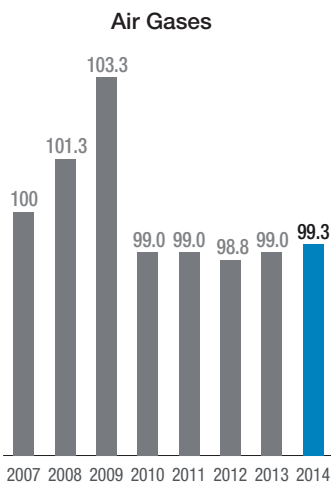


40 applications preserve life and the environment and represent **45%** <sup>(a)</sup> of Group sales.

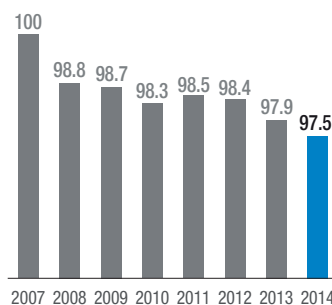
Breakdown of 2014 direct and indirect greenhouse gas emissions



Energy consumption per m<sup>3</sup> of produced gas (2007 base 100)

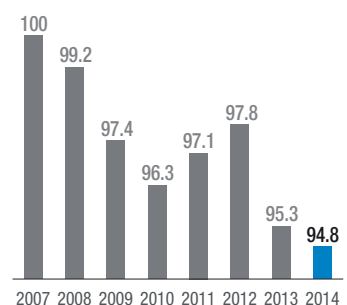


Hydrogen



Distance traveled per ton of gas delivered (2007 base 100)

Transport



(a) 2013 data. Update to 2014 data available mid-2015.



# MANAGEMENT REPORT

<b>History of the Air Liquide Group</b>	<b>10</b>	<b>Investment cycle and financing strategy</b>	<b>43</b>
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## ➤ HISTORY OF THE AIR LIQUIDE GROUP

### 1902

#### ORIGIN

Air Liquide was born of innovation and an encounter between two men: Georges Claude, inventor of an industrial process for the production of oxygen from liquid air, and Paul Delorme, a visionary entrepreneur.

### 1906

#### FIRST INTERNATIONAL DEVELOPMENTS

Gas by its very nature is difficult to transport and thus local production is required. This was one of the reasons Air Liquide set its sights internationally early on, building numerous production units abroad. Development was rapid in Europe (1906), Japan (1907), Canada (1911) and the United States (1916). See "A Century of International Development."

### 1913

#### LISTING ON THE STOCK EXCHANGE

The critical role played by shareholders became evident in the first years of the Company's development. First listed on the Paris Stock Exchange in 1913, last year the share celebrated its listing century; 100 years in which Air Liquide has endeavored to forge a strong and privileged relationship with its shareholders based on an exceptional stock market performance, with an average annual increase in its share price over the 100 years to 2013 of +11.9%.

### 1946

#### NEW ADVENTURES, DIVING

New adventures shared with Captain Cousteau led to the creation of Spirotechnique (today known as Aqua Lung™), which designs, manufactures and sells diving regulators and other equipment used for professional and leisure diving.

## A CENTURY OF INTERNATIONAL DEVELOPMENT

Air Liquide's development was rapid during the early part of the XX<sup>th</sup> century, with significant business growth between the two world wars. From 1945 to 1970, in an economy that was being rebuilt, the Group consolidated its positions and established itself in South America and South Africa (1946), then in Australia and North Africa (1956).

In the 1970s, international growth was renewed with a major acquisition: Big Three in the United States in 1986. At the end of the 1980s, taking advantage of its long-time presence in Japan, Air Liquide set its sights on other Asian countries and played its part in the development of the Electronics market. The Group invested massively in China in the early 2000s; the country is a major growth market for industrial gases and Air Liquide entered into numerous air gas contracts.

In the 1990s, the Group began to develop in Central Europe. During a second phase, in the 2000s, it made inroads further east in Russia, Ukraine and Turkey, winning Large Industries contracts. The Middle-East also became a new investment priority.

In 2004, there was a second major acquisition: certain businesses of Messer Griesheim in Germany, the United Kingdom and the United States. In 2007, the Group purchased minority interests in its joint ventures in Japan and Southeast Asia.

Today, Air Liquide continues to pursue its strategy of expanding its global presence, convinced that the geographical diversity will guarantee resilience and future growth. As a result, the Group is continuously strengthening its historical positions in the major economies worldwide and relentlessly seeking footholds in new markets.

Air Liquide is now present in 80 countries, its international dimension being a fundamental component of its identity.

## 1952

### THE CRYOGENIC REVOLUTION

Storing gas in liquid form in cryogenic tanks allows vast quantities to be transported by road or rail within a radius of around 250 km from the production site. In 1954, the first liquid oxygen plant started up in the North of France.

## 1960

### PIPELINE NETWORK STRATEGY

By delivering gas to several customers through pipelines, Air Liquide adopted a network strategy for the first time, linking its gas production units through a pipeline network. The Group multiplied production capacity to meet soaring demand from large industries: firstly, for oxygen in the steel industry, and secondly, for nitrogen in chemicals.

The Large Industries business was launched with customers committing to long-term contracts of 15 years or more. The Group currently manages a global network of more than 9,200 km of pipelines in particular on the Gulf Coast, in Northern Europe, in the Ruhr valley in Germany and in several Asian countries.

## 1962

### SPACE INDUSTRY

Convinced of the industrial potential of cryogenics, Jean Delorme, Chairman & CEO, decided to create a research center near Grenoble dedicated to these technologies. The first applications were rapidly integrated in the space industry. Air Liquide has been a partner of the space adventure and the Ariane program for 50 years. The Group's contribution has been as much in the production of the fluids essential for launch (oxygen, hydrogen, helium and nitrogen) and the supply of associated services, as in the design and production of the tanks and cryogenic equipment of the launchers.

## 1970

### A TRADITION OF INVENTIONS

The Claude-Delorme Research Center, located in the Paris-Saclay innovation cluster and now called the Paris-Saclay Research Center, was created to enhance gas production techniques and their applications (combustion, welding, metalworking, chemicals, electronics, food, respiratory functions, and environmental treatment). It is evidence of the Group's desire to perfectly understand the industrial processes of its customers and develop new gas applications to better satisfy their requirements (in terms of quality, productivity and the environment). The Center also develops partnerships with universities and industrial companies. The Group currently has nine research centers around the world.

## 1976

### A TECHNOLOGICAL BREAKTHROUGH

With the Sasol project in South Africa, transforming coal into synthetic fuel, air separation units (ASUs) have scaled up, dramatically increasing in size. Following this technological breakthrough, Air Liquide became the leader in large ASUs, and remains so today.

## 1985

### A NEW MARKET, ELECTRONICS

In Japan, the Group began to supply ultra-high purity gases to the semiconductor industry: this involves carrier gases, mainly nitrogen, used to transport the specialty gases and inert storage the chip production tools, and specialty gases that are used directly in the manufacturing of semiconductors. In 1987, Air Liquide inaugurated the Tsukuba Research Center in Japan, which is dedicated to the Electronics industry.

## 1995

### EXTENDED OFFERING: HYDROGEN AND STEAM

In addition to oxygen and nitrogen, as part of its commitment to protecting the environment and promoting energy efficiency, Air Liquide extended its offering to hydrogen and steam. To ensure the success of this new offering, the Group has used the business model, which is behind the success of its air gas activity, deploying from the beginning a basin strategy based on a pipeline network, providing customers with flexibility, distribution reliability and service quality at the best price.

### PROTECTING LIFE

Originally an oxygen supplier to hospitals, Air Liquide has become a specialist in the Healthcare sector. The Group launched its Home Healthcare activity and set up a dedicated network of specialist teams. Medical gases were progressively classified as drugs and manufacturers were required to file market authorizations. The Group also developed in the Hygiene sector, an activity that naturally complemented the hospital services. Most recently, Air Liquide launched significant research programs in therapeutic gases, used for anesthesia, resuscitation, and pain relief.

## 2007

### ORGANIZATION BY BUSINESS LINE

The Air Liquide growth drivers for the coming decades are solid and sustainable, based on changing lifestyles: industrial growth of developing economies, increasing energy needs and environmental challenges, healthcare and high technology. To capture this growth, the Group created a new organizational structure based on four World Business Lines. They combine the technical, financial and operational expertise that are specific to each of the businesses of the Group – Large Industries, Industrial Merchant, Healthcare and Electronics – and centralize the specific market expertise. The Group remains geographically focused, but each zone or country benefits from the support and experience of the business lines to accelerate its development.

Conscious of the strategic dimension of engineering & construction capabilities, the Group acquired Lurgi in 2007. This company provides Air Liquide with major proprietary technologies such as hydrogen and carbon monoxide production units, or processes relating to the gasification or CO<sub>2</sub> purification, adding to the Group's historical competencies in cryogenics. Thanks to this acquisition, the Group now has a complete technological offering and a greater engineering capacity.

## 2008

### LAUNCH OF THE ALMA PROGRAM TO STEP UP GROWTH

The Group launches the ALMA corporate program. Driven by the ambition to be the recognized leader of its industry, the Group announces its mid-term objectives for an average annual revenue growth of +8% to +10%, 600 million euros in efficiencies over three years and a return on capital employed of between 11% and 12%.

## 2009

### RESILIENCE IN AN UNPRECEDENTED CRISIS

Affected by a crisis of unprecedented magnitude, the Group focused its efforts on the management of its cash, costs, and investments (capex). Having tested the solidity of its long-term contracts, Air Liquide confirmed its resilience and demonstrated the relevance of its business model. In a context of global recession, the Group shows itself to be an exception, posting a stable net profit while preserving the strength of its balance sheet.

## 2010-2012

### UPDATED OBJECTIVES – NEW TERRITORIES, NEW ACQUISITIONS

Slowly emerging from a crisis that reshuffled global growth, Air Liquide announces at end-2010 new objectives for its ALMA program in terms of performance and responsibility. These objectives were revised at end-2013 to factor in a slower-than-expected recovery in growth, in particular in Western Europe and Japan.

The Group accelerates its presence in new territories, including Turkey, Ukraine and Mexico, and strengthens its presence in China. These developments contributed to the increase, in seven years, of the developing economies share of Gas & Services revenue from 15% to 26% in 2014.

In a weaker growth environment in the advanced economies, and particularly in Western Europe, Air Liquide intensifies its acquisitions. At the end of 2012, two major home healthcare players joined the Group: LVL Médical in France and Gasmedi in Spain. Other acquisitions were completed in 2013 to strengthen the Group's positions in Healthcare in Poland, Scandinavia and Canada and in Industrial Merchant in Brazil, Russia, the Middle East and China.

## 2013-2014

### NEW INITIATIVES IN THE INNOVATION FIELD – HYDROGEN MOBILITY

Innovation is central to Air Liquide's strategy. In 2013 Air Liquide launched two initiatives to promote open innovation: i-Lab, Air Liquide's new ideas laboratory, and ALIAD, the Group's capital investment subsidiary that takes minority stakes in innovative technology start-ups. In 2014, the Group decides on new investments with the modernization of the Paris-Saclay Research Center, the creation of a center for the development of gas cylinders for industry and healthcare, and the launch of a technical center of excellence for cryogenic production technologies.

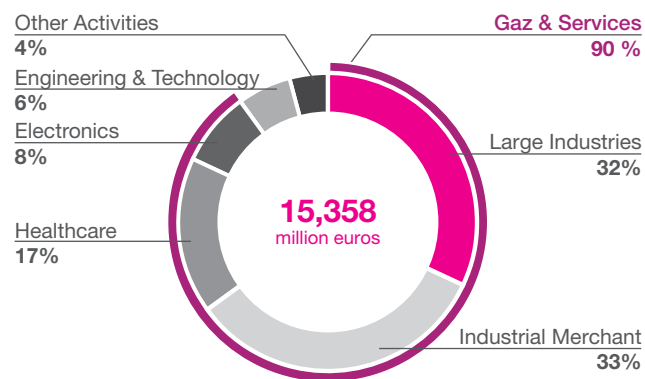
In addition, on a worldwide scale, Air Liquide actively contributes to the development of the hydrogen energy activity by accompanying automotive manufacturers launching fuel cell electric vehicles on the market. Air Liquide confirms its commitment to a more environmentally friendly energy source, with the creation of its Blue Hydrogen® label accompanied by ambitious objectives. The first hydrogen filling stations have opened (United States, Japan, France, Germany, Denmark, and the Netherlands), the vast majority of which are accessible to the general public.

## ACTIVITIES AND RISK FACTORS

### Activities

The Group classifies its activities as follows: Gas & Services, Engineering & Technology and Other activities. Additional information is available in the 2014 Performance section of this report.

#### 2014 Group revenue



#### GAS & SERVICES

The supply of gas involves local production in order to limit transport costs. Air Liquide gas production units are therefore located throughout the world and can supply several types of customers and industries, with the relevant volumes and services required. The operational management of the Gas & Services activity is organized by four geographic regions (Europe, Americas, Asia-Pacific and the Middle-East and Africa) and coordinated at World Business Line level to better adapt to the changes in the different markets:

- **Large Industries** supplies industrial gases by operating major production units. It serves customers in the metals, chemicals, refining and energy industries with high gas consumption, requiring delivery through a dedicated plant or pipeline. Large Industries also supplies the Group's other business lines.
- **Industrial Merchant** supplies a wide range of different gases, application equipment and associated services. It serves industries of all sizes that require variable quantities.

The product is therefore either distributed in bulk, in liquid form, for medium and large quantities, or in cylinders, in gaseous form, for small quantities.

- **Healthcare** supplies medical gases, hygiene products, medical devices and services to hospitals and patients in their homes. It also produces and distributes healthcare specialty ingredients for the cosmetics, pharmaceutical and vaccine markets.
- **Electronics** supplies gas and services for the production of semiconductors, flat panels and photovoltaic panels.

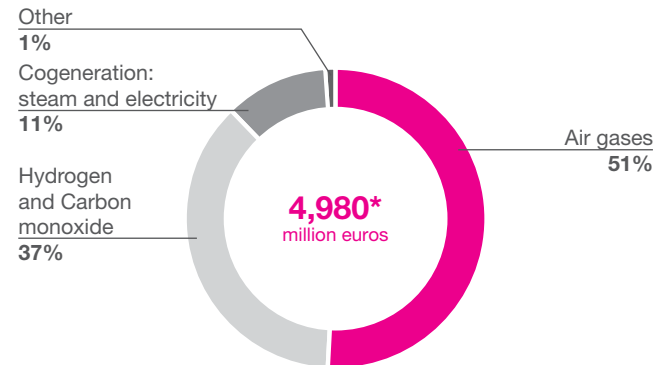
Depending on their end use, gases are distributed in different states and using various means: in gaseous form through a pipeline network, in liquid form in cryogenic trailers, and in gaseous form in high-pressure cylinders for small quantity orders or specialty gases. The Gas & Services activity represents 90% of the Group's total revenue.



**LARGE INDUSTRIES**

The Large Industries business line proposes gas and energy solutions to customers in the chemicals, metals, energy and refining industries, that are essential for their own industrial production, to improve process efficiency and to make their plants more environmentally friendly. The world leader in this sector, Air Liquide benefits from dedicated in-house development and engineering teams, differentiating proprietary technologies and rigorous processes for selecting investments and carrying out projects, which often include pipeline networks, reaching out over several hundreds of kilometers.

**2014 Large Industries revenue by activity**



\* 36% of Gas & Services revenue.

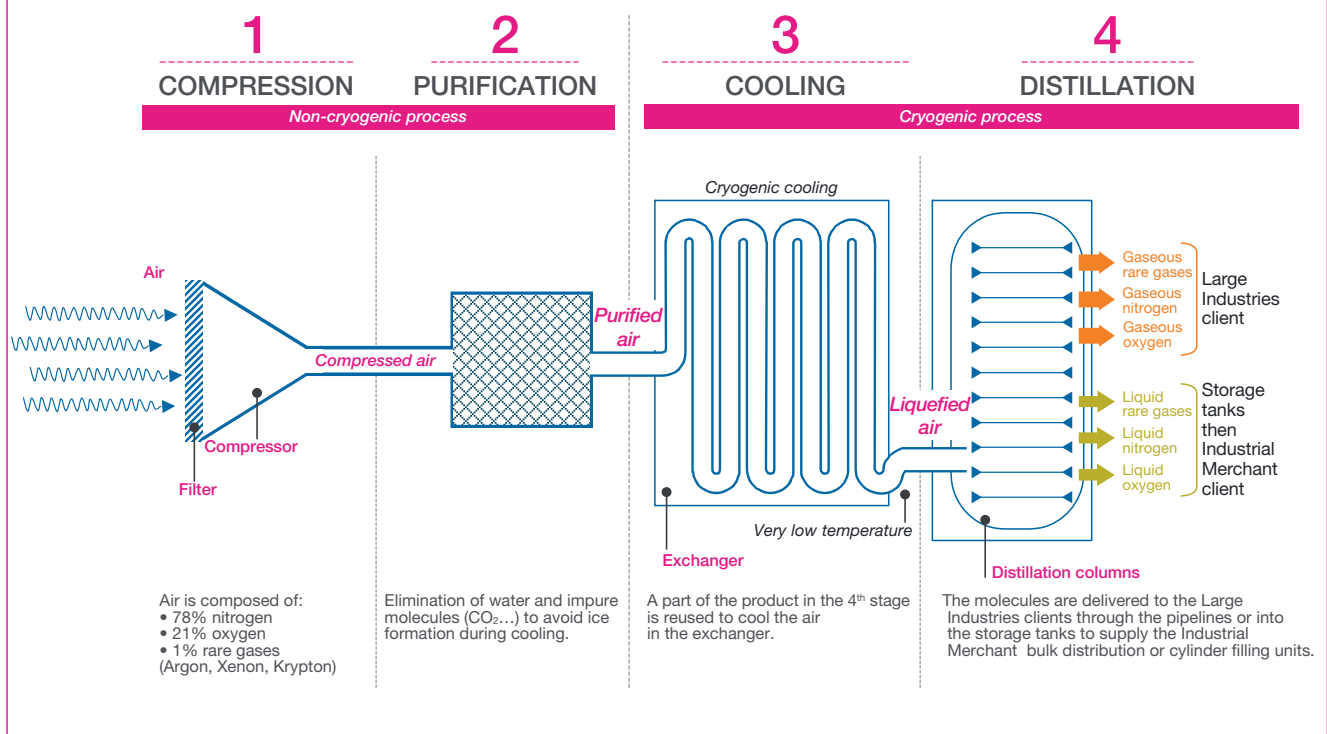
**LARGE INDUSTRIES PROCESSES**

**Separation of air gases (ASU: Air Separation Unit)**

An ASU compresses, liquefies and distills air in order to separate it into its different components: 78% nitrogen, 21% oxygen, and 1% rare gases (argon, neon, krypton and xenon). Only certain extremely large ASUs can produce rare gases. Electricity consumption is significant.

**AIR GAS PRODUCTION**

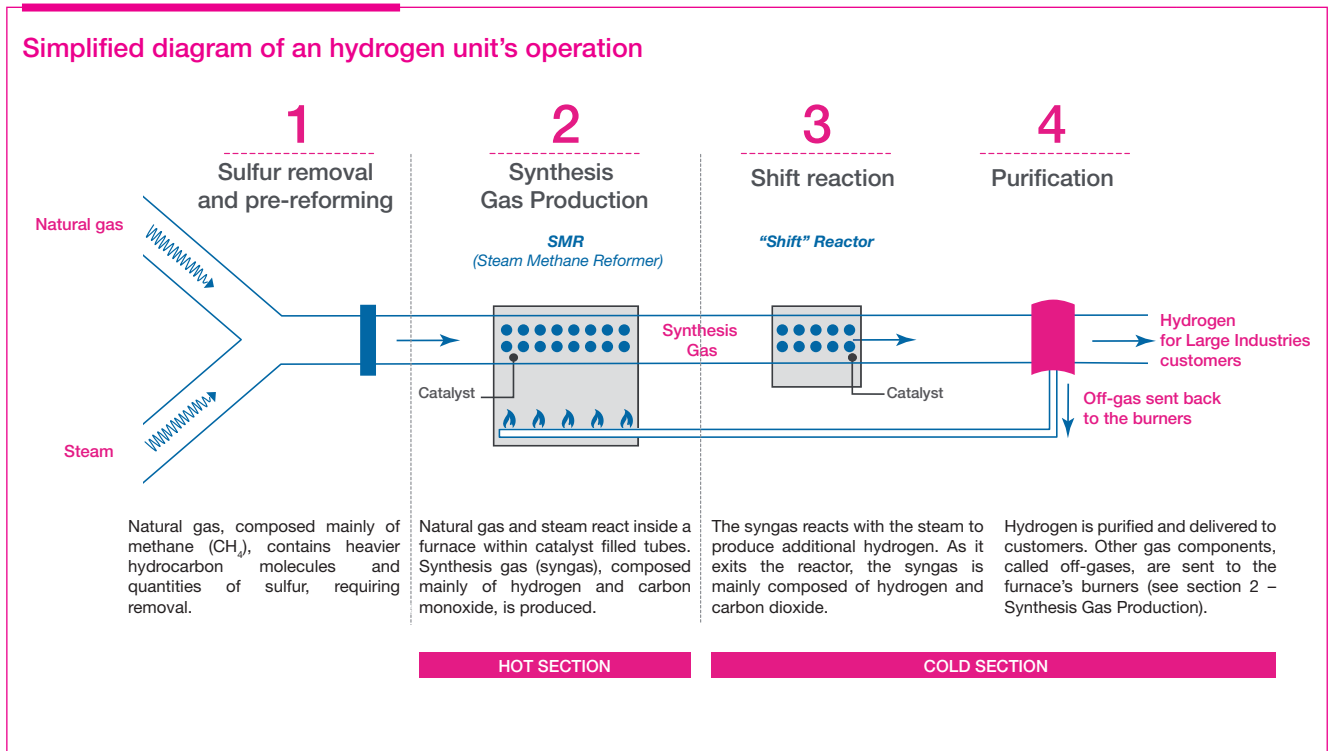
**Simplified diagram of an air separation unit's operation**



## Activities and risk factors

**Hydrogen and carbon monoxide production unit (SMR: Steam Methane Reformer)**

By steam reforming natural gas, an SMR produces hydrogen and carbon monoxide. The most significant raw material is natural gas; electricity and water consumption is modest.

**HYDROGEN PRODUCTION****Simplified diagram of an hydrogen unit's operation****Cogeneration**

Cogeneration consists of simultaneously and efficiently producing electricity and steam generally by consuming natural gas and water. The electricity is supplied to the local network while the steam is required for certain industrial processes.

This business line provides oxygen, nitrogen, argon, hydrogen and carbon monoxide through a network of plants and pipelines. At December 31, 2014, there were 355 large Air Separation Units (ASUs), 47 Steam Methane Reformers (SMRs) producing hydrogen and carbon monoxide around the world and 17 cogeneration plants.

In the **metals** industry, oxygen is used in steel production to improve energy performance and reduce emissions. The majority of new projects are currently located in developing economies.

The **chemicals** industry uses mainly oxygen, hydrogen and carbon monoxide in its manufacturing processes, and nitrogen for the inerting of installations.

The **refining** industry requires hydrogen to desulfurize fuels and break up heavy hydrocarbons. The demand for hydrogen is growing due to the combination of increasingly stringent emissions legislation and use of heavier hydrocarbons.

Numerous industries linked to **energy** or **chemicals** use large quantities of oxygen to transform coal, natural gas and syngas hydrocarbons for the production of chemical products, syngas or electricity. To meet customer requirements, the supply of large quantities of gas is indispensable. Air Liquide supplies its customers directly by pipelines from a dedicated plant or different plants linked by a network. Air Liquide has built its own pipeline networks progressively over the last 40 years. With a total length of more than 9,200 km, these networks stretch, for example, across Northern Europe, from Rotterdam through to Dunkirk, and along the Gulf Coast in the United States from Lake Charles (Louisiana) to Corpus Christi (Texas). Many other mid-sized local networks have also been built in other significant and fast developing industrial basins in Germany, Italy, Singapore and more recently, South Korea and China.

The use of industrial gases is indispensable for these various industrial processes. As any discontinuity in the supply necessitates a stoppage of the customer's production operations, supply reliability is crucial. However, although vital, gas supply generally represents a very small part of total production cost for the customer.

The raw materials necessary for the production of industrial gases vary according to the type of unit and the region. The production of oxygen and nitrogen requires air and a large quantity of electricity. Hydrogen and carbon monoxide production units mainly consume natural gas and little electricity. Cogeneration

units consume natural gas and water. The energy and capital intensity of these industrial processes is generally high.

The supply of gas is generally contracted for 15 years. The signing of new contracts is a guarantee of future growth. For certain specific projects this can be extended to 20 years. Within these contracts, the Group guarantees long-term service continuity and a high level of reliability with respect to the gas supply via a high-performing industrial solution. In return, the contracts include the indexation of input costs, mainly electricity and natural gas, and guaranteed minimum volumes through take-or-pay clauses.



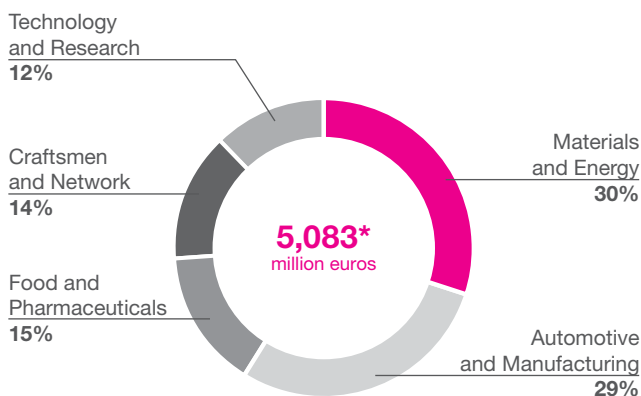
The **Large Industries** business line operates under long-term contracts, where costs are indexed, in particular to energy costs. These contracts, that include take-or-pay clauses, offer considerable visibility of future revenue and protection in the event of a significant fall in customer volume consumption (below the minimum take-or-pay level). The long investment cycle and high capital intensity require a solid balance sheet. The signing of new contracts is a guarantee of future growth.

Air Liquide is developing a network strategy in the industrial basins in order to provide customers with greater supply reliability while optimizing operating costs.

## INDUSTRIAL MERCHANT

The Industrial Merchant business line serves a wide range of markets and customers – craftsmen, SMEs, large multinational industrial groups – offering comprehensive gas solutions for the implementation and optimization of their industrial processes. Supported by a global network of business experts and extensive geographical coverage, Air Liquide provides more than 1 million of its customers with innovative solutions including industrial gases, application equipment and related services.

## 2014 Industrial Merchant revenue by end-market



\* 37% of Gas & Services revenue.

The Industrial Merchant activity serves five primary markets:

- Materials and Energy:** Customers in this market use a wide range of different gases. Oxygen is used to reduce energy consumption in glass and metal manufacturing processes and to treat wastewater. Nitrogen is used to create inert atmospheres for the conservation of oxygen-sensitive products. Carbon dioxide is used in drinking water treatment, helium for professional diving and magnetic resonance imaging. Nitrogen and carbon dioxide can be used for the enhanced recovery of oil and gas and, in certain cases, the reduction of water and solvent consumption.
- Automotive and Manufacturing:** Dedicated solutions exist depending on production needs. Argon and argon mixtures are used for metal parts welding in manufacturing industries, hydrogen and nitrogen for thermal treatment, specialty gases for waste gas analysis, helium for airbags and specialty gases (krypton, xenon) for lighthouses and thermal insulation. Oxygen and acetylene are used in metal heating and cutting operations. Air Liquide therefore enables customers to produce high quality products, while improving their manufacturing processes and preserving their working environment.
- Food and Pharmaceuticals:** The Group's technologies help increase shelf-life and improve food and pharmaceutical manufacturing and cooling processes. The three major activities

in this market are the supply of carbon dioxide for beverages, gas mixtures for modified atmosphere packaging and nitrogen for process inerting and cold production. Air Liquide ensures these products comply with prevailing market regulations and in particular the complete traceability of its gases.

- Technology and Research:** Industrial gases are used in the assembly and encapsulation of electronic components in optoelectronics processes – particularly LED manufacturing and optic fiber and silicon cylinder drawing. Specialty gases required, in particular, for the calibration of analysis instruments are widely used in research centers and analytical laboratories. Specific, highly technical gases and equipment have been developed for these various applications.
- Craftmen and Network:** A wide range of gases are offered for use in plumbing, heating, ventilation, air conditioning, industrial maintenance and auto repair activities mostly for welding. These gases are often sold in special-purpose packaging – cylinders in compressed gaseous form, tailored to customer usage requirements.

Such gases can be supplied to the customer's site in gaseous form in high pressure cylinders, in liquid form using dedicated cryogenic trailers, or are produced using on-site production equipment. Distribution remains traditionally local, with deliveries rarely exceeding 250 km from the production site. To support this local presence, the Industrial Merchant activity mainly relies on the gas production capacities of the Large Industries activity and then develops its own distribution logistics. Air Liquide ensures the reliability of the gas supply and quality of materials used (tanks and cylinders). The installation of telemeters and development of tracking systems is becoming more widespread in order to optimize distribution logistics.



The **Industrial Merchant** activity is characterized by a wide range of customers, markets, applications and solutions or services. Contract terms vary and can be as long as five years. Revenue comes from the sale of gas and related services. It is an expert service business with a high technology and innovation content, extremely local, with geographic density of coverage being a key factor. Competition can vary between areas.

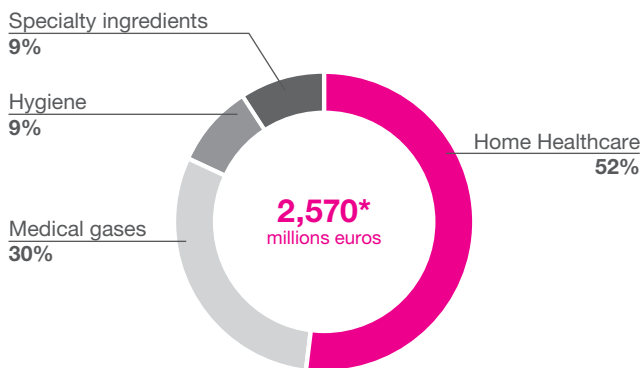
Innovation with regards to markets, products and applications is a major growth driver. Business growth is generally dependent on local industrial production growth.

HEALTHCARE

The Healthcare business line provides gases, services, medical devices, equipment and hygiene products to more than 7,500 hospitals and clinics and 1.2 million homecare patients around the world. The business line includes the specialty ingredients activities of its subsidiary Seppic, serving the cosmetics, pharmaceutical and vaccine markets.

Air Liquide is one of the world leaders in this business sector, which is subject to both stringent regulatory requirements relating to the drug designation status of several of its gases and multiple stakeholders (patients, doctors and payers). Whereas the geographic spread of the medical gases activity segment corresponds to that of the Industrial Merchant activity, the breakdown of the Home Healthcare business, Hygiene, and Specialty ingredients segments are more focused on Europe. As a result, around 80% of the Healthcare business line's sales are in Europe.

2014 Healthcare revenue by activity



\* 18% of Gas & Services revenue.

In hospitals and in clinics, Air Liquide provides medical gases, such as oxygen and nitrous oxide, for operating theaters, intensive care, emergency care and, more generally, medical wards.

The Group also innovates and develops therapeutic gases used particularly for resuscitation in cases of acute pulmonary arterial hypertension (VasoKinox™), and pain relief (Kalinox™). Several therapeutic gases are still in the research and development phase and the Group is in the process of extending its existing market authorizations.

Air Liquide also supplies hospitals and clinics with a large range of medical hygiene products (for hands, skin, instruments, surfaces, etc.) to fight in particular nosocomial infections. Air Liquide thus contributes to patient safety, particularly in operating theaters and intensive care units. Some hygiene products are also supplied to manufacturers, whose processes require impeccable cleanliness.

In Home Healthcare, Air Liquide has extended its services beyond oxygen therapy. The Group looks after more than 1.2 million patients at home suffering from chronic obstructive pulmonary

disease, sleep apnea, diabetes, or Parkinson's disease by providing them with long-term medico-technical services and follow-up care. By closely monitoring patient prescriptions and by enhancing patient observance of treatments, Air Liquide is now a key player in patient/doctor/payer relations and contributes to improving patient health and quality of life on a daily basis, as well as enhancing efficiency of health systems.

The Healthcare activity has been growing worldwide partly through the implementation of healthcare infrastructures and systems in many developing economies. The Home Healthcare activity, which allows a patient with a chronic disease to stay at home, is developing due to high prevalence of chronic diseases and an aging population. This activity also helps to meet the growing constraints on health spending in developed countries.

Through its subsidiary Seppic, Air Liquide produces and markets specialty ingredients such as excipients and active ingredients for cosmetology, adjuvants for vaccines, film-coating systems for medication, etc.

Over the last 20 years, Air Liquide has become a leading healthcare player in Europe (France, Germany, Italy, the United Kingdom, Scandinavia, Spain, and the Netherlands), Canada and Australia. The Group also has businesses in the United States (medical gases only), South America, Africa and Japan and has recently expanded in Eastern Europe, South Korea and China, as the local healthcare systems develop.



The **Healthcare** business line produces and distributes medical gases for hospitals and provides healthcare services for homecare patients. It operates in a strict regulatory framework. Density, quality of support services and efficiency are essential to offset the pricing pressure of healthcare systems, particularly in advanced economies.

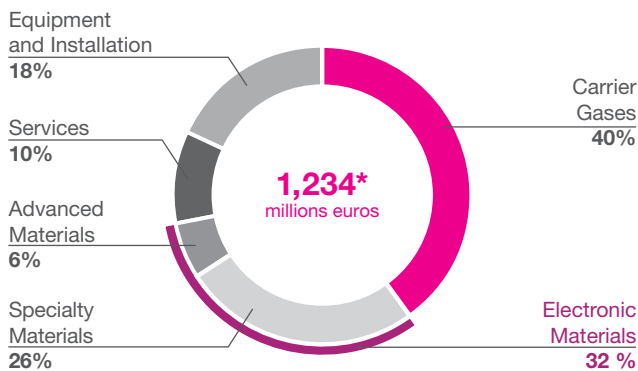
Air Liquide is present along the continuum of care: from treatment of acute diseases (with medical gases in hospitals), to treatment of chronic diseases at home (with home healthcare), and prevention/well-being (with the hygiene and specialty ingredients activities).

With aging populations, the greater need for care services due to an increase in chronic diseases and the development of healthcare systems in developing economies, the Healthcare activity represents a solid growth driver for the Group.

## ELECTRONICS

Air Liquide serves major manufacturers of semiconductors, flat panel displays and solar cells, leveraging its expertise, global infrastructure and strategic proximity to manufacturers worldwide. Its innovative Electronic Materials respond to increasingly challenging customer demands for improved mobility, connectivity, computing power and energy consumption. The Group offers include ultra-pure carrier gases, a wide range of specialty gases and advanced precursor molecules, enabling equipment for safe distribution, purification and on-line purity control. The most sophisticated of these molecules are essential for the continuous miniaturization of the new microchips. On site, manufacturers can rely on the Group's expertise in the total management of these products and equipment as well as on its cutting-edge analytical services used to improve continuously their production processes.

## 2014 Electronics revenue by product



\* 9% of Gas & Services revenue.

The Electronics business line supplies customers with carrier gases (primarily ultra-pure nitrogen) from on-site facilities for the transport of molecules, inerting, and protection of electronic systems, and purging of manufacturing tools. The need for a regular and constant supply of carrier gases requires long-term commitments from customers and the building of production units near their premises or even on the customer's site.

The Group also provides materials for electronics such as specialty gases and advanced precursor modules used in semiconductor, flat panel, and solar cell manufacturing. Air Liquide develops and markets a significant value-added range of advanced precursors known as ALOHA™. The 2013 acquisition of Voltaix has extended the Group's range of advanced precursors, strengthened its relations with key customers, and created new synergies in the research and industrialization of innovative molecules.

The Electronics business line also supplies equipment and installs ultra-pure chemicals products and gas distribution units and networks at its customer's new manufacturing facilities.

Finally, given its expertise and its desire to offer customers a comprehensive service, Air Liquide also provides just-in-time, on-site fluid management and quality control services under rigorous safety conditions.

The Electronics business model is based on long-term carrier gas supply agreements and constant technological innovations to satisfy customer requirements by designing new precursor molecules. The combination of carrier gas, specialty gases, new precursor molecule and equipment and installation activities enables Air Liquide to limit revenue volatility in this cyclical sector that offers strong growth potential.

The Electronics activities are based 62% in Asia, 25% in the Americas and 13% in Europe.



The **Group's Electronics** activity covers three different activities:

- Carrier gases have a business model based on long-term agreements and take-or-pay-type clauses. Growth is dependent upon the signing of new contracts and investment in customer-dedicated on-site production units.
- Electronic Materials are distributed worldwide. Demand varies with electronics goods consumption and production cycles. These gases are high purity products requiring a high level of technical expertise.
- Finally, equipment and installation sales depend on the momentum of the Electronics sector investment cycle.

In the Electronics sector, where long-term growth is accompanied by short cycles, the mix of activities specific to Air Liquide with its long-term contracts, offers a real advantage.

## INDUSTRIAL SYNERGIES

The four business lines comprising the Gas & Services activity are closely tied by a strong industrial logic where proximity is key. The following chart illustrates for a given geographic area the sharing of both production and distribution assets, between the different business lines. Thanks to this efficient industrial network, Air Liquide capitalizes on its proximity to its customers to anticipate their needs, understand market changes and offer innovative solutions.

In its search for improved performance, the Group favors synergies in a number of areas:

- Industry: local investment in new assets, followed by mutualization of these assets between the different business lines; globalization of energy supply and specifically energy (electricity and natural gas) purchasing;

- Engineering and Technology: sharing of global Group expertise, knowledge transfer, support to the geographic regions;
- Research and Development: constant efforts to develop new applications;
- Human Resources: common managerial culture across a range of regions and businesses, aimed at selecting, training and developing the potential of the Group's men and women and favoring a unique sharing of competencies.

The combination of all these synergies represents a true ecosystem which continues to expand and allows Air Liquide to grow and continue to create long-term value.

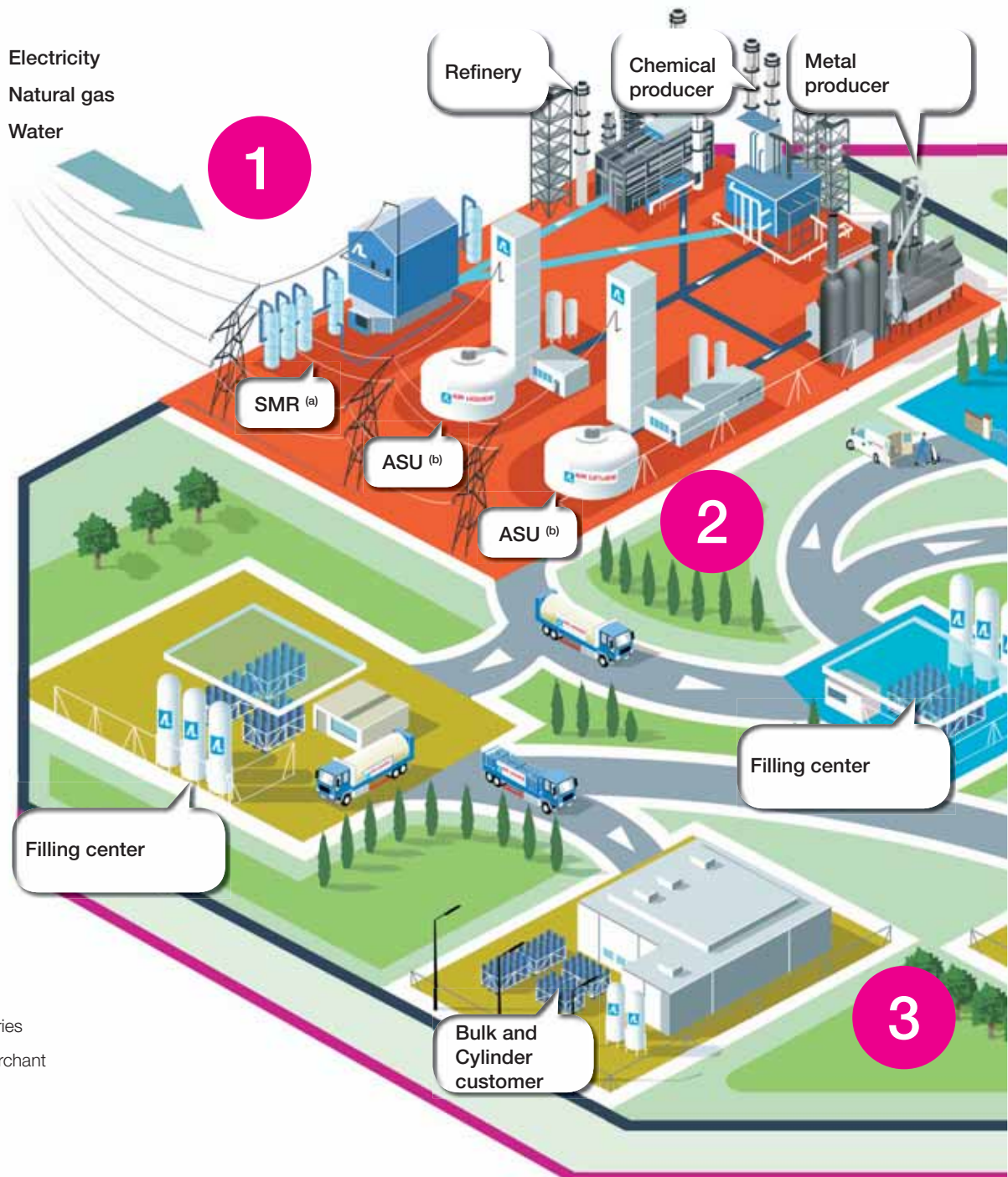


#### Standard development model

1

- Identification of industrial basins and their potential in terms of growth and mutualization
- Signing of various Large Industries contracts
- Mutualization of production assets (construction of a pipeline network) in order to strengthen guaranteed supply and optimize operating costs

#### Industrial Synergies



(a) SMR: Hydrogen and carbon monoxide production unit (Steam Methane Reformer).

(b) ASU: Air gases production unit (Air Separation Unit).

(c) On-site: Small local production unit.

(d) ESG: Electronic Specialty Gases.



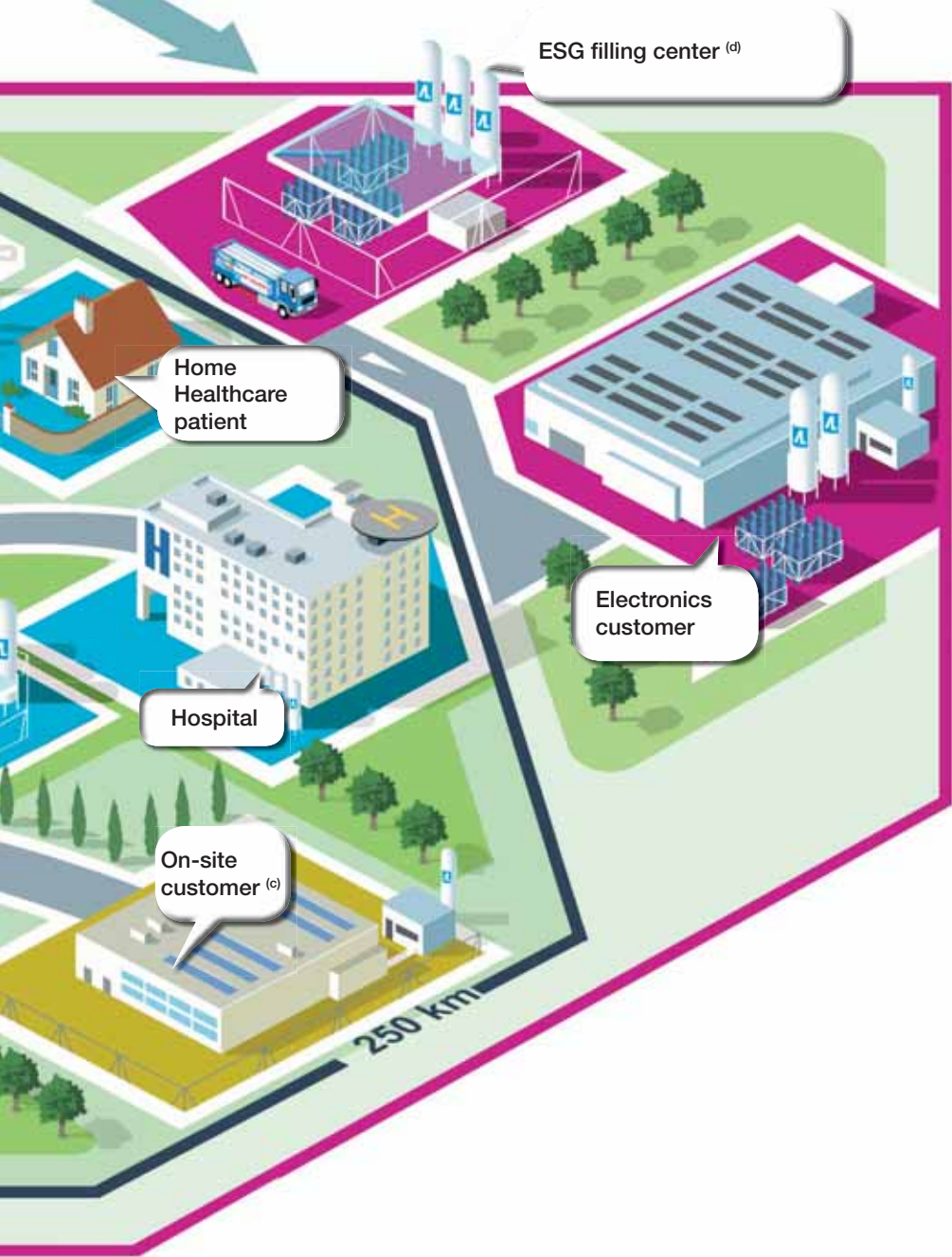
2

■ Liquefaction of gas sourced from Large Industries to supply Industrial Merchant, Healthcare and Electronics (piggyback principle)

3

■ Acquisition of local distributors to accelerate roll-out in the area

ESG <sup>(d)</sup>



## ENGINEERING AND TECHNOLOGY

The Air Liquide Group was founded upon innovation: a new industrial process to separate air gases. In 2013, due to the ramp-up of the aB&T network (advanced Business & Technologies), the Group combined the financial reporting of its Engineering & Construction and advanced Business and Technologies activities under the Engineering & Technology heading.

### Engineering & Construction

To provide customers with the gases required for their industrial production, Air Liquide engineers have developed proprietary technologies. For over a century, the Group has therefore designed and produced gas production units for its own use or for sale to customers who prefer to produce their gas requirements internally. Today, Air Liquide is still recognized for its ability to constantly improve ASU productivity based on its mastery of its proprietary technologies.

The whole range of proprietary technologies enables Air Liquide customers to optimize use of natural resources in order to provide clean and sustainable energy. The Engineering & Construction activity contributes to the transformation of the energy industry and helps to protect the atmosphere.

Indeed, since the acquisition of Lurgi in 2007, the Group has expanded its range of technological expertise. It now possesses its own proprietary technologies, developed by Lurgi for over 50 years, to produce hydrogen and carbon monoxide through steam methane reforming. This acquisition also widened the Group's offering into coal and natural gas conversion technologies to produce syngas, synthetic natural gas, methanol, propylene, liquid fuels and biofuels. Given the very large quantity of industrial gases required in all these activities, this expanded Engineering & Construction know-how has helped the Group to be involved, upstream of industrial gas production projects, in the development of its customer processes and thus boosting its sales growth. Some of these processes, at varying stages of development, offer technical solutions to fight climate change by enabling the capture of a virtually pure CO<sub>2</sub> flow emitted by industrial sites.

Air Liquide's Engineering & Construction activity is primarily geared toward industrial gas production technologies. Accordingly, in 2014, 62% of its orders in hand concerned the manufacture of air gas or hydrogen and carbon monoxide production units.

To cover all the Group's primary markets, the Engineering & Construction business has extensive geographical coverage with 15 major engineering centers worldwide, based in North America, Europe and Asia. Because of this coverage, the Group is able to meet global demand, while containing production costs.

The Group favors the development of its gas sales activity over equipment sales. Nonetheless, Engineering & Construction has great strategic value for the Group, both internally and externally.

Internally, the Group is able to benefit from the relevant engineering resources for the investment projects linked to its Gas & Services activity. It provides a high level of expertise, which is crucial to the

design of efficient units that specifically respond to the needs of the Group's industrial gas customers. It enables optimal operational management for units once they are up and running to reduce energy costs and limit technical disruptions. It also facilitates site takeovers for the Group, by ensuring the right assessment of the quality of assets purchased.

The Engineering & Construction activity also acts for third party customers. Air Liquide designs and builds customized units that the customer will own and operate. First and foremost, this third-party customer activity allows the Group to permanently assess the competitiveness of its technologies and commercial offering. Air Liquide is also able to forge close relations with customers that produce their own gas and better understand their industrial processes and investment projects. In certain cases, negotiations initially steered toward the sale of equipment were finalized by the signing of a long-term industrial gas supply contract. As part of this third-party customer activity, the strategy consists of favoring research and equipment supply contracts that are less risky than contracts which also include construction. Accordingly, the contribution to consolidated revenue can vary significantly from year to year.

### aB&T – advanced Business and Technologies network

In order to accelerate the development of opportunities in markets which require a different approach to that used on its traditional markets and business models, the Group decided in 2013 to set up the advanced Business and Technologies network (aB&T), composed of Group subsidiaries and activities driven by an entrepreneurial spirit, innovation and agility. This global network, present in Europe, the Americas and Asia, is organized around four main fields:

- New markets (such as, hydrogen energy);
- Leading-edge technologies for major scientific or aerospace projects, such as the LHC (Large Hadron Collider) of the CERN (European organization for nuclear research), the ITER project (International Thermonuclear Experimental Reactor) or the Ariane space program;
- Industrial information technology for programs targeting efficient manufacturing, management optimization, traceability, etc.;
- Investments, with the ALIAD subsidiary.

In advanced Business (new markets), the Group provides its customers with the best of its technologies and solutions in sustainable energy using industrial gases, such as hydrogen and nitrogen. Hydrogen energy is thus a strong growth activity for which the Group already manages the complete industrial cycle (production, storage, distribution and use by the end-customer). Air Liquide is actively contributing to the implementation of this activity and the development of hydrogen as a clean energy source.

The Group is dedicated to the challenges and momentum of new energy sources and is also working on global solutions dedicated to the valorization of biogas.

Air Liquid invests in technology start-ups through its ALIAD entity, created in 2013, and thus has rapid and privileged access to the technologies developed by these young and innovative companies. ALIAD will contribute to the Group's growth and competitiveness through the partnerships that accompany these investments.

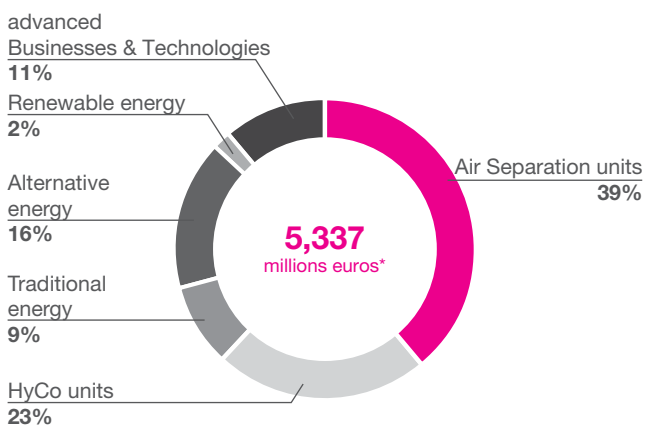


**The Engineering & Construction activity provides the Group with a genuine competitive edge, enabling it to offer turnkey solutions to its customers both inside and outside the Group and to engage in a procedure of continuous improvement of industrial processes and reduction in the cost of its assets.**

**The aB&T network, with its entrepreneurial culture, goes beyond the scientific, technological and sales frontiers to shape new markets and business models and thus contribute to the Group's future growth.**

In 2014, consolidated third-party Engineering & Technology sales totaled 912 million euros and orders in hand amounted to 5.3 billion euros.

**Engineering & Technology orders in hand <sup>(a)</sup> as at end-2014**



\* Including 3.1 billion euros from third-party orders.

**OTHER ACTIVITIES**

Over time, Air Liquide has developed other activities in addition to the sale of gas and equipment. The 2014 consolidated revenue of Other activities amounted to 579 million euros, representing 4% of Group revenue.

**Welding**

Air Liquide is a leading player in the development of welding and cutting technologies, offering a complete range of related equipment, consumables and services on the market, through internationally renowned brands. Established primarily in Western and Eastern Europe, Air Liquide Welding covers a wide range of markets: shipyards, automotive, transport equipment, infrastructures, boilers, distributors, machinery and equipment, energy, etc. Air Liquide Welding pursues continuous innovation, constantly striving to improve the performance, productivity, safety and comfort of operators.

**Diving**

Aqua Lung™ provides deep-sea diving and swimming equipment to professionals and private individuals.

(a) Orders in hand represent the contractual value of all Group and third-party contracts managed by the Engineering & Construction and aB&T entities, excluding projects under warranty, from the signature date.

## Competition

On a worldwide scale, the **Industrial Gases** sector comprises four global companies: Air Liquide, Linde (Germany), Praxair (United States) and Air Products (United States).

There are also a number of regional players, such as Taiyo Nippon Sanso (Japan), Airgas (United States), Messer (Germany), Yingde (China) and Hangzhou Oxygen Plant Group (China).

Finally, numerous medium-sized players are also present in local markets.

In **Large Industries**, the customer can choose between self-production and over-the-fence gas supply. Self-production is estimated to account for 80% of hydrogen production and 65% of oxygen production globally, although with significant geographical disparities. Companies self-producing gas thus remain the Group's greatest competition. However, the potential to convert self-production into over-the-fence supply represents a major growth opportunity for the Large Industries business line. The level of self-production varies strongly depending upon the region, sector and local culture. In advanced economies, the supply of oxygen is largely over-the-fence, while the supply of hydrogen for refining remains essentially in-house. In developing economies, while relatively new, over-the-fence supply is accelerating significantly. Air Liquide, the world leader in over-the-fence industrial gases supply, is in competition with the three other major global players and the local players.

**Industrial Merchant** is a local business: transport costs limit the operating area to within 250 km of the production unit except for high value added gases. This market, which is highly diversified

due to the size and activity of its customers, thus includes numerous small and medium-sized local competitors, either ensuring gas production and distribution or simply playing the role of a gas distributor.

In **Electronics**, three companies play a major role: Air Liquide, Air Products and Taiyo Nippon Sanso.

Finally, in **Healthcare**, most of the gas industry players also provide hospitals with oxygen, but few are present on the promising therapeutic gas market. The Home Healthcare segment became more consolidated in 2012, with the ramp-up of Linde following the purchases of activities in Europe and the United States. Air Liquide continues to consolidate its number one position in Europe. Nevertheless, the market remains fragmented in all regions with a multitude of small companies and associations. This fragmentation provides acquisition opportunities. Finally, Air Liquide is the only industrial and medical gases producer to have developed a Hygiene and Specialty Ingredients activity. Air Liquide is positioned as a fully-fledged player in the Healthcare sector, which represents a significant differentiating factor.

In **Engineering & Technology**, Air Liquide also competes with industrial gas players. In the "cold" technologies used for air separation, the competitors are Linde, Air Products and Praxair. In the "hot" technologies used for producing hydrogen, in coal gasification and the chemical conversion of syngas, the most widely known competitors are Technip (France) and Haldor Topsoe (Denmark). Competition from developing economies is also growing: for example Hangzhou Oxygen Plant Group, Yingde and Kaifeng (China) in air gases.

## Risk Factors

The Group identifies the risk factors to which it is exposed using a formal risk management approach. This approach involves the regular monitoring of risks and the implementation of necessary mitigation measures.

The Report from the Chairman of the Board (page 140) presents the main underlying internal control and risk management procedures put in place.

### SPECIFIC BUSINESS-RELATED RISKS

The industrial gas business is characterized by a significant technology content (both in the design phase and the construction of production units), high capital intensity, local production capacity and substantial energy requirements.

The risks associated with these characteristics are mitigated by various factors, which include primarily the diversity of customers, industries served, applications, and countries in which the Group operates, as well as the significant share of business that is subject to specific contracts, a strict investment project authorization and management process, and a tailored energy policy.

### Innovation and intellectual property-related risks

The Group's activities are not dependent on third-party patents. They are mainly based on technology, processes and designs developed, internally notably, by its Research & Development, Marketing, and Engineering teams, as well as through partnerships with third parties which are mostly protected by patents, drawings and models as well as by brands. There is nonetheless a risk of third-party rights being infringed, in particular when several market players are developing similar technologies. The Group is also



developing innovative activities in collaboration with numerous partners: contractual risks may arise in terms of the division of rights between these partners of the results obtained.

Measures aimed at ensuring the respect of intellectual property are set out in the Chairman's Report on page 144.

### Engineering & Construction-related risks

Air Liquide enters into major contracts to design and build gas production units worldwide. The primary role of Group Engineering is to undertake internal investment projects. It also performs projects, including turnkey projects, for third-party customers, which are selected based on strict criteria aimed at limiting the risks associated with these Engineering & Construction activities.

Measures to limit commitments on the most complex projects are described in the Control Activities section of the Chairman's Report on page 142.

These projects generally extend over several years. Potential risks relating to design (taking into account freedom to operate in terms of existing patents), purchasing, transport or construction and more generally to the overall quality of work may arise at different stages of the project. Risks relating to these projects are often greater during the construction stage:

- the quality and delivery times for critical equipment on one hand, and costs and on-site construction costs and deadlines on the other may give rise to project start-up setbacks and impact project profitability;
- unexpected technical problems may also arise as a result of new innovative processes being implemented. Preliminary tests on pilot or demonstration units therefore help reduce such risks prior to commercial implementation;
- certain projects are located in regions that may be a source of political risks. Constant monitoring of such projects over the long term limits such risks.

The impact of the risks described above depends also on the contractual commitments given to customers.

### Industrial investment-related risks

The Group may be exposed to certain risks specific to its industrial investments. Each investment project may be affected by different factors linked primarily to project location, customer quality and the competitiveness of the site, as well as to design, cost estimates and the construction of gas production units. The investment authorization process is led by Resources and Investment Committees, which apply extremely strict appraisal criteria to projects. These Committees comprise regional, technical and financial managers that vary depending on the nature of the project considered, and are chaired by an Executive Committee member. The investment decision-making process is

explained in the Investment cycle and financing strategy section on page 43.

### Business-related risks

The primary business-related risk is the risk of customer bankruptcy or closure of a customer's production site. The diversity of the Group's geographic presence in 80 countries mitigates customer and market risks. The Group's subsidiaries serve a very large number of customers (more than one million worldwide) in a broad range of industries: chemicals, steel, refining, food, pharmaceuticals, metals, automotive, healthcare, electronics, photovoltaic and research laboratories. The Group's top customer represents around 2% of revenue, the Group's top 10 customers represent around 13% of revenue and the top 50 customers represent around 28% of revenue.

A significant part of the Industrial Gas business is covered by customer contracts, with commitment periods specific to the relevant business line:

- the Large Industries business and a third of the Electronics business respectively rely on 15-year to 20-year contracts and 10-year take-or-pay secured contracts, ensuring a guaranteed minimum revenue. These contracts provide strong future cash flow predictability;
- the contracts in the Industrial Merchant business, generally with a one to five year duration, also including services relating to storage and cylinders;
- in the Home Healthcare business, positions vary between health systems, with certain countries awarding one to five-year contracts on a regional and pathology basis following invitations to tender.

Risks of customer business interruption following major climatic or political events are limited by the wide diversity of countries in which the Group operates and the necessary recourse to gases in critical situations. Gases are needed to secure industrial or chemical installations (inert gases), maintain local industrial activity (essential to industrial processes) and even sustain life (medical gases). They are therefore often protected or prioritized depending on the situation.

The amount of operating receivables as well as provisions for doubtful receivables are shown in note 18 – Trade receivables to the consolidated financial statements on page 232.

### Supply-related risks

Electricity and natural gas are the main raw materials used by production units. Due to the geographic spread of its activities, Group supply contracts are diversified. Where the local market permits, Group subsidiaries secure these resources through medium to long-term supply commitments and competitive

## Activities and risk factors

bidding scenarios with the objective of achieving the most reliable and competitive energy costs available in any particular market. The Group passes on cost variations to its customers via indexed invoicing integrated into medium and long-term contracts.

Commodity risk is described in note 28.2 to the consolidated financial statements on page 258.

## INDUSTRIAL RISKS

Industrial risks concern numerous sites and various industrial processes and distribution methods.

The Group's key priority is its safety policy, with a formal objective of "zero accidents, on every site, in every region, in every unit." The safety results for the past 20 plus years illustrate the long-term effectiveness of Group policy in this area.

Over and above the usual risks inherent in all industrial activities, Air Liquide's businesses entail more specific risks relating to:

- products: the intrinsic properties of certain products packaged by the Group classifies them in the dangerous materials category, for which tailored procedures and means of detection have been defined;
- processes and their operation: cryogenics is used to separate gases by distillation, store them and transport them. This very low temperature technique requires specific means of control and protection. In addition, pressure is central to the Group's processes. Pressurized equipment is designed with security features restricting uncontrolled release;
- logistics and transportation: each year, delivery vehicles, sales staff and technicians travel many kilometers. Strict compliance with the highway code and the regular maintenance of vehicles contribute to the safety of drivers and third parties. Furthermore, industrial sites use several types of motorized lifting gear. Training in the use of such equipment and user permits are required;
- engineering and construction: industrial risks are factored in from the design phase of future installations. Subsequently, during the construction phase, prevention plans and rigorous organization enable the coordination of the various trades;
- delivery reliability: a variety of solutions ensure the supply of gas to customers; direct pipeline to a production unit, on-site storage with remote surveillance enabling the automatic trigger of resupply or bar-coded gas cylinders ensuring the traceability of products.

The Group has an Industrial Management System (IMS), which defines the management processes covering the above points. It is described in greater depth in the Chairman's Report on page 143.

## ENVIRONMENTAL AND CLIMATE RISKS

The industrial and medical gas business presents few environmental risks. Around 85% of the Group's large production units separate the components of atmospheric air, that is oxygen, nitrogen, argon and rare gases. These plants "without chimneys" do not use any combustion processes and consume almost exclusively electrical energy. They are particularly environmentally friendly as they emit almost no CO<sub>2</sub>, sulfur oxide or nitrogen oxide. Nonetheless, electricity consumption generates CO<sub>2</sub> emissions by the suppliers of this energy, known as indirect emissions. The Group's two other main activities are hydrogen production and cogeneration, which account for nearly 15% of large production units and which use combustion processes emitting CO<sub>2</sub> and nitrogen oxide, as well as low quantities of sulfur oxide.

Water is a resource necessary to these three main Group processes. Air gas separation units use water exclusively for cooling purposes during the separation process. Hydrogen production units require water in the form of steam in the reaction producing hydrogen. Finally, the cogeneration units produce steam, which is mainly supplied to customers.

Environmental risks primarily comprise the following components:

- the Environmental Footprint, involving the Group's activities worldwide, is closely monitored: sites under the European Seveso directive and equivalent sites worldwide, electrical and thermal energy consumption, annual water supply, emissions into water and the atmosphere, waste and by-products, the distance covered by delivery trucks and progress made toward quality (ISO9001) and environmental (ISO14001) certifications;
- Group direct and indirect greenhouse gas emissions are measured at all production sites;
- the Group analyzes and monitors the environmental risk factors at the main stages of its product life cycles;
- a mapping of sites located in hydric stress areas enables the identification of water supply risks;
- the Group is in constant dialogue with stakeholders to assess the risk to its image associated with environmental issues.

Climatic risks are reviewed at both Group and site level:

- Air Liquide continuously monitors risks associated with changes in environmental protection legislation, particularly concerning the European Trading Scheme and other CO<sub>2</sub> allocation exchange systems existing or under development around the world, in order to assess the impact of any regulatory changes on the Group's activities;
- weather-related and climatic disasters risk disrupting the smooth running of operations. Mitigation measures targeting extreme weather-related phenomena exist at the main sites located in high-risk areas.

A detailed energy and environment report is presented in the Sustainable Development report in this Reference Document on page 71.

## FINANCIAL RISKS

Financial risk management is a priority for the Group.

The financial risk management processes are detailed in the Chairman's Report on page 144, in accordance with a governance structure that defines the role of the Finance and Management Control Department, the various Committees and the role of local entities.

The Finance and Management Control Department also analyzes country and customer risks on investment decisions and provides input on these risks at Investment Committee meetings.

### Foreign exchange risk

Since industrial and medical gases are not transported over long distances, most products are manufactured in the country where they are sold. Thus, the exposure of the Group's activities to currency fluctuations is limited.

Foreign exchange transaction risk is marginal. It is related to cash flows arising from royalties, technical support and dividends, and foreign currency commercial cash flows from operating entities. These commercial cash flows in foreign currencies are not material when compared to consolidated revenue on an annual basis. This foreign exchange transaction risk is managed through the hedging policy implemented by the Finance and Operations Control Department.

Furthermore, the Group provides a natural hedge and reduces its exposure to exchange rate fluctuations by raising debt in the currency of the cash flows generated to repay debt. Thus, financing is raised either in local currency, or when contracts are indexed in euros or US dollars, in foreign currency (EUR or USD).

Foreign exchange translation risk (translation of local currency financial statements into euros) mainly corresponds to the sensitivity to the main foreign currency exchange rates — the US dollar (USD), the Japanese yen (JPY) and the Chinese renminbi (RMB).

*Note 28.2 to the consolidated financial statements describes the foreign exchange transaction risk management process and the derivative instruments used, as well as sensitivity to foreign currency exchange rates.*

### Interest rate risk

The Group's objective is to reduce the impact of interest rate fluctuations on its interest expenses and, guided by the principle of prudence, to finance long-term assets with shareholders' equity and fixed-rate long-term debt. Since most of Air Liquide's activities are based on long-term contracts (10 to 15 years), a policy promoting interest rate risk hedging ensures control over financing costs when deciding on long-term investments.

Group policy is to maintain, over a medium to long-term period, a majority of total debt at fixed rates, mainly by using firm or option hedges. This approach enables the Group to limit the impact of interest rate fluctuations on financial expenses.

*Note 28.2 to the consolidated financial statements describes the sensitivity of the Group's financial expenses to interest rate fluctuations and the interest rate repricing schedule for fixed-rate debt and interest rate hedging instruments.*

### Financial counterparty and liquidity risk

Financial counterparty risk primarily relates to outstanding amounts on short-term investments and derivative instruments for hedging, and to credit facilities contracted with each bank. To ensure its development and independence, the Group must have sufficient and permanent sources of liquidity, meaning adequate financing resources available at any time and at the lowest cost from banks and financial markets. In this area, the Group adopts a prudent approach to counterparties and their diversification, applying a strict limit on individual outstandings.

*Note 28.2 to the consolidated financial statements describes financial counterparty and liquidity risk for the year ended December 31, 2014. Notes 6, 18.1 and 18.2 to the consolidated financial statements provide a breakdown of trade and other operating receivables and allowances for doubtful receivables.*

## DIGITAL RISKS

The Group's activities, expertise and, more generally, its relations with all the players in its social and economic environment depend on increasingly dematerialized and digitalized operations. These operations depend on interdependent information systems and communication networks on both a human level and in functional and technical terms.

This digital dependency accentuates the risks of data confidentiality, data processing integrity and information systems availability that may have important financial, operational or corporate image impacts for the Group.

### Activities and risk factors

A long-term operational program aims to continue to strengthen the Group's prevention and monitoring mechanisms in a context of ever-changing cyber-threats and digital risks. This program will enable the application of the digital security policy described on page 143 of the Chairman's Report in priority fields and activities.

### HUMAN RESOURCE MANAGEMENT RISKS

The long-term performance of the Air Liquide Group is driven, in particular, by the quality of its employees, their expertise and their motivation.

The Group therefore encourages a performance-focused, motivating and involved professional environment, through a human resources policy aiming to identify, attract, retain and develop competent employees from all walks of life. The objectives of this policy are set out in the Chairman's Report on page 144.

### LEGAL RISKS

The Group has a worldwide presence. Its companies operating industrial and medical gas production facilities must comply with the rules and regulations in force locally, particularly in the technical field, and monitor any changes.

In Healthcare, the evolution of the regulatory environment is monitored with particular vigilance and reinforced means adapted notably to public markets and to the marketing of products which may be subject to drug regulatory control. As indicated in the Report from the Chairman of the Board of Directors on the internal control and risk management procedures instituted by the Company (page 144), the risks relating to contracts and competition law, as well as anticorruption issues, are specifically monitored.

To the Group's knowledge, there have been no governmental, judicial or arbitration proceedings, including any such proceedings which are pending or threatened of which we are aware which may have, or have had in the past 12 months, significant impacts on the financial situation or profitability of the Company and/or Group.

*Liabilities and contingent liabilities related to disputes are described in notes 23 and 31 to the consolidated financial statements.*

### INSURANCE MANAGEMENT

The Group has adequate insurance coverage, underwritten by first-rate insurers, for civil liability, property damage and business interruption.

### Property damage and business interruption

Group property and business interruption are covered by property and casualty insurance policies underwritten in each country in which the Group operates. Almost all of these policies are integrated into an international program.

These policies, which are generally of the "All Risks" form, cover fire, lightning, water damage, explosions, vandalism, impact, machinery breakdown, theft and, depending on the country and in limited amounts, natural disasters.

Business interruption is insured for most production sites under these same policies.

The coverage period for business interruption is 12 to 18 months.

Deductible amounts are proportional to the size of the sites.

The Group has retained a portion of property damage and business interruption risk through a captive reinsurance company in Luxembourg. This captive reinsurance company is fully integrated within the property damage and business interruption international program. This company covers losses of up to 5 million euros per loss over and above the deductibles to a maximum of 14 million euros per year. Beyond these amounts, risks are transferred to insurers. The captive reinsurance company is run by a captive manager approved by the Luxembourg Insurance Commission.

This captive reinsurance company is fully consolidated. Its balance sheet as of December 31, 2014 totaled 55 million euros.

Insurers conduct regular visits at the main industrial sites for risk prevention purposes.

### Civil liability

In terms of civil liability, the Group maintains two separate covers, one for the North American zone and another for the rest of the world. The North American zone is covered by insurance underwritten in the United States. For the other zones, the Group has subscribed an umbrella policy, underwritten in France, which covers both the Company and its subsidiaries outside of the United States and Canada, beyond any local coverage provided for the subsidiaries.

These two policies cover liability of the Group companies for any damage they might cause to a third party in the course of doing business (operational risk) or arising from their products (product risk). Furthermore, with certain limitations, these policies cover "pollution" risk and product recall costs.



The coverage amounts underwritten exceed 500 million euros. Both policies are built on several overlapping insurance lines and each line has been underwritten for a given amount with several insurers sharing the risk. Beyond the first line, the upper lines pick up the excess risk from the lower lines.

The policy underwritten by the Company in France serves as an umbrella for subsidiaries outside of North America. Under this

umbrella, each foreign subsidiary has its own policy covering damages to third parties incurred through its activities or products. The amount insured for each subsidiary in its policy depends on the amount of its revenue. The coverage under the Group's umbrella policy is supplemental to any local amounts.

The main exclusions are deliberate acts, war, nuclear incidents and repair of defective products.

## 2014 PERFORMANCE

The solid performance in 2014, in an unsettled environment, resulted once again in the Group achieving its objective of net profit growth. Group revenue reached 15,358 million euros, up +4.5% versus 2013 on a comparable basis. On a reported basis, growth reached +0.9% penalized, in particular, by a strong currency impact at the beginning of the year. The Gas & Services activity has continued to make progress in all business lines, especially in the Americas and Asia. Developing economies continued to show sustained momentum, up +14% on a like-for-like basis. The increase in advanced economies was more modest at +1%, affected by the economic slowdown in Western Europe.

Greater efforts on costs and efficiency, generating a high level of savings at 321 million euros, contributed to increasing the operating margin by nearly +20 basis points to 17.1%. Net profit (Group share) rose to 1,665 million euros, up +1.5% as published. As an indication only, net profit (Group share) would have been up +3.8% excluding the currency impact and the operating impact of the disposal of Anios at end-2013.

Investment decisions totaled 2.1 billion euros, reflecting greater selectivity in the Group's investment process. Net cash from operating activities was up +1.0%, as an indication +2.3% excluding currency, financing investments while strengthening the Group's financial structure.

The Board of Directors proposes a nominal dividend to be submitted to the Shareholders' Meeting of May 6, 2015 at 2.55 euros per share. This represents an increase of +10.3% for the shareholder taking into account the free share attribution on June 2, 2014. The pay-out ratio is estimated at 54.0%.

## 2014 key figures

<i>(in millions of euros)</i>	2013	2014	2014/2013 published change	2014/2013 comparable change <sup>(a)</sup>
Group revenue	15,225	15,358	+0.9%	+4.5%
<i>of which Gas &amp; Services</i>	13,837	13,867	+0.2%	+4.1%
Operating income recurring	2,581	2,634	+2.1%	-
Operating income recurring <i>(as % of revenue)</i>	16.9%	17.1%	+20bps	-
Net profit (Group share)	1,640	1,665	+1.5%	-
Adjusted earnings per share <i>(in euros)</i> <sup>(b)</sup>	4.79	4.85	+1.3%	-
Adjusted dividend per share <i>(in euros)</i> <sup>(b)</sup>	2.31	2.55 <sup>(c)</sup>	+10.3%	-
Net cash flows from operating activities <sup>(d)</sup>	2,803	2,830	+1.0%	-
Net capital expenditure <sup>(e)</sup>	2,240	1,931	-	-
Net debt	6,062	6,306	-	-
Debt-to-equity ratio	55.7%	53.3%	-	-
Return On Capital Employed – ROCE after tax <sup>(f)</sup>	11.1%	10.8%	-	-

(a) Excluding natural gas, currency and significant scope impacts. Natural gas is an essential raw material for the production of hydrogen and the operation of cogeneration units. All Large Industries hydrogen and cogeneration contracts have clauses indexing sales to the price of natural gas. Hence, when the natural gas price varies, the price of hydrogen or steam for the customer is automatically adjusted proportionately, according to the price indexation clauses.

(b) Adjusted for the free share attribution of June 2, 2014.

(c) Subject to the approval of the May 6, 2015 Shareholders' Meeting.

(d) Cash flow from operating activities after change in working capital requirement and other elements.

(e) Including transactions with minority shareholders.

(f) Return On Capital Employed – ROCE after tax:  $(\text{net profit after tax before deduction of minority interests} - \text{net cost of debt after taxes}) / (\text{shareholders' equity} + \text{minority interests} + \text{net indebtedness})$  average over the fiscal year.

## 2014 highlights

During 2014, Air Liquide continued to expand in growth markets and major industrial basins, in both developing and advanced economies. This year was also synonymous for the Group with major developments in innovation, particularly in hydrogen mobility.

### DEVELOPMENT OF INDUSTRIAL ACTIVITY

In 2014, thanks to its industrial competitiveness and its technological differentiation, Air Liquide strengthened its positions in the major industrial basins on the Gulf Coast and in the Rhine-Ruhr area.

- In the United States, Air Liquide signed two major long term contracts for the supply of 2,400 tons per day of oxygen each, to two methanol manufacturing plants: one to be built by Natgasoline (an OCI fully owned subsidiary) in Beaumont (Texas), and the other for Yuhuang Chemical, Inc., a major Chinese petrochemical company in St. James Parish (Louisiana). Both plants will be connected to the pipeline networks and represent an investment of 230 million euros. Via its Global Engineering and Construction activities, Air Liquide provides its MegaMethanol® process technology to both companies, thus demonstrating its leading position in offering an integrated value proposition for large-scale methanol production.
- In the Rhine-Ruhr area, Air Liquide strengthened its position with the signing of a major long-term supply contract with ThyssenKrupp Steel Europe AG. Industrial gas requirements, including oxygen (4,600 tons per day), nitrogen and argon, will be supplied via Air Liquide's local pipeline network. This 500 km pipeline is fed by Air Liquide Air Separation Units, including Germany's largest, (with a capacity of 2,400 tons per day), which was commissioned in 2012.
- In southern Brazil, Air Liquide invested 40 million euros in a new Air Separation Unit. This Unit will both provide gas to Klabin, the country's leading pulp and paper manufacturer, and help develop the Industrial Merchant and Healthcare activities in the region.
- In Australia, Air Liquide announces a long-term agreement with Nyrstar, an integrated mining and metals company. The Group will invest 60 million euros in a new Air Separation Unit at Port Pirie site. The project is designed to reduce the environmental footprint of the site and to enhance both efficiency and production capabilities.
- In South Korea, Air Liquide sold its 40% stake in Daesung Industrial Gases in order to focus on the strategic development of its fully-owned subsidiary, Air Liquide Korea.

In China, Air Liquide saw major developments during 2014. The Group strengthened its position in the growing Electronics sector.

- Air Liquide signed a major long-term contract with CEC Panda Flat Panel Display Technology (a joint-venture between CEC Panda and Sharp LCD) for the supply of ultra-pure carrier

gases to their first fab that will manufacture Oxide-TFT screens, based in Nanjing Crystal Park (Jiangsu Province). These new screens will be used in mobile devices and TV sets on Generation 8.5 size glass substrates. Air Liquide will invest some 25 million euros.

- Air Liquide also signed a major contract with the BOE Technology Group to supply its new flat panel fab based in Chongqing in China. The Group invested 30 million euros in a highly-efficient on-site generator that will produce 30,000 Nm<sup>3</sup>/h of ultra-high purity nitrogen. Air Liquide will supply the majority of BOE's fabs in China with a total of 100,000 Nm<sup>3</sup>/h of nitrogen for five sites.

### FURTHER ADDITIONAL ACQUISITIONS IN HEALTHCARE

An aging population and the rise in the number of patients affected by chronic diseases are major public health issues. Air Liquide continued with its strategy of patients densification in the Group's geographies through additional acquisitions in home healthcare.

- In July 2014, Air Liquide acquired Seprodom, a key player in accompanying patients with chronic diseases at home in the French overseas departments and territories.
- In December 2014, Air Liquide acquired the home healthcare service provider ARAIR Assistance (which generated revenue of 34 million euros in 2013), as well as ARAIR Group's support and training services. ARAIR is a leading player in home healthcare in the Central region of France.

### CONTINUED INVESTMENT IN INNOVATION

- In France, the Group made major investments for a total amount of close to 100 million euros for the modernization of the Paris-Saclay Research Center, the creation of a center for the development of gas packaging for industry and healthcare on the same site, and the launch of a technical center of excellence for cryogenic production technologies in Vitry-sur-Seine.
- In the 3<sup>rd</sup> quarter 2014, Air Liquide began the construction of a Research and Technology Center in Shanghai. The center, which will be operational at end-2015, represents a 25-million euro investment and will cover several research and development areas. It will ultimately house 200 highly skilled employees.
- The international ITER project, through its European organization Fusion For Energy (F4E), entrusted Air Liquide with the supply of additional cryogenic equipment for a total of around 65 million euros. This follows on from the signing of a major contract in 2012 for the supply of three helium refrigerators with record combined cooling capacity.

## MAJOR DEVELOPMENTS IN HYDROGEN MOBILITY

The year 2014 was marked by major advances in the global deployment of hydrogen energy:

- In France, the first hydrogen filling station for forklift trucks started up on IKEA's logistic platform near Lyon. It allows greater productivity thanks to rapid forklift truck refilling relative to battery recharging time. In Saint-Lô, France, the Conseil Général de la Manche installed a hydrogen filling station for its fleet of fuel cell electric vehicles.
- In Denmark, Air Liquide installed four new hydrogen filling stations, as part of the Copenhagen Hydrogen Network, supported by the European Commission. These stations marked a significant step in the creation of a distribution network at national level.
- In the Netherlands, Air Liquide inaugurated its first hydrogen filling station for the general public in September 2014 in Rotterdam. The filling station is part of the Hydrogen Infrastructure for Transport project, a European deployment project supported by the European Union.

- In Japan, in Nagoya and Toyota, the Group built, with Toyota Tsusho Corporation, two hydrogen filling stations for public use.
- In the United States, Air Liquide announced a partnership with Toyota to build 12 hydrogen filling stations in the northeast of the country. This infrastructure will support the launch in April 2015 of Toyota's "Mirai" hydrogen fuel cell electric vehicle.

Air Liquide also announced the acquisition of FordonsGas, a company that distributes Bio- and Natural Gas for Vehicles (Bio-NGVs) for the Swedish transportation market. Air Liquide will benefit from FordonsGas' experience in the distribution of an alternative fuel, useful experience in terms of its infrastructure deployment strategy in hydrogen mobility.

## REFINANCING AT ATTRACTIVE RATES

To refinance debt reaching maturity and continue to fund its development while benefiting from very attractive market conditions, in 2014, Air Liquide issued bonds for a total amount of 858 million euros with maturities of between eight and 15 years. The main transaction was carried out as part of the EMTN program for a total of 500 million euros over 10 years and with a record low coupon of 1.875% per year.

## 2014 Income Statement

### REVENUE

Revenue (in millions of euros)	2013	2014	2014/2013 change	2014/2013 comparable change <sup>(a)</sup>
Gas and Services	13,837	13,867	+0.2%	+4.1%
Engineering & Technology	803	912	+13.6%	+15.6%
Other activities	585	579	-1.1%	-1.0%
<b>TOTAL REVENUE</b>	<b>15,225</b>	<b>15,358</b>	<b>+0.9%</b>	<b>+4.5%</b>

(a) Excluding currency, natural gas and significant scope impacts.

### Group

The **Group's 2014 revenue** reached **15,358 million euros**, a reported increase of +0.9% compared to 2013, penalized by a negative currency impact of -1.9% which was particularly strong at the beginning of the year, and a natural gas impact of -0.6%. **On a comparable basis** (excluding currency and natural gas impacts and revised for the impact of the disposal of Anios at end-2013), revenue for the year increased by **+4.5%**.

The first quarter benefited from a favorable comparable basis and sales continued to increase like-for-like during the following three quarters.

Revenue by quarter (in millions of euros)	Q1 2014	Q2 2014	Q3 2014	Q4 2014
Gas and Services	3,416	3,391	3,446	3,614
Engineering & Technology	175	230	213	294
Other activities	143	151	142	143
<b>TOTAL REVENUE</b>	<b>3,734</b>	<b>3,772</b>	<b>3,801</b>	<b>4,051</b>
<b>2014/2013 published change</b>	<b>+1.0%</b>	<b>-2.4%</b>	<b>+1.0%</b>	<b>+3.9%</b>
<b>2014/2013 comparable change <sup>(a)</sup></b>	<b>+6.2%</b>	<b>+3.6%</b>	<b>+4.3%</b>	<b>+3.9%</b>

(a) Excluding currency, natural gas and significant scope impacts.

### CURRENCY, NATURAL GAS AND SIGNIFICANT SCOPE IMPACTS

In addition to the comparison of published figures, financial information is given excluding currency, natural gas price fluctuation and significant scope impacts.

Since industrial and medical gases are rarely exported, the impact of currency fluctuations on activity levels and results is limited to euro translation impacts with respect to the financial statements of subsidiaries located outside the Euro zone. Fluctuations in natural gas prices are generally passed on to customers through price indexation clauses.

(in millions of euros)	Group	Gas & Services
<b>2014 revenue</b>	<b>15,358</b>	<b>13,867</b>
2014/2013 published change (in %)	+0.9%	+0.2%
Currency impact	-294	-278
Natural gas impact	-87	-87
Significant scope impact	-168	-168
<b>2014/2013 comparable change <sup>(a)</sup> (in %)</b>	<b>+4.5%</b>	<b>+4.1%</b>

(a) Excluding currency, natural gas and significant scope impacts.

## Gas and Services

Unless otherwise stated, all the changes in revenue outlined below are on a comparable basis (excluding currency, natural gas and significant scope impacts).

**Gas & Services** revenue reached **13,867 million euros**, showing **comparable growth of +4.1%**, with all business lines posting growth. Revenue was up +0.2% in published data, penalized by a negative currency impact of -1.9% and a natural gas impact of -0.6%.

Revenue (in millions of euros)	2013	2014	2014/2013 change	2014/2013 comparable change
Europe	7,058	6,640	-5.9%	-1.1%
Americas	3,225	3,416	+5.9%	+7.9%
Asia-Pacific	3,184	3,444	+8.2%	+11.6%
Middle-East and Africa	370	367	-0.8%	+4.6%
<b>GAS &amp; SERVICES</b>	<b>13,837</b>	<b>13,867</b>	<b>+0.2%</b>	<b>+4.1%</b>
Industrial Merchant	5,081	5,083	+0.0%	+3.0%
Large Industries	4,940	4,980	+0.8%	+3.6%
Healthcare	2,689	2,570	-4.4%	+3.7%
Electronics	1,127	1,234	+9.5%	+12.0%

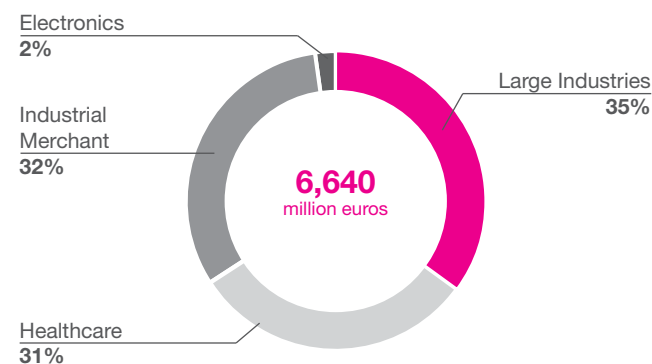
## Gas & Services sales share in developing economies

Due to a higher growth rate, the share of developing economies in the Gas & Services revenue continue to progress and reach 26% in 2014. This contribution was even higher for industrial activities at 29.5%.

### Europe

Revenue in Europe totaled **6,640 million euros**, down -1.1%. Sales increased slightly, excluding the disposal of the cogeneration activities at end-2013 and the impact of the drop in electricity costs. Oxygen levels were stable, whereas demand for hydrogen increased significantly, a sign of resilience in the North European industrial basins. The region continued to benefit from momentum in the developing economies, which increased by +5.4% in a complex geopolitical context. Sales were down slightly in Western Europe, with the 4<sup>th</sup> quarter posting a slight improvement compared with the previous two quarters.

## Europe Gas & Services 2014 Revenue



- **Large Industries** revenue decreased by **-3.9%**. Excluding the disposal of the cogeneration plants at end-2013 and lower electricity prices, sales were stable. Hydrogen volumes were up, boosted by demand from the refining industry mainly in Northern Europe. Oxygen volumes remained stable, with Eastern and Southern Europe offsetting the drop in volumes in Northern Europe.
- **Industrial Merchant** sales declined slightly by **-1.1%**. Developing economies continued to post solid growth thanks to the ramp-up of new facilities, in particular in Russia with growth exceeding +25%. However, business in advanced economies suffered from a persistently difficult economic climate. The 4<sup>th</sup> quarter showed signs of stabilization with increasing liquid volumes. Spain posted growth for the second

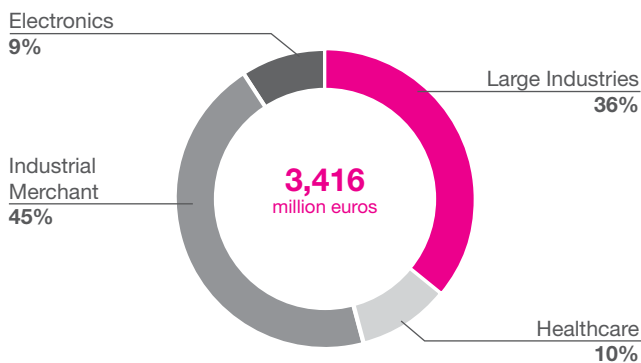
quarter in a row. The price impact was slightly down for the year at -0.2%, with a small positive price impact in Northern Europe and Spain.

- **Healthcare** continued its development, with **+1.9%** growth. The Home Healthcare activity grew by +2.9% with few acquisitions in 2014, still driven by increased demand and the expansion of the portfolio of therapies treated. The number of patients has exceeded one million in Europe. Pressure on tariffs remained throughout the region, in particular in Spain and France. In medical gases for hospitals, budgetary pressure affected gas volumes in France and Southern Europe, whereas Northern Europe saw a slight increase in volumes. In prevention and well-being, Specialty Ingredients saw a +3.1% increase in revenue, whereas Schülke's Hygiene activity improved by +11.0%. The pricing impact was negative during the year, slightly below -2%.
- **Electronics** revenue increased **+3.1%**, due to an upturn in carrier gas sales.

**Americas**

Gas & Services revenue in the Americas totaled **3,416 million euros**, up **+7.9%**. Industrial activity remained sustained in North America, with an increase in oxygen and hydrogen volumes, a solid improvement in bulk sales and positive elasticity in Industrial Merchant prices. Growth was regular over the year in South America, in particular in Large Industries and Healthcare, and reached close to +15% despite a slowdown in Brazil at the end of the year.

**Americas Gas & Services 2014 Revenue**



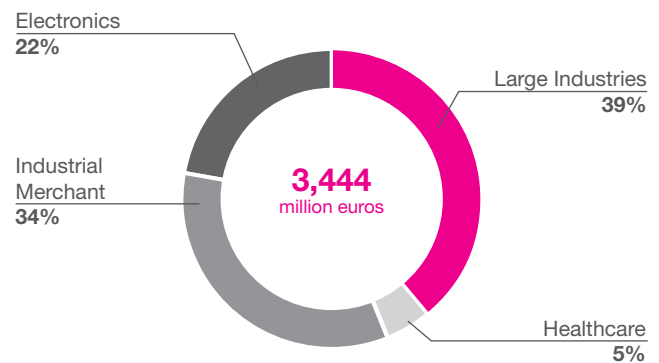
- **Large Industries** reported revenue growth of **+4.7%**. Oxygen and hydrogen volumes improved throughout the region, thanks to ramp-ups in Latin America and sustained demand in North America where customers continued to benefit from competitive energy prices. Cogeneration volumes were down markedly following production unit turnarounds in the United States and a fall in the market price of electricity in Canada.

- The **Industrial Merchant** activity was up **+6.4%**, driven by very strong bulk sales growth throughout the region, and in particular in Canada and Mexico where our activity ramp-up continues. The cylinder activity declined throughout the region. Pricing campaigns continued all year long, with an average effect of +4.4% in 2014.
- **Healthcare** revenue rose by **+10.6%** driven by the performance of Home Healthcare in Latin America (Argentina, Brazil) and Canada which benefited from additional acquisitions. Sales of medical gases to hospitals also increased throughout the region. Pricing pressure remains strong.
- **Electronics** activity was up **+29.5%** benefiting particularly from the acquisition of Voltaix, a company specializing in molecules and advanced precursors. The comparison effect of this acquisition came to an end at the beginning of the 4<sup>th</sup> quarter. Specialty gas sales in the United States more than doubled over the year and growth exceeded **+40%** for the **ALOHA™ range**. Carrier gases also posted solid growth. Equipment and installation sales improved significantly, evidence of the sector's gradual recovery in the region.

**Asia-Pacific**

Revenue in the Asia-Pacific region increased by **+11.6%** to **3,444 million euros**. Sales growth continued in the region's main countries with strong momentum in all business lines. China continued to benefit from start-ups in December 2013 and January 2014. Japan saw growth in all four quarters, thanks to the cycle peak in Electronics.

**Asia-Pacific Gas & Services 2014 Revenue**



- **Large Industries** sales increased by **+19.1%**, buoyed by the ramp-up of the new units in China. Air gas and hydrogen volumes increased throughout the region.



## 2014 Performance

- **Industrial Merchant** activity posted **+6.3%** growth during the year. Liquid volumes improved markedly in the region, driven by strong growth in China. The cylinder activity was also steady despite major pricing pressure. Developing economies increased strongly at +12.5%, in particular with a comparable increase of almost +15% in China where all market segments reported growth. The pricing impact was -0.3% over the period. Excluding Australia, where there was strong competition, the pricing impact is positive for the region.
- **Electronics** sales were up **+8.3%**. Japan confirmed a return to growth in 2014, with an improvement of more than +3% and sales accelerating throughout the year. Sales of the ALOHA™ range grew by over +60% in the region, mainly in China, Japan and Taiwan. Carrier gases also posted significant sales growth, driven by the ramp-up of new contracts in China, Taiwan and Korea.

### Middle-East and Africa

Middle-East and Africa revenue totaled **367 million euros**, up **+4.6%**. **Large Industries** improved mainly in South Africa thanks to the ramp-up of a new unit for the metals market. **Industrial Merchant** activity also grew in South Africa, benefiting from an improvement in the supply of argon during the year. The situation was more contrasted in the Middle-East where geopolitical tensions weighed on activities. In Saudi Arabia, the initial start-up phases of our hydrogen units and those of our customers on the Yanbu site began, with commissioning scheduled for the first half of 2015.

### Engineering & Technology

Engineering & Technology revenue totaled **912 million euros**, up **+15.6%** compared to 2013, reflecting third-party customer project progress.

In 2014, total order intake reached 1.4 billion euros, down from the record level of 2013. The vast majority of projects concerned air gas production units. The level of order intake was well balanced between Group projects and third-party customer projects and reflects greater selectivity of both Group investments and third-party client projects during the year.

Orders in hand reached 5.3 billion euros as at December 31, 2014, and reflects a good level of order intake in 2013 and 2014.

### Other activities

The -1.0% decline in revenue for **Other activities** in 2014 is linked to the weakness of the Welding activity, down -3.0% over the year. The Welding activity nonetheless improved during the second half, thanks to a slight recovery in the European metals, automotive and construction sectors.

**Diving** (Aqua Lung™) was slightly up +3.5% for 2014. The year was marked by a drop in activity in the military industry as well as the disposal of non-strategic activities.

Revenue (in millions of euros)	2013	2014	2014/2013 change	2014/2013 comparable change <sup>(a)</sup>
Welding	404	392	-3.0%	-3.0%
Diving	181	187	+3.3%	+3.5%
<b>TOTAL</b>	<b>585</b>	<b>579</b>	<b>-1.1%</b>	<b>-1.0%</b>

(a) Excluding currency, natural gas, and significant scope impacts.

### OPERATING INCOME RECURRING

**Operating income recurring before depreciation and amortization** totaled 3,873 million euros, up +1.5% in reported figures. The pricing effect was positive on the whole over the period at +0.4%, partially offsetting cost inflation on constant volume of +2.0%, and efficiencies were at a very high level.

For the full year, efficiencies amounted to **321 million euros**, exceeding the annual target of more than 250 million euros. These efficiencies represent a 2.8% cost saving. Of this amount, 69 million euros stem from the realignment plans undertaken in 2013 in structures where activity had suffered from falling demand.

In the industrial domain, other projects designed to reduce energy consumption, optimize the logistics chain and roll out global or regional purchasing platforms were continued.

Depreciation and amortization amounted to 1,239 million euros, slightly up by +0.2%, with the impact of unit start-ups and acquisitions partly offset by more efficient asset management and better control over investments.

The Group's operating income recurring (OIR) reached 2,634 million euros in 2014, an increase of +2.1% over 2013 or +5.1% on a comparable basis. The operating margin (OIR to revenue) was up +20 basis points at 17.1%.

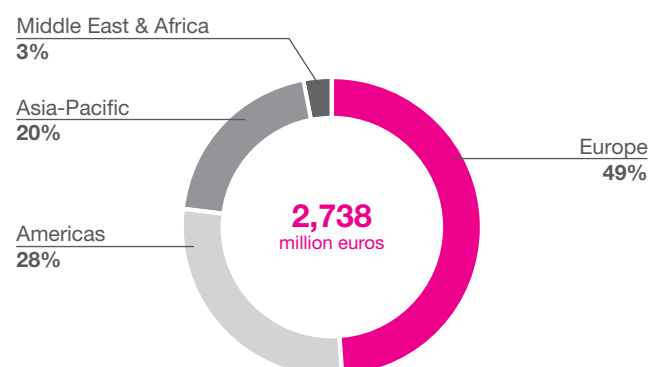


## Gas & Services

**Gas & Services operating income recurring** totaled **2,738 million euros**, up **+3.1%**. The OIR margin amounted to 19.7%, compared to 19.2% in 2013. Excluding the natural gas impact, the operating margin was again up +40 basis points.

Cost inflation, excluding the impact of energy indexation, remained relatively stable during the year at +2.5% for the full year. Prices rose by +0.5% due to continuing efforts in Industrial Merchant (+1.2%) and despite ongoing pricing pressure in Healthcare. Efficiencies totaled 298 million euros. A portion of these efficiencies was absorbed to offset the difference between cost inflation and rising prices. The remaining efficiencies, i.e. retention, helped improve the margin. The retention rate was 36% in 2014.

## Gas & Services 2014 Operating income recurring



Gas & Services Operating margin <sup>(a)</sup>	2012	2013	2014
Europe	18.3%	19.1%	20.3%
Americas	24.0%	23.6%	22.7%
Asia-Pacific	15.1%	15.1%	16.0%
Middle-East and Africa	21.2%	17.9%	17.6%
<b>TOTAL</b>	<b>18.8%</b>	<b>19.2%</b>	<b>19.7%</b>

(a) Operating income recurring/revenue, as published.

Operating income recurring in **Europe** totaled **1,346 million euros**, stable compared to 2013. Excluding the natural gas impact, the operating margin was significantly higher, up **+70 basis points** at 19.8%. The operating margin benefited in particular from efficiencies generated by the realignment plans initiated in 2013, as well as a reduction in charges relating to changes in pension plans in France and the Netherlands. The Large Industries margin was strengthened by industrial efficiencies while the Healthcare margin, benefiting from the economies of scale of volume growth, was resilient despite the pressure on tariffs.

Operating income recurring in the **Americas** amounted to **776 million euros**, up **+2.0%**. Excluding the natural gas effect, the operating margin was down **-40 basis points** but nonetheless remained at a high level of 23.2%. The operating margin was penalized by an increase in transport costs which was partly due to weather conditions at the beginning of the year and partly offset by industrial efficiencies in Industrial Merchant and Large Industries.

In **Asia-Pacific**, operating income recurring amounted to **552 million euros**, a marked increase of **+14.5%**. The operating margin, excluding natural gas, was up **+90 basis points**, thanks to efficiency plans launched in 2013 in Japan, plant start-ups and the growth of Industrial Merchant in China as well as industrial efficiencies in Large Industries and Electronics.

Operating income recurring for **Middle-East and Africa** amounted to **65 million euros**, a decline of **-2.7%**. The operating margin was down **-30 basis points**, impacted by the geopolitical situation in the Middle East and by argon supply difficulties in South Africa early in the year.

## Engineering and Technology

Operating income recurring for Engineering & Technology amounted to **76 million euros**. Operating income recurring as a percentage of revenue at 8.3% remained in line with the Group's target range of between 5% and 10%.

## Other activities

The Group's Other activities reported operating income recurring of **36 million euros**, up **+10.9%**, while the operating margin as a percentage of revenue totaled 6.1%, an increase of +60 basis points. This improvement was the result of efficiencies, in particular related to the realignment plans initiated in 2013 in Welding.

## Research & Development and corporate costs

Research & Development and Corporate Costs include intersector consolidation adjustments and amounted to **215 million euros**, up **+11.4%**, particularly reflecting the Group's efforts to strengthen its innovation structures.

## NET PROFIT

**Other operating income and expenses** showed a **positive balance of 16 million euros** compared to a positive balance of 26 million euros in 2013. They included 37 million euros of expenses incurred principally for further realignment programs in various countries, provisions for litigation-related risks, and certain one-off costs, offset by 63 million euros of capital gains on disposals, in particular relating to the sale of a polymer engineering and construction activity.

The **net financial expense of -251 million euros** was -17.7% lower than the -305 million euros in 2013. The **net finance costs**, up slightly +4.1%, reflects a stable average cost of net indebtedness at 4.0% coupled with a slight increase in average net debt over the year, in particular in developing economies.

Other financial income and expenses decreased significantly to -21.7 million euros compared with -84.7 million euros in 2013 due to a gain on the partial disposal of a financial stake in a start up as well as a reduction in financial expenses relating to adjustments in certain pension plans.

Taxes totaled 678 million euros, up +10.9%. The **effective tax rate** was **28.3%** compared to 26.6% in 2013. This increased rate is the result of the fact that the 2013 rate benefited from the impact of the reduced rate on the capital gains from the disposal of Anios stake.

The **share of profit of associates** was **4 million euros** down from 14.5 million in 2013 following the disposal of a stake in a Korean joint venture. **Minority interests** fell by **-6.9%**, amounting to 59.8 million euros.

Overall, **net profit (Group share)** amounted to **1,665 million euros** in 2014, up **+1.5%** in reported terms.

**Net earnings per share** were 4.85 euros, up **+1.3%** compared to 4.79 euros (adjusted for the 2014 free share attribution) in 2013. The average number of outstanding shares used for the calculation of net earnings per share as of December 31, 2014 was 343,214,086.

## Change in the number of shares

	2013	2014
Average number of outstanding shares <sup>(a)</sup>	342,664,899	343,214,086

(a) Used to calculate earnings per share, 2013 adjusted for free share attribution on June 2, 2014.

Number of shares as of December 31, 2013	312,831,676
Options exercised during the year, prior to the free share attribution	511,594
Cancellation of treasury shares	(1,000,000)
Free shares issued	32,095,812
Options exercised during the year, after the free share attribution	433,801
<b>NUMBER OF SHARES AS OF DECEMBER 31, 2014</b>	<b>344,872,883</b>

## DIVIDEND

At the Shareholders' Meeting on May 6, 2015, the payment of a dividend of 2.55 euros per share will be proposed to shareholders for fiscal year 2014, up +10.3% taking into account the free share attribution on June 2, 2014. Total estimated pay-out taking into account share buybacks and cancellation will amount to 899 million euros, up +10.3%, representing a pay-out ratio of 54.0%

The ex-dividend date has been set for May 18, 2015 and the dividend will be paid from May 20, 2015.

## 2014 cash flow and balance sheet

(in millions of euros)	2013	2014
<b>Cash flow from operating activities before change in working capital</b>	<b>2,949</b>	<b>2,943</b>
Change in working capital requirement	(19)	74
Other items	(127)	(187)
<b>Net cash flow from operating activities</b>	<b>2,803</b>	<b>2,830</b>
Dividends	(877)	(885)
Purchases of property, plant and equipment and intangible assets, net of disposals <sup>(a)</sup>	(2,240)	(1,931)
Increase in share capital	126	60
Purchase of treasury shares	(115)	(116)
Other	344	(202)
<b>Change in net indebtedness</b>	<b>41</b>	<b>(244)</b>
Net indebtedness as of December 31	(6,062)	(6,306)
<b>Debt-to-equity ratio as of December 31</b>	<b>56%</b>	<b>53%</b>

(a) Including transactions with minority shareholders.

### NET CASH FLOW FROM OPERATING ACTIVITIES

Cash flow from operating activities before changes in working capital amounted to 2,943 million euros, down -0.2% compared to 2013. **Net cash from operating activities after changes in working capital requirement** amounted to 2,830 million euros, **up +1.0%** compared to 2,803 million euros in 2013, or as an indication +2.3% excluding currency impact. This performance was in particular impacted by the expensing of the realignment plans, provisioned in 2013.

### CHANGES IN WORKING CAPITAL REQUIREMENT

The working capital requirement fell slightly (-74 million euros) in 2014. Excluding taxes, it was quasi stable, in particular as a

result of better recovery of trade receivables, and stood at 6.8% of revenue, compared to 6.6% in 2013.

The increase in other items reflects, in particular, adjustments to certain pension plans in Europe.

### CAPITAL EXPENDITURE

In 2014, gross capital expenditure totaled 2,175 million euros, including transactions with minority shareholders. Gross industrial capital expenditure reached 1,902 million euros in 2014, a decrease of -11.8% compared to 2013. The Gross financial capital expenditure, including transactions with minority shareholders, amounted to 273 million euros. Gross capital expenditure in the Gas & Services activity, including transactions with minority shareholders, represented 14.4% of sales, compared to 17.6% in 2013.

### Group gross capital expenditure

(in millions of euros)	Industrial investments	Financial investments <sup>(a)</sup>	Total capex
2009	1,411	109	1,520
2010	1,450	332	1,782
2011	1,755	103	1,858
2012	2,008	890	2,898
2013	2,156	401	2,557
<b>2014</b>	<b>1,902</b>	<b>273</b>	<b>2,175</b>

(a) Including transactions with minority shareholders.

## 2014 Performance

The assets disposals, for a total amount of 244 million euros, included non-strategic activities, in particular the disposal of a stake in a Korean joint venture and that of a polymers engineering and construction activity. Including minority interest buyouts, total net capital expenditure amounted to 1,931 million euros.

## Industrial capital expenditure

Industrial investments amounted to 1.9 billion euros in 2014, down -11.8% compared to 2013. This trend reflects more selectivity in projects, strict control of capital expenditure and efforts to better load existing capacity and in particular, the recently started-up units.

Gas and Services investment by region was as follows:

## Gross Industrial investments by geographical region

<i>(in millions of euros)</i>	Gas and Services				Total
	Europe	Americas	Asia-Pacific	Middle-East and Africa	
2013	771	610	512	171	2,064
<b>2014</b>	<b>718</b>	<b>613</b>	<b>379</b>	<b>83</b>	<b>1,793</b>

## Financial investments

Financial investments amounted to 179 million euros, 273 million euros including transactions with minority shareholders. These included the acquisition of ARAIR and Seprodom in Home Healthcare, FordonsGas in Biogas, and numerous small acquisitions of distributors in Industrial Merchant in particular in developing countries. Disposals of financial investments totaled 15.8 million euros.

## NET INDEBTEDNESS

Net indebtedness at December 31, 2014 at **6,306 million euros**, was up 244 million euros compared to the end of 2013, due to a negative currency impact of 222 million euros. Excluding the currency effect, the stability of the debt level reflects solid cash flow and the efforts to contain the working capital and capital expenditure. The **debt-to-equity ratio was 53%, a slight decrease** compared to December 31, 2013 and confirms a further improvement in the Group's financial structure.

## ROCE

The return on capital employed after tax was **10.8%** versus 11.1% at the end of 2013, reflecting the adverse effect of currency fluctuations on results and capital employed. At constant exchange rates, return on capital employed was stable at 11.1%. Assets under construction, which will contribute to growth in the medium term, remain high and should gradually decrease with the start-up of major projects in 2015 and 2016.

**In addition, value creation, reflected by the difference between return on capital employed and the average cost of capital, continued to increase and reached 570 basis points at the end of 2014.**

## ➤ INVESTMENT CYCLE AND FINANCING STRATEGY

The Group's steady long-term growth is largely due to its ability to invest in new projects each year. Investment projects in the industrial gas business are spread throughout the world, highly capital intensive and supported by long-term contracts, particularly for Large Industries. Air Liquide has thus tailored its financing strategy to the nature of its projects, based on the diversification of funding sources, the prudent management of the balance sheet and innovative finance sourcing. This financing strategy is fundamental for the Group's continued development.

## Investments

### OVERVIEW

The Group's investments reflect its growth strategy.

They can be classified into two categories:

- Industrial investments, which bolster organic growth or guarantee the efficiency, maintenance or safety of installations;
- Financial investments, which strengthen existing positions, or accelerate penetration into a new region or business segment through the acquisition of existing companies or assets already in operation.

The nature of the industrial investment differs from one World Business Line to the next: from gas production units for Large Industries, to filling centers, logistics equipment, storage facilities and management systems for Industrial Merchant, Electronics and Healthcare. Capital intensity varies greatly from one activity to another.

### Capital intensity

Capital intensity is the ratio of capital required to generate one euro of supplementary revenue, when projects or activities reach maturity. This capital is either invested in industrial assets (production units, storage facilities, logistics equipment, etc.), or used as working capital to finance the development of the activities.

Capital intensity varies significantly from one business line to another:

- In **Large Industries**:
  - **Air gases** production has a capital intensity of **between 2 and 3**. It varies with the trend in electricity prices,
  - **Hydrogen and cogeneration** have a lower capital intensity **of between 1 and 1.5**, due to a relatively high proportion of natural gas in the cost of sales. This capital intensity varies with the trend in natural gas prices;
- **Industrial Merchant** capital intensity to launch the activity in a new market is **between 1.5 and 2**;
- **Electronics** has an average capital intensity **close to 1**;
- **Healthcare** has a capital intensity, excluding acquisitions, of **around 1** depending on the product mix.

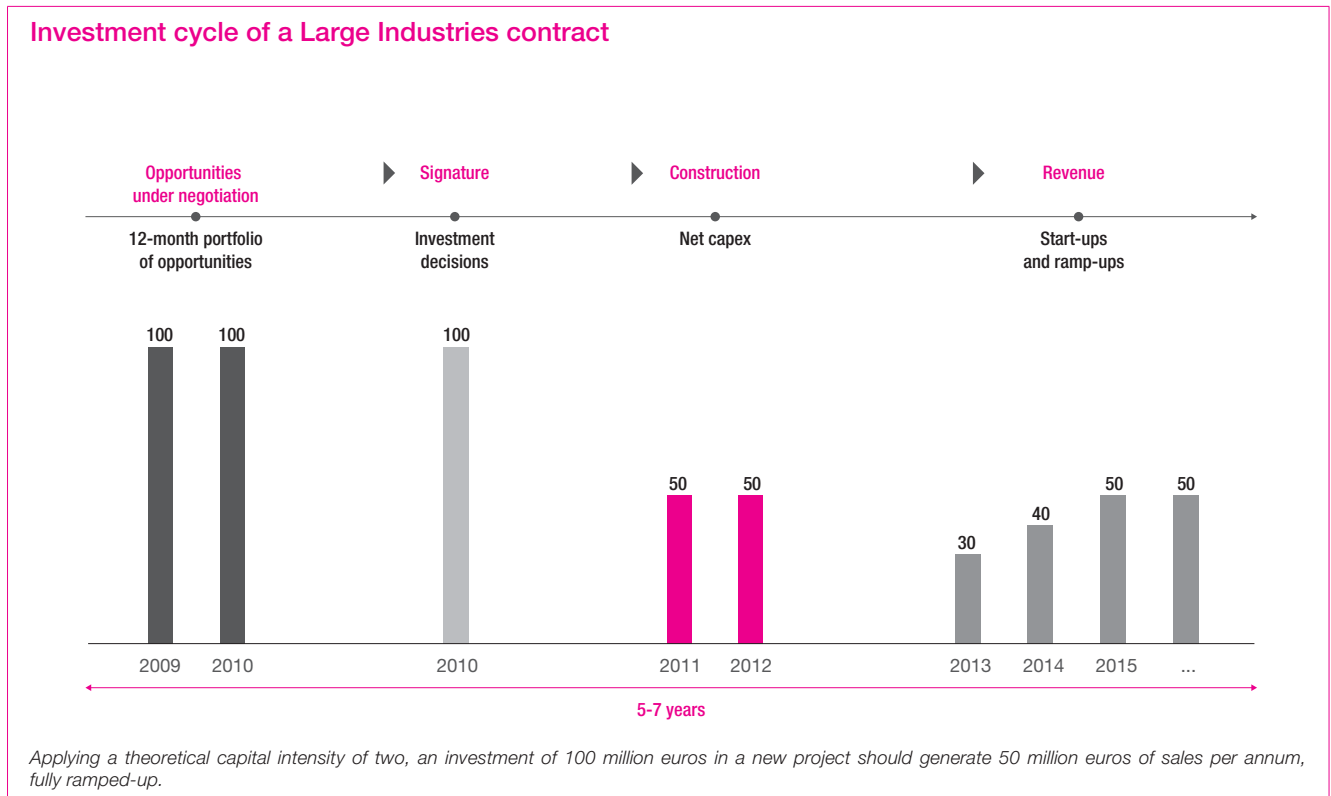
Whatever the capital intensity, any project must enable the Group to achieve its return on capital employed (ROCE) objective over the long term.

Because of the differences in capital intensity among the various Group activities, **OIR margins will vary accordingly**.

The Group's capital intensity varies depending on the activity mix, project type and the price of raw materials.

## The theoretical lifespan of a contract in Large Industries

Long-term development is one of the key characteristics of the industrial gas business. It is particularly evident in the investment cycle, where there is approximately a five-year span between the study of a new construction project for a Large Industries customer and the first corresponding industrial gas sales. **Monitoring this cycle is essential to anticipating the Group's future growth.** The following chart sets out each stage in this process.



■ **Identification and Negotiation** phase: The project is registered in the portfolio of investment opportunities and enters into the development process. Projects exceeding 5 million euros of investment are monitored within the portfolio of potential opportunities and split between those for which a decision is expected within 12 months and those for which the investment decision will take more than one year. Projects are then discussed and negotiated with the customer. Contracts can be removed from the portfolio for several reasons:

1. The contract is signed, it is removed from the portfolio and therefore becomes an investment decision;
2. The project is abandoned by the customer;
3. The customer decides against an over-the-fence gas supply, or the project is awarded to a competitor;
4. The project is delayed beyond 12 months: it is removed from the 12-month portfolio but remains in the long-term portfolio.

■ **Signature** phase: the two parties reach an agreement. The signing of a long-term contract represents the business entity's commitment to an investment decision, once validated by the internal governance bodies. The project is removed from

the portfolio of investment opportunities and is registered in current investments.

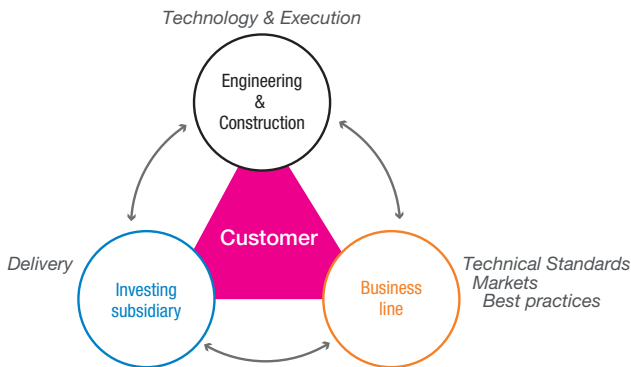
■ **Construction** phase: The construction of the unit generally takes between 12 and 24 months and sometimes up to 36 months depending on the size of the project. This is the capital expenditure period. The project remains in current investments.

■ **Revenue** phase:

1. **Commissioning**: the unit starts up. Sales begin according to the needs of the customer and with a guaranteed minimum volume at the **take-or-pay** level, guaranteeing minimum profitability from the beginning of the contract;
2. **Ramp-up**: this is the unit's ramp-up phase. Over the course of the contract term, volumes increase above the **take-or-pay** level to the nominal amount defined in the contract. Nominal capital intensity is achieved at the end of this phase.

### Governance for a Large Industries project

Three Air Liquide entities are at the heart of a Large Industries customer project, from development through to its execution.



The Large Industries World Business Line ensures the global customer relationship, provides the required know-how and ensures the overall consistency of the project, in terms of both contract and technical standards. It is also responsible for good internal governance practices.

The local subsidiary proposes the development project and, once the contract has been signed, carries the investment on its balance sheet. It is then responsible for operations, customer relations and the project's financial profitability.

Engineering & Construction provides the technologies and guarantees that they are competitive, both overall and specifically for each project, thanks to a good industrial architecture solution.

Engineering & Construction is responsible for the vast majority of the execution of the project.

Potential projects are identified well in advance, thanks to good market knowledge and a strong local presence. The first stage includes selecting the opportunities in which the Group would like to invest both commercial and technical resources, in line with its global strategy. This is followed by a series of **validation stages**.

During the **development** stage, the project is submitted for the approval of the geographic region on which it depends. At the Group level, two major bodies validate the relevance of the project: the RIC (Resources and Investment Committee – see the relevant section), and the ERC (Engineering Risk Committee) which is responsible for assessing technical and execution risk.

Once the project has been through the decision process, approved by Air Liquide and signed with the customer, it is **executed** by a team composed of representatives of the investing subsidiary and of Engineering & Construction, under the supervision of the geographic region.

For very large scale projects, a specific EMI (Executing Major Investments) team of experts supports the subsidiary for the development and execution stages.

During the start-up of a unit, responsibility for the project is transferred to the local operational teams, under strict standards to ensure the site's security and integrity. The local subsidiary manages the unit, and the financial performance review is undertaken by the Group and Regions Operations Control.

### THE RESOURCES AND INVESTMENT COMMITTEE

An investment decision amounting to over 5 million euros is subject to a precise evaluation and authorization process, undertaken at Group level by the Resources and Investment Committee (RIC). Each meeting is chaired by the Executive Committee member in charge of the World Business Line concerned and brings together the Director of the activity and regions affected by the investment, the Chief Financial Officer or the Finance and Operations Control Director, as well as the Group Human Resources Director (when HR subjects are examined).

The decision is based on a rigorous assessment of individual projects as well as each project's expected profitability. The following criteria are systematically reviewed:

- The **location of the project**: the analysis will take into account whether the project is based in an industrial basin with high potential, whether it is connected to an existing pipeline network, or whether it is in an isolated location;
- The **competitiveness of the customer's site**: based on size, production process, cost of raw materials and access to markets;
- **Customer risk**;
- **Contract clauses**;
- **End products and the stability of future demand** for these products;
- **Quality of the technical solution**;
- **Country risk**: evaluated on a case-by-case basis and can lead to changes in the financing policy and supplementary insurance cover.

Following approval by the RIC and signing with the customer, the project is transferred to the Current investment category.



## PORTFOLIO OF OPPORTUNITIES

As at December 31, 2014, the 12-month portfolio of opportunities totaled 3.2 billion euros, down 400 million euros compared to end-2013. This change is due to a higher level of investment decisions during the 4<sup>th</sup> quarter; the level of abandoned or delayed projects, exiting the portfolio at the end of the year was in line with the usual changes observed.

As at December 31, 2014, 64% of projects in the portfolio were located in developing economies and well spread over the Group's four geographic regions. Compared to end-December 2013, the share of European projects decreased to about 20%,

as the Group's development resources were realigned with the geopolitical context. The share of projects in China and North America increased slightly, reflecting renewed investment momentum in 2014 in these two regions. The share of the rest of Asia declined slightly. The investment opportunities include nine site takeovers that are currently operated by the customers themselves, reflecting the continuing trend toward outsourcing of industrial gas production.

The majority of the opportunities are in the Large Industries business line. The share of Large Industries projects relating to metals has decreased, relating to the chemicals sector remains stable, whereas the share relating to energy has increased.

## INVESTMENT CYCLE DEFINITIONS

### Investment opportunities at the end of the period

Investment opportunities taken into account by the Group for a decision within the next 12 months. Industrial projects generating revenue of >5 million euros for Large Industries and >3 million euros for other business lines. Includes replacement assets and efficiency projects. Excludes maintenance and security-related investments.

### Decisions during the period

Cumulative value of industrial and financial investment decisions. Growth and non-growth industrial projects, including replacement, efficiency, maintenance and security assets. Financial decisions (acquisitions).

### Current investments at the end of the period <sup>(a)</sup>

Cumulative value of investments for G&S projects that have been decided but not yet started up. Gas & Services industrial projects of >10 million euros, including replacement assets and efficiency projects, excluding maintenance and security, alone.

### Future revenue

Cumulative value of forecast annual revenue, generated by current investments at the end of the period, fully ramped-up.

*(a) Different from construction in progress (see note 13.1 to the consolidated financial statements on page 227) without threshold or activity criteria.*

## INVESTMENT DECISIONS AND INVESTMENT BACKLOG

In 2014, industrial and financial investment decisions, representing Group commitments to invest, reached 2.1 billion euros. Three quarters of these decisions relate to growth projects. Despite a significant drop in the amount of these decisions compared with the particularly high level seen in 2013, the pace of signatures accelerated throughout the year.

The amount of industrial decisions in 2014 was down by around 0.3 billion euros, reflecting increased selectivity in terms of investments. Large Industries represented around half of investment decisions, with Industrial Merchant accounting for a quarter. The other quarter included Health, Electronics and Other activities.

In geographical terms, industrial decisions were spread across all regions. Asia and the Americas represented the Group's two main investment regions, with numerous projects in energy, valorization of shale gas in the United States and coal conversion in China. Europe's share represented around a quarter of investment decisions.

Financial investment decisions reached some 200 million euros in 2014. In Home Healthcare, these included the acquisition of Arair in France and Seprodom in French overseas regions, and local players in Brazil, Canada and Korea. They also included the acquisition of FordonsGas in biogas and the acquisition of local Industrial Merchant players in China, Brazil, Canada, Mexico and the United Kingdom.

The total investment backlog amounted to 2.8 billion euros, leading to a future contribution to revenue of approximately 1.2 billion euros after full ramp-up.



## Investment decisions

<i>(in billions of euros)</i>	Industrial investment decisions	Financial investment decisions (acquisitions)	Total investment decisions
2010	1.8	0.4	2.2
2011	1.9	0.1	2.0
2012	2.0	0.9	2.9
2013	2.2	0.5	2.7
<b>2014</b>	<b>1.9</b>	<b>0.2</b>	<b>2.1</b>

## START-UPS

In 2014, 20 units were commissioned, a similar level to that seen in 2013. Some start-ups, initially planned for 2014, will be completed in 2015.

Start-ups were mainly located in developing economies in 2014. In China, many of the start-ups were air gas production units for the chemicals and energy conversion markets. In Asia, the start-ups were mainly units for the Electronics sector.

The number of start-ups in 2015 should be slightly higher.

## Financing strategy

The Group's financing strategy is regularly reviewed to provide support to the Group's development and take into account changes in financial market conditions, while respecting a credit profile in line with Standard & Poor's long term-minimum "A" rating. This credit profile depends on key ratios such as net debt to equity and cash flow from operations before change in working capital to net debt. Air Liquide's "A+" rating was confirmed by Standard & Poor's on November 27, 2014.

In 2014, the existing principles of prudence were maintained:

- diversifying financing sources and debt maturities in order to minimize refinancing risk;
- backing commercial paper issues with confirmed credit facilities;
- hedging interest rate risk to ensure visibility of funding costs, in line with long-term investment decisions;
- funding investments in the currency of the operating cash flows, to ensure a natural currency hedging;
- ever increasing centralization of funding and excess cash through Air Liquide Finance, a wholly owned entity of L'Air Liquide S.A.

## DIVERSIFYING FUNDING SOURCES

Air Liquide diversifies its financing sources by accessing various debt markets: commercial paper, bonds and banks.

Air Liquide uses the short-term commercial paper market, in France, through two French Commercial Paper programs of up to an outstanding maximum of 3 billion euros, and in the United States through a US Commercial Paper program (USCP) of up to an outstanding maximum of 1.5 billion US dollars.

Air Liquide also has a Euro Medium Term Note (EMTN) program to issue long-term bonds of up to an outstanding maximum amount of 9 billion euros. At the end of 2014, outstanding bonds issued under this program amounted to 4.5 billion euros (nominal amount). The Group's EMTN program allows, in particular, for bonds to be issued in the main currencies (euro, US dollar, Japanese yen) as well as in other currencies (Chinese renminbi, Swiss franc, pound sterling and rouble).

In 2014, the Group conducted four bond issues under its EMTN program – one public issue for a total amount of 500 million euros and three through private placements for a total, at December 31, 2014, of 358 million euros, in order to finance its investments.

As of December 31, 2014, funding through capital markets accounts for more than 80% of the Group's total gross debt, for an amount of bonds outstanding of 5.5 billion euros, across all programs, and 375.1 million euros of commercial paper.

The Group also raises funds through bank debt (loans and credit facilities).

To avoid liquidity risk relating to the renewal of funding at maturity, and in accordance with the Group's internal policy, the Group aims to limit its short-term debt maturities to 2.6 billion euros, an amount which is covered by committed credit facilities. At December 31, 2014, the amount of debt maturing in 2015 was equal to 1.3 billion euros.

In addition, the Group has a 1.3 billion euros syndicated credit facility reaching maturity in November 2019 after the exercise of the first one-year extension option in 2014. At December 31, 2014, the contract has a second one-year extension option, which, if it would be exercised, would lengthen the maturity to November 2020.

At December 31, 2014 the total amount of undrawn committed syndicated and bilateral credit facilities was 2.57 billion euros.

### Net indebtedness by currency

	2013	2014
Euro	31%	25%
US dollar	32%	40%
Japanese yen	13%	11%
Chinese renminbi	14%	14%
Other	10%	10%
<b>TOTAL</b>	<b>100%</b>	<b>100%</b>

Investments are essentially funded in the currency in which the cash flows are generated, creating a natural currency hedge. Air Liquide's debt is thus mainly in euro, US dollar, Japanese yen and Chinese renminbi, which reflects the significant weight of these currencies in the Group's investments and cash flow.

The share of the Group net indebtedness denominated in euro decreased mainly because of the financing of industrial investments in the United States (in US dollar). The share of net indebtedness denominated in Japanese yen also decreased, due to cash raised by the disposal of a stake in a Korean company partly owned by AL Japan.

### CENTRALIZATION OF FUNDING AND EXCESS CASH

To benefit from economies of scale and facilitate capital markets financing (bonds and commercial paper), the Group uses a dedicated subsidiary, Air Liquide Finance. At December 31, 2014, this subsidiary centralized the vast majority of the Group's

financing transactions. This centralization continued in 2014, in particular for the financing of investments in developing economies in Asia and the Americas. It also hedges currency, interest rate and energy risk for the Group's subsidiaries in those countries where it is permitted by law.

In the countries where it is permitted by law, Air Liquide Finance also centralizes cash flow balances through direct or indirect daily cashpooling of these outstandings or through term loans. When this is not possible, there are nonetheless domestic cashpoolings, allowing periodic intercompany loans to Air Liquide Finance.

As of December 31, 2014, Air Liquide Finance had granted, directly or indirectly, the equivalent of 8.0 billion euros in loans and received 3.7 billion euros in excess cash as deposits. These transactions were denominated in 24 currencies (primarily the euro, US dollar, Japanese yen, Chinese renminbi, pound sterling, Swiss franc, Singaporean dollar and Brazilian real) and extended to approximately 230 subsidiaries.

The matching by currency within Air Liquide Finance, resulting from the currency hedging of intra-group loans and borrowings, enables to avoid generating foreign exchange risk for the Group.

Furthermore, in certain specific cases (e.g. regulatory constraints, high country risk, joint ventures, etc.), the Group limits its risk by setting up specific finance in the local banking market, and by using credit-risk insurance.

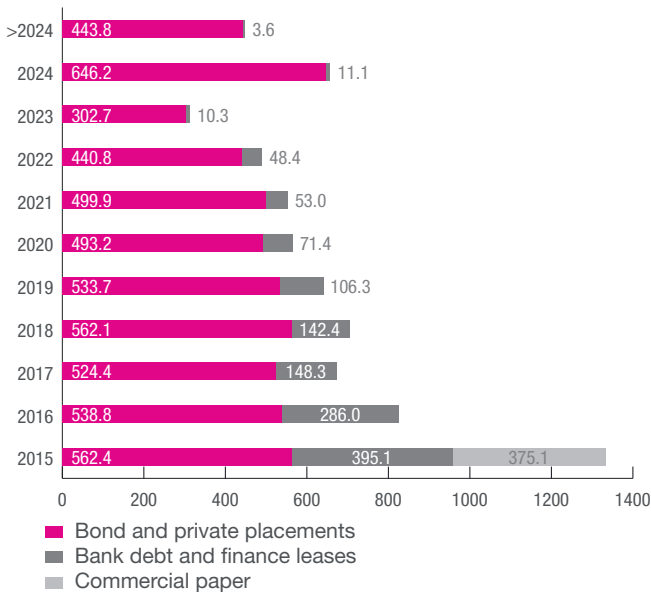
### DEBT MATURITY AND SCHEDULE

To minimize the refinancing risk related to debt maturity schedules, the Group diversifies financing sources and spreads maturities over several years. This refinancing risk is also reduced by the regularity of the cash flow generated from Group activities.

The average of the Group's debt maturity is 5.4 years, at December 31, 2014.

The following chart represents the Group's debt maturity schedule. The single largest annual maturity represents approximately 18% of gross debt.

Debt maturity schedule (in millions of euros)



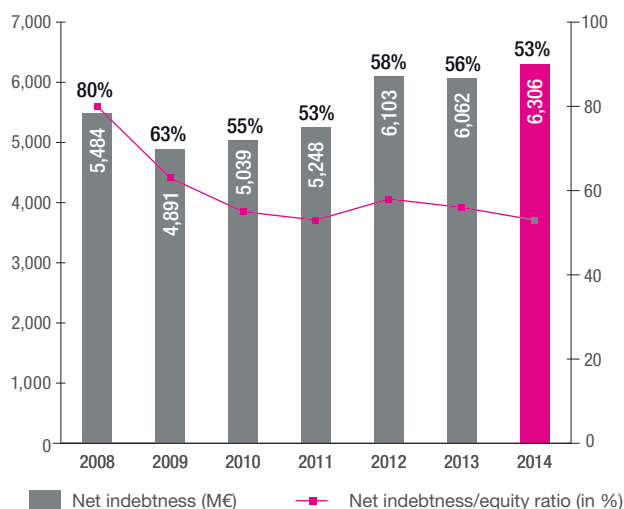
CHANGE IN NET INDEBTEDNESS

Net indebtedness stood at 6,306 million euros as of December 31, 2014, compared to 6,062 million euros as of December 31, 2013, an increase of 244 million euros.

This increase is due, in particular, to a negative currency impact, as the euro depreciated against several other currencies at the end of 2014.

Cash flow generated by the operational activities funds almost all investments and dividends.

Net indebtedness as of December 31



The net debt to equity ratio stood at 53% at the end of 2014 (compared to 56% at the end of 2013). This reduction is due to greater selectivity in Group's investment process. The equivalent

ratio calculated using the US method of net indebtedness/(net indebtedness + shareholders' equity) reached 35% at the end of 2014, compared to 36% at the end of 2013. The financial expenses coverage ratio (operating income + share of profit of associates/net finance costs) stood at 11.6 in 2014 compared to 11.9 in 2013.

The average cost of gross indebtedness increased slightly in 2014 due to the increase in the share of funding in developing economies where benchmark rates are higher, and the Group's decision to issue longer-term maturities to benefit from the fall in interest rates in the main currencies.

The average cost of net indebtedness was 4.0% in 2014, stable compared to 2013 (4.0%). Cost of net indebtedness is calculated by dividing net finance costs for the fiscal year (268.8 million euros in 2014, excluding capitalized interest) by the year's average outstanding net indebtedness.

This stability is due to the increase in the average cost of indebtedness in developing economies, which is offset by the decrease in financial expenses on long-term bond issues and increasingly centralized cash management.

BANK GUARANTEES

In connection with its Engineering & Construction activity, the subsidiaries of the Group sometimes grant bank guarantees to customers, during the tender period (bid bond), and after contract award, during contract execution until the end of the warranty period (advance payment bond, retention bond, performance bond, and warranty bond).

The most common bank guarantees extended to customers to secure the contractual performance are advance payment guarantees and performance guarantees.

The projects, for which these guarantees are granted, are regularly reviewed by the Management and, accordingly, when guarantee payment calls become probable, the necessary provisions are recorded in the consolidated financial statements.

## ➤ INNOVATION

Innovation is one of the three pillars of the Group's strategy. Innovating enables Air Liquide to open up new markets and to create new growth opportunities.

### Innovation to boost growth

The Group's innovation expenses amounted to **278 million euros** in 2014, representing **1.8%** of its revenue. This ratio is slightly higher than that of the past five years. Innovation expenses correspond to the OECD definition, namely research and development, market launch and marketing expenses for new offers and products.

The number of patented new inventions reflects the Group's innovation capacity. **Almost 300 new patent applications** were filed in 2014.

Air Liquide has a portfolio of **3,369 inventions** protected by **10,777 patents**.

**Almost 6,200 employees** contribute to the Group's innovation process; these employees belong to the following entities:

- **technology:** nine Research & Development sites in Europe, the United States, and Asia, the advanced Business & Technologies network, and 15 main centers for Engineering & Construction;
  - **marketing and market launch:** 11 ALTEC technical centers, which develop gas application technologies for customers and form a network of application experts; two centers of excellence – one dedicated to gas packaging for Industry and Health, the other to cryogenic production technologies – as well as centers of excellence in Hygiene, Specialty Ingredients, advanced Electronics materials.
- The operational teams in the 80 countries where the Group operates are responsible for rolling out innovations on a local basis as soon as they come on to the market.
- The Group innovates in three areas:
- in its **core business**, based on team expertise. This means that the Group improves its oxygen or hydrogen production technologies every year, in order to reduce energy consumption and polluting emissions. In the healthcare and industry field, it includes digital and additive manufacturing tools to bring higher value-added offers to the market;
  - in **adjacent businesses:** the teams require audacity in order to go beyond the traditional frontiers. They are opening up new markets such as biogas and refrigerated transport for fresh products, or are rolling out a new offer for oil platforms;
  - in the **transformational businesses:** the intuition of employees enables the Group to explore these markets, which have the potential to transform people's lives. For instance, Air Liquide is one of the most active players in the hydrogen energy market, which is currently seeing the emergence of early results following a decade of effort.
- Air Liquide's innovation approach combines **science and technology** with **entrepreneurial spirit**.
- It is based on three factors: in-depth scientific knowledge of around twelve **molecules** (including oxygen, nitrogen and hydrogen), the capacity to develop and test **technologies**, and a strong understanding of its customers' and patients' **usage**.
- In 2014, Air Liquide continued with measures implemented in 2013 to strengthen its innovation approach. Thus from **science and technology** (role of Research & Development, of the Engineering business and the ALTEC centers), the Group relies on its **advanced Business & Technologies** network to **develop the spirit of enterprise**, its **i-Lab** (innovation lab) to boost **open innovation** and **ALIAD**, its investment vehicle in technology start-ups.
- The **advanced Business & Technologies** network, which was established in 2013, includes a dozen subsidiaries focused on four areas: Business, Technologies, Information Technologies and Investment. This network boosts the Group's **entrepreneurial spirit**. In 2014, the advanced Business & Technologies teams continued to roll out new hydrogen filling stations in Europe, Japan and the United States, and acquired FordonsGas, a company that distributes Compressed Biogas for natural gas vehicles (Bio-NGVs) for the Swedish transportation market. The aB&T network also contributed to major scientific projects (ITER, JT 60) and developed new technologies for the Solar Impulse teams, the first solar-powered airplane capable of flying day and night without fuel.
  - The **i-Lab** is the laboratory for new ideas, which helps accelerate the pace of the Group's innovation and explore new markets. It also supports the various Innovation entities and the Group's World Business Lines in the development of new offerings, products and technologies. Based in Paris, France, i-Lab gets support from all of the Group's R&D sites, notably in Europe, the United States, and Asia. This laboratory is both a think-tank and a venue for experimentation (the "Corporate Garage") in new ideas for Air Liquide. It is permanently connected to the global innovation ecosystem, in order to

boost open innovation. In 2014, the i-Lab implemented this **open innovation** strategy, in particular, with a competition among architecture students in Europe on the topic of the Oxygen Plant of the Future, and the creation of a start-up incubator “Breathe in the city”, in Paris, to develop new offers for improving air quality.

- **ALIAD's** role is to invest in **minority stakes in start-ups**, in order to promote the **Group's access to technological innovations** developed outside the Group. ALIAD is based in the same premises as the i-Lab. It encourages the setting up of **R&D and/or business agreements** between the start-ups in its portfolio and the Group's entities. The target sectors for these investments are energy transition, management of natural resources, healthcare technologies, digital technologies and electronics.

ALIAD made four new investments in 2014 in **innovative technology start-ups**: **McPhy Energy**, a company which develops generators for hydrogen production by water electrolysis and solid hydrogen storage; **Solumix**, a start-up which has developed a new eco-friendly building insulation material; **Xylowatt**, a company that is specializing in the production of clean syngas from solid biomass; and **Quanta**, a UK-based company that is specializing in the development and design of a hemodialysis system for patients. ALIAD has made **nine investments** from its creation in 2013 to the end of 2014.

The **Healthcare World Business Line** identifies and analyzes the latest trends in order to adapt and develop its business model and ensure its implementation. Together with its medical R&D team, it has continued with its pre-clinical and clinical trials so as to identify new applications for certain medical gases. Faced with the challenges relating to the management and cost control of chronic diseases, the Healthcare World Business Line has continued to innovate in **e-healthcare**, particularly with the COMET study which assesses the impact of remote monitoring of patients with COPD (Chronic Obstructive Pulmonary Disease).

Moreover, in 2014, the **Group invested in new innovation centers**.

## Innovation for society

**Almost 60% of the Group's innovation expenses in 2014 are related to protecting life and the environment.**

Innovation expenses correspond to the OECD definition, namely research and development, market launch and marketing expenses for new offers and products.

Air Liquide has decided on three investments in France for an amount of nearly **100 million euros**.

- The Group is modernizing its **Paris-Saclay Research Center**, near **Versailles**, which is its main Research & Development center in the world. It will allow Air Liquide to reinforce its **open innovation** strategy through academic and industrial research partnerships with players from the Paris-Saclay innovation ecosystem.
- Moreover, Air Liquide has created a **center for the development of gas packaging for industry and health** on its Paris-Saclay site. This center aims to develop and industrialize the new packaging, which is easy to use, easily traceable, safe and integrated with digital technologies and new materials. The objective is to bring new offers to the market quicker.
- Finally, Air Liquide has announced the creation of a **technical center of excellence for cryogenic production technologies** in **Vitry-sur-Seine**, near Paris. Within the Engineering & Construction activity, this center will be responsible for developing and industrializing innovative technologies with high added-value for the production of oxygen, as well as bringing together expertise in this field.

In Asia, the Group started the construction of a **new Research and Technology Center** located in the Xinzhuang industrial park, in Shanghai, **China**, which represents an investment of nearly **25 million euros**.

In Engineering & Construction, a new **manufacturing center** for the Group's Air Separation Units was opened in **Ras-al-Khaimah, in the United Arab Emirates**, in December 2014. This center will complement, in terms of both geography and technology, the Group's other two manufacturing centers in France and China.

The Group's Healthcare business also invested in its subsidiary Seppic, dedicated to healthcare specialty ingredients, for the creation of a **new facility** in **Castres, France**. Seppic operates the leading global chain in bulk sterile packaging for adjuvants for vaccines and injectables.

Projects related to **preserving the environment** mainly included:

- new technology research and development programs which improve the **energy efficiency of the Group's production units**, thus reducing the environmental footprint of the Group's activities and improving that of its customers and partners;
- the research on the **efficiency of oxy-combustion** for both Air Liquide and its customers;

## Innovation

- all **hydrogen production and distribution** processes, from desulfurizing hydrocarbons in refineries to accompanying the deployment of hydrogen energy;
- **Carbon Capture Use and Storage (CCUS)**;
- the **second-generation biofuels**;
- the **valorization of biomass** and the purification of **biogas** for sale in the form of Bio-NGVs;
- the production and implementation of **gas for photovoltaic cells**;
- the research work on **liquid nitrogen-powered cryogenic cooling** to transport fresh products.

The innovations in **healthcare and hygiene** include:

- the research in medical gases, in particular into anesthesia, analgesia and respiratory diseases;
- the work on hygiene and sterilization products to combat nosocomial infections;
- the development of adjuvants for vaccines.

## Promoting expertise and encouraging entrepreneurship

The inventiveness of the teams that interact with customers and patients on a day-to-day basis enables the Air Liquide Group to constantly reinvent its business, and to anticipate the challenges of its markets. The Group has not only implemented programs to encourage and recognize the talent and expertise of its experts that contribute to innovation, but also, since 2014, the talent of its internal entrepreneurs.

The **recognition of technical expertise** is a key factor for innovation. In 2003, Air Liquide launched **Technical Community Leaders (TCL)**, a promotion and recognition program for the technical field and for the expertise of Group employees. Since TCL was created, **more than 2,500 experts** have been recognized, thus playing a key role in sharing expertise, knowledge and technical excellence. In 2014, six International Fellows, 20 International Senior Experts and 85 International Experts based in very diverse regions (Europe, Asia-Pacific, North and South America) were recognized by TCL. This community for the Group's technology experts contributes to the transfer of technical know-how, to the sharing of best practices, and to the long-term development of the skills that Air Liquide will need in the future. The initiative is conducted in close collaboration with the World Business Lines.

**#invent**, the Group's recognition program for **inventors**, rewards the inventors who are responsible for patents that are successfully marketed, or that give Air Liquide a competitive advantage. A trophy is awarded for the best invention of the year, selected

among the patent registrations filed within each World Business Line in the past two years, and a bonus to inventors as soon as a patent is delivered. This new program ensures greater responsiveness for rewarding inventors, and better monitoring of inventions. **Almost 2,500 rewards** have been awarded to inventors employed by Air Liquide since 1997. Air Liquide's patent portfolio contains over 10,000 patents, and the Group applies for registration of around 300 new patents every year.

These patents are not only invented by the Group's R&D employees, but also by the Engineering & Construction teams, the advanced Business & Technologies network and the operations.

**More than 50%** of the new patents registered by the Group protect **inventions relating to its core business** (gas production and separation technologies, and its Healthcare activity). The patents keep pace with the Group's development in different regions. The new patents registered in 2014 have a geographical breakdown as follows: 39% in Europe, 24% in the Americas, 21% in Asia-Pacific and 16% in Africa-Middle-East.

In 2014, the Group celebrated the contributions of **its employee entrepreneurs** during an event organized simultaneously in Paris, Houston, Frankfurt and Shanghai. Almost 800 managers took part worldwide. This initiative encourages the entrepreneurial spirit as a tool for innovation. It is also an opportunity to acknowledge projects which contribute to growth, and to share new ways of developing the Group's activities.

## Innovating within the global ecosystem

In a constantly changing world, the dynamic management of interactions with the innovation system, which is known as "open innovation" has become a key innovation factor.

Thanks to the development of a large number of collaborative processes between its operating entities and customers, Research & Development with academic partners and SMEs, and between the advanced Business & Technologies network and

innovative start-ups and institutional and private partners, this open innovation has enabled Air Liquide to explore new growth opportunities.

More than 60% of Research & Development projects were conducted as part of public-private partnerships in 2014. Air Liquide signed a scientific cooperation agreement with **King Abdullah University of Science and Technology (KAUST)**, in



Saudi Arabia, and joined its industrial partnership program (KICP). This agreement marked the start of a promising partnership in numerous key fields for Air Liquide, such as photovoltaic, catalysis, combustion and porous materials, and reinforced Air Liquide's leadership among global academic research institutes and industrial leaders in the Middle East.

In France, Air Liquide and the CEA, **Commissariat à l'énergie atomique et aux énergies alternatives (French atomic energy and alternative energy commission)**, strengthened their partnership by signing a five-year strategic agreement.

Air Liquide collaborates with **100 scientific academic partners and technology institutes** worldwide, and supports **seven research chairs**.

In Healthcare, Air Liquide draws on its partnerships with the **Institut du cerveau et de la moelle épinière (Brain and spine Institute – Neuronal degeneration)**, with the **Institut Pasteur**

to better understand gas mechanism of certain organs, and with the **University of Montreal** on the treatment and monitoring of patients suffering from Chronic Obstructive Pulmonary Disease (COPD).

These partnerships also provide the Group with access to **third-party intellectual property rights**. They enable Air Liquide to explore new growth opportunities, in adjacent businesses and transformational businesses, beyond the Group's core business.

The innovation ecosystem is global, and involves a new distribution of clusters that are active in the innovation field. The Group's organizational structure, which includes its base in France and three hubs in Frankfurt, Houston and Shanghai, provides it with better connections to trends in local markets, and enables it to improve the way in which it anticipates its customers' and patients' requirements, and to imagine new ideas and solutions, whether they involve technologies or new business models.

## Some initiatives launched in 2014

Air Liquide is exploring new areas by developing technologies and by building new business models, in order to meet its customers' and patients' needs, and pursue its profitable growth over the long term. The Group innovates for the benefit of society.

### HEALTHCARE: INNOVATION FOR THE BENEFIT OF PATIENTS AND HEALTHCARE PROFESSIONALS

In 2014, Air Liquide continued with the roll-out of its **new medical oxygen cylinder called TAKEO™** which has an "intelligent" digital display informing the user about the remaining consumption time until the oxygen runs out and emits a warning sound when the oxygen level is low. This cylinder is therefore safer to use, and enables medical staff to optimize oxygen consumption. This cylinder has also been designed to be easier to handle for medical staff thanks to its new ergonomic design. This innovation in oxygen therapy is now available to healthcare professionals in 15 countries worldwide (countries in Western European and South America as well as Canada, China, etc.), and makes Air Liquide stand out from its competitors by raising market standards.

Moreover, the **subsidiary Seppic's new sterile facility in France producing adjuvants for vaccines and injectables** benefits from recent technological advances in terms of pharmaceutical standards and doubles the Group's production capacity in bulk produced and packaged sterile pharmaceutical excipients.

### ELECTRONICS: A STEP UP IN ADVANCED MATERIALS

In 2014, Voltaix, an electronic materials company based in the United States and acquired in 2013, was integrated. Voltaix's products complement Air Liquide's ALOHA™ product line of advanced precursors. This acquisition creates new synergies

in the **research and industrialization process for innovative molecules**.

By combining the resources and expertise of Voltaix with those of the ALOHA™ teams, Air Liquide created an **"Advanced materials" unit** which allows it to capitalize on new growth opportunities and expand its markets and product offerings for semiconductor manufacturers around the world. This acquisition also enables Air Liquide to meet growing consumer demand for increasingly powerful flat panels, tablets and smartphones.

These **advanced precursors**, molecules with specific physical and chemical properties, are at the heart of the new generation of chips – used in new servers or smartphones – and are manufactured in state-of-the-art plants. Air Liquide is involved in all stages of a process including the design, screening and industrialization of advanced precursors, by working closely with leading companies of the semiconductor industry and process tool makers. The Group relies in particular on its new advanced Electronics materials center in South Korea.

### INNOVATIVE OFFERS FOR INDUSTRIES AND CRAFTSMEN

Air Liquide continued with the global roll-out of its newly improved range of **arc welding gases: ARCAL™**, a range of four high-quality argon and carbon dioxide based products which meet all day-to-day welding needs, from high carbon steel or stainless steel to light alloys, in particular for the aerospace, rail, offshore and construction sectors.

ARCAL™ cylinders are all equipped with SMARTOP™ taps for **heightened security and ease of use**, in particular thanks to a new, more ergonomic cap. For bulk users, ARCAL™ is also available in liquid form, with the mix carried out directly on the



customers' premises with bulk mixing installations. With ARCAL™, customers benefit from the expert support of Air Liquide, a major player in welding gases for more than 30 years.

In 2014, Air Liquide also continued to **roll out ALbee™**, its innovative **small gas cylinder** for craftsmen and occasional users. Following its success on the European market, the ALbee™ brand is now available for sale in Argentina, Canada and Japan.

**ALbee™ products are ready to use** and aim to make the daily life of professionals and DIY enthusiasts easier for welding, air conditioning maintenance and the inflation of helium balloons. Its **business model is also pioneering**: the user buys the cylinder and a service. When the cylinder is empty, the user exchanges it for a full cylinder and therefore only pays for the gas used, which ensures a perfect control of spending.

ALbee™ uses the Group's **latest technologies** in terms of cylinders: an integrated valve/regulator, the MINITOP™, which makes opening and closing the cylinder easier, gauges its content and provides an easier and more flexible connection, while at the same time improving user safety. In 2014, a new more compact and lighter size than the cylinders on the market was added to the range: ALbee™ PLUS, which is already available in Great Britain.

## DEVELOPMENT WITHIN THE INNOVATION ECOSYSTEM IN FRANCE

In 2014, the Group began work to modernize its **Paris-Saclay Research Center**, near **Versailles**, which is its main Research & Development center in the world. A single building will house the **researchers and laboratories** and will have pilot platforms with equipments for designing and testing technologies under industrial-scale conditions. It will allow Air Liquide to reinforce its **open innovation** strategy through academic and industrial research partnerships with players from the Paris-Saclay innovation ecosystem. Air Liquide thereby reinforces its presence in this ecosystem, which now includes almost 11,000 researchers and 48,000 students, and which by 2020 will be one of the 10 biggest innovation hubs in the world.

Moreover, in 2014, **Air Liquide and the CEA** decided to **strengthen their partnership through a five-year strategic agreement**. This agreement extends to three new areas the work already being conducted jointly: advanced materials and manufacturing for the plants of the future, digital technologies for big data processing, connected objects for continuous improvements in operations and services for customers and patients.

The aim of this strategic partnership is to **accelerate the industrialization of new technologies** and to deploy new uses in the production or application of gases for industry and healthcare. By leveraging the synergies of the two partners' acquired skills and expertise, the projects conducted will also seek to combine and strengthen the innovation ecosystems of all participants, comprising, in particular, French SMEs and innovative start-ups.

Air Liquide and the CEA are already working together on the emergence of new energy sectors with a pilot unit for second-generation biofuel production in Bure-Saudron (France), as well as on hydrogen energy, as part of the "Battery autonomy and power" plan, which is one of the French government's 34 industrial plans. This **long-term public-private partnership** is aligned with Air Liquide's **open innovation approach** and strengthens its commitment to France's innovation ecosystem.

## I-LAB: FIRST STEPS TO BOOST THE GROUP'S OPEN INNOVATION APPROACH

In 2014, the **i-Lab** organized a competition among architecture students in Europe for their ideas on the **Oxygen Plant of the Future**. This competition of ideas, entitled "Rock my Plant", offered architecture students the opportunity to dream up and design the Air Separation Unit of the future, using the main technological bricks that make up this production plant.

Thanks to this competition, 65 students from seven architecture schools in France, Italy, Poland and Turkey were given the opportunity to present their ideas and vision for reinventing the aesthetics and the organization of the oxygen production plant of the future. In total, 40 projects were submitted. The jury was co-chaired by the architect Jean Nouvel and François Darchis, a member of Air Liquide's Executive Committee in charge of innovation.

All of the projects were a source of inspiration for Air Liquide, and the ideas from the winning projects may be implemented by the Group. Following this event, Air Liquide filed applications for five new patents.

At the same time, Air Liquide's i-Lab and Paris Région Lab inaugurated the **"Breathe in the City" start-up incubator**. Four start-ups have currently joined the incubator to develop products, services and technologies centered around air quality in the city. Selected for their innovative approach in terms of technologies and applications, the start-ups will benefit from the know-how of Paris Région Lab and Air Liquide's expertise.

With its "Breathe in the City" initiative, Air Liquide's i-Lab intends to develop new offerings by joining forces with these young companies, to meet the numerous challenges arising in terms of air quality: reducing polluting emissions, helping patients with respiratory difficulties, providing clean air on the move, measuring, mapping and treating air quality.

## CONTRIBUTION TO MAJOR INTERNATIONAL SCIENCE PROJECTS

The objective of the **international project ITER** is to develop an experimental reactor that will demonstrate the scientific and technical feasibility of fusion as a new source of energy. Fusion for Energy (F4E), the organization that manages Europe's contribution to ITER, has signed a contract with Air Liquide for the supply of cryogenic equipment that will complete the largest centralized refrigeration system ever built.

To obtain the very powerful electromagnetic fields required to confine and stabilize nuclear fusion, it is necessary to use superconducting magnets that only work at extremely low temperatures. This temperature requirement is met **through the cryogenic equipment supplied by Air Liquide**, which is based on the properties of liquefied helium. Its temperature is just 4.5°C above the lowest possible temperature, -273.15°C, better known as “absolute zero”. In 2012, Air Liquide signed a contract with the ITER Organization for the supply of **three helium refrigerators with record combined cooling capacity**.

In 2014, F4E entrusted Air Liquide with the responsibility of supplying a second set of additional cryogenic equipment, for a **total amount of around 65 million euros**. This state-of-the-art equipment will be jointly developed by the Air Liquide Engineering & Construction teams and Air Liquide advanced Business & Technologies. It will be installed and commissioned on the ITER site at Cadarache, in Saint-Paul-lez-Durance, near Marseille, from 2016.

The purpose of the **JT-60SA project**, a Tokamak-style infrastructure, based in Naka in **Japan**, is to support the ITER project's research activities on fusion by working on the capacity to control and maintain the plasma for several hours. JT-60SA is led by the Japanese Atomic Energy Agency (JAEA) in collaboration with the French organization CEA. For this project, **Air Liquide delivered a helium refrigeration system**, intended to cool the Tokamak. This system, which will be commissioned in 2015, proves Air Liquide's **capacity to meet major scientific challenges by supplying very high tech systems**.

## ACQUISITION IN THE BIO-NGV SECTOR IN SWEDEN

Air Liquide acquired **FordonsGas, a company that distributes Bio- and Natural Gas for Vehicles (Bio-NGVs)** for the Swedish transportation market. Founded in 1998, FordonsGas owns and operates more than 40 Bio-NGVs stations in Sweden, making it one of the largest distribution networks for this fuel in Sweden. The company employs 32 people and generates annual revenue of around 20 million euros. The filling stations operated by FordonsGas enable taxis, corporate vehicle fleets, buses, and even cars belonging to individuals to acquire fuel that is more environmentally friendly. Nearly 70% of the Bio-NGVs is produced from renewable energies.

Sweden is one of Europe's key markets in the development of sustainable mobility based on Bio-NGVs. In 2009, the Swedish government rolled out an Energy and Climate policy with the objectives of reducing greenhouse gas emissions by 40% between now and 2020 and eliminating the use of fossil fuels in the transportation sector entirely by 2030. Today, there are nearly 50,000 natural gas vehicles (NGVs) on the road in Sweden that run on natural gas, enabling the rapid development of Bio-NGVs as a fuel source.

In Sweden, Air Liquide has supplied its gas liquification technologies to one of the world's largest biogas production plants. This acquisition will allow the Group to better understand the new consumer usages of sustainable mobility, today through the distribution of Bio-NGVs and tomorrow through the distribution of hydrogen energy.

Air Liquide also works on solutions for the valorization of biogas using a process that extracts methane from biogas, via a patented gas separation technology that uses membranes designed and manufactured by the Group. Air Liquide is the global leader in the biogas purification market, with a capacity of 100,000 m<sup>3</sup> per hour and more than 10 years' experience in this sector. The Group continued to roll out its offer in 2014. Air Liquide now has more than 35 customers in this market.

## START OF A HYDROGEN FILLING STATION INFRASTRUCTURE

The Air Liquide Group actively contributes to the development of the **hydrogen energy sector on a global scale**, in particular through initiatives aimed at deploying hydrogen filling stations in Europe, the United States and Asia. The Group has already developed and supplied more than 60 hydrogen stations worldwide. The first filling station for the general public was opened in 2012 in Düsseldorf, Germany. The stations developed by Air Liquide allow Fuel Cell Electric Vehicles (FCEVs) to fill up in less than five minutes, and FCEVs themselves offer an autonomy that can reach up to 500 kilometers in range.

2014 marked an **acceleration in the development of hydrogen as an energy carrier** and the **roll-out of a hydrogen filling station infrastructure**.

In **Europe**, Air Liquide installed four new hydrogen filling stations in **Denmark**, as part of the Copenhagen Hydrogen Network, supported by the European Commission. These four filling stations – two in Copenhagen, one in Aalborg and one in Vejle – complement two stations already in service, located in Copenhagen and in Holstebro. This development is a significant step in the creation of a **distribution network at national level**.

In **the Netherlands**, Air Liquide inaugurated its first hydrogen filling station in **Rotterdam**. This filling station is part of the European hydrogen infrastructure roll-out project *Hydrogen Infrastructure for Transport* supported by Air Liquide and six other European partners.

In **France**, Air Liquide won the tender launched by the Conseil Général de la Manche to supply and install a hydrogen filling station in **Saint-Lô**. Installing this new station constitutes the first step in the process of rolling out an infrastructure for hydrogen distribution in France. In **Germany**, Air Liquide is also involved in the *H<sub>2</sub> Mobility initiative*, which aims at rolling out around 100 hydrogen filling stations throughout the country by 2017.

## Innovation

In **Japan**, Air Liquide has started, in partnership with Toyota Tsusho Corporation, the construction of two hydrogen filling stations in the **Aichi** area (Atsuta in Nagoya and Fukada in Toyota city). Japan aims to install 100 hydrogen filling stations by the end of 2015 in four major cities (Tokyo, Nagoya, Osaka and Fukuoka) and alongside the highways connecting them.

In **China**, Air Liquide was the exclusive partner for hydrogen solutions in the "2014 Innovation March" organized by SAIC Motor Corp. to promote new energy vehicles. Starting in Shanghai and ending in Kunming (Yunnan), the 52-day long roadshow crossed China from north to south, and east to west, passing through 64 cities in 15 provinces. During the tour, Air Liquide provided a standard mobile hydrogen filling station that helped set a record in China: 10,000 km were driven by three cars fueled by hydrogen supplied by Air Liquide.

In the **United States**, Air Liquide is developing a network of new hydrogen filling stations, in collaboration with Toyota Motor Sales USA, Inc. (Toyota). This project is part of the US sales launch of the constructor's new hydrogen fuel cell electric vehicle, the "Mirai". Air Liquide's hydrogen fueling infrastructure in the northeast United States will initially consist of 12 filling stations across a number of states.

Hydrogen helps protect the environment, by responding to the challenges posed by sustainable transport: reducing greenhouse gas emissions and local pollution in urban areas. The creation of a distribution network is one of the major challenges in the commercial roll-out of hydrogen fuel cell electric vehicles.

**THE BLUE HYDROGEN® INITIATIVE**

Blue Hydrogen is an Air Liquide initiative that aims to gradually lower the carbon content of its hydrogen production dedicated to energy applications. 95% of the hydrogen that the Group produces is currently from natural gas. Air Liquide is committing to increasing, by 2020, the percentage of hydrogen produced for these applications from carbon-free processes, i.e. sources that emit no CO<sub>2</sub>. The Group's objective is to produce at least 50% of the hydrogen required by hydrogen energy applications from carbon-free energy sources, by combining:

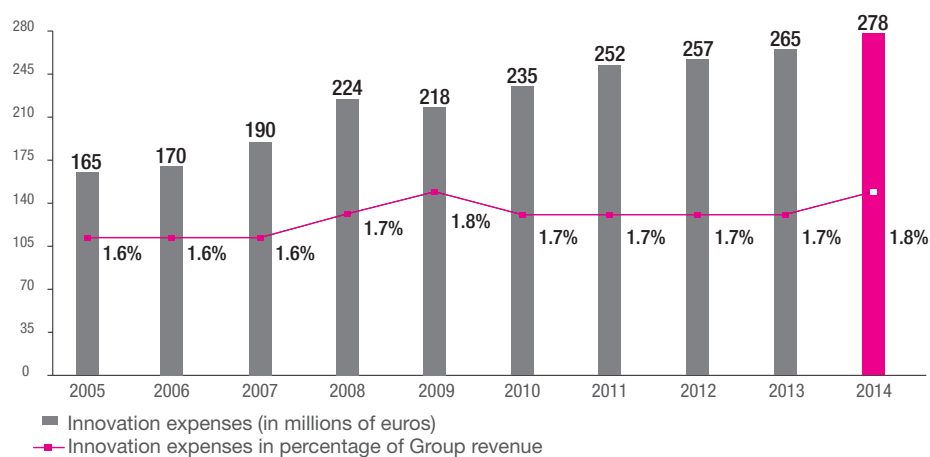
- the reforming of biogas;
- the use of renewable energies in water electrolysis;
- the technologies to capture and re-use carbon from the CO<sub>2</sub> emitted during the production of hydrogen from natural gas.

## INNOVATION INDICATORS CONCERNING THE GROUP AS A WHOLE

	At December 31, 2014
Number of employees working in entities contributing to innovation	6,200
Number of researchers	1,100 researchers with 35 nationalities
Number of R&D sites	9
R&D industrial partners	100
R&D scientific partners (academic and technology institutes)	100
Number of advanced Business & Technologies employees	1,100 employees
Number of countries where aB&T is present	9
Number of Engineering & Construction employees	3,600
Engineering centers	15
Number of employees in other entities contributing to innovation	400

	2010	2011	2012	2013	2014
Innovation expenses (in millions of euros)	235	252	257	265	278
Group revenue (in millions of euros)	13,488	14,457	15,326	15,225	15,358
Innovation expenses as a % of revenue	1.7%	1.7%	1.7%	1.7%	1.8%

## Innovation expenses



Patents	2010	2011	2012	2013	2014
Number of patented inventions	2,830	3,109	3,215	3,288	3,369
New patent applications filed during the year	301	332	316	321	287
Percentage of new patents protecting the core business (within the portfolio) <sup>(a)</sup>	46%	46%	47%	54%	59%

(a) Gas production and separation technologies, and Healthcare activity.

## ➤ STRATEGY AND OUTLOOK

### Strategy

For many years, Air Liquide's growth strategy has been founded on creating long-term value. To do so, the Group relies on its operational competitiveness, its targeted investments in growth markets and innovation to open new markets and create new opportunities.

The Group is committed to delivering a regular and sustainable performance for its shareholders and maintaining its strong dividend pay-out policy year after year. This long-term performance is based on continuous growth of the industrial gases market worldwide, a solid business model and a managerial culture founded on consistent performance.

#### COMPOUND ANNUAL GROWTH RATE (CAGR) OVER 30 YEARS

- Revenue: +5.6%
- Cash flow from operating activities before changes in working capital: +6.9%
- Net profit: +8.3%
- Earnings per share <sup>(a)</sup>: +7.7%
- Dividend per share <sup>(a) (b)</sup>: +9.3%

(a) Adjusted for previous two-for-one share splits and free share attributions.

(b) Subject to the approval of the Shareholders' Meeting on May 6, 2015.

The industrial gases industry has enjoyed steady growth over the last 100 years due to the ever increasing needs of new and growing economies, the emergence of new applications supported by innovation and technological research, and increased customer outsourcing of gas production. The demand for industrial gas has therefore historically risen faster than industrial production.

The growth rates during the rebound from the 2008-2009 financial crisis varied greatly between advanced and developing economies. The gap between the growth rates in these economies has varied from 9 points in 2005 to 18 points in 2010 and is now below 5 points.

Against this backdrop, the Group's strategic approach has shifted from a geographical viewpoint, where industrial growth came mainly from increased capacity in developing economies, to **a market viewpoint**, where each country aims to attract new investments in growth sectors.

As a result of this new approach, the Group has outlined three major trends which shape its markets.

#### THREE MAJOR TRENDS, SOURCES OF GROWTH

##### Industry globalization and resource constraints

Countries, industrial basins and companies all compete on a global scale. They are constrained by the availability of resources (energy, raw materials, expertise and human resources) and are required to adapt to market demand.

This major trend is due to three main factors:

- A need for industrial customers to globalize and modernize their production facilities, which is leading to an increase in outsourcing (mainly in developing economies) and in the intensity with which industrial gases are used in industrial processes;
- A decorrelation in energy prices in different parts of the world which is leading to a wave of re-industrialization in certain countries, such as the United States with the exploitation of shale gas;
- A general willingness of countries and companies for energy independence or enhanced competitiveness, which leads to the use of local energy resources, such as coal in China. These new

energy conversion projects, to transform coal and natural gas, are appearing in both advanced and developing economies and represent significant opportunities for the Group.

Thus, new industrial investments are more evenly divided between developing economies and advanced economies, reflecting industrial globalization. In the latter, these investments are mainly in networks based in large traditional industrial basins (the Gulf Coast and Northern Europe). The Large Industries and Industrial Merchant business lines are at the heart of this major trend.

The Group has an extremely wide portfolio of technologies at hand which allows it to provide its customers with different industrial gas production processes (air separation units, steam reforming, gasification, etc.). Combined with the project implementation capacities of the Engineering & Construction activity, operational excellence and Group presence in more than 60% of the major industrial basins, these technologies allow the Large Industries business line to capture future market growth through its classic Over the Fence (OTF) business model (customer outsourcing).

The Group also owns technologies for industrial gas separation (e.g. membranes), purification (e.g. Rectisol) and transformation (e.g. methanol, Fischer Tropsch, MTP, etc.). These technologies can be offered to customers via the sale of licenses, services or proprietary equipment.

The Industrial Merchant business line also benefits from this major trend through the sale of nitrogen and carbon dioxide for oil extraction activities. Their use minimizes the environmental impact, in particular water and chemical solvent consumption.

More generally, the development of manufacturing industries driven by this re-industrialization is a source of growth for the Industrial Merchant activity.

## Evolving consumption and demography

Urbanization, the growth in middle classes, increasing demand for mobility and communication, climate-change concerns, the increasing importance of health and well-being, longer life expectancy and more chronic diseases are all factors in the Group's development.

Each country's healthcare spending is strongly correlated to the maturity of their health system. There are three main stages of evolution:

- The development of hospital infrastructure aimed at treating acute diseases, such as in China;
- Then the development of home healthcare aimed at treating chronic diseases, currently underway for example in Brazil;

- Finally, the development of prevention and well-being while, at the same time, containing healthcare spending, where Germany and the United States are today.

Air Liquide provides solutions for patient needs throughout the healthcare system. The Group's strategy is to target both regions and markets.

In the domain of acute disease management, Air Liquide has continued its growth by structuring a dedicated health activity in China, Taiwan, Chile, Egypt and Russia over the past three years. At the same time, the Group is constantly renewing its offering with innovative products, such as its new oxygen cylinder for the Takeo™ hospitals.

In the home healthcare sector, the Group continued its acquisitions in 2014 in France to strengthen its position as European leader. Its offering is also backed by innovative solutions aimed at improving the quality of life of patients with diabetes or Parkinson's disease.

Finally, in prevention and healthcare cost management, Air Liquide provides innovative solutions such as remote observation, as well as hygiene products and specialty ingredients used in the pharmaceuticals and cosmetics markets.

The Industrial Merchant activity also benefits from these changes in consumption and demography. To offset the scarcity of natural resources and the increase in pollution, industry and urban areas are looking for environmentally friendly long-term solutions. Industrial gas solutions exist for water treatment, waste management, recycling, the design of low-energy consumption infrastructures and connectivity.

For many years, the Industrial Merchant activity has been helping its customers to improve their productivity and the quality of their products, optimize their procedures and make more efficient use of resources. This includes launching new reliable, simple and cost-effective offers to meet the needs of the manufacturing industry, such as welding or oxy-combustion for recycling aluminum.

Finally, population growth, changes in lifestyles and the emergence of middle classes in developing economies increase demand for industrial gases in sectors such as food, pharmaceuticals, technology and research, etc. For example, Air Liquide is currently developing certified pure CO<sub>2</sub> for fizzy drinks and is installing new production facilities.

The Group has the necessary strengths to transform these opportunities into future growth thanks to its renowned expertise in numerous industrial gas applications and customer processes, its global and local presence in more than 80 countries and its efficiency programs.



## An appetite for innovation

The third major trend is based on an appetite for innovation among individuals, but also companies and society as a whole.

The significant development in the high technology market is driven by numerous consumer product innovations and, more generally, by the increasing complexity of our industries. Hence, demand for high purity industrial gases has risen substantially to meet the needs of semiconductor, flat panel or solar panel manufacturers, particularly in Asia.

Increased needs in mobile telecommunications and power, coupled with a decrease in the energy consumption of new equipment, drives innovation. These needs require new precursor molecules, or precursors, to develop increasingly sophisticated chips. The Group has specifically reinforced its offering in this field of designer molecules offering high value-added for customers through the acquisition of Voltaix, which strengthens its existing ALOHA™ brand.

Scientific and technological innovations are generated by dedicated traditional structures, Research & Development, Engineering & Construction. Additionally, the Group has organized its innovation process to include an entrepreneurial dimension (advanced Business & Technology network), one of disruptive innovation (i-Lab) and strategic investment (ALIAD).

The Group continues to develop in fields with strong growth prospects, such as hydrogen as a clean energy carrier, as demonstrated by the development of captive fleets. Converting one percent of the global autos fleet to hydrogen would represent a worldwide market of 15 billion euros.

Air Liquide is extremely well placed to benefit from the growth opportunities generated by these three major trends.

## A SOLID BUSINESS MODEL

The Large Industries activity, which benefits from long-term contracts with take-or-pay clauses, and the Healthcare activity, which is enjoying steady growth independently of the economic cycle, provide security. They now account for over half of Gas & Services revenue. In addition, through its four World Business Lines, the Group serves a wide range of customers and industries, with an extensive regional diversity and a growing market share in developing economies, another guarantee of solidity.

Air Liquide confirmed the resilience of its business model in 2009. In an economic crisis of exceptional scale, Air Liquide, the global sector leader, reported a slight decline in sales and stable net profit.

In 2014, in a mixed environment, Air Liquide again relied on the solidity of its model to improve its performance. The Group's indebtedness is stable. The balance sheet strength facilitates the financing of its development projects and acquisitions in all business lines. Each of these characteristics represents an asset that supports the Group's long-term growth.

## PERFORMANCE AND RESPONSIBILITY

The search for economic performance and the attention paid to society's major issues, notably the protection of the environment, are closely linked. Companies are no longer evaluated on their financial performance alone. They are also judged on their commitment to and efforts in terms of Responsibility. The Group has confirmed its ambition to be the leader in its industry, by demonstrating its long-term performance and behaving responsibly. The Group thus creates a **virtuous dynamic where Responsibility is an integral part of Performance.**

### Performance

The Group's 2010 sales growth targets were based on estimated growth in the industrial gases market of between +7% and +8% per year between 2010 and 2015. The global economic recovery having been slower than expected, these estimates have been updated in 2013. The new forecasts expect market growth of between +4% and +5% annually between 2010 and 2015. As a result, Air Liquide's average annual sales growth target, which had been +8% to +10% in a normal context, was rephrased at the end of 2013 as revenue growth relative to the market of +1% to +2%.

The initial 12 billion euros investment budget for the 2011-2015 period has been confirmed and net capital expenditure between 2011 and 2014 is in line at 8.9 billion euros.

The operational efficiencies target, initially set at more than 200 million euros per annum for the five-year period, has been increased by 30% to a total target of 1.3 billion euros for the 2010-2015 period.

For the fourth consecutive year, efficiency strongly exceeded the annual target and reached 321 million euros in 2014. This brings cumulated efficiency to 1,178 million euros for the 2011-2014 period.

Finally, the initial ROCE target of 12-13% is now between 11% and 13% by 2015, taking into account the longer investment cycle.



The 2014 ROCE stood at 10.8%, or 11.1% without currency impact, within the revised target range against a backdrop of moderate and greatly contrasting economic recovery.

## Responsibility

As an integral part of Air Liquide's strategy, Responsibility creates new opportunities and constitutes a sustainable performance driver while at the same time providing solutions that respond to society's major issues.

## Outlook

In a mixed environment that was also marked by rapid changes in exchange rates and the oil price, the Group achieved a solid 2014 performance, in sales, operating margin and cash flow.

Revenue growth in 2014 was primarily driven by strong momentum in the Americas, Asia-Pacific and the developing economies, and by robust Electronics activity. In Europe, performance remains contrasted, albeit with a slight improvement in the fourth quarter. Overall, on a comparable basis, all of our Gas & Services and Engineering & Technology businesses reported growth in the fourth quarter, as well as for the year as a whole.

At end-2013, the Group confirmed its ambition to be the leader in its industry, delivering long-term performance and acting responsibly. The objective of embedding Responsibility in the way we act and manage our operations and initiatives represents another step in ensuring that Responsibility is at the heart of the way the Group runs its operations and initiatives, to ensure that the Group fulfills its ambition.

This Responsibility approach is widely adopted within the Group and is presented in Chapter 2 of this document.

In 2014, the Group continued to improve its competitiveness, in particular through successful cost adjustments and substantial efficiency gains, which contributed to our increased operating margin.

The strength of the balance sheet, the investment backlog at 2.8 billion euros, and the new contracts signed will contribute to growth in the next few years, as will the initiatives underway designed to accelerate innovation.

Assuming a comparable economic environment, Air Liquide is confident in its ability to deliver another year of net profit growth in 2015.





# 2

## 2014 CORPORATE SOCIAL RESPONSIBILITY AND SUSTAINABLE DEVELOPMENT REPORT

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## ➤ INTRODUCTION

The Group's ambition is to be the **leader in its industry, delivering its long-term performance and acting responsibly. Corporate Social Responsibility is therefore a key company objective.** It is how Air Liquide acts and works with its **stakeholders**, shareholders, employees, customers and patients, suppliers, local communities and public authorities.

Today, Air Liquide's Corporate Social Responsibility approach is made-up of **three important areas**:

- **serve our customers and patients, and contribute to society at large;**
- **develop our people and run our operations;**
- **build relationships with our shareholders and all other stakeholders.**

The 2014 Corporate Social Responsibility and Sustainable Development Report attests to this ambition. It is based on many indicators which demonstrate the Group's contribution to its customers' performance and its patients' quality of life, the relationships of trust with its shareholders and partners, the

commitment of its teams, and the high standards of its industrial operations.

This report is divided into **two sections**.

The **first section** presents the **key indicators** and **highlights** of 2014 for the three areas on which Air Liquide bases its approach to Corporate Social Responsibility.

The **second section** includes **all of the Group's Key Responsibility Indicators**. These indicators are put into three categories: the **Environment, Social and Societal** aspects, **Governance and customers**. This categorization is often referred to as **ESG**.

Just like financial reporting, this **extra-financial reporting** has been reviewed each year since 2003 by an independent verifier belonging to the network of one of the Statutory Auditors. They analyze and verify a selection of indicators not only at the Corporate level but also at industrial sites and within the Human Resources departments of the subsidiaries. This year, 17 sites and departments were audited. Since 2003, 109 sites and departments have been verified.

## ➤ 2014 PERFORMANCE REPORT: HIGHLIGHTS AND KEY INDICATORS

Air Liquide's Corporate Social Responsibility and Sustainable Development approach is divided into **three areas**:

- serve our customers and patients, and contribute to society at large;
- develop our people and run our operations;
- build relationships with our shareholders and all other stakeholders.

For each of these areas, the 2014 performance is illustrated by one or more **Key Responsibility Indicators**.

In 2014 Air Liquide launched a new approach to prioritizing its CSR <sup>(a)</sup> objectives. Known as **Materiality Analysis**, this will contribute to define the Group's objectives and Key Responsibility Indicators beyond 2015.

### 1. Serve our customers and patients, and contribute to society at large

This involves **contributing to the health of our patients and to the environment of our customers**, primarily through **innovation** and **service**. It also requires us to engage with the **communities** in which we operate, particularly through the **Air Liquide Foundation**.

#### 1.1. Satisfying our customers and patients

As part of Air Liquide's Corporate Social Responsibility and Sustainable Development approach, customer and patient satisfaction is a priority for the Group. Air Liquide carries out surveys to measure customer and patient satisfaction, and establishes action plans to continuously improve satisfaction levels.

##### KEY INDICATOR

Percentage of Group sales related to entities where a customer or patient satisfaction survey has been carried out in the last two years.

##### 2015 OBJECTIVE

**Increase customer satisfaction and loyalty as well as patient satisfaction.** By 2015, customer and patient surveys and related action plans will cover entities accounting for **85% of the Group's sales**.

##### 2014 PERFORMANCE

In 2014, the percentage of Group sales related to entities where a customer or patient satisfaction survey has been conducted and a related action plan implemented was 80% compared to 76% in 2013. This increase is in line with the target of 85% of Group sales to be covered by a satisfaction survey in 2015.

(a) Corporate Social Responsibility.

## 1.2. Protecting our patients' lives and the environment for our customers

The Group is developing **solutions to protect its patients' lives and its customers' environment**. More than 40 industrial gas applications allow our customers to improve their environmental footprint and reduce their own CO<sub>2</sub> emissions.

### KEY INDICATOR

Percentage of Group revenue related to life and the environment.

### PERFORMANCE

In 2013, **45%** <sup>(a)</sup> of Group revenue was related to life and the environment. The percentage of Air Liquide's revenue related to life and the environment increased sharply **between 2005 and 2013, going from 33% to 45%** of the Group's total revenue. This increase demonstrates Air Liquide's commitment to developing applications related to protecting life and the environment as an integral part of its activities.

The Group is also committed to allocating a substantial portion of its innovation expenditure to **improving customer processes and the quality of patient lives**.

### KEY INDICATOR

Percentage of Group innovation expenditure linked to life and the environment.

### 2014 PERFORMANCE

In 2014, **almost 60%** of the Group's innovation expenditure was allocated to efforts to protect life and the environment.

## 1.3. Social and human commitment

**Social and human commitment** is an ongoing concern for Air Liquide. The Group undertakes philanthropic initiatives that focus in particular on protecting life and the environment and developing local **communities**. These initiatives are either carried out directly by Group subsidiaries or by the **Air Liquide Foundation**.

### KEY INDICATOR

Number of countries having carried out at least one philanthropic project directly or through the Air Liquide Foundation, from 2011 and 2015.

### 2015 OBJECTIVE

Put the expertise of the Group's **teams at the service of communities by carrying out at least one philanthropic project per country by 2015**. Within this framework, the Group commits to supporting, over the long term, the Air Liquide Foundation so that it can help reach this objective through the projects.

### 2014 PERFORMANCE

In 2014, Air Liquide supported **projects in six new countries** through its subsidiaries and its Foundation, **which brings the total number of countries in which a corporate philanthropy project has been carried out since 2011 to 43**, compared to 37 countries in 2013. The Air Liquide Foundation's philanthropy activity is therefore gradually being expanded to all countries where the Group operates.

(a) 2013 data. 2014 data will be available mid-2015.

## 2. Develop our people and run our operations

This involves making sure our employees are safe and developing their expertise and commitment, in line with the Group's ethical principles. It is also involves optimizing our management of **natural resources and the environmental impact of our activities**.

### 2.1. Employees

When it comes to our employees, our first concern is their **safety** and working conditions. The Group is committed to **developing employee talent** and promoting **diversity** within the company.

#### KEY INDICATORS RELATED TO EMPLOYEE SAFETY

##### KEY INDICATORS RELATED TO SAFETY

- Number of lost-time accidents of Group employees
- Frequency rate of lost-time accidents of Group employees
- Number of accidents of subcontractors and temporary workers

##### 2015 OBJECTIVE

Continue to improve the safety of employees with a goal of reducing each year the frequency rate of lost-time accidents.

##### 2014 PERFORMANCE

In 2014, the number of lost-time accidents of Group employees was 144, compared with 151 in 2013. The employee accident frequency rate was 1.56 compared to 1.62 in 2013, and continues to reduce. This improvement is in line with the Group's goal to reduce the frequency of lost-time accidents of Group employees rate every year. Furthermore, there were no fatal accidents involving Group employees in 2014.

In 2014, the number of lost-time accidents of subcontractors and temporary workers was 92, compared to 110 in 2013.

#### KEY INDICATORS RELATED TO EMPLOYEE DEVELOPMENT AND DIVERSITY

##### "OUR TALENTS" KEY INDICATOR

This "Our Talents" Index Key Indicator measures the progress of the development, diversity and commitment of the Group's employees.

##### 2015 OBJECTIVE

**Ensure employee development, diversity and commitment** by raising the "Our Talents" Index from 100 in 2010 to 115 by 2015.

The objective is to encourage the organization to set up progress actions in these areas. The index is calculated based on a baseline of 100 in 2010.

##### 2014 PERFORMANCE

The value of the "Our Talents" index remained stable between 2013 and 2014 at 107.

#### KEY INDICATORS RELATED TO EMPLOYEE DEVELOPMENT AND DIVERSITY

- Percentage of women among Managers and Professionals
- Number of training days per person, per year

##### 2014 PERFORMANCE

In 2014, the percentage of women Managers and Professionals increased from 27% in 2013 to 28%. This means that for the first time, the percentage of women Managers and Professionals is higher than the overall percentage of women in the Group (27%). It also illustrates the good representation of women in Air Liquide's management – the result of the long-term policy to hire and promote women within the Group.

In 2014, the number of training days per employee, per year was 3.5 days, which was comparable to 2013.



## 2.2. Ethics

Ethics are also an integral part of the values that Air Liquide employees must respect. Subsidiaries implement a local Code of Conduct complying with 10 key concepts laid down by the Group. This approach combines respect for local practices and regulations with Air Liquide's ethical commitment.

### KEY INDICATOR

Percentage of employees belonging to an entity with a local Code of Conduct.

### 2014 PERFORMANCE

In 2014, the percentage of employees belonging to an entity with a local Code of Conduct was 94%, remaining stable from 2013. The 6% of employees who do not yet have a local Code of Conduct primarily concerns entities recently acquired by the Group and undergoing consolidation.

## 2.3. Conducting Group operations while protecting the environment

### ENERGY CONSUMPTION AND EFFICIENCY IN OUR PRODUCTION ACTIVITIES

Our Responsibility in this area mainly consists of **continuously improving the efficiency of the units producing and transporting the Group's products.**

### KEY INDICATORS

- Evolution of energy consumption for air separation units per m<sup>3</sup> of gas produced
- Evolution of energy consumption for hydrogen units per m<sup>3</sup> of gas produced
- Evolution of the distance traveled per ton of gas delivered (Industrial Merchant activity)

### 2015 OBJECTIVE

Improve by at least 2% from 2011 to 2015 the energy efficiency of the following activities: air separation units, hydrogen units, and product deliveries.

### 2014 PERFORMANCE

#### Efficiency of air separation units

Between 2013 and 2014, the energy consumption of air separation units per m<sup>3</sup> of gas produced increased slightly from an index of 99.0 <sup>(a)</sup> to 99.3.

#### Efficiency of hydrogen units

This efficiency continued to improve, going from an index of 97.9 <sup>(a)</sup> in 2013 to 97.5 in 2014, the highest efficiency ever observed by the Group for this type of unit. Since 2011, the efficiency of these units has improved by 1%.

#### Efficiency of industrial gas transportation

This efficiency has continued to improve from an index of 95.3 <sup>(a)</sup> in 2013 to 94.8 in 2014. Since 2011, this efficiency is up by 2.3%, exceeding the Group's goal of a 2% improvement between 2011 and 2015.

(a) 2007 base of 100.

## GROUP GREENHOUSE GAS EMISSIONS

### KEY INDICATORS

- Group direct greenhouse gas (GHG) emissions
- Group indirect GHG emissions
- Total (direct and indirect) Group GHG emissions
- GHG emissions by type of units: ASU, HyCO, Cogeneration, etc.

### 2014 PERFORMANCE

The Group's direct emissions fell from 11.8 million tons of CO<sub>2</sub> equivalent in 2013 to 11.6 million tons in 2014, i.e. a decrease of 2.4%. This resulted from a decrease in cogeneration emissions after the Group sold some of the units that was compensated for by an increase in emissions from the hydrogen units related to the development of sales of this molecule.

The Group's indirect emissions were up 15% from 9.9 million tons of CO<sub>2</sub> equivalent in 2013 to 11.4 million tons in 2014. This was primarily due to the commissioning of large air separation production units in China which use energy sources, namely electricity or steam, that have a higher carbon content than many other countries.

The Group's total emissions were up 5.6% from 21.8 million tons of CO<sub>2</sub> equivalent in 2013 to 23 million tons in 2014 as a result of the above-mentioned changes in direct and indirect emissions.

The breakdown of the Group's total emissions for 2014 is as follows:

- 48% for air separation units (42% in 2013);
- 31% for hydrogen units (32% in 2013);
- 18% for cogeneration (23% in 2013);
- 2% for transport (same as in 2013);
- 1% for small production units (same as in 2013).

The change in this breakdown between 2013 and 2014 basically reflects the above, namely more air separation units in China using higher carbon content energy and fewer cogeneration emissions related to disposals in this area.

## 3. Build relationships with our shareholders and all other stakeholders

This involves consolidating our relationships with **shareholders**, extending our Corporate Social Responsibility and Sustainable Development approach to our **suppliers**, and developing trust-based dialogue with **public authorities** in the countries in which the Group operates.

### 3.1. Shareholders

Shareholders have always played a key role and have loyally supported the Group for over a century. Air Liquide has established a relationship of trust with its shareholders by

associating them with its continuous growth and its successful business model through a strong and steady distribution policy maintained over time.

#### KEY INDICATORS

- Total Shareholder Return (TSR) <sup>(a)</sup>.
- Percentage of shareholders with shares held in registered form (total number of shareholders with registered shares/total number of shareholders).

#### OBJECTIVE

Continue over the long-term with a comprehensive shareholder remuneration policy to ensure regular growth of their investment, within a relationship based on performance and a local presence.

#### 2014 PERFORMANCE

At December 31, 2014, the Total Shareholder Return (TSR) was 11.9% per year over 20 years for a registered shareholder, compared to 10.8% in 2013.

At December 31, 2014, the percentage of shareholders with shares held in registered form was 55% compared to 51% in 2013.

### 3.2. Suppliers

Air Liquide's policy on **responsible procurement** is an integral part of the Group's approach to Corporate Social Responsibility and Sustainable Development. Air Liquide requires its suppliers' performance and behavior to be consistent with the Group's commitments, notably regarding social, environmental and ethics aspects.

#### KEY INDICATOR

Percentage of critical Air Liquide suppliers that have had a CSR <sup>(b)</sup> assessment by an independent consultant specializing in responsible procurement.

#### 2014 PERFORMANCE

The Group has identified those of its suppliers who may pose a social, environmental or ethical risk. **For the first time, a Key Responsibility Indicator has been set in the area of responsible procurement.** It calculates the percentage of critical Air Liquide suppliers who have been assessed on these issues.

At the end of 2014, 31% of suppliers had been assessed.

### 3.3. Public authorities

The Group's "Public Affairs" policy governs its interactions with public authorities throughout the world. It deals with reducing the risks related to regulatory changes, developing market opportunities and more generally bringing the Group into the public debate. In 2014, the Group's Public Affairs policy focused

on the following priorities: competitiveness at the European and worldwide levels, energy transition and the environment, innovation and intellectual property policy, as well as promotion of the Air Liquide shareholder model.

(a) TSR is an annualized return rate for a shareholder who buys shares at the beginning of a period and sells them at the end of the period. This calculation takes into account the change in the share price, dividends paid, including loyalty bonuses, considering that they are reinvested in shares, as well as free share attributions.

(b) Corporate Social Responsibility.

## ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) REPORT

### 1. Environment

The environmental elements most representative of the Group's activities and part of the Air Liquide Sustainable Development reporting are described below. They cover a total of **532** Air Liquide production units or sites and concern:

#### Large air separation units

Worldwide, **321 large air separation units** are included in the Group's Sustainable Development reporting. These units produce oxygen, nitrogen and argon, with some sites producing rare gases such as krypton and xenon.

These **factories "without chimneys"** do not use any combustion processes. **Since they discharge almost no CO<sub>2</sub>, sulfur oxide (SOx) or nitrogen oxide (NOx)**, they are particularly environmentally friendly. They use almost exclusively electrical energy: worldwide they use about 3,000 MW at any given moment. The electricity consumed by the air separation units is the source of the Group's indirect CO<sub>2</sub> emissions. The cooling systems of these units require back-up water.

#### Hydrogen and carbon monoxide units

Worldwide, **42 large hydrogen and carbon monoxide units** are included in the Group's Sustainable Development reporting. These units also produce steam for certain customers. They primarily use natural gas as a raw material and a certain amount of water required for the reaction that produces hydrogen. Carbon monoxide is an indispensable raw material in the chemical industry for producing plastics. The **desulfurization of hydrocarbons** to produce sulfur-free fuels is one of the main applications for hydrogen. These units emit CO<sub>2</sub> and nitrogen oxides (NOx) but produce practically no sulfur oxide (SOx). They also consume electricity and their cooling systems require back-up water.

In 2014, the Group decided to make **Corporate Social Responsibility criteria** – greenhouse gas emissions, water consumption, and relations with local communities – an **integral part of its decision-making process on major investments**, especially for large air separation units and hydrogen and carbon monoxide units.

#### Cogeneration units

Worldwide, **17 cogeneration units** are included in the Group's Sustainable Development reporting. These units produce steam and electricity simultaneously. They consume natural gas and water, most of which is converted into steam for customers. The steam can be condensed by these customers and then reused in the cogeneration unit. In most cases,

the electricity produced is supplied to the local electricity distribution network. In some countries this can be used to power the Group's other units. Combustion of natural gas produces CO<sub>2</sub> and leads to low nitrogen oxide (NOx) emissions and practically no sulfur oxide (SOx) emissions.

#### Acetylene units

Worldwide, **56 acetylene production units** are included in the Group's Sustainable Development reporting since acetylene is a gas used primarily in metal welding and cutting. In all, 54 of these units produce this gas through the decomposition of a solid (calcium carbide) using water. Two units fill cylinders with this gas, which is supplied by another industrial company. This process produces lime, at least 90% of which tends to be recycled in industrial and agricultural applications (see section on waste and by-products).

#### Nitrous oxide units

Worldwide, **seven acetylene nitrous oxide production units** are included in the Group's Sustainable Development reporting. Nitrous oxide is used primarily as an anesthetic gas in the healthcare sector and as a sweetening agent in the food industry. It is produced from ammonium nitrate in solid form or as a water-based solution.

#### Carbon dioxide liquifaction and purification units

Worldwide, **63 carbon dioxide liquifaction and purification units** are included in the Group's Sustainable Development reporting. Carbon dioxide has many industrial applications but is used mainly in the food industry to deep-freeze foods or to produce carbonated beverages.

Carbon dioxide is most often a by-product of chemical units operated by other manufacturers. In some cases, it is found naturally in underground deposits, while in others it comes from the Group's hydrogen and carbon monoxide units. It is purified and liquefied in Air Liquide units, which consume electricity and cooling water. In this way, carbon dioxide is reused for other industrial applications instead of being emitted into the atmosphere.

#### Units for the Hygiene and Specialty Ingredients activity

**Production units for the Hygiene and Specialty Ingredients activity** are located at **five sites** in France, Germany and China, and belong to the subsidiaries Schülke (Hygiene activity) and Seppic (Specialty Ingredients activity). Air Liquide experts work

## Environmental, Social and Governance (ESG) Report

closely with hospitals to help them reduce the risk of nosocomial infection and contamination through the products the Group has developed. These units consume natural gas, electricity and water. Combustion of natural gas produces small amounts of CO<sub>2</sub>.

- Engineering & Construction units

**Units for the Engineering & Construction activity** taken into account in this reporting are located at **four sites** in France, China and Japan. They are mainly units for the construction of air separation columns and cryogenic tanks. Lurgi, a Group subsidiary, has enabled the Group to have a portfolio of engineering technologies, in particular in production processes for hydrogen and syngas, biofuels (bioethanol, biodiesel) and

methanol. In addition, Lurgi is one of the world leaders in sulfur recovery processes.

- Welding production units

**Units for the Welding activity** are mainly located at **11 sites** around the world. They are welding equipment assembly units (electric welding units, torches, regulators) or welding consumables (electrodes, solid and flux-cored welding wire) production units.

- Main Research & Development sites and Technical Centers

The **main Research & Development sites and Technical Centers** are located at **six** <sup>(a)</sup> **sites** in France, Germany, the United States, and Japan.

## 1.1. Energy consumption and efficiency in our production activities

### Energy and efficiency indicators for the Group as a whole

	2010	2011	2012	2013	2014
Annual electricity consumption (in GWh)	24,924	26,661	27,578	28,305	30,341*
Annual thermal energy consumption (in LHV terajoules) <sup>(a)</sup>	204,434	213,198	229,177	232,270	226,036* <sup>(b)</sup>
Evolution of energy consumption per m <sup>3</sup> of air gas produced <sup>(c) (d)</sup>	99.0	99.0	98.8	99.0	99.3*
Evolution of energy consumption per m <sup>3</sup> of hydrogen produced <sup>(c) (e)</sup>	98.3	98.5	98.4	97.9	97.5*

(a) LHV: Lower Heat Value, which includes the fact that energy from water vaporizing in fuel is not recovered.

(b) Approximately 62,800 GWh LHV.

(c) Calculated from base of 100 in 2007.

(d) Gases produced (oxygen, nitrogen, argon) calculated in m<sup>3</sup> of equivalent gaseous oxygen.

(e) Hydrogen and carbon monoxide.

\* Indicator verified by the independent verifier.

Created from an invention that considerably reduced the energy used to separate air gases, Air Liquide has always been concerned with minimizing its energy consumption and environmental footprint. **The Group has initiated an approach to continually minimize the environmental footprint of its activities and help improve that of its partners and customers.**

The objective of improving the energy efficiency of its air separation units and hydrogen units, and the efficiency of liquefied gas deliveries by at least 2% between 2011 and 2015 **corresponds to over 350,000 tons a year of direct and indirect CO<sub>2</sub> emissions avoided** <sup>(b)</sup>.

Through its Engineering & Construction activity, the Group designs its own production units. For example, it can adapt the design of these units to the customers' needs, technological developments and energy costs, thereby quickly and directly taking advantage of the improvement in these units' energy efficiency. Air Liquide has been operating air separation units and hydrogen units for many years. It benefits from a virtuous circle of steady improvement through **its control over the design and its operating experience of these units**. Whenever circumstances permit, old units are replaced by new ones that are more energy efficient.

(a) Excluding the Research Centers of the Hygiene and Specialty Ingredients lines.

(b) Estimate based on 2014 CO<sub>2</sub> emissions.

In addition, the Group builds **increasingly large units** that generally have **a better energy efficiency** through scale effects.

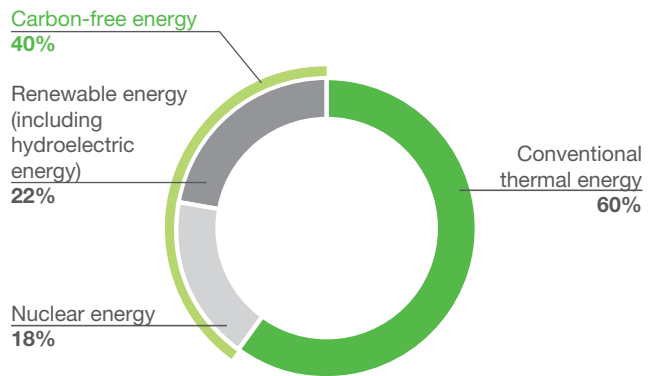
Air Liquide has also set up a program to **improve the reliability** of its units' operation. In addition to providing better service to customers, this has direct consequences for **energy efficiency**. Every shutdown and startup of these units creates an energy consumption sequence. Increasing reliability, i.e., reducing the number of excessive shutdowns, results in **more energy-efficient production units**.

Large units are often interconnected through a **pipeline network** supplying a customer industrial basin. This group of interlinked units creates operational synergy for both production and energy consumption. The steady development of the Group's oxygen, nitrogen and hydrogen pipeline networks clearly helps improve its energy efficiency. Lastly, **ever more efficient smart technologies** are being rolled out to centrally monitor and run the Group's large units so that **production can be adjusted to customer needs**. This initiative also contributes to improving energy efficiency.

**ORIGIN OF ELECTRICITY USED**

Taking into account the different natures of primary energy used to produce electricity in the countries where Air Liquide is present, it is possible to present a global breakdown of the origin of the electricity used by the Group worldwide.

**Origin of electricity used in 2014 <sup>(a)</sup>**



**TRANSPORTATION: INDUSTRIAL MERCHANT BUSINESS LINE**

	2010	2011	2012	2013	2014
Kilometers traveled by all vehicles delivering gas in liquid or cylinder form <i>(in millions of km)</i>	361	428	428	420	428*
Estimate of CO <sub>2</sub> emissions generated by these vehicles in the Industrial Merchant activity <i>(in thousands of tons)</i>	396	471	471	462	471*
<b>Evolution of the distance traveled per ton of industrial gas delivered (oxygen, nitrogen, argon, carbon dioxide) <sup>(a)</sup> <sup>(b)</sup> (truck delivery)</b>	<b>96.3</b>	<b>97.1</b>	<b>97.8</b>	<b>95.3</b>	<b>94.8*</b>
Estimate of truck transport kilometers avoided through on-site customer units <i>(in millions of km)</i>	-61	-70	-68	-72	-72
Estimate of CO <sub>2</sub> emissions avoided by these on-site units <i>(in thousands of tons)</i>	-66	-70	-68	-72	-72
Percentage of deliveries of air gases and hydrogen via pipeline or on-site	86%	86%	86%	86%	86%

<sup>(a)</sup> In kilometers per ton delivered for the Industrial Merchant activity.

<sup>(b)</sup> Calculated using a base of 100 in 2007.

\* Indicator verified by the independent verifier.

<sup>(a)</sup> Calculation takes into account the primary energy source that each country uses to produce electricity (source: International Energy Agency).

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In 2014, trucks delivering Air Liquide liquid gases or gas cylinders in the Industrial Merchant activity traveled **428 million kilometers** worldwide and emitted about **471,000 tons of CO<sub>2</sub>**. In addition, the Industrial Merchant activity has developed **software that optimizes truck deliveries** to reduce the number of kilometers

traveled per ton of gas delivered. In particular, the levels of the customers' stock delivered in liquid form are automatically measured and transmitted to Air Liquide's logistics teams. This data allows the optimal delivery frequencies and routes for resupplying these customers to be determined.

## TRANSPORTATION: HEALTHCARE BUSINESS LINE

	2012	2013	2014
<b>Transportation: Home Healthcare activity</b>			
Kilometers traveled (in millions of km)	141	161	149
Associated CO <sub>2</sub> emissions (in thousands of tons)	35	38	35
<b>Transportation: Medical Gases activity</b>			
Kilometers traveled (in millions of km)	20	26	26
Associated CO <sub>2</sub> emissions (in thousands of tons)	17	23	23
<b>TOTAL KILOMETERS TRAVELED: HEALTHCARE ACTIVITY</b> (in millions of km)	<b>161</b>	<b>187</b>	<b>175</b>
<b>TOTAL ASSOCIATED CO<sub>2</sub> EMISSIONS</b> (in thousands of tons)	<b>52</b>	<b>61</b>	<b>58</b>

In 2014, the total number of kilometers traveled for deliveries of gas cylinders for the Home Healthcare activity was **149 million**. The quantity of CO<sub>2</sub> emitted during these deliveries was **35,000 tons**<sup>(a)</sup>. The number of kilometers traveled for the delivery of medical gases to hospitals<sup>(a)</sup> amounted to **26 million**, which represented **23,000 tons of CO<sub>2</sub>** in 2014.

To reduce their environmental footprint, some subsidiaries in the Home Healthcare activity have introduced **training courses in energy-efficient driving**. These courses are aimed at technicians, nurses, and nutritionists at these subsidiaries to raise awareness of the objectives of environmentally friendly driving. They bring together **issues of mobility, safety, ecology and savings**.

## 1.2. Group greenhouse gas emissions and emissions avoided by the Group

## GROUP DIRECT AND INDIRECT GREENHOUSE GAS EMISSIONS

A company's greenhouse gas emissions are usually broken down into three "Scopes", depending on their origin:

■ **Scope 1** corresponds to **direct emissions** generated by all possible emission sources owned or controlled by Air Liquide. This scope covers the Group's production units as well as the transportation of products and equipment to customers and patients. More than 94% of direct emissions are related to the nature of the thermal energy used as a raw material by the Group's large hydrogen and carbon monoxide production units, and cogeneration units (for steam and electricity production). The vast majority of these units use natural gas<sup>(b)</sup>;

■ **Scope 2** corresponds to all **indirect emissions** related to the production of electricity or steam purchased outside the Group in the various countries where it operates. These emissions therefore have a close link with the nature of the electricity in the countries where Air Liquide is present;

■ **Scope 3** corresponds to **other indirect emissions** generated, for example, by Group employees traveling on business or home-office commuting.

Direct and indirect **Scope 1 and 2 emissions accounted for 99% of the Group's total emissions** in 2014.

(a) Extrapolated from the main countries of the Healthcare activity.

(b) Some hydrogen and carbon monoxide production units also use other raw materials such as naphtha (a liquid similar to gasoline that comes from the distillation of oil) and various gases produced by refineries.



Indicators concerning the emissions of the Group as a whole

	2010	2011	2012	2013	2014
Scope 1: Total direct greenhouse gas emissions (GHG) (in thousands of tons of CO <sub>2</sub> eq.) <sup>(a)</sup>	10,181	10,549	11,272	11,846	11,569*
Scope 2: Total indirect GHG emissions (in thousands of tons of CO <sub>2</sub> ) <sup>(b)</sup>	8,006	9,085	9,546	9,915	11,405*
<b>TOTAL DIRECT AND INDIRECT GHG EMISSIONS (in thousands of tons of CO<sub>2</sub> eq.)</b>	<b>18,187</b>	<b>19,634</b>	<b>20,818</b>	<b>21,761</b>	<b>22,974*</b>

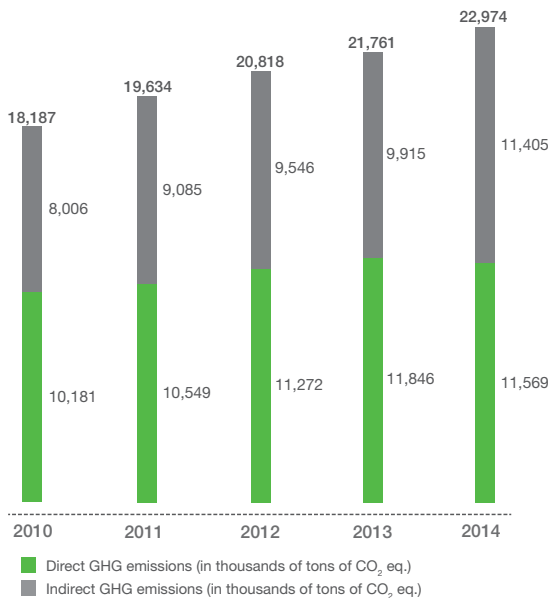
(a) Includes CO<sub>2</sub> emissions and nitrous oxide emissions.

(b) Total of indirect GHG emissions generated by the production of electricity purchased outside the Group. The indirect emissions only concern CO<sub>2</sub> emissions. Calculation takes into account the primary energy source that each country uses to produce electricity (source: International Energy Agency). In addition, in 2013 the Group redefined the calculation method for indirect emissions to take account of all the electricity produced by its cogeneration units.

\* Indicator verified by the independent verifier.

Direct “Scope 1” emissions and indirect “Scope 2” greenhouse gas emissions

(in thousands of ton of CO<sub>2</sub> eq.)

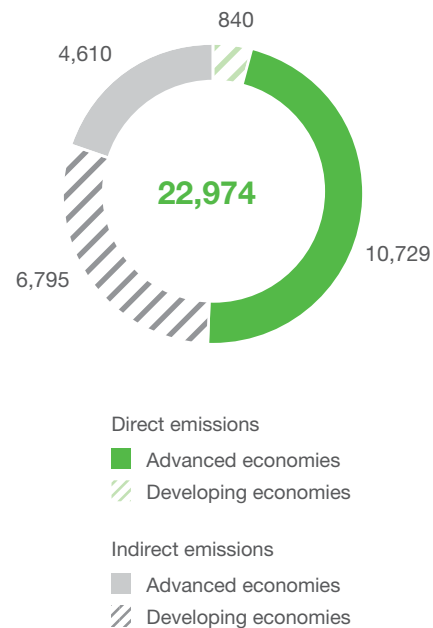


The Group’s direct emissions fell from 11.8 million tons of CO<sub>2</sub> equivalent in 2013 to 11.6 million tons in 2014, i.e. a decrease of 2.4%. This resulted from a decrease in cogeneration emissions after the Group sold some of the units, compensated for by an increase in emissions from the hydrogen units related to the development of sales of this molecule.

The Group’s indirect emissions were up 15% from 9.9 million tons of CO<sub>2</sub> equivalent in 2013 to 11.4 million tons in 2014. This was primarily due to the commissioning of large air separation production units in China which use higher carbon content energy sources, namely electricity or steam, than many other countries.

The Group’s total emissions were up 5.6% from 21.8 million tons of CO<sub>2</sub> equivalent in 2013 to 23 million tons in 2014 as a result of the above-mentioned changes in direct and indirect emissions.

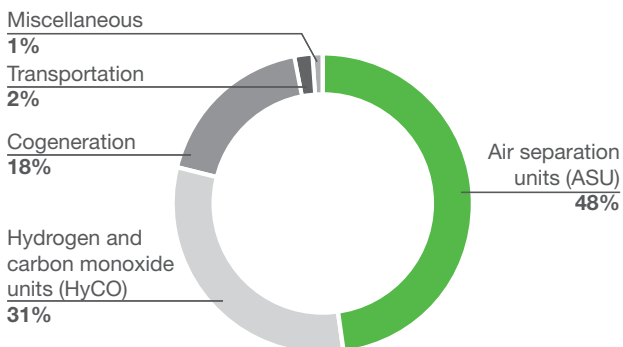
Breakdown of greenhouse gas emissions between advanced and developing economies



In order to distinguish between the differentiated growth dynamics of advanced economies and developing economies, Air Liquide has segmented its direct and indirect CO<sub>2</sub> emissions between these economies since 2010.



### Breakdown of direct and indirect greenhouse gas emissions



In this report, the advanced economies are defined in accordance with the financial reporting: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Great Britain, Greece, Italy, Japan, The Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United States. The developing economies refer to the other countries in which Air Liquide operates.

### Scope 3 emissions related to business travel

Business travel by plane, car or train is one of the main sources of Scope 3 CO<sub>2</sub> emissions. These were estimated at **82,000 tons of CO<sub>2</sub> in 2014 for all subsidiaries, which largely represents less than 1% of the Group's total emissions.** This estimate was done based on the European subsidiaries' emissions, representing 52% of the Group's employees. The total of Scope 3 emissions was then extrapolated by hypothesizing that emissions are the same in all countries where the Group operates.

Air Liquide endeavors each year to reduce the greenhouse gas emissions generated by its subsidiaries' activities, particularly those caused by business travel. In France, Air Liquide's goal is to decrease the CO<sub>2</sub> emissions generated by the fleet of cars leased for personnel. To reduce these emissions, the French subsidiaries decrease the CO<sub>2</sub> emission per kilometer level every year when selecting vehicles for lease. This level was 147 grams per kilometer in 2006 and was 109 grams in 2014, close to the target set by the Group of 105 grams of CO<sub>2</sub> per kilometer. With a fleet of over 4,200 vehicles each traveling an average of 40,000 kilometers per year, this policy made it possible to avoid the emission of nearly 25,000 tons of CO<sub>2</sub> between 2006 and 2014.

Furthermore, since 2012, a total of 28 teleconferencing or high-quality video rooms have been used in many regions where the Group operates. These teleconferencing rooms enable remote meetings by proposing each participant a presence similar to a physical meeting. They can also be used for meetings with customers, partners and investors. This technology therefore reduces the CO<sub>2</sub> emissions generated by employees' air

travel from around 1.5 ton of CO<sub>2</sub> per person present at the teleconferences.

### GHG EMISSIONS AVOIDED BY THE GROUP

#### Emissions avoided in our production operations

Energy efficiency has always been a key focus of the Group's World Business Lines and activities. Air Liquide constantly strives to **minimize the energy footprint, and therefore the carbon footprint of its products and services** through the combined effects of its technological solutions, the size of its production units, its co-production synergies, its experience of production-unit operation, and the development of its pipeline networks.

For example, the products and services that Air Liquide supplies to its customers consume less energy and **avoid more CO<sub>2</sub> emissions** than units that might be owned and operated directly by these customers, known as an "alternative reference system". The Group assesses the CO<sub>2</sub> emissions avoided using increasingly accurate methodologies that compare the efficiency of Air Liquide's production systems to the estimated efficiency of the alternative reference system. In total, Air Liquide estimates that compared to the alternative reference system, which is less optimized and less efficient, the efficiency of its own energy consumption across its entire Sustainable Development reporting scope avoids the emission of around **3 million tons of CO<sub>2</sub> per year.**

For example:

- **Large air gas separation units** produce oxygen, nitrogen and argon, and consume almost exclusively electrical energy or, in the case of some sites, steam. Because of their size and energy performance, together with co-production of these various products and Air Liquide's ability to supply several customers from such sites using pipeline networks, these units are around **15% more efficient on average than would be the case with separate production units** operated by customers. This represents more than **1.6 million tons in indirect CO<sub>2</sub> emissions avoided every year.**
- **Large hydrogen and carbon monoxide units** use mainly natural gas as a raw material. Because of their size, energy performance, joint production of carbon monoxide, a product used in the chemical industry, and hydrogen in the case of some units, as well as Air Liquide's ability to supply several customers from such sites using pipeline networks, these units are around **5% more efficient on average than would be the case with separate production units** operated by customers. This represents more than **0.3 million tons in direct CO<sub>2</sub> emissions avoided every year.**

- **Cogeneration units** produce steam and electricity from natural gas simultaneously. Cogeneration is a **more energy efficient technology when it comes to CO<sub>2</sub> emissions than technologies that produce electricity and steam separately**. These units therefore help reduce CO<sub>2</sub> emissions in the industrial basins they supply. In 2014, **the Group's cogeneration units avoided the direct emission of 792,000 tons of CO<sub>2</sub> into the atmosphere**, making them around **16% more efficient** than separate electricity and steam production units.
- Small nitrogen, oxygen and hydrogen units installed at customer facilities, known as **"on-site units"**, reduce truck deliveries, which are a source of CO<sub>2</sub> emissions. In 2014 these on-site units saved 72 million kilometers in truck deliveries, thus **avoiding 72,000 tons of CO<sub>2</sub> emissions**.

**Total CO<sub>2</sub> emissions avoided by using large air gas separation units, hydrogen units, cogeneration, and on-site units is around 3 million tons of CO<sub>2</sub> per year.**

### Emissions avoided at our customers' facilities through the supply of our products

In addition to these CO<sub>2</sub> emissions, avoided as a result of the energy performance of Air Liquide's production units, **many products and services supplied by the Group to its customers allow them to reduce their own CO<sub>2</sub> emissions and improve their own environmental footprint.**

For example, significant volumes of oxygen supplied by Air Liquide to the steel industry are used in two applications for which the use of oxygen significantly reduces CO<sub>2</sub> emissions:

- **oxygen injection in blast furnaces** reduces the consumption of coke, the production and use of which are very high in CO<sub>2</sub> emissions and pollutants, by partially replacing it with pulverized coal or natural gas;
- **the use of oxygen in electric furnace burners** can significantly reduce their electricity consumption.

Air Liquide estimates that **the use of oxygen for these two applications allows its customers to avoid around 10 million tons of CO<sub>2</sub> emissions per year.**

### GROUP GHG EMISSIONS THAT HELP PRODUCE MOLECULES TO PROTECT OUR PATIENTS' LIVES AND THE ENVIRONMENT AT OUR CUSTOMERS' SITES

It is also useful to analyze the Group's total CO<sub>2</sub> emissions by looking at them in relation to the end use of the products and services supplied by Air Liquide.

In particular:

- 5 million tons of CO<sub>2</sub> are emitted by the Group per year to produce hydrogen, which is needed to **desulfurize hydrocarbons for sulfur-free fuels**. In 2014, the hydrogen supplied by Air Liquide to refineries throughout the world **resulted in the avoidance of some 935,000 tons of sulfur oxide emissions** being discharged into the atmosphere, which is nearly four times as much as the total sulfur oxide emissions of a country like France.
- 4.1 million tons of CO<sub>2</sub> per year are emitted by the Group to produce electricity and steam production under cogeneration. **Cogeneration is a more energy-efficient technology with regard to CO<sub>2</sub> emissions than technologies that produce electricity and steam separately**. As noted above, in 2014, the Group's cogeneration units prevented 0.8 million tons of CO<sub>2</sub> emissions from being discharged into the atmosphere, which is roughly 16% more efficient than producing electricity and steam separately.
- 0.9 million tons of CO<sub>2</sub> indirect emissions per year are linked to production of oxygen for blast furnaces and electric furnaces, **significantly reducing the energy consumption of customer processes**. As noted above, we estimate that the use of oxygen in these applications avoided the emission of more than 10 million tons of CO<sub>2</sub> in 2014.
- 2.2 million tons of CO<sub>2</sub> per year are emitted in the production of **molecules used in more than 40 other applications to protect patients' lives and the environment at customers' sites**.

In total, therefore, **more than 12 million tons of CO<sub>2</sub> are emitted per year, or more than half the Group's total CO<sub>2</sub> emissions, resulting from the production of molecules that help protect the lives of our patients and the environment at our customers' sites.**

### 1.3. Environmental management

#### WATER MANAGEMENT

	2010	2011	2012	2013	2014
Annual water consumption (estimation in millions of m <sup>3</sup> )	66	67	66	68	70* <sup>(a)</sup>
Evolution of energy consumption per m <sup>3</sup> of air gas produced <sup>(b)</sup>	102	97.2	96.8	95.5	94.8* <sup>(c)</sup>

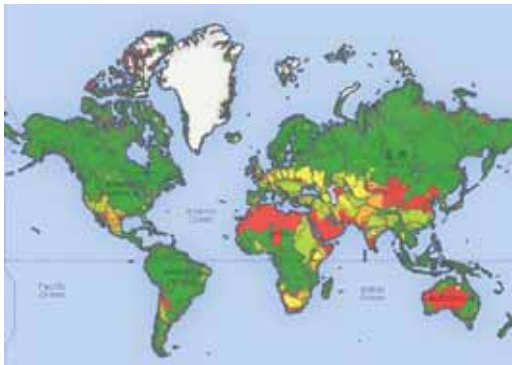
(a) Represents less than 0.5 one-thousandth of the industrial water consumption of the economies under review.

(b) Concerns the air gas separation units (ASUs), which account for approximately 60% of the water used by the Group.

(c) Calculated using a base of 100 in 2007.

\* Indicator verified by the independent verifier.

Fresh water that can be used for human activities represents less than 1% of the Earth's water. Its rational use is a subject of growing importance. According to the OECD, <sup>(a)</sup> the global demand for water is expected to increase by more than 50% by 2050. This increasing demand generates tensions both between countries for the control of supply sources and between activity sectors (agriculture, industry and domestic use). The water stress indicator, as defined by the World Business Council for Sustainable Development (WBCSD), locally measures the quantity of renewable water available in m<sup>3</sup> per person, per year. This data is used to identify areas at risk.



Of the 276 sites analyzed, 30 are located in water stressed areas (<500 m<sup>3</sup> per person, per year), **which represents about 5% of the annual water supply of Air Liquide's industrial sites.** More generally, about 100 of the 276 main industrial sites analyzed are located in a high or moderate water stress area <sup>(b)</sup> <sup>(c)</sup>.

**In 2014, Air Liquide used 70 million m<sup>3</sup> of water,** broken down as follows:

- approximately 60% by air separation units for cooling air after compression. 70% of this water is evaporated and 30% is treated on-site or by treatment plants in neighboring municipalities;
- approximately 40% in other industrial processes such as hydrogen production units and cogeneration units. Approximately 80% of the water used by these units is supplied and then consumed in the form of steam by Air Liquide's customers.

With regard to air separation units, there are several types of cooling systems. More than 85% of these units have semi-open recirculating systems which require back-up water. More than 10% of these units have open systems. In such cases, water comes from natural resources or third-party industrial circuits. It is discharged back into the original source, without causing pollution or changing the water's physical-chemical characteristics. Lastly, some 5% of these units have closed systems that consume no water.

Air Liquide assumes its responsibility as an industrialist, **while working on reducing the volumes used.** For example, several notable **action plans** have been implemented worldwide in 2014 in the Group's different activities:

- in Qatar, major investment has led to the recycling of 94% of cooling water from air separation units;

(a) Organization for Economic Co-operation and Development.

(b) An area is considered to be in a moderate water stress situation when the volume of renewable water is between 1,000 and 1,700 m<sup>3</sup> per person, per year, and in a high water stress situation when this volume is below 1,000 m<sup>3</sup>.

(c) Study conducted using the Global Water Tool developed by the World Business Council for Sustainable Development (WBCSD).

- in China, work carried out on two air separation units improved the quality of the water discharged from the cooling towers and reduced the annual amount of water required by 27%;
- in South Africa, two projects have helped reduce water consumption: water mains have been replaced with new above-ground pipes so leaks are detected immediately, as

well as cooling water from acetylene units now being recycled and filtered.

These examples are publicized on the Air Liquide internal information networks to help all subsidiaries make progress in this area.

**DISCHARGES INTO AIR AND WATER**

In addition to the main environmental indicators, there are other environmental indicators for the Group that are of lesser importance and relevance for Air Liquide’s business. Out of concern for transparency and exhaustiveness in reporting, Air Liquide presents below a table summarizing the atmospheric discharge of nitrogen oxide (NOx), sulfur oxide (SOx), and Volatile Organic Compounds (VOC), along with the discharge into water of oxidizable matter and suspended solids.

**Discharges into air and water**

	2010	2011	2012	2013	2014
Air discharge: NOx (nitrogen oxide) (in tons)	3,500	3,710	3,940	4,400	3,200
Air discharge: SOx (sulfur oxide) (in tons)	<300	<300	<300	<250	<250
Total volatile organic compounds (VOC) discharged into the atmosphere (estimate, in tons)	330	320	124	110	110
Total discharge into water: oxidizable matter (in tons)	<1,600	<1,700	<1,700	<1,000	<1,000
Total discharge into water: suspended solids (in tons)	<1,400	<1,500	<1,500	<1,500 <sup>(a)</sup>	<1,500

(a) The 2013 figure has been reviewed.



## WASTE AND BY-PRODUCTS

Although the amount of waste and by-products resulting from industrial and medical gas activities is low, Air Liquide nevertheless publishes estimated figures in this regard in the interests of exhaustive reporting. The main waste and by-products produced by the Group's production units are lime from the acetylene production units, metal waste, oils, paints and solvents. The average recycling ratio of waste <sup>(a)</sup> is over 90%.

### Waste and by-products

Waste and by-products	2010	2011	2012	2013	2014
<b>Non-hazardous waste and by-products</b>					
■ Annual quantity of lime produced (extracted dry equivalent) by the acetylene production units (in tons)	36,900	36,800	30,400	32,500	32,000
% recycled	>90%	>90%	>80%	>80%	>90%
■ Metal waste (in tons) <sup>(b)</sup>	9,200	8,200	9,300	9,800	9,000
% recycled	>99%	>99%	>99%	>99%	>99%
■ Oils (in tons)	750	750	825	800	600
% recycled	90%	84%	91%	88%	83% <sup>(c)</sup>
<b>TOTAL NON-HAZARDOUS WASTE AND BY-PRODUCTS</b> (estimate in tons)	<b>46,850</b>	<b>45,750</b>	<b>40,525</b>	<b>43,100</b>	<b>41,600</b>
<b>Hazardous waste</b>					
■ Paints and solvents (in tons)	200	150	101	150	100
% recycled	45%	54%	43%	63%	63% <sup>(d)</sup>
<b>TOTAL WASTE AND BY-PRODUCTS</b> (estimate in tons)	<b>47,050</b>	<b>45,900</b>	<b>40,626</b>	<b>43,250</b>	<b>41,700</b>

(a) Calculation is based on the weight of the waste.

(b) Non-hazardous metal waste.

(c) In addition, 15% is incinerated.

(d) In addition, 35% is incinerated.

## PRODUCT STEWARDSHIP AND REGULATIONS

Air Liquide has set up procedures to control its products' impact on the environment, health and safety, in particular for products like oxygen, hydrogen and the gases used in the Electronics activity. In practical terms, product stewardship is carried out by:

- identifying physical and chemical, toxicological or ecological dangers related to certain products;
- evaluating risks during different phases of production, transportation and storage from raw materials to finished products;
- implementing systems that guarantee customers' and patients' safety while handling products and incorporating them into the customers' industrial processes.

### European REACH regulation

REACH (Registration, Evaluation, Authorization and Restriction of Chemicals) is a European Union regulation (therefore directly applicable in the Union's Member States) that governs the registration, evaluation and authorization of chemical products produced in or imported into the European Union. Any chemical substance imported or manufactured in Europe of over one ton a year must be registered with the European chemicals agency ECHA. Each manufacturer or importer must have its own registration. The rule is part of the product stewardship approach developed by the chemicals industry.

The European REACH regulation went into effect on June 1, 2007, and registration and authorization procedures were spread over about 12 years for products already on the market.



Air Liquide's main products such as oxygen, nitrogen, hydrogen, CO<sub>2</sub>, helium and rare gases are excluded from the scope of REACH. Until now, four products (carbon monoxide, acetylene, methanol <sup>(a)</sup> and lime <sup>(b)</sup>) have been registered in compliance with the schedule established by this regulation. Nitrous oxide and a few specialty gases in the Electronics Business line, such as nitrogen trifluoride, were registered on June 1, 2013 for annual quantities of between 100 and 999 tons.

In addition, certain products in the Healthcare Specialty Ingredients activity fall under the REACH regulation, including many Seppic products stemming from plant-based raw materials. Depending on the annual tonnage manufactured, Seppic has already registered its main products and will register all products concerned by May 31, 2018 at the latest, in compliance with the REACH regulation.

Air Liquide must also make sure that the raw materials it uses are in compliance with the REACH regulation.

**In 2014, Group sales covered by REACH represented less than 3% of the Group's revenue.**

### Principal European directives and regulations applicable to Air Liquide in the environmental field

#### Seveso 2 Directive

This European directive focuses on preventing major industrial risks. It applies to any facility where hazardous substances exceed certain quantities. These facilities are divided into two categories according to the quantity of such substances: Seveso 2 "high threshold" and "low threshold". In Europe, 89 "low threshold" and 25 "high threshold" Air Liquide sites are covered, mainly because of their stocks of oxygen.

Seveso regulations apply only in Europe but if the Seveso "high threshold" criteria were to be applied worldwide, 27 other Group sites would be covered.

#### CO<sub>2</sub> emission quotas

Air Liquide is present in a number of regions that have implemented, or are in the process of implementing, a quota system for greenhouse gas emissions. Corporate teams and dedicated teams based in these regions monitor and assist with regulatory developments to ensure their operations are fully compliant with the objectives and obligations related to these

quota systems. Because of the energy efficiency of its production systems, Air Liquide naturally minimizes the energy footprint, and therefore the carbon footprint of its products and services.

In the **European Union**, the European directive ETS (Emission Trading Scheme) established a quota system for greenhouse gas emissions in 2005, in compliance with the Kyoto Protocol and EU targets on climate change. Following an initial phase from 2005 to 2007, and a second phase from 2008 to 2012, a third phase, covering the period from 2013 to 2020, has expanded the scope of industrial installations subject to the ETS. For Air Liquide, six cogeneration sites in Germany, France and the Netherlands, and all of the Group's large hydrogen product sites in Europe were affected by this directive in 2014. With regard to hydrogen production units, CO<sub>2</sub> emission quotas are mostly allocated for free, according to a benchmark set for the top performing European facilities. Air Liquide obtains CO<sub>2</sub> quotas from the market or its customers for emissions from hydrogen production sites not covered by the free allocations and for all emissions from the cogeneration sites.

In **California**, the AB32 (Assembly Bill 32) directive has established since January 2013 a CO<sub>2</sub> quota system for manufacturers, with the obligation to comply with a cap-and-trade program, and sets targets to reduce quotas gradually by 2020. This new regulation affects two of Air Liquide's hydrogen production sites in California.

A similar system is being implemented in **South Korea** effective January 2015, which will affect all of Air Liquide's air gas production and hydrogen and carbon monoxide units in Korea, with an allocation of free emission quotas based on historical emissions that will then be gradually reduced.

**China** has announced ambitious targets for reducing the carbon intensity of its economy by 2030. The Chinese government has launched in 2013 and 2014 pilot "ETS" programs in seven regions (the provinces of Guangdong and Hubei, and the cities of Beijing, Tianjin, Shanghai, Chongqing and Shenzhen). Air Liquide production sites in those regions (air gas and hydrogen units) are actively participating in the pilot programs. The Chinese government is expected to establish a national emissions trading scheme as of 2016, the terms of which have yet to be defined.

(a) Methanol is the raw material used to produce hydrogen at one of the Group's units.

(b) Lime is a by-product of the Acetylene business.





### A SPECIFIC EXAMPLE OF RESPONSIBLE PRODUCT MANAGEMENT: THE SPECIALTY INGREDIENTS ACTIVITY

A subsidiary of the Air Liquide Group, within the Healthcare Business Line, Seppic develops and markets a wide range of healthcare specialty ingredients – excipients and active ingredients – intended for the personal care, pharmaceutical and vaccine markets. These ingredients are increasingly being manufactured directly from plant-based raw materials. Seppic's strategy is based on the constant concern for minimizing its businesses' environmental impact.

- The principles of green chemistry are now an integral part of all new processes at Seppic that offer new ways of exploring the synthesis and extraction of plant-based raw materials. Seppic evaluates its products using a grid of environmental criteria based on “green chemistry” principles like the use of plant-based raw materials, solvent-free processes and the reduction of energy consumption. **“Green chemistry” is part of Seppic's Corporate Social Responsibility and Sustainable Development approach, driving innovation and growth.**
- **Seppic implements innovative tools such as eco-design, the Carbon Assessment and product life-cycle analysis (LCA).** Eco-design is an analytical method for creating new products with a low impact on the environment during their entire life cycle, but also for improving the manufacturing of existing products. In 2012, Seppic carried out, for the first time, a life-cycle analysis of an entirely bio-sourced emulsifier <sup>(a)</sup> used in cosmetics and pharmaceuticals. Since then, the comparative LCAs are also underway in order to assess the influence of the source of raw materials (petrochemical or bio-source surfactants), as well as the impact of the choice of various agricultural sectors (palm, canola, castor oil). The LCA consists of a detailed analysis of a product's environmental impacts from raw material extraction to its end use by the consumer.
- **Seppic was selected to experiment the Greenhouse Gas Management System (GHG-MS)** launched by the Association Bilan Carbone <sup>(b)</sup>. The GHG-MS is a solution that integrates management of greenhouse gas emissions into the company's global strategy and that drives low-carbon usage actions.
- **Seppic is committed to sustainable palm oil:** Seppic has been a member of the RSPO (Roundtable on Sustainable Palm Oil) since 2010 and favors the production of sustainable palm oil for its cosmetic active ingredient ranges through the GreenPalm program <sup>(c)</sup>.
- Produced in Castres in the south west of France, Montanov – a natural emulsifier used in the cosmetics market – generates sludge during production. The Seppic experts are studying the **recovery of this sludge by anaerobic digestion**, thus allowing production of biomethane that can be used in industry and saving sludge treatment costs.

In addition, quality, safety and the environment are a constant focus of the management of Seppic's industrial sites, which are fully certified by ISO 9001, ISO 14001 and OHSAS 18001 <sup>(d)</sup> international standards.

(a) Molecule that stabilizes an emulsion between an aqueous phase and a phase composed of lipids.

(b) The Association Bilan Carbone (ABC) has functioned as the supporting structure of the Bilan Carbone® since October 2011, and brings together stakeholders in the public and private sector in France and internationally. The ABC and its partners work to develop and promote operational and methodological solutions that provide for a reduction of greenhouse gas emissions to support the transition toward a low carbon society.

(c) GreenPalm is a certificate trading programme designed to support and promote production methods approved by the RSPO.

(d) International standards regarding the management of quality (ISO9001), the environment (ISO14001) and safety (OHSAS18001).

### ENVIRONMENTAL INCIDENTS AND CONSIDERATION OF RISKS RELATED TO CLIMATE CHANGE

An Air Liquide procedure, available to all Group employees, is an integral part of Air Liquide's Industrial Management System (IMS), defines environmental incidents based on three levels of severity. All incidents reported at Group level are subject to a systematic, in-depth analysis, depending on the nature of the incident, so that prevention measures can be stepped up. Environmental risks related to industrial processes and risks related to climate change are presented in the Risk factors section of the Reference document.

Most of the time, **environmental incidents** in the industrial and medical gases activities have a very low impact on the environment compared to the traditional chemicals industry. For example, in air gas production, any possible leak of these gases presents absolutely no danger for the atmosphere. Likewise, the water used in Air Liquide's processes is primarily used in cooling and steam production. The risk of possible pollution of the water used is therefore very low. In 2014, there were a total of 16 environmental incidents in the Group, mainly involving air gas and oil leaks.

**Climatic risks** are reviewed at both Group and site level. Weather-related and climatic disasters, water stress areas and the increased frequency of cyclones constitute a risk that could disrupt the smooth running of operations. Preventive measures

targeting extreme weather-related phenomena exist at the main sites located in high-risk areas.

The amount of financial provision and guarantees earmarked for environmental risks is 13 million euros.

**BIODIVERSITY**

The impact of Air Liquide’s activities on biodiversity is limited because the Group’s production units are generally located on small sites in industrial zones.

However, Air Liquide supports biodiversity preservation via its Foundation, which funds scientific research projects around the world in the field of environmental protection, focusing on projects contributing to preserve the planet atmosphere, and therefore biodiversity.

In recent years, the Foundation has sponsored the following:

- Under The Pole II expedition to Greenland. The Air Liquide Foundation is sponsoring an environmental research program in this polar environment aimed at evaluating the amount of CO<sub>2</sub> trapped deep in the ocean. True to its undertaking to safeguard the atmosphere, the Foundation is playing its part in protecting biodiversity in the Arctic world;
- the project led by the Center for Ecological Research and Forestry Applications, a Spanish public research institute, focusing notably on forest ecology. The Air Liquide Foundation is the Center’s study on changes in emissions of biogenic volatile organic compounds <sup>(a)</sup> generated by climate change and their influence on ecosystems and biodiversity;
- the project led by the French Institute of Research for Development (IRD), which studies the ability of mangroves to capture CO<sub>2</sub> emissions. For the third consecutive year in New-Caledonia and in Vietnam, the Air Liquide Foundation is helping to protect mangroves, which are a very rich sanctuary for biodiversity.

**2. Social and societal**

**2.1. Safety: the number one priority**

**Safety indicators for the Group as a whole**

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Number of Group employee lost-time accidents of at least one day <sup>(a)</sup>	131	153	147	137	131	153	144	149	151	144
Accident frequency of Group employees <sup>(b)</sup>	2.1	2.3	2.1	1.8	1.7	1.9	1.7	1.7	1.6	1.56*
Accident severity rate <sup>(c)</sup>							<0.1	<0.1	<0.1	<0.1
Number of accidents of subcontractors and temporary workers <sup>(d) (e)</sup>				154	148	155	118	142	110	92
Frequency of accidents of subcontractors and temporary workers <sup>(d)</sup>									2.2	2.3

(a) Fatal work accidents since 2010: none in 2014, three in 2013, one in 2012, one in 2011, one in 2010. Of these, one was a traffic accident in 2013.

(b) Number of accidents involving lost time of at least one day, per million hours worked by Group employees. Accidents defined following the recommendation of the International Labor Office.

(c) Average number of days of lost time per thousand hours worked. Accidents defined following the recommendation of the International Labor Office.

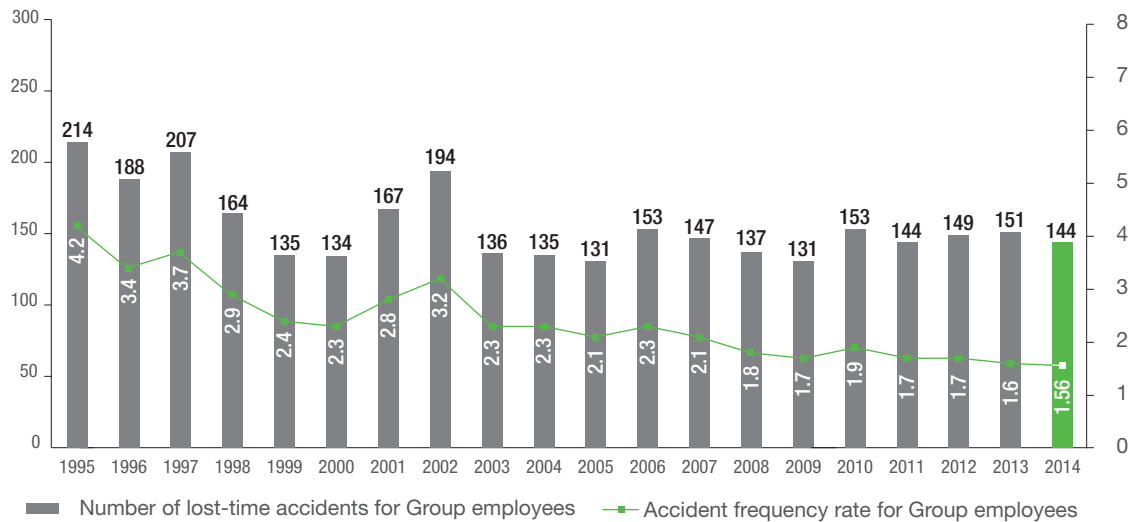
(d) Personnel working under an Air Liquide contract at a Group site, or at a customer site, or as a delivery vehicle driver.

(e) Fatal work accidents since 2010: one road accident in 2014, one road accident in 2013, three fatal work accidents in 2012 including a road accident, four fatal work accidents including three road accident in 2011, no fatal work accident in 2010.

\* Indicator verified by the independent verifier.

(a) Gas emitted by vegetation such as certain hydrocarbons.

## Number and frequency of lost-time accidents of Group employees since 1995



Safety remains a top priority for the Group's management and employees. Continuously and durably improving the health and safety in the workplace of its employees and subcontractors is one of Air Liquide's major challenges, which is expressed by the keyword "zero accident" on each site, in each region, in each entity. Employees are mobilized through active communication on this objective. In addition, safety objectives – like the other responsibility objectives – are part of the variable remuneration of the Group's Senior Managers. In particular, the variable share of the remuneration of the Executive Officers is linked to safety objectives.

Prevention, protection, early detection and rapid reaction are at the heart of the Group's concerns. Air Liquide rolled out its Industrial Management System (IMS) <sup>(a)</sup> in 2005, which has changed work methods significantly and improved processes involving safety management, reliability, environmental protection, and industrial risk management.

The Group has set up procedures, training sessions and an appropriate follow-up to encourage each employee to work responsibly and in total safety, respecting the laws and regulations in force. A central team of experts leads networks of specialists in the field to see to the proper implementation of the IMS. Together, they provide local managers in the Group's different entities with technical and methodological support and participate in managing industrial risks.

In 2014, the number of lost-time accidents of Group employees was 144, compared with 151 in 2013. The employee lost-time accident frequency rate, i.e. the number of accidents with at least

one day of lost-time per million hours worked, was 1.56 compared with 1.62 in 2013, and continues to fall. This improvement is in line with the Group's goal to reduce the employee accident frequency rate every year. Furthermore, there were no fatal accidents involving Group employees in 2014. These results show the teams' strong willingness to get involved in safety.

In 2014, the number of lost-time accidents of subcontractors and temporary workers was 92, compared with 110 in 2013. The accident frequency rate for these workers was 2.3 in 2014, comparable to the 2013 rate of 2.2.

The Group's safety guidelines in 2014 focused on understanding and preventing major risks linked to its activities. For example, Air Liquide launched an awareness-raising program for all employees on technical risks that can have serious consequences. This program increases the importance of safety in everyone's daily life. Each field manager has discussions with his or her team and shares rules, best practices and daily experiences related to safety.

With the support of the Group's Safety and Industrial System Department, an initiative called "Life-Saving Rules" continues to be deployed throughout the Group. The aim is to increase awareness of safety rules pertaining to major risks at production sites, as they apply to the industrial situations characterizing the Group's core businesses. These rules apply to Air Liquide employees as well as to temporary workers and subcontractors.

(a) More information on the IMS is presented in the Industrial Management System section.

## 2.2. Develop our people

The Group has 50,300 employees in 80 countries who form multicultural teams with a host of skills. Air Liquide is involved in promoting diversity, facilitating and accelerating knowledge transfer, motivating and involving its employees, and encouraging social and human commitment.

### “OUR TALENTS” INDEX

Since 2012, Air Liquide has published an annual Key Indicator called “Our Talents”, reflecting the results of the Group’s efforts regarding the **development, diversity and commitment of its employees**. The objective is to encourage the organization to set up progress actions in these areas. It is calculated by integrating the indicators presented in this section, weighted as follows: one third for development, one third for diversity and one third for employee commitment.

<b>Employee development</b>	■ Percentage of employees who benefited from at least one training session during the year
	■ Percentage of employees who had an annual performance review meeting with their immediate supervisor during the year
<b>Employee diversity</b>	■ Percentage of women among Managers and Professionals hired during the year
	■ Number of nationalities among senior managers/Number of countries where the Group is present
<b>Employee commitment</b>	■ Percentage of employees belonging to an entity where an internal satisfaction survey was conducted over the last three years
	■ Percentage of employees holding Air Liquide shares
	■ Loyalty rate of managers and professionals

The value of the “Our Talents” index in 2014 was 107. It is calculated using a baseline of 100 in 2010. Air Liquide’s objective is to reach 115 in 2015.

	2010	2011	2012	2013	2014	2015 objective
“Our Talents” Index	100	102	100	107	107	115

### DEVELOPMENT

#### MyTalent Online

As part of its Human Resources strategy, Air Liquide introduced the MyTalent Online program aimed at harmonizing HR processes within the Group, improving its ability to attract and manage talent, along with training opportunities.

MyTalent Online comprises the following three tools, which benefit Group employees and Human Resources in different ways:

- **Talent Acquisition System:** a single platform listing all of the Group’s internal mobility offerings. This platform is also used by HR departments around the world for external recruitment.
- **Talent Management System:** a space dedicated to Air Liquide employees, their managers and HR professionals for performance reviews and career management.

- **Learning Management System:** a platform dedicated to employee training and career development that provides a more comprehensive overview of all group training programs and makes it easier for employees to keep track of their training over the long term.

The MyTalent Online program was first introduced in 2014 and will continue to be rolled out in 2015.

#### Collaborative work platform

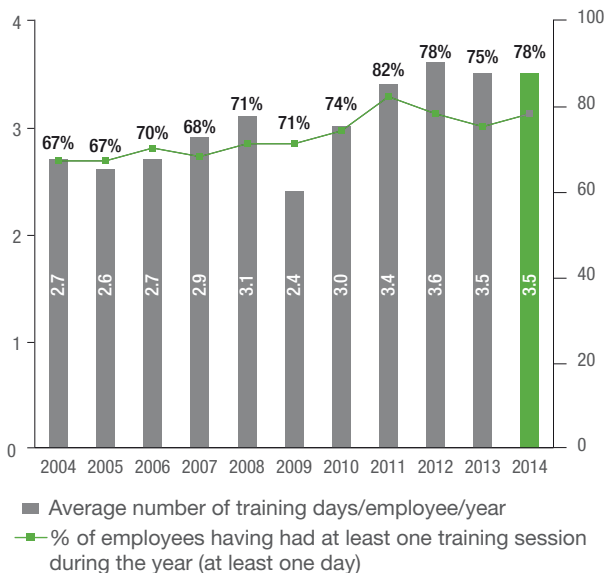
More than 19,000 Group employees have migrated to a **new collaborative work platform** called Kite, launched in May 2014. Technologically innovative, Kite is changing the work culture, **making it more collaborative and participatory**, and represents a **major digital evolution** for the Group, improving its agility and responsiveness, including with customers. Kite will continue to be rolled out in 2015.

To help with this roll-out, a number of Group employees in each entity have been appointed “Kite Champions”. They have been trained to spearhead the change in their entities and to train other members of staff in the new tools.

## TRAINING

Air Liquide takes particular care to **develop the competencies and expertise of its employees**. Training is an integral part of this development. It allows employees to **work safely and improve their performance, contribution and employability**. In 2014, 78% of the Group’s employees had attended at least one training session during the year. The average number of training days per employee, per year was 3.5 in 2014. This represents a total of nearly 1,300,000 training hours for 2014.

### Average number of training days per employee, per year and percentage of employees having attended at least one training session during the year



The Group has invested in better professional qualifications and training programs for young people to facilitate their integration into the business world. As a result, more than 580 young people have benefited from work-study contracts in France, combining theoretical learning in their university or school and a practical internship at Air Liquide.

Through its **Corporate University**, created in 2009, Air Liquide continues to develop training programs that meet the needs of its employees while incorporating the Group’s values. Based on a decentralized model that permits a very large number of employees to be trained with modern pedagogic techniques like e-learning, the University has a **dual objective**:

- formalizing and rolling out the training processes, as well as disseminating good practices that go hand-in-hand with the Group’s training dynamic;

- offer some 20 specific programs, ranging from new employee **orientations** to developing leadership abilities, plus **“professional” training** given by the different business lines. The Group’s values, principles of action and key challenges are systematically included in the various modules.

The e-learning platform provides employees with a support for their training. So far it has offered Group employees more than 1,000 interactive training modules produced by the Air Liquide University, Business Lines, regions and entities. The online training offer is upgraded every year and covers many topics such as safety, ethics, HR processes, digital technology and management. The “Discover” orientation module introduces new hires to the Group’s structure, the uses of Air Liquide gases, safety, the principles of action and the Group’s core businesses. It is available in eight languages. Over 8,000 people have been trained through this module since its launch in the different countries where Air Liquide operates. Air Liquide University upgrades its existing programs by mixing teaching methods. For example, it offers on-site training at seminars or remote training through e-learning. In total, the e-learning modules have already been used by more than 32,000 Group employees.

In 2014, more than 150,000 modules were completed by all employees.

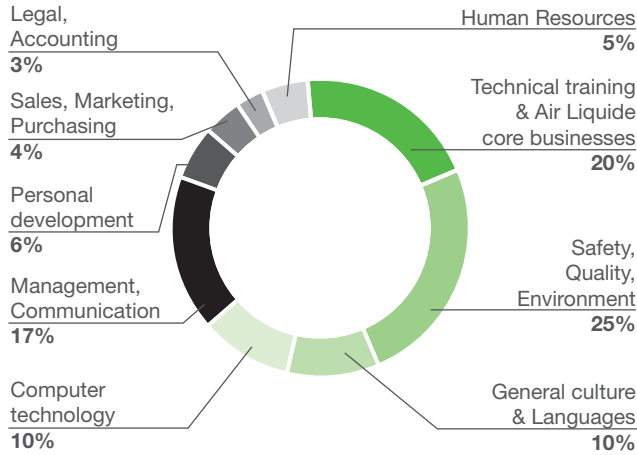
The roll-out of the ethics training programs continued in 2014 and covered the Group’s different geographic regions. These programs are designed primarily for sales, procurement and legal teams and the Executive Committees and senior managers in Group entities. They have also been boosted by new e-learning modules on employee Codes of Conduct and the Group’s Anti-corruption Code, as well as a module entitled “International practices and principles relating to competition”. These modules include an introduction video presented by each regional or entity Director, the interactive training program, and a conclusion video presented by the Group Ethics Representative. All Group employees are required to take the module on employee Codes of Conduct and attend a refresher session every year.

In 2014, Air Liquide University launched a new initiative within the framework of its training programs: professional co-development. This innovative method in collective intelligence allows Air Liquide employees to advance in their individual and collective practices by discussing situations they have encountered with their peers. Each co-development group constitutes a learning community that focuses on the sharing of experiences and is designed to broaden group members’ ability to take action in their respective area. The first co-development “pilot” program at Air Liquide brought together some 50 Group managers who focused on several management situations and issues relating to disability at work. Air Liquide University’s goal is to deploy this program in various Group entities and regions as well as at different levels of the organization.

In total the Air Liquide University has trained close to 18,000 employees since its creation in 2009.

**Training topics (a)**

The nine training topics offered to employees are as follows:



**EMPLOYEE PERFORMANCE REVIEWS**

It is thanks to the commitment and contribution of its employees that Air Liquide can give more value to its customers and shareholders. Employee performance is monitored and measured during interviews that each employee has every year with his or her immediate supervisor but also during career development interviews that permit each employee to talk about more long-term prospects with the local Human Resources Department. The Group's Human Resources Department particularly encourages these meetings as they are one of the cornerstones of the Company's Human Resources policy.

In 2014, 79% of employees had a performance review meeting with their immediate supervisor. In addition, 16% of employees had a career interview with their entity's Human Resources Department.

**EXPERTISE RECOGNITION**

Air Liquide files almost 300 patents a year. Certain patented innovations significantly contribute to the Group's development. The Inventors Recognition Program rewards inventors who are responsible for successfully marketing patents. Recognizing technical expertise within the Group also involves the Technical Community Leaders (TCL) program, which, since its launch in 2003, has nominated more than 2,500 experts and plays a key role in sharing expertise, knowledge and technical excellence. In 2014, six International Fellows, 20 International Senior Experts and 85 International Experts from very diverse regions of the world (Europe, Asia-Pacific, North and South America) received

recognition. This community of the Group's technology experts contributes to the transfer of technical know-how, to the sharing of best practices, and to the long-term development of the skills that Air Liquide will need in the future.

**MOBILITY**

Mobility corresponds to an employee's ability and commitment to change job or location, either within the same country or abroad, to meet the Company's needs and develop on a personal level.

The Group actively encourages geographical and professional mobility of its employees in all of its host countries. In fact, complete changes in job are encouraged by the Group's Human Resources Department.

**DIVERSITY**

**Diversity/Equality**

Air Liquide is strongly committed to **combating any form of discrimination**. Diversity is a priority of Air Liquide's Human Resources policy. The Group considers it to be a source of dynamism, creativity and performance and has always desired to broaden hiring and attract the best talent. The markets in which Air Liquide works are diverse and complex. Diversity among employees should therefore reflect the geographical diversity of its customers.

The Group's objectives are to continue to increase this diversity among its employees by seeking a better division of responsibilities between men and women while promoting the many cultures represented at Air Liquide.

The five poles of the Group's Human Resources policy concerning diversity are:

- nationality;
- gender;
- educational background;
- age;
- disability.

The international character of the Group's Senior Managers – 31 different nationalities represented in 2014 – is a considerable asset from this viewpoint and continues to be a strong area of development.

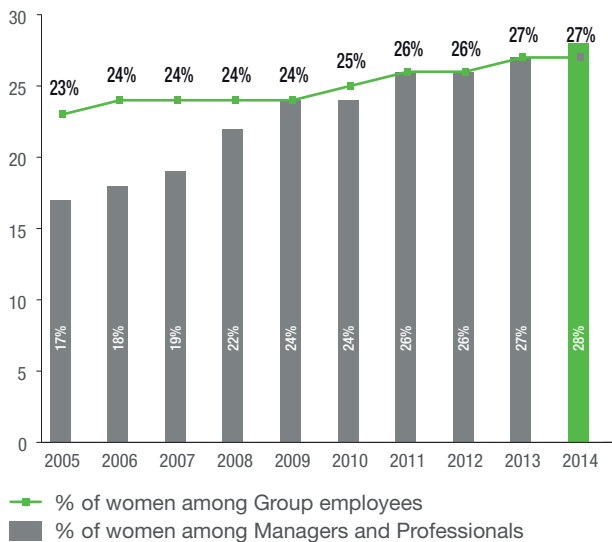
A team in the Corporate Human Resources Department is in charge of steering the diversity projects.

(a) Training breakdown for France, estimated in number of days.



Equality between men and women is an essential point in the expression of this diversity. For several years, Air Liquide has had a global action plan. For example, between 2003 and 2014, the percentage of women who were hired for manager and professional positions rose from 14% to 28%. For the first time, the percentage of women among Managers and Professionals is higher than the overall percentage of women in the Group (27%), which illustrates the good representation of women in Air Liquide's management. In addition, women now represent 41% of employees considered high potential. 13 Executive Management positions in the subsidiaries or management of a P&L are held by women. Moreover, four women are now members of the Group's Board of Directors.

### Percentage of women among Managers and Professionals



These results are the fruit of a concrete, global Human Resources strategy based on the following four priorities:

#### 1. Recruitment:

Strengthening the place of women in the Group, in particular through hiring Managers and Professionals.

#### 2. Developing careers and increasing responsibilities for women in the Company:

- for every management position that becomes available, Human Resources examines the application of at least one woman among the applicants;
- a meeting before and after maternity leave has been organized in a certain number of entities in France.

#### 3. Communicating with and involving all the managers:

In the framework of Air Liquide's policy on promoting equality, the hiring and career development of women and strengthening their place and responsibilities in the Company, a program on

awareness-raising and exchanges on the benefits that equality brings has been organized in the Group since 2007, aimed at managers. More than 700 managers in the Group have followed this program, in Europe and Asia. A communication support kit, containing a video message from the Group's Chairman and CEO, was deployed by the Human Resources teams for the different Air Liquide units to implement these actions locally with their teams.

In addition to these many local initiatives, each year Air Liquide joins forces with International Women's Day, celebrated on March 8. This is also when Air Liquide takes part in the annual InterElles seminar. Created in 2001, Cercle InterElles brings together the networks of 11 companies: Air Liquide, AREVA, Assystem, CEA, EDF, France Télécom-Orange, GE Healthcare, IBM France, Lenovo, Nexter and Schlumberger. These technology companies, which are focused on promoting gender equality and equal opportunities, have identified issues common to all of them. The Cercle InterElles network has stood out in recent years as a pioneer in the battle against stereotyping and as a supporter of gender equality in companies and of equal opportunities.

#### 4. Better balancing of professional and private life:

The **CESU** (Universal Service Employment Check), whose aim inter alia is to facilitate childcare in the home, has been implemented for certain entities in France since 2007 for men and women in the Group who have young children.

Other information on the actions Air Liquide has undertaken on balancing professional and private life can be consulted in the "Well-being" paragraph presented in this section.

The **Diversity Charter** that Air Liquide signed in France is available online and is an illustration of the Group's commitment to diversity. In addition, in 2013, Air Liquide co-organized a discussion and experience-sharing seminar on the subjects of equality and promoting diversity as a performance lever with the company Shell, a long-standing international customer.

### Disability

For Air Liquide, diversity and equal opportunity also mean **better integration of employees with disabilities into its teams, but also through subcontracting** to firms in the protected sector <sup>(a)</sup>, particularly in France.

In 2014, employees with disabilities represented 1.3% of the Group's employees worldwide.

In France, the general Human Resources policy on disability took concrete form through the **signing of a number of workplace agreements since 2007** with social partners, in addition to local hiring initiatives.

(a) Sector of the economic activity giving priority to employing disabled workers.



At the end of 2014, the percentage of disabled workers at French subsidiaries was 4.6%. Through these workplace agreements, Air Liquide is committed to promoting the employment, integration, training, and job security of persons with disabilities. To support this process, promotional campaigns are carried out among managers and employees, especially during the Disabled Workers Week. Air Liquide also outsources some printing, landscaping and cleaning services to the disabled workers sector.

To carry out these operations favoring people with disabilities in the field, Air Liquide's "Mission Handicap" calls on **employees who are "disability advisors"** divided among the main French subsidiaries. They are supported by **multidisciplinary working groups** that meet several times a year to work on different subjects connected to disabilities.

The initiatives implemented in 2014 strengthened the integration of people with disabilities under work-study programs through a special recruitment campaign using social media, and **reinforced job security for the hearing impaired** by making available a platform that enables them to communicate by telephone and take part in work meetings. A Mission Handicap intranet site has also been made available to all Air Liquide employees, showcasing the initiatives taken to help disabled workers.

## EMPLOYEE COMMITMENT AND ORGANIZATION OF LEGAL WORKING HOURS

### Participation of employees in the capital of Air Liquide S.A.

The Group wants to have its employees worldwide more broadly participate in the capital of Air Liquide S.A. So, since 1986, 12 capital increase operations have been especially reserved for the Group's employees so that they can take advantage of preferential conditions.

At the end of 2014, the share of capital held by the Group's current and former employees was estimated at 2.4%, of which 1.5% (within the meaning of Article L. 225-102 of the French Commercial Code) corresponds to shares subscribed by employees during employee reserved capital increase operations or held through mutual funds.

### Remuneration

Employee remuneration is based on local market conditions and their evolution, internal equity, and on employees' performance in respect of applicable legislation. It is generally made up of a basic salary plus additional remuneration elements.

The **variable portion** of remuneration is devised locally for certain categories of employees to reward performance. In general it depends on parameters such as **the Group's earnings, the entity's earnings and individual performance**, which is measured in quantitative and qualitative terms. By rewarding collective and individual performance, Air Liquide encourages everyone to collaborate and contribute to overall earnings. In 2014, 58% of employees received an individual variable portion as part of their remuneration. Most of the managers and professionals have **variable remuneration**, which includes sustainable development objectives. In particular, 15% of managers' variable remuneration is linked to sustainable development criteria, such as safety, customer satisfaction, energy efficiency and equality. Finally, the top 350 Group executives have 10% of their variable remuneration mandatorily linked to a Responsibility indicator, such as **safety, ethics, environmental footprint, responsible procurement** or the **human resources** indicators that are part of the "Our Talents" composite index that incorporates the Group objectives for **development, diversity and commitment of employees**.

In addition, remuneration can also include benefits such as disability-incapacity-death insurance and medical expenses. In 2014, 98% of employees benefited from some sort of social security coverage through the Group.

## HEALTH IN THE WORKPLACE

Air Liquide is particularly concerned with ensuring that its employees' working conditions do not present any health risks. This is partly demonstrated through **preventive actions on the ergonomics of workstations** and partly through the implementation of **specific safety rules** in the Group's Industrial Management System (IMS). For example, thanks to an initiative targeted at the handling and carrying of heavy loads instituted in France on a CO<sub>2</sub> filling site, the risk of musculoskeletal disorders (MSD) was reduced on the workstations concerned. Air Liquide regularly organizes **awareness-raising campaigns** on safety, health and risk management, especially in the workplace.

The Global Engineering & Construction (E&C) Solutions entity in Hangzhou, China, relocated to a new building in 2014. To protect the health of its employees in an environment of heavy air pollution, measurements were taken of indoor air quality. These led to the implementation of improvement actions, including as concerns over-ventilation. Regular inspections are planned to ensure that air quality is maintained in these buildings over the long term.

In Morocco, a campaign to prevent noise at three sites was launched in 2014. An independent laboratory mapped the noise from the various workshops in order to be able to take the measures required for hearing protection for employees.

## Environmental, Social and Governance (ESG) Report

In addition, a “health week” was organized in November 2014 at the Air Liquide site in Frankfurt, Germany. Some 200 employees attended a variety of workshops on offer: checking for heartbeat variability, preventative measures regarding workstation ergonomics, nutrition, and muscle relaxation.

In South Africa and Botswana, local subsidiaries are continuing their campaigns to raise awareness about AIDS prevention.

With regard to the Ebola epidemic, Air Liquide set up an internal monitoring unit and took preventive measures at its sites in West Africa, which is close to the center of the epidemic. Measures taken include travel restrictions, an information campaign, the distribution to employees and their families of hygiene and disinfection products provided by the Group’s Schülke subsidiary, and the systematic disinfection of gas cylinders exiting hospitals.

As part of a campaign in France to **prevent psychosocial stress**, Air Liquide worked with the French Occupational Health Department to implement a **listening, support and counseling service** for anyone who needs it.

This initiative meets a number of objectives:

- it provides all employees with time to talk and listen, enabling everyone to speak freely with an independent consultant, if they so wish;
- it serves as a basis for manager/employee relationships;
- as necessary, it provides advice related to issues an employee may have regarding wellbeing in the workplace.

Meetings are held with a psychologist from a specialist outside firm. Air Liquide wants the system to offer employees time and space to talk about their issues in strict confidence and enable all those who so wish to maintain or regain their **wellbeing in the workplace**.

The initiative is just one of the tools used by Air Liquide’s Human Resources Department to prevent occupational stress, tools that underscore its willingness to listen and take action in this regard.

Some rare cases of work-related illnesses linked to Air Liquide’s activities are the subject of reports by the various Group subsidiaries worldwide.

## WELLBEING

In order to strengthen occupational well-being within Air Liquide, various initiatives were implemented in France to **promote the personal/professional life balance** of its employees, whatever their age or position. In addition, three agreements with human services providers were undertaken in 2014:

- **an e-portal allowing employees to access practical, administrative and legal information from home or the office** to facilitate daily life. It can be used by the employee and his or

her family via a personal access code. Over 70% of the Group’s employees in France now have access to this portal;

- **a telephone service enables employees to call, from their office or home, specialists** (for example, doctors, legal specialists, social workers, guidance counselors, etc.) who answer their questions with complete confidentiality on areas as varied as the family, housing, well-being and healthcare, unforeseen events, budget management, taxation and retirement. Air Liquide is a forerunner in this area as the Group is currently one of the only ones in France to offer its employees such a large range of services;
- **childcare centers in inter-company crèches** were offered to employees of subsidiaries covered by this partnership. At the end of 2014, 44 places had already been financed by Air Liquide for its employees.

## ABSENTEEISM

After having reported on its employees’ absence rate in France in 2012 and then in Europe in 2013, **the absence rate reported by Air Liquide in 2014 covers its entire global operations for the first time**. The Group’s absence rate was established by counting the total number of days absent due to illness, commuting and work accidents, whatever their duration and cause, compared to the number of days worked per year <sup>(a)</sup>. In 2014, the absence rate of the Air Liquide Group worldwide was 2.4%.

## ORGANIZATION OF LEGAL WORKING HOURS

In France, the general framework of legal working hours has been defined by all of the agreements signed in 2000 and 2001 with the unions. Very few activities operate with shift work. These concern fewer than 10 plants in France, mainly in the Large Industries business line. On the other hand, most of the industrial activities, such as those in Healthcare, include on-call systems that are regularly discussed with the unions.

With regard to **telecommuting**, a **pilot program** launched in France in 2013 at ALFI (Air Liquide France Industrie) and ALSF (Air Liquide Santé France) under a one-year fixed term agreement with the unions, was continued. It meets the needs of employees as expressed during a prior survey on work-life balance. Following a **dialogue** phase with various stakeholders, more than **100 employees and managers** to date have chosen to work from home on the basis that it is a voluntary arrangement, involves trust and that employees retain the option to return to the workplace.

Under the supervision of the individual entities’ Human Resources Departments, a **series of educational and training measures** were conducted among employees, managers and unions to support the shift to telecommuting. **Assistance was provided by a leading consulting firm that specializes in advice** and training in this area. This resulted in many additional ideas and demonstrated the benefits as well as the limitations

(a) 365 days minus weekends, public holidays and legal holidays.

of this method of working. Telecommuting is implemented as a tool to **improve performance and work-life balance, and provide organizational flexibility**. It is part of the development of new ways of working and managerial practices, and also helps reduce the Group's carbon footprint by cutting down on work-related travel.

## SOCIAL DIALOGUE

In accordance with its principles of action, Air Liquide is particularly attentive to respecting the highest standards in ethics and safety. The Group ensures that social dialogue is encouraged and in this context, 76% of Air Liquide's employees have access to a representation, dialogue or consultation structure.

The European Works Council has 28 employee representatives from 13 countries <sup>(a)</sup>. The composition of the Council evolves with the Group's acquisitions, the expansion of the European Union and according to the rules established by the Council's constitutional agreement. An agreement was signed in 2014 to strengthen the role and nature of exchanges within this body. It is required to meet at least twice per year under the chairmanship of a member of the Executive Committee, as was the case in 2014. The main themes dealt with during this discussion and consultation are safety, the news on the Group's activities, the annual financial statements, the Corporate Social Responsibility and Sustainable Development policy, strategy and its implementation in the different countries of Air Liquide's operations.

In 2014 in France, 110 agreements were signed in total with the unions in extremely varied areas, including profit sharing and incentives for employees in the company's performance, planned management of jobs and skills (GPEC), professional equality between men and women, disability, the youth-employment contract, as well as working time organization, particularly in the context of the two agreements relating to telecommuting.

Six collective agreements were also signed in a number of European countries. In Germany, local subsidiaries are members of the chemical sector employers association (BAVC) <sup>(b)</sup>. Negotiations are carried out directly between this association and the German unions. Several agreements were signed in 2014 in this country. They cover greater job flexibility and wider social coverage. In Austria, as in Germany, one of the agreements in 2014 concerned the variable portion of employee remuneration.

This set of collective agreements will gradually be extended to the entire Group.

In a context of a welding market that has been in a steep decline for years in Europe, and despite adjustment efforts and cost-saving measures in recent years, Air Liquide Welding France had to reorganize its activities and in particular, to close its Châlons-en-Champagne site in France to safeguard its competitiveness and guarantee its long-term future. An extensive consultation and negotiations with staff representatives led to an agreement with all of the unions in late 2014 on measures to help the planned reorganization.

## RAISING EMPLOYEE AWARENESS OF SUSTAINABLE DEVELOPMENT

Many initiatives are created at Air Liquide to raise employee awareness on sustainable development issues and encourage employees to promote them in their daily activities. The "Better and Cleaner" initiative, the "Car-free Day" and the "World Water Day" are a few examples.

The "**Better and Cleaner**" initiative, launched in France at the end of 2009 and expanded to all of the Group's R&D sites, continued in 2014. The program's goal is to educate Group employees about their environmental impact by making them focus on a common project aimed at reducing greenhouse gas emissions. These initiatives decrease the carbon footprint of each entity, while finding the best environmental practices developed by researchers worldwide. The best overall performances and local initiatives that are remarkable because of their contribution to a decrease in environmental impact, sustainable development or social benefits are rewarded. Sustainable mobility was the key focus in 2014 in an effort to promote methods of shared travel between companies and expand carpooling between persons in the same region. Presentations and tests of electric vehicles, including hydrogen-powered cars and electric bikes, were held at various sites, particularly in France.

In addition, each year, the Group rolls out, on "**World Car-free Day**" on September 22, an awareness campaign on the environmental impact of road transportation and highlights alternative means of transportation like carpooling. Many initiatives, in over 40 countries, attest to employees' increasing commitment to a more responsible approach in this area.

Each year on March 22, "**World Water Day**" is also an occasion to raise awareness among Air Liquide employees of careful and moderate use of this resource, through a communication campaign within the Group and many local initiatives.

(a) Austria, Belgium, Denmark, France, Germany, Great Britain, Italy, the Netherlands, Poland, Portugal, Romania, Spain and Sweden.

(b) Bundesarbeitsgeberverband Chemie: Federal Association of Chemical Industry Employers.

#### Human resources indicators concerning the Group as a whole

Employees <sup>(a)</sup>	2010	2011	2012	2013	2014
Group employees	43,600	46,200	49,500	50,250	50,300*
■ women	11,100	12,100	12,800	13,500	13,600
as a %	25%	26%	26%	27%	27%
■ men	32,500	34,100	36,700	36,750	36,700
as a %	75%	74%	74%	73%	73%
Joining the Group <sup>(b)</sup>	15.1%	20.4%	19.9%	14.9%	14.8%
Leaving the Group <sup>(c)</sup>	11.9%	14.3%	12.7%	13.1%	14.7%
% of employees having resigned during the year <sup>(d)</sup>	4.0%	5.3%	4.6%	4.9%	5.8%

(a) Employees under contract, excluding temporary employees.

(b) Hiring or integration due to acquisitions. The percentage is based on the number of employees as of December 31 of the preceding year.

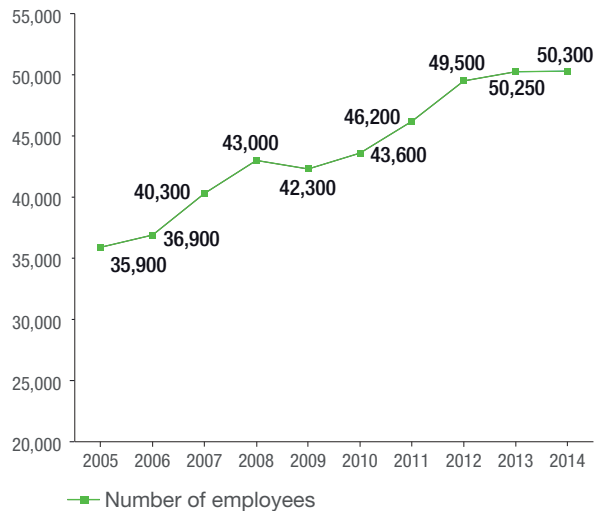
(c) Retirement, resignations, layoffs, departures due to disposals, etc. The percentage is calculated based on the number of employees as of December 31 of the preceding year.

(d) Calculated on the number of employees as of December 31 of the preceding year.

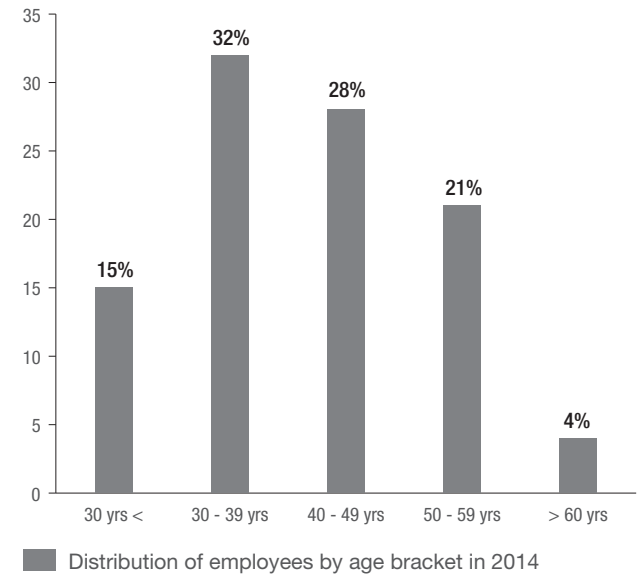
\* Indicator verified by the independent verifier.

The indicators presented above are calculated on a global scale. The percentages of those entering and leaving the Group include hires and layoffs.

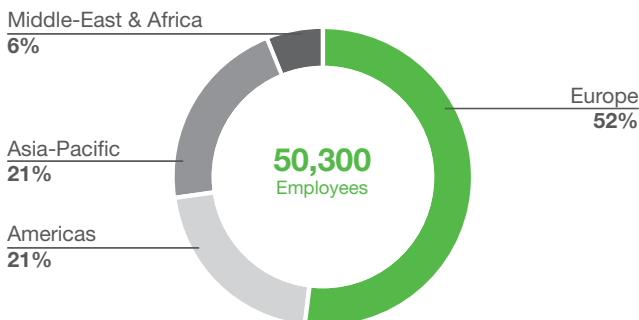
#### Group employees



#### Distribution of employees by age bracket in 2014



#### 2014 employees by geographic region



	2010	2011	2012	2013	2014
<b>Parity and diversity</b>					
<b>Equality</b>					
% of women among managers and professionals	24%	26%	26%	27%	28%*
% of women among managers and professionals hired during the year	29%	29%	28%	36%	31%*
% of women among employees considered high potential	40%	39%	41%	40%	41%
<b>Number of nationalities</b>					
Among expatriates	53	48	44	45	44
Among senior managers	27	28	29	28	31
Among employees considered high potential	46	46	44	46	44
Number of nationalities among senior managers/Number of countries where the Group is present		35%	36%	35%	39%
<b>Training</b>					
% of total payroll allocated to training	About 2%	About 2%	About 2%	About 2%	About 2%
Average number of days of training per employee and per year	3.0 days	3.4 days	3.6 days	3.5 days	3.5 days* <sup>(a)</sup>
% of employees who attended a training program at least once during the year	74%	82%	78%	75%	78%*
<b>Performance review</b>					
% of employees who have had a performance review meeting with their direct supervisor during the year	76%	79%	79%	78%	79%*
% of employees who have had a career development meeting with the HR Department during the year	15%	18%	17%	14%	16%
<b>Remuneration</b>					
% of employees with an individual variable share as part of their remuneration	51%	53%	54%	56%	58%
<b>Absenteeism</b>					
Absence rate of Air Liquide employees			3.2% <sup>(b)</sup>	3.6% <sup>(c)</sup>	2.4% <sup>(d)</sup>
<b>Ethics</b>					
% of employees belonging to a unit with a local Code of Conduct	71%	90%	91%	94%	94%
<b>Employee loyalty</b>					
Average seniority in the Group	10 years	10 years	10 years	10 years	10 years
Retention rate of managers and professionals over a year		94.5%	95.4%	94.8%	93%
<b>Social performance</b>					
% of disabled employees <sup>(e)</sup>	1.2%	1.3%	1.3%	1.4%	1.3%
% of employees having access to a representation/dialogue/consultation structure	79%	77%	76%	76%	76%
% of employees belonging to a unit at which an internal satisfaction survey was conducted within the last three years <sup>(f)</sup>	43%	48%	55%	52%	> 55%
% of employees with benefits coverage through the Group <sup>(g)</sup>	98%	98%	98%	97%	98%
<b>Employee shareholders</b>					
% of capital held by Group employees <sup>(h)</sup>	1.6%	1.6%	1.5%	1.6%	1.5%
% of Group employees that are shareholders of L'Air Liquide S.A.	More than 60%	More than 50%	Almost 50%	More than 55%	More than 50%

(a) 26 hours a year according to counting in hours (base: 1 day = 7.5 hrs).

(b) Calculated for France.

(c) Calculated for Europe.

(d) Calculated Worldwide.

(e) For the countries where regulations allow this data to be made available.

(f) Indicator for entities of over 300 employees until 2011. All entities from 2012.

(g) Primarily retirement benefits.

(h) Within the meaning of Article L. 225-102 of the French Code of Commerce.

\* Indicator verified by the independent verifier.



## 2.3. Creating value for the regions in which the Group operates

Each Air Liquide entity is located in communities for which respect is at the heart of the concerns of the Group's employees. Every employee is aware that each decision, each action commits them vis-à-vis customers and partners but also vis-à-vis those individuals or firms that are affected by the Group's activities. The consideration of these communities' needs is necessary to guarantee the sustainability of the environment where the Group carries out its action.

### COMMUNITY RELATIONS

Air Liquide's teams are very committed to taking part in the local economic life near the Group's sites. This participation includes hiring employees in the area and developing close relations with training organizations and universities that can prepare people for the Group's core businesses.

In the industrial basins where over 1,000 of Air Liquide's sites are located, the Group also seeks to develop subcontracting and local procurement to make a contribution to local economic life.

For example, Air Liquide Morocco supports a welding school in Casablanca. Its aim is to train young adults from disadvantaged backgrounds in welding techniques. Since the school's creation, about 30 young people have received a qualification certificate enabling them to more easily find a job.

In addition, the Group's activities as well as the means implemented to prevent and manage industrial risks are regularly presented to the populations near Air Liquide's sites. In France, the industrial sites participate in CLICs and CLIEs, local committees that provide information and regulatory consultations at the communes' initiative, with the aim of providing transparent information on their activities to representatives of the local populations.

### CORPORATE PHILANTHROPY AND THE AIR LIQUIDE FOUNDATION

Social and human commitment is an ongoing concern for Air Liquide. Since its very beginning, the Group has carried out philanthropic actions, especially in the protection of life and the environment.

Whether they are directly carried out by the Group's subsidiaries or initiated by the Air Liquide Foundation, these corporate philanthropy actions represented nearly **2 million euros in 2014**.

### Subsidiaries committed to communities

Throughout the world, Air Liquide's subsidiaries interact with their direct environment, supporting local corporate philanthropy initiatives. As well as financial support, these actions were successfully conducted with the enthusiastic involvement of Group employees.

For example, in 2014, **Air Liquide Korea** launched the "Act for Clean and Safe Community" <sup>(a)</sup> campaign, under which the subsidiary supported a non-profit association <sup>(b)</sup> that helps underprivileged children. Children are hosted at after-school centers where they receive academic support and dinner. They can also take part in cultural activities. Air Liquide Korea helped renovate four centers located near the subsidiary's sites in Seoul, Cheonan and Yeosu. Some 60 of the subsidiary's employees volunteered to help with these renovations during four days of an action program dubbed "Safe Day". In all, more than 100 children are now enjoying the use of these renovated premises. Employee volunteers also participated in the "Clean Day" program, which involved cleaning natural environments near parks, rivers and mountains. In 2014, Air Liquide Korea allocated more than 35,000 euros to its various actions. Meanwhile, teams from a Group entity in **Germany**, Schülke, a European leader in infection-control and hygiene products, disinfectants and preservatives, also rallied to help local communities. Its teams organized donations of antiseptic solutions, hand-sanitizing gels and cleansing lotions produced by the subsidiary, for a total value of 50,000 euros. After major flooding in May 2014 in Southeast Europe, Schülke helped the Bosnian community by sending hygiene products and disinfectants to disaster victims. The company was also one of the first donors of hand-sanitizers to help combat the Ebola virus. Several pallets of products were donated to the World Health Organization to help prevent the spread of the infection in West Africa.

### Three missions for the Air Liquide Foundation

Created in 2008, the Air Liquide Foundation shows the Group's commitment to being a responsible enterprise. Its five-year mandate was renewed in 2013, enabling the Foundation to engage in long-term action, a reflection of the Group's approach in everything it undertakes.

It has a worldwide scope and supports projects in the 80 countries where the Group operates. With a budget of nearly three million euros over five years, the Foundation has three missions:

- **environment:** support for scientific research on the preservation of our planet's atmosphere;

(a) "Acting for better health and protection of communities".

(b) Korea Association of the Community Child Center (KACCC).

- **health:** support for scientific research contributing to improving the respiratory function and gas metabolism in the human body;
- **micro-initiatives on local development:** the Foundation supports local actions (education, access to treatment, energy and water, micro-entrepreneurship, disabilities, etc.) in the regions of the world where the Group is present.

Each micro-initiative is followed by an Air Liquide employee who is a volunteer. The Group's employees who wish to, can evaluate and follow a project and get personally involved in the field. Employees are also invited to recommend projects. To date, nearly 200 employees have been involved in the Foundation as project leaders or sponsors.

Headed by Benoît Potier, Chairman & CEO of the Air Liquide Group, and composed of Senior Managers of the Group, a personnel representative and outside experts, the Foundation's Board of Directors meets twice a year to determine corporate philanthropy focuses and to examine scientific research projects. It is assisted in its functions by a Project Selection Committee, which three times a year studies the projects submitted to it. This Committee is composed of seven Group employees and a representative of the Shareholders Communication Committee. The representation of shareholders in this way is a special feature of the Air Liquide Foundation.

Project applications can be submitted via the Foundation's website, in French or English. The website address is [www.fondationairliquide.com](http://www.fondationairliquide.com).

In 2014, the Air Liquide Foundation approved 27 new projects, one of which is a scientific environmental research project, three of which are scientific healthcare research projects, and 23 of which are micro-initiatives. These projects are located in 15 countries, including two new ones, Nigeria and Australia. Since its creation in 2008, the Foundation has supported 180 projects of which over 155 were micro-initiatives.

One of the **environmental research projects** is the Under The Pole II polar expedition, which the Foundation is supporting over two years. The purpose of the expedition is to study the Arctic ecosystem in Greenland throughout its annual cycle. The Foundation is sponsoring two of the expedition's 12 research programs:

- interactions between the ice pack, the atmosphere and the ocean: researchers quantify the amount of CO<sub>2</sub> produced by the melting ice pack and stored deep in the ocean. Other analyzes are also performed, such as the temperature of the ice pack and the thickness of snow and ice;
- human physiology during dives into very cold, deep water: a series of physiological measurements is taken on divers during 100-meter dives to gain more insight into the

body's tolerance to such extreme environments and issue recommendations to divers.

Funding from the Foundation has led to the purchase of equipment needed for the expedition. The Foundation has also provided diving gases and oxygen-therapy kits.

The Foundation's Board of Directors approved support for three **healthcare research projects**, including one on a rare genetic disease, Ondine's Curse. This syndrome is characterized by a major reduction or even total failure of breathing during sleep. The aim of the research is to develop a pharmacological treatment to replace mechanical ventilation and thereby improve the patient's quality of life.

In the framework of its **micro-initiatives support program**, the Foundation favors actions whose goal is the development of local communities over the long term.

In **education and training**, the Foundation supports the fight against illiteracy and school dropouts and works to promote literacy training and socio-professional reintegration for adults. In 2014, the Foundation supported seven initiatives in this field for an amount of 58,000 euros. These funds led to:

- the construction, renovation and development of an educational institution, a vocational school and two training centers in **Nigeria, Senegal and Cameroon**;
- the development of educational and socio-professional integration programs in **Australia and France**;
- the opening of an illiteracy diagnostic center in **France**.

**To complement the action of "Mission Handicap"** conducted in France, the Foundation accompanies projects that contribute to the coverage and social autonomy of people with a disability. In 2014, the Air Liquide Foundation provided four organizations in France with grants totaling over 30,000 euros. The Foundation's support led to:

- the development of activities such as hippotherapy <sup>(a)</sup>, wheelchair basketball for teenagers, and outdoor recreation using specially adapted electric vehicles;
- the development of initiatives of an association that helps people with disabilities enter the workforce.

In **micro-entrepreneurship**, the Foundation assists micro-initiatives that contribute to the development of Air Liquide's local environment. In 2014, a total of 34,000 euros were allocated to:

- a research program on a traditional building technique in **Mali** using earth;
- two urban agriculture projects in **Colombia and Brazil**;
- a fruit-production development program for farming families in **Brazil**.

(a) Therapy using horses (or donkeys) as a therapy partner.



## Environmental, Social and Governance (ESG) Report

In the social sphere, the Foundation helps people to be reintegrated socially and professionally. For example, in 2014 it provided 42,000 euros of support to five organizations to:

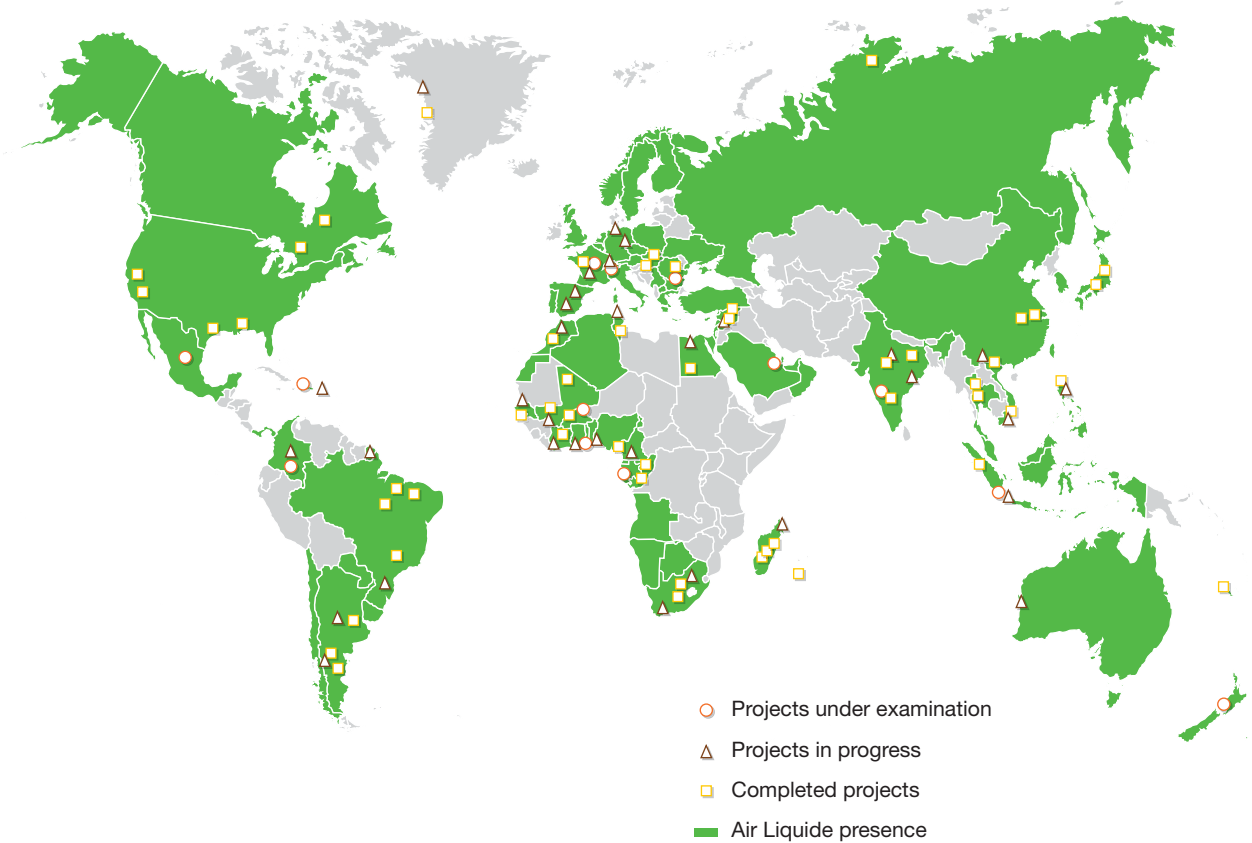
- support a street-child protection center in **Egypt**;
- build a rural community center in **Morocco**;
- develop a space dedicated to community outreach initiatives in **France**;
- develop the activities of an organic community outreach garden in **France**;

- support the initiatives of an association that helps German children and adolescents in severe difficulties.

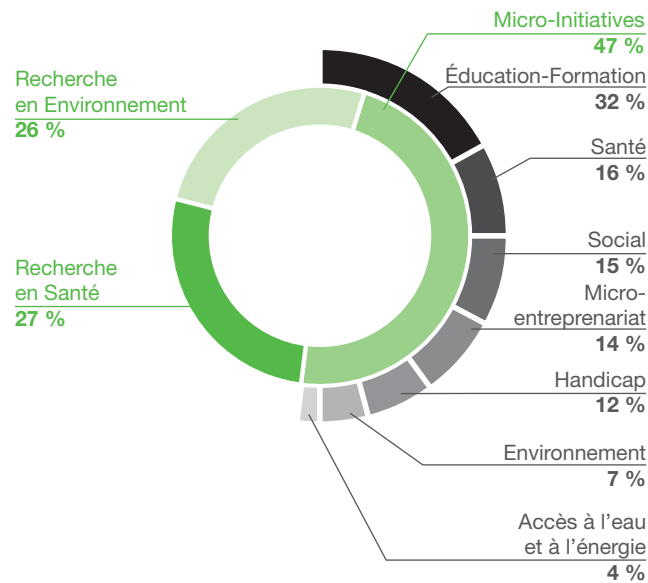
In the field of **healthcare**, the Foundation supports initiatives that provide access to care. With a total budget of 26,000 euros, the Foundation supported three projects in 2014:

- the construction of a post-operative recovery room at a clinic in **South Africa**;
- better quality mother-child care in **Madagascar** and **Togo**.

## Locations of the Air Liquide Foundation's projects since its creation in 2008



The Air Liquide Foundation's actions per mission since its creation in 2008 <sup>(a)</sup>



(a) By amount contributed to the projects supported.

### 3. Governance and customers

#### 3.1. Establishing a relationship of trust with all of our shareholders

##### PERFORMANCE AND A LOCAL PRESENCE - THE BASIS FOR OUR SHAREHOLDER RELATIONSHIP

Air Liquide's responsibility commitment is expressed in the way the Group maintains a relationship of trust with its shareholders.

Air Liquide's approach to Responsibility and Sustainable Development vis-à-vis its shareholders is based on a commitment to the following four principles:

- importance of all shareholders;
- shareholder remuneration and investment growth over the long term;
- listening to and informing shareholders;
- specific services for registered shareholders.

##### REGISTERED SHAREHOLDING

###### DIRECT REGISTERED SHARES

Direct registered shares are managed by Air Liquide and registered in its accounts. They are held in a securities account opened at Air Liquide.

###### INDIRECTLY/INTERMEDIARY REGISTERED SHARES

Indirectly/intermediary registered shares are registered in the Air Liquide accounts and held in a securities account at the shareholder's financial institution.

##### IMPORTANCE OF ALL SHAREHOLDERS

Financial performance is not enough to define the relationship between Air Liquide and its shareholders. Air Liquide communicates regularly with its shareholders: the intention is

to respond to their requirements as effectively as possible since they are seen as genuine long-term partners. Indeed, they have been contributing to and supporting the Group's growth since its founding and IPO in 1913.

## Environmental, Social and Governance (ESG) Report

To make sure that these expectations and their evolution are identified and understood, Air Liquide endeavors to get to know its shareholders in their diversity. To this end, it proposes in particular that they place their shares in registered form.

### Stable and balanced share ownership

It is important for Air Liquide to preserve the balance between individual shareholders and institutional investors. The Group's

strategy, focused on the long term, and the soundness of its business model offer shareholders a sustainable and regular return on their investment.

The 390,000 individual shareholders hold 37% of the capital. French and non-French institutional investors represent 17% and 46% of the capital respectively.

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Individual shareholders	38%	38%	37%	38%	38%	36%	37%	37%	36%	37%
French institutional investors	25%	24%	30%	26%	26%	23%	21%	19%	19%	17%
Non-French institutional investors	36%	37%	32%	35%	36%	40%	42%	44%	45%	46%
Treasury shares	1%	1%	1%	1%	>0%	<1%	>0%	>0%	>0%	>0%
Registered capital	31%	32%	37% <sup>(a)</sup>	33%	32%	34%	35%	36%	35%	36%
Capital eligible for the loyalty bonus	25%	26%	26%	26%	25%	25%	28%	29%	30%	30%

(a) In 2007, the share of registered capital increased in particular following the entry of a large institutional investor who sold its shares in 2008.

### The Shareholders' Meeting, a privileged moment of exchange

Each year, all the Air Liquide shareholders who **hold at least one share** are invited to the Shareholders' Meeting. They are helped in their voting by all the relevant documents over a month before the Meeting, sent by mail and available on the Company's website: practical information on the voting procedure and clear explanations of the resolutions and their objectives.

In accordance with the principle of shareholder equality to which Air Liquide is very committed, **each share entitles its owner to one vote**.

Since 2014, Air Liquide has offered registered shareholders the option of receiving the notice of Shareholders' Meeting electronically. Through their personal space on the website, they can apply to have all the background documentation relating to their vote sent in digital format to their email address.

Presentations detailing the voting procedure are also available online. Air Liquide endeavors to make all this material available in English to its non-French shareholders in similar time frames. In certain countries, systems have been set up with intermediary banks to facilitate and ensure a fluid transmission of the votes of the shareholders concerned.

Air Liquide centralizes its Shareholders' Meeting by collecting the votes of its shareholders directly. Since 2013, the Company has offered **voting by Internet** (through the Votaccess platform). By connecting to their personal space on the website, shareholders can consult all the background documentation relating to their vote, vote or request an admission card to the Shareholders' Meeting.

On the day of the Meeting, the bureau, composed of the Chairman of the Board of Directors, two polling officials and a secretary, ensure that the Meeting is held in compliance with the

law. The polling officials are representatives of the two investors that hold the largest number of shares who have agreed to fulfill this function. They are asked about a month before the event and a vade mecum is given to them two weeks before the Meeting. This document describes their tasks as well as the welcome and voting procedures set up by the Company.

The Shareholder Services advisors and the Investor Relations team are also available to answer individual and institutional shareholders' questions on voting and participation in the Shareholders' Meeting, by telephone and at the Shareholders' Lounge at corporate headquarters in Paris.

In 2014, some 4,000 people were welcomed at this Shareholders' Meeting.

The dates for the next Air Liquide Combined Shareholders' Meeting are:

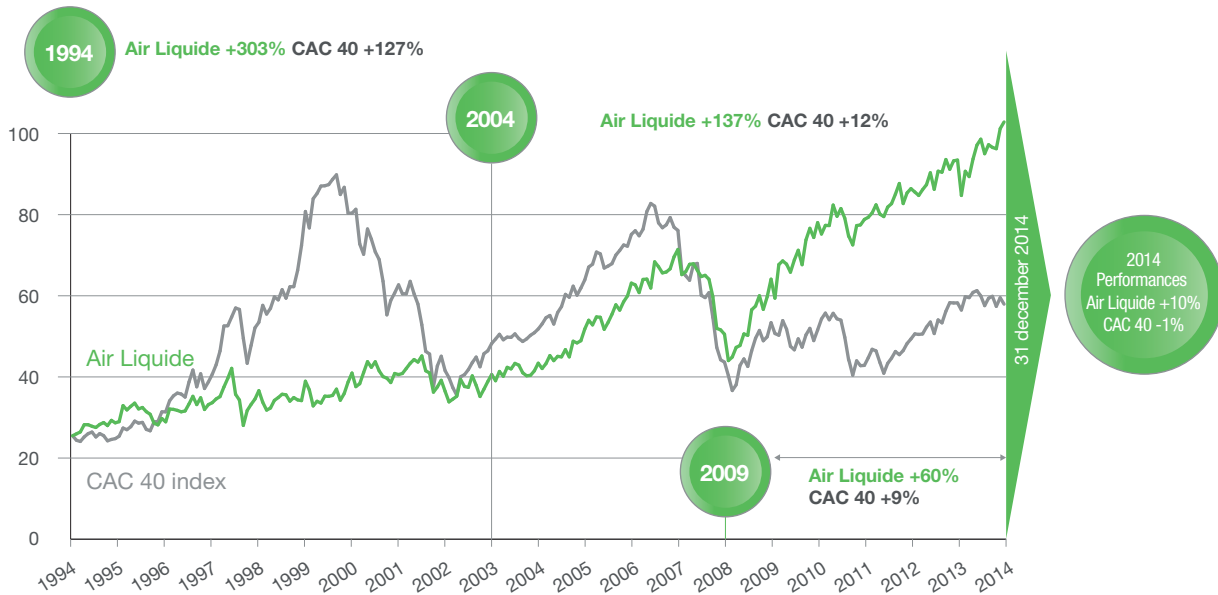
- Wednesday May 6, 2015;
- Thursday May 12, 2016;
- Wednesday May 3, 2017.

### SHAREHOLDER REMUNERATION AND INVESTMENT GROWTH OVER THE LONG TERM

#### Air Liquide, continuous growth

The share's value is based on the rise in its stock market price over the long term and the distribution of dividends. Since its creation in 1902, Air Liquide has always shared the fruits of its growth and rewards its shareholders' confidence through a remuneration and loyalty policy that is based on regular dividend distribution, free share attribution and a loyalty bonus.

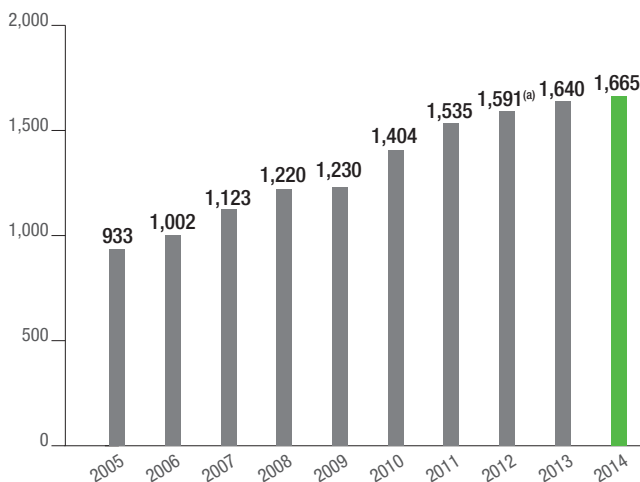
Stock market price over the last 20 years (in euros)



Since it was first listed on the French Stock Market in 1913, the Company has always shown a profit. The Group creates value by developing its activities and optimizing its performances over the long run. Over the last 20 years, Air Liquide's revenue has shown average annual growth of +5.9%. This growth has been profitable: the Group's net adjusted earnings per share have followed a similar trend with average annual growth of +7.8%. Over the same period, the dividend has seen average annual growth of +9.8%.

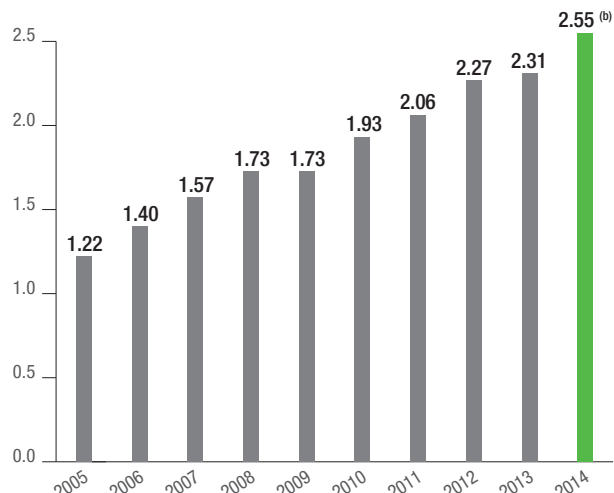
During the last 10 years, nearly 50% of earnings have been distributed to shareholders.

Net profit – Group share (in millions of euros)



(a) Corresponds to the amounts as of December 31, 2012 restated for the impacts of IAS19 revised "Employee Benefits".

Adjusted dividend per share (in euros/share) <sup>(a)</sup>



(a) Adjusted for previous two-for-one share splits and free share attributions.  
 (b) Subject to approval of the Combined Shareholder's Meeting of May 6, 2015.

Return on an investment in Air Liquide shares for the shareholder

To further increase the investment value of Air Liquide shares, subscribing to registered shares permits shareholders who choose this option to benefit from a loyalty bonus: +10% on the amount

of the dividends received and +10% on the number of free shares granted. This loyalty bonus is granted to shareholders whose shares are held in direct registered or intermediary registered form and who have kept them for more than two calendar years. To benefit from the loyalty bonus, shareholders must continue to

## Environmental, Social and Governance (ESG) Report

hold their shares in registered form on the day of the dividend payment and of the free share attribution.

Total Shareholder Return (TSR) is an annualized rate of return for a shareholder who buys their shares at the beginning of a period

and sells them at the end of the period. This calculation takes into account the movement of the share price, dividends paid, including loyalty bonuses on the basis that they are immediately reinvested in shares, and bonus share awards.

## Average annual growth of the portfolio as of December 31, 2014

For capital invested	Air Liquide – Registered shares <sup>(a)</sup>	Air Liquide – Bearer shares <sup>(a)</sup>	CAC 40 index – reinvested <sup>(b)</sup>
■ over 5 years (December 31, 2009)	+13.2%	+12.7%	+5.6%
■ over 10 years (December 31, 2004)	+12.4%	+11.8%	+4.8%
■ over 20 years (December 31, 1994)	+11.9%	+11.2%	+7.3%

(a) The TSR on registered shares is higher than the TSR on bearer shares because the registered shareholder benefits from loyalty bonuses.

(b) CAC 40 index with gross dividends reinvested.

During the last 10 years, the return rate for an Air Liquide shareholder has been on average 12.4% per year, with gross dividends reinvested in shares, free share attributions and loyalty bonuses to registered shareholders.

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Earnings per share (in euros) <sup>(a)</sup>	2.74	2.92	3.28	3.62	3.62	4.10	4.47	4.63 <sup>(c)</sup>	4.79	4.85
Dividend per share (in euros) <sup>(a)</sup>	1.22	1.40	1.57	1.73	1.73	1.93	2.06	2.27	2.31	2.55 <sup>(b)</sup>

(a) Based on the average annual number of shares (excluding treasury shares) and adjusted to account for increases in capital via capitalization of reserves or additional paid-in capital, cash subscription and the two-for-one share split on June 13, 2007.

(b) Subject to the approval of the Combined Shareholders' Meeting of May 6, 2015.

(c) Corresponds to the amounts as of December 31, 2012 restated for the impacts of IAS19 revised "Employee Benefits".

## THE AIR LIQUIDE VALUE CODES

Air Liquide shares are divided into four categories, called "value codes" (or ISIN codes), according to when they were recorded as registered shares. There are two permanent value codes (FR0000120073, which is also Air Liquide's stock market ISIN code, and FR0000053951, which corresponds to shares already benefiting from the loyalty bonus) and two intermediate value codes (FR0011336254 and FR0011597350, which identify the shares that will benefit from the loyalty bonus in 2016 and 2017 respectively).

## LISTENING TO AND INFORMING SHAREHOLDERS

## Expertise and proximity

**Shareholder Services** is specific to Air Liquide. Reporting directly to the Chairman and Chief Executive Officer, this team manages the accounts of some 86,000 shareholders who hold direct registered shares and supports them by offering a broad range of personalized services, without intermediaries. It is also dedicated to listening to and informing all the 390,000 individual shareholders and they are sent information all year long through different means of communication. In addition, many events and meetings that are highlights between Air Liquide and its shareholders are organized, for example the Shareholders' Meeting, regional meetings and fairs dedicated to share ownership in France and Europe.

The **Shareholders' Communication Committee**, composed of 12 Air Liquide shareholders, is regularly consulted on the programs developed for shareholders. Apart from plenary meetings with the Chairman and CEO, the Committee is involved through the year in working groups on subjects that are essential to the shareholders' concerns. A Committee member is part of the Air Liquide Foundation's Project Selection Committee.

The Chairman and CEO, after the Shareholders' Meeting, continues his exchanges with **shareholders in the regions** by traveling to several cities in France to present the results, the Group's prospects and to answer their questions. Finally, to strengthen this dialogue, the Director of Shareholder Services regularly meets shareholders at meetings and fairs (about 10 events a year) held in France and in Europe. He also hosts about 10 talks given annually at the French business schools

and universities. Educating students is an essential approach as tomorrow's economic players and decision-makers have an early awareness of the culture of the stock market.

In 2014, more than 8,000 shareholders attended these meetings.

The **Investor Relations Department**, attached to the Finance and Operations Control Department, responds to specific questions from institutional investors and financial analysts of brokerage companies. The four annual announcements of revenue or results are of course privileged moments of exchange but throughout the year this dedicated team meets investors, either at its offices at corporate headquarters in Paris or during travel to the world's major financial centers. Air Liquide organizes roadshows or takes part in conferences to go before international investors and present them with the solidity of its business model, the dynamism of its growth levers and the soundness of its strategy. On average, the Investor Relations Department meets over 300 institutions each year. It also regularly organizes Investor Days, bringing together the international financial community and Air Liquide's management for targeted strategic discussions with a theme that varies according to economic issues and current events.

### Innovation and informational education

Air Liquide provides for its individual and institutional shareholders through various communication means, transparent information on the Group's activities, strategy, performances and prospects.

**Pedagogy** is one of the major concerns that takes priority in the design of information documents and media like the Annual Report, the Shareholder's Guide and the Invitation to the Shareholders' Meeting. The latter document presents the resolutions submitted to the shareholders' vote in an informative way and is sent to all the shareholders who hold at least one share. Air Liquide also publishes, in the month after the event, a report of its Shareholders' Meeting, presenting in a detailed manner all the participations and discussions. These publications are available in French and English. The minutes of the Shareholders' Meeting are established during the month following the Meeting.

Moreover, Shareholder Services has designed a fun, educational **learning module** to better understand the stock market. The first module, "The stock market today", available on the Company's website in the Shareholders section, sheds light on the role and history of the stock market, its different players and Air Liquide's history in the Paris Stock Market. Shareholder Services also offers a free **Air Liquide shareholder app** for iPhone and Android smartphones to follow stock market prices, use simulators and keep up to date with Group news whenever they wish. The shareholder app for iPad is available free from the App Store and enables shareholders of registered shares to log in directly

to their trading account. Their personal data can be relayed into fiscal simulators so they can make relevant calculations. It enables everyone to find out information about the Group easily, and link them to Shareholder Services.

In addition, Air Liquide welcomes its shareholders in a dedicated venue, the **Shareholders Lounge**, at the Group's head office in Paris, so that they can obtain complete information on the Company's activities, the life of the share, and for those who hold direct registered shares, how to carry out operations on their accounts.

The Shareholders' Lounge also features simple, educational, interactive exhibitions, giving shareholders a further opportunity to learn more about the Group's activities and initiatives, and strengthen their links to the Group. Finally, the Shareholders' Service organizes online presentations, broadcast live from the Shareholders' Lounge, on topics related to shareholding such as "Mechanisms for granting bonus shares", "The Basics of Registered Shares", "Asset transfer" and "Taxation".

### MORE INFORMATION

More information on Air Liquide and its share ownership is available in the **Shareholder's Guide**, available online on the website, [www.airliquide.com](http://www.airliquide.com), under "Shareholders."

### SPECIFIC SERVICES FOR REGISTERED SHAREHOLDERS

Specifically organized to respond to shareholder needs, Shareholder Services has 28 employees and provides expertise in all aspects of account management: opening a trading account, share trading orders, taxation on securities, and share transfers. Throughout the year, Air Liquide advisors answer shareholders' questions via the toll-free number mentioned hereafter (also accessible from outside France) or directly at the Shareholders Lounge.

Air Liquide directly manages the accounts of its shareholders with direct registered shares. They pay no handling fees, and broker fees are reduced to 0.18% excluding tax of the gross amount of the transaction. Air Liquide endeavors to regularly communicate to its shareholders on the benefits of holding registered shares (privileged relationships with Air Liquide, loyalty bonus, etc.). Every year, an information campaign is organized for shareholders who have bearer shares: presentation of registered shareholding on all the communication documents and media for shareholders and a booth dedicated to registered shareholding during the Actionaria fair held every November in Paris.



Direct registered shareholders have access to a **personal secure space on the Internet** so that they can consult their share portfolio, modify their personal information or consult documents useful for managing their account. They can also place buy and sell orders on the stock market online and view, in real time, the operations conducted on their account and the amounts received (payment of the dividend, sale of shares, etc.). Since 2014 the Air Liquide website has also featured a customizable shareholder's section.

## CONTACTS

### Shareholder Services:

Air Liquide – 75, quai d'Orsay 75007 Paris, France

☎ **N° Vert 0 800 166 179** or +33 (0)1 57 05 02 26 from outside France  
APPEL GRATUIT DEPUIS UN POSTE FIXE

<http://contact.actionnaires.airliquide.com>

### Investor Relations:

Air Liquide – 75, quai d'Orsay 75007 Paris, France

+33 (0)1 40 62 51 50

[IRteam@airliquide.com](mailto:IRteam@airliquide.com)

## 3.2. Customers and patients

### 3.2.1. SATISFYING OUR CUSTOMERS AND PATIENTS

Air Liquide contributes to the performance of its customers and to its patients' quality of life. The Group is attentive to the satisfaction of its customers and patients and puts action plans in place to continually improve on this satisfaction.

- Air Liquide allows its industrial customers to carry out their production in a safer, cleaner and more economical manner. The Group supports its customers in their national and international development.
- In hospitals, Air Liquide provides patients with medical gases and helps fight nosocomial infections with its disinfection products, among others. The Group also allows patients suffering from chronic illnesses to live better at home, by facilitating their medical monitoring outside the hospital environment.

### AIR LIQUIDE AND ITS CUSTOMERS: PROXIMITY AND EXPERTISE

#### An organization that serves a wide range of customers

Air Liquide serves a **wide variety of industrial customers, estimated at more than a million** who come from sectors ranging from steel to the food industry as well as electronics, pharmaceuticals and craftsmen. Their expectations are extremely varied and change constantly, with ever greater requirements. In each **market sector**, Air Liquide aims to help its customers by acquiring a deep understanding of their business. This allows the Group to **offer its customers innovative services and solutions**. The long-term relationship between Air Liquide and its customers is based on proximity, expertise, trust and performance.

The Group's organization enables each entity, in each geographic region, to meet the specific expectations of local customers, thus building a **close and trusting relationship** with individual customers. More than just a product, customers demand **flexibility, responsiveness, service, availability and a real partnership over the long term**. Furthermore, the Group's three Hubs in Frankfurt, Houston and Shanghai, formed in 2013, have forged closer links with customers and markets and accelerated decision-making thanks to less centralized management. For example, the Hub based in Frankfurt, Germany, not only brings the Group closer to the growth markets of Eastern Europe, but also spearheads major global projects.

In addition, some international customers require fully coordinated global management services. A Key Strategic Accounts program helps support these customers and meet their specific needs. The program relies on a **dedicated team of Key Account Managers**, whose task is to develop, with the help of the relevant subsidiaries around the world, a thorough knowledge of these customers as part of a lasting relationship.

#### The customer as the focus of Air Liquide's attention and action

Customer satisfaction must be present into every aspect of the Group's organization and every decision-making process. In an ever more dynamic and competitive environment, Air Liquide focuses its attention on its customers and their satisfaction in order to bring them growth over the long term. To strengthen this priority and continue to make progress in this area, a **"Customer Development Group"** was formed in January 2014 under the supervision of a member of the Executive Committee. The goal of this **special-purpose team**, which is organized in such a way as to **cross all world Business Lines**, is to ensure that **customers are the key focus of the Group's thinking and actions**. The "Customer Development Group" is the control center for customer loyalty programs, for managing the Group's strategic customers,



and for sharing best practices across regions and the various world Business Lines of the Group.

### Customer safety in product use

Air Liquide makes sure that its customers and subcontractors know how to use its products and equipment safely and are aware of the related risks, especially through specific **training programs**.

In addition, the Group constantly updates safety information on its products through **product safety data sheets** and also responds to requirements of national and international directives (REACH – Registration, Evaluation, Authorization and Restriction of Chemical Substances; GHS – Globally Harmonized System of Classification and Labeling of Chemicals). This information is available in the Air Liquide Gases Encyclopedia, accessible on the Group's Internet site at the following address: <http://www.airliquide.com/our-offer.html>, or using a freely available app.

### Dialogue with customers on sustainable development

Air Liquide also responds to its customers' growing requirements regarding its Sustainable Development approach. This allows the Group to contribute to its customers' own sustainable development approach. Over the last four years, in addition to many questions asked at a local level, around a hundred customers have questioned the Group on this subject, including through detailed questionnaires. The Group's Sustainable Development Department therefore provides support to local entities so that they can respond to this type of customer request.

### AIR LIQUIDE AND ITS PATIENTS: PROTECTING VULNERABLE LIVES

Our society is faced with many healthcare challenges: an aging population, an increase in chronic illnesses, pandemics and nosocomial infections. Air Liquide responds to the requirements of patients and healthcare professionals worldwide, making every effort to anticipate their needs. Throughout the world, Air Liquide aims to protect vulnerable lives by offering effective products and services and providing considerate support for patients.

### Looking after the patient throughout the care process

#### Providing patients in hospital and at home with medical products and services that contribute to protecting vulnerable lives

Vulnerability may be a consequence of age, illness or loss of independence. In the course of its activities, Air Liquide is constantly faced with vulnerability: patients undergoing medical

procedures in emergency units or operating theaters, patients exposed to the risk of nosocomial infections, patients with chronic illnesses and multiple pathologies, and elderly people.

Air Liquide aims to protect lives by developing products, services and patient support programs.

#### Protecting patients and supporting healthcare professionals: Air Liquide, a major player in medical gases for hospitals

Air Liquide is one of the world leaders in **medical gas production and distribution and related services for hospitals**. The Group supplies oxygen for operating theaters, intensive care units and patient rooms, as well as therapeutic gases for anesthesia and pulmonary arterial hypertension. Air Liquide also provides therapeutic gas for pain relief, used in some countries during childbirth (Portugal and Great Britain for example) and for procedures carried out at dental surgeries.

Air Liquide furthermore offers a range of **hygiene products used for disinfection and the fight against nosocomial infections**. The Group supplies disinfectants for hospitals, medical instruments and hand-cleansing for medical staff. It also supplies skin cleansers for pre-operative preparation for patients and antiseptics for wound-healing.

Air Liquide currently supplies 7,500 hospitals and clinics worldwide.



#### Nosocomial infections worldwide

According to the World Health Organization, 5 to 10% of people hospitalized in advanced economies contract a nosocomial infection, and this proportion can exceed 25% in some developing economies.

#### Protecting patient autonomy: the human and social dimension of Air Liquide's Home Healthcare activity

Air Liquide's Home Healthcare activity cares for over 1 million patients around the world who have chronic illnesses which require medical respiratory equipment, perfusion or nutritional assistance for their treatment at home. It has a very strong human dimension because it focuses on having patients and their families accept a treatment that is sometimes long term and accompanied by constraints. Air Liquide's employees provide home support to patients suffering from chronic pathologies such as respiratory insufficiency, sleep apnea, diabetes or Parkinson's disease. Air Liquide's multidisciplinary teams of pharmacists, nurses, nutritionists and technicians are dedicated to providing these services as cost-effectively as possible. Innovative education and

## Environmental, Social and Governance (ESG) Report

support programs aim at **improving the patients' quality of life** by helping to **reinforce treatment follow-up** and by **increasing their independence**.

The Home Healthcare activity sits at the heart of the healthcare system between the patient, hospital, doctors, nurses, health insurance organizations and pharmacists. The Group supplies products and medical equipment necessary to start treatment at the patient's home following the medical prescription, and trains the patients and their families in the proper use of devices (oxygen therapy, ventilator, insulin pump, etc.). Air Liquide therefore makes a **major contribution to the care chain by ensuring the patients' follow-up at home over the long run**. It is an activity that demands high quality service on a daily basis and is focused on the long term, with all the caregivers dedicated to improving the patient's quality of life at home.

In 2014, Air Liquide continued to expand its Home Healthcare activities with acquisitions in France of SEPRODOD in July 2014 and of ARAIR Assistance in December 2014.

## Partnerships in Healthcare

## Partnership with patient associations

The European leader in Home Healthcare, Air Liquide cares for some 800,000 patients in Europe suffering from sleep apnea or shortness of breath, notably those with severe chronic obstructive pulmonary disease (COPD), under long-term oxygen therapy.



**COPD, one of the principal causes of death and disability worldwide**

**COPD is a lung infection characterized by a permanent bronchial obstruction which causes respiratory difficulties.**

- **Over 200 million people around the world suffer from COPD. It is currently the fourth-highest cause of death worldwide and could become the third-highest by 2030.**
- **Over a million patients suffering from severe COPD are treated by long-term oxygen therapy. It has been shown that the long-term administration of oxygen, which means more than 15 hours a day, significantly improves these patients' life expectancy.**

Since 2011, the Group's Healthcare activity has worked in partnership with the European Federation of Allergy and Airways Diseases Patients Associations (EFA). This Brussels-based European organization brings together the national associations of

patients with respiratory ailments, with 22 countries represented. In the framework of this partnership, Air Liquide supports the actions on information and raising awareness initiated by the EFA in public opinion and the European authorities.

Air Liquide also contributed to a publication establishing care standards for patients with COPD, incorporating the patients' viewpoint and distributing the publication to the European Commission and healthcare professionals. Air Liquide has also supported a study on patients with portable oxygen concentrators wishing to travel by air in Europe.

## A commitment to patient safety during anesthesia

Air Liquide is a signatory to the Helsinki Declaration, initiated by the EBA (European Board of Anesthesiology) and the ESA (European Society of Anesthesiology). The Helsinki Declaration plans to reduce complications following anesthesia during major surgery by reiterating good clinical practices, the anesthesiologist's key role in patient safety and the importance of cooperation between healthcare manufacturers and the medical community. The Declaration underlines the major role that industry plays in the development, manufacture and supply of drugs and equipment for patient care.

## Specific indicators for the Home Healthcare activity linked to the issue of socially responsible bonds

In 2012, Air Liquide issued its first SRI-labeled bonds <sup>(a)</sup> under its Euro Medium Term Notes (EMTN) program, for a total amount of 500 million euros. This bond was mostly placed with investors having SRI management mandates and permitted the Group to diversify its financing sources. After numerous public authorities and supranational issuers, **Air Liquide became the first company to issue bonds meeting the criteria of SRI investors worldwide.**

Obtaining a rating from the extra-financial rating agency Vigeo about the Home Healthcare activity led to this issue being given an SRI label. This evaluation is based on the social, environmental and governance criteria of the Home Healthcare activity that concerns more than one million patients worldwide.

At the time of the SRI bond issue, Air Liquide committed to publishing extra-financial indicators specifically relating to its Home Healthcare activity.

(a) *Socially Responsible Investment: application of sustainable development principles to investment. Approach consisting in systematically considering the three dimensions – environment, social/societal, governance – in addition to the usual financial criteria.*

Indicators concerning the Home Healthcare activity

In the framework of this SRI bond issue, Air Liquide made a commitment to publishing during the life of these bonds, i.e., nine years, indicators specific to the Home Healthcare activity in the area of the environment, safety and employee diversity.

Number of patients treated	2010	2011	2012	2013	2014
Total number of patients treated by the Air Liquide Home Healthcare Division	600,000	700,000	1,000,000	1,100,000	1,200,000
Number of employees					
Home Healthcare activity employees <sup>(a)</sup>	4,893	5,494	7,303	7,748	8,183
Safety					
Number of lost-time accidents of at least one day among employees	29 <sup>(b)</sup>	28 <sup>(b)</sup>	42 <sup>(b)</sup>	77 <sup>(b) (c)</sup>	62 <sup>(b) (c)</sup>
Number of accidents of subcontractors and temporary workers <sup>(d)</sup>	15 <sup>(b)</sup>	7 <sup>(b)</sup>	10 <sup>(b)</sup>	13 <sup>(b)</sup>	9 <sup>(b)</sup>
Equality					
% of women among Managers and Professionals	53%	55%	55%	56%	58%
% of women among Managers and Professionals hired during the year	62%	62%	40%	70%	56%
Training					
Average number of days of training per employee, per year	2	2.1	1.6	2	2 <sup>(e)</sup>
Kilometers driven and CO <sub>2</sub> emissions related to transportation					
Kilometers driven per patient followed per year			155	147	124
CO <sub>2</sub> emissions related to transportation per patient (kgCO <sub>2</sub> /patient) per year			39	35	29

(a) Employees under contract.

(b) No fatal work accidents.

(c) Including 17 work accidents involving activities acquired at the end of 2012 and in 2013.

(d) Personnel working under an Air Liquide contract at a Group site, or at a customer site, or as a delivery vehicle driver.

(e) 15 hours a year according to counting in hours (base: 1 day = 7.5 hrs).

A COMPANY RESPONSIBLE TO ITS CUSTOMERS AND PATIENTS: FROM LISTENING TO ACTION

As part of its Corporate Social Responsibility and Sustainable Development approach, **customer and patient satisfaction is a priority for Air Liquide**. The Group carries out surveys to measure customer and patient satisfaction and establishes action plans to continuously improve satisfaction levels. Air Liquide’s relationship with industrial customers of very diverse sizes and sectors as well as with healthcare professionals, patients and associations in the Healthcare activities are at the heart of the concerns of the Group’s teams and guide the Company’s development. The quality of this relationship concerns each entity and employee. It is based on the definition of precise commitments that the Group’s teams endeavor to respect in their daily activities, in a spirit of professionalism and service.

In a context of a change in its customers and patients’ expectations and growing diversity of its customers and patients, the Group has set itself the following objectives:

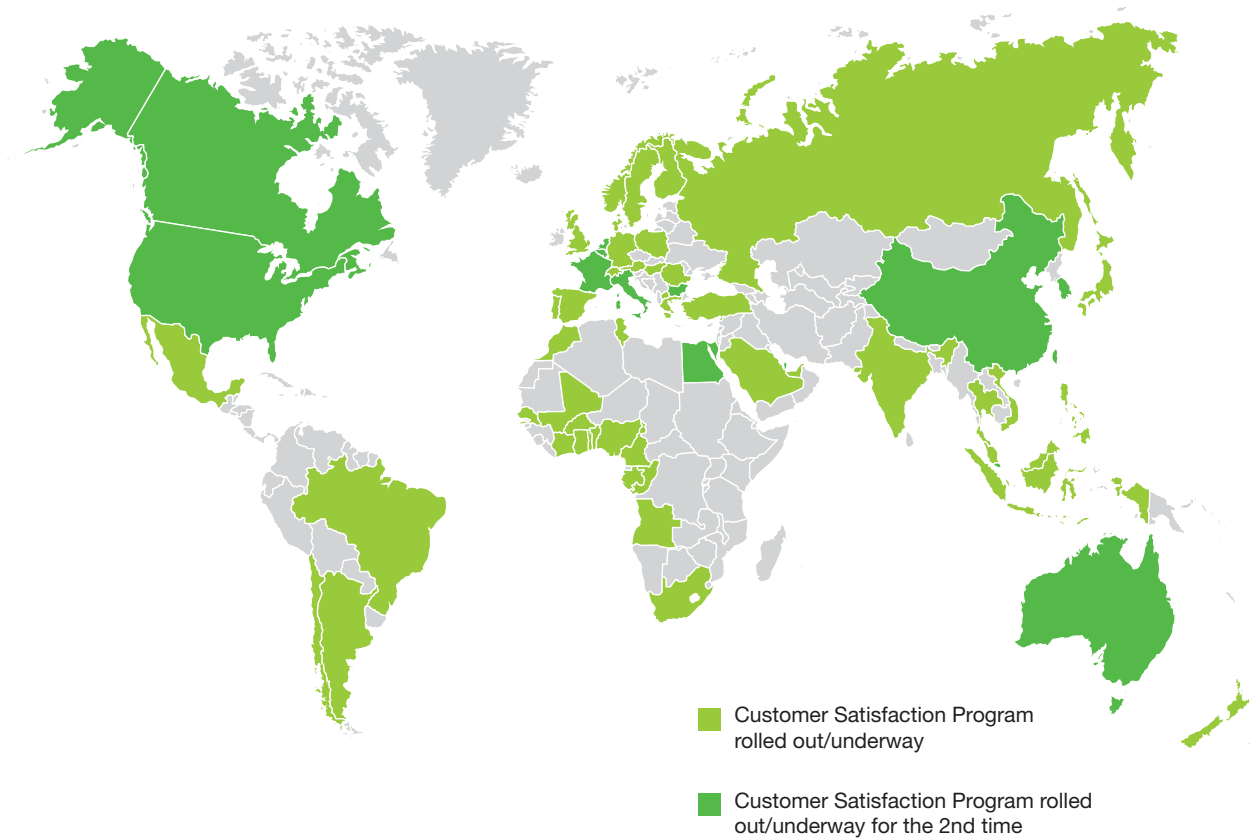
- continually increase customer loyalty and satisfaction;
- ensure customer loyalty over the long term;

- gain the trust of new customers to ensure the Group’s growth.

The Group has implemented a tool called “Action Surveys” for all of its World Business Lines around the world. The tool is rolled out at all subsidiaries as part of a three-step process of ongoing improvement:

1. **Listening to customers and patients** through interviews conducted by specialized companies, along with customer site visits, and **measuring the improvement in satisfaction from one satisfaction survey to the next**.
2. **Creating action plans** and getting Group employees involved in areas for improvement as identified through survey analyzes and interviews conducted in the field.
3. **Implementing action plans:** managers are responsible for implementing the action plans and measuring their progress. Some action plans are shared with customers.

In 2014, **18,000 customer and patient surveys** were conducted, supplemented by **850 customer and patient visits**, and more than **150 new action plans** were launched. **16 countries**, including those in which the **main subsidiaries** are based, implemented this program for the **second time** in 2014.



In 2014, the percentage of Group sales related to entities where customer satisfaction surveys and action plans had been carried out in the last two years was 80%, up from 76% in 2013.

### Percentage of Group sales related to entities where customer satisfaction surveys were carried out

Year	2011	2012	2013	2014	2015 objective
Percentage of Group sales related to entities where a customer or patient satisfaction survey has been carried out in the last two years.	39%	66%	76%	80%	85%

### A commitment to customers which is getting results

In the past two years, the **15,000 industrial customer satisfaction surveys** conducted in all regions revealed that **89% of customers are satisfied or very satisfied with Air Liquide**. Customers particularly appreciated product and service quality, safety, and the behavior and efficiency of teams in contact with them. The 11% of somewhat dissatisfied customers are subject to a specific follow-up by teams from the subsidiaries, and specific action plans will be implemented to improve satisfaction.

These satisfaction levels are partly the result of **the effectiveness of targeted action plans**. For example, in December 2014, the results of the second wave of customer surveys, carried out by Air Liquide Australia, shows a significant improvement in customer satisfaction compared to 2012.

In **South Korea**, the **Electronics Business Line** redesigned its quality control system following the 2012 Action survey. Production of certain advanced technology products was geographically relocated to better meet customer needs. In 2014, the percentage of **“very satisfied”** and **“extremely satisfied”** customers increased from **40% to 50%**.

These surveys also provide feedback on concerns and incidents encountered by the customers in their relations with the Group. Priority action plans are created to address any areas of dissatisfaction.

To mobilize the entire organization, workshops raising awareness about the customer experience have also been rolled out. The workshops, called "Inside Customer Shoes", bring together employees from Procurement, Sales, Production and Human Resources. In 2014, "Inside Customer Shoes" workshops were held in 10 countries and involved over **3,000 Group employees – five times more than in 2013**. The progress of this program has been demonstrated by the substantial number of subsidiaries that have gotten involved in raising employee awareness on this issue, multiplying the number of sessions held.

### A Group that listens to its patients and healthcare professionals

The Group's determination to improve its listening capacities for its stakeholders includes the Healthcare Business Line. **Air Liquide is particularly attentive to its patients' needs** in order to improve the quality of its service on an ongoing basis.

The "Action Surveys" tailored to this activity have been roll out since 2011. Since then, the subsidiaries that produce and distribute medical gases to **hospitals** have conducted surveys with the technical and procurement departments of the customer hospitals as well as with doctors who use the gases.

In the **Home Healthcare** activity, patients benefiting from Air Liquide's services as well as the doctors prescribing the treatments, pharmacists distributing these products and healthcare coverage authorities responded to these **satisfaction surveys**.

In 2014, these surveys were conducted in France, the United States, Italy, Australia and various countries in Africa and Asia, polling more than 6,500 patients, prescribers, pharmacists, and regional health authorities. The results regarding their level of satisfaction were positive.

### 3.2.2. PROTECTING THE LIVES OF OUR PATIENTS AND OUR CUSTOMERS' ENVIRONMENT

#### Revenue linked to life and the environment

Over 40 applications of industrial and medical gases preserve the environment for the Group's customers and the life of patients: these applications represent **45% of revenue** <sup>(a)</sup>.

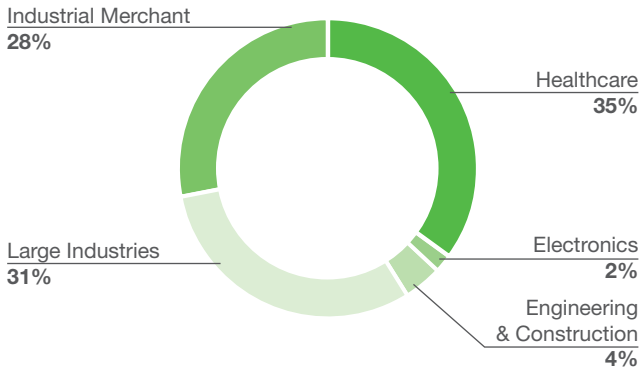
Air Liquide has consolidated this life- and environment-related revenue since 2005. Revenue related to life and the environment is calculated for **each Group activity**: Large Industries, Industrial Merchant, Healthcare, Electronics, and Engineering & Construction.

Below are some examples of applications which preserve the environment for customers and life for patients within the Group's different activities:

- For customers of the **Large Industries** activity:
  - using hydrogen in refineries to remove sulfur from hydrocarbons, thus reducing the emissions of sulfur oxide, which are responsible for acid rain;
  - using oxygen in blast furnaces to reduce the consumption of coke, whose production and usage is very polluting.
- For customers of the **Industrial Merchant** activity:
  - packaging in a modified atmosphere to protect foods and reduce chemical additives;
  - inerting with nitrogen for the safety of industrial installations;
  - fusing glass by using pure oxygen, which considerably reduces emissions of nitrogen oxides, one of the gases that causes acid rain;
  - treating water with oxygen at sewage plants to reduce the use of chemicals;
  - using rare gases like krypton to improve the insulation of double-glazed windows.
- For patients of the **Healthcare** activity:
  - using oxygen in hospitals and for the Home Healthcare activity;
  - using hygiene products in the fight against nosocomial infections;
  - manufacturing adjuvants for vaccines.
- For customers of the **Electronics** activity:
  - using industrial gases in the renewable energy industry employing photovoltaic technology.
- For customers of the **Engineering & Construction** activity:
  - selling hydrogen production units to third parties for refining, to limit sulfur emissions into the atmosphere;
  - selling equipment for valorizing biogas.

(a) 2013 data. 2014 data will be available mid-2015.

### Breakdown of revenue related to life and the environment by activity



The percentage of Air Liquide's revenue related to life and the environment increased sharply between 2005 and 2013, going from 33% to 45% of the Group's total revenue. This growth illustrates the development of the applications linked to preserving life and the environment in Air Liquide's global revenue.

### INNOVATION RELATED TO LIFE AND THE ENVIRONMENT

Almost 60% of the Group's innovation expenditure in 2014 was devoted to work preserving life and the environment. Innovation is a growth driver for the future in terms of revenue related to life and the environment, and focuses on the following:

#### ■ Environment:

- energy efficiency of the Group's production units;
- hydrogen, as a clean energy carrier;
- hydrogen to desulfurize hydrocarbons;
- industrial gases for the photovoltaic industry;
- CO<sub>2</sub> capture and recovery;
- second-generation biofuels;
- biomass recovery and purification of biogas.

#### ■ Healthcare and Hygiene:

- research on medical gases, in particular for anesthesia, analgesia, and in respiratory diseases;
- hygiene and sterilization products to combat nosocomial infections;
- development of vaccine adjuvants.

Detailed information on these innovative initiatives for our customers and our patients is presented in the Innovation section of Chapter 1 of the Reference document.

## 3.3. The Company's ethics

The Group endeavors to take into account the interests of its different stakeholders through its decision-making processes as well as in carrying out each of its actions. This approach, inspired by the Group's Executive Management, guides the action of each entity and employee to ensure the Company's responsible growth.

### PRINCIPLES OF ACTION

Air Liquide formalized the Principles of Action guiding the Group's strategy and development in a document that explains its approach to all its stakeholders. Available in 16 languages, this document was distributed to all the Group's entities and can be viewed at [www.airliquide.com](http://www.airliquide.com) under Company/Ethics, in French and English.

### SOCIAL AND ENVIRONMENTAL RESPONSIBILITY

#### Social and Environmental Responsibility Policy

In addition to the principles of action, the Group's policies were completed and compiled into a global protocol called the BLUEBOOK. This protocol is accessible to all the Group's employees and concerns the internal information systems that they usually use. These policies are in the form of Procedures, Codes and Reference Guides.

In the BLUEBOOK, the Social and Environmental Responsibility Policy defines the commitments made by the Group in the framework of its activities to promote the respect for and safety



of men and women, the protection of the environment, ethics and participation in the economic and social development of the regions in which it operates.

This Social and Environmental Responsibility Policy has implemented a consistent Sustainable Development approach at every level of the Company and defines the guidance on this subject for the subsidiaries and departments. It is available at [www.airliquide.com](http://www.airliquide.com) under Company/Ethics, in French and English.

## Commitment to Human Rights

Air Liquide recognizes the importance of protecting Human Rights in all countries in which the Group operates, and has a responsible procurement policy for conducting business with suppliers.

The Group's Corporate Social and Environmental Responsibility policy is very much inspired by compliance with the 10 principles of the United Nations Global Compact, the Universal Declaration of Human Rights, and international labor law.

This policy stipulates, for example, that Air Liquide shall respect Human Rights and the dignity of its employees, subcontractors, temporary workers and suppliers. In this framework, the Group's entities notably exclude any form of discrimination, harassment, the use of forced labor or child labor and any undermining of the freedom of association. Air Liquide's policy aims at respecting labor law in all the countries in which it operates, and is therefore considering taking into account the fundamental conventions of the International Labor Organization (ILO) on this subject.

**In 2014, Air Liquide signed the Global Compact.** Introduced in 1999 by the United Nations, the Global Compact aims to encourage businesses to adopt a socially responsible attitude by committing to embracing and promoting ten principles relating to Human Rights, labor, sustainable development and anti-corruption.

## EMPLOYEE CODES OF CONDUCT

The Group's subsidiaries must implement a local Code of Conduct. This decentralized approach combines respect for local customs and regulations and Air Liquide's ethical commitment. It also helps the subsidiaries to embrace the Group's ethical principles by writing their own Codes of Conduct themselves in their working language. As a result, in 2014, 94% of the Group's employees belonged to subsidiaries that have a local Code of Conduct. The 6% of employees who do not yet have a local Code of Conduct primarily correspond to entities recently acquired by the Group and undergoing consolidation. Today, these Codes of Conduct are available in 23 languages.

These Codes of Conduct must adhere to 10 key concepts set out in the BLUEBOOK (the Group's Corporate Social and Environmental Responsibility policy):

- respect for laws and regulations;
- respect for people: health and safety conditions in the workplace, prevention of discriminatory actions, respect for third parties;
- respect for the environment;
- respect for competition law;
- respect for rules on insider trading;
- prevention of conflicts of interest: links to a competitor, customer or supplier, respect for rules on corruption;
- protection of Air Liquide's activities: protection of information, property and resources;
- transparency and integrity of information;
- internal controls and audits;
- implementation of Codes of Conduct.

These 10 key concepts are detailed on the Group's website, [www.airliquide.com](http://www.airliquide.com), under Company/Ethics, in French and English.

These Codes of Conduct demonstrate the Group's commitment to respect the regulations concerning its economic activity but also ethical principles such as social rights and the fight against discrimination and harassment.

An e-learning program on employee Codes of Conduct was launched at Group level.

In addition, since 2007, a Group Ethics Officer has been responsible for providing advice and assistance to the entities in applying their Code of Conduct. He also handles all the questions submitted by employees on implementing these Codes of Conduct.

## RESPECT FOR COMPETITION LAW

Instructions and codes at the Group level were established as to proper behavior concerning respect for competition law, especially in Europe and the United States. The most important rules on competition law are also included in the employees' local Codes of Conduct. For some of the Group's activities, Healthcare in particular, specific Code of Conduct have been developed on competition law as well.

Audits are jointly conducted on a regular basis by the Group's internal audit departments and an external attorney. They carry out tests and interviews to identify and correct practices at risk in this area or any deviations observed.



Finally, awareness-raising meetings on compliance with competition law are regularly held throughout the Group.

Furthermore, an e-learning program was launched at the Group level on competition-related practices and international principles.

### FIGHT AGAINST CORRUPTION

In 2009, the Group formalized an **anti-corruption Code of Conduct** that met international standards. This code has been made available to all entities and an extract is available at [www.airliquide.com](http://www.airliquide.com) under Company/Ethics, in French and English.

This anti-corruption Code of Conduct, which is linked to the Corporate Social and Environmental Responsibility policy included in the BLUEBOOK, provides a reminder of the laws on the fight against corruption and deals with relations with intermediaries, particular cases such as mergers, acquisitions and partnerships, types of payments requiring particular attention, as well as administrative and accounting traceability requirements.

To strengthen the roll-out of this anti-corruption Code of Conduct throughout the Group, Air Liquide launched a **training program** in

2010 dedicated to disseminating knowledge of the anti-corruption Code of Conduct and its best practices to the Group's employees. In addition, a specific e-learning module was produced in 2013 to raise employee awareness more quickly. This training is now an integral part of the Air Liquide University program and is aimed at staff most exposed to corruption risk (sales, procurement, administrative management, and so on) and managers. These training programs are gradually being rolled out Group-wide.

Lastly, the new Supplier Code of Conduct (see under "Training" section) includes a chapter on corruption prevention.

### HANDLING DEVIATIONS

Currently, the most significant cases of fraud and deviation, once detected, are transmitted to the Audit Committee of the Board of Directors, along with measures for investigating and handling these situations. Starting in early 2015, the Group will gradually introduce a formal ethical alert system ("whistleblowing") into its entities worldwide, whereby any employee can anonymously file an alert message with an independent company. The topics are then analyzed and processed by the Group's Ethics Officer.

## 3.4. Relying on responsible suppliers

Air Liquide's responsible procurement policy is an integral part of the Group's Corporate Social Responsibility and Sustainable Development approach.

**Air Liquide's responsible procurement policy** makes use of several tools:

- to start with, the **Buyers' Code of Conduct**, translated into 13 languages, sets out the ethical and sustainable development principles that govern the Group's procurement;
- in addition, **sustainable development clauses** are being systematically included into the Group's new **framework contracts**. These clauses allow for the possibility of conducting external audits at the suppliers and subcontractors concerned. They also include compulsory reporting elements from the supplier, in particular on safety, energy and water consumption, and social rights;
- since 2009, Air Liquide's responsible procurement policy has been strengthened by a **process that evaluates suppliers** by means of a questionnaire on sustainable development. All Group buyers are now systematically required to use this questionnaire to evaluate suppliers presenting a potential CSR risk. Certain answers are considered eliminatory such as the absence of a commitment to health and safety, of regular inspections of high-risk tools, of compliance with local

legislation on the minimum wage, or of measurement of energy consumption. Air Liquide is developing, with all its subsidiaries, this evaluation approach concerning its suppliers, with the support of a partner specialized in responsible procurement. The evaluation includes the environment, social issues, the ethics of business and the suppliers' own procurement policy. This supplier evaluation policy was formalized in the Group's BLUEBOOK protocol. For the past five years, the Group has conducted annual evaluation campaigns for approximately 700 suppliers. In 2014, a new global campaign was conducted among 235 suppliers. It included the reassessment of around sixty suppliers identified in previous years as needing improvement;

- in 2014, a new on-site audit initiative was launched. Five suppliers, considered to be at risk during reassessments made 18 months after the first evaluation, were audited at sites in Italy, Argentina and China. These on-site audits were conducted according to an international benchmark by an independent auditor specializing in the field of responsible procurement, in the presence of procurement representatives from Air Liquide and Group HS <sup>(a)</sup> E managers. Action plans were implemented at three suppliers and two suppliers were disqualified;
- for the first time in 2014, **Air Liquide published a new Key Indicator for responsible procurement**. This is the

(a) Health, Safety & Environment.

percentage of Air Liquide's critical suppliers who have had a CSR evaluation by an external provider, specializing in responsible procurement. At the end of 2014, this indicator stood at 31%;

- since 2013, a **Code of Conduct** has been routinely sent to all Group suppliers. This code, which can be found on Air Liquide's website, applies to the Group's existing and new suppliers. Air Liquide expects each of its suppliers to respect the Group's ethical principles and ensure that all their employees and subcontractors comply with this Code of Conduct.

The Code of Conduct for Air Liquide suppliers is based on the following fundamental principles:

- compliance with international laws and regulations, respect for human rights, social rights, and labor rights in accordance with the International Labor Office, control of certain raw materials, <sup>(a)</sup> and compliance with all legislation applicable to environmental protection,
- ban on child labor and forced labor,
- health and safety at work,
- non-discrimination and prevention of harassment, regardless of origin, gender, beliefs or disability, in accordance with the Universal Declaration of Human Rights and its ethical principles,
- respect for the environment and preservation of natural resources, with a constant focus on continually improving their products and services to make them more environmentally friendly,
- prevention of conflicts of interest,

### 3.5. Relations with public authorities

Air Liquide has formalized a "Public Affairs" policy governing the Group's interactions with public authorities throughout the world. It deals with reducing risks related to regulatory changes, developing market opportunities and more generally bringing the Group into the public debate.

This policy specifies that Air Liquide works with the public authorities of each country in which it does business, in a transparent manner, following ethical rules and applying political neutrality. All the Group's actions respect the official lobbying regulations in force in the countries in which it is present. Air Liquide is thus registered in the "transparency register" of European institutions and has committed to following the rules enacted by this register's Code of Conduct.

- prevention of corruption,
- access to information and checks that the rules set forth in the Code of Conduct are applied for tenders and qualification or performance evaluation procedures for each supplier in any format, such as a questionnaire or an audit by Air Liquide or a third party.

Other tools and initiatives are deployed in the context of the Group's responsible procurement policy. For example, social, environmental and ethical **risks** relating to procurement have been **mapped** and monitored since 2010 so that they can be assessed and their development checked over time. In 2014, a major meeting with the Group's main suppliers in Europe was organized by Air Liquide's Procurement Department to discuss issues and exchange information. One of the themes addressed during the day was awareness of corporate social responsibility.

**Training** sessions on supplier evaluation have been held for Group buyers on a regular basis for many years. In addition, a specific training module on responsible procurement will be rolled out in 2015, and is aimed at everyone in the Group that is involved in procurement.

In 2014, sub-contracting for the Air Liquide Group came to a total of 1.47 billion euros. Sub-contracted activities are mainly those which are too far-removed from the Group's activities or that require specific resources or that are linked to a concentrated workload at particular times. The total amount of Group procurement in 2014 was 9 billion euros, a significant part of which was related to energy, natural gas and naphtha procurement.

Since 2008, Air Liquide has published the number of lost-time accidents of its subcontractors and temporary workers. In 2014, there were 92 lost-time accidents of this type, including one fatality recorded.

Managers specialized in public affairs have been appointed in the principal countries, comprising a network of around 20 people worldwide, coordinated at Group level by the European and International Affairs Division.

The tasks of these managers are to follow public initiatives that may have an impact on the Group and to interact with the public authorities to defend or promote Air Liquide's interests. These interactions can take place either directly or through the professional associations of which Air Liquide is a member. The Group is active in several federations and associations, such as Afep [French private companies association,] the French *Cercle de l'Industrie* [industry circle,] and the European Roundtable of Industrialists, currently chaired by Air Liquide's Chairman & CEO, Benoît Potier. The Group also calls on outside consultants in this area.

(a) In particular, the supplier must carefully and as far as possible identify the source and track the chain of command for various minerals like tantalum, tin, tungsten and gold involved in the manufacture of products supplied to Air Liquide.

## Environmental, Social and Governance (ESG) Report

Public affairs cover all the Group's activities. The priorities in this area remain unchanged from 2013, and form part of a long-term process:

- the competitiveness of companies at worldwide level;
- energy transition and the environment with the boom in alternative energies (hydrogen energy, biogases, photovoltaic, wind turbines, etc.), and energy efficiency;
- the carbon market with changes in European regulations and the development of regional markets in North America and Asia-Pacific;

- the defence of Air Liquide's shareholding model;
- at European level, the space question notably concerning current discussions on the future European space launcher;
- the defence of intellectual property and the launch of the European patent.

At Corporate level, the Group dedicated a budget of approximately 3 million euros for 2014 to perform these missions successfully.

In relation to fiscal matters, Air Liquide is particularly attentive to paying the taxes in the countries where the Group is present and to the desire for good relations with the different local tax authorities.

### 3.6. Industrial management system and certifications

A decade ago, the Group introduced an Industrial Management System (IMS) specific to its businesses. It is designed to strengthen the process for managing safety, reliability, environmental protection and industrial risk management. **It has now been introduced throughout the Group.** An indicator makes it possible to track the percentage of revenue covered by the Group's IMS internal audits over the last five years. **Between 2010 and 2014, 101 units were audited, representing 93% of the Group's activities** in terms of revenue. In five years, almost the entire Group was audited on the implementation of its Industrial Management System (IMS).

The Group considers the IMS that was specifically created to be one of the best adapted to its businesses. Alongside this approach and to meet the requests of certain customers, the Group entities carry out other initiatives such as ISO certifications.

The **ISO9001** quality certifications cover about **70%** of the Group's revenue. Likewise, the **ISO14001** certifications, an international

benchmark in environmental management, **cover 27% of the Group's revenue.**

For several years, in certain regions the Group has undertaken to obtain the occupational health and safety certification "**OHSAS18001**", which now covers **16%** of the Group's revenue.

**Environmental incidents**, such as **accidents relating to personal safety**, are reported by Air Liquide subsidiaries worldwide. They are analyzed in depth depending on their nature so that prevention measures can be strengthened.

The worldwide "**Responsible Care**" Charter is an initiative of the International Council of Chemical Associations. It formalizes the commitment of the signatories to strengthen the global performance of the chemical industry in health, safety and environmental protection. Air Liquide signed it in 2010 at Group level, confirming many principles that the Company already very largely follows.

#### Industrial management system and certifications

	Scope	2010	2011	2012	2013	2014
Estimate of the revenue of Group entities covered by an ISO9001 quality certification	World	71%	76%	76%	72%	70%
Estimate of revenue of Group entities covered by an ISO14001 environmental certification	World	25%	27%	29%	27%	27%
Estimate of revenue of Group entities covered by an OHSAS18001 occupational Health and Safety management system	World	12%	15%	18%	15%	16%

## ➤ REPORTING METHODOLOGY

### Protocol and definitions

In the absence of a relevant and recognized protocol for industrial gas operations, Air Liquide has created its own protocol to define its reporting methods for human resources, safety and environmental indicators. This protocol includes all the definitions, measurement procedures and collection methods for this information. In line with the Group's commitment to continuous improvement, Air Liquide is progressively completing the work of adjusting to its sustainable development indicators protocol to reflect changes in the Group.

This protocol is based on the general principles defined by the Group with regard to scope, responsibilities, controls and limits, and establishes definitions, the departmental responsibilities, tools and data-tracing methods for each indicator. This document is regularly updated. Moreover, this protocol takes into account all the Group's formalized procedures in the framework of the IMS (Industrial Management System).

### Scope and consolidation methods

Human resources and environmental indicators are consolidated worldwide for all companies globally and proportionally integrated within the financial consolidation scope pro rata according to the integration percentage.

Safety indicators are consolidated worldwide for all companies in which Air Liquide has operational control or is responsible for safety management.

Apart from these general rules, there are certain specific ones:

- information on the impact of transportation (kilometers traveled by delivery trucks, CO<sub>2</sub> emitted) is calculated on the basis of data collected in the main countries where the Group is established around the world;
- information on kilometers saved and CO<sub>2</sub> emissions avoided through on-site air gas production units and efficiency measures pertains to fully consolidated subsidiaries;

- environmental and energy indicators for the main types of production units operated by the Group cover about 99% of the Group's revenue in Gas & Services, and 98% of the Group's total revenue;
- for environmental and energy indicators, production units are included in the reporting system from the effective date of their industrial commissioning;
- electricity consumption, and the indirect CO<sub>2</sub> emissions related to it, are only taken into account when Air Liquide pays for this electricity. Energy consumption of on-site units, as well as water consumption specific to the sale of treated water (which is not part of the Group's core business) are excluded from the consolidation scope of the data. When the Group has cogeneration units in a country where ASUs are available, the indirect emissions from the electricity of these units is not taken into account;
- the segmentation between advanced economies and developing economies for direct and indirect greenhouse gas emissions is established by the Finance Division.

### Reporting and responsibilities

The human resources, safety and environmental indicators are produced by several data-collection systems in the Group, each under the responsibility of a specific department:

- human resources indicators included in the Group's general accounting consolidation tool are under the responsibility of the Human Resources Department;

- the energy consumption and CO<sub>2</sub> emissions indicators for the main air separation units, and cogeneration, hydrogen and carbon monoxide units are tracked by the Large Industries business line using a dedicated Intranet tool;

### Reporting methodology

- as a complement, the collection of environmental and safety data is carried out by the Safety and Industrial Management System Department using a dedicated Intranet tool, and includes accident reporting:
  - for all units, the data of the Group's accident reporting,
  - for the units of the Large Industries business line, other environmental indicators (atmospheric emissions, water consumption, discharge to water, etc.),
  - for the smaller units (acetylene, nitrous oxide, carbon dioxide units and Hygiene and Specialty Ingredients business), the Welding business units and the Engineering & Construction business units, the Research & Development sites and the Technical Centers, and all indicators (energy use, atmospheric emissions, water consumption, discharge to water, etc.);
- indicators on Industrial Merchant transportation are the responsibility of this business line;
- indicators on the transportation of Medical Gases and Home Healthcare are the responsibility of the Healthcare business line;
- the estimate of the percentage of the Group's revenue with respect to the implementation of the Industrial Management System (IMS), ISO9001, ISO14001 and OHSAS18001 are indicators under the responsibility of the Safety and Industrial System Department;
- among the subjects covered by the French "Grenelle 2" law, soil pollution and the consideration of noise pollution are not relevant for the industrial gases business given the size of the Group's sites and the noise levels generated. They are therefore not mentioned in this report.

## Controls

Each department in charge of collecting data is responsible for the indicators provided. Control occurs at the time of consolidation (review of changes, inter-entity comparisons).

Safety and energy indicators are tracked monthly. In addition, audits of environmental data are carried out by the Safety and

Industrial System Department on a sample of sites representative of the various types of units monitored. Where the data reported are inconsistent or missing, an estimated value may be used by default.

## Methodological limits

The methodologies used for certain human resources, safety and environmental indicators can have certain limits:

- the absence of nationally or internationally recognized definitions, in particular for indicators on managers and professionals and social performance indicators;
- the representativeness of the measurements taken and required estimates. This is particularly the case for indicators regarding CO<sub>2</sub> emissions avoided, water consumption, kilometers avoided per on-site unit and training.

## ➤ INDEPENDENT VERIFIER'S REPORT

# Independent verifier's report on the consolidated social, environmental and societal information presented in the management report

To the Shareholders,

In our quality as independent verifier of L' Air Liquide of which the admissibility of the application for accreditation has been accepted by the COFRAC, under the number n° 3-1050 <sup>(a)</sup>, we present our report on the consolidated social, environmental and societal information established for the year ended December 31, 2014, presented in the chapter "2014 Corporate Social Responsibility and Sustainable Development Report" of the management report, hereafter referred to as the "CSR Information," pursuant to the provisions of article L. 225-102-1 of the French Commercial Code (Code de commerce).

### RESPONSIBILITY OF THE COMPANY

It is the responsibility of the Board of Directors to establish a management report including CSR Information referred to in article R. 225-105-1 of the French Commercial Code (Code de commerce), in accordance with the protocols used by the company (hereafter referred to as the "Criteria"), and of which a summary is included in the chapter "Reporting methodology" of the management report and available on request.

### INDEPENDENCE AND QUALITY CONTROL

Our independence is defined by regulatory requirements, the Code of Ethics of our profession as well as the provisions of article L. 822-11 of the French Commercial Code (Code de commerce). In addition, we have implemented a quality control system, including documented policies and procedures to ensure compliance with ethical standards, professional standards and applicable laws and regulations.

### RESPONSIBILITY OF INDEPENDENT VERIFIER

It is our role, based on our work:

- to attest whether the required CSR Information is present in the management report or, in the case of its omission, that an appropriate explanation has been provided, in accordance with the third paragraph of article R. 225-105 of the French Commercial Code (Code de commerce) (Attestation of presence of CSR Information);
- to express a limited assurance conclusion, that the CSR Information, overall, is fairly presented, in all material aspects, in accordance with the Criteria (Limited assurance on CSR Information).

Our verification work was undertaken by a team of ten people between November 2014 and March 2015 for an estimated duration of fifteen weeks.

We conducted the work described below in accordance with professional standards applicable in France and the Order of May 13, 2013 determining the conditions under which an independent third-party verifier conducts its mission, and in relation to the opinion of fairness, in accordance with the international standard ISAE 3000 <sup>(b)</sup>.

(a) Scope available at [www.cofrac.fr](http://www.cofrac.fr).

(b) ISAE 3000 – Assurance engagements other than audits or reviews of historical information.



## 1. Attestation of presence of CSR Information

We obtained an understanding of the company's CSR issues, based on interviews with the management of relevant departments, a presentation of the company's strategy on sustainable development based on the social and environmental consequences linked to the activities of the company and its societal commitments, as well as, where appropriate, resulting actions or programs.

We have compared the CSR Information presented in the management report with the list as provided for in article R. 225-105-1 of the French Commercial Code (Code de commerce).

In the absence of certain consolidated information, we have verified that the explanations were provided in accordance with the provisions of article R. 225-105-1, paragraph 3, of the French Commercial Code (Code de commerce).

We verified that the CSR Information covers the consolidated perimeter, namely the entity and its subsidiaries, as aligned with the meaning of article L. 233-1 of the French Commercial Code (Code de commerce) and the entities which it controls, as aligned with the meaning of article L. 233-3 of the same Code, with the limitations specified in the Methodological Note in the section "Reporting methodology" of the chapter "2014 Corporate Social Responsibility and Sustainable Development Report".

Based on this work, and given the limitations mentioned above, we confirm the presence in the management report of the required CSR information.

## 2. Limited assurance on CSR Information

### NATURE AND SCOPE OF THE WORK

We undertook about twenty interviews with people responsible for the preparation of the CSR Information in the business lines of Large Industries, Industrial Merchant and Healthcare, and the department of Sustainable Development, Purchasing, Communication, Safety and Industrial System and Human Resources in charge of the data collection process and, if applicable, the people responsible for internal control processes and risk management, in order to:

- assess the suitability of the Criteria for reporting, in relation to their relevance, completeness, reliability, neutrality, and understandability, taking into consideration, if relevant, industry standards;
- verify the implementation of the process for the collection, compilation, processing and control for completeness and consistency of the CSR Information and identify the procedures for internal control and risk management related to the preparation of the CSR Information.

We determined the nature and extent of our tests and inspections based on the nature and importance of the CSR Information, in relation to the characteristics of the Company, its social and environmental issues, its strategy in relation to sustainable development and industry best practices.

For the CSR Information which we deemed to be the most important <sup>(a)</sup>:

- At the level of the consolidating entity and business lines, we consulted documentary sources and conducted interviews to corroborate the qualitative information (organization, policies, actions, etc.), we implemented analytical procedures on the quantitative information and verified, on a test basis, the calculations and the compilation of the information, and also verified their coherence and consistency with the other information presented in the management report.

#### (a) **Environmental and societal information:**

*Indicators: Annual electricity (GWh) and thermal energy consumptions (TJPCI), evolution of energy consumption per m<sup>3</sup> of air gas produced and per m<sup>3</sup> of hydrogen produced (base 100 in 2007), evolution of the distance traveled per ton of industrial gas delivered (oxygen, nitrogen, carbon monoxide, base 100 in 2007), direct & indirect greenhouse gas (GHG) emissions (scopes 1 & 2, in MtCO<sub>2</sub>e), annual water consumption (Mm<sup>3</sup>).*

*Qualitative information: General environmental policy (management of the industrial system and certification), sustainable use of resources (energy consumption, measures undertaken to improve energy efficiency), climate change, water supply considering local constraints, economic and social territorial impacts (employment, regional development, impact on regional and local populations especially regarding home care activities), relation with stakeholders (particularly patient and customer's satisfaction as well as activities related to life and environment), responsible purchasing policy and measures undertaken in favour of consumers' health and safety.*

#### **Social information:**

*Indicators: Headcount (Nb), recruitments and departures (% headcount), rate of women within the managers and professionals population (present and hired %), rate of employees having attended at least a training session during the year (%) and number of days of training per employee per year, rate of performance appraisals performed by managers during the year (%), frequency rate of the group staff.*

*Qualitative information: Absenteeism, health and safety at the work place, training policies, diversity and equality of treatment and opportunities.*

- At the level of the representative selection of entities and sites that we selected <sup>(a)</sup>, based on their activity, their contribution to the consolidated indicators, their location and a risk analysis, we undertook interviews to verify the correct application of the procedures and undertook detailed tests on the basis of samples, consisting in verifying the calculations made and linking them with supporting documentation. The sample selected therefore represented on average 15% of the energy consumption, and 20% of Group Employees.

For the other consolidated CSR information, we assessed their consistency in relation to our knowledge of the company.

Finally, we assessed the relevance of the explanations provided, if appropriate, in the partial or total absence of certain information.

We consider that the sample methods and sizes of the samples that we considered by exercising our professional judgment allow us to express a limited assurance conclusion; an assurance of a higher level would have required more extensive verification work. Due to the necessary use of sampling techniques and other limitations inherent in the functioning of any information and internal control system, the risk of non-detection of a significant anomaly in the CSR Information cannot be entirely eliminated.

## CONCLUSION

Based on our work, we have not identified any significant misstatement that causes us to believe that the CSR Information, taken together, has not been fairly presented, in compliance with the Criteria.

## OBSERVATIONS

Without qualifying our conclusion above, we draw your attention to the following point:

- the definitions of the quantitative training indicators and especially "number of hours of training per employee per year" are open to interpretation and lead to a heterogeneous application by the different subsidiaries.

Paris-La Défense, March 6, 2015

The independent verifier  
French original signed by

ERNST & YOUNG et Associés

Eric Duvaud  
Associé développement durable

Bruno Perrin  
Associé

(a) Environmental indicators: On-site audits of air gases network of Mississippi River USA (Geismar, Plaquemine -LA, Evergreen and Norco units), units of air production of Cangzhou, of hydrogen units of La Porte (USA), Port Jérôme (France) and Campana (Argentina), of cogeneration units of Geismar (USA) and the Industrial Merchant sites of Geismar and La Porte (USA). Two follow up audits of Tianjin Binhai (China) and Santa Cruz (Brazil).

Safety & Social indicators: Air Liquide Industrial USA, Large Industrial US (safety indicators only), Air Liquide Ptyo (South Africa), Soxal (Singapore), Air Liquide Russia, VitalAire France and Air Liquide Engineering France (social indicators only) and Orkyn (France) and one follow up audit of Air Liquide China (social indicators only).

## ➤ APPENDIX

### Link between Air Liquide's Sustainable Development indicators and the indicators of the Global Reporting Initiative (GRI) <sup>(a)</sup>

Air Liquide indicators	GRI indicators
<b>Human Resources</b>	
Group employees	LA1
Distribution of employees by geographic zone	LA1
Turnover of employees (leaving the Group)	LA2
Retention rate of Managers and Professionals	LA2
% of women in the Group	LA13
% of women among Managers and Professionals	LA13
Average number of days of training per employee and per year	LA10
% of employees who have had a performance review meeting with their direct supervisor during the year	LA12
Diversity indicator (number of nationalities)	LA13
% of employees with benefits coverage through the Group	LA3
<b>Safety</b>	
Number of lost-time accidents of Group employees	LA7
Accident frequency of Group employees	LA7
Number of lost-time accidents of subcontractors and temporary workers	LA7
<b>Energy and environment</b>	
Total annual electricity consumption	EN3/EN4
Total annual thermal energy consumption	EN3/EN4
Evolution of energy consumption per m <sup>3</sup> of air gas produced (ASU)	EN6
Evolution of energy consumption per m <sup>3</sup> of hydrogen produced (HyCO)	EN6
Evolution of the distance traveled per ton of gas delivered	EN6
Total annual water consumption	EN8
Total direct greenhouse gas emissions	EN16
Total indirect greenhouse gas emissions	EN16
Total direct and indirect greenhouse gas emissions	EN16
Consumption of materials (calcium carbide, ammonium nitrate, raw materials for the Welding business)	EN1
Emissions into the atmosphere (NOx)	EN20
Emissions into the atmosphere (SOx)	EN20
Estimate of emissions into the atmosphere (VOC)	EN20
Discharge to water (oxidizable matter, suspended solids)	EN21
Total mass of waste by type and waste treatment	EN22
<b>Transportation</b>	
Estimate of CO <sub>2</sub> emissions by transportation	EN29
Estimate of CO <sub>2</sub> emissions avoided through on-site units	EN29
<b>Social</b>	
% of employees belonging to a unit with a local Code of Conduct	SO3
<b>Responsibility</b>	
% of the Group sales concerning the units where a customer or patient satisfaction survey has been conducted	PR5

(a) Global Reporting Initiative (GRI) – an independent body that designs and promotes guidelines aimed at improving the quality, stringency and usefulness of reporting on economic, environmental and social performance.



# 3

## CORPORATE GOVERNANCE

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## ➤ MANAGEMENT AND CONTROL

### Board of Directors as of December 31, 2014

<b>Benoît Potier</b> Chairman and Chief Executive Officer Expiration date of term: 2018	<b>Jean-Paul Agon</b> Director Expiration date of term: 2018
<b>Thierry Desmarest</b> Director Expiration date of term: 2017	<b>Siân Herbert-Jones</b> Director Expiration date of term: 2015
<b>Gérard de La Martinière</b> Director Expiration date of term: 2015 <sup>(a)</sup>	<b>Pierre Dufour</b> Director – Senior Executive Vice-President Expiration date of term: 2016
<b>Cornelis van Lede</b> Director Expiration date of term: 2015 <sup>(a)</sup>	<b>Sin Leng Low</b> Director Expiration date of term: 2018
<b>Thierry Peugeot</b> Director Expiration date of term: 2017	<b>Annette Winkler</b> Director Expiration date of term: 2018
<b>Paul Skinner</b> Director Expiration date of term: 2018	<b>Philippe Dubrulle</b> Employee Director Expiration date of term: 2018
<b>Karen Katen</b> Director Expiration date of term: 2016	

(a) Expiration of term at the end of the Shareholder's Meeting of May 6, 2015, in compliance with the internal regulations of the Board of Directors.

#### CENTRAL WORKS COUNCIL DELEGATES

- Joël Pierret
- Patrick Recourt

#### RENEWAL OF TERM PROPOSED TO THE ANNUAL GENERAL MEETING OF MAY 6, 2015

- Siân Herbert-Jones, Director

#### APPOINTMENT PROPOSED TO THE ANNUAL GENERAL MEETING OF MAY 6, 2015

- Geneviève Berger, Director

In accordance with the recommendation of the French financial markets authority (Autorité des marchés financiers), the following schedule summarizes the changes in 2014 and planned for 2015 in the composition of the Board of Directors:

	2014	2015	Comments
Departure	Béatrice Majnoni d'Intignano	Gérard de La Martinière Cornelis Van Lede	
Appointment	Sin Leng Low Annette Winkler	Geneviève Berger <sup>(a)</sup>	Diversification in terms of feminization, geographies and businesses
Renewal	Benoît Potier Paul Skinner Jean-Paul Agon	Siân Herbert-Jones	
Appointment	Philippe Dubrulle (Employee Director <sup>(b)</sup> )		

(a) Appointment subject to the approval of the Ordinary Shareholders' Meeting of May 6, 2015.

(b) Appointment by the Group Committee in France.

## Executive Management and Executive Committee

### Benoît Potier

Chairman and Chief Executive Officer  
Born in 1957 – French

### Guy Salzgeber

Vice-President, Western Europe  
Born in 1958 – French

### Pierre Dufour

Senior Executive Vice-President  
Supervising Americas, Africa-Middle-East and Asia-Pacific zones,  
Large Industries World Business Line, as well as Engineering & Construction  
Born in 1955 – Canadian

### Augustin de Roubin

Vice-President, South America  
Born in 1953 – French

### Jean-Pierre Duprieu

Executive Vice-President  
Supervising Europe, Healthcare World Business Line and Welding activities  
Born in 1952 – French

### Mok Kwong Weng

Deputy Head of Asia  
Born in 1953 – Singaporean

### François Darchis

Senior Vice-President  
Research and Development, New Business-Innovation & Technology,  
Intellectual Property,  
Industrial Merchant World Business Line  
Born in 1956 – French

### François Abrial

Vice-President, Human Resources  
Born in 1962 – French

### Jean-Marc de Royere

Senior Vice-President  
International  
Corporate Social Responsibility  
Born in 1965 – French

### Pascal Vinet

Vice-President, Healthcare Global Operations  
Born in 1962 – French

### Michael J. Graff

Senior Vice-President  
Vice-President, Americas  
Electronics World Business Line, Safety and Industrial Systems  
Born in 1955 – American

### François Jackow

Vice President, Corporate Strategy  
CSR Customer Initiative  
Born in 1969 – French

### Fabienne Lecorvaisier

Group Vice-President, Finance and Operations Control  
Diving activities  
Born in 1962 – French

### François Venet

Vice President, Asia-Pacific  
Born in 1967 – French



## ➤ REPORT FROM THE CHAIRMAN OF THE BOARD OF DIRECTORS

(prepared pursuant to article L. 225-37, paragraphs 6-9, of the French Commercial Code)

This report has been prepared by the Chairman of the Board of Directors. For the section relating to the composition, preparation and organization of the work of the Board of Directors, it has been drawn up on the basis of contributions by several of the Company's Corporate Functional Divisions, and in particular the Legal and Financial Departments. It was approved by the Board of Directors on February 16, 2015 on the recommendation of the Appointments and Governance Committee.

### Composition, preparation and organization of the work of the Board of Directors

As of December 31, 2014, the Board of Directors comprised 13 members: 12 members appointed by the Annual Shareholders' Meeting, including seven foreign members and four women (representing 33%), and one Director representing the employees appointed by the France Group Committee. A Director's term of office is four years. Expiry dates of terms of office are staggered. In May 2015, at the close of the Shareholders' Meeting, subject to the approval of the proposed resolutions, the Board of Directors will comprise 12 members, including, among the members appointed by the Shareholders' Meeting, six foreign nationals (British, American, Canadian, German and Singaporean) and five women (representing 45%).

#### CODE OF CORPORATE GOVERNANCE

The Board of Directors confirmed that, in keeping with the Group's previous practices, the AFEP/MEDEF Code of corporate governance for listed companies is the code to which the Company voluntarily refers. This Code, as last updated in June 2013, is available on the <http://www.medef.com/medef-corporate.html> website ("Publications" section, under "Economy") or at: [http://www.afep.com/uploads/medias/documents/Code\\_gouvernement\\_entreprise\\_societes\\_cotees\\_Juin\\_2013\\_en.pdf](http://www.afep.com/uploads/medias/documents/Code_gouvernement_entreprise_societes_cotees_Juin_2013_en.pdf);

At their meetings in January, the Appointments and Governance Committee and the Remuneration Committee reviewed the Company's current practices with regard to each of the provisions of the AFEP/MEDEF Code of corporate governance as interpreted by the application guide for the AFEP/MEDEF Code published by the *Haut Comité de Gouvernement d'Entreprise* (French High Committee on Corporate Governance) (December 2014) and noted that the Company was in compliance with almost all its provisions.

Pursuant to article L. 225-37 of the French Commercial Code, where applicable, those provisions of the aforementioned Code that are currently not applied and the reasons for this are stated in this report. A summary is presented in table format on page 139.

The principles governing the professional ethics of Directors, the composition, the role and the rules of operation of the Board and its Committees are defined in the internal regulations. The internal regulations as last adopted by the Board of Directors on May 7, 2014 have been published in their entirety on the Company's website.

#### PROFESSIONAL ETHICS OF DIRECTORS – RIGHTS AND OBLIGATIONS OF DIRECTORS

The internal regulations summarize the main obligations imposed on Directors.

The Directors represent all the shareholders and shall act in all circumstances in the Company's best interests.

Each Director undertakes to meet the obligations imposed upon him/her by the articles of association and the various legal, regulatory or internal Company provisions and, more specifically, the internal rules relating to the prevention of insider trading or the obligations to report transactions in the Company's shares.

Each Director is bound by an obligation of secrecy.

Each Director shall endeavor to take part in all meetings of the Board and the Committees of which the Director is a member, and attend the Shareholders' Meetings.

Each Director shall keep him/herself informed and devote the time and attention required to perform his/her duties.

Under the Company's articles of association, each Director must hold at least 500 registered shares in the Company. This provision does not apply to the Director representing the employees.

Under the Internal Regulations:

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“the members of the Board of Directors must inform the Board of any situation of conflict of interest, even if it is only potential, with the Company and must refrain from taking part in the vote on the corresponding decision.”

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This obligation is completed by a formal annual declaration provided to the Company by each Director attesting to the absence of a potential conflict of interest involving him/her. Finally, the Appointments and Governance Committee currently has the task of preventing potential situations of conflict of interest on the Board.

During the 2014 fiscal year, the Company had to handle a declaration of a potential conflict of interest in relation with the renewal process for the Statutory Auditors (see page 341).

Furthermore, an internal memo on the prevention of insider trading sent to the Directors at the beginning of the year outlines in greater detail the applicable legal and regulatory obligations; it also sets the restrictions for dealing in Company shares by defining abstention periods during which members may not trade in those shares.

Directors are also informed of the provisions relating to obligations to report any transactions involving the Company's shares that apply to them.

All the provisions governing Directors' rights and obligations are included in the manual for members of the Board of Directors updated annually, the last version having been updated in June 2014.

### COMBINATION OF THE ROLES OF CHAIRMAN AND CHIEF EXECUTIVE OFFICER

The Board of Directors confirmed its intention of maintaining the combination of the roles of Chairman and Chief Executive Officer, both roles being held by Benoît Potier, at the time of the renewal of his term of office as a Director at the Shareholders' Meeting on May 7, 2014.

The continued combination of the roles is in keeping with the Company's history, the regular improvement in the Company's performance having mainly taken place with a form of governance involving a combination of roles (since the origin of the Company except for the period from 2001 to 2006). This organization responds to the very specific shareholder structure of Air Liquide, which has always consisted, alongside institutional investors from all continents, of a significant number of individual shareholders (who held 37% of the capital at the end of 2014), accompanying the Group over the long term. The regular, personalized exchanges offered by the dialogue between the shareholders and Executive Management through a single contact person, with in-depth knowledge of the Group and its businesses, make it possible to ensure that definition of the Group's strategy takes due account of the expectations and interests of shareholders over the long term. Maintaining the combination of roles therefore promotes, in the Air Liquide tradition, a close, trustful relationship between its Executive Officers and the shareholders.

The combination of the roles of Chairman and Chief Executive Officer takes place in compliance with balanced rules of governance, guaranteeing the Group's continued success and the loyalty of its shareholders. These are currently based on:

- a composition of the Board with the predominance of independent Directors (10 members out of the 12 members appointed by the Annual Shareholders' Meeting at December 31, 2014) and three specialist Committees consisting exclusively of independent members. The composition of the Board is also balanced in terms of skills and nationalities;
- a collective top management decision-making process, with a meeting of the Executive Management once a month;
- a balanced organization of the relations between Executive Management and the Board based on (i) limits on the powers of Executive Management, the Board's agreement being required for significant transactions; (ii) regular interactions between the non-executive Directors and the members of the Executive Committee at the time of specific presentations made to the Board in particular during the full-day session on strategy or during Committee meetings; and (iii) the regular information provided to the Directors, including between Board meetings;
- a role of vigilance entrusted to the Appointments and Governance Committee which has been tasked, since 2010, with overseeing the proper functioning of the governance bodies. In this respect, pursuant to the terms of the internal regulations, this Committee is the instrument of dialogue between the non-executive Directors and the Chairman and Chief Executive Officer, in particular in case of conflicts of interest on the Board; it also monitors the changes in corporate governance practices and the process for evaluation of the Board;
- an annual review of the assessment of the performance and remuneration of the Executive Officer Committee which is always carried out without the presence of the Executive Officer concerned;
- the authority given by the articles of association to one-third of the Directors to convene a Board meeting and to set the agenda for the meeting, if the Board has not met for over two months; and
- the appointment of a Lead Director.

### LEAD DIRECTOR

Since May 2014, the Board of Directors is obliged to appoint a Lead Director as long as the roles of Chairman and Chief Executive Officer are combined, pursuant to the terms of the clause of the articles of association approved by the Shareholders' Meeting on May 7, 2014 in its 18<sup>th</sup> resolution (amended Article 13).

On the recommendation of the Appointments and Governance Committee, the Board of Directors, at its meeting on May 7, 2014, decided to amend the internal regulations of the Board of Directors to:

- a. define the roles and responsibilities and powers of the Lead Director as follows:

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*“Roles and responsibilities and powers of the Lead Director*

The Lead Director has the following roles and responsibilities and powers:

1. He conducts the work of the Appointments and Governance Committee, upon delegation from the Chairman of that Committee when he is not the Chairman of the Committee himself, concerning the governance tasks entrusted to the Committee, notably for the examination of the choice of general management organization, the review of changes in and application of the rules of corporate governance, the preparation of the evaluation of the functioning of the Board, the review of ethical issues, the attention paid to the proper functioning of the governance bodies, and in particular the transmission of the information requested by independent Directors; on all these points, the Lead Director can formulate all proposals and make any suggestions he considers necessary.

More specifically, the Lead Director coordinates, within the Committee, the implementation of the procedures aimed at identifying and analysing potential situations of conflicts of interest on the Board; he draws the attention of the Chairman and Chief Executive Officer to potential situations of conflicts of interest identified in this manner.

He reports on these matters to the Board of Directors.

2. The Lead Director, after receiving the opinion of the Appointments and Governance Committee, may ask the Chairman of the Board of Directors to convene a meeting of the Board of Directors on any specified agenda, at any time and as often as required in the interests of the Company.

Under the conditions provided for in Article IV of these regulations, the Lead Director may also receive a delegation of authority to convene a meeting of the Board of Directors at the request of at least one-third of its members.

3. The Lead Director, after receiving the opinion of the Appointments and Governance Committee, may propose the inclusion of additional points on the agenda for any Board meeting to the Chairman of the Board of Directors.
4. The Lead Director convenes and chairs the annual joint session of the Appointments and Governance Committee and the Remuneration Committee on the questions related to the performance and conditions of remuneration of the Executive Officers, which is held outside the presence of any Executive Director under the conditions provided for in paragraph 5.2 (c) of these regulations. He reports to the Board on this meeting.
5. The Lead Director reviews the requests made by shareholders with regard to governance and makes sure that they are answered.
6. The Lead Director reports on his activities to the Board of Directors every year.
7. The Lead Director makes sure that a report is made to the shareholders on the governance issues falling within the scope of his responsibilities. A report on his activities is made in the Reference Document.”

- b. provide for a joint annual session to be chaired by the Lead Director of the Directors on the Appointments and Governance Committee and the Remuneration Committee, outside the presence of the executive members, for the assessment of the performance of the Executive Officers and their remuneration;

On May 7, 2014, the Board of Directors appointed Mr. Thierry Desmarest as Lead Director until the end of his term of office on the Appointments and Governance Committee.

For the report on the first eight months of performance of his duties, see pages 135 and 136.

- c. provide for the possibility of asking for re-examination of the choice of the Company's general management organization that is now systematically offered to the Directors, within the scope of the evaluation questionnaire concerning the Board's functioning.

## COMPOSITION OF THE BOARD OF DIRECTORS

The internal regulations stipulate that:

“Members are chosen for their skills, their integrity, their independence of mind and their determination to take into account the interests of all shareholders.”

“The composition of the Board of Directors, with regard to its members appointed by the Annual Shareholders’ Meeting upon the proposal of the Board of Directors, shall reflect diversity and complementarity of experience, nationalities and cultures, including a significant number of executive managers or former executive managers; the Board of Directors shall look for persons possessing skills in the following areas: marketing, services, industry, finance, health, research and technology.”

The internal regulations include **guidelines**, although not written in stone, **for the Board’s composition**, particularly in terms of the number of Directors appointed by the Shareholders’ Meeting (normally between 10 and 12), the balance between (former) executive managers and external members, the duration of the terms of office (four years, staggering of renewals of terms of office, limiting the proportion of members appointed by the Shareholders’ Meeting in office for more than 12 years to one third), age or the proportion of members who qualify as independent, thus aiming to comply with the recommended principles in terms of good corporate governance practices. The internal regulations specify that the objective of increasing the number of women on the Board of Directors will be pursued in accordance with the legal principle to institute a balance of male and female Board members. Pursuant to the amendment to the articles of association approved by the Shareholders’ Meeting on May 7, 2014 in its 17<sup>th</sup> resolution (amended Article 11), Mr. Philippe Dubrulle was appointed as Director representing the employees by the France Group Committee on June 18, 2014. In accordance with the AFEP/MEDEF Code, the internal regulations provide for a limit of four other terms of office in French or foreign listed companies for non-Executive Directors and two other terms of office for the Executive Directors. Moreover, an obligation to provide information on the terms of office held in other companies, including their participation on the Board Committees of such companies, is provided for non-executive Directors; an obligation of asking for the opinion of the Board of Directors (which makes a decision on the recommendation of the Appointments and Governance Committee) before accepting a new corporate office in a listed company is also provided for the Company’s Executive Officers.

## INDEPENDENCE OF BOARD MEMBERS

Based on the full definition of independence set out in the AFEP/MEDEF Code of corporate governance, the internal regulations define the criteria applied within the Company to assess the **independence** of Board members.

“A member of the Board of Directors is independent when he/she has no relationship of any kind with the Company, its Group or its management which may interfere with his/her freedom to exercise his/her judgment.

In this spirit, the criteria which may provide guidance to the Board in order to classify a member as independent will be as follows:

- he/she is not and has never been an employee or member of the Executive Management of the Company;
- he/she does not hold office as Chairman, Chief Executive Officer, Chairman or member of the Management Board of a company in which the Chairman of the Board of Directors, the Chief Executive Officer or a Senior Executive Vice-President of Air Liquide is a Director or member of the Supervisory Board;
- he/she must not have any business relations with the Air Liquide Group which represent a significant part of the business activities (i) of the company of which the Director is a member of the Executive Management or (ii) of Air Liquide;
- he/she does not have any close family links with the Chief Executive Officer or a Senior Executive Vice-President;
- he/she must not have been an auditor of the Company during the previous five years.”

The criteria used are very largely based on the aforementioned AFEP/MEDEF Code of corporate governance. However, the Board did not consider that terms of office exceeding 12 years disqualify the member concerned from being independent. In reply to a letter received from the *Haut Comité de Gouvernement d’Entreprise* (HCGE) in June 2014 on this point, it was stated that highly capital-intensive investment projects within the scope of long-term contracts, with a typical length of 15 years, but which can sometimes be as long as 20 or 30 years, are at the heart of the industrial gases business. Experience acquired on the Board over time therefore allows a Director to follow the Group’s development cycle in the long term and accordingly make an informed, critical judgment on the investment decisions to be made to ensure future growth. After re-examining the issue at

its meeting in February 2015, the Board decided not to change the independence criteria that have been applied to date for the reasons stated above. The Group is, however, committed to compliance with best governance practices. It therefore told the HCGE that, in a medium-term perspective taking account of the schedule of changes to be made in the composition of the Board, the Board of Directors would be ready to re-examine this criterion. The Board confirmed in February 2015 that this criterion would be re-examined on a regular basis and in particular at the time of renewal of the terms of office of the Directors concerned.

Conversely, the Board considered that former employees or officers of the Company may not be considered as independent even if their duties ended more than five years earlier.

An assessment of the independence of its members appointed by the Shareholders' Meeting is included on the agenda for a Board meeting once a year. To support its analysis, the Board uses a chart summarizing the purchases and sales implemented during the previous year between companies of the Air Liquide Group and companies of groups within which an Air Liquide Director

appointed by the Shareholders' Meeting (or proposed Director) also exercises a term of office or executive role. Such figures are weighted against the total purchases and sales of each group to measure their significance. For fiscal year 2014, such chart shows that the sales of the Air Liquide Group to any of the groups concerned or the purchases of the Air Liquide Group from any of these groups do not exceed 0.4% of the overall sales or purchases of the Air Liquide Group or any of the groups concerned.

Following such analysis, the Board thus determined that, at the end of the 2014 fiscal year, the following members elected by the Shareholders' Meeting were independent: Thierry Desmarest, Cornelis van Lede, Gérard de La Martinière, Thierry Peugeot, Karen Katen, Paul Skinner, Jean-Paul Agon, Siân Herbert-Jones, Sin Leng Low and Annette Winkler.

Further to the recommendation made by the AMF, a table showing the list of Directors in 2014 who are considered as independent in the light of the criteria of the internal regulations compared with the AFEP/MEDEF Code is set out below:

**Independence of the Directors elected  
by the Shareholders' Meeting in light of the criteria in the**

	Internal regulations	AFEP/MEDEF Code
Benoît Potier	No	No
Pierre Dufour	No	No
Thierry Desmarest	Yes	No <sup>(a)</sup>
Gérard de La Martinière	Yes	Yes
Cornelis van Lede	Yes	Yes
Thierry Peugeot	Yes	Yes
Paul Skinner	Yes	Yes
Karen Katen	Yes	Yes
Jean-Paul Agon	Yes	Yes
Siân Herbert-Jones	Yes	Yes
Sin Leng Low	Yes	Yes
Annette Winkler	Yes	Yes
Philippe Dubrulle Director representing the employees	NA	NA

(a) Length of term of office exceeding 12 years.

At December 31, 2014, 10 of the 12 members elected by the Shareholders' Meeting are independent pursuant to the terms of the internal regulations. At the close of the Shareholders' Meeting on May 6, 2015 called to vote on the renewal of the term of office of Siân Herbert-Jones, and the appointment of Geneviève Berger, the Board of Directors will consist of nine independent members pursuant to the terms of the internal regulations out of the 11 members elected by the Shareholders' Meeting.

## ROLE OF THE BOARD OF DIRECTORS

The Board of Directors **determines the major orientations** of the Company's activities. Accordingly, it examines and approves the Group's **major strategic orientations**.

It ensures the implementation of these orientations by Executive Management.

Subject to the powers expressly attributed to Shareholders' Meetings and in accordance with the corporate purpose, the Board deals with any issues concerning the smooth running of the Company and manages corporate business pursuant to its decisions.

The internal regulations stipulate that the **specific powers** legally attributed to the Board of Directors include in particular the choice of Executive Officers, the determination of the terms and conditions governing the remuneration and performance of their duties, the appointment of the Lead Director, the convening of Shareholders' Meetings, the determination of the agenda and proposed resolutions, the preparation of the financial statements and annual management report as well as the determination of its internal rules (formation of Committees, distribution of Directors' fees, etc.). The Board also exercises **the powers delegated to it by the Shareholders' Meeting**, particularly with regard to the granting of stock options or the conditional grant of shares to employees, issues of marketable securities, share buyback or employee savings programs or simple bond issues.

## RELATIONSHIP WITH EXECUTIVE MANAGEMENT

The internal regulations specify the rules **limiting the powers of Executive Management**, by defining the thresholds above which certain key decisions require prior authorization by the Board of Directors, in accordance with article 13 of the articles of association:

- sureties, endorsements and guarantees for an individual amount in excess of 100 million euros or for an annual cumulative amount in excess of 500 million euros;
- external sales or contributions (to non-controlled companies) of equity investments or lines of business, mergers, demergers or partial business transfers, completed for an individual amount in excess of 250 million euros or for an annual cumulative amount, for each of these categories of transactions, in excess of 400 million euros; external sales or contributions of real estate assets for an individual amount in excess of 80 million euros or for an annual cumulative amount in excess of 150 million euros;
- creation of pledges or security for an individual amount in excess of 80 million euros or for an annual cumulative amount in excess of 150 million euros;

- commitments to invest, acquisitions which will be listed under "Fixed Assets" on the balance sheet, subscriptions to share capital increases, for an individual amount in excess of 250 million euros or for an annual cumulative amount in excess of 400 million euros; the Board of Directors is informed, if possible ex ante and in any case ex post, of transactions for an individual amount in excess of 250 million euros (i) involving purchases of items that cannot be listed under "Fixed Assets" on the balance sheet, such as electricity or natural gas purchases, and (ii) involving sales to third parties of goods or engineering or construction services;
- financing operations concerning the Group for an amount likely to substantially alter the Group's financial structure;
- operations likely to substantially alter the Group's strategy.

Furthermore, the Board shall be given prior information in the event of a fundamental modification of the Group's information system leading to an investment exceeding an amount of 250 million euros.

## FUNCTIONING OF THE BOARD OF DIRECTORS

**Informing the Directors:** the internal regulations define the methods for informing the Directors. They specify, in particular, that prior to Board meetings, a file of meeting documentation dealing with key items on the agenda is sent out to Board members. The Chairman and Chief Executive Officer, assisted, if need be, by Executive Management members, presents to the Board of Directors a quarterly report on the Company's management, the draft annual and interim financial statements and the various issues requiring the Board's authorization or opinion. Any member of the Board of Directors may request any additional information he/she considers necessary. He/she makes such request to the Chairman of the Board.

**Conduct of meetings:** the internal regulations define the frequency of meetings and the rules of convening meetings and participation by video-conference or telecommunications. They provide, in particular, for the right for the Lead Director to ask for convening of a meeting of the Board of Directors with regard to any specified agenda and for the conditions of the annual joint session of the Appointments and Governance Committee and the Remuneration Committee which is held outside the presence of any executive Director.

**Formation of Committees:** the internal regulations define the task and operating procedures of the three Committees set up (see below).

**Training measures:** the internal regulations stipulate that training relating to the Company's businesses is offered to Directors, particularly through site visits or meetings with senior executives. More particularly, information on the Group's accounting, financial and operational specificities is offered to members of the



Audit and Accounts Committee. The Director representing the employees may furthermore receive training relating to his rights and obligations as a Director, in accordance with the regulations in force.

The standard training program systematically proposed to new Directors consists of meetings with the heads of each of the world business lines and the main central functions, possibly accompanied by site visits; Directors may also ask to meet each of the members of the Executive Committee at any time.

## PARTICIPATION OF EMPLOYEE REPRESENTATIVES ON THE BOARD

### With a deliberative vote

Pursuant to the clause of the articles of association approved by the Shareholders' Meeting on May 7, 2014, Philippe Dubrulle was appointed as Director representing the employees by the France Group Committee on June 18, 2014. He is subject to all the provisions of the internal regulations governing the rights and obligations of the Directors described above. The Director representing the employees has sat on the Board with a deliberative vote since the meeting in July 2014. Since his appointment, he has had several training opportunities (meetings with the members of the Executive Committee; meetings with the senior executives at the time of the trip to Houston).

With regard to the possible participation of the Director representing the employees in a Committee, practice in the Company is usually to leave new Directors time to adapt before proposing their appointment to a Committee. The Appointments and Governance Committee examines, on a case-by-case basis, whether it is appropriate to propose to the new Directors their participation in one of the three Committees, according to the most appropriate timetable (see summary table on the application of the AFEP Code, page 139).

The European Works Council is the competent body if a second post needs to be filled.

### With an advisory vote

The law of June 14, 2013, which provides for the system of a Director representing the employees, in principle reduces the number of Central Works Council delegates participating on the Board with an advisory vote to one inasmuch as the number of members on the Board elected by the Shareholders' Meeting does not exceed 12.

At the request of the employee representatives and with the agreement of the Board of Directors, it was provided in an agreement entered into with the various stakeholders that two Central Works Council delegates (and not one as provided for by law) would continue to participate in meetings with an advisory vote; this participation is in addition to that of the employee Director who sits on the Board with a deliberative vote; the purpose of this agreement is to allow balanced representation of the most representative trade unions on the Board.

As a result of the above-mentioned agreement, two members of the Central Works Council delegated by this Council attended all the Board of Directors' meetings held during the 2014 fiscal year with an advisory vote. The delegates receive the same documents as those provided to the Directors on the occasion of these meetings. At meetings, the delegates are able to express their opinion on the questions discussed.

A preparatory meeting in the presence of the Executive Vice-President and the Secretary of the Board of Directors is systematically held before each Board meeting. This preparatory meeting enables the Executive Vice-President to go through the whole file for the Board meeting with the Director representing the employees and the Central Works Council delegates and comment on the items on the agenda. It offers the participants the opportunity to raise their questions and make their initial comments.

## APPRAISAL OF THE BOARD OF DIRECTORS/ ANNUAL JOINT SESSION OF THE APPOINTMENTS AND GOVERNANCE COMMITTEE AND THE REMUNERATION COMMITTEE

The internal regulations stipulate that:

"The Board will ensure that an evaluation is carried out periodically of its composition, its organization and its functioning as well as those of its Committees. An update will be made by the Board on this topic once a year and a formal evaluation will be carried out under the authority of the Chairman of the Board of Directors every three years. Within the scope of the evaluation of the Board, the Directors will be asked to state whether it appears to them to be necessary for the choice of the Company's general management organization to be re-examined."

An evaluation of the functioning of the Board of Directors is carried out every year, alternating between a full appraisal questionnaire leading to a summary showing the replies and the adoption of recommendations for action one year and a questionnaire aimed at making an assessment of the actions implemented in the light of the recommendations made the next year. Following on from the formal appraisals carried out most recently in 2007, 2009 and 2011, the functioning of the Board of Directors and its Committees was fully evaluated in 2013. The summary of responses presented by the Chairman of the Appointments and Governance Committee to the February 2014 Board meeting revealed a very positive assessment of the Board's operation overall, with again particular emphasis on the freedom of expression within the Board. The recommendations made following this appraisal included (i) concerning the **areas of involvement of the Board of Directors**: the principle of a systematic annual presentation to the Board with regard to risks, and the inclusion on the agenda of topics relating to human resources and CSR; (ii) concerning **the functioning of the Board**, it was agreed that the practice of "round-the-table" comments at meetings would be made more systematic with regard to the most significant points; it was also proposed that the number of meetings during the year should be increased to six every two years, with one meeting then being held on a chosen site.

A new questionnaire was drawn up in 2014 to enable the Directors to assess the actions taken in light of the recommendations made and to make further comments, where applicable.

The summary of the answers presented by the Chairman of the Appointments and Governance Committee to the Board in February 2015 highlighted that, overall, the directors make a very favorable assessment of the functioning of the Board. Concerning the areas of involvement of the Board, the directors expressed their satisfaction with regard to the action taken with regard to the topics that the members wanted to include on the agenda for the work by the Board. On the presentation of risk management at Board meetings, suggestions were made to improve the way that the work by the Board fits with the work by the Audit Committee on this subject; it was agreed in particular that more time would be allowed for discussions on this point at the Board meeting in the autumn. Concerning the way the Board functions, the practice of "round-the-table" comments was highly appreciated; it will be continued. More generally, the directors expressed their great satisfaction with regard to the trip to Houston..

In light of the collective nature of the Board, the assessment questionnaire concentrates on an appraisal of the collective contribution of members to the Board's operation; these surveys, however, offer the possibility for the Directors who so wish to freely express their assessment with regard to the actual individual contributions made within the framework of general comments. In addition, in order to improve the Group's practices by ensuring compliance with the AFEP/MEDEF Code, the questionnaire has been supplemented as from this year and now invites Directors to make an evaluation of the participation by Directors in the development of the reflections of the Board of Directors. Furthermore, the contribution by each Director is assessed by the Appointments and Governance Committee and then by the Board of Directors at the time of the renewal of the terms of office of Directors and Committee members.

Concerning the possibility for non-executive Directors to meet without the presence of the executive Directors, the internal regulations provide that:

"With a view to a discussion on questions related to the performance and conditions of remuneration of the Chairman and Chief Executive Officer or the Senior Executive Vice-Presidents, an annual joint session of the Appointments and Governance Committee and the Remuneration Committee is furthermore organised, outside the presence of the Executive Directors. It is convened and chaired by the Lead Director who conducts the session, where applicable, on the basis of the reports on the work and recommendations made by each Committee. The Lead Director reports on this meeting at the Board of Directors' meeting asked to deliberate on these issues."

(See "Combination of the roles of Chairman and Chief Executive Officer" above).

The first session took place in January 2015. A report thereon was made at the Board of Directors' meeting in February 2015 (see the report on the activities of the Lead Director on pages 135 and 136).

## THE BOARD OF DIRECTORS' WORK IN 2014

In 2014, the Board of Directors met six times with an effective attendance rate or attendance rate by telephone of 93% of its members. The meeting in September devoted to the major strategic focuses was held over a full day. The November meeting was held in Houston (USA). During this three-day trip, the Directors were invited to visit the Group's industrial sites and hold discussions with several senior executives and customers of the North America zone, particularly in working sessions, on questions concerning the Group's development in the zone.

The Board's activities related to the following issues:

### Monitoring of the Group's day-to-day management

Monitoring of the Group's day-to-day management is carried out particularly by:

- reviewing the quarterly activity reports presented by Executive Management, its annual and interim parent company and consolidated financial statements in the presence of the Statutory Auditors used to determine the distribution policy; the Board of Directors thus authorized the allotment in June 2014 of one free share for 10 existing shares;
- reviewing the Group's financial position regularly, and more specifically financing and debt management strategies;
- reviewing the minutes of Committee meetings;
- making decisions, in particular with respect to the investments necessary for the Group's medium-term development and corresponding financing capacities and the bond program;
- share buyback/cancellation policy;
- plans for awarding stock options and the conditional grant of shares to employees;
- reviewing at each meeting the report on acquisitions, sales and major projects in progress;
- reviewing employment-related documents: the social balance sheet (report on employee-related matters) and forward-planning documents;
- preparing the Annual Shareholders' Meeting (agenda, proposed resolutions, annual management report and other reports or sections contained in the Reference Document prepared or approved by the Board of Directors, answers to shareholders' written questions);
- human resources issues, and particularly the implementation in 2014 of the bonus to share in profits pursuant to the law of July 28, 2011; the annual deliberation with regard to the Company's gender equality and equal pay policy pursuant to the law of January 27, 2011.

### Monitoring of the Group's main strategies on significant issues

Following the presentations made by Executive Management and certain senior executives, the Board of Directors closely considered the following in 2014:

- (i) questions relating to strategy and particularly the development of major projects (February and April), risk management (September), the Group's human resources policy (September); innovation actions in North America (November), and a review of the Group's strategy in the USA (November);
- (ii) governance issues concerning the measures resulting from maintaining the combination of the roles of Chairman and Chief Executive Officer, and in particular the appointment of a Lead Director (February, May); review of the independence criteria (July, February 2015); re-examination of the performance conditions applicable to the stock option plans (September); annual review of existing regulated related-party agreements (February 2015) and authorization of new agreements (November);
- (iii) questions relating to corporate social responsibility, particularly shareholder policy and shareholder voting rights, within the scope of the law of March 29, 2014 ("Florange" law) (September, November), and the involvement of the employees in the process of consultation of the Central Works Council on the Company's strategic orientations pursuant to the law of June 14, 2013 (July, November).

### Functioning of the corporate governance bodies

With respect to the functioning of the corporate governance bodies, as well as complying with the AFEP/MEDEF Code of corporate governance, the Company strives to reflect the international environment in which the Group carries out its business.

#### Concerning Executive Management:

The Board decided to renew the terms of office of Benoît Potier as Chairman and Chief Executive Officer and Pierre Dufour as Senior Executive Vice-President (May).

The Executive Management team consists of Benoît Potier, Chairman and Chief Executive Officer, Pierre Dufour, Director and Senior Executive Vice-President and Jean-Pierre Duprieu, Executive Vice-President.

#### *Employment contract/corporate office of the Chairman and Chief Executive Officer and the Senior Executive Vice-President*

In accordance with the AFEP/MEDEF Code of corporate governance, which recommends that Chairmen and Chief Executive Officers of listed companies do not combine an employment contract with their corporate office, Benoît Potier put an end to his employment contract as of May 5, 2010.

Pierre Dufour, now in charge of managing the Hub based in Frankfurt, put an end to his French employment contract at the end of 2013. Besides his offices as Director and Senior Executive Vice-President of the Company, Pierre Dufour now performs the duties of Managing Director of the German entity coordinating the Group's activities from its base in Frankfurt and no longer benefits from the protection of French labor law.

#### *Remuneration*

The Board determined the remuneration policy applicable to the Executive Officers, which is set out in detail in the section on remuneration on page 148 et seq. below. The elements of remuneration due or allocated to the Executive Officers in respect of 2014 described in this section are put to the advisory vote of the shareholders at the Shareholders' Meeting on May 6, 2015.

#### *Shareholding obligation*

The rules with regard to the holding of shares set by the Board of Directors are described in detail in the section on remuneration set out later in this document.

#### Concerning the Board of Directors itself:

##### *Composition*

Appointment – Renewal of terms of office:

- The Board of Directors took due note of the decision by Béatrice Majnoni d'Intignano not to ask for the renewal of her term of office as Director in May 2014. The Board proposed to the Shareholders' Meeting on May 7, 2014 to renew the terms of office as Directors of Benoît Potier, Paul Skinner and Jean-Paul Agon for four years. After the end of the Shareholders' Meeting, the Board decided to renew Paul Skinner as a member of the Audit and Accounts Committee and a member of the Shareholder Relations Working Group, and Jean-Paul Agon as a member of the Remuneration Committee.
- The Board of Directors took due note of the end of the term of office of Gérard de La Martinière and Cornelis van Lede at the close of the Shareholders' Meeting on May 6, 2015 in accordance with the internal regulation of the Board of Directors. The Board proposed to the Shareholders' Meeting on May 6, 2015 to renew the term of office of Siân Herbert-Jones, which was due to expire, for a period of four years. The Board proposed to the Shareholders' Meeting on May 6, 2015 to appoint Geneviève Berger as a new member of the Board of Directors. This proposal is the result of a recruitment process led by the Appointments and Governance Committee, with the assistance of an external advisor, which took place over several months. This process consists of (i) the identification by the Committee of candidates who would comply with the rules on composition of the Board defined in the internal regulations, (ii) shortlisting of potential candidates, and (iii) continues with individual interviews with the shortlisted candidate(s). In this way, each Committee member and Benoît Potier met individually with Geneviève Berger; a report on this process was made to the Board prior to discussion and before a decision was made.

### Directors' fees

The Board set the formula for distributing Directors' fees among its members for 2014 within the budget authorized most recently by the Annual Shareholders' Meeting of May 7, 2014 for a maximum amount of 1,000,000 euros per fiscal year (see detailed presentation in the section on remuneration on page 153 below). Within the scope of the agreement entered into with the various stakeholders (see page 128 above) and pursuant to the provisions in force in the Group applicable to all the employees who serve on Boards of Directors of Group companies, it was agreed that the employee Director would not receive Directors' fees.

### Appraisal (see above)

- In 2014, the Board carried out an evaluation of its functioning within the scope of a new survey.
- The Board assessed the independence of each of its members.

Several days prior to each of the Board's meetings, a file of meeting documentation dealing with key items on the agenda is sent out to Board members; since 2013, the file is also accessible in electronic format. For material substantive issues, a very comprehensive summary note is prepared. Every meeting then includes a short presentation by the members of Executive Management or the Group Vice-President Finance and Operations Control on all items, leaving a lot of room to exchange views and for discussions. The meeting in November held in Houston offered Board members the opportunity to hear presentations by Executive Committee members and senior executives in charge of activities in the North America zone and particularly on innovation. It also enabled the

Directors, thanks to the time reserved for discussions with the management teams and visits to industrial sites, to understand the momentum and variety of the Group's actions in this zone. In addition, the Statutory Auditors are involved in meetings where financial statements are reviewed. Presentations give rise to questions and discussions follow before the items on the agenda are put to the vote. Detailed written minutes are then sent to members for review and comment before being approved by the Board of Directors at the next meeting.

## THE COMMITTEES

The Board of Directors has set up three Committees:

### The Audit and Accounts Committee

As of December 31, 2014, the Audit and Accounts Committee had four members: Gérard de La Martinière, Chairman of the Committee, Paul Skinner, Thierry Peugeot and Siân Herbert-Jones. All the members, including the Chairman, are independent.

The Committee members combine experience in business management with economic and financial expertise (see professional careers in the bibliographical memos on Directors on page 180 et seq.). A former finance inspector, former secretary general of the COB and former member of the Management Board and Vice-President of Finance, Audit and Strategy of the AXA Group, Gérard de La Martinière provides the Committee with his extensive financial expertise and knowledge of stock market regulations.

### Composition and purpose as defined in the internal regulations

The Audit and Accounts Committee must comprise three to five members of the Board of Directors and at least two-thirds of its members must be independent.

### TASKS

“The purpose of the Committee is to prepare the decisions to be taken by the Board of Directors by examining the following issues and reporting on them to the Board:

#### By receiving reports:

Jointly and separately, in order to compare and combine different points of view, from:

- the Finance & Management Control and Legal Divisions;
- the Internal Audit and Control Management;
- the external auditors.

#### Concerning the following points:

- existing organization and procedures in the Group;
- their actual functioning;
- how the financial statements and the accounts are drawn up.

#### In order to reach:

- by comparing and combining the points of view collected and using their business judgment based on professional experience, a **reasonable judgment** concerning:
  1. accounts and accounting principles used (their conformity in relation to the reference standards, a fair and complete reflection of the Group's situation, transparency, readability, consistency over time);
  2. existence and functioning of control organizations and control procedures adapted to the Group, making it reasonably possible to identify and manage the risks incurred and to report on them;
  3. organization of the internal audit function, the plans for assignments and actions in the internal audit field, the findings of these assignments and actions and the recommendations and ensuing measures taken;
  4. choice and renewal of the external auditors, review of the tendering process, opinion on the selection of external auditors and the rotation of audit partners, review of proposed fees, information on the overall fees paid indicating the amount of fees paid for non-audit services.

#### The Committee:

1. Collects the observations of the Executive Management on these various issues. It hears the Chief Executive Officer or Senior Executive Vice-Presidents at the Committee's request or at the request of the persons concerned;
2. Reports to the Board of Directors on its work, informing it of any problems that may be encountered, observations made to the Executive Management and progress made in relation to these observations.”

The Committee meets at least three times a year, and always before the Board meetings during which the annual or interim financial statements are reviewed.

An initial verbal report is given to the Board by the Committee Chairman. Written minutes of the meeting, approved by the Committee members, are transmitted to the Directors. The

Committee may ask to convene Group employees. It may meet the Statutory Auditors or members of the Group Control Department in person. It may call on external experts for assistance. The Chairman and Chief Executive Officer does not attend meetings of the Audit and Accounts Committee.



### The Audit and Accounts Committee's work in 2014

The Audit and Accounts Committee met four times with an effective attendance rate or attendance rate by telephone of 94% of its members.

- The Committee reviewed the annual and interim consolidated financial statements and the annual parent company financial statements and took due note of the Company's financial situation, cash flow position and commitments. During the presentation by the Group Vice-President Finance and Operations Control, the Committee more particularly analyzed provisions, the "other operating income and expenses" items, cash flow, taxation, risk exposure and off-balance sheet items. It reviewed the draft analyst presentation relating to the financial statements.
- In addition, the Committee heard the presentations of the Statutory Auditors underlining the key points of the results and the accounting options adopted and took note of their conclusions.
- At the beginning of the year, the Committee reviewed the amount of the fees paid to the Statutory Auditors in respect of the prior year.
- The Committee reviewed more specifically the Group's financing policy, debt and liquidity management.
- The Committee also heard regular reports on the main assignments carried out by the Group Control Department, the follow-up of any corrective actions taken and the Group Control Department's main assignments for the forthcoming year. Within this framework, the Committee reviewed the main points of the Group's Ethics Plan (report on the ethics actions for the year in progress; areas of focus for the following year). The Committee also regularly monitored the process for deployment of the risk management procedure within the Group. It reviewed the Group's risk map and the changes made to it. The Committee reviewed the section in this report on internal control and risk management procedures and recommended its approval by the Board of Directors.
- In accordance with longstanding practice in the Group, the Committee is tasked with carrying out the monitoring of the management of all the risks identified by the Group, even if particular attention is paid to accounting or financial risks; a methodology for the monitoring of each type of risks identified by the Group (including, in particular, the identification of the management and control bodies and procedures) and an appropriate time scale (annual review or regular review at less frequent intervals depending on the type of risks) were defined. At year-end, the Committee ensures that all of the risks identified on the risk map and subject to regular review have been examined by the Audit Committee according to the frequency specified. The work program prepared for fiscal year 2015 is in line with this approach. Reflections are in progress to improve the way the Committee's work fits with that of the Board on this subject.
- In addition, specific presentations were made to the Committee on the following matters: digital security (June); analysis, assessment of risks, method of valuation and

integration processes for acquisitions (June, December); management of purchases (June); image risk (June); systems and processes to ensure compliance with local regulations in Healthcare (December); management by the human resources departments of competencies in key positions (December); the Statutory Auditor renewal process (July, December); follow-up of actions aimed at raising awareness with regard to compliance with antitrust rules and management of business practices, disputes and tax risks (December).

Several days prior to each meeting, a file of meeting documentation is sent out to Committee members and is now available in electronic form. Each Committee meeting is preceded by a preparatory meeting attended by the Committee Chairman assisted by the Committee Secretary, the Group Vice-President Finance and Operations Control, the Vice-President of the Group Control department, and if necessary the Group Internal Audit Director, the Vice-President Group Risk Management and the Group executives who will make presentations to the Committee. During the meeting, each presentation made in the presence of the Executive Vice-President by the Group Vice-President Finance and Operations Control, the Group Control Department, the senior executive specializing in the area under discussion or the Statutory Auditors during the accounts review meetings is followed by discussions. A verbal report and then written minutes of each meeting are prepared for the Board of Directors.

The Committee Chairman regularly meets alone with the Group Vice-President Finance and Operations Control, and the Statutory Auditors outside the presence of any member of Executive Management. He receives the internal audit report summaries. In addition, after presentation meetings for the accounts for the fiscal year, Committee members meet alone with the Statutory Auditors without the presence of Company representatives.

Considering the presence within the Committee of Directors coming from abroad, the two Committee meetings with regard to review of the financial statements were held the day before or on the morning of Board of Directors' meetings; in these circumstances, the financial statements could not be reviewed by the Committee at least two days prior to the Board's review as recommended in the AFEP/MEDEF Code of corporate governance. However, Committee members are in a position to review the financial statements well ahead of the meeting through other means (preparatory meeting with the Committee Chairman more than one week prior to the meeting as provided for above; dispatch of files, now also available in electronic form, to Committee members five to seven days in advance). This issue is currently being re-examined for future fiscal years. Committee meetings relating to the accounts would be scheduled at least two days before the Board meeting, with the possibility of participation by non-resident members by telephone or video-conference.

### The Appointments and Governance Committee/the Lead Director

As of December 31, 2014, the Appointments and Governance Committee had three members: Thierry Desmarest, Chairman of the Committee and Lead Director, Cornelis van Lede and Karen Katen. All the Committee members are independent.



### Composition and purpose as defined in the Company's internal regulations

The Appointments and Governance Committee must comprise three to five members of the Board of Directors and the majority of its members must be independent, according to the criteria adopted by the Board. The Chairman and Chief Executive Officer attends Committee meetings and is closely involved in its discussions. However, he may not be present for any discussions of the Committee relating to him personally. The Committee meets at least three times a year. The conclusions of Committee meetings are presented by the Committee Chairman for discussion and decision-making at the next Board of Directors' meeting.

### TASKS

Pursuant to the internal regulations, the tasks of the Appointments and Governance Committee are as follows:

"1. Concerning the Board of Directors:

- make proposals to the Board of Directors for renewal and appointment of Directors. This Committee looks for new members on the basis of its evaluation of the needs and developments expressed by the Board of Directors, and taking into consideration, in particular, the principle of attempting to achieve balanced representation of men and women on the Board of Directors;
- make proposals to the Board of Directors for the creation and composition of Board Committees;
- periodically evaluate the structure, size and composition of the Board of Directors and submit to it recommendations regarding any potential change;
- the Committee periodically reviews the criteria applied by the Board to classify a Director as independent; once a year, it examines, on a case-by-case basis, the situation of each Director or each candidate for the duties of Director in light of the criteria applied and makes proposals to the Board of Directors.

2. Concerning the Chairman and Chief Executive Officer or the Chief Executive Officer, as the case may be:

- examine, as necessary and, in particular at the time of expiry of the term of office concerned, the renewal of the term of office of the Chairman and Chief Executive Officer, or the terms of office of both the Chairman and of the Chief Executive Officer;
- examine the changes in these duties and provide for solutions for their renewal, where applicable;
- examine the succession plan for members of the Executive Management applicable in particular in the case of an unforeseen vacancy;
- examine periodically developments with regard to the Senior Executive Vice-Presidents, hear the Chairman and Chief Executive Officer (or the Chief Executive Officer) on the needs and the potential proposals for their replacement;
- more generally, ensure that it is kept informed by the Chairman and Chief Executive Officer (or the Chief Executive Officer) of planned changes in Executive Management resources (and, in particular, the Executive Committee).

3. Concerning governance:

- examine, at the time of renewal of the term of office of the Chairman and Chief Executive Officer or of the terms of office of the Chairman and of the Chief Executive Officer, or when a request in that respect is made by Directors within the framework of the evaluation of the Board, whether it is appropriate to continue to combine these roles (or separate them);
- monitor the changes in the rules of corporate governance, in particular within the scope of the code to which the Company refers and inform the Board of Directors of its conclusions; follow up on the application of the rules of corporate governance defined by the Board of Directors and make sure of the information given to the shareholders on this topic;
- prepare the evaluation of the way the Board operates provided for by the internal regulations;
- examine issues of ethics that the Audit and Accounts Committee, the Board of Directors or its Chairman may decide to refer to it;
- ensure the proper functioning of the governance bodies and in particular the transmission of information requested by independent Directors;
- assist, at their request, the Chairman and the Chief Executive Officer in their dealings with independent Directors, and be the instrument of dialogue aimed at preventing potential situations of conflict on the Board.

The Committee can request the assistance of outside experts if necessary. The Company shall provide the Committee in such a case with the corresponding funding.

The Lead Director, upon delegation from the Chairman of the Committee when he is not the Chairman of the Committee himself, conducts the Committee's work concerning the above-mentioned points of governance: the Lead Director can formulate all proposals and make any suggestions that he considers to be necessary in this field. More particularly, the Lead Director coordinates, within the Committee, the implementation of the procedures aimed at identifying and analysing potential situations of conflicts of interest on the Board; he draws the attention of the Chairman of the Board of Directors to potential situations of conflicts of interest identified in this manner.

He reports on these matters to the Board of Directors."

The powers and tasks of the Lead Director are described in the section on "Combination of the roles of Chairman and Chief Executive Officer" above.

## The Appointments and Governance Committee's work in 2014

The Appointments and Governance Committee met three times in 2014 with an effective attendance rate or attendance rate by telephone of 100% of its members.

### Concerning the Board of Directors

The Committee reviewed the desirable future changes in the composition of the Board of Directors. It recommended proposing the renewal of the terms of office as Director of Siân Herbert-Jones to the Shareholders' Meeting on May 6, 2015.

In accordance with the legal principle of instituting a balance of male and female members on the Board, included in the Board's internal regulations, the Committee continued to coordinate the procedure for the search for and assessment of possible candidates, in particular female candidates, which has led to proposing the appointment of Geneviève Berger to the Shareholders' Meeting on May 6, 2015 (see the description of her career on page 192).

The Committee recommended making changes to the internal regulations concerning the limits on terms of office in order for those rules to reflect the new provisions of the AFEP/MEDEF Code, the measures related to maintaining the combination of the roles of Chairman and Chief Executive Officer, the Director representing the employees, and the limits on the powers of the Executive Management (January, April).

### Concerning the Committees/Working Group

The Committee reviewed the composition of the Committees/working group from the perspective of the changes that have taken place or are soon to take place in the composition of the Board (January, April, September).

### Concerning Executive Management

Within the scope of renewal of the term of office as Director of Benoît Potier approved by the Shareholders' Meeting on May 7, 2014, the Committee recommended maintaining the choice of general management organization involving combination of the roles of Chairman and Chief Executive Officer with both being held by Benoît Potier. The Committee recommended that, in this respect, the measures taken to reach a balance between the governance bodies should be reinforced (appointment of a Lead Director, a joint annual session outside the presence of executive Directors of the Appointments and Governance Committee and the Remuneration Committee, and possibility offered to the Directors on a regular basis to ask for re-examination of the choice of governance organization; with regard to all these points, see the section on "Combination of the roles of Chairman and Chief Executive Officer" above). It made recommendations concerning the Company's communication on governance issues (January, April).

The Committee looked at the composition of the Executive Management and Executive Committee and the prospects of changes therein as well as the pool of high-potential young talents (January, April, September).

### Concerning governance

The Committee also reviewed the personal situation of each member of the Board of Directors with regard to the independence criteria defined in the internal regulations. It re-examined the Board's position concerning the independence criteria and, in particular, the criterion relating to terms of office of over 12 years recommended by the Code which is not applied to date and made its recommendations in this respect. In addition, it reviewed the chart summarizing the purchases and sales implemented during the previous year between companies of the Air Liquide Group and companies of groups within which an Air Liquide Director (or proposed Director) also exercises a term of office or executive role. It made recommendations in this respect to the Board (January).

It reviewed the recommendations of the Annual Report of the AMF on corporate governance published on September 22, 2014 and the Report of the *Haut Comité de Gouvernement d'Entreprise* on October 21, 2014 (including the application guide for the AFEP/MEDEF code issued by the HCGE in December 2014) and made its recommendations in light of the practices followed by the Company. It reviewed the draft of this report and recommended its approval by the Board of Directors (January 2015).

It reviewed the table showing deviations in the Group's practices as compared to the Code which is set out on page 139. It noted that the deviations relating to the evaluation of the Board noted in previous years which concerned the following points: (i) "measure the actual contribution of each Director to the Board's work through his or her competence and involvement in discussions" (Article 10.2 of the Code) and (ii) the recommendation "that the non-executive directors meet periodically without the executive or 'in-house' directors" (Article 10.4), led to measures to bring the Company's practices into compliance during the fiscal year, and are therefore no longer included in the table (see the section on Appraisal of the Board of Directors for the first point and the information relating to the annual joint session set out below for the second).

### Tasks of the Lead Director: report on his activities

The Lead Director was appointed in May 2014. The first 8 months of performance of his term of office involved attention to the following points:

- The Lead Director conducted the work of the Appointments and Governance Committee concerning the governance tasks entrusted to the Committee and in particular:
  - A review of the Company's practices in light of the recommendations of the AMF/HCGE included in their respective 2014 reports.
  - Review of the expectations expressed by the shareholders at the Shareholders' Meeting of May 7, 2014 through an analysis of voting on the more specific resolutions for the fiscal year (Say on Pay, regulated related-party agreements, combination of the roles of Chairman and Chief Executive Officer); recommendations concerning the actions to

## Report from the Chairman of the Board of Directors

be taken, in particular to reinforce the dialogue with the institutional investors, were proposed to the Board.

- Review of the changes in the regulations concerning regulated related-party agreements and implementation thereof by the Company; this work led the Remuneration Committee to re-examine all the agreements in progress in an overall perspective.
- Preparation of the questionnaire for evaluation of the functioning of the Board which included for the 1<sup>st</sup> time this year a specific section enabling each Director to give his/her opinion on the individual contributions of the Directors to the Board's reflections. The Lead Director presented to the Board in February 2015 a summary of the assessments made with regard to the functioning of the Board and the recommendations made by the Committee which led to debate.
- The Lead Director analyzed then conducted and led the review by the Appointments and Governance Committee of the potential conflict of interest declared by a member of the Audit and Accounts Committee in respect of the selection process for the Statutory Auditors; he reported on it to the Board after a discussion with the Chairman and Chief Executive Officer.
- In general, the Lead Director held discussions with the Chairman and Chief Executive Officer on a very regular basis with regard to all the significant governance topics for the fiscal year; he also spoke at length with the independent Directors, in particular at the time of the meeting in Houston, ensuring in particular that the Directors who had newly joined the Board were well informed.
- Finally, in January 2015, the Lead Director chaired the first joint annual session of the Directors on the Appointments and Governance Committee and the Remuneration Committee without the presence of any executive member. This session provided an opportunity to exchange views on the functioning of the Board which brought to the fore the openness and transparency of discussions at Board meetings and the wide freedom left to members in their capacity of expression. Management is open to proposals/suggestions by Directors who have the feeling that they are listened to. Finally, the high degree of trust existing firstly between the Directors and the Chairman and secondly among the Directors themselves was emphasized. The Lead Director reported on this meeting to the Board in February 2015, specifying that he was available to any external Director to discuss any topic at their convenience concerning the Board's functioning.
- He reported on his activities to the Board at its meeting in February 2015.
- During the fiscal year, the Lead Director participated in all the Board meetings (6 meetings including the meeting in Houston where he was present for 3 days), the meetings of the Appointments and Governance Committee that he chairs (3 meetings) and of the Remuneration Committee (3 meetings), and the meeting of the "Shareholder Relations" Working Group. He chaired the joint annual meeting of the Appointments and Governance Committee and the Remuneration Committee.

### The Remuneration Committee

As of December 31, 2014, the Remuneration Committee had three members: Cornelis van Lede, Chairman of the Committee, Thierry Desmarest and Jean-Paul Agon. All the Committee members are independent.

## Composition and purpose as defined in the internal regulations

The Remuneration Committee must comprise three to five members of the Board of Directors and the majority of its members must be independent. The Chairman and Chief Executive Officer may not be present for any deliberations of the Committee relating to him personally. The Committee meets at least three times a year. The conclusions of Committee meetings are presented by the Committee Chairman for discussion and decision-making at the next Board of Directors' meeting.

## TASKS

Pursuant to the internal regulations, the tasks of the Remuneration Committee are as follows:

- “examine the performance and all the components of remuneration including stock options, or other forms of deferred remuneration, pension plans and, in general, the conditions of employment of the Chairman and Chief Executive Officer or both the Chairman and the Chief Executive Officer as well as the Senior Executive Vice-Presidents and make the corresponding recommendations to the Board of Directors;
- propose, where applicable, the remuneration of the Vice Chairman or Vice Chairmen;
- examine the remuneration and retirement policy applied to Executive Management and in particular to the Executive Committee;
- examine the proposals by the Executive Management concerning the granting of stock options and other incentive systems related to the share price to other Group employees and propose their granting to the Board of Directors;
- examine and propose to the Board of Directors the allocation of Directors' fees among Board members.

The Committee can request the assistance of outside experts if necessary. The Company shall provide the Committee in such a case with the corresponding funding.”

## The Remuneration Committee's work in 2014

The Remuneration Committee met three times in 2014 with an effective attendance rate or attendance rate by telephone of 89% of its members. The Chairman and Chief Executive Officer is not present for any discussions of the Committee relating to him personally. At Board meetings, the Committee Chairman reports on the work of the Remuneration Committee.

### *Executive Officer remuneration/long-term incentive policy*

The Committee made recommendations to the Board of Directors for the setting of the variable remuneration of Executive Management members for fiscal year 2014, based on developments in the financial results and individual performance appraisals. It made recommendations regarding the fixed remuneration and the formulas used to calculate the variable remuneration of Executive Management members applicable for the new fiscal year. In accordance with its previous recommendation, it ensured, in particular, that a Corporate Social and Environmental Responsibility criterion would be structurally included in the personal objectives set for determination of the variable remuneration of the Executive Officers.

The Committee reviewed the components of the long-term incentive policy and issued recommendations for changes in the determination of the performance conditions applicable to stock options. On this basis, the Committee recommended, at its meeting in September, (i) the 2014 plan for the conditional grant of shares to employees (ACAS) that includes, since 2013, a performance condition calculated over a period of three years, (ii) the 2014

stock option plan including performance conditions that now apply to all the beneficiaries of stock options (members of the Executive Management, members of the Executive Committee, and any other beneficiary), for all the options granted. Moreover, in order to meet the expectations of certain shareholders, the performance conditions were changed as compared to those of the previous stock option plans, in order to introduce an element of relative comparison in the Total Shareholder Return criterion. The Committee recommended that the Executive Officers and members of the Executive Committee should not be beneficiaries of the conditional grant of shares to employees (ACAS) in 2014. It looked at the measures on transparency of communication and issued its recommendations for a presentation of the Say on Pay by the Committee Chairman at the Shareholders' Meeting.

The Committee reviewed the pension/life insurance and death, disability and related benefits schemes in force in the Group for senior executives and Executive Officers and recommended the changes to be put to the vote of the Shareholders' Meeting on May 6, 2015 (April, January 2015).

It reviewed all the regulated related-party agreements in progress concerning the Executive Officers.

The Committee made its recommendations concerning the proposed resolutions to be put to the advisory vote of the Shareholders' Meeting on May 6, 2015 with regard to the remuneration of the Executive Officers for 2014 pursuant to the recommendations of the AFEP/MEDEF Code (Say on Pay) (January 2015).

The Committee examined the components of the remuneration of the Executive Committee members (April).

#### *Directors' fees*

The Committee made recommendations concerning the level of Directors' fees to be allocated in respect of fiscal year 2014 within the scope of the total amount authorized by the Shareholders' Meeting (September).

#### *Corporate Social Responsibility*

A report was made to the Committee on the 2013 employee savings program (January). The Committee examined the desirable frequency of these operations (April) and recommended another transaction in 2015 (January 2015).

#### *Corporate governance*

The Committee reviewed the practices adopted by the Company in the light of the recommendations of the AMF's Annual Report on the Remuneration of Executive Officers of Listed Companies published on September 22, 2014 and the report of the *Haut Comité de Gouvernement d'Entreprise* of October 21, 2014 (including the application guide for the AFEP/MEDEF Code issued by the HCGE in December 2014) and made its recommendations in this regard (January).

All the Committee's work contributed to the Board determining the remuneration policy for the Executive Officers set out in great detail in the section on remuneration below (see the details on each of the points in the section on remuneration on page 148 et seq.). After review, the Committee recommended to the Board of Directors that it approve this section.

### **SHAREHOLDER RELATIONS WORKING GROUP**

The Shareholder Relations working group, created in 2013, chaired by Benoît Potier and of which Thierry Desmarest, Paul Skinner and Gérard de La Martinière are also members, met once during the fiscal year to examine the Group's shareholder strategy, in particular concerning shareholder voting rights within the scope of the law of March 29, 2014 ("Florange" law). Its recommendations were presented and discussed at Board meetings (September, November 2014).

### **PARTICIPATION AT THE SHAREHOLDERS' MEETING**

In accordance with article L. 225-37 of the French Commercial Code, the specific terms and conditions relating to the participation of shareholders at the Shareholders' Meeting are set out in articles 5 to 10 and 18 and 19 of the Company's articles of association (set out on pages 333 to 340 of this Reference Document). It should, however, be noted that amendments are being submitted for the approval of the next Shareholders' Meeting concerning Article 8 of the articles of association, to include the principle of "one share one vote" (deactivation of the double voting right), and Article 18 for a technical update further to the new regulations concerning the "record date".

### **FACTORS LIKELY TO HAVE AN IMPACT IN THE EVENT OF A TAKEOVER BID**

In accordance with article L. 225-37 of the French Commercial Code, it is specified that the factors likely to have an impact in the event of a takeover bid are set out and explained pursuant to article L. 225-100-3 of the French Commercial Code on page 344 of this Reference Document.

## APPLICATION OF THE AFEP/MEDEF CODE OF CORPORATE GOVERNANCE: SUMMARY TABLE

L'Air Liquide applies the AFEP/MEDEF Code except for the following recommendations:

Recommendations	L'Air Liquide's practice and justification
<p><b>Independence criteria for the Directors</b> Article 9.4: In order for a Director to qualify as independent:</p> <ul style="list-style-type: none"> <li>■ must not be “an employee or Executive Director of the corporation, or an employee or Director of its parent or a company that the latter consolidates, and not have been in such a position for the previous five years;”</li> <li>■ must not “have been a Director of the corporation for more than twelve years.”</li> </ul>	<p>The Board considered that former employees or officers of the Company may not be considered as independent even if their duties ended more than five years earlier (see page 126).</p> <p>The Board did not consider that terms of office exceeding 12 years disqualify a Board member from being independent. Highly capital-intensive investment projects within the scope of long-term contracts, with a typical length of 15 years, but which can sometimes be as long as 20 or 30 years, are at the heart of the industrial gases business. Experience acquired on the Board over time therefore allows a Director to follow the Group's development cycle in the long term and accordingly make an informed, critical judgment on the investment decisions to be made to ensure future growth. After re-examining the issue at its meeting in February 2015, the Board decided not to change the independence criteria that have been applied to date. The Group is, however, committed to compliance with best governance practices. In a medium-term perspective taking account of the schedule of changes to be made in the composition of the Board, the Board of Directors confirmed that it was ready to re-examine this criterion on a regular basis and in particular at the time of renewal of the terms of office of the Directors concerned (see pages 125-126).</p>
<p><b>Audit Committee</b> Article 16.2.1: “The time available for reviewing the accounts should be sufficient (no less than two days before review by the Board).”</p>	<p>Considering the presence within the Audit Committee of Directors coming from abroad, the Committee meetings with regard to review of the financial statements were held the day before or on the morning of Board of Directors' meetings. However, Committee members are in a position to review the financial statements well ahead of the meeting through other means (preparatory meeting with the Committee Chairman more than one week prior to the meeting; dispatch of files, now also available in electronic form, to Committee members five to seven days in advance). This issue is currently being re-examined for future fiscal years. Committee meetings relating to the accounts would be scheduled at least two days before the Board meeting, with the possibility of participation by non-resident members by telephone or video-conference (see page 133).</p>
<p><b>Remuneration Committee</b> Article 18.1: “It is advised that an Employee Director be a member of this Committee.”</p>	<p>Pursuant to the amendment to the articles of association approved by the Shareholders' Meeting on May 7, 2014, a Director representing the employees was appointed by the France Group Committee on June 18, 2014 and has participated in Board meetings since July 2014. Practice in the Company is usually to leave new Directors time to adapt before proposing their appointment to a Committee. The Appointments and Governance Committee examines, on a case-by-case basis, whether it is appropriate to propose to the new Directors their participation in one of the three Committees, according to the most appropriate timetable (see page 128).</p>
<p>Article 18.2: “When the report on the proceedings of the Compensation Committee is presented, the Board should deliberate on issues relating to the compensation of the Executive Directors without the presence of the latter.”</p>	<p>At Remuneration Committee meetings, the Chairman and Chief Executive Officer is not present for any discussions of the Committee relating to him personally (see page 137).</p>

The deviations relating to the evaluation of the Board noted during previous years concerned the following points: (i) “measure the actual contribution of each Director to the Board's work through his or her competence and involvement in discussions” (Article 10.2 of the Code) and (ii) the recommendation that “the non-executive directors meet periodically without the executive

or ‘in-house’ directors” (Article 10.4). As the Company's practices on these points were brought into compliance by the Company during the fiscal year (see the section on Appraisal of the Board of Directors and the section on the Tasks of the Lead Director – joint annual session), they are no longer included in the above table.



## Internal control and Risk Management procedures instituted by the Company

The Group Control Director was requested by the Chairman and CEO to compile the elements of this report, which was prepared with contributions from several departments (particularly Finance and Operations Control, Group Control, Legal, Safety and Industrial System).

**This report was transmitted to the Statutory Auditors and presented to Executive Management, which deemed it compliant with existing Group measures. It was approved by the Board of Directors, upon the recommendation of the Audit and Accounts Committee.**

**The report is based on the Internal Control and Risk Management Systems Reference Framework, developed under the supervision of the French financial market authority (AMF).**

### INTERNAL CONTROL OBJECTIVES

In addition to the principles of action, which reaffirm the Group values for each major zone (shareholders, customers, employees, etc.), the Group's policies are grouped together in an overall Reference Document, the BLUEBOOK, which is available to employees on the Intranet. They constitute a set of internal control and risk management procedures, which must be implemented by each entity included in the Group's consolidated financial statements.

The BLUEBOOK is the cornerstone of the Group's internal control system.

The internal control system aims to ensure that:

- the Group's activities and the conduct of its members:
  - comply with laws and regulations, internal standards and applicable best practices,
  - comply with the objectives defined by the Company, especially in terms of risk prevention and management policies,
  - contribute to safeguarding the Group's assets;
- all financial and accounting information communicated either internally or externally gives a true and fair view of the situation and activity of the Group and complies with prevailing accounting standards.

Generally, the Group's internal control system should contribute to the management of its activities, the efficiency of its operations and the efficient use of its resources.

As with other "assurance systems", it cannot provide an absolute guarantee that the Group's objectives will be met.

In 2014, the Group pursued the actions undertaken in previous years, with more than 70 material Group entities (representing over 90% of consolidated Group revenue), reviewing the appropriateness of their internal control system in relation to the Reference Framework. These entities also implemented actions aimed at improving their control system in terms of annual guidelines defined at the beginning of the year by the zones, the Group Control Department and the Finance and Operations Control Department. The latter two together organize these improvement measures and report on their progress to Executive Management then to the Group's Audit Committee.

Audits are coordinated by the Group Control Department and the Statutory Auditors, based on a joint work program, to verify assessments of the internal control system and the correct implementation of key operating controls.

Moreover, the smallest entities can implement their internal control improvement measures using the adapted key control principles protocol which has been widely rolled out within the Group.

In 2014, the Group continued its measures to improve the quality of its internal control and risk management system, with in particular:

- the appointment at the Group level of an international trade compliance officer:
  - to raise awareness among the Group's various entities of regulatory changes in this field, and
  - to coordinate measures aimed at ensuring practices comply with these regulations and with Group policies;
- in purchasing, the reinforcement of qualification and evaluation measures for the most critical suppliers, with particular attention paid to industrial security;
- commitment to simplifying the BLUEBOOK's structure and content to improve the visibility of the most important documents. At the same time, the BLUEBOOK has been further enhanced and updated in various areas (finance, digital security, human resources, etc.);
- publication for use by the Group's various activities, of a manual for the integration of recently acquired companies, aimed at facilitating the integration process, in particular in terms of internal control (this manual will be included in the BLUEBOOK in 2015);
- a step up in e-learning courses run under the Air Liquide University brand (more than 26,000 users in 2014) aimed at expanding training processes and raising awareness among a wider population in various fields (ethics, industrial security, competition law, etc.);

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- the development of a whistleblowing system which will be gradually rolled out within the Group in 2015 and which will allow Group employees to quickly report any deviations from the Code of Conduct;
- the continuation of the long-term plan aimed at improving the protection of information and data systems with, in particular:
  - greater consideration to Digital Security from the design phase of IT projects, in particular for the roll-out of the new digital work environment for Group employees,
  - the continuation of the treatment of system vulnerabilities and critical applications,
  - diagnosis and audits aimed at assessing the quality of confidential data protection, and more broadly, the correct implementation of the long-term program.

## ORGANIZATION

The Group is organized and based on a highly consistent Group strategy, of which the main driving force is the internal growth of its activities.

This strategy is relayed through management which centers on mid-term objectives that are categorized by business, as well as through a steering process for activities based on annual budgetary objectives, which are further categorized down to the individual plan level.

The organization breaks down into:

- entities which ensure the operational management of their activities in the countries where the Group is located;
- geographic zones which supervise and monitor the performance of the entities under their responsibility and ensure that strategies are properly implemented and the main financial indicators maintained;
- World Business Lines:
  - that present mid-term strategic objectives for their related activities to Executive Management,
  - that are responsible for Marketing, the Industrial Policy and the appropriateness of skills in their field of activity,
  - for which the responsible member of the Executive Committee, chairs the Resources and Investment Committee (RIC) meetings that decide on the necessary investments and resources presented by the geographic area.

This organization also includes Holding and Group Departments, which notably comprise the three key control departments that report independently to Executive Management:

- the Finance and Operations Control Department, which is responsible for:
  - the reliability of accounting and financial information,
  - the Group financial risk management,
  - Management Control through the drafting and monitoring of Group objectives on the basis of financial data prepared by the accounting teams and analyzes conducted by the financial teams of the various entities;
- the Group Control Department, which:
  - provides expertise and assistance to entities in the roll-out of their risk management approach (see below) and builds a Group synthesis,
  - verifies the effective application of internal control and risk management procedures through audits carried out according to a defined program presented to the Group's Audit and Accounts Committee. This program, developed and based on the risk analysis, is regularly monitored by the Audit and Accounts Committee itself. Audit reports are systematically supplemented by corrective action plans, which are supervised by a member of the Executive Committee. These reports, as well as subsequent follow-up reports, are the subject of various communications and periodic discussions with the Statutory Auditors,
  - helps Group entities ensure compliance with the Group's ethical values, particularly through training and awareness-raising actions and the treatment of fraud and deviations,
  - provides guidance to Group entities, through the Digital Security Department, which reports directly to the Group Control Department, on the identification and protection of their data and computer applications (definition of rules, roll-out expertise and advice, control of proper implementation);
- the Legal Department, which identifies legal risks, issues internal guidelines and codes, and then oversees their proper implementation. It also monitors the main litigation cases and manages insurance.

Finally, this organization relies on a framework of authorizations and delegations granted by Executive Management:

- to members of the Executive Committee and certain departments and services in order to define their commitment and payment powers for commercial transactions (sales or purchasing);
- to certain executives in charge of entities or sites in France, in order to ensure the prevention and control of industrial risks in terms of hygiene and safety;

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- to certain financial executives, in order to ensure the security of transactions and financial flows.

The managers of the various Group subsidiaries exercise their duties under the control of the Boards of Directors and in accordance with laws and regulations applicable in the countries where they operate.

Moreover, at end-2013 the Group decentralized certain roles within three hubs (Frankfurt, Houston and Shanghai) which will bring together the business lines, the Holding and Group Departments and the Regional Departments in question.

## RISK MANAGEMENT

To ensure the continued development of its activities, the Group must actively pursue an approach to prevent and manage the risks (especially industrial and financial risks) to which it is exposed.

In terms of the Group's business activities, industrial risk management must essentially focus on prioritizing safety and security while maintaining a permanent focus on the reliability of installations.

Financial risk management requires strict control over investments, combined with prudent and rigorous practices regarding the accounting and financial aspects of the activities.

The Group risk management approach, which has been formalized since 2009, aims to ensure:

- the regular identification of the different forms of risk (industrial, financial and other) encountered by the Group during the pursuit of business activities, which are assessed according to both potential damage and probability of occurrence;
- the assessment of the risk management level of each risk based on a common scale with respect to the quality of policies, organizations, processes and controls in place;
- the progress of the main corrective action plans undertaken to mitigate the risks, by focusing monitoring activities on a limited number of priorities.

This three-phase risk management process (mapping, management levels, mitigation plans) covers over 70 entities representing more than 90% of consolidated Group revenue.

The Risk Management Department within the Group Control Department leads this approach using:

- resources dedicated by the geographic areas and business lines to manage the approach in their respective scopes of responsibility (under the supervision of the Boards of Directors of the entities concerned) and provide an area or business line summary;
- the work of members of the Risk Committee that it coordinates. This Committee brings together the main Group support functions, which provide their expertise to the zones and Business Lines. Presided by Executive Management, it meets twice a year to report on the progress of initiatives, particularly in terms of priorities, and to establish a Group risk management synthesis.

Finally, the Audit and Accounts Committee reviews Group risk management based on presentations covering:

- the progress of the approach (on an annual basis);
- each major risk management system based on a multi-year program structured according to the challenges;
- internal audit summaries of these risk management systems.

In addition, the Board of Directors retains the right to request that certain risk control systems be presented to it directly.

## CONTROL ACTIVITIES

Control activities aim to ensure that internal control procedures are properly implemented and respected and notably rely on strict control of Group investments and commitments, with:

- a centralized, in-depth review (above certain thresholds) of investment requests as well as the medium and long-term contractual commitments which may arise therefrom;
- control of investment decisions through the specific follow-up of authorizations granted as well as contributions expected and seen during the initial years. In addition, the subsidiaries are obliged to report all budget overruns and implement corrective action plans aimed at ensuring the profitability of the investments concerned;
- more in-depth analyzes (comparative profitability analyzes prior and subsequent to completion) for certain significant investments.

The main internal control and risk management procedures drafted and communicated by the Company in the BLUEBOOK aim to:

### 1. Ensure the safety and security of employees, products and installations, as well as the reliability of operations, in compliance with the rules and regulations for accident prevention

To this end, the Company has an Industrial Management System (IMS), which operates based on:

- empowerment of the Management bodies governing the Group's various entities for the effective implementation of this system;
- the issue of key management and organizational procedures that aim to ensure:
  - regulatory compliance,
  - design management,
  - industrial risk management,
  - hygiene, health and environmental management,
  - training and certification of personnel,
  - management of operating and maintenance procedures,
  - management of industrial purchasing,
  - change management,
  - analysis and treatment of incidents and accidents,
  - system effectiveness control through management audits and review,
  - shared technical standards within Group entities.

The IMS document base is updated and supplemented on an ongoing basis.

The Safety and Industrial System Department and the Industrial Departments of the relevant World Business Lines supervise and control the effective implementation of the IMS, by notably relying on:

- continually awareness-raising actions for teams by providing specifically related training, and the distribution of a monthly security report available to all employees on the Group Intranet;
- the presentation of various indicators designed to review performance in terms of the safety and reliability of operations, as well as the deployment of certain Group key standards;

- the process audits conducted by the Safety and Industrial System Department to verify the implementation conditions and compliance of operations with IMS requirements;
- technical audits carried out by the Industrial Departments to ensure the compliance of operations with Group security and technical rules.

Changes in the safety performance of operations and their level of compliance with IMS requirements are regularly monitored by the Executive Committee.

### 2. Ensure control of energy purchasing, particularly with respect to availability and matching with Group commitments to customers

The energy management policy defines rules governing energy purchasing and the related decision-making processes. The Enrisk Group Committee reviews the procurement strategies of the entities, validates the most significant commitments and ensures the relevant policies are properly applied.

Each month, the Enrisk Group Committee brings together the Vice-President in charge of the Large Industries Global Business Line, the Energy Vice-President and the Group Deputy Chief Financial Officer.

Meeting minutes are sent to Executive Management.

### 3. Ensure the protection of Group IT data and applications

The Digital Security Policy sets the basic rules governing the identification and handling of digital security stakes and outlines the roles and responsibilities in this area. It is accompanied by:

- procedures describing, in particular, how to secure data and applications, detect and deal with incidents;
- codes outlining principles to be respected by IT users and administrators.

The Digital Security Department reports directly to the Group Control Department and uses resources set aside by the regions, business lines and entities to coordinate and control the roll-out of this policy, in conjunction with the IT Department. This roll-out is centered on a long-term operational program aimed at defining the key areas and measures to be taken under the supervision of the Digital Security Committee.

#### 4. Ensure the development of the Group's expertise and talents

The Human Resources policy defines the main rules, together with the roles and responsibilities of the different parties in their implementation, with respect to, among others:

- the acquisition and sustaining of requisite skills, in particular through the SPRING program, which identifies and manages critical skills and which continued in 2014 in the Engineering & Construction and Research & Development business lines and has been extended to the Industrial Customers business line. Training provided under the Air Liquide University brand also contributes to this goal and in particular e-learning courses attended by an increasing number of users (more than 26,000 in 2014) in a wide range of domains (ethics, industrial security, competition law, etc.);
- accompanying employees in their personal development with the continuing roll-out of tools aimed at improving the management of training programs (LMS: Learning Management System), monitor career paths, help manage skills (TMS: Talent Management System) and communicate career advancement opportunities within the Group (TAS: Talent Acquisition System);
- measuring and recognizing performance and contributions for all employees. Other than remuneration policies, the Group's specific programs promote, for example, technical expertise (Technical Community Leaders), inventors (inventor recognition program) and entrepreneurs (entrepreneur recognition program launched in 2014).

#### 5. Ensure that laws, regulations and internal management rules are respected within the Group, notably in the legal and intellectual property areas

- With the Group legal policy, which encompasses:
  - a Group procedure relating to Powers (limitations and delegations) for use by Group entities,
  - a Group procedure on subsidiaries governance (Boards of Directors),
  - an Insurance Guide for all Group entities,
  - Group instructions and codes on how to behave in order to comply with competition laws (mainly in Europe and the United States), followed by competition law compliance meetings held in Europe and Asia,

- a Group code recapping the rules of ethical behavior to prevent the risk of corruption, and related procedures, followed by training sessions in the Engineering & Construction and Gas & Services activities,
- a memorandum, specifying the rules to be observed to prevent insider trading,
- various contract guides (for Large Industries, Engineering & Construction, Industrial Merchant, Electronics and Financing) and codes of good practices (for Healthcare).
- In the intellectual property area, with a Group policy and procedures aimed at:
  - ensuring Air Liquide's compliance with valid patents held by third parties in its different areas of activity,
  - protecting Group intellectual property, by protecting its inventions, designs and brands through their identification (on an official filing basis) and favoring the recognition of their inventors.

To this end, the Group relies on an Intellectual Property Department, comprising of professionals located at the Group's head office and in the main countries.

#### 6. Manage and minimize financial risks

Financial decision-making governance is the responsibility of the two Finance Committees (Strategic Financial Committee and Operational Financial Committee), with the former considering the financing strategy and the latter dealing with the practical implementation of the financial policy.

The Company has defined financial policies, which forbid speculative transactions notably on derivatives, and that are subject to regular review. These policies were brought together in a Group financial policy. These procedures set-out the principles and procedures for the management of financial risks to which the activity is exposed, notably in relation to:

- liquidity risks: the Company has defined rules aimed at ensuring an appropriate level of "confirmation" and diversification (by type and maturity) for all external financing sources. The Group staggers short- and long-term repayment maturities over time in order to limit amounts to be refinanced each year;
- counterparty risks: the Company has defined rules aimed at ensuring that there is sufficient diversification and financial solidity of counterparties at Group level (commitment limits/minimum rating);

■ interest rate risk: the Company has defined methods managed on a centralized basis for the hedging of interest rates related to indebtedness that is carried in major currencies (mainly EUR, USD, JPY, and RMB), which represent nearly 90% of total net indebtedness with:

- a selection of authorized tools,
- the hedging decision processes,
- the methods of executing transactions.

For other foreign currency indebtedness, rules have been defined in order to ensure that the transactions initiated to hedge interest rate risk are consistent with Group objectives;

■ foreign exchange risk: the Company has defined methods for hedging foreign exchange risk, whether this is carried by the holding companies or the operating entities, in terms of authorized hedging instruments, the decision process and the execution of transactions.

These measures are supplemented by treasury management rules adapted to local circumstances, which are aimed at ensuring secure transactions and forecasting treasury inflows/outflows with an objective of optimizing the management of liquidity (forecasting of cash in/cash out, etc.).

The application of this financial policy is controlled by the Finance and Operations Control Department. The majority of transactions are executed on a centralized basis (financing and management of related interest rate risk, hedging of foreign exchange risk), which is completed by consolidated reports provided by various Group entities on a monthly or quarterly basis, depending on the type of risk.

## 7. Ensure the reliability of financial and accounting information

In order to guarantee the quality and reliability of financial and accounting information produced, the Group primarily relies on a set of accounting principles and standards, as well as a consistent accounting and management reporting system for data which feeds both the Group consolidation process and the business analysis that is under the responsibility of independent departments, which report to the Finance and Operations Control Department.

The Group accounting manual, which includes the Group financial policy, defines the accounting rules and principles as well as the consolidation methods applicable and states the formats applicable for reporting financial and accounting information. This manual is regularly updated by the Finance and Operations Control Department with the amendments to IFRS or their interpretations.

Management and Accounting Reports are each prepared under the responsibility of independent but interactive departments that follow identical methods and principles:

- this independence allows for the enhancement of information and analyzes through the use of complementary indicators and data, particularly those which are specific to each activity;
- the fact that these bodies are interactive provides for better control of the reliability of information through the systematic and regular reconciliation of data.

The reports primarily include:

- monthly management reporting, known as the “Monthly Flash Report” that provides information on revenue and the main financial indicators: income statement, cash flow from operating activities, net indebtedness and amount of investments authorized and committed;
- quarterly reporting, known as the “Management Control Report”, which provides details of the primary items of the income statement, balance sheet and cash flow statement;
- a quarterly “variance analysis” report to assess the various components of the change in operating income recurring.

These three documents are compiled by each management entity according to a predefined yearly timetable.

They are systematically accompanied by comments on activities drawn up by the Director and the controller within the entity, and are consolidated at Group level with a breakdown for each geographical area and activity;

- quarterly reporting for accounting consolidation is compiled by each subsidiary which, in addition, must provide (on a semi-annual basis) information on off-balance sheet commitments that may include:
  - energy purchasing,
  - financial guarantees and deposits,
  - all other contractual commitments.

Accounting consolidation statements and monthly reporting are sent to the Central Consolidation Department. This department prepares the consolidated data and works in conjunction with the Operations Control Department, whose duty is to analyze and comment on the results, identify and explain any differences with respect to forecasts, and to update the forecasts.

Within the monthly Executive Operations Meetings, a rolling forecast for the current year is systematically presented by the Finance and Operations Control Department, in order to identify, when applicable, any differences with respect to yearly targets and take the necessary steps.



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Through regular controls, the Finance and Operations Control Department ensures the effective application of accounting methods and principles in the various Group entities. The most complex accounting standards, particularly those relating to employee benefits (IAS19R), methods of consolidation (IFRS10/11) and derivative financial instruments (IAS32/39, IFRS7) are subject to tighter controls or treated directly by the Finance and Operations Control Department.

It also relies on audits carried out by the Group Control Department, with which it has regular contact.

The quality and reliability of financial and accounting information also depends on information systems which are increasingly integrated (such as ERP), a Group consolidation software package and a treasury consolidation package.

The project, which aims to further harmonize ERPs, continues (mainly in the Europe, Asia and America zones) based on the definition of an accounting and financial framework tailored to the various business lines.

### MONITORING OF CONTROL MEASURES

The Board of Directors exercises its control over Group Management based on the various quarterly activity reports it receives from Executive Management and the work of the

Audit and Accounts Committee, according to the methods and principles described above (reports, debriefings, etc.).

Executive Management exercises its control over risk management, particularly through monthly meetings with the Chairman and CEO, the Senior Executive Vice-President and the Executive Vice-President aided by the Finance and Operations Control Director, and the Legal Director who also acts as secretary.

It also relies on existing reports and:

- Executive Committee Meetings, with, in particular, debriefings from the Safety and Industrial System Department regarding Group performance in terms of security and the progress of current actions;
- work carried out by the Finance and Operations Control Department, and the Group Control Department, which report directly to Executive Management;
- recommendations made by various Group Committees set up to ensure enhanced management of certain commitments and more significant stakes (the role and members of these Committees are described below).

These control measures are enhanced by the involvement of entity departments and the Executive Committee in the implementation and follow-up of actions needed to improve and strengthen the quality of internal controls.

### THE RISK COMMITTEE

This Committee brings together the Group's major support functions: Legal, Finance and Operations Control, Communication, Safety and Industrial System, Human Resources and Group Control.

Its purpose is to assess the geographic areas and business lines that must implement and coordinate the risk management approach in their respective scopes of responsibility.

Presided by Executive Management, it meets twice a year to report on the progress of initiatives, particularly in terms of priorities, and to prepare a Group risk management synthesis.

### THE DIGITAL SECURITY COMMITTEE

This Committee brings together members of the Executive Committee responsible for geographical areas, as well as heads of IT, Digital Security, and Security.

Its mission is to set the program's strategic orientations and priorities aimed at strengthening the prevention and control mechanisms of our information systems. It also oversees the implementation of measures necessary to reach the desired level of security.

Chaired by the Executive Management, the Digital Security Committee meets twice a year.

## THE FINANCE COMMITTEES

### The Strategic Finance Committee

The purpose of this Committee is to verify the effective application of the Group's financial policy, to approve financial management proposals and suggestions that have been submitted and to approve the rules governing the Group's financial policy, which are subjected to regular review.

It brings together the Group Finance and Operations Control Director, the Corporate Finance and M&A Director and the Group Treasury and Financing Director, who meet under the authority of the Chairman and CEO.

The Committee meets at least three times a year and upon request, if necessary.

### The Operational Finance Committee

The purpose of this Committee is to make day-to-day decisions concerning the financial management of the Group, to propose structuring transactions to the Strategic Finance Committee and to ensure their implementation after approval.

It brings together the Group Finance and Operations Control Director, the Corporate Finance and M&A Director and the Group Treasury and Financing Director, assisted by a Committee secretary.

The Committee meets every four to six weeks, and the minutes of these meetings are sent to the Chairman and CEO.

## THE RESOURCES AND INVESTMENT COMMITTEES

The purpose of these Committees is to assess and approve requests for investments that have been submitted, as well as medium and long-term contractual commitments and Human Resource requirements that may arise therefrom.

They meet once or twice a month for each business line (Large Industries, Industrial Merchant, Electronics and Healthcare). Specific Committees also meet regularly for the Engineering & Construction, Information Technologies, Welding, and Diving activities, as well as for the new activities, technologies and Research and Development.

Each Committee Meeting is chaired by the Executive Committee member responsible for the relevant activity, and brings together Directors of the business lines and regions concerned by the investment, as well as representatives of the Group Finance and Operations Control Department.

The Committee's decisions are reviewed at Executive Management Meetings.

## ➤ REMUNERATION OF THE EXECUTIVE OFFICERS AND DIRECTORS OF L'AIR LIQUIDE S.A. <sup>(a)</sup> (pursuant to article L. 225-102-1 of the French Commercial Code)

This section describes the remuneration policy applicable to executive officers determined by the Board of Directors upon the Remuneration Committee's recommendation. It was approved by the Board of Directors on February 16, 2015. It incorporates, by reference, certain sections which should be part of the Report from the Chairman, included here in order to present full information in a single section of the Reference Document, for the purpose of clarity.

To determine all the various components of remuneration of the executive officers, as proposed by the Remuneration Committee, the Board of Directors strives to take into account the principles of comprehensiveness, balance, benchmarking, consistency, understandability and proportionality as recommended by the AFEP/MEDEF Code of corporate governance. Taking account of several external reviews, the Board of Directors adopts a remuneration policy providing strong incentives for the executive officers and related to the steady operational performance that the shareholders expect from Air Liquide over time.

This remuneration policy includes incentive elements reflecting the Group's strategy which is oriented toward profitable long-term growth while acting responsibly with regard to all stakeholders. In a highly capital-intensive industry, profitable long-term growth requires constant attention to be paid to each investment decision and to the competitiveness of every transaction, while maintaining an ongoing effort over time in favor of innovation, employee training, safety and security and energy-saving initiatives. In this context, the remuneration includes:

- a **short-term component**, composed of a fixed portion and a variable portion;
- an **element of long-term motivation** via the granting of share subscription options subject in their entirety to two performance conditions calculated over a period of three years. Up until now, the Board of Directors has not awarded performance shares to the executive officers. It has confirmed that, at the time when such an award appears to be appropriate, where applicable, it would be made within the scope of a plan providing for a three-year vesting period and performance conditions also over three years identical to those provided in respect of stock options;

- **other earnings** attached to the performance of the terms of office of the executive officers, including:
  - (i) a defined benefit **pension plan** applicable to eligible senior managers and executives and executive officers,
  - (ii) a **collective life insurance plan**,
  - (iii) a **death and disability benefits plan**,
  - (iv) **commitments to pay an indemnity in the event of termination of their duties** on the Company's initiative subject to performance conditions calculated over a three-year period.

Benoît Potier, whose employment contract was terminated on May 5, 2010, is entitled to the **unemployment insurance for Company managers and corporate officers**.

A full description of all these components of remuneration is set out below, and, when such commitments are subject to the regulated agreements and commitments procedure, they are also described in the Statutory Auditors' Special Report on page 317. In accordance with the AFEP/MEDEF Code, the remuneration components of the executive officers are made public after the Board meeting during which they are approved.

The information included in this document takes into account the provisions of the AFEP/MEDEF Code of corporate governance for listed companies as interpreted by the Haut Comité de Gouvernement d'Entreprise (French High Committee on Corporate Governance) (application guide for the AFEP/MEDEF Code published in December 2014; report by the Haut Comité de Gouvernement d'Entreprise of October 21, 2014) and the AMF's recommendations included in the Guide on preparation of reference documents updated by the AMF on December 17, 2013 and in the AMF report on corporate governance and executive compensation of listed companies of September 22, 2014. For the summary of the application of the AFEP/MEDEF Code, see the table at the end of the Report from the Chairman, on page 139.

Pursuant to the recommendations of the AFEP/MEDEF Code, the components of remuneration due or awarded to each executive officer in respect of 2014 are subject to the advisory vote of the Annual Shareholders' Meeting in a specific resolution for each executive officer (see "Say on Pay" tables on pages 163 et seq. below).

<sup>(a)</sup> For the purposes of transparency and in order to ensure the provision of complete information, all references to the remuneration of Pierre Dufour in this document take into account his remuneration in respect of his offices in France and Germany.

## Short-term benefits

### EXECUTIVE MANAGEMENT

#### Amounts paid during fiscal years 2012, 2013 and 2014

Table 1 below presents a summary of all remuneration components paid to executive officers with regard to fiscal years 2012, 2013 and 2014. They are then more fully described in the other tables below.

**Table 1 – Summary of remuneration and stock options granted to each executive officer**

<i>(in thousands of euros)</i>	2012	2013	2014
<b>Benoît Potier – Chairman &amp; Chief Executive Officer</b>			
Remuneration payable in respect of the fiscal year (see breakdown in Table 2)	2,743	2,602.8	2,843.15
Value of stock options granted during the fiscal year (see breakdown in Table 4)	1,660	1,957	1,618
<b>TOTAL</b>	<b>4,403</b>	<b>4,559.8</b>	<b>4,461.15</b>
<b>Pierre Dufour – Senior Executive Vice-President</b>			
Remuneration payable in respect of the fiscal year (see breakdown in Table 2)	1,371.3	1,450.8	1,669.3
Value of stock options granted during the fiscal year (see breakdown in Table 4)	943	1,115	922
<b>TOTAL</b>	<b>2,314.3</b>	<b>2,565.8</b>	<b>2,591.3</b>

Gross annual remuneration before tax paid to each executive officer of L'Air Liquide S.A. by the Company (and all Group companies), with respect to his corporate office for the Chairman and Chief Executive Officer and both for his duties as executive officer in France and since 2014 in Germany for the Senior Executive Vice-President, including the benefits in kind, amounted to the figures presented in Table 2 below for fiscal years 2012, 2013 and 2014:

**Table 2 – Summary of remuneration paid to each executive officer**

<i>(in thousands of euros)</i>	2012		2013		2014	
	Amounts due	Amounts paid	Amounts due	Amounts paid	Amounts due	Amounts paid
<b>Benoît Potier – Chairman &amp; Chief Executive Officer</b> <sup>(a)</sup> <sup>(b)</sup>						
■ fixed remuneration	1,080	1,080	1,100	1,100	1,100	1,100
<i>including Directors' fees</i>	0	0	0	0	0	0
■ variable annual remuneration	1,653	1,630	1,493.8	1,653	1,734.15	1,493.8
■ benefits in kind	10	10	9	9	9	9
<b>TOTAL</b>	<b>2,743</b>	<b>2,720</b>	<b>2,602.8</b>	<b>2,762</b>	<b>2,843.15</b>	<b>2,602.8</b>
<b>Pierre Dufour – Senior Executive Vice-President</b> <sup>(b)</sup> <sup>(c)</sup>						
■ fixed remuneration	627.5	627.5	635	635	650	650
<i>including Directors' fees</i>	0	0	0	0	0	0
■ variable annual remuneration	726.8	720	659.8	726.8	755.3	659.8
■ benefits in kind	17	17	6	6	14	14
■ other elements of remuneration <sup>(d)</sup>			150	150	250	250
<b>TOTAL</b>	<b>1,371.3</b>	<b>1,364</b>	<b>1,450.8</b>	<b>1,517.8</b>	<b>1,669.3</b>	<b>1,573.8</b>

(a) In accordance with the recommendations of the AFEP/MEDEF Code of corporate governance, Benoît Potier resigned from his employment contract in May 2010. Benoît Potier receives all his remuneration in his capacity as a corporate officer.

(b) During 2014, the Group paid contributions to third parties on behalf of Benoît Potier and Pierre Dufour with respect to supplementary defined contribution pension plans (16,384 euros and 7,406 euros respectively), on behalf of Benoît Potier with respect to the collective life insurance contract (192,566 euros), and the additional death and disability benefits plan (61,950 euros) and on behalf of Pierre Dufour, with regard to the savings contract entered into by the German subsidiary (240,000 euros). The total sum of these contributions amounts to 518,306 euros.

These plans are described in further detail below.

(c) For Pierre Dufour, the amounts include, for the 2014 fiscal year, the remuneration payable in respect of his duties as Managing Director of ALGMS GmbH, it being specified that Pierre Dufour does not receive any remuneration from other Group companies and, for previous fiscal years, the remuneration due in respect of his employment contract in France.

(d) Payments (in thousands of euros) by the German subsidiary of an amount of 150 and an indemnity corresponding to the benefits in kind (housing) from which Pierre Dufour benefited under his employment contract in France (100, it being specified that such amount is unchanged as compared to 2013 and included in the above table since 2014).

## Remuneration of the Executive Officers and Directors of L'Air Liquide S.A.

For the record, in 2014, the fixed remuneration is unchanged for Benoît Potier and has increased by +2.4% for Pierre Dufour as compared with 2013 so that his remuneration remains competitive as compared to the international market at the time when he took on the management of the hub in Frankfurt.

### Fixed remuneration and variable remuneration

**Fixed remuneration** is determined based on the level of responsibility and experience in the management function, as well as with reference to current market practices.

The **variable part** of the remuneration, the maximum amount of which is capped at a predetermined percentage of the fixed remuneration for each of the executive officers, is based on criteria, consisting of two financial criteria, which have been the same for a number of years, and personal objectives, adopted by the Board of Directors at the beginning of the fiscal year in line with the Group's strategic priorities. The results are assessed, after fiscal year-end, on the basis of the consolidated financial statements for the fiscal year and the evaluation of the performance of each executive officer by the Board of Directors. The entire variable part of the remuneration, due in respect of a fiscal year, is paid in the following fiscal year, after approval of the financial statements by the Annual Shareholders' Meeting.

The fixed remuneration and variable remuneration are examined every year by the Board on the basis of a study of the practices of companies of a comparable size in France and of companies in the same business sector worldwide on the basis of market surveys carried out by external consultants.

### 2014 Fiscal year

#### Financial criteria

Variable remuneration is assessed on the basis of **two financial criteria** related to objectives (1) of an increase in **recurring net**

**earnings per share** (excluding foreign exchange impact and significant exceptional items) and (2) of the level of **Return on Capital Employed (ROCE)**, reflecting the importance for the Group of the balance between growth and the profitability of investments:

- (i) the objective of growth in recurring EPS is set on a consistent basis with regard to historical performances; it takes into account the Group's ambition of growth and the economic environment;
- (ii) the ROCE objective is set in absolute value in line with best performances in the industry, and at a level significantly higher than the weighted average cost of capital.

An adjustment formula for each financial criterion is provided for in the event of an upward or downward variance with regard to the objective set.

The objectives set are not made public for reasons of confidentiality. Historically, the percentage of achievement of one or other of these criteria has varied between 43% and 141% and amounts to 94% on average over the last ten years.

#### Personal objectives

Variable remuneration is also based on **personal objectives** comprising:

- (i) for two-thirds, qualitative objectives, most of which are shared by the two Executive Officers, related, firstly, to management: management of human resources and organization, deployment of the strategic plan and preserving financial balances and, secondly, Corporate Social Responsibility – particularly in the areas of safety, reliability and innovation;
- (ii) for one-third, individual performance.

#### Importance of each criterion

**For the record, in respect of 2014**, the variable portion expressed as a percentage of fixed remuneration can amount to a maximum of 180% for the Chairman and Chief Executive Officer and 130% for the Senior Executive Vice-President. The maximum variable portion as a percentage of fixed remuneration is examined each year and compared with a panel of comparable French and international companies. It is readjusted, where applicable, to ensure that the total monetary remuneration is competitive from a national and international standpoint. The weight of each criterion expressed as a percentage of the fixed remuneration is as follows:

<i>(as a percentage of the fixed remuneration)</i>	<b>Benoît Potier</b>	<b>Pierre Dufour</b>
<b>Financial criteria</b>	<b>110%</b>	<b>80%</b>
<i>EPS</i>	65%	50%
<i>ROCE</i>	45%	30%
<b>Personal Objectives</b>	<b>70%</b>	<b>50%</b>
<b>TOTAL</b> <i>(maximum expressed as a percentage of fixed remuneration)</i>	<b>180%</b>	<b>130%</b>

## Remuneration of the Executive Officers and Directors of L'Air Liquide S.A.

**Assessment for 2014**

At its meeting on February 16, 2015, the Board of Directors made an assessment of the performance of the executive officers:

*Financial criteria*

The results obtained in 2014 were above the objective set for the **criterion of recurring EPS** and below the objective set for the **ROCE criterion**. The amount of the variable remuneration, as a percentage of the fixed remuneration, in respect of recurring EPS, amounts to 67.6% for Benoît Potier and 52% for Pierre Dufour, and, in respect of ROCE, 28.8% for Benoît Potier and 19.2% for Pierre Dufour.

*Personal criteria*

The performance of the executive officers with regard to the **personal objectives** was considered very good: the development efforts made in favor of high-potential young talents were pursued. Furthermore, in an uneven environment, the Group continued to make progress in line with the objectives set within the scope of ALMA 2015; the main financial balances were preserved with strict control of capital expenditure and a selective investment policy. The balance sheet is stronger with a decrease in the debt/equity ratio. Finally, with regard to CSR, safety has improved as shown by the further decrease in the lost-time accident frequency rate which fell from 1.62 in 2013 to 1.50 in 2014, and in terms of innovation, the modernization of the Paris Saclay research center and the construction of a new R&D center in China were launched.

The amount of the variable remuneration in respect of the personal objectives represents 61.2% of the fixed remuneration for Benoît Potier and 45% for Pierre Dufour.

In total, the amount of the variable remuneration as a percentage of the fixed remuneration amounts to 157.6% (out of a maximum of 180%) for Benoît Potier and 116.2% (out of a maximum of 130%) for Pierre Dufour.

The total amount of fixed and variable remuneration for 2014 is +9.2% higher than in 2013 for Benoît Potier and +8.5% higher for

Pierre Dufour corresponding to an average annual increase, over the period 2011-2014, of +1.8% and +1.6% a year respectively.

**Other elements of remuneration**

The benefits in kind paid for the benefit of the executive officers in 2014 include the use of a Company car for each of the two executive officers as well as, for Benoît Potier, contributions to unemployment insurance for Company managers and corporate officers.

In addition, the Group paid to third parties, for Benoît Potier and Pierre Dufour, the contributions to the supplementary defined contribution pension plans, for Benoît Potier, the contributions to the collective life insurance plan and the additional death and disability benefits plan, and for Pierre Dufour, the contributions in respect of the savings contract entered into by the German company. The amount of such contributions is disclosed in the footnotes to Table 2.

Other elements of remuneration: Pierre Dufour, who has taken charge of the management of the hub in Frankfurt, also receives an annual amount of 250,000 euros paid by the German subsidiary, which includes, in particular, for approximately one half, an amount corresponding to the benefits in kind (housing) from which he previously benefited under his employment contract in France.

**2015 fiscal year**

On the basis of several studies concerning the remuneration of executive officers, carried out by independent firms, both for the French market (French industrial groups of the CAC 40 and comparable groups; large French industrial and services groups) and for the international market, the fixed remuneration and the applicable principles for determination of the variable remuneration of Benoît Potier and Pierre Dufour for 2015 were set as follows:

**Fixed remuneration**

It was decided that the amounts of fixed remuneration would remain **unchanged** as compared to 2014:

(In thousands of euros)

	Benoît Potier	Pierre Dufour
Fixed portion	1,100	650

**Variable remuneration**

It was decided that the **variable remuneration** for 2015 will continue to be based on **the same financial criteria**, the **objectives** (i) of an increase in recurring net earnings per share, and (ii) of return on capital employed after tax (ROCE) of the Company **being identical** to those for previous fiscal years.

In addition to this there will be **personal objectives** comprising:

- (i) for two-thirds, qualitative objectives, mostly shared by the two executive officers, related to management: organization and strategy with the preparation of the 2016-2020 plan, preserving financial balances, progress in the evolution of the Group's young generations and pursuit of the Corporate Social Responsibility objectives related, in particular, to safety, reliability, monitoring of the risk management process and the CO<sub>2</sub> assessment;
- (ii) for one-third, individual performance.



## Remuneration of the Executive Officers and Directors of L'Air Liquide S.A.

The weighting **formula** for the various components making up the variable remuneration and the maximum percentage of variable remuneration as compared to the fixed remuneration are unchanged for Benoît Potier; in order to remain competitive as compared to the reference markets (France, Germany, international), they are modified as follows for Pierre Dufour:

	<b>Pierre Dufour</b>
<b>Financial Criteria</b>	<b>85%</b>
<i>EPS</i>	50%
<i>ROCE</i>	35%
<b>Personal Objectives</b>	<b>55%</b>
<b>TOTAL</b> (maximum expressed as a percentage of fixed remuneration)	<b>140%</b>

## Other elements of remuneration

The other elements of remuneration received by Pierre Dufour in respect of his office in Germany are maintained (see page 151).

## BOARD OF DIRECTORS

## Amounts paid in 2013, 2014 and 2015

Table 3 below summarizes the Directors' fees (in the absence of payment of any other exceptional remuneration) received by non-executive directors in 2013 and 2014 and the amounts of Directors' fees paid in 2015 in respect of fiscal year 2014:

**Table 3 – Directors' fees and other exceptional remuneration received by the Group's non-executive and non-employee Directors**

<i>(in thousands of euros rounded off)</i>	<b>Amounts paid in 2013 in respect of 2012</b>	<b>Amounts paid in 2014 in respect of 2013</b>	<b>Amounts paid in 2015 in respect of 2014</b>
Alain Joly <sup>(d)</sup>	60	25	NA
Thierry Desmarest <sup>(f)</sup>	74	63	99
Rolf Krebs <sup>(b)</sup>	8	NA	NA
Gérard de La Martinière <sup>(a)</sup>	88	82	94
Béatrice Majnoni d'Intignano <sup>(c)</sup>	69	61	27
Cornelis van Lede <sup>(g)</sup>	90	80	100
Thierry Peugeot	65	52	62
Paul Skinner	76	80	91
Jean-Claude Buono <sup>(b)</sup>	18	NA	NA
Karen Katen	75	74	67
Jean-Paul Agon	50	43	56
Siân Herbert-Jones	53	57	61
Sin Leng Low <sup>(e)</sup>	NA	NA	53
Annette Winkler <sup>(e)</sup>	NA	NA	46
<b>TOTAL</b>	<b>726</b>	<b>617</b>	<b>756</b>

(a) The indicated amounts include additional remuneration of 20,000 euros with respect to the Chairmanship of the Audit and Accounts Committee.

(b) Term of office terminated on May 9, 2012.

(c) Term of office terminated on May 7, 2014.

(d) Term of office terminated on May 7, 2013.

(e) Term of office began on May 7, 2014.

(f) The indicated amounts include additional remuneration of 10,000 euros with respect to the Chairmanship of the Appointments and Governance Committee and the remuneration (13,000 euros) in respect of the duties of Lead Director since May 2014 (on a prorata temporis basis).

(g) The indicated amounts include additional remuneration of 10,000 euros with respect to the Chairmanship of the Remuneration Committee.

Benoît Potier and Pierre Dufour do not receive any Directors' fees with regard to their terms of office as Directors. Within the scope of the agreement entered into with the various stakeholders and pursuant to the provisions in force in the Group applicable to all the employees who serve on Boards of Directors of Group companies, it was agreed that the employee Director would not receive Directors' fees (see Report from the Chairman, pages 128 and 131).

## Criteria

The maximum amount of Directors' fees to be allocated overall to the members of the Board of Directors was set at 1,000,000 euros per fiscal year at the Annual Shareholders' Meeting of May 7, 2014 in its 14<sup>th</sup> resolution.

The allocation formula adopted by the Board of Directors comprises fixed remuneration and variable remuneration based on lump-sum amounts per meeting, thereby taking account of the effective participation of each Director in the work of the Board and its Committees/working group as well as a fixed amount per trip for Directors traveling from abroad. For 2014, the amounts calculated break down as follows:

### Fixed remuneration (for an entire fiscal year)

- Each member receives fixed annual remuneration of 20,000 euros for fiscal year 2014.
- The Chairman of the Audit and Accounts Committee receives supplementary fixed annual remuneration of 20,000 euros.
- The Chairmen of the Appointments and Governance Committee and the Remuneration Committee each receive supplementary fixed annual remuneration of 10,000 euros.
- The Lead Director receives supplementary fixed annual remuneration of 20,000 euros.

## Stock options

### STOCK OPTIONS GRANTED TO EXECUTIVE OFFICERS

#### Principles of grant

Stock options granted by the Board of Directors to both executive officers and employees are a factor of long-term motivation, aligned with the interests of shareholders to create long-term value.

### Variable remuneration

Attendance at the various meetings is remunerated as follows:

- |  |             |
|--|-------------|
| ■ one meeting of the Board of Directors                    | 5,000 euros |
| ■ one meeting of the Audit and Accounts Committee          | 4,000 euros |
| ■ one meeting of the Appointments and Governance Committee | 3,000 euros |
| ■ one meeting of the Remuneration Committee                | 3,000 euros |
| ■ one meeting of the "Shareholder Relations" working group | 3,000 euros |
| ■ one trip for a non-resident:                             |             |
| - in Europe  | 2,500 euros |
| - Intercontinental   | 5,000 euros |

Participation by telephone is remunerated at one-half of the lump-sum amounts set for each meeting.

Travel expenses incurred by non-French residents are reimbursed by the Company.

The variable remuneration related to the participation in Board and Committee meetings predominates over the fixed remuneration.

The remuneration paid in respect of 2014 includes the Intercontinental trip made by the Directors to Houston.

On a comparable basis (with the same number of members, meetings, trips), the increase in 2014 as compared to 2013 in the average amount per member resulting from application of the formula is around 4%.

The policy of distribution of Directors' fees is regularly examined and readjusted, where applicable, to ensure that the remuneration paid is competitive from an international standpoint, in order to benefit from the best and most suitable skills in the business sector and geographically, and to ensure that the values which have led to the Group's long-term success are maintained.

The granting of stock options is examined with regard to the total annual remuneration of the executive officer, taking into account several external market surveys and respecting the interests of shareholders. The grant, examined by the Remuneration Committee at the same time as the allocation plan for Group employees and decided by the Board of Directors, is conducted as part of annual plans, approved at pre-defined periods in the autumn, in the form of share subscription options granted without a discount.

## Remuneration of the Executive Officers and Directors of L'Air Liquide S.A.

The plan regulations are the same for all option beneficiaries within the Group, it being specified that, since 2009, the executive officers have been subject to the additional conditions set out below.

Pursuant to the decision made by the Board of Directors (most recently on September 22, 2014, pursuant to the authorization granted by the Annual Shareholders' Meeting on May 7, 2013 in its 11<sup>th</sup> resolution), the total number of options allotted each year to executive officers may not grant entitlement to a total number of shares exceeding:

- for all executive officers, 0.1% of the share capital (it being specified that a sub-limit on grants specific to the executive officers amounting to 0.3% of the share capital over a period of 38 months was set by the Annual Shareholders' Meeting on May 7, 2013);
- for each individual executive officer, on the basis of valuation of the options under the applicable IFRS, approximately the amount of the executive officer's maximum gross annual remuneration in respect of the same fiscal year.

In addition, the Board of Directors specifies (most recently at its meeting on September 22, 2014) that during the "negative window" periods surrounding the publication of the financial statements as determined by the Company, executive officers may not exercise the stock options that have been allocated to them. These abstention periods begin 21 days before the date of publication of the results and end at the close of a period of three days after this date.

The Board of Directors has taken due note of the commitment made by Benoît Potier and Pierre Dufour, in accordance with consistent Company practice, not to use hedges during the entire duration of their terms of office, in accordance with the AFEP/MEDEF Code of corporate governance.

### Performance conditions

Pursuant to the AFEP/MEDEF Code of corporate governance, stock options granted to executive officers are subject, in their entirety, to performance conditions calculated over three years. As the grant traditionally takes place in the autumn, the reference fiscal year for the application of the performance conditions is the previous year with, however, extremely stable objectives over time. In future, it could be proposed to the Board that it set the performance conditions at the beginning of the year whatever the date of grant.

At the time of the option allocation on September 22, 2014, the Board of Directors decided, on the recommendation of the Remuneration Committee:

**1. to introduce an element of relative comparison in the Total Shareholder Return criterion.** It thus decided that the number of stock options that may be exercised by each of the executive officers out of the total number of options that were granted to him under the 2014 plan will depend:

- (i) for 65% of the options granted, on the rate of achievement of an objective set by the Board, of growth in Group undiluted net earnings per share excluding foreign exchange impact and exceptional items (Recurring EPS) for fiscal year 2016 as compared to Recurring EPS for the 2013 fiscal year, a criterion **which makes it possible to measure the achievement by the Group of its medium-term growth objectives**, and
- (ii) for 35% of the options granted,
  - for 50% of the options referred to in paragraph (ii): on an objective with regard to Total Shareholder Return set by the Board, defined as the average annual growth rate of an investment in Air Liquide shares for fiscal years 2014, 2015 and 2016 ("AL TSR"); as the objective set has remained the same for a number of years, this parameter has made it possible to ensure, over the long term, a high level of consistency between the interests of shareholders and those of the executive officers;
  - for 50% of the options referred to in paragraph (ii): the Total Shareholder Return from an investment in Air Liquide shares, reinvested dividends – source: Bloomberg ("B TSR"), compared to a reference index made up of:
    - for half, the CAC 40 index, reinvested dividends (source: Bloomberg), and
    - for half, the Total Shareholder Return of the companies in the industrial gas sector (the average of Air Liquide, Linde, Praxair and Air Products), reinvested dividends (source: Bloomberg).

This choice results from the wish, firstly, to take account of a request made by international investors, who are generally sensitive to outperformance as compared to the sector average, and secondly to take into account the significant proportion of French shareholders in the Group's capital (54%), for whom the CAC 40 index remains a natural reference, as demonstrated by the correlation studies. The combination of these two factors makes it possible both to be able to use a sufficient number of comparable companies as a benchmark and to benefit from greater relevance in the representative sample.

## Remuneration of the Executive Officers and Directors of L'Air Liquide S.A.

In summary, the applicable performance conditions are as follows:

Percentage	65%	35%	
Objective	Growth in net earnings per share excluding foreign exchange impact and exceptional items 2016 vs. 2013	50% Total Shareholder Return 2014/2015/2016	50% Total Shareholder Return vs. benchmark ½ CAC 40 – ½ peers 2014/2015/2016
Achievement	From 0% to 100% if the objective is achieved	Low objective 0%	High objective 100%

As regards **EPS**, the growth objective set takes account of the economic environment, historical growth and the Group's mid-term ambitions. It is unchanged as compared with the 2013 plan. From the objective set, the grant decreases on a straight-line basis and no grant is made if there is zero growth in EPS.

For information purposes, over the last three years, the objective was extremely close to the rates of growth in EPS shown in the consolidated annual budgets presented to the Board of Directors.

With respect to Total Shareholder Return defined as the **average annual growth rate** of an investment in Air Liquide shares (AL TSR), the objective set is in line with past performance. It is unchanged as compared with the 2013 plan. From the objective set, the grant decreases on a straight-line basis, down to a lower limit which remains significantly higher than the rate of return on capital.

With respect to Total Shareholder Return from an **investment in Air Liquide shares – source: Bloomberg** (B TSR) as compared to the CAC 40 index and the sector, the median objective is based on a performance equal to the average of the two indexes. The rate of achievement is 0% if the rate of return on Air Liquide shares is 3% lower than the median objective, and 100% if the rate of return on Air Liquide shares is more than 3% higher than the objective.

The targets set for each performance condition will be made public ex post, at the end of the Board meeting determining the rate of achievement of the performance conditions at the time of adoption of the financial statements for the fiscal year concerned. The result achieved and the percentage of stock options that vest will also be communicated.

- 2. to apply these performance conditions to all beneficiaries** (members of the executive management, members of the Executive Committee, and any other beneficiary), **for all the options granted.**

### Recording of the achievement of the performance conditions under the 2012 share subscription option plan

On the basis of the financial statements for the 2014 fiscal year submitted for the approval of the next Annual Shareholders' Meeting, the Board of Directors recorded, at its meeting on

February 16, 2015, the rate of achievement of the **performance conditions** defined at the time of implementation of the **stock option plan** of September 27, 2012.

The 2012 stock option plan provided that the number of options that could effectively be exercised by the beneficiary of a conditional grant of options would depend on the level of achievement of:

- (i) for 65%, the objective of growth in recurring EPS for the 2014 fiscal year as compared to that for fiscal year 2011 set at +15% in order to be able to exercise all the stock options subject to this criterion, and decreasing on a straight-line basis to 0% growth; the Board of Directors placed on record that growth in recurring EPS for the above-mentioned period amounted to +12.7% (i.e., an objective achieved at 85%);
- (ii) for 35%, an objective of total shareholder return, defined as the compound annual growth rate for an investment in Air Liquide shares with respect to fiscal years 2012, 2013 and 2014, set at 8% in order to be able to exercise all the options subject to this criterion, and decreasing on a straight-line basis to 4%. The Board of Directors recorded that the total shareholder return for the above-mentioned period was 12.71% per annum (i.e., an objective achieved at 100%).

Accordingly, the Board of Directors recorded that the total proportion of the options subject to conditions that could be exercised by the beneficiary was equal to **90.5%**.

### Other conditions

It is verified before each allocation that the conditions set by the provisions of the French law of December 3, 2008, under which all employees in France must be associated with the Company's performance, are met.

The length of the stock option plan is 10 years and includes a four-year waiting period during which the stock options cannot be exercised. Furthermore, a condition of continued presence in the Group at the time of exercise of the options is also defined.

### Volume

Table 4 shows the number and value of the share subscription options granted to each of the executive officers by the Board of Directors on September 22, 2014.

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Table 4 – Share subscription options granted during the 2014 fiscal year to each executive officer

	Plan grant date	Option type	Option value (pursuant to IFRS2) (in thousands of euros)	Number of options granted in 2014	Strike price (in euros)	Exercise period
Benoît Potier	09/22/2014	Share subscription options	1,618	100,000	97	09/22/2018 to 09/21/2024
Pierre Dufour	09/22/2014	Share subscription options	922	57,000	97	09/22/2018 to 09/21/2024

The number of stock options granted to Benoît Potier and Pierre Dufour is unchanged as compared to 2013. The options granted to the executive officers in 2014 represent 0.05% (respectively 0.03% for Benoît Potier and 0.02% for Pierre Dufour) of the number of shares making up the share capital. These grants are made by the Company to the exclusion of any other Group company.

The adjusted fair value of the stock options granted in 2014 to employees and executive officers of the Group, and determined according to IFRS2 (as presented in note 22 “Shareholders’ equity” on page 233) amounts to:

- 17.32 euros for the options subject to performance conditions linked to the Group’s results;
- 14.07 euros for the options subject to performance conditions linked to the change in the share price.

In accordance with French law, at the time of allocation of the 2014 stock option plan, the Board of Directors defined the rules governing the holding of shares resulting from the exercise of options, applicable to executive officers (see the details set out below).

Table 5 presents the total number of stock options exercised by the executive officers in 2014.

Table 5 – Share subscription options exercised during the 2014 fiscal year by each executive officer

	Plan grant date	Number of options exercised during the fiscal year	Exercise price (in euros)
Benoît Potier	05/09/2007	36,101	64.03
Benoît Potier	07/09/2008	32,101	64.66
Pierre Dufour	05/09/2007	31,440	64.03

Total adjusted stock options granted to executive officers and not exercised as of December 31, 2014

	Total adjusted stock options not exercised	Average price (in euros)
Benoît Potier	749,764	75.25
Pierre Dufour <sup>(a)</sup>	394,454	76.64

(a) Stock options granted in respect of his corporate office since his appointment in November 2007.

## SHAREHOLDING OBLIGATION

- In accordance with article L. 225-185 of the French Commercial Code, the Board of Directors decided that, for each allocation of stock options to an executive officer, starting with the May 9, 2007 plan and as from the exercise date of the granted options, the executive officer should hold a defined minimum quantity of registered shares arising from each exercise of stock options under each plan until the termination of his duties.

This quantity will be calculated at the option exercise date based on the stock market price of the shares on this date (opening quoted price) and shall represent a minimum amount equal to 50% of the capital gain on acquisition less social security contributions and taxes (calculated at the maximum theoretical tax rate) on each exercise.

However, this percentage may be revised downward without falling below 10%, provided that the quantity of shares arising from the exercise of stock options held by an executive officer, covering all plans from May 9, 2007 onwards for Benoît Potier and from July 9, 2008 onward for Pierre Dufour and calculated at the stock market price (opening quoted price), shall represent at the date of each exercise a minimum amount at least equal to 50% of the total capital gains on acquisition less social security contributions and taxes (calculated at the maximum theoretical tax rate) on all plans as from May 9, 2007 (including the exercise of stock options concerned).

This rule, regularly re-examined by the Board at the time of each stock option plan, was reiterated by the Board of

Directors in September 2014 when share subscription options were granted to the executive officers.

A report was made to the Board of Directors on February 16, 2015 on the application of this rule for the stock options exercised within the scope of the 2007 and 2008 stock option plans.

- In addition, in February 2008, the Board decided to impose on executive officers an obligation to hold a number of shares equivalent to double the gross annual fixed remuneration for the Chairman and Chief Executive Officer and equal to the gross annual fixed remuneration for the Senior Executive Vice-President. This number of shares includes the quantity of shares arising from the exercise of stock options that executive officers must hold pursuant to the decisions of the Board of Directors taken in accordance with article L. 225-185 of the French Commercial Code, without, however, restricting the enforcement of such decisions. The number of shares required to be held is assessed on January 1 and July 1 of each year. The Board noted that the valuation of the shares held at January 1 and July 1, 2014 and at January 1, 2015 by the Chairman and Chief Executive Officer and the Senior Executive Vice-President was respectively much higher than the required amounts and concluded that the stock ownership obligation is respected by each of the executive officers.

Recommendations encouraging the holding of a minimum number of shares of the Company equivalent to 0.5 times their gross annual fixed remuneration have also been made to Executive Committee members since 2009.

## Conditional grants of shares to employees

### Tables 6 and 7 – Performance shares awarded to each executive officer

Not applicable to L'Air Liquide S.A. at the date hereof.

The possibility of making conditional grants of shares to the Company's executive officers was authorized by the Shareholders' Meeting of May 7, 2013 in its 12<sup>th</sup> resolution.

The Board of Directors decided at its meeting on September 22, 2014 that no executive officer or Executive Committee member would be a beneficiary of the plan for the conditional grant of shares to employees in 2014.

## Long-term commitments

The long-term commitments set out below are taken into account for the determination of the total remuneration of the executive officers.

President, of the defined benefit pension plan applicable to all senior managers and executives of the Company whose remuneration exceeds 24 times the annual social security ceiling, for the portion of their remuneration exceeding that threshold.

## PENSION BENEFIT OBLIGATIONS

### Defined benefit pension plan

The Board of Directors has authorized the application to Benoît Potier in his capacity as Chairman and Chief Executive Officer, and to Pierre Dufour in his capacity as Senior Executive Vice-

Pension benefits corresponding to that benefit plan will be equal to 1% for each year of service based on the average of the three best years of the last five years of total annual remuneration exceeding 24 times the annual social security ceiling (the "Reference Remuneration"). (For beneficiaries' length of service, see the dates when the persons concerned joined the Group set out on pages 180 and 189.) The basis for calculation of the pension



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annuity will only be equal to the fixed and variable remuneration, to the exclusion of any other form of remuneration of any kind paid by the Company or any French or foreign subsidiary. For this calculation, the average of the total variable portions taken into account cannot exceed 100% of the average of the total fixed portions used for this calculation. Where applicable, an annuity equal to 60% of the above-mentioned benefits will be paid to the surviving spouse if certain conditions are satisfied, notably with regard to age.

The defined benefit plan only applies if the beneficiary is still with the Company at the time of his retirement and decides to claim his pension entitlements, whether or not at the full rate; in the event that the relationship is terminated at the Company's initiative, the beneficiary may nevertheless maintain his rights if he is over 55 years of age with a length of service of at least five years if he does not resume any professional activity until he retires. The condition of ending his career in the Company is then met as the beneficiary has not performed any other professional activity after his departure from the Company. This rule, which is in line with the position of the social security administration, reflects the human resources policy at Air Liquide, for which long careers within the Group constitute a key element; in the light of the length of service of the potential beneficiaries of this plan, some of whom have spent the whole of their career in the Group, it would not be justified for them to lose the benefit of this plan in the event of a forced departure (except in the event of gross or willful misconduct) at the end of their careers.

Furthermore, in accordance with the AFEP/MEDEF Code of corporate governance, a minimum length of service of three years is required and included in the plan regulations to apply to all potentially eligible executive officers and senior managers and executives.

As for all senior managers and executives benefiting from the defined benefit plan, total pension benefits, under all pension plans combined, are capped in all cases at 45% of the Reference Remuneration. Should this ceiling be reached, the amount paid under the defined benefit plan would be reduced accordingly.

The application of this plan to Benoît Potier and Pierre Dufour was last authorized by the Board of Directors at its meeting on February 17, 2014 in accordance with the regulated agreements and commitments procedure, and approved by the Annual Shareholders' Meeting on May 7, 2014 in a specific resolution for each executive officer (10<sup>th</sup> and 11<sup>th</sup> resolutions). The application of the plan to Benoît Potier and Pierre Dufour had previously been authorized by the Board of Directors at its meeting on February 12, 2010 in accordance with the regulated agreements and commitments procedure, and approved by the Annual Shareholders' Meeting on May 5, 2010 in a specific resolution for each executive officer (9<sup>th</sup> and 10<sup>th</sup> resolutions).

In accordance with the terms of the rules of this plan, part of the Company's commitments were pre-funded through a contract entered into with an insurance company in 2014.

### Defined contribution pension plan

Benoît Potier benefits from the supplementary defined contribution pension plan applicable to all the employees and executive officers, the contributions to which are paid in equal shares by the employer and the beneficiary on the portion of remuneration not exceeding 8 times the annual social security ceiling. The individual application of this plan to Benoît Potier was authorized by a decision of the Board of Directors at its meeting on February 12, 2010 in accordance with the regulated agreements and commitments procedure, and approved by the Annual Shareholders' Meeting on May 5, 2010 (9<sup>th</sup> resolution). Pierre Dufour no longer benefited from this plan.

Benoît Potier benefited from the defined contribution pension plan for senior managers and executives limited to the remuneration that does not exceed 8 times the annual social security ceiling. The application of this plan to Benoît Potier had been authorized by the Board of Directors at its meeting on February 12, 2010 and approved by the Annual Shareholders' Meeting on May 5, 2010 (9<sup>th</sup> resolution). In the light of the recent changes in the legislative and regulatory framework governing the social security treatment of the funding of this plan, it has been decided to change the category of beneficiaries of this plan, and to exclude from it the executive officers, the contribution paid for their benefit being transferred to the life insurance plan (see below).

Accordingly, pursuant to a decision made on November 20, 2014, the Board of Directors authorized the amendment of the collective life insurance plan, in order to permit the transfer to this plan, as from 2015, of the contribution paid up until then under the defined contribution pension plan for senior managers and executives.

In the light of his new situation in the Group, Pierre Dufour no longer benefited from this plan.

During the 2014 fiscal year, the amount paid by the Company to the third party responsible for managing the above-mentioned supplementary defined contribution pension plans on behalf of Benoît Potier and Pierre Dufour is disclosed in the footnotes to Table 2.

### Savings contract in Germany for the benefit of Pierre Dufour

A savings contract was entered into by the German subsidiary with a financial institution for the benefit of Pierre Dufour. It makes it possible to create savings which are available at the end of the contract, of an amount that is at least equivalent to the contributions paid by the subsidiary. The amount of the contribution corresponds to the amount of the contributions previously paid into the French plans from which Pierre Dufour no longer benefits. In 2014, the amount of the contribution paid by the subsidiary is disclosed in the footnotes to Table 2.

## LIFE INSURANCE PLAN

As the executive officers are no longer beneficiaries of the defined contribution pension plan for senior managers and executives (see above), a collective life insurance contract was entered into which enables them to create savings which are available at any time. The opening of this plan, for the 3<sup>rd</sup> bracket (16 to 24 times the annual social security ceiling), and then the 2<sup>nd</sup> bracket (8 to 16 times the annual social security ceiling) of the Reference Remuneration, at an unchanged cost for the Company, responded to a concern for good management; the impact of its extension to the 1<sup>st</sup> bracket (remuneration of between 0 and 8 times the annual social security ceiling) which follows the changes in the regulations, is practically neutral for the Company. The contributions paid by the Company to the third-party plan manager are assessed on the basis of the portions of the Reference Remuneration of the beneficiaries corresponding to the 3<sup>rd</sup>, 2<sup>nd</sup> and, since the decision in 2014, the 1<sup>st</sup> bracket, in accordance with conditions identical to those of the previous plan.

For the executive officers, the signature of this contract, for the 3<sup>rd</sup> and then the 2<sup>nd</sup> bracket, was authorized by decisions made by the Board of Directors on November 20, 2012 and February 13, 2013 in accordance with the regulated agreements and commitments procedure, and approved by the Annual Shareholders' Meeting of May 7, 2013 in a specific resolution for each executive officer (7<sup>th</sup> and 8<sup>th</sup> resolutions). The decision made by the Board of Directors on November 20, 2014 in accordance with the regulated agreements and commitments procedure authorized the extension of the system to the 1<sup>st</sup> bracket concerning the band of Reference Remuneration amounting to between 0 and 8 times the annual social security ceiling. A report was made to the Board on February 16, 2015 on the effective implementation of such authorization, the terms and conditions of which were then published on the Company's website. This agreement is subject to the approval of the Annual Shareholders' Meeting of May 6, 2015 in a specific resolution for Benoît Potier (7<sup>th</sup> resolution).

The amount paid by the Company in 2014 to the life insurance plan manager on behalf of Benoît Potier is disclosed in the footnotes to Table 2.

In the light of Pierre Dufour's new situation within the Group since January 1, 2014 (see paragraph entitled "Change in the situation of Pierre Dufour since January 1, 2014" below), Pierre Dufour has waived the right to benefit from this plan.

## DEATH AND DISABILITY BENEFITS PLAN

Two additional death and disability benefits plans, exclusively funded by employer contributions, were in force in the Company:

- i. a first plan applicable to all the employees and executive officers, which covered the risks of incapacity, disability and death and the contribution to which was assessed on the basis of the fraction of the gross annual remuneration amounting to between 0 and 8 times the annual social security ceiling, and
- ii. a second plan known as the "death benefits plan for 'senior managers'" applicable to senior managers and executives

and executive officers whose remuneration exceeded 8 times the annual social security ceiling meeting certain conditions, which covered the risk of death and the contribution to which was based on the fraction of the gross annual remuneration exceeding 8 times the annual social security ceiling.

Benoît Potier had been authorized to benefit from these death and disability benefits plans by a decision made by the Board of Directors on February 12, 2010, approved by the Annual Shareholders' Meeting on May 5, 2010.

It was decided, in an overall logic of simplification (one unified plan instead of the two that currently exist) and ensuring the legal security of the various supplementary social protection schemes, effective as from January 1, 2015, to change the death and disability benefits plan set up for the benefit of all the personnel, in order to extend the basis for assessment of the contributions and benefits and to put an end, at the same time, to application of the death benefits plan for 'senior managers'. From now on, only one unified supplementary death and disability benefits plan is applied, covering all the personnel and the executive officers duly authorized to benefit from the plan, in which:

- the remuneration taken into account for the calculation of the contributions is capped at:
  - i. 16 times the annual social security ceiling for the incapacity and disability cover.
  - ii. 24 times the annual social security ceiling for the death cover.
- the rate of the employer's contribution is 1.02%, subject to subsequent changes that may take place pursuant to the contractual provisions.

An insurance contract was entered into with an insurance company in this respect at the end of 2014, which specifies the limits of the incapacity/disability and death benefits for the same insured party.

Pursuant to a decision of November 20, 2014 made in accordance with the regulated agreements and commitments procedure, the Board of Directors authorized Benoît Potier, in respect of his duties as Chairman and Chief Executive Officer, to benefit, as from January 1, 2015, from this new unified death, disability and related benefits plan covering all the personnel. A report was made to the Board on February 16, 2015 on the effective implementation of such authorization, the terms and conditions of which were then published on the Company's website. This agreement is subject to the approval of the Annual Shareholders' Meeting of May 6, 2015 in a specific resolution for Benoît Potier (7<sup>th</sup> resolution).

In the light of the pooling of the risks covered, the amount of the annual contribution paid for Benoît Potier should amount to substantially less than the contribution paid up until now by the Company within the scope of the death benefits plan for "senior managers".

The amount of the contribution paid in 2014 by L'Air Liquide S.A. in respect of the death benefits plan for 'senior managers', which has now been terminated for the benefit of Benoît Potier, is disclosed in the footnotes to Table 2.

## Remuneration of the Executive Officers and Directors of L'Air Liquide S.A.

**CHANGE IN PIERRE DUFOUR'S SITUATION SINCE JANUARY 1, 2014**

In addition to his office as Senior Executive Vice-President, Pierre Dufour has taken charge of the management of the hub in Frankfurt. In this context, a service agreement entered into with the German subsidiary Air Liquide Global Management Services GmbH (ALGMS) defines the conditions for performance by Pierre Dufour of his office as Managing Director. The elements of remuneration received by Pierre Dufour in respect of this corporate office are included in Tables 1 and 2 above. Pierre Dufour furthermore benefits from a non-competition clause that the subsidiary can waive, and thus be released from the obligation to pay the corresponding indemnity.

The agreement also provides for a notice period indemnity equal to 12 months of remuneration in the event of removal from office with immediate release from his service obligations (excluding in the event of gross misconduct); this indemnity is reduced to six months of remuneration as it gets nearer to the date on which Pierre Dufour has the possibility to apply for a retirement pension in France. Furthermore, concerning retirement, a savings contract has been entered into (see page 158).

For the record, Pierre Dufour resigned from his employment contract with L'Air Liquide S.A. as of December 31, 2013.

**Commitments relating to termination of duties****TERMINATION INDEMNITIES****Benoît Potier**

In accordance with the "TEPA" law and the AFEP/MEDEF Code of corporate governance, at its meeting on February 17, 2014, the Board of Directors set the terms of the agreement applicable to Benoît Potier as from the renewal of his terms of office as Chairman and Chief Executive Officer in May 2014, along the following main lines:

- (i) only the cases of forced departure of Benoît Potier from his offices as Chairman and Chief Executive Officer, whatever the form of such departure (removal from office, non-renewal, request for resignation) related to a change of strategy or a change in control, may give rise to an indemnity;
- (ii) the amount of the indemnity in any of these cases is set at 24 months of gross fixed and variable remuneration;
- (iii) the amount of the indemnity due decreases gradually as Benoît Potier, as Chairman and Chief Executive Officer, approaches the age limit defined in the Company's articles of association (63 years of age); in the event of a forced departure in the 24 months preceding the date of departure due to the age limit set by the articles of association, the amount of the indemnity due will be capped at the number of months of gross remuneration separating the date of forced departure from the date when he reaches such age limit. In any case, no indemnity shall be paid should the beneficiary claim his pension entitlements on the date of his forced departure;
- (iv) the right to payment of the indemnity is subject to the achievement of performance conditions that were made stricter in 2014, with the proportion of the indemnity due decreasing depending on the rate of achievement of such conditions according to the formula described below (see "Performance conditions applicable to the termination indemnities of the executive officers").

The decision made by the Board of Directors at its meeting on February 17, 2014 in accordance with the regulated agreements and commitments procedure provided for under the "TEPA" law was approved by the Annual Shareholders' Meeting of May 7, 2014 in a specific resolution concerning Benoît Potier (10<sup>th</sup> resolution). It is re-examined and subject to the approval of the Annual Shareholders' Meeting at the time of each renewal of Benoît Potier's term of office.

**Pierre Dufour**

In accordance with the "TEPA" law and the AFEP/MEDEF Code of corporate governance, at its meeting on February 17, 2014, the Board of Directors set the terms of the agreement applicable to Pierre Dufour as from the date of renewal of his office as Senior Executive Vice-President in May 2014, along the following main lines:

- (i) only the cases of forced departure of Pierre Dufour from his office as Senior Executive Vice-President, whatever the form of such departure (removal from office, non-renewal, request for resignation) related to a change of strategy or a change in control, may give rise to an indemnity;
- (ii) the amount of the indemnity in any of these cases (including any notice period or other indemnity and non-competition indemnity due, where applicable, by the German subsidiary in the event of simultaneous termination of his agreement in Germany) is set at 24 months of gross fixed and variable remuneration received by Pierre Dufour on any basis whatsoever from any Group company;
- (iii) no indemnity will be paid if the beneficiary has the possibility to claim his full pension entitlements in the short term at the date of the forced departure;
- (iv) the right to payment of the indemnity is subject to achievement of the performance conditions that were made stricter in 2014, with the proportion of the indemnity due decreasing according to the rate of achievement of such conditions according to the formula described below (see "Performance conditions applicable to the termination indemnities of the executive officers" below).

## Remuneration of the Executive Officers and Directors of L'Air Liquide S.A.

The decision made by the Board of Directors at its meeting on February 17, 2014 in accordance with the regulated agreements and commitments procedure provided for under the "TEPA" law was approved by the Annual Shareholders' Meeting of May 7, 2014 in a specific resolution concerning Pierre Dufour (11<sup>th</sup> resolution). It is re-examined and subject to the approval of the Annual Shareholders' Meeting at the time of each renewal of Pierre Dufour's term of office.

### PERFORMANCE CONDITIONS APPLICABLE TO THE TERMINATION INDEMNITIES DUE TO THE EXECUTIVE OFFICERS

- The Board of Directors decided that the payment of the termination indemnities concerning Benoît Potier and Pierre Dufour mentioned above is subject to compliance, duly acknowledged by the Board of Directors at the time of or subsequent to the termination of their duties, with conditions relating to the beneficiary's performance assessed in relation to the Company's performance to date, defined as follows:

Entitlement to the indemnity referred to above shall depend on, and the amount of the indemnity paid shall be adjusted on the basis of, the average of the annual gap between the Return On Capital Employed after tax (ROCE) and the Weighted Average Cost of Capital (WACC) (assessed using the net equity method) calculated (based on the certified consolidated financial statements approved by the Annual Shareholders' Meeting) with respect to the last three fiscal years prior to the fiscal year in which the departure occurs. For the purposes of this calculation, the gap between ROCE and WACC will be measured for each fiscal year and the average of the three annual gaps over the three fiscal years prior to the fiscal year during which the departure occurs shall be calculated. In the light of the fundamental importance, in the highly capital-intensive industrial gas industry, of the investment management and control process, this gap makes it possible to measure regular value creation over the three years prior to departure.

Within the scope of re-examination of the commitment, the Board of Directors decided, at its meeting on February 17, 2014, on the recommendation of the Remuneration Committee, that an average ROCE - WACC gap over three years of 300 basis points (instead of 200 previously) would now be required in order to benefit from the total amount of

the indemnity. The declining formula has also been made more exacting: the condition decreases down to a minimum gap of 100 basis points (instead of 0 previously), below which no indemnity is paid.

Average ROCE - WACC gap	Proportion of the indemnity due
≥ 300 bp <sup>(a)</sup>	100%
≥ 200 bp and < 300 bp	66%
≥ 150 bp and < 200 bp	50%
≥ 100 bp and < 150 bp	33%
< 100 bp	0%

(a) bp: basis point.

Due firstly to good management of the Group and secondly a relatively modest WACC, over the last 10 years, value creation has continued to be in excess of 400 basis points.

These conditions will be reviewed by the Board of Directors and, where applicable, amended to take account particularly of changes in the corporate environment each time the beneficiary's term of office is renewed and, where applicable, during his term of office.

- Concerning Pierre Dufour, the total amount of 24 months of remuneration includes the indemnities received from the German subsidiary in the event of simultaneous termination of his duties. The performance conditions are not applicable to the indemnities, including the non-competition indemnity, received from this subsidiary. Nevertheless, the German company has reserved the right to waive the non-competition undertaking at any time during the term of the agreement and to be released from the obligation to pay the corresponding indemnity. The portion of the indemnities not subject to performance conditions could thus represent 35% of the total indemnity, in case of waiver of the non-competition undertaking (82% if it is maintained in force). Moreover, it is provided that any potential notice period indemnity will decrease by one-half as he approaches retirement age. In the event of waiver of the non-competition clause and a decrease in the notice period indemnity, the amount of the indemnities that are not subject to performance conditions would then only represent 17.5% of the total termination indemnity.

## Unemployment insurance for Company managers and corporate officers

Pursuant to a decision made by the Board of Directors in May 2006, Benoît Potier benefits, in his capacity as a corporate officer, from the unemployment insurance for Company managers and corporate officers subscribed by the Company. The contributions paid by the Company are added back to Benoît Potier's remuneration as benefits in kind.

This decision had been approved by the Annual Shareholders' Meeting of May 9, 2007, in accordance with the regulated agreements procedure (7<sup>th</sup> resolution).

At its meeting in May 2014, the Board of Directors on confirmed that Benoît Potier continues to benefit from this insurance within the scope of the latest renewal of his terms of office.

Table 8 (see page 173) and Table 9 (see page 174)

Table 10

The table below summarizes commitments relating to the termination of duties of the executive officers as set out above.

Executive Officers	Employment contract	Supplementary pension plan (see details above)	Indemnities or benefits due or that may be due on termination or a change of duties (see details above)	Non-competition indemnity
<b>Benoît Potier</b> Chairman and Chief Executive Officer Term of office start date: 2006 Date of renewal of term of office: 2014 Term of office end date: 2018	NO	<b>Defined benefit pension plan for senior managers and executives and executive officers: YES</b>  <b>Defined contribution pension plan for all the employees and executive officers: YES</b>  <b>Defined contribution pension plan for senior managers and executives: NO (closed in 2014)</b>	<b>YES</b> Termination indemnity: <ul style="list-style-type: none"> <li>■ case: forced departure related to a change of strategy or a change in control;</li> <li>■ maximum amount: 24 months of gross fixed and variable remuneration;</li> <li>■ subject to performance conditions;</li> <li>■ reduction as he approaches the age limit pursuant to the articles of association, exclusion should the beneficiary claim his pension entitlements on the date of forced departure.</li> </ul>	NO
<b>Pierre Dufour</b> Senior Executive Vice-President Term of office start date: 2007 Date of renewal of term of office: 2014 Term of office end date: 2017	NO	<b>Defined contribution pension plan for senior managers and executives and executive officers: YES</b>  Since January 1, 2014: savings contract governed by German law	<b>YES</b> Termination indemnity: <ul style="list-style-type: none"> <li>■ case: forced departure related to a change of strategy or a change in control;</li> <li>■ maximum amount (including any notice period or other indemnity and non-competition indemnity due, where applicable, by the German subsidiary in the event of simultaneous termination of his service agreement in Germany): 24 months of gross fixed and variable remuneration;</li> <li>■ subject to performance conditions;</li> <li>■ exclusion if the beneficiary is entitled to claim his full pension entitlements in the short term on the date of forced departure.</li> </ul>	<b>YES</b> 16 months of remuneration received in respect of the office in Germany, indemnity included in the maximum overall limit of 24 months of fixed and variable remuneration. Possibility for the subsidiary to waive the non-competition undertaking at any time during the agreement.



## Elements of 2014 remuneration of Executive officers submitted for the Shareholders' Opinion (Say on Pay)

### ELEMENTS OF REMUNERATION DUE OR ALLOCATED TO MR BENOÎT POTIER IN RESPECT OF FISCAL YEAR 2014, SUBMITTED FOR THE OPINION OF THE SHAREHOLDERS

#### Elements of remuneration due or allocated to Mr Benoît Potier in respect of fiscal year 2014

	Amounts	Comments
Fixed remuneration	€1,100,000	Fixed remuneration is determined based on the level of responsibility and experience in the management function and market practices. It is unchanged as compared with 2013.
Variable annual remuneration	€1,734,150	<p><b>The variable remuneration is limited to 180% of the fixed remuneration.</b> The maximum variable portion as a percentage of the fixed remuneration is examined each year and compared to a panel of comparable French and international companies. It is readjusted, where applicable, to ensure that the total monetary remuneration is competitive from a national and international standpoint. The variable portion expressed as a percentage of the fixed remuneration is linked in 2014:</p> <ul style="list-style-type: none"> <li>■ <b>for 110%</b> of the fixed remuneration, to <b>two financial criteria</b> that are based on: (i) for 65%, an objective of growth in recurring EPS set on a consistent basis with regard to historical performances; it takes into account the Group's ambition of growth and the economic environment, (ii) for 45%, an objective of ROCE set in absolute value in line with best performances in the industry, and at a level significantly higher than the weighted average cost of capital. An adjustment for each financial criterion is provided for in the event of an upward or downward variance. These two elements, that have remained the same for a number of years, reflect the importance for the Group of the balance between growth and profitability of investments;</li> <li>■ <b>for 70%</b> of the fixed remuneration, to <b>personal objectives</b> comprising: (i) for two-thirds, qualitative objectives, most of which are shared by the two Executive Officers, related, firstly, to management: management of human resources and organization, deployment of the strategic plan and preserving financial balances and, secondly, Corporate Social Responsibility – particularly in the areas of safety, reliability and innovation;(ii) for one-third, individual performance.</li> </ul> <p><b>Assessment for 2014</b></p> <p>On February 16, 2015, the Board of Directors recorded that <b>the results obtained in 2014</b> were above the objective set for recurring EPS and below the objective set for ROCE. The variable portion, as a percentage of the fixed remuneration, amounts to 67.6% in respect of recurring EPS, and 28.8% in respect of ROCE. Achievement of the personal objectives was considered very good with continued development efforts in favor of high-potential young talents; in an uneven environment, progress in line with the objectives set within the scope of ALMA 2015; preservation of the main financial balances; stronger balance sheet with a decrease in the debt/equity ratio. With regard to CSR: improvement in safety as shown by the further decrease in the lost-time accident frequency rate which fell from 1.62 in 2013 to 1.50 in 2014, and in terms of innovation, launch of the modernization of the Paris Saclay research center and the construction of a new R&amp;D center in China. The variable portion in respect of the personal objectives represents 61.2% of the fixed remuneration. In total, the amount of the variable remuneration as a percentage of the fixed remuneration amounts to 157.6% (out of a maximum of 180%). The total amount of fixed and variable remuneration for 2014 vs. 2013 is +9.2% higher, corresponding to an average annual increase, over the period 2011-2014, of +1.8% a year.</p>

There is no deferred annual variable remuneration or multi-annual variable remuneration mechanism and the principle of exceptional remuneration is not provided for.

Stock options, performance shares or any other element of long-term remuneration	100,000 share subscription options Valuation of the options (according to IFRS2): €1,618,000	<p>The granting of the stock options is examined with regard to the total annual remuneration of the executive officer, taking into account several external market surveys and ensuring that the shareholders' interests are respected. The allocation is conducted as part of annual plans, approved at pre-defined periods, in the form of share subscription options granted without a discount.</p> <p><b>2014 Plan</b></p> <p>The Board of Directors decided on September 22, 2014, on the authorization of the Annual Shareholders' Meeting of May 7, 2013 (11<sup>th</sup> resolution), that the total number of options granted for the year to executive officers may not exceed: (i) for all executive officers, 0.1% of the share capital: the options granted to the executive officers in 2014 represent 0.05% of the capital (0.03% for Benoît Potier) and (ii) for each executive officer, on the basis of valuation of the options under IFRS, approximately the amount of his maximum gross annual remuneration.</p> <p>The number of stock options granted in 2014 to Benoît Potier is unchanged as compared to 2013. The stock options granted to Benoît Potier are subject to <b>performance conditions</b>, based in 2014 on:</p> <p>(i) for 65%, an objective of growth in Group undiluted net earnings per share excluding foreign exchange impact and exceptional items (recurring EPS) for fiscal year 2016, as compared to recurring EPS for fiscal year 2013. This criterion makes it possible to measure the achievement by the Group of its medium-term growth targets. The objective set takes account of the economic environment, historical growth and the Group's mid-term ambitions. It is unchanged as compared to the plan for 2013. From the objective set, the grant decreases on a straight-line basis down to no grant for zero growth in EPS;</p>
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## Remuneration of the Executive Officers and Directors of L'Air Liquide S.A.

Amounts	Comments
	<p>(ii) for 35%, an objective of Total Shareholder Return (TSR) for fiscal years 2014, 2015 and 2016, including an element of relative comparison, and based:</p> <ul style="list-style-type: none"> <li>- for 50% of the options referred to in (ii), on an objective of annual average growth of an investment in Air Liquide shares ("AL TSR"); the objective set in line with historical performances has remained the same for a number of years, which has made it possible to ensure, over the long term, a high level of consistency between the interests of shareholders and those of the executive officers. As from the objective set, the grant decreases on a straight line basis;</li> <li>- for 50% of the options referred to in (ii), on the rate of TSR of an investment in Air Liquide shares, compared to a reference index made up half of the CAC 40 index (source: Bloomberg) and half of the TSR of the companies in the industrial gas sector (source: Bloomberg) ("B TSR"). This choice takes into account demand by international investors, sensitive to outperformance as compared to the average for the sector, and French shareholders for whom the CAC 40 index remains a benchmark. The combination of these two factors makes it possible both to be able to use a sufficient number of comparable companies as a benchmark and to benefit from greater relevance in the representative sample. The median objective is based on a performance equal to the average of the two indexes. The rate of achievement is 0% if the rate of return on Air Liquide shares is 3% lower than the median objective, and 100% if the rate of return on Air Liquide shares is more than 3% higher than the objective.</li> </ul> <p>The targets set for each performance condition will be made public ex post as well as the result achieved and the percentage of stock options that vest.</p> <p><b>Other conditions/stock ownership obligation</b></p> <p>The plan covers a period of 10 years and includes a requirement of continued presence. Benoît Potier has made the commitment not to use hedges during his term of office. A report was made to the Board on the obligation to hold shares that applies to each exercise of stock options since the 2007 Plan and the internal rule requiring Benoît Potier to hold a number of shares equivalent to double his annual fixed remuneration.</p>
Performance shares	N/A The Board of Directors decided on September 22, 2014 that no executive officer would be a beneficiary of the plan for the conditional grant of shares to employees in 2014.
Other element	N/A No allocation.
Directors' fees	N/A Benoît Potier does not receive any Directors' fees with regard to his term of office as Director.
Valuation of benefits of any kind	€9,000 The benefits in kind (accounting valuation) include the use of a Company car and the payment of contributions to a third party in respect of the unemployment insurance for Company managers and corporate officers.

**Elements of remuneration due or allocated to Mr Benoît Potier in respect of fiscal year 2014 which are or have been subject to a vote by the Annual Shareholders' Meeting in accordance with the regulated agreements and commitments procedure**

Amounts	Comments												
Termination indemnity	€0 received The terms of the agreement applicable to Benoît Potier are as follows: (i) only the cases of forced departure related to a change of strategy or a change in control may give rise to an indemnity; (ii) the amount of the indemnity is set at 24 months of gross fixed and variable remuneration; (iii) it decreases gradually as he approaches the age limit defined in the articles of association; (iv) entitlement to the indemnity is subject to performance conditions that were made stricter in 2014: The amount of the indemnity paid is based on the average of the annual gap between Return On Capital Employed after tax (ROCE) and Weighted Average Cost of Capital (WACC) (net equity method) over the last three fiscal years prior to the year of departure. This gap, in a highly capital-intensive business, is a measure of regular value creation. An average ROCE - WACC gap over three years of 300 basis points is required to be able to benefit from the total indemnity. The declining formula was also made more exacting:												
	<table border="1"> <thead> <tr> <th>Average ROCE - WACC gap</th> <th>Proportion of the indemnity due</th> </tr> </thead> <tbody> <tr> <td>≥ 300 bp <sup>(a)</sup></td> <td>100%</td> </tr> <tr> <td>≥ 200 bp and &lt; 300 bp</td> <td>66%</td> </tr> <tr> <td>≥ 150 bp and &lt; 200 bp</td> <td>50%</td> </tr> <tr> <td>≥ 100 bp and &lt; 150 bp</td> <td>33%</td> </tr> <tr> <td>&lt; 100 bp</td> <td>0%</td> </tr> </tbody> </table>	Average ROCE - WACC gap	Proportion of the indemnity due	≥ 300 bp <sup>(a)</sup>	100%	≥ 200 bp and < 300 bp	66%	≥ 150 bp and < 200 bp	50%	≥ 100 bp and < 150 bp	33%	< 100 bp	0%
Average ROCE - WACC gap	Proportion of the indemnity due												
≥ 300 bp <sup>(a)</sup>	100%												
≥ 200 bp and < 300 bp	66%												
≥ 150 bp and < 200 bp	50%												
≥ 100 bp and < 150 bp	33%												
< 100 bp	0%												
	(a) bp: basis point.												

## Remuneration of the Executive Officers and Directors of L'Air Liquide S.A.

Amounts	Comments
	The decision made by the Board of Directors at its meeting on February 17, 2014 in accordance with the regulated agreements and commitments procedure provided for under the "TEPA" law was approved by the Annual Shareholders' Meeting of May 7, 2014 in a specific resolution (10 <sup>th</sup> resolution). It is re-examined and subject to the approval of the Annual Shareholders' Meeting at the time of each renewal of Benoît Potier's term of office.
<b>Non-competition indemnity: there is no commitment with regard to a non-competition indemnity.</b>	
<b>Supplementary pension plans</b>	<p><b>€0 received</b></p> <p><b>Pension benefit obligations under a defined-benefit pension plan</b></p> <p>For the portion of his remuneration exceeding 24 times the annual social security ceiling (PASS), within the scope of a defined benefit pension system, Benoît Potier potentially benefits from a supplementary pension annuity equal to 1% for each year of service of the reference remuneration paid by the Company. The defined benefit pension plan only applies if the beneficiary is still with the Company at the time of his retirement and decides to claim his pension entitlements, whether or not at the full rate; in the event that the relationship is terminated at the Company's initiative (except in the event of gross or willful misconduct), the beneficiary may nevertheless maintain his rights if he is over 55 years of age if he does not resume any professional activity until he retires. This rule, which reflects the human resources policy at Air Liquide encouraging long careers within the Group, is in line with the position of the social security administration. Benoît Potier joined the Group in 1981. Total pension benefits, under all pension plans combined, are capped at 45% of the Reference Remuneration. Should this ceiling be reached, the amount paid under the defined benefit plan would be reduced accordingly. The application of this plan was last authorized by the Board of Directors at its meeting on February 17, 2014 and approved by the Annual Shareholders' Meeting on May 7, 2014 (10<sup>th</sup> resolution).</p> <p><b>Pension benefit obligations under the defined-contribution pension plans</b></p> <p>Benoît Potier benefits from the <b>supplementary defined contribution pension plan applicable to all the employees</b>, the contributions to which are paid in equal shares by the employer and the beneficiary on the remuneration not exceeding 8 times the PASS. The application of this plan to Benoît Potier was authorized by a decision of the Board of Directors at its meeting on February 12, 2010 and approved by the Annual Shareholders' Meeting on May 5, 2010 (9<sup>th</sup> resolution).</p> <p>Benoît Potier benefited from the <b>defined contribution pension plan for senior managers and executives</b> limited to the remuneration that does not exceed 8 times the PASS. The application of this plan to Benoît Potier had been authorized by the Board of Directors at its meeting on February 12, 2010 and approved by the Annual Shareholders' Meeting on May 5, 2010 (9<sup>th</sup> resolution). In the light of the changes in the regulatory framework, it was decided to exclude the executive officers from the category of beneficiaries. The contribution paid on behalf of Benoît Potier has been transferred to the life insurance plan (see below). The amount of the contributions paid in 2014 in respect of the above-mentioned supplementary defined contribution pension plans for the benefit of Benoît Potier totals 16,384 euros.</p>
<b>Collective life insurance plan</b>	<p><b>€0 received</b></p> <p>As the executive officers are no longer beneficiaries of the defined contribution pension plan for senior managers and executives, a collective life insurance contract was entered into which makes it possible to create savings for the beneficiary that are available at any time. The contributions paid by the Company are calculated under conditions identical to those of the previous plan. The opening of this plan, for the 3<sup>rd</sup> bracket (16 to 24 times the PASS), and then the 2<sup>nd</sup> bracket (8 to 16 times the PASS) of the reference remuneration, at an unchanged cost for the Company, responded to a concern for good management; the impact of its extension to the 1<sup>st</sup> bracket (0 to 8 times the PASS) is practically neutral for the Company. For Benoît Potier, the signature of this contract was authorized by decisions made by the Board of Directors on November 20, 2012 and February 13, 2013 in accordance with the regulated agreements and commitments procedure, and approved by the Annual Shareholders' Meeting of May 7, 2013 (7<sup>th</sup> resolution). Its extension was authorized by a decision made by the Board of Directors on November 20, 2014 in accordance with the regulated agreements and commitments procedure. The terms and conditions of implementation were published on the Company's website. This agreement is subject to approval by the Annual Shareholders' Meeting of May 6, 2015 in a specific resolution for Benoît Potier (7<sup>th</sup> resolution). The amount of the contributions paid in 2014 into the life insurance plan on behalf of Benoît Potier totals 192,566 euros.</p>
<b>Collective death and disability benefits plan</b>	<p><b>€0 received</b></p> <p>Until 2014, an additional death and disability benefits plan guaranteed, for the benefit of the senior managers and executives whose remuneration exceeded eight times the PASS, under certain conditions, the payment of a capital sum in the event of death or invalidity. The contributions were paid by the Company. The application of this plan to Benoît Potier was authorized by the Board of Directors on February 12, 2010 in accordance with the regulated agreements and commitments procedure and approved by the Annual Shareholders' Meeting of May 5, 2010 (9<sup>th</sup> resolution). At the end of 2014, changes were made to replace this plan, as from January 1, 2015, with a unified death and disability benefits plan covering all the personnel and the senior managers and executives. The application of this new plan to Benoît Potier was authorized by the Board of Directors on November 20, 2014 in accordance with the regulated agreements and commitments procedure. The terms and conditions were published on the Company's website. This agreement is subject to the approval of the Annual Shareholders' Meeting of May 6, 2015 in a specific resolution for Benoît Potier (7<sup>th</sup> resolution). The amount of the contributions paid in 2014 totals 61,950 euros.</p>

ELEMENTS OF REMUNERATION DUE OR ALLOCATED TO MR PIERRE DUFOUR IN RESPECT OF FISCAL YEAR 2014, SUBMITTED FOR THE OPINION OF THE SHAREHOLDERS <sup>(1)</sup>

## Elements of remuneration due or allocated to Mr Pierre Dufour in respect of fiscal year 2014

	Amounts	Comments
Fixed remuneration	€650,000	Fixed remuneration is determined based on the level of responsibility and experience in the management function and market practices. It is +2.4% higher than in 2013 so that the remuneration remains competitive as compared to the international market at the time when Pierre Dufour took on management of the hub in Frankfurt.
Variable annual remuneration	€755,300	<p><b>The variable remuneration is limited to 130% of the fixed remuneration.</b> The variable portion expressed as a percentage of the fixed remuneration is linked in 2014:</p> <ul style="list-style-type: none"> <li>■ <b>for 80%</b> of the fixed remuneration, to <b>two financial criteria</b> that are based on: (i) for 50%, an objective of growth in recurring EPS set on a consistent basis with regard to historical performances; it takes into account the Group's ambition of growth and the economic environment, (ii) for 30%, an objective of ROCE set in absolute value in line with best performances in the industry, and at a level significantly higher than the weighted average cost of capital. An adjustment for each financial criterion is provided for in the event of an upward or downward variance. These two elements, that have remained the same for a number of years, reflect the importance for the Group of the balance between growth and profitability of investments;</li> <li>■ <b>for 50%</b> of the fixed remuneration, to <b>personal objectives</b> comprising: (i) for two-thirds, qualitative objectives, most of which are shared by the two Executive Officers, related, firstly, to management: management of human resources and organization, deployment of the strategic plan and preserving financial balances and, secondly, Corporate Social Responsibility – particularly in the areas of safety and reliability; (ii) for one-third, individual performance.</li> </ul> <p><b>Assessment for 2014</b></p> <p><b>The results obtained in 2014</b> were above the objective set for recurring EPS and below the objective set for ROCE. The variable portion, as a percentage of the fixed remuneration, amounts, in respect of recurring EPS, to 52% and, in respect of ROCE, to 19.2%. Achievement of the personal objectives was considered very good with: continued development efforts in favor of high-potential young talents; in an uneven environment, progress in line with the objectives set within the scope of ALMA 2015; preservation of the main financial balances; stronger balance sheet with a decrease in the debt/equity ratio. With regard to CSR: improvement in safety as shown by the further decrease in the lost-time accident frequency rate which fell from 1.62 in 2013 to 1.50 in 2014. The variable portion in respect of the personal objectives, as a percentage of the fixed remuneration represents 45%. In total, the amount of the variable remuneration as a percentage of the fixed remuneration amounts to 116.2% (out of a maximum of 130%). The total amount of fixed and variable remuneration for 2014 vs. 2013 is +8.5% higher, corresponding to an average annual increase, over the period 2011-2014, of +1.6% a year.</p>

There is no deferred annual variable remuneration or multi-annual variable remuneration mechanism and the principle of exceptional remuneration is not provided for.

Stock options, performance shares or any other element of long-term remuneration	57,000 share subscription options Valuation of the options (according to IFRS2): €922,000	<p>The granting of stock options is examined with regard to the total annual remuneration of the executive officer, taking into account several external market surveys and ensuring that the shareholders' interests are respected. The allocation is conducted as part of annual plans, approved at pre-defined periods, in the form of share subscription options granted without a discount.</p> <p><b>2014 Plan</b></p> <p>The Board of Directors decided on September 22, 2014, on the authorization of the Annual Shareholders' Meeting of May 7, 2013 (11<sup>th</sup> resolution), that the total number of options granted for the year to executive officers may not exceed: (i) for all executive officers, 0.1% of the share capital: the options granted to the executive officers in 2014 represent 0.05% of the capital (0.02% for Pierre Dufour); and (ii) for each executive officer, on the basis of valuation of the options under IFRS, approximately the amount of his maximum gross annual remuneration.</p> <p>The number of stock options granted in 2014 to Pierre Dufour is unchanged as compared to 2013. The stock options granted to Pierre Dufour are subject to <b>performance conditions</b>, based in 2014 on:</p> <ul style="list-style-type: none"> <li>(i) for 65%, an objective of growth in Group undiluted net earnings per share excluding foreign exchange impact and exceptional items (recurring EPS) for fiscal year 2016, as compared to recurring EPS for fiscal year 2013. This criterion makes it possible to measure the achievement by the Group of its medium-term growth targets. The objective set takes account of the economic environment, historical growth and the Group's mid-term ambitions. It is unchanged as compared to the plan for 2013. From the objective set, the grant decreases on a straight-line basis down to no grant for zero growth in EPS;</li> </ul>
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(1) For the purposes of transparency and in order to ensure the provision of complete information, all references to the remuneration of Pierre Dufour in this document take into account his remuneration in respect of his offices in France and Germany.

## Remuneration of the Executive Officers and Directors of L'Air Liquide S.A.

Amounts	Comments
	<p>(ii) for 35%, an objective of Total Shareholder Return (TSR) for fiscal years 2014, 2015 and 2016, including an element of relative comparison, and based:</p> <ul style="list-style-type: none"> <li>- for 50% of the options referred to in (ii), on an objective of annual average growth of an investment in Air Liquide shares ("AL TSR"); the objective set in line with historical performances has remained the same for a number of years, which has made it possible to ensure, over the long term, a high level of consistency between the interests of shareholders and those of the executive officers. As from the objective set, the grant decreases on a straight line basis;</li> <li>- for 50% of the options referred to in (ii), on the rate of TSR of an investment in Air Liquide shares, compared to a reference index made up half of the CAC 40 index (source: Bloomberg) and half of the TSR of the companies in the industrial gas sector (source: Bloomberg) ("B TSR"). This choice takes into account demand by international investors, sensitive to outperformance as compared to the average for the sector, and French shareholders for whom the CAC 40 index remains a benchmark. The combination of these two factors makes it possible both to be able to use a sufficient number of comparable companies as a benchmark and to benefit from greater relevance in the representative sample. The median objective is based on a performance equal to the average of the two indexes. The rate of achievement is 0% if the rate of return on Air Liquide shares is 3% lower than the median objective, and 100% if the rate of return on Air Liquide shares is more than 3% higher than the objective.</li> </ul> <p>The targets set for each performance condition will be made public ex post as well as the result achieved and the percentage of stock options that vest.</p> <p><b>Other conditions/Stock ownership obligation</b></p> <p>The plan covers a period of 10 years and includes a requirement of continued presence. Pierre Dufour has made the commitment not to use hedges during his term of office. An obligation to hold shares that applies to each exercise of stock options since the 2008 Plan is supplemented by an internal rule requiring Pierre Dufour to hold a number of shares equivalent to his annual fixed remuneration.</p>
<b>Performance shares</b>	N/A The Board of Directors decided on September 22, 2014 that no executive officer would be a beneficiary of the plan for the conditional grant of shares to employees in 2014.
<b>Other elements</b>	N/A No allocation.
<b>Directors' fees</b>	N/A Pierre Dufour does not receive any Directors' fees with regard to his term of office as Director.
<b>Valuation of benefits of any kind</b>	€14,000 The benefits in kind (accounting valuation) include the use of a Company car
<b>Other elements of remuneration</b>	€250,000 Pierre Dufour, who has taken on the management of the hub in Frankfurt, also receives an annual amount paid by the German subsidiary, which includes, in particular, for approximately half, an amount corresponding to the benefits in kind (housing) from which he previously benefited pursuant to his employment contract in France.

**Elements of remuneration due or allocated to Mr Pierre Dufour in respect of fiscal year 2014 which are or have been subject to a vote by the Annual Shareholders' Meeting in accordance with the regulated agreements and commitments procedure <sup>(a)</sup>**

Amounts	Comments
<b>Termination indemnity</b>	€0 received The terms of the agreement applicable to Pierre Dufour are as follows: (i) only the cases of forced departure related to a change of strategy or a change in control may give rise to an indemnity; (ii) the amount of the indemnity (including any notice period indemnity and non-competition indemnity due by the German subsidiary in the event of termination of his agreement in Germany) is set at 24 months of gross fixed and variable remuneration received from any Group company; (iii) no indemnity will be paid if the beneficiary has the possibility to claim his full pension entitlements in the short term at the date of forced departure; (iv) the right to the indemnity is subject to performance conditions that were made stricter in 2014: the amount of the indemnity paid is based on the average of the annual gap between Return On Capital Employed after tax (ROCE) and Weighted Average Cost of Capital (WACC) (net equity method) over the last three fiscal years prior to the year of departure. This gap, in a highly capital-intensive business, is a measure of regular value creation.

(a) The German agreements are included to provide complete information, even though they are not subject to the regulated agreements and commitments procedure.

## Remuneration of the Executive Officers and Directors of L'Air Liquide S.A.

	Amounts	Comments												
		<p>An average ROCE - WACC gap over three years of 300 basis points is required to benefit from the total indemnity. The declining formula was also made more exacting:</p> <table border="1"> <thead> <tr> <th>Average ROCE - WACC gap</th> <th>Proportion of the indemnity due</th> </tr> </thead> <tbody> <tr> <td>≥ 300 bp <sup>(a)</sup></td> <td>100%</td> </tr> <tr> <td>≥ 200 bp and &lt; 300 bp</td> <td>66%</td> </tr> <tr> <td>≥ 150 bp and &lt; 200 bp</td> <td>50%</td> </tr> <tr> <td>≥ 100 bp and &lt; 150 bp</td> <td>33%</td> </tr> <tr> <td>&lt; 100 bp</td> <td>0%</td> </tr> </tbody> </table> <p>(a) bp: basis point.</p> <p>The total amount of 24 months of remuneration includes the indemnities received from the German subsidiary in the event of simultaneous termination of his duties. The decision made by the Board of Directors at its meeting on February 17, 2014 in accordance with the regulated agreements and commitments procedure provided for under the "TEPA" law was approved by the Annual Shareholders' Meeting of May 7, 2014 in a specific resolution (11<sup>th</sup> resolution). It is re-examined and subject to the approval of the Annual Shareholders' Meeting at the time of each renewal of Pierre Dufour's term of office.</p>	Average ROCE - WACC gap	Proportion of the indemnity due	≥ 300 bp <sup>(a)</sup>	100%	≥ 200 bp and < 300 bp	66%	≥ 150 bp and < 200 bp	50%	≥ 100 bp and < 150 bp	33%	< 100 bp	0%
Average ROCE - WACC gap	Proportion of the indemnity due													
≥ 300 bp <sup>(a)</sup>	100%													
≥ 200 bp and < 300 bp	66%													
≥ 150 bp and < 200 bp	50%													
≥ 100 bp and < 150 bp	33%													
< 100 bp	0%													
Non-competition indemnity	€0 received	<p>Pierre Dufour benefits from a non-competition clause for 24 months which could give rise to payment of an indemnity corresponding to 16 months of his remuneration received in respect of the agreement entered into with the German subsidiary. The subsidiary has reserved the possibility of waiving the undertaking at any time during the agreement, in which case it would be released from the obligation to pay the corresponding indemnity.</p>												
Supplementary pension plans	€0 received	<p><b>Pension benefit obligations under the defined-benefit pension plan</b> For the portion of his remuneration exceeding 24 times the annual social security ceiling (PASS), within the scope of a defined benefit pension system, Pierre Dufour potentially benefits from a supplementary pension annuity equal to 1% for each year of service of the Reference Remuneration paid by the Company or any subsidiary. The defined benefit pension plan only applies if the beneficiary is still with the Company at the time of his retirement and decides to claim his pension entitlements, whether or not at the full rate; in the event that the relationship is terminated at the Company's initiative (except in the event of gross or willful misconduct), the beneficiary may nevertheless maintain his rights if he is over 55 years of age and if he does not resume any professional activity until he retires. This rule, which reflects the human resources policy at Air Liquide encouraging long careers within the Group, is in line with the position of the social security administration. Pierre Dufour joined the Group in 1997. Total pension benefits, under all pension plans combined, are capped in all cases at 45% of the Reference Remuneration. Should this ceiling be reached, the amount paid under the defined benefit plan would be reduced accordingly. The application of this plan was last authorized by the Board of Directors at its meeting on February 17, 2014 and approved by the Annual Shareholders' Meeting on May 7, 2014 (11<sup>th</sup> resolution).</p> <p><b>Pension benefit obligations under the defined-contribution pension plan</b> Pierre Dufour benefited from the <b>defined contribution pension plan for senior managers and executives</b> limited to the remuneration that does not exceed 8 times the PASS. The application of this plan to Pierre Dufour had been authorized by the Board of Directors at its meeting on February 12, 2010 and approved by the Annual Shareholders' Meeting on May 5, 2010 (10<sup>th</sup> resolution). In the light of his new situation in the Group, Pierre Dufour no longer benefits from this plan. The amount of the contributions paid in 2014 in respect of this plan totals 7,406 euros.</p> <p><b>Savings contract in Germany</b> A savings contract was entered into by the German subsidiary with a financial institution for the benefit of Pierre Dufour. It makes it possible to create savings which are available at the end of the contract, of an amount that is at least equivalent to the contributions paid by the subsidiary. The amount of the contribution corresponds to the amount of the contributions previously paid into the French plans from which Pierre Dufour no longer benefits. The amount of the contribution paid in 2014 by the subsidiary totals 240,000 euros.</p>												
Collective life insurance plan	€0 received	<p>In the light of his new situation within the Group since January 1, 2014, Pierre Dufour has waived the right to benefit from this plan.</p>												
Collective death and disability benefits plan	€0 received	<p>Pierre Dufour no longer benefits from this plan since January 1, 2014.</p>												

## ➤ STATUTORY AUDITORS' REPORT

**Prepared in accordance with article L. 225-235 of the French Commercial Code (Code de commerce), on the report prepared by the Chairman of the Board of Directors of L'Air Liquide S.A.**

*This is a free translation into English of a report issued in French and it is provided solely for the convenience of English-speaking readers. This report should be read in conjunction with, and construed in accordance with, French law and professional standards applicable in France.*

To the Shareholders,

In our capacity as Statutory Auditors of L'Air Liquide S.A., and in accordance with article L. 225-235 of the French Commercial Code (Code de commerce), we hereby report on the report prepared by the Chairman of the Board of Directors of your Company in accordance with article L. 225-37 of the French Commercial Code (Code de commerce) for the year ended December 31, 2014.

It is the Chairman's responsibility to prepare and submit for the Board of Directors' approval a report on the internal control and risk management procedures implemented by the Company and to provide the other information required by article L. 225-37 of the French Commercial Code (Code de commerce) relating to matters such as corporate governance.

It is our responsibility to:

- report on any matters as to the information contained in the Chairman's report in respect of the internal control and risk management procedures relating to the preparation and processing of the accounting and financial information; and
- confirm that the report also includes the other information required by article L. 225-37 of the French Commercial Code (Code de commerce), it being specified that it is not our responsibility to verify the fairness of this other information.

We conducted our work in accordance with professional standards applicable in France.

### **INFORMATION ON INTERNAL CONTROL AND RISK MANAGEMENT PROCEDURES RELATING TO THE PREPARATION AND PROCESSING OF ACCOUNTING AND FINANCIAL INFORMATION**

The professional standards require that we perform the necessary procedures to assess the fairness of the information provided in the report of the Chairman of the Board of Directors in respect of the internal control and risk management procedures relating to the preparation and processing of the accounting and financial information. These procedures consist mainly in:

- obtaining an understanding of the internal control and risk management procedures relating to the preparation and processing of the accounting and financial information on which the information presented in the Chairman's report is based, and of the existing documentation;
- obtaining an understanding of the work involved in the preparation of this information and of the existing documentation;
- determining if any material weaknesses in the internal control procedures relating to the preparation and processing of accounting and financial information that we would have noted in the course of our work are properly disclosed in the Chairman's report.

On the basis of our work, we have no matters to report on the information relating to the Company's internal control and risk management procedures relating to the preparation and processing of the accounting and financial information contained in the report prepared by the Chairman of the Board of Directors in accordance with article L. 225-37 of the French Commercial Code (Code de commerce).

### **OTHER INFORMATION**

We confirm that the report prepared by the Chairman of the Board of Directors also contains the other information required by article L. 225-37 of the French Commercial Code (Code de commerce).

Paris-La Défense, March 4, 2015

The Statutory Auditors

French original signed by

Isabelle Sapet	Mazars	Daniel Escudeiro	Jean-Yves Jégourel	Ernst & Young et Autres	Pierre-Yves Caër
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## ▶ TRANSACTIONS INVOLVING COMPANY SHARES PERFORMED BY EXECUTIVE OFFICERS AND MEMBERS OF EXECUTIVE MANAGEMENT

In 2014, the following transactions involving Company shares were performed by Executive Officers and members of Executive Management, pursuant to article L. 621-18-2 of the French Monetary and Financial Code:

	<b>Nature of the transactions</b>	<b>Date of transaction</b>	<b>Average price</b> <i>(in euros)</i>
Jean-Pierre Duprieu	Exercise of 3 options of L'Air Liquide S.A.	March 13, 2014	58.92
Jean-Pierre Duprieu	Sale of 1,773 shares of L'Air Liquide S.A.	April 29, 2014	103.30
Jean-Pierre Duprieu	Exercise of 3,144 options of L'Air Liquide S.A.	May 6, 2014	55.18
Jean-Pierre Duprieu	Exercise of 433 options of L'Air Liquide S.A.	May 9, 2014	55.18
Jean-Pierre Duprieu	Sale of 1,000 shares of L'Air Liquide S.A.	June 10, 2014	98.70
Jean-Pierre Duprieu	Sale of 1,000 shares of L'Air Liquide S.A.	June 11, 2014	99.03
Benoît Potier	Sale of 4,000 shares of L'Air Liquide S.A.	June 17, 2014	98.50
Jean-Pierre Duprieu	Exercise of 20,007 options of L'Air Liquide S.A.	June 20, 2014	64.66
Jean-Pierre Duprieu	Exercise of 4,573 options of L'Air Liquide S.A.	July 3, 2014	50.03
Jean-Pierre Duprieu	Sale of 1,000 shares of L'Air Liquide S.A.	July 3, 2014	101.00
Pierre Dufour	Exercise of 26,440 options of L'Air Liquide S.A.	September 15, 2014	64.03
Pierre Dufour	Sale of 26,440 shares of L'Air Liquide S.A.	September 16, 2014	97.41
Pierre Dufour	Exercise of 5,000 options of L'Air Liquide S.A.	September 24, 2014	64.03
Benoît Potier	Sale of 11,483 shares of L'Air Liquide S.A.	November 25, 2014	100.48
Benoît Potier	Sale of 37,131 shares of L'Air Liquide S.A.	November 26, 2014	100.32
Benoît Potier	Exercise of 36,101 options of L'Air Liquide S.A.	November 28, 2014	64.03
Benoît Potier	Exercise of 32,101 options of L'Air Liquide S.A.	November 28, 2014	64.66

## ➤ DESCRIPTION OF SHARE SUBSCRIPTION OPTION PLANS AND PLANS FOR THE CONDITIONAL GRANT OF SHARES TO EMPLOYEES (CGSE)

### Allotment policy

Each year, the Company sets up in principle:

- a share subscription option plan for its Executive Officers and employees; and
- since 2008, plans for Conditional Grants of Shares to Employees (CGSE plans).

These allotments are decided by the Board of Directors pursuant to the authorizations granted by the Annual Shareholders' Meeting, and most recently by the Combined Shareholders' Meeting of May 7, 2013.

The introduction of CGSE Plans since 2008 has enabled the Company to offer a medium-term remuneration tool with features that are complementary to the long-term remuneration solution represented by the share subscription option plan and to increase the number of beneficiaries.

The current share subscription option and conditional share grant system is therefore intended for three groups of beneficiaries:

- the Company's Executive Officers and Executive Committee members, who have up until now only been the beneficiaries of options to the exclusion of any participation in Conditional Grants of Shares to Employees, in accordance with the Board's latest decision on September 22, 2014 relating to the share subscription option and CGSE plans for 2014, made on the recommendation of the Remuneration Committee;
- Group managers who have a high level of responsibility or make specific contributions to the Group and benefit from an allotment of a mixture of options and conditional shares (the conditional share grant partially replaces the options at a ratio of four options for one share), and specific contributors,

such as employees who have distinguished themselves for the quality of their conduct in exceptional situations, inventors and innovators, who are rewarded with an exceptional option allotment;

- other employees corresponding to middle managers and a wider category of new employee beneficiaries, who receive conditional shares only.

The criteria used to draw up the lists of employee beneficiaries reflect the business segments and geographical areas in which the Group conducts its business, as well as the specific contribution, particular potential, or individual or collective effort of the relevant persons. The list of employee beneficiaries is also prepared in such a way as to ensure a certain turnover and an increase in the number of beneficiaries.

Performance conditions apply to all the options granted to all the beneficiaries since 2014, and to the CGSE granted to all beneficiaries. Since 2013 they are calculated for CGSE as well as for options over a period of three years. The Board of Directors has decided that the objectives set for each performance condition will be made public ex post, along with the result achieved and the percentage of options/CGSE acquired.

The total outstanding number of shares as of December 31, 2014 for CGSE plans, for which the definitive grant date has not yet occurred, and share subscription options not yet exercised, represents a number of shares amounting to less than 1.60% of the share capital at that same date.

The number of share grant plan beneficiaries is growing steadily. The changes in overall volume of option allotments and CGSE plans over the last five years break down as follows:

	2009	2010	2011	2012	2013	2014
Total number of options/option equivalents <sup>(a)</sup> granted	977,036	1,107,640	1,102,312	1,173,931	1,259,246	1,430,273
% of capital <sup>(a)</sup>	0.37%	0.39%	0.39%	0.38%	0.4%	0.41%
Number of beneficiaries	908	965	1,200	1,352	1,453	1,737
% of employees	2.1%	2.4%	2.67%	2.8%	2.9%	3.5%

<sup>(a)</sup> Based on a ratio of four options for one share for the CGSE plans.

Total numbers of options/option equivalents are in historical data not restated for free share issues.

## Share subscription option plans

(Information to be regarded as the Special Report of the Board of Directors within the meaning of article L. 225-184 of the French Commercial Code)

Pursuant to the decisions of the Board of Directors, the Supervisory Board and the Management Board, following the authorizations of the Shareholders' Meeting and on the recommendation of the Remuneration Committee, the Company has adopted share subscription option plans for certain employees (including Executive Officers) of the Company and its subsidiaries worldwide.

Stock options are granted for a price that may not be lower than the average of the trading prices over the 20 trading days prior to the date they are granted. The maximum exercise period is eight years for options granted between November 30, 2004 and June 28, 2010 inclusive, and 10 years as from the October 14, 2011 option plan.

Stock options can only be exercised after a four-year minimum term from the date they were granted. The Board of Directors has the option of removing this lock-in period in the event of a public offer with regard to the Company's shares and the Company's merger or absorption.

The total number of stock options granted by the Board of Directors, the Supervisory Board, and the Management Board under the plans authorized by Annual Shareholders' Meetings, but not exercised as of December 31, 2014, amounted to 5,052,423 options (average price of 78.13 euros) after adjustment, or 1.47% of the share capital, of which 1,144,218 options (average price of 75.73 euros) were granted to the Executive Officers present as of December 31, 2014 during their term of office.

Out of the total number of options issued pursuant to the authorization of the May 7, 2013 Shareholders' Meeting, a possible allotment of 5,260,207 options remained as of December 31, 2014.

### STOCK OPTIONS GRANTED IN 2014 (SEPTEMBER 22, 2014 PLAN)

Pursuant to the authorization of the Combined Shareholders' Meeting on May 7, 2013, the Board of Directors, at its meeting on September 22, 2014, granted 868,385 share subscription options, representing 0.25% of the capital in terms of number of shares, at a unit price of 97 euros, without a discount, equal to 100% of the average of the opening trading prices of the Air Liquide share during the 20 trading days preceding the date on which the options were granted to 863 beneficiaries.

The options granted as part of the September 22, 2014 plan are subject to performance conditions according to the following terms that the Board decided, on the recommendation of the Remuneration Committee, to change as compared to the previous plans:

- (a) the performance conditions apply to all the beneficiaries (members of the Executive Management, Executive Committee members and any other beneficiary), for all the stock options granted;
- (b) an element of relative comparison was introduced in the Total Shareholder Return criterion. See detailed description on pages 154-155.

A requirement of continued employment or presence in the Group at the time the options are exercised is also stipulated.

### Breakdown between the various beneficiary categories

In 2014	Number of beneficiaries	Number of options
Executive Officers of L'Air Liquide S.A.	2	157,000
Senior executives and managers (not Executive Officers of L'Air Liquide S.A.) and exceptional contributors	861	711,385

## Description of share subscription option plans and plans for the conditional grant of shares to employees (CGSE)

Table 8 – Options granted during the last 10 years

	2005	2006	2007	2007	2008	2009	2010	2011	2012	2012	2013	2014	Total
Date of authorization by the EGM	05/12/04	05/12/04	05/09/07	05/09/07	05/09/07	05/09/07	05/05/10	05/05/10	05/05/10	05/05/10	05/07/13	05/07/13	
Date of grant by the Board of Directors or the Management Board	03/21/05	03/20/06	05/09/07	11/08/07	07/09/08	06/15/09	06/28/10	10/14/11	05/11/12 <sup>(g)</sup>	09/27/12	09/26/13	09/22/14	
Total share subscription options granted <sup>(a) (e)</sup>	428,000	444,000	431,150	4,000	513,392	484,292	532,760	675,680	6,000	704,791	768,866	868,385	
<i>including to Officers and Directors</i>	70,000	90,000	75,000		168,300	128,000	138,000	138,000		138,000	157,000	157,000	
Benoît POTIER <sup>(a) (b)</sup>	40,000	50,000	40,000		88,000	88,000	88,000	88,000		88,000	100,000	100,000	
Jean-Claude BUONO <sup>(b)</sup>	15,000	20,000	15,000										
Klaus SCHMIEDER <sup>(a) (b)</sup>	15,000	20,000	20,000		44,000								
Pierre DUFOUR <sup>(a) (b)</sup>					36,300	40,000	50,000	50,000		50,000	57,000	57,000	
<i>including to the top 10 employees (excluding Corporate Officers) receiving the highest number of options</i>	61,800	62,000	59,000		92,620	124,180	165,000	172,000		183,000	208,000	212,000	
Number of beneficiaries	520	500	535	1	328	308	305	578	1	672	727	863	
Share capital rate represented by each attribution	0.39%	0.41%	0.36%	NS	0.20%	0.18%	0.19%	0.24%	NS	0.23%	0.25%	0.25%	
Performance requirement achievement rate <sup>(h)</sup>						100%	100%	97.9%	Determined in February 2016	90.5%	Determined in February 2016	Determined in February 2017	
Exercise period start date	03/21/09	03/20/10	05/09/11	11/08/11	07/09/12	06/15/13	06/28/14	10/14/15	05/11/16	09/27/16	09/26/17	09/22/18	
Expiration date	03/20/13	03/19/14	05/08/15	11/07/15	07/08/16	06/14/17	06/27/18	10/13/21	05/10/22	09/26/22	09/25/23	09/21/24	
Subscription price in euros	138.00	168.00	183.00	94.00	84.00	65.00	83.00	87.00	97.00	96.61	102.00	97.00	
Subscription price in euros as of 12/31/2014 <sup>(c)</sup>	48.39	58.92	64.03	72.54	64.66	50.03	68.26	71.54	79.77	87.60	92.49	97.00	
Restated total number of share subscription options granted as of 12/31/2014 <sup>(c) (e)</sup>	1,118,332	1,201,390	1,158,638	5,185	648,808	619,273	645,184	815,810	7,297	776,215	847,801	868,385	
Total shares subscribed as of 12/31/2014 <sup>(e)</sup>	1,090,368	1,171,627	725,520	5,185	230,491	114,252	52,398	2,449 <sup>(f)</sup>		2,240 <sup>(f)</sup>			
Total share subscription options canceled as of 12/31/2014 <sup>(c) (d) (e)</sup>	27,964	29,763	47,718		14,109	12,079	19,283	63,902		32,735	17,812		
<b>TOTAL SHARE SUBSCRIPTION OPTIONS REMAINING AS OF 12/31/2014 <sup>(c)</sup></b>			<b>385,400</b>		<b>404,208</b>	<b>492,942</b>	<b>573,503</b>	<b>749,459</b>	<b>7,297</b>	<b>741,240</b>	<b>829,989</b>	<b>868,385</b>	<b>5,052,423</b>
													<b>As a percentage of share capital 1.47%</b>

(a) Stock options granted from November 2007 take into account the one-for-two share split on June 13, 2007 (par value split from 11 euros to 5.50 euros).

(b) Stock options granted during office as Corporate Officer (historical data).

(c) Adjusted to take into account share capital increases through free share attributions (2014, 2012, 2010, 2008, 2006) and the two-for-one share split (11 euros par value split to 5.50 euros) on June 13, 2007.

(d) Loss of exercise rights.

(e) Number of shares or stock options expressed historically.

(f) Early exercise of rights provided for in the stock option plan.

(g) As delegated by the Board of Directors on May 9, 2012.

(h) The stock options attributed to Executive Officers depend on the following performance conditions:

- For 2012 and 2013 plans: the terms of the performance conditions are identical. The objectives set are made public ex post. For the 2012 plan, the objectives set are described on page 178. For the 2014 plan, the terms of the performance conditions are described on page 176.
- The May 2012 plan, regarding one employee, is based on an average difference target: ROCE - WACC (weighted average cost of capital) over seven years.

## Description of share subscription option plans and plans for the conditional grant of shares to employees (CGSE)

Table 9

Table 9.1 – Options granted to the 10 employees (excluding Executive Officers) who were granted the highest number of options

In 2014	Number of options	Average price (in euros)
For L'Air Liquide S.A.	126,000	97
For L'Air Liquide S.A. and its subsidiaries	212,000	97

The specific conditions applicable, in addition, to Executive Officers of the Company with regard to the share subscription options granted in 2014 are described on pages 153 et seq.

## STOCK OPTIONS EXERCISED IN 2014

Some of the options granted, as the case may be, from 2006 to 2010, by the Board of Directors or the Supervisory Board and the Management Board were exercised in fiscal year 2014 for a total of 945,395 shares at an average price of 63.65 euros.

Table 9.2 – Options exercised by the 10 employees of L'Air Liquide S.A. and its subsidiaries (excluding Executive Officers) with the highest number of options exercised

Grant date	Number of options exercised	Average price (in euros)
March 20, 2006	22,587	58.92
May 9, 2007	56,568	66.53
July 9, 2008	35,246	65.42
June 15, 2009	25,454	52.04
June 28, 2010	23,349	68.26
<b>TOTAL</b>	<b>163,204</b>	<b>63.22</b>

Table 9.3 – Options exercised by the 10 employees of L'Air Liquide S.A. (excluding Executive Officers) with the highest number of options exercised

Grant date	Number of options exercised	Average price (in euros)
March 20, 2006	25,660	58.92
May 9, 2007	40,898	67.59
July 9, 2008	32,469	65.18
June 15, 2009	22,945	52.04
June 28, 2010	11,324	68.26
<b>TOTAL</b>	<b>133,296</b>	<b>62.71</b>

## Rates of achievement of performance conditions for the 2012 option plan

The rates of achievement of the performance conditions for the 2012 option plan are reported on page 155.

## Conditional grant of shares to employees

(Information to be regarded as the Special Report of the Board of Directors within the meaning of article L. 225-197-4 of the French Commercial Code)

### DESCRIPTION

In order to retain and more dynamically motivate talented employees and compensate their medium-term performance, an additional compensation system was set up in 2008 involving conditional share grants to employees (CGSE).

The 12<sup>th</sup> resolution adopted by the Extraordinary Shareholders' Meeting of May 7, 2013 authorized the Board of Directors to grant free shares to Group employees, up to a maximum of 0.5% of the Company's share capital over a period of 38 months; within the framework of this maximum amount, it sets the limit on the number of shares that may be awarded to the Executive Officers at 0.15% of the capital over the same period.

Under this authorization, the Board of Directors adopted two different plans regulations on September 22, 2014 ("France" Plan and "World" Plan) governing the conditional grant of Company shares to employee beneficiaries determined by the Board of Directors. The differences between the "France" and "World" Plans are mainly the number of years of service required – paragraph a) below, and the correlative absence of any holding requirement for the "World" Plan – paragraph c) below.

Conditional employee share grants are subject to:

- a) a continued employment requirement during the vesting period:

Shares granted to a beneficiary shall only finally vest if he or she has been an employee or Executive Officer of a Group company during a vesting period, calculated as from the grant date, of three years for "France" Plan beneficiaries and four years for "World" Plan beneficiaries. In the event of retirement, the beneficiary retains his or her rights, but is no longer required to satisfy the continued employment requirement;

- b) a performance condition for all CGSE, related to an objective of growth in recurring EPS:

In order for the performance criterion to reflect the Company's growth over time, since 2013, this performance condition is calculated over three fiscal years (instead of two years previously) and is **identical to the corresponding criterion adopted for options**; see the performance condition in the summary table of conditional share grants to employees below); as the grant traditionally takes place in the autumn, the reference fiscal year for the application of the performance conditions is the previous year with, however, extremely stable objectives over time. In future, it could be proposed to the Board that it set the performance conditions at the beginning of the year whatever the date of grant.

- c) a holding requirement:

As from the final grant date, the beneficiaries of the "France" Plan are required to hold their shares for two additional years during which such shares may not be transferred (except in the event of disability or death).

To date, the CGSE delivered represent treasury shares from the Company's buyback program (see pages 296 and 330, report on the share buyback program).

The outstanding shares under the CGSE plans thus granted by the Board of Directors pursuant to the authorizations approved by Shareholders' Meetings, for which the definitive grant date has not yet occurred, amounted, after adjustment, to 400,127 shares as of December 31, 2014, or 0.12% of the share capital.

Out of the total number of shares for which the conditional grant was authorized by the Annual Shareholders' Meeting of May 7, 2013, a possible allotment of 1,461,297 CGSE remained at December 31, 2014.

A new authorization for conditional grant of shares to Group employees is being submitted for approval by the Extraordinary Shareholders' Meeting on May 6, 2015 (11<sup>th</sup> resolution): see the detailed description of the proposed resolution on pages 300 and 308-309.

### CONDITIONAL SHARE GRANTS TO EMPLOYEES DECIDED IN 2014

Within the scope of the "France" Plan and the "World" Plan of September 22, 2014, a total of 140,472 shares representing 0.04% of the capital in terms of number of shares were granted on a conditional basis to 1,248 beneficiaries (45,485 shares allotted to "France" Plan beneficiaries and 94,987 shares allotted to "World" Plan beneficiaries). The Board of Directors decided, at its meeting on September 22, 2014, not to include any Executive Officer or Executive Committee member in the list of beneficiaries of the 2014 Plan for the conditional grant of shares to employees. It confirmed that, at the time when such an award appears to be appropriate, where applicable, it would be made within the scope of a plan providing for a three-year vesting period and performance conditions also over three years, identical to those provided in respect of stock options.

The fair unit value of these shares at December 31, 2014 is 95.81 euros in respect of the "France" Plan and 91.40 euros in respect of the "World" Plan (calculated in accordance with IFRS). Subject to fulfillment of the continued employment requirement and the performance conditions, these shares will finally vest for the beneficiaries on September 22, 2017 for the "France" Plan (although they may not be sold prior to September 22, 2019) and on September 22, 2018 for the "World" Plan.



## Description of share subscription option plans and plans for the conditional grant of shares to employees (CGSE)

For both Plans, the Board adopted as a performance condition an objective of growth, set by the Board, in Group undiluted net earnings per share excluding foreign exchange impact and exceptional items (recurring EPS), calculated over three fiscal years, **identical to that set for options** (see full description on page 154). Accordingly, the number of shares that finally vest for the employee beneficiaries will depend on the rate of achievement of the objective of growth, set by the Board, in recurring EPS for fiscal year 2016 as compared to recurring EPS for fiscal year 2013. As stated for options, the objective is unchanged as compared to 2013.

It has been decided that the objective set for the performance condition will be made public ex post, at the close of the Board meeting determining the rate of achievement of the performance conditions at the time of approval of the financial statements for the fiscal year concerned. The result achieved and the percentage of shares that vest will also be communicated.

For the 2014 grant, the rate of achievement of the performance condition shall be determined by the Board of Directors at the meeting held to approve the 2016 financial statements.

## Breakdown between the various beneficiary categories

	2013	2014
	Number of shares	Number of shares
Senior managers and executives (excluding Executive Officers and Executive Committee members of L'Air Liquide S.A.) receiving a mixture of options and conditional shares	48,165	51,302
Other executives and employees receiving conditional shares only	74,430	89,170

## Shares granted to the 10 employees (excluding Executive Officers and Executive Committee members of L'Air Liquide S.A.) who were granted the highest number of shares

	2013	2014
	Number of shares	Number of shares
For L'Air Liquide S.A.	2,295	2,090
For L'Air Liquide S.A. and its subsidiaries	2,500	2,500

## Description of share subscription option plans and plans for the conditional grant of shares to employees (CGSE)

## Summary table of conditional share grants to employees

	CGSE 2008	CGSE 2009	CGSE 2010	CGSE 2011	CGSE 2012	CGSE 2013	CGSE 2014	Total
Date of EGM	09/05/2007	09/05/2007	05/05/2010	05/05/2010	05/05/2010	07/05/2013	07/05/2013	
Date of grant by Board of Directors	09/07/2008	15/06/2009	28/06/2010	14/10/2011	27/09/2012	26/09/2013	22/09/2014	
Total number of conditional shares granted	116,138	123,186	143,720	106,658	117,285	122,595	140,472	
<i>including to top 10 employees (excluding executive officers) receiving highest number of shares</i>	5,720	4,955	4,700	2,625	2,650	2,500	2,500	
Share capital represented by each attribution	0.04%	0.05%	0.05%	0.04%	0.04%	0.04%	0.04%	
Number of beneficiaries	651	897	952	972	1,022	1,077	1,248	
Performance condition, calculated over a three-year period since 2013 plan	Target average 2008 and 2009 net profit growth (excluding foreign exchange impact and exceptional items) <sup>(a)</sup>	Target growth recurring net EPS 2010 compared to 2008	Target growth recurring net EPS 2011 compared to 2009	Target growth recurring net EPS 2012 compared to 2010	Target growth recurring net EPS 2013 compared to 2011	Target growth recurring net EPS 2015 compared to 2012	Target average growth recurring net EPS 2016 compared to 2013	
Vesting scale	100% vesting for fully reaching objective, declining on a straight-line basis to 0% vesting for 0% growth							
Target set for performance condition made public ex post since 2013					10% growth in recurring EPS	To be disclosed in 2016	To be disclosed in 2017	
Number of conditional shares canceled before definitive vesting	9,823	9,678	11,391	7,543	19,279	2,687		
Performance target achievement rate	25% <sup>(a)</sup>	100%	100%	100%	62% <sup>(b)</sup>	Determined in 2016	Determined in 2017	
<b>"France" Plan</b>								
Definitive vesting date	09/07/2010	15/06/2011	28/06/2012	14/10/2013	27/09/2014	26/09/2016	22/09/2017	
End of holding period	09/07/2012	15/06/2013	28/06/2014	14/10/2015	27/09/2016	26/09/2018	22/09/2019	
Definitive vested number of shares	10,280 <sup>(a)</sup>	44,610	53,335	34,165	25,917 <sup>(b)</sup>			
Adjusted* definitive number of shares	11,094 <sup>(a)</sup>	47,780	59,009	39,432	28,709 <sup>(b)</sup>			
<b>Adjusted* number of conditional shares not yet definitively vested</b>						<b>43,416</b>	<b>45,485</b>	
<b>"World" Plan</b>								
Definitive vesting date (no supplementary holding period)	09/07/2012	15/06/2013	28/06/2014	14/10/2015	27/09/2016	26/09/2017	22/09/2018	
Definitive vested number of shares	16,372 <sup>(a)</sup>	68,898	79,260					
Adjusted* definitive number of shares	19,575 <sup>(a)</sup>	81,595	96,956					
<b>Adjusted* number of conditional shares not yet definitively vested</b>				<b>78,679</b>	<b>49,366</b>	<b>88,194</b>	<b>94,987</b>	
<b>TOTAL ADJUSTED* NUMBER OF CONDITIONAL SHARES VESTED ("FRANCE" &amp; "WORLD")</b>	<b>30,669</b>	<b>129,375</b>	<b>155,965</b>	<b>39,432</b>	<b>28,709</b>			
<b>TOTAL ADJUSTED* NUMBER OF CONDITIONAL SHARES NOT YET DEFINITELY VESTED</b>				<b>78,679</b>	<b>49,366</b>	<b>131,610</b>	<b>140,472</b>	<b>400,127</b>

\* Adjusted for free share attributions.

(a) The performance target of the 2008 CGSE Plan has been partially realized. The definitive vesting amounted to 25% of the number of shares granted in 2008.

(b) The performance target of the 2012 CGSE Plan has been partially realized. The definitive vesting amounted to 62% of the number of shares granted in 2012.

### Rate of achievement of the performance condition for the 2012 and 2013 CGSE Plan

For the record, for the 2012 CGSE Plan, the performance condition was assessed on the basis of the rate of growth in recurring EPS for two years, for which the objective was set at +10% in order for all the shares to vest, and decreasing on a straight-line basis to 0% growth. The Board of Directors recorded in February 2014 that the growth amounted to +6.2% and that accordingly the proportion of shares subject to performance conditions definitely acquired by the beneficiaries was 62%.

Due to the increase in the length of the period of calculation of the performance condition with regard to CGSE plans, the Board of Directors did not have to record the fulfillment of performance conditions concerning the 2013 plan at its meeting on February 16, 2015.

## ➤ EMPLOYEE SAVINGS AND SHARE OWNERSHIP

For many years, Air Liquide has pursued an active policy promoting employee profit-sharing and incentive schemes in connection with the Group's growth and the development of employee share ownership in the Company's capital.

### Profit-sharing

Profit-sharing and incentive schemes have been organized for many years in Group companies in France and paid almost 43 million euros in 2014 for 2013 performance. This year these schemes cover over 95% of employees in France, thus complying with the requirements of the Law of December 3, 2008 aimed at associating all employees in France with the Company's performance.

Under the Profit-sharing Law, a supplementary incentive payment or otherwise an average gross bonus of 300 euros was paid in almost all Group companies in France.

Under the main Company Savings Plans, Group employees in France can make payments to dedicated and diversified investment funds, managed by equal-representation Supervisory Boards, on a voluntary basis or based on profit-sharing, incentives and, where applicable, contributions, and thus benefit from the preferential tax regime applicable in consideration for locking-in their assets over a period of five years.

In 2014, an overhaul of the Company and Group Savings Plans France was launched. This overhaul aims to merge these two

mechanisms to enable all employees of French companies of the Group to benefit from a simplified, diversified and monitored mutual fund (FCPE), but also to adapt to economic and regulatory changes. As part of these changes the Air Liquide Bonds mutual fund will change its management orientation and incorporate financial assets that are managed based on risk parity. Air Liquide's Regular Development mutual fund will include a solidarity compartment. These changes should apply in time for the payment of profit-sharing and incentives for 2014 which should take place during the first half of 2015.

In 2014, L'Air Liquide S.A. paid 6.95 million euros to 1,426 beneficiaries in respect of profit-sharing and incentives, or an average amount per employee of 5,653 euros. Company contributions to the Company Savings Plan are negotiated every year and amounted to nearly 0.8 million euros in 2014.

Air Liquide S.A. employees invested 82% of their profit-sharing and incentives in savings plans, including 40% in mutual funds holding Air Liquide shares alone (24% in Air Liquide bonds, 16% in Air Liquide shares).

### Employee share ownership

The Group is keen to involve its employees in its development. These employee share ownership transactions contribute significantly to increasing employee motivation and sense of belonging to the Group.

Since 1986, the Company has regularly performed share capital increases reserved for Group employees, for which subscription is offered at a preferential rate. The most recent capital increase, conducted in December 2013, resulted in the subscription of 749,272 shares by 16,812 Group employees, representing 33.9% of the eligible employees in 73 countries (for details of this operation, see 2013 Reference Document).

In France, the shares subscribed in these capital increases are also eligible for the preferential tax regime applicable provided that they are blocked over a period of five years, while those held abroad are governed by the legal regulations prevailing in each relevant country.

At the end of 2014, the share of capital held by Group employees and former employees was estimated at 2.4%, of which 1.5% corresponds (within the meaning of article L. 225-102 of the French Commercial Code) to shares subscribed by employees under employee-reserved capital increases or held through mutual funds. The percentage of Group employees holding L'Air Liquide S.A. shares totaled more than 50% of the workforce.

Air Liquide wishes to pursue this strategy and further the development of its employee share ownership, by regularly offering share capital increases to employees.

## ➤ INFORMATION CONCERNING MEMBERS OF THE BOARD OF DIRECTORS AND EXECUTIVE MANAGEMENT

(Information as of December 31, 2014) <sup>(a)</sup>

Listed companies are indicated by an asterisk (\*).

### BENOÎT POTIER

*Chairman and Chief Executive Officer*

**Nationality: French**

Born in 1957

**Date of first appointment:** 2000

**Start of current term:** 2014

**End of current term:** 2018

**Number of shares owned as of December 31, 2014:** 204,096

**Business address**

Air Liquide, 75, quai d'Orsay – 75321 Paris Cedex 07

### CAREER

A graduate of École Centrale de Paris, Benoît Potier joined Air Liquide in 1981 as a Research and Development engineer. After serving as a Project Manager in the Engineering and Construction Division, he was made Vice-President of Energy Development in the Large Industries business line. In 1993, he became Director of Strategy & Organization and, in 1994, was put in charge of the Chemicals, Metal & Steel, Oil and Energy Markets. He was made an Executive Vice-President of Air Liquide in 1995 with additional responsibilities over the Engineering & Construction Division and the Large Industries operations in Europe.

Benoît Potier was appointed Chief Executive Officer in 1997. He was appointed to the Board of Directors in 2000 and became Chairman of the Management Board in November 2001.

In 2006, he was appointed Chairman and Chief Executive Officer of L'Air Liquide S.A.

### POSITIONS AND ACTIVITIES HELD DURING 2014

#### *Functions within the Air Liquide Group*

- **Chairman and Chief Executive Officer:** L'Air Liquide S.A.\* (Chairman of the Working Group "Shareholder Relations"), Air Liquide International, Air Liquide International Corporation (ALIC)
- **Director:** American Air Liquide Holdings, Inc.
- **Chairman:** Air Liquide Foundation

#### *Positions or activities outside the Air Liquide Group*

- **Director:** Danone\* (member of the Appointment and Governance Committee)
- **Vice-Chairman:** European Round Table (ERT) (until June 2014)
- **Chairman:** European Round Table (ERT) (since June 2014)
- **Director:** École Centrale de Paris, Association nationale des sociétés par actions (ANSA), Cercle de l'Industrie, La Fabrique de l'industrie
- **Member of the Board:** Association française des entreprises privées (AFEP)
- **Member of the French Board:** INSEAD

### POSITIONS AND ACTIVITIES HELD DURING THE LAST FIVE YEARS AND THAT HAVE EXPIRED

#### 2013

- **Member of the Supervisory Board:** Michelin\* (member of the Audit Committee) (until May 2013)

#### 2010

- **Chairman and member of the Audit Committee:** Danone\* (until February 2010)

#### 2009

- **Chairman and Chief Executive Officer:** American Air Liquide Inc. (AAL) (until September 2009)
- **Chairman:** American Air Liquide Holdings, Inc. (until September 2009)

(a) Pursuant to article L. 225-102-1, paragraph 4 of the French Commercial Code and Annex 1 of EC Regulation No. 809/2004 of April 29, 2004 (point 14.1).

## Information concerning members of the Board of Directors and Executive Management

**THIERRY DESMAREST***Independent Director – Lead Director***Nationality:** French

Born in 1945

**Date of first appointment:** 1999**Start of current term:** 2013**End of current term:** 2017**Number of shares owned as of December 31, 2014:** 7,519**Business address**

Total, Tour Coupole, 2, place Jean-Millier – 92078 Paris-La Défense

**CAREER**

A graduate of École polytechnique and École des Mines, Thierry Desmarest spent four years with the New Caledonia Department of Mines, before serving as a Technical Advisor at the Ministry of Industry in 1975, and then at the Ministry of Economic Affairs in 1978.

He joined Total in 1981 as Managing Director of Total Algeria. He held various executive positions within Total Exploration Production, ultimately becoming its Chief Executive Officer in 1989 and a member of the Group's Executive Committee that same year. He became Chairman and Chief Executive Officer of Total in 1995, of Totalfina in 1999, and then of Elf Aquitaine and TotalFinaElf in 2000.

Thierry Desmarest was Chairman and Chief Executive Officer of Total S.A. from 2003 to February 2007, when he became Chairman of the Total S.A. Board of Directors. Appointed Honorary Chairman of Total S.A. in May 2010, he remains Director and Chairman of the Total Foundation. He has been Chairman of the Total S.A. Board of Directors since October 2014.

**POSITIONS AND ACTIVITIES HELD DURING 2014***Functions within the Air Liquide Group*

- **Director:** L'Air Liquide S.A.\* (Lead Director – Chairman of the Appointments and Governance Committee, member of the Remuneration Committee and member of the Working Group "Shareholder Relations")

*Positions or activities outside the Air Liquide Group*

- **Honorary Chairman:** Total S.A.\* (until October 2014)
- **Chairman of the Board of Directors:** Total S.A.\* (since October 2014) (Chairman of the Governance and Ethics Committee, Chairman of the Strategy Committee since October 2014)
- **Director:** Sanofi-Aventis\* (member of the Remuneration Committee, member of the Appointments and Governance Committee, member of the Strategic Committee) (until October 2014), Renault S.A.\* (member of the Remuneration Committee, Chairman of the International Strategy Committee, member of the Industrial Strategy Committee), Renault S.A.S. and Bombardier Inc.\* (until October 2014)
- **Director:** École polytechnique (until June 2014), Musée du Louvre (until March 2014)
- **Chairman:** Total Foundation (until January 2015), École polytechnique Foundation (until June 2014)

**POSITIONS AND ACTIVITIES HELD DURING THE LAST FIVE YEARS AND THAT HAVE EXPIRED***2010*

- **Chairman of the Board of Directors:** Total S.A.\* (until May 2010)
- **Member of the Supervisory Board:** Areva\* (until March 2010)

NB: Independent Director within the meaning of the Board of Directors' internal regulations. For information regarding independence criteria, please refer to this Reference Document – p. 139.



**GÉRARD DE LA MARTINIÈRE***Independent Director***Nationality:** French

Born in 1943

**Date of first appointment:** 2003**Start of current term:** 2011**End of current term:** 2015 <sup>(a)</sup>**Number of shares owned as of December 31, 2014:** 4,386**CAREER**

A graduate of École polytechnique and École nationale d'administration, Gérard de La Martinière held several positions with the French Ministry of Finance from 1969 to 1984. He was then General Secretary of the COB (formerly the French securities and exchange regulatory body) from 1984 to 1986, Chairman of the Paris Financial Instruments Clearing House from 1986 to 1988, and Chief Executive Officer of the Paris Stock Exchange (SBF) from 1988 to 1989.

Gérard de La Martinière joined the AXA Group in 1989 as Chairman and Chief Executive Officer of the Meeschaert-Rouselle brokerage unit. In 1991, he was named Executive Vice-President in charge of the Group's investments and financial services operations. In 1993, he took responsibility for the Group's Holding Companies and Corporate Affairs. He was a member of the Management Board between 1997 and 2003, and Vice-President of Finance, Audit and Strategy between 2000 and 2003.

Gérard de La Martinière was Chairman of the French Federation of Insurance Companies, the Fédération française des sociétés d'assurances, from May 2003 to September 2008. He was also Chairman of the European Insurance and Reinsurance Federation (CEA) from 2004 to 2008 and then Vice-Chairman until November 2009.

**POSITIONS AND ACTIVITIES HELD DURING 2014***Functions within the Air Liquide Group*

- **Director:** L'Air Liquide S.A.\* (Chairman of the Audit and Accounts Committee and member of the Working Group "Shareholder Relations")

*Positions or activities outside the Air Liquide Group*

- **Director:** Schneider Electric S.A.\* (Chairman of the Audit and Risks Committee)
- **Director:** Standard & Poor's Credit Market Services France SAS
- **Chairman:** Comité de la Charte du don en confiance (French Donations Charter Committee)
- Member of the Haut Conseil à la vie associative (French High Council for Associations)
- **Director:** Allo Finance

**POSITIONS AND ACTIVITIES HELD DURING THE LAST FIVE YEARS AND THAT HAVE EXPIRED***2012*

- **Member of the Supervisory Board:** EFRAG (until October 2012)

*2010*

- **Director:** Banque d'Orsay (until November 2010)

*2009*

- **Vice-Chairman:** European Insurance and Reinsurance Federation (until November 2009)

(a) Expiration of term in compliance with the internal regulations of the Board of Directors.

NB: Independent Director within the meaning of the Board of Directors' internal regulations. For information regarding independence criteria, please refer to this Reference Document – p. 139.

## Information concerning members of the Board of Directors and Executive Management

**CORNELIS VAN LEDE***Independent Director*

Nationality: Dutch

Born in 1942

**Date of first appointment:** 2003**Start of current term:** 2011**End of current term:** 2015 <sup>(a)</sup>**Number of shares owned as of December 31, 2014:** 1,789**Business address**

Jollenpad 1 0A – 1081 KC Amsterdam – The Netherlands

**CAREER**

With a law degree from the University of Leiden and an MBA from INSEAD, Cornelis van Lede successively worked for Shell from 1967 to 1969 and McKinsey from 1969 to 1976 before joining Koninklijke Nederhorst Bouw B.V. as Chairman and Chief Executive Officer from 1977 to 1982. He was then member of the Management Committee of Hollandse Beton Groep from 1982 to 1984.

From 1984 to 1991, he was Chairman of the Federation of Netherlands Industries, then Vice-President of the Union of Industrial and Employer's Confederations of Europe (UNICE) from 1991 to 1994.

In 1991, Cornelis van Lede joined Akzo N.V. as a member of the Management Board. He became Vice-Chairman of the Management Board in 1992 and was Chairman of the Management Board of Akzo Nobel N.V. from 1994 to 2003. He was a member of the Supervisory Board of Akzo Nobel N.V. from 2003 to 2007.

**POSITIONS AND ACTIVITIES HELD DURING 2014***Functions within the Air Liquide Group*

- **Director:** L'Air Liquide S.A.\* (member of the Appointments and Governance Committee, Chairman of the Remuneration Committee)

*Positions or activities outside the Air Liquide Group*

- **Director:** Air France-KLM\*
- **Member of the Supervisory Board:** Royal Philips Electronics N.V.\*
- **Chairman of the Supervisory Board:** Royal Imtech N.V.\* (Chairman of the Governance and Nomination Committee, member of the Human Resources and Remuneration Committee)

**POSITIONS AND ACTIVITIES HELD DURING THE LAST FIVE YEARS AND THAT HAVE EXPIRED****2013**

- **Director:** D.E Master Blenders\* (until March 2013)
- **Chairman of the Supervisory Board:** Heineken N.V.\* (until May 2013)

**2012**

- **Director:** Sara Lee Corporation (until July 2012)

**2010**

- **Member of the Board of Directors:** INSEAD (until December 2010)

(a) Expiration of term in compliance with the internal regulations of the Board of Directors.

NB: Independent Director within the meaning of the Board of Directors' internal regulations. For information regarding independence criteria, please refer to this Reference Document – p. 139.

**THIERRY PEUGEOT***Independent Director***Nationality:** French

Born in 1957

**Date of first appointment:** 2005**Start of current term:** 2013**End of current term:** 2017**Number of shares owned as of December 31, 2014:** 1,613**Business address**

Peugeot S.A., 75, avenue de la Grande-Armée – 75116 Paris Cedex 16

**CAREER**

A graduate of ESSEC, Thierry Peugeot began his career with the Marrel Group in 1982 as Export Manager for the Middle East and English-speaking Africa for Air Marrel, and then Director of Air Marrel America. He joined Automobiles Peugeot in 1988 as Regional Manager of the South-East Asia zone, then Chief Executive Officer of Peugeot do Brasil in 1991 and Chief Executive Officer of Slica in 1997. In 2000, he became International Key Accounts Director of Automobiles Citroën and then, in 2002, Vice-President of Services and Spare Parts before being appointed to the PSA Peugeot Citroën Vice-Presidents Committee. Thierry Peugeot was Chairman of the Supervisory Board of Peugeot S.A. from 2002 to 2014.

**POSITIONS AND ACTIVITIES HELD DURING 2014***Functions within the Air Liquide Group*

- **Director:** L'Air Liquide S.A.\* (member of the Audit and Accounts Committee)

*Positions or activities outside the Air Liquide Group*

- **Chairman of the Supervisory Board:** Peugeot S.A.\* (until April 2014)
- **Member of the Supervisory Board:** Peugeot S.A.\* (until July 2014)
- **Vice-Chairman:** Établissements Peugeot Frères
- **Member of the Supervisory Board:** Gefco (until December 2014)
- **Director:** Société FFP\*, La Société anonyme de participations, Faurecia\*, Compagnie Industrielle de Delle
- Permanent representative of the Compagnie Industrielle de Delle on the LISI\* Board of Directors
- **Chairman:** Association nationale des sociétés par actions (ANSA) (until June 2014)
- **Honorary Chairman:** Association nationale des sociétés par actions (ANSA) (since June 2014)

**POSITIONS AND ACTIVITIES HELD DURING THE LAST FIVE YEARS AND THAT HAVE EXPIRED***2010*

- **Director:** La Française de Participations Financières (until July 2010), Immeubles et Participations de l'Est (until November 2010)

NB: *Independent Director within the meaning of the Board of Directors' internal regulations. For information regarding independence criteria, please refer to this Reference Document – p. 139.*

## Information concerning members of the Board of Directors and Executive Management

**PAUL SKINNER***Independent Director***Nationality: British**

Born in 1944

**Date of first appointment:** 2006**Start of current term:** 2014**End of current term:** 2018**Number of shares owned as of December 31, 2014:** 1,596**Business address**

P.O. Box 65129, London SW1P 9LY

**CAREER**

Paul Skinner has a law degree from the University of Cambridge and is a graduate of the Manchester Business School. He started his career in 1966 with the Royal Dutch/Shell group. After having been responsible for managing several subsidiaries in Greece, Nigeria, New Zealand and Norway, Paul Skinner was President of the Shell International Trading and Shipping Company from 1991 to 1995. He was later appointed Chief Executive Officer of Royal Dutch/Shell's global Oil Products business and then Group Managing Director of the Royal Dutch/Shell group from 2000 to 2003.

After his retirement from Shell, he was Chairman of Rio Tinto plc, the global mining company, over the period 2003-2009, and was Chairman of Infrastructure UK, a division of HM Treasury, between 2009-2013. He is currently Chairman of Defence Equipment and Support within the UK Ministry of Defence, responsible for defence procurement and related activities. He is a non-Executive Director of Standard Chartered plc and Tetra Laval Group, and a member of the Public Interest Body of PricewaterhouseCoopers LLP. Paul Skinner was appointed Commander of the Order of the British Empire (CBE) in 2014.

**POSITIONS AND ACTIVITIES HELD DURING 2014***Functions within the Air Liquide Group*

- **Director:** L'Air Liquide S.A.\* (member of the Audit and Accounts Committee, member of the Working Group "Shareholder Relations")

*Positions or activities outside the Air Liquide Group*

- **Chairman:** Defence Equipment and Support, UK Ministry of Defence (from June 2014)
- **Non-Executive Director:** Standard Chartered plc\*, Tetra Laval Group
- **Member:** Public Interest Body of PricewaterhouseCoopers LLP
- **Member of the Board:** UK Ministry of Defence (from September 2014)

**POSITIONS AND ACTIVITIES HELD DURING THE LAST FIVE YEARS AND THAT HAVE EXPIRED****2013**

- **Chairman:** Infrastructure UK (a division of HM Treasury) (until December 2013)

**2011**

- **Member of the Board of Directors:** INSEAD (until November 2011)

**2009**

- **Chairman:** Rio Tinto plc\* (until April 2009), Rio Tinto Ltd.\* (until April 2009)
- **Member of the Board:** UK Ministry of Defence (until July 2009)

NB: *Independent Director within the meaning of the Board of Directors' internal regulations. For information regarding independence criteria, please refer to this Reference Document – p. 139.*

**KAREN KATEN***Independent Director***Nationality: American**

Born in 1949

**Date of first appointment:** 2008**Start of current term:** 2012**End of current term:** 2016**Number of shares owned as of December 31, 2014:** 1,970**Business address**Essex Woodlands Health Ventures – 280 Park Avenue, 27<sup>th</sup> Floor East – New York, NY 10017-USA**CAREER**

Karen Katen, a US citizen, is a graduate of the University of Chicago (BA in Political Science and MBA).

In 1974, she joined Pfizer and carried out various management and executive positions there for more than 30 years. In her last position with Pfizer, she was Vice-Chairman of Pfizer Inc. and President of Pfizer Human Health, the Group's main operating department. Karen Katen played a major role in the introduction of new medicines for the treatment of cardiovascular and mental diseases, as well as diabetes and cancer. She also successfully oversaw the integration of Warner Lambert (acquired in 2000) and Pharmacia (acquired in 2003) in the Pfizer Group. Having retired from Pfizer in March 2007, she was Chairman of the Pfizer Foundation. Currently she is a Senior Advisor at Essex Woodlands Health Ventures, a healthcare venture and growth equity firm, based in their New York office.

**POSITIONS AND ACTIVITIES HELD DURING 2014***Functions within the Air Liquide Group*

- **Director:** L'Air Liquide S.A.\* (member of the Appointments and Governance Committee)

*Positions or activities outside the Air Liquide Group*

- **Director:** Harris Corporation\*, Home Depot\*, Armgo Pharmaceuticals, Catamaran Inc.\*
- **Chairman and Director:** Rand Corporation's Health Board of Advisors
- **Director:** The Economic Club of New York Board of Trustees, Peterson Institute for International Studies, Takeda Global Advisory Board
- **Senior Advisor:** Essex Woodlands Health Ventures
- **Trustee:** University of Chicago
- **Trustee:** University of Chicago Graduate School of Business

**POSITIONS AND ACTIVITIES HELD DURING THE LAST FIVE YEARS AND THAT HAVE EXPIRED***2013*

- **Director:** Catalyst (until 2013)

*2009*

- **Director:** General Motors Corporation\* (until July 2009)

NB: *Independent Director within the meaning of the Board of Directors' internal regulations. For information regarding independence criteria, please refer to this Reference Document – p. 139.*

## Information concerning members of the Board of Directors and Executive Management

**JEAN-PAUL AGON***Independent Director***Nationality: French**

Born in 1956

**Date of first appointment:** 2010**Start of current term:** 2014**End of current term:** 2018**Number of shares owned as of December 31, 2014:** 1,300**Business address**

L'Oréal – 41, rue Martre – 92110 Clichy

**CAREER**

A graduate of HEC Business School, Jean-Paul Agon began his career with the L'Oréal Group in 1978. From 1981 to 1997, he held various senior management positions first as General Manager of L'Oréal Greece and General Manager of L'Oréal Paris, then International Managing Director for Biotherm International, Managing Director for L'Oréal Germany and finally Managing Director for L'Oréal Asia Zone. From 2001 to 2005, he was Chairman and Chief Executive Officer of L'Oréal USA as well as several subsidiaries of the L'Oréal Group in the USA. In 2005, he was appointed Deputy Chief Executive Officer of the L'Oréal Group, and became Chairman and Chief Executive Officer of the Group in 2006. He has been Chairman and Chief Executive Officer of L'Oréal since March 2011.

**POSITIONS AND ACTIVITIES HELD DURING 2014***Functions within the Air Liquide Group*

- **Director:** L'Air Liquide S.A.\* (member of the Remuneration Committee)

*Positions or activities outside the Air Liquide Group*

- **Chairman and Chief Executive Officer:** L'Oréal\*
- **Director:** L'Oréal USA Inc. (United States)
- **Director:** Galderma Pharma S.A. (Switzerland) (until July 2014)
- **Chairman:** Fondation d'entreprise L'Oréal (L'Oréal Foundation)

**POSITIONS AND ACTIVITIES HELD DURING THE LAST FIVE YEARS AND THAT HAVE EXPIRED***2012*

- **Chairman of the Board of Directors:** Galderma Pharma S.A. (Switzerland) (until April 2012)
- **Vice-Chairman and Director:** The Body Shop International plc (United Kingdom) – L'Oréal Group (until March 2012)

NB: *Independent Director within the meaning of the Board of Directors' internal regulations. For information regarding independence criteria, please refer to this Reference Document – p. 139.*



## Information concerning members of the Board of Directors and Executive Management

**SIÂN HERBERT-JONES***Independent Director***Nationality: British**

Born in 1960

**Date of first appointment:** 2011**Start of current term:** 2011**End of current term:** 2015 <sup>(a)</sup>**Number of shares owned as of December 31, 2014:** 732**Business address**

255, quai de la Bataille-de-Stalingrad – 92866 Issy-les-Moulineaux Cedex 9

**CAREER**

Holder of a Master of Art degree in History from Oxford University and a graduate from the Institute of Chartered Accountants in England and Wales, Siân Herbert-Jones first practiced for 13 years with the firm of PriceWaterhouseCoopers, in the London office from 1983-1993 in particular in the capacity of Corporate Finance Manager, then in the Paris office from 1993 to 1995 in the capacity of Mergers & Acquisitions Manager. She then joined the Sodexo Group in 1995 in which she was successively in charge of international development from 1995 to 1998 and the Group's treasury department from 1998 to 2000 then Deputy Chief Financial Officer in 2000. Since 2001, she has been the Sodexo Group's Chief Financial Officer; she is a member of the Executive Committee.

**POSITIONS AND ACTIVITIES HELD DURING 2014***Functions within the Air Liquide Group*

- **Director:** L'Air Liquide S.A.\* (member of the Audit and Accounts Committee)

*Positions or activities outside the Air Liquide Group*

- **Chief Financial Officer and member of the Executive Committee:** Sodexo Group\*
- **Chairman:** ETIN SAS (France); Sodexo Etinbis SAS (France); Sofinsod SAS (France)
- **Director:** Sodexo Awards Co, Sodexo Japan Kabushiki Kaisha Ltd, Sodexo Mexico SA de CV, Sodexo Mexico Servicios de Personal SA de CV, Sodexo Remote Sites the Netherlands B.V., Sodexo Remote Sites Europe Ltd, Universal Sodexo Eurasia Ltd, Sodexo, Inc., Sodexo Management, Inc., Sodexo Remote Sites USA, Inc., Sodexo Services Enterprises LLC, Universal Sodexo Services de Venezuela SA, Universal Sodexo Empresa de Servicios y Campamentos SA, Sodexo Global Services UK Ltd.
- **Member of the Management Board:** Sodexo en France SAS (France), Sodexo Entreprises SAS (France), Sodexo Pass International SAS (France), One SAS (France)
- Permanent representative of Sofinsod SAS on the Supervisory Board of One SCA (France)

**POSITIONS AND ACTIVITIES HELD DURING THE LAST FIVE YEARS AND THAT HAVE EXPIRED***2011*

- **Director:** Sodexo Remote Sites Support Services Ltd, Universal Sodexo Kazakhstan LTD, Universal Sodexo Euroasia Ltd, Sodexo Motivation Solutions Mexico SA de CV, Sodexo Motivation Solutions UK Ltd

*2010*

- **Director:** Sodexo Solutions de Motivation France SA (France), Universal Services Asia LLC (USA), Sodexo Pass Belgium SA (Belgium), Sodexo Pass Luxembourg SA
- **Managing Director:** Imagor Services & Cie (Belgium)

*2009*

- **Director:** Sodexo Asia Pacific Pte Ltd (Singapore), Sodexo Scandinavian Holding AB (Sweden)
- **Chairman and Chief Executive Officer:** Armement Lebert Buisson SA (France)

(a) Renewal of term proposed to the Shareholders' Meeting of May 6, 2015.

NB: Independent Director within the meaning of the Board of Directors' internal regulations. For information regarding independence criteria, please refer to this Reference Document – p. 139.

**PIERRE DUFOUR***Senior Executive Vice-President and Director***Nationality: Canadian**

Born in 1955

**Date of first appointment:** 2012**Start of current term:** 2012**End of current term:** 2016**Number of shares owned as of December 31, 2014:** 97,806**Business address**

Air Liquide, 75, quai d'Orsay – 75321 Paris Cedex 07

**CAREER**

A graduate of École polytechnique, Montréal University, Stanford University (California) and Harvard University (Massachusetts), Pierre Dufour began his career in 1976 at SNC-Lavalin, a leading engineering contractor in Montreal, Canada. From 1991 to 1997, he was Chief Executive Officer of SNC-Lavalin Inc.

In 1997, he joined the Air Liquide Group as Vice-President of Worldwide Engineering. In 1998, he was appointed Group Industrial Director, overseeing the technical aspects of Group operations worldwide. In 2000, he was appointed Chairman and Chief Executive Officer of American Air Liquide Holdings Inc., in Houston, Texas and joined L'Air Liquide S.A. Executive Committee. He became Vice-President of L'Air Liquide S.A. in 2001, Executive Vice-President in 2002 and was appointed Senior Executive Vice-President in November 2007. He is currently responsible for Large Industries, Engineering, Research and Safety business lines in the Americas, Africa, the Middle East and Asia Pacific. Pierre Dufour is responsible for management of the hub in Frankfurt.

**POSITIONS AND ACTIVITIES HELD DURING 2014***Functions within the Air Liquide Group*

- **Senior Executive Vice-President and Director:** L'Air Liquide S.A.\*, Air Liquide International
- **Chairman of the Board of Directors and Director:** Air Liquide Middle East
- **Director:** American Air Liquide Holdings, Inc., Société d'Oxygène et d'Acétylène d'Extrême-Orient (SOAEO)
- **Chairman and Director:** American Air Liquide Inc.
- **Managing Director:** Air Liquide Global Management Services GmbH

*Positions or activities outside the Air Liquide Group*

- **Director:** Archer Daniels Midland Company\* (member of the Audit Committee)

**POSITIONS AND ACTIVITIES HELD DURING THE LAST FIVE YEARS AND THAT HAVE EXPIRED***2013*

- **Director:** Air Liquide Japan (until December 2013)

*2012*

- **Director:** Air Liquide Arabia (until May 2012)

*2009*

- **Chairman and Chief Executive Officer:** American Air Liquide Holdings, Inc. (until September 2009)

**SIN LENG LOW***Independent Director***Nationality:** Singaporean

Born in 1952

**Date of first appointment:** 2014**Start of current term:** 2014**End of current term:** 2018**Number of shares owned as of December 31, 2014:** 1,100**Business address**

Sembcorp Development Ltd, 30 Hill Street #03-01, Singapore 179360

**CAREER**

Sin Leng Low is a graduate of the University of Alberta (Canada) in Electrical engineering, has a Master of Business Administration from the Catholic University of Leuven (Belgium) and completed the Advanced Management Program at Harvard Business School (USA). After spending part of her career in the Singapore government administrative service, Sin Leng Low held the duties of Executive Vice President at electricity provider Singapore Power and Managing Director of its telecommunications subsidiary from 1995 to 2000. In 2000, she joined energy, water, marine and urban development group Sembcorp Industries, where she successively held the positions of Group Chief Operating Officer and Executive Chairman of the subsidiary spearheading the industrialization and urbanization development business in China, Vietnam and Indonesia until end 2012.

**POSITIONS AND ACTIVITIES HELD DURING 2014***Functions within the Air Liquide Group*

- **Director:** L'Air Liquide S.A.\*

*Positions or activities outside the Air Liquide Group*

- **Senior Advisor:** Sembcorp Development Ltd.
- **Chairman:** Sino-Singapore (Chengdu) Innovation Park Development Co., Ltd. (in which Sembcorp Development holds a 25% stake indirectly through a joint venture: Singapore-Sichuan Investment Holding Pte Ltd.)
- **Director:** Singapore-Sichuan Investment Holding Pte Ltd. (a 50/50 partnership between Sembcorp Development and Singbridge Pte Ltd. which is wholly owned by Singapore Temasek group.)
- **Board of Trustees:** Singapore University of Technology & Design (SUTD)
- **Chairman:** Nanyang Academy of Fine Arts (NAFA)

**POSITIONS AND ACTIVITIES HELD DURING THE LAST FIVE YEARS AND THAT HAVE EXPIRED**

NB: Independent Director within the meaning of the Board of Directors' internal regulations. For information regarding independence criteria, please refer to this Reference Document – p. 139.

## Information concerning members of the Board of Directors and Executive Management

**ANNETTE WINKLER***Independent Director***Nationality: German**

Born in 1959

**Date of first appointment:** 2014**Start of current term:** 2014**End of current term:** 2018**Number of shares owned as of December 31, 2014:** 550**Business address**

Daimler AG, Head of smart, Werk 059, HPC: H324, Leibnizstr. 2, D – 71032 Böblingen – Germany

**CAREER**

Holder of a doctorate in Economics from the University of Frankfurt (Germany), Annette Winkler started her career as Managing Shareholder of a medium-sized construction company. In 1995, she joined the Mercedes-Benz group, where she held a variety of positions and in particular that of Senior Director/Head Public Relations and Communications. After spending two years as Head of the Mercedes-Benz sales and service outlet in Braunschweig, she became Chief Executive Officer of DaimlerChrysler Belgium and Luxembourg (1999-2005), then Vice President of Global Business Management & Wholesale Europe (2006-2010). Vice-President of Daimler AG, since 2010 she has been Chief Executive Officer of smart (with overall responsibility for the brand, also in charge of the smart factory in Lorraine).

**POSITIONS AND ACTIVITIES HELD DURING 2014***Functions within the Air Liquide Group*

- **Director:** L'Air Liquide S.A.\*

*Positions or activities outside the Air Liquide Group*

- **Vice-President:** Daimler AG, head of smart
- Member of the Counsel for Foreign Economic Affairs of the German Ministry for Economics

**POSITIONS AND ACTIVITIES HELD DURING THE LAST FIVE YEARS AND THAT HAVE EXPIRED**

NB: *Independent Director within the meaning of the Board of Directors' internal regulations. For information regarding independence criteria, please refer to this Reference Document – p. 139.*

**PHILIPPE DUBRULLE***Director representing the employees***Nationality: French**

Born in 1972

**Date of first appointment by the Group Committee in France:** 2014**Start of current term:** 2014**End of current term:** 2018**Business address**

Air Liquide Advanced Technologies, 2, rue de Clémencière, 38360 Sassenage

**CAREER**

Philippe Dubrulle joined the Air Liquide Group in 2008 as an Aeronautics Manager after having worked in several aeronautic groups in France and abroad.

Based in Sassenage near Grenoble, Philippe Dubrulle is employed by the subsidiary Air Liquide Advanced Technologies. He is Business Line Manager – Aeronautical Systems.

Philippe Dubrulle was appointed Director representing the employees by the Group Committee in France on June 18, 2014.

**POSITIONS AND ACTIVITIES HELD DURING 2014****POSITIONS AND ACTIVITIES HELD DURING THE LAST FIVE YEARS AND THAT HAVE EXPIRED***Functions within the Air Liquide Group*

- **Director:** L'Air Liquide S.A.
- **Business Line Manager – Aeronautical Systems:** Air Liquide Advanced Technologies

## New candidate proposed to the Shareholders' Meeting of May 6, 2015

**GENEVIÈVE BERGER****Nationality: French**

Born in 1955

**CAREER**

A former student of the École normale supérieure de Cachan, with a PhD in physics, Doctor of Medicine and with a PhD in human biology, Ms Geneviève Berger created and was Director within the Broussais Hôtel-Dieu hospital of the mixed laboratory for parametric imaging CNRS-University Paris VI from 1991 to 2000. She was Director of Technology for the French Ministry of Education and of Research and Technology from 1998 to 2000 and then General Manager of the CNRS between 2000 and 2003. She served as University Professor and Hospital Managing Director at La Pitié-Salpêtrière hospital between 2003 and 2008 before joining Unilever as Chief Research & Development Officer and then Chief Science Officer from 2008 to 2014.

**POSITIONS AND ACTIVITIES***Positions or activities outside the Air Liquide Group*

- **Director and Member of the Scientific Committee:** AstraZeneca\*

## ➤ STATUTORY AUDITORS' OFFICES AND REMUNERATIONS

### Statutory Auditors' offices

#### Ernst & Young et Autres

##### Principal Statutory Auditor

Ernst & Young et Autres is represented by Jean-Yves Jégourel and Pierre-Yves Caër

Tour First – TS 14444 – 1, place des Saisons  
92037 Paris-La Défense Cedex (Courbevoie)

##### Deputy Statutory Auditor

Auditex

Tour First – TS 14444 – 1, place des Saisons  
92037 Paris-La Défense Cedex (Courbevoie)

#### Mazars S.A.

##### Principal Statutory Auditor

Société Mazars S.A. is represented by Daniel Escudeiro and Isabelle Sapet

61, rue Henri-Regnault  
92400 Courbevoie

##### Deputy Statutory Auditor

Patrick de Cambourg with Mazars S.A.

61, rue Henri-Regnault  
92400 Courbevoie



## Statutory Auditors' remunerations

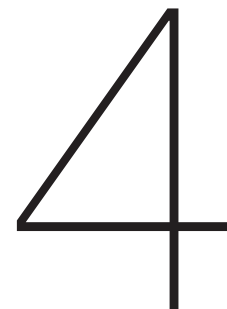
<i>(in thousands of euros)</i>	2014							
	Ernst & Young		Mazars		Others		Total	
Statutory audit, certification, review of individual and consolidated financial statements	5,809	73.2%	4,544	92.8%	714	79.6%	11,067	80.6%
■ Issuer	730		547		0		1,277	
■ Fully consolidated subsidiaries	5,079		3,997		714		9,790	
Other statutory audit engagements	994	12.5%	141	2.9%	3	0.3%	1,138	8.3%
■ Issuer	243		86		0		329	
■ Fully consolidated subsidiaries	751		55		3		809	
<b>Total of audit services</b>	<b>6,803</b>	<b>85.7%</b>	<b>4,685</b>	<b>95.7%</b>	<b>717</b>	<b>79.9%</b>	<b>12,205</b>	<b>88.9%</b>
Legal, employee and tax services	1,138	14.3%	210	4.3%	122	13.6%	1,470	10.7%
Other services	0	0.0%	0	0.0%	58	6.5%	58	0.4%
<b>Total other services rendered by the network to the fully consolidated subsidiaries</b>	<b>1,138</b>	<b>14.3%</b>	<b>210</b>	<b>4.3%</b>	<b>180</b>	<b>20.1%</b>	<b>1,528</b>	<b>11.1%</b>
<b>TOTAL OF AUDITORS' REMUNERATIONS</b>	<b>7,941</b>	<b>100.0%</b>	<b>4,895</b>	<b>100.0%</b>	<b>897</b>	<b>100.0%</b>	<b>13,733</b>	<b>100.0%</b>

<i>(in thousands of euros)</i>	2013							
	Ernst & Young		Mazars		Other		Total	
Statutory audit, certification, review of individual and consolidated financial statements	5,539	75.2%	4,452	89.7%	765	64.8%	10,756	79.6%
■ Issuer	723		549		0		1,272	
■ Fully consolidated subsidiaries	4,816		3,903		765		9,484	
Other statutory audit engagements	627	8.5%	367	7.4%	4	0.3%	998	7.4%
■ Issuer	245		161		0		406	
■ Fully consolidated subsidiaries	382		206		4		592	
<b>Total of audit services</b>	<b>6,166</b>	<b>83.7%</b>	<b>4,819</b>	<b>97.1%</b>	<b>769</b>	<b>65.1%</b>	<b>11,754</b>	<b>87.0%</b>
Legal, employee and tax services	1,179	16.1%	140	2.8%	347	29.4%	1,666	12.3%
Other services	18	0.2%	6	0.1%	65	5.5%	89	0.7%
<b>Total other services rendered by the network to the fully consolidated subsidiaries</b>	<b>1,197</b>	<b>16.3%</b>	<b>146</b>	<b>2.9%</b>	<b>412</b>	<b>34.9%</b>	<b>1,755</b>	<b>13.0%</b>
<b>TOTAL OF AUDITORS' REMUNERATIONS</b>	<b>7,363</b>	<b>100.0%</b>	<b>4,965</b>	<b>100.0%</b>	<b>1,181</b>	<b>100.0%</b>	<b>13,509</b>	<b>100.0%</b>

In addition, the Group used other audit firms for audit services amounting to 717 thousand euros in 2014 and 769 thousand euros in 2013.

Other than Audit, fees concern services provided outside of France that relate to the application of local tax regulations within the foreign countries where the Group operates.



# FINANCIAL STATEMENTS

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## ➤ CONSOLIDATED FINANCIAL STATEMENTS

### Consolidated income statement

For the year ended December 31

<i>(in millions of euros)</i>	Notes	2013	2014
<b>Revenue</b>	<b>(4)</b>	<b>15,225.2</b>	<b>15,358.3</b>
Other income	(5)	189.3	228.2
Purchases	(5)	(5,985.1)	(6,007.2)
Personnel expenses	(5)	(2,751.1)	(2,653.1)
Other expenses	(5)	(2,861.4)	(3,053.3)
<b>Operating income recurring before depreciation and amortization</b>		<b>3,816.9</b>	<b>3,872.9</b>
Depreciation and amortization expense	(5)	(1,236.3)	(1,239.1)
<b>Operating income recurring</b>		<b>2,580.6</b>	<b>2,633.8</b>
Other non-recurring operating income	(6)	235.1	68.9
Other non-recurring operating expenses	(6)	(209.2)	(52.9)
<b>Operating income</b>		<b>2,606.5</b>	<b>2,649.8</b>
Net finance costs	(7)	(219.9)	(228.9)
Other financial income	(7)	14.4	32.8
Other financial expenses	(7)	(99.1)	(54.5)
Income taxes	(8)	(611.9)	(678.4)
Share of profit of associates	(15)	14.5	4.0
<b>PROFIT FOR THE PERIOD</b>		<b>1,704.5</b>	<b>1,724.8</b>
■ Minority interests		64.2	59.8
■ Net profit (Group share)		1,640.3	1,665.0
<b>Basic earnings per share</b> <i>(in euros)</i>	<b>(9)</b>	<b>4.79</b>	<b>4.85</b>
<b>Diluted earnings per share</b> <i>(in euros)</i>	<b>(9)</b>	<b>4.77</b>	<b>4.83</b>

Accounting principles and notes to the financial statements begin on page 204.

## Statement of net income and gains and losses recognized directly in equity

For the year ended December 31

<i>(in millions of euros)</i>	<b>2013</b>	<b>2014</b>
<b>Profit for the period</b>	<b>1,704.5</b>	<b>1,724.8</b>
Items recognized in equity		
Change in fair value of financial instruments	31.5	2.3
Change in foreign currency translation reserve	(503.4)	375.6
<b>Items that may be subsequently reclassified to profit</b>	<b>(471.9)</b>	<b>377.9</b>
Actuarial gains/ (losses)	117.3	(236.2)
<b>Items that may not be subsequently reclassified to profit</b>	<b>117.3</b>	<b>(236.2)</b>
<b>Items recognized in equity, net of taxes</b>	<b>(354.6)</b>	<b>141.7</b>
<b>Net income and gains and losses recognized directly in equity</b>	<b>1,349.9</b>	<b>1,866.5</b>
■ Attributable to minority interests	46.8	64.9
■ Attributable to equity holders of the parent	1,303.1	1,801.6

## Consolidated balance sheet

For the year ended December 31

<b>ASSETS</b> (in millions of euros)	<b>Notes</b>	<b>December 31, 2013</b>	<b>December 31, 2014</b>
Goodwill	(11)	5,089.8	5,258.6
Other intangible assets	(12)	713.2	764.5
Property, plant and equipment	(13)	13,225.7	14,554.0
<b>Non-current assets</b>		<b>19,028.7</b>	<b>20,577.1</b>
Non-current financial assets	(14)	435.5	447.0
Investments in associates	(15)	201.7	100.4
Deferred tax assets	(16)	301.7	245.5
Fair value of non-current derivatives (assets)	(28)	122.4	68.9
<b>Other non-current assets</b>		<b>1,061.3</b>	<b>861.8</b>
<b>TOTAL NON-CURRENT ASSETS</b>		<b>20,090.0</b>	<b>21,438.9</b>
Inventories and work-in-progress	(17)	792.3	876.2
Trade receivables	(18)	2,691.1	2,879.8
Other current assets	(20)	449.8	468.7
Current tax assets		90.7	92.7
Fair value of current derivatives (assets)	(28)	40.6	58.5
Cash and cash equivalents	(21)	940.1	910.1
<b>TOTAL CURRENT ASSETS</b>		<b>5,004.6</b>	<b>5,286.0</b>
<b>TOTAL ASSETS</b>		<b>25,094.6</b>	<b>26,724.9</b>
<b>EQUITY AND LIABILITIES</b> (in millions of euros)	<b>Notes</b>	<b>December 31, 2013</b>	<b>December 31, 2014</b>
Share capital		1,720.6	1,896.8
Additional paid-in capital		81.2	25.7
Retained earnings		7,271.2	8,049.7
Treasury shares		(88.2)	(100.7)
Net profit (Group share)		1,640.3	1,665.0
<b>Shareholders' equity</b>		<b>10,625.1</b>	<b>11,536.5</b>
<b>Minority interests</b>		<b>263.0</b>	<b>290.4</b>
<b>TOTAL EQUITY</b> <sup>(a)</sup>	<b>(22)</b>	<b>10,888.1</b>	<b>11,826.9</b>
Provisions, pensions and other employee benefits	(23, 24)	2,040.5	2,169.3
Deferred tax liabilities	(16)	1,196.3	1,187.7
Non-current borrowings	(25)	5,817.5	5,883.8
Other non-current liabilities	(26)	191.0	232.2
Fair value of non-current derivatives (liabilities)	(28)	29.4	73.0
<b>TOTAL NON-CURRENT LIABILITIES</b>		<b>9,274.7</b>	<b>9,546.0</b>
Provisions, pensions and other employee benefits	(23, 24)	246.5	293.6
Trade payables	(27)	1,922.6	2,183.7
Other current liabilities	(26)	1,407.7	1,223.3
Current tax payables		156.8	221.4
Current borrowings	(25)	1,188.8	1,332.6
Fair value of current derivatives (liabilities)	(28)	9.4	97.4
<b>TOTAL CURRENT LIABILITIES</b>		<b>4,931.8</b>	<b>5,352.0</b>
<b>TOTAL EQUITY AND LIABILITIES</b>		<b>25,094.6</b>	<b>26,724.9</b>

(a) A breakdown of changes in shareholders' equity and minority interests is presented on pages 202 and 203.



## Consolidated cash flow statement

For the year ended December 31

<i>(in millions of euros)</i>	Notes	2013	2014
<b>Operating activities</b>			
Net profit (Group share)		1,640.3	1,665.0
Minority interests		64.2	59.8
Adjustments:			
■ Depreciation and amortization	(5)	1,236.3	1,239.1
■ Changes in deferred taxes <sup>(a)</sup>	(8)	108.5	84.9
■ Increase (decrease) in provisions		152.3	5.7
■ Share of profit of associates (less dividends received)	(15)	12.3	4.7
■ Profit/loss on disposal of assets		(265.4)	(116.5)
<b>Cash flows from operating activities before changes in working capital</b>		<b>2,948.5</b>	<b>2,942.7</b>
Changes in working capital	(19)	(18.7)	73.5
Others		(127.1)	(186.6)
<b>Net cash flows from operating activities</b>		<b>2,802.7</b>	<b>2,829.6</b>
<b>Investing activities</b>			
Purchase of property, plant and equipment and intangible assets	(12, 13)	(2,156.1)	(1,901.7)
Acquisition of subsidiaries and financial assets	(2)	(391.9)	(179.0)
Proceeds from sale of property, plant and equipment and intangible assets		312.9	228.6
Proceeds from sale of financial assets		4.2	15.8
<b>Net cash flows used in investing activities</b>		<b>(2,230.9)</b>	<b>(1,836.3)</b>
<b>Financing activities</b>			
Dividends paid <sup>(b)</sup>			
■ L'Air Liquide S.A.		(820.2)	(838.5)
■ Minority interests		(56.4)	(46.0)
Proceeds from issues of share capital <sup>(b)</sup>		125.5	59.5
Purchase of treasury shares <sup>(b)</sup>		(114.6)	(116.4)
Increase (decrease) in borrowings		36.4	76.1
Transactions with minority shareholders		(9.1)	(94.5)
<b>Net cash flows from (used in) financing activities</b>		<b>(838.4)</b>	<b>(959.8)</b>
Effect of exchange rate changes and change in scope of consolidation		33.1	(31.6)
<b>Net increase (decrease) in net cash and cash equivalents</b>		<b>(233.5)</b>	<b>1.9</b>
<b>NET CASH AND CASH EQUIVALENTS AT THE BEGINNING OF THE PERIOD</b>		<b>1,086.5</b>	<b>853.0</b>
<b>NET CASH AND CASH EQUIVALENTS AT THE END OF THE PERIOD</b>		<b>853.0</b>	<b>854.9</b>

(a) Changes in deferred taxes shown in the consolidated cash flow statement do not include changes in deferred taxes relating to disposals of assets.

(b) A breakdown of dividends paid, share capital increases and treasury share purchases is provided on pages 202 and 203.

The analysis of net cash and cash equivalents at the end of the period is as follows:

<i>(in millions of euros)</i>	Notes	December 31, 2013	December 31, 2014
Cash and cash equivalents	(21)	940.1	910.1
Bank overdrafts (included in current borrowings)		(87.1)	(55.2)
<b>NET CASH AND CASH EQUIVALENTS</b>		<b>853.0</b>	<b>854.9</b>

## NET INDEBTEDNESS CALCULATION

<i>(in millions of euros)</i>	Notes	December 31, 2013	December 31, 2014
Non-current borrowings (long-term debt)	(25)	(5,817.5)	(5,883.8)
Current borrowings (short-term debt)	(25)	(1,188.8)	(1,332.6)
<b>TOTAL GROSS INDEBTEDNESS</b>		<b>(7,006.3)</b>	<b>(7,216.4)</b>
<b>Cash and cash equivalents</b>	<b>(25)</b>	<b>940.1</b>	<b>910.1</b>
Derivative instruments (assets) – fair value hedge of borrowings	(25)	4.3	
<b>TOTAL NET INDEBTEDNESS AT THE END OF THE PERIOD</b>		<b>(6,061.9)</b>	<b>(6,306.3)</b>

## STATEMENT OF CHANGES IN NET INDEBTEDNESS

<i>(in millions of euros)</i>	Notes	December 31, 2013	December 31, 2014
<b>Net indebtedness at the beginning of the period</b>		<b>(6,102.5)</b>	<b>(6,061.9)</b>
Net cash flows from operating activities		2,802.7	2,829.6
Net cash flows used in investing activities		(2,230.9)	(1,836.3)
Net cash flows used in financing activities excluding increase (decrease) in borrowings		(874.8)	(1,035.9)
<b>Total net cash flows</b>		<b>(303.0)</b>	<b>(42.6)</b>
Effect of exchange rate changes, opening net indebtedness of newly acquired companies and others		343.6	(201.8)
<b>Change in net indebtedness</b>		<b>40.6</b>	<b>(244.4)</b>
<b>NET INDEBTEDNESS AT THE END OF THE PERIOD</b>	<b>(25)</b>	<b>(6,061.9)</b>	<b>(6,306.3)</b>

## Consolidated statement of changes in equity

### CONSOLIDATED STATEMENT OF CHANGES IN EQUITY FROM JANUARY 1, 2014 TO DECEMBER 31, 2014

(in millions of euros)	Notes	Net income recognized directly in equity							Total equity	
		Share capital	Additional paid-in capital	Retained earnings (including net profit)	Fair value of financial instruments	Translation reserves	Treasury shares	Shareholders' equity		Minority interests
<b>Equity and minority interests as of January 1, 2014</b>		1,720.6	81.2	9,578.9	28.2	(695.6)	(88.2)	10,625.1	263.0	10,888.1
<b>Profit for the period</b>				1665.0				1665.0	59.8	1724.8
Items recognized in equity				(235.9)	2.3	370.2		136.6	5.1	141.7
<b>Net income and gains and losses recognized directly in equity <sup>(a)</sup></b>				1,429.1	2.3	370.2		1,801.6	64.9	1,866.5
Increase (decrease) in share capital		5.2	53.5					58.7		58.7
Free share attribution		176.5	(24.7)	(151.8)						
Distribution	(10)			(839.0)				(839.0)	(46.0)	(885.0)
Cancellation of treasury shares <sup>(d)</sup>		(5.5)	(84.3)	(5.9)			95.7			
Purchase of treasury shares <sup>(d)</sup>							(116.2)	(116.2)		(116.2)
Share-based payments				10.1			8.0	18.1		18.1
Transactions with minority shareholders recognized directly in equity <sup>(f)</sup>				(15.5)				(15.5)	9.0	(6.5)
Others				3.7 <sup>(e)</sup>				3.7	(0.5)	3.2
<b>EQUITY AND MINORITY INTERESTS AS OF DECEMBER 31, 2014</b>		1,896.8 <sup>(b)</sup>	25.7 <sup>(c)</sup>	10,009.6	30.5	(325.4)	(100.7) <sup>(d)</sup>	11,536.5	290.4	11,826.9

(a) The statement of net income and gains and losses recognized directly in equity is presented on page 198.

(b) Share capital as of December 31, 2014 was made up of 344,872,883 shares at a par value of 5.50 euros. During the fiscal year, movements affecting share capital were as follows:

- on June 2, 2014, share capital increase by capitalizing share premiums and retained earnings, and attribution of 32,095,812 free shares at an exchange rate of one new share for 10 existing shares and one new share for 100 existing registered shares held continuously from December 31, 2011 to June 1, 2014 inclusive. This share capital increase was realized via deductions from "Additional paid-in capital" for -24.7 million euros and "Reserves" for -151.8 million euros;
- creation of 511,594 shares in cash with a par value of 5.50 euros resulting from the exercise of options before the attribution of free shares;
- creation of 433,801 shares in cash with a par value of 5.50 euros resulting from the exercise of options after the attribution of free shares;
- share capital decrease resulting from the cancellation of 1,000,000 treasury shares before the attribution of free shares.

(c) "Additional paid-in capital" was increased by the amount of share premiums related to capital increases for 53.5 million euros and reduced by the amount of share premiums related to the cancellation of treasury shares for -84.3 million euros.

(d) The number of treasury shares as of December 31, 2014 amounts to 1,293,164 (including 1,192,033 held by L'Air Liquide S.A.). During the fiscal year, movements affecting treasury shares were as follows:

- acquisitions net of disposals of 1,193,000 shares at an average price of 97.44 euros, of which 1,199,000 shares before the attribution of free shares;
- cancellation of 1,000,000 shares before the attribution of free shares;
- creation of 132,462 shares as part of the attribution of free shares;
- allocation of 125,665 shares as part of conditional grants of shares.

(e) Changes in "Retained earnings" primarily result from the cancellation of gains and losses arising from disposals of treasury shares and from the tax impacts related to items recognized directly in equity.

(f) Transactions with minority shareholders recognized directly in equity include the effects related to the revaluation of put options granted to minority shareholders.

## CONSOLIDATED STATEMENT OF CHANGES IN EQUITY FROM JANUARY 1, 2013 TO DECEMBER 31, 2013

(in millions of euros)	Share capital	Additional paid-in capital	Net income recognized directly in equity					Shareholders' equity	Minority interests	Total equity
			Retained earnings (including net profit)	Fair value of financial instruments	Translation reserves	Treasury shares				
<b>Equity and minority interests as of January 1, 2013</b>	<b>1,717.5</b>	<b>20.8</b>	<b>8,740.2</b>	<b>(3.3)</b>	<b>(209.8)</b>	<b>(75.0)</b>	<b>10,190.4</b>	<b>232.6</b>	<b>10,423.0</b>	
Profit for the period			1,640.3				1,640.3	64.2	1,704.5	
Items recognized in equity			117.1	31.5	(485.8)		(337.2)	(17.4)	(354.6)	
<b>Net income and gains and losses recognized directly in equity <sup>(a)</sup></b>			<b>1,757.4</b>	<b>31.5</b>	<b>(485.8)</b>		<b>1,303.1</b>	<b>46.8</b>	<b>1,349.9</b>	
Increase (decrease) in share capital	8.6	98.1					106.7	18.5	125.2	
Distribution			(820.6)				(820.6)	(56.4)	(877.0)	
Cancelation of treasury shares	(5.5)	(37.7)	(49.4)			92.6				
Purchase of treasury shares						(114.4)	(114.4)		(114.4)	
Share-based payments			14.6			8.6	23.2		23.2	
Transactions with minority shareholders recognized directly in equity <sup>(b)</sup>			(66.7)				(66.7)	(17.0)	(83.7)	
Others			3.4				3.4	38.5	41.9	
<b>EQUITY AND MINORITY INTERESTS AS OF DECEMBER 31, 2013</b>	<b>1,720.6</b>	<b>81.2</b>	<b>9,578.9</b>	<b>28.2</b>	<b>(695.6)</b>	<b>(88.2)</b>	<b>10,625.1</b>	<b>263.0</b>	<b>10,888.1</b>	

(a) The statement of net income and gains and losses recognized directly in equity is presented on page 198.

(b) Transactions with minority shareholders recognized directly in equity include the effects related to the revaluation of put options granted to minority shareholders.

## Accounting principles

### BASIS FOR PREPARATION OF THE CONSOLIDATED FINANCIAL STATEMENTS

Due to its listing on the Paris Stock Exchange and pursuant to EC Regulation No.1606/2002 of July 19, 2002, the consolidated financial statements of the Air Liquide Group for the year ended December 31, 2014 have been prepared in accordance with International Financial Reporting Standards (IFRS), as endorsed by the European Union as of December 31, 2014, and with IFRSs without use of the carve-out option, as published by the International Accounting Standards Board (IASB). The IFRS standards and interpretations as adopted by the European Union are available at the following website:

[http://ec.europa.eu/internal\\_market/accounting/ias/index\\_en.htm](http://ec.europa.eu/internal_market/accounting/ias/index_en.htm)

The Group has not anticipated any new standards, amendments to existing standards or new interpretations published by the IASB but not yet approved or not yet mandatory in the European Union, as of December 31, 2014.

The financial statements are presented in millions of euros. They were approved by the Board of Directors on February 16, 2015 and will be submitted for approval to the Annual General Meeting on May 6, 2015.

### NEW IFRS AND INTERPRETATIONS

#### 1. Standards, interpretations and amendments whose application is mandatory as of January 1, 2014

The Group applied the 'consolidation package' IFRS10 "Consolidated Financial Statements", IFRS11 "Joint Arrangements", IFRS12 "Disclosure of Interests in Other Entities", revised IAS27 "Separate Financial Statements", revised IAS28 "Investments in Associates and Joint Ventures", amendments to the transition guidance for IFRSs 10, 11 and 12 and amendments to IFRS10, IFRS12 and IAS27 "Investment Entities". These texts do not have a material impact on the Group financial statements.

The following texts do not have any impact on the Group financial statements:

- amendments to IAS32 "Offsetting Financial Assets and Financial Liabilities", issued on December 16, 2011;
- amendments to IAS36 "Recoverable Amount Disclosures for Non-Financial Assets", issued on May 29, 2013;
- amendments to IAS39 "Novation of Derivatives and Continuation of Hedge Accounting", issued on June 27, 2013.

#### 2. Standards, interpretations and amendments endorsed by the European Union whose application is optional in 2014

The Group financial statements for the year ended December 31, 2014 do not include any potential impacts from the standards, interpretations and amendments endorsed by the European Union as of December 31, 2014 for which adoption is only mandatory as of fiscal years beginning after December 31, 2014.

The following texts will not have a material impact on the Group financial statements:

- IFRIC21 "Levies", issued on May 20, 2013;
- annual improvements to IFRSs 2011-2013 Cycle, issued on December 12, 2013.

#### 3. Standards, interpretations and amendments not yet endorsed by the European Union

The texts published by the IASB as of December 31, 2014 and not yet endorsed by the European Union are currently being analyzed. These texts are as follows:

- amendments to IAS19 "Defined Benefit Plans: Employee Contributions", issued on November 21, 2013;
- annual improvements to IFRSs 2010-2012 Cycle, issued on December 12, 2013;
- amendments to IFRS11 "Accounting for Acquisitions of Interests in Joint Operations", issued on May 6, 2014;
- amendments to IAS16 and IAS38 "Clarification of Acceptable Methods of Depreciation and Amortization", issued on May 12, 2014;
- IFRS15 "Revenue from Contracts with Customers", issued on May 28, 2014;
- IFRS9 "Financial Instruments", issued on July 24, 2014;
- amendments to IFRS10 and IAS28 "Sale or Contribution of Assets between an Investor and its Associate or Joint Venture", issued on September 11, 2014;
- annual improvements to IFRSs 2012-2014 Cycle, issued on September 25, 2014;
- amendments to IAS1 "Disclosure Initiative", issued on December 18, 2014.

Additionally, the following texts are not applicable to the Group:

- IFRS14 “Regulatory Deferral Accounts”, issued on January 30, 2014;
- amendments to IAS16 and IAS41 “Bearer Plants”, issued on June 30, 2014;
- amendments to IAS27 “Equity Method in Separate Financial Statements”, issued on August 12, 2014;
- amendments to IFRS10, IFRS12 and IAS28 “Investment Entities: Applying the Consolidation Exception”, issued on December 18, 2014.

## USE OF ESTIMATES AND ASSUMPTIONS

The preparation of the financial statements requires Group or subsidiary Management to make estimates and use certain assumptions which have a significant impact on the carrying amounts of assets and liabilities recorded in the consolidated balance sheet, the notes related to these assets and liabilities, the profit and expense items in the income statement and the commitments relating to the period-end. Balance sheet, income statement and cash flow statement line items could differ should the subsequent actual results differ from the estimates. The most significant estimates and assumptions concern the following:

- the estimated useful life of property, plant and equipment used for calculation of depreciation and amortization: these estimates are described in section 5.e of the Accounting policies;
- the assumptions used to determine provisions for employee retirement benefit obligations: the actuarial assumptions used (employee turnover, mortality, retirement age, salary increase, etc.), and the discount rates used to determine the present value of obligations, as described in notes 24.2 and 24.4;
- the estimates and assumptions concerning asset impairment tests, as described in section 5.f and in note 11.2;
- the methods used to recover deferred tax assets on the balance sheet;
- the risk assessment to determine the amount of provisions for contingencies and losses.

## ACCOUNTING POLICIES

The consolidated financial statements were prepared under the historical cost convention, except for available-for-sale financial assets and financial assets and liabilities measured at fair value through profit or loss in accordance with IAS32/39. The carrying amount of other assets and liabilities hedged against fair value risk is adjusted to take into account the changes in fair value attributable to the hedged risks. In addition, the principles of fairness, going concern, and consistency were applied.

## 1. CONSOLIDATION METHODS

The consolidation methods used are:

- full consolidation method for subsidiaries;
- equity method for joint ventures and associates;
- assets, liabilities, expenses and revenue of joint operations are recognized in relation to the Group’s interest in these entities.

### a. Subsidiaries

All the subsidiaries or companies in which the Air Liquide Group exercises control are fully consolidated. Control exists when all the following conditions are met:

- the Group has existing rights that give it the current ability to direct the relevant activities;
- the Group is exposed, or has rights, to variable returns from its involvement with the entity;
- the Group has the ability to use its power over the entity so that it affects the amount of the returns.

Companies are fully consolidated from the date the Group obtains control and until the date on which control is transferred outside the Group.

### b. Joint operations

Joint operations are joint arrangements whereby the Air Liquide Group has joint control with one or several parties through a contractual agreement, which gives it rights to the assets and obligations for the liabilities of the entity.

Assets, liabilities, expenses and revenue of joint operations are recognized in relation to the Group’s interest in these entities. These amounts are recorded on each line of the financial statements as for the consolidated entities.

### c. Joint ventures

Joint ventures are joint arrangements whereby the Air Liquide Group has joint control with one or several parties through a contractual agreement, which gives it rights to the net assets of the entity.

Joint ventures are consolidated using the equity method. Under this one, the net assets and net profit of a company are recognized prorata to the interest held by the parent in the share capital.

On acquisition of an investment in a joint venture, the goodwill relating to the joint venture is included in the carrying amount of the investment.



#### d. Associates

Associates are investments over which the Air Liquide Group has significant influence (generally when the Group has more than a 20% interest), but no control.

Associates are consolidated using the equity method. Under this one, the net assets and net profit of a company are recognized prorata to the interest held by the parent in the share capital.

On acquisition of an investment in an associate, the goodwill relating to the associate is included in the carrying amount of the investment.

The financial statements of subsidiaries, joint arrangements and associates are prepared as of December 31.

## 2. ADJUSTMENTS ARISING FROM CONSOLIDATION

### a. Inter-company transactions

All inter-company receivables and payables, income and expenses and profits or losses are eliminated.

### b. Tax-driven provisions

Movements in the provisions, which have been established in compliance with tax regulations or which are similar to reserves, are eliminated in the determination of consolidated net profit.

### c. Deferred taxes

Deferred taxes are recognized for all temporary differences between the carrying amount of assets and liabilities and their tax base, excluding non-deductible goodwill and the other exceptions provided in IAS12. Deferred tax assets are recognized on all deductible temporary differences provided that it is highly probable that the tax benefits will be realized in future years.

Deferred taxes are calculated at the tax rate applicable when the temporary difference is reversed and allowed under local regulations at the period-end date. The liability method is applied and any changes to the tax rates are recognized in the income statement, except those related to items directly recognized in equity.

Deferred tax assets and liabilities are offset if the entities have a legally enforceable right to offset and if they relate to income tax levied by the same taxation authority. Deferred taxes are not discounted.

## 3. TRANSLATION OF THE FINANCIAL STATEMENTS OF FOREIGN SUBSIDIARIES

At the balance sheet date, the financial statements of foreign subsidiaries are translated into euros as follows:

- balance sheet items, at the official year-end exchange rates;
- income statement and cash flow statement items, using the average exchange rate over the period for each currency.

Exchange differences are recognized under a separate item "translation reserves" in gains and losses recognized directly in equity.

Cumulative foreign exchange gains and losses as of January 1, 2004 arising from the translation into euros of the financial statements of foreign subsidiaries located outside the Euro zone have been maintained as a separate component of equity.

On removal from the scope of consolidation, the cumulative exchange differences of a company whose functional currency is not the euro are recognized in the income statement.

## 4. REVENUE RECOGNITION

### a. Revenue from the sales of goods and services

Revenue from the sale of goods is recognized when the significant risks and rewards of ownership have been transferred to the buyer, net of sales taxes, rebates and discounts and after eliminating sales within the Group.

Revenue associated with service delivery is recognized in reference to the stage of completion of the transaction when it can be reliably measured.

### b. Engineering and construction contracts

Contract revenue and costs associated with construction contracts are recognized as revenue and expenses respectively, based on the stage of completion of the contracts at the balance sheet date.

The margin realized at the stage of completion is recognized only when it can be reliably measured. When it is probable that total contract costs will exceed total contract revenue, the expected loss is immediately recognized as an expense.

The stage of completion is assessed by using the ratio of contract costs incurred at the balance sheet date versus total estimated contract costs.

## 5. NON-CURRENT ASSETS

### a. Goodwill and business combinations

#### Business combinations as of January 1, 2010

The Group has prospectively applied IFRS3 revised and IAS27 revised since January 1, 2010.

When the Group obtains control of an acquiree, the business combination is accounted for by applying the acquisition method on the acquisition date, in accordance with IFRS3 revised:

- the identifiable assets acquired and the liabilities and contingent liabilities assumed are measured at fair value;
- any minority interests in an acquiree are measured as the minority interest's proportionate share of the acquiree's net identifiable assets or at fair value. This option is applied on a case-by-case basis;
- the consideration transferred and any contingent consideration are measured at fair value;
- acquisition-related costs are recorded as expenses in the periods in which they are incurred.

For a business combination achieved in stages, any previously held equity interests in the acquiree are measured at the acquisition-date fair value. Any resulting gains or losses are recognized in profit or loss.

The measurement period of a business combination shall not exceed 12 months as of the acquisition date. Any adjustments to the consideration transferred after the measurement period are recognized in the income statement.

On the acquisition date, goodwill is recognized in the consolidated balance sheet as the difference between:

- the consideration transferred plus the amount of minority interests in the acquiree and the fair value of the previously held equity interest;
- the fair value of the identifiable assets acquired and the liabilities and contingent liabilities assumed.

Negative goodwill is recognized immediately through profit or loss.

#### Business combinations prior to January 1, 2010

Business combinations achieved prior to January 1, 2010 have been accounted for in accordance with the former versions of IFRS3 and IAS27. These standards had already adopted the acquisition method in the version published by the IASB in March 2004. The main provisions which differ from the revised standards are as follows:

- minority interests were measured based on their share of the net identifiable assets of the acquiree and the fair value measurement option did not exist;

- earn-outs were included in the acquisition cost, without time limits, when the payment was deemed probable and the amount could be reliably measured;
- acquisition-related costs were recorded in the cost of the business combination.

For an acquisition achieved in stages, the fair value remeasurement of any previously held net asset was recognized in equity.

For an acquisition of minority interests in a previously held company, the difference between the acquisition cost and the net carrying amount of the minority interests was recorded in goodwill.

At the time of the transition to IFRS and in accordance with the exemption offered by IFRS1, the Group decided not to apply IFRS3 "Business combinations" retrospectively for acquisitions that took place prior to January 1, 2004.

Goodwill is allocated to cash-generating units (CGU) or groups of cash-generating units. Subsequently, goodwill is not amortized but is tested for impairment annually or more frequently if there are any indications of impairment, in accordance with the method described in section 5.f.

### b. Research and Development expenditures

Research and Development expenditures include all costs related to the scientific and technical activities, patent work, education and training necessary to ensure the development, manufacturing, start-up, and commercialization of new or improved products or processes.

According to IAS38, development costs shall be capitalized if, and only if, the Group can meet all of the following criteria:

- the intangible asset is clearly identified and the related costs are itemized and reliably monitored;
- the technical and industrial feasibility of completing the intangible asset is demonstrated;
- there is a clear intention to complete the intangible asset and use or sell it;
- the Group has the ability to use or sell the intangible asset arising from the project;
- the Group can demonstrate how the intangible asset will generate probable future economic benefits;
- the Group has adequate technical, financial and other resources to complete the development and to use or sell the intangible asset.

Research expenditure is recognized as an expense when incurred.

### c. Internally generated intangible assets

Internally generated intangible assets primarily include the development costs of information management systems. These costs are capitalized only if they satisfy the criteria as defined by IAS38 and described above.

Internal and external development costs on management information systems arising from the development phase are capitalized. Significant maintenance and improvement costs are added to the initial cost of assets if they specifically meet the capitalization criteria.

Internally generated intangible assets are amortized over their useful lives.

### d. Other intangible assets

Other intangible assets include separately acquired intangible assets such as software, licenses, and intellectual property rights. They also include the technology, brands and customer contracts valued upon the acquisition of companies in accordance with IFRS3 "Business Combinations".

With the exception of brands, intangible assets are amortized using the straight-line method over their useful lives. Information management systems are generally amortized over five and seven years and customer contracts over a maximum period of 25 years, considering the probabilities of renewal.

### e. Property, plant and equipment

Land, buildings and equipment are carried at cost less any accumulated depreciation and any accumulated impairment losses.

In the event of mandatory dismantling or asset removals, related costs are added to the initial cost of the relevant assets and provisions are recognized to cover these costs.

Interest costs on borrowings to finance the construction of property, plant, and equipment are capitalized during the period of construction when they relate to the financing of industrial projects over a twelve-month construction period, or longer.

When parts of an item of property, plant and equipment have different useful lives, they are accounted for separately and depreciated over their own useful lives.

Repair and maintenance costs are recognized as expenses when incurred. The costs of major inspections and overhauls are recognized as a separate component of the asset and are depreciated over the period between two major overhauls.

Depreciation is calculated according to the straight-line method over the estimated useful lives as follows:

- buildings: 20 to 30 years;
- cylinders: 10 to 40 years;
- production units: 15 to 20 years;
- pipelines: 15 to 35 years;
- other equipment: 5 to 30 years.

Land is not depreciated.

### f. Impairment of assets

In accordance with IAS36, the Group regularly assesses whether there are any indications of asset impairment. If such indications exist, an impairment test is performed to assess whether the carrying amount of the asset is greater than its recoverable amount, defined as the higher of the fair value less costs to sell (net fair value) and the value in use.

Impairment tests are performed systematically once a year for goodwill and intangible assets with indefinite useful lives.

Assets that do not generate largely independent cash flows are grouped according to the cash-generating units (CGU) to which they belong. A cash-generating unit is an identifiable group of assets that generates cash inflows that are largely independent of the cash inflows of other assets or groups of assets. They are mainly determined on a geographical basis and by reference to the markets in which the Group operates.

In practice, the Group performs impairment tests at various levels pursuant to these principles and in accordance with IAS36:

- dedicated and on-site plants are tested individually;
- pipelines and plants that provide these pipelines are tested at the network level;
- liquid gas and hydrogen/CO plants are grouped together according to the plants' customer market;
- other assets are allocated to cash-generating units or groups of cash-generating units.

The cash-generating units of the Gas and Services activity are determined on a geographical basis. The Other Activities are managed at the European (Welding) or worldwide (Engineering and Technology) levels.

Goodwill is allocated to cash-generating units or groups of cash-generating units that benefit from business combination synergies and which represent the levels at which goodwill is monitored by the Group.

When performing impairment tests on cash-generating units or groups of cash-generating units comprising goodwill, the Group uses the market multiples approach to determine if the goodwill is subject to impairment. Insofar as the fair value is not significantly greater than the net carrying amount of the cash-generating unit or group of cash-generating units, the Group confirms the recoverable amount of the cash-generating unit or group of cash-generating units using the estimated cash flow approach (value in use).

For other cash-generating units or groups of cash-generating units, and assets whose value is tested on an individual basis, the Group determines the recoverable amount using the estimated cash flow approach (value in use).

The market multiples used are determined based on the market value of the Air Liquide Group. The differences between the resulting multiples and those of comparable companies are not material.

The growth rates, taken into account with respect to the cash flow estimates for cash-generating units or groups of cash-generating units, are determined based on the activity and geographical location of the CGU considered.

In assessing value in use for property, plant and equipment, the estimated future cash flows are discounted to their present value. Cash flows are measured over the asset's estimated period of use, taking into account customer contract terms and technical obsolescence.

The discount rate depends on the nature, the location of the asset and the customer market. It is determined according to the minimum level of profitability expected from the investment considering industrial and commercial risks and credit terms.

When the recoverable amount of an asset, a cash-generating unit or a group of cash-generating units is lower than its carrying amount, an impairment loss is recognized immediately through profit and loss. An impairment loss of a cash-generating unit is first allocated to goodwill.

When the recoverable amount exceeds the carrying amount again, the previously recognized impairment loss is reversed to the income statement, with the exception of impairment losses on goodwill, which cannot be reversed.

## g. Leases

### Finance leases

Leases of property, plant and equipment that transfer virtually all the risks and rewards of ownership to the Group are classified as finance leases. Items of property, plant and equipment acquired under finance leases are depreciated over the shorter of the asset's useful life or the lease term.

### Operating leases

Leases where the lessor does not retain substantially all the risks and rewards incidental to ownership are classified as operating leases. Payments made under operating leases (net of any incentives received from the lessor) are charged to the income statement on a straight-line basis over the lease term.

IFRIC4 "Determining Whether an Arrangement Contains a Lease" has no impact on the Group consolidated financial statements. In fact, the risks and rewards arising from the use of assets potentially affected by this interpretation are not transferred to the Group's customers. Consequently, the gas supply contracts related to these assets are not classified as finance leases.

## 6. FINANCIAL INSTRUMENTS

### a. Non-current financial instruments

#### Non-consolidated investments

According to IAS39, investments in non-consolidated companies that are not accounted for using the equity method are classified as available for sale assets.

The fair value of investments in listed companies is recognized at their quoted market price at year-end. Investments whose fair value cannot be reliably measured are recognized at cost less any accumulated impairment losses. For this purpose, the recoverable amount is based on the Group's share of net assets, expected future profitability and the business plan of the entity representing the investment.

Changes in fair value are recognized in a separate equity line item until the investment is effectively sold. However, unrealized capital losses are immediately recognized in the income statement when the impairment loss is permanent.

Unrealized gains or losses previously recognized in equity are recorded in profit or loss on sale of the investments.

### Loans and other financial assets

Loans and other financial assets are initially recognized at their fair value and subsequently carried at amortized cost. Impairment tests are performed at each closing date. Any impairment losses are recognized immediately in the income statement.

#### b. Trade and other receivables

Trade and other receivables are carried at fair value upon initial recognition and then at amortized cost less any impairment losses.

Impairment losses are recognized when it becomes probable that the amount due will not be collected and the loss can be reasonably estimated. Impairment losses are estimated by taking into account historical losses, age and a detailed risk estimate.

#### c. Cash and cash equivalents

Cash and cash equivalents include cash balances, current bank accounts, and short-term highly liquid investments that are readily convertible into cash and do not present a material risk of a change in value.

As cash investments maturing in less than three months are exposed to a negligible risk of a change in value, they are recognized at historical cost (including accrued interest) which is considered to approximate fair value.

#### d. Current and non-current borrowings

Borrowings include bond debentures and other bank borrowings (including borrowings arising from finance leases and the put options granted to minority shareholders).

At inception, borrowings are recognized at fair value corresponding to the net proceeds collected. At each balance sheet date, except for put options granted to minority shareholders, they are measured at amortized cost using the effective interest rate (EIR) method. Under this method, the borrowing cost includes the redemption premiums and issuance costs initially deducted from the nominal amount of the borrowing in liabilities.

Borrowings maturing in less than one year are classified as current borrowings.

Borrowings hedged by interest rate swaps are recognized on a hedge accounting basis.

### e. Derivative assets and liabilities

Derivative financial instruments are mainly used to manage exposures to foreign exchange, interest rate and commodity risks relating to the Group's financial and operating activity. For all these transactions, the Group applies hedge accounting and documents, at the inception of the transaction, the type of hedging relationship, the hedging instruments, and the nature and term of the hedged item.

However, in very limited circumstances, some derivatives do not qualify for hedge accounting.

Applying hedge accounting has the following consequences:

- fair value hedges for existing assets and liabilities: the hedged portion of the item is carried at fair value in the balance sheet. Any changes in fair value are recognized in the income statement, where it is offset by the corresponding changes in fair value of the hedging instruments (except for the impact of premiums/discounts);
- future cash flow hedges: the effective portion of the change in fair value of the hedging instrument is recorded directly in equity (other comprehensive income), while the change in the fair value of the hedged item is not recognized in the balance sheet. The change in fair value of the ineffective portion is recognized in other financial income or expenses. Amounts recorded in other comprehensive income are reclassified in the income statement when the hedged transactions occur and are recorded;
- hedges of net investments in a foreign entity: the effective portion of the changes in fair value of the derivative instrument is recognized in gains and losses recognized directly in equity under translation reserves. The ineffective portion of the changes in fair value is recognized in the income statement. Once the foreign entity subject to the net investment hedge is sold, the loss or profit initially recognized in translation reserves is recognized in profit or loss. This method also applies for foreign exchange hedging on dividends payable by subsidiaries.

Derivative financial instruments which do not qualify for hedge accounting are carried at fair value through profit or loss with an offsetting entry in financial assets and financial liabilities.

The fair value of assets, liabilities and derivatives is based on the market price at the balance sheet date.

## 7. ASSETS CLASSIFIED AS HELD FOR SALE

Non-current assets or disposal groups are classified as held for sale if their carrying amount will be recovered principally through a sale transaction rather than through continuing use. Assets classified as held for sale are no longer depreciated (amortized)

as of the date they are classified as assets or disposal groups held for sale.

Assets or disposal groups are measured at the lower of their carrying amount or fair value less costs to sell.

## 8. INVENTORIES AND WORK-IN-PROGRESS

Inventories are measured at the lower of cost or net realizable value. Cost includes direct raw materials, direct and indirect labor costs and other costs incurred in bringing the inventories to their present location and condition.

Net realizable value is the estimated selling price in the normal course of business less the estimated costs of completion and the estimated costs necessary to make the sale.

## 9. SHARE CAPITAL, RESERVES AND TREASURY SHARES

Air Liquide's share capital is composed of ordinary shares.

Retained earnings include the following items:

- Translation reserves: Exchange differences arising from the translation into euros of financial statements prepared by foreign subsidiaries whose functional currency is not the euro are recorded in translation reserves. Fair value changes in net investment hedges of these foreign subsidiaries are also recorded in this reserve.
- Fair value of financial instruments: This item records accumulated fair value changes in the effective portion of cash flow hedge derivatives (transactions not yet recognized in the accounts).
- Actuarial gains and losses: all actuarial gains and losses and adjustments arising from the asset ceiling, net of deferred taxes, are recognized in consolidated reserves in the period in which they occur.

When the Group buys back its own shares, they are classified as treasury shares at the purchase price and presented as a deduction from equity for the consideration paid. The profit or loss from the sale of treasury shares is recognized directly in equity, net of tax.

Furthermore, acquisitions or disposals of minority interests, without change in control, are considered as transactions with Group shareholders. Thus, the difference between the price paid to increase the percentage of interest in entities that are already controlled and the additional share of equity thus acquired is recognized in Shareholders' equity. Similarly, a decrease in the Group's percentage interest in a controlled entity is accounted for as an equity transaction with no impact on profit or loss.

Disposals of shares with loss of control give rise to the recognition in disposal gains or losses of the change in fair value calculated for the total investment at the date of disposal. Any investments retained, where applicable, will be measured at fair value at the date when control is lost.

## 10. MINORITY INTERESTS

In accordance with IAS32, put options granted to minority shareholders are recorded as borrowings at the option's estimated strike price.

The share in the net assets of subsidiaries is reclassified from minority interests to borrowings.

Due to the absence of any specific IFRS guidances, the Group has elected to recognize the consideration for the difference between the strike price of the option granted and the value of the minority interests reclassified as borrowings as follows:

- for options granted prior to January 1, 2010, in goodwill;
- for options granted after January 1, 2010, in Shareholders' equity.

Minority interests in profit and loss do not change and still reflect present ownership interests.

## 11. PROVISIONS

### a. Provisions

Provisions are recognized when:

- the Group has a present obligation as a result of a past event;
- it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation;
- a reliable estimate can be made of the amount of the obligation.

Restructuring provisions include only the direct costs arising from the restructuring and are recognized in the period in which the Group has approved a detailed and formal restructuring plan and the restructuring has either begun or been announced. When these plans involve termination benefits, the resulting provision are recognized at the earlier of the following dates:

- when the Group can no longer withdraw the offer of those benefits;
- when the provision of the related restructuring is recognized.

A provision for losses on contracts is recognized when the expected benefits from the contract are lower than the cost of satisfying the obligations under the contract.



## b. Pensions and employee benefits

The Group provides its employees with various pension plans, termination benefits, jubilees and other post-employment benefits for both active employees and retirees. These plans vary according to the laws and regulations applicable in each country as well as the specific rules in each subsidiary.

These benefits are covered in two ways:

- by defined contribution plans;
- by defined benefit plans.

Defined contribution plans are plans under which the employer is committed to pay regular contributions. The employer's obligation is limited to payment of the planned contributions. The employer does not grant any guarantees on the future level of benefits paid to the employee or retiree (means-based obligation). The annual pension expense is equal to the contribution paid during the fiscal year which relieves the employer from any further obligations.

Defined benefit plans are plans under which the employer guarantees the future level of benefits defined in the agreement, most often depending on the employee's salary and seniority (result-based obligation). Defined benefit plans can be:

- either financed by contributions to specialized funds that manage the amounts received;
- or managed internally.

The Group grants both defined benefit and defined contribution plans.

For defined benefit plans, retirement and similar commitments are measured by independent actuaries, based on the projected unit credit method in accordance with IAS19. The actuarial calculations mainly take into account the following assumptions: salary increases, employee turnover, retirement date, expected salary trends, mortality, inflation and appropriate discount rates for each country.

Defined benefit plans are covered by external pension funds in certain cases. The assets of these plans are mostly invested in bonds or equities carried at their fair value.

Valuations are carried out annually by independent actuaries for significant plans and every three years for other plans unless there are material changes in circumstances that necessitate a new calculation.

## 12. FOREIGN CURRENCY TRANSACTIONS AND BALANCES

Foreign currency transactions are recognized according to the following principles:

- foreign currency transactions are translated by each company into its functional currency at the exchange rate prevailing on the date of the transaction;
- at year-end, monetary assets and liabilities denominated in foreign currencies are translated into the functional currency at the closing exchange rate.

Exchange differences relating to commercial transactions are recognized in operating profit. For financial transactions, exchange differences are recognized in financial income and expenses except for differences resulting from the hedge of a net investment that are directly recognized in equity until the net investment is removed from the consolidation scope.

## 13. CONTINGENT ASSETS AND LIABILITIES

Contingent assets and liabilities arise from past events, the outcome of which depends on future uncertain events.

Contingent liabilities represent:

- possible obligations arising from past events whose existence will be confirmed only by the occurrence of uncertain future events not wholly within the control of the entity; or,
- present obligations that arise from past events but that are not recognized because it is not probable that an outflow of resources embodying economic benefits will be required to settle the obligation or because the amount of the obligation cannot be measured with sufficient reliability.

Contingent assets and liabilities that are material are disclosed in the notes to the consolidated financial statements, except for contingent liabilities assumed in a business combination, which are recognized in accordance with IFRS3 revised.

## 14. DISCONTINUED OPERATIONS

A discontinued operation is a clearly distinguishable Group component that:

- either has been separated, or is classified as held for sale;
- represents a separate major line of business or geographical area of operations;
- is part of a single coordinated plan to dispose of a separate major line of business or geographical area of operations;



- is a subsidiary acquired exclusively with a view to resale.

The results of discontinued operations are presented separately in the income statement.

## 15. GOVERNMENT GRANTS

Government grants received are initially recognized in other non-current liabilities. They are then recognized as income in the income statement for the period:

- on the same basis as the subsidized assets are depreciated in the case of government grants related to assets;
- deducted from the costs intended to be compensated in the case of government grants other than those related to assets.

The Group analyzes the substance of government incentives delivered through the tax system and select an accounting treatment coherent with such substance.

## 16. SHARE-BASED PAYMENTS

The Group grants stock options to management and some employees. Employees also benefit from conditional share allocations. In accordance with IFRS2, stock options and conditional share allocations are measured at fair value on the grant date. The valuation model used is the binomial mathematical model. Any changes in value subsequent to the grant date do not call into question the initial measurement.

In accordance with IFRS2, performance conditions, other than market conditions, have no impact on the fair value measurement of goods and services received but adjust the expense that is recognized according to the number of equity instruments actually granted.

In accordance with IFRS2, the fair value of options granted and conditional share allocations is recognized as an employee expense in the income statement with a corresponding increase in equity, and amortized on a straight-line basis over the vesting period.

The dilution effect of non-vested stock option plans and conditional share allocations is reflected in the calculation of diluted earnings per share.

For employee savings plans, the capital increases reserved for employees and performed under conditions that differ from market conditions result in the recognition of an expense. This expense corresponds to the contribution paid by the Company and the discount on the share price less the cost of non-transferability for the employees.

## 17. GREENHOUSE GAS EMISSION QUOTAS

In certain countries, the Group is subject to greenhouse gas emission trading systems. In Europe, the third phase of the ETS Directive modified the conditions for allocation of EUAs (European Emission Allowances). As of January 1, 2013, the Group is required to obtain CO<sub>2</sub> quotas for emissions not covered by free allocations.

In the absence of any specific IFRS guidance, the Group has elected to apply the ANC regulation No.2012-03. The Group does not buy CO<sub>2</sub> quotas for the purpose of generating profits from fluctuations in price; therefore, at each closing date:

- a liability is recognized if the greenhouse gas emissions are higher than the CO<sub>2</sub> quotas held by the Group. It corresponds to the cost of CO<sub>2</sub> quotas in shortfall to cover the greenhouse gas already emitted; or,
- an asset is recognized if the greenhouse gas emissions are lower than the CO<sub>2</sub> quotas held by the entity. It corresponds to the CO<sub>2</sub> quotas available to cover the future greenhouse gas emission, measured at historical cost.

# Basis for presentation of financial information

## 1. SEGMENT INFORMATION

The Group is structured according to the following activities: Gas and Services, Engineering and Technology, and Other Activities (Welding and Diving).

The Group's main operational decision-making body is the Executive Management assisted by the Executive Committee.

The Gas and Services activity is organized by geographical area, which is the responsible level for operations management and performance monitoring. These geographical areas are as follows:

- Europe;
- Americas;
- Asia-Pacific;
- Middle East and Africa.

Within the Gas and Services segment, the geographical areas determine sales policies and development projects in liaison with the four business lines (Large Industries, Industrial Merchant, Healthcare and Electronics).

The Engineering & Technology segment is managed separately at the international level. The segment designs, develops and builds industrial gas production plants for the Group and third parties. It also designs and manufactures plants in the traditional, renewable and alternative energy sectors.

Information on the Welding and Diving segments is presented in "Other Activities".

Research and Development and corporate activities do not meet the Operating segments definition and are thus presented within reconciliation.

The information communicated in the tables covering segment information is presented according to the same accounting principles as those used for the Group consolidated financial statements.

Revenue is analyzed by geographical area of production (country of origin).

Inter-segment revenue for the Gas and Services activity is not material and therefore not specifically presented. The Engineering & Technology inter-segment revenue corresponds to the sales involving the Gas and Services operating segments.

The Group operating performance is assessed on the basis of each segment's recurring operating income.

Segment assets include non-current assets, with the exception of "Deferred tax assets", "Investments in associates", "Fair value of non-current derivatives (assets)", as well as "Inventories and work-in-progress", "Trade receivables" and "Other current assets".

Segment liabilities correspond to "Provisions, pensions and other employee benefits", "Trade payables", "Other current liabilities" and "Other non-current liabilities".

Segment profits, assets and liabilities consist of amounts directly attributable to each segment, provided they can be allocated to the segment on a reasonable basis.

## 2. NET INDEBTEDNESS

Net indebtedness includes:

- current and non-current borrowings minus the fair value of hedging derivative assets to cover borrowings;

reduced by:

- cash and cash equivalents, as defined in section 6.c, minus the fair value of hedging derivative liabilities to cover loans.

## 3. INFORMATION ON INTERESTS IN JOINT ARRANGEMENTS OR ASSOCIATES

The materiality of the interests in joint arrangements or associates is assessed according to the following criteria:

- contribution of the entity to the Group's operating income recurring;
- share of these interests in the Group's net assets;
- dividends paid to these interests.

## 4. INFORMATION ON MINORITY INTERESTS

The materiality of the minority interests is assessed according to an analysis:

- of the minority interests' share in the Group's net assets;
- of the contribution to the Group's operating income recurring of the subsidiary having minority interests;
- dividends paid to minority interests.

## 5. OPERATING INCOME OR LOSS RECURRING

The Group's operating performance is measured based on operating income or loss recurring determined in accordance with ANC recommendation No.2013-03.

## 6. OTHER NON-RECURRING OPERATING INCOME AND EXPENSES

Material non-recurring transactions that could affect operating performance readability are classified under "Other non-recurring operating income" and "Other non-recurring operating expenses". They mainly include:

- gains or losses on the disposal of activities;
- acquisition-related costs accounted for as expenses;
- restructuring costs resulting from plans whose unusual and material nature distort the readability of the operating income recurring;
- very significant charges to provisions and impairment losses for property, plant and equipment and intangible assets.

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## Note 1 – Major events

There were no significant events during fiscal year 2014.

## Note 2 – Impact of the main business combinations on the financial statements

### 2.1 GOODWILL AS OF DECEMBER 31, 2013

On September 26, 2013, Air Liquide acquired 100% of the Voltaix group, an electronic materials company. The Voltaix group has production sites in the United States and South Korea.

<i>(in millions of euros)</i>	<b>Voltaix Group</b>
Financial investments	211.8
Share of net equity acquired	34.2
<b>Goodwill before allocation</b>	<b>168.4</b>
Allocation to intangible assets	(33.0)
Allocation to property, plant and equipment	(5.9)
Tax-related impact of these allocations	12.5
<b>Goodwill after allocation</b>	<b>142.0</b>
Others (impact of exchange rate changes)	(2.0)
<b>GOODWILL AS OF DECEMBER 31, 2013</b>	<b>140.0</b>

Goodwill relating to the acquisition of the Voltaix group detailed in 2013 is final and has not changed significantly since December 31, 2013.

### 2.2 MAIN BALANCE SHEET IMPACTS AS OF DECEMBER 31, 2013

<i>(in millions of euros)</i>	<b>Voltaix Group</b>
<b>Assets</b>	
Goodwill	140.0
Intangible assets, net	31.5
Property, plant & equipment, net	57.6
Inventories and receivables	20.9
Cash and cash equivalents	0.4
<b>Liabilities</b>	
Provisions, pensions and other employee benefits	0.5
Deferred tax liabilities	17.8
Current liabilities	30.5

## 2.3 MAIN IMPACTS ON THE 2013 INCOME STATEMENT <sup>(a)</sup>

<i>(in millions of euros)</i>	<b>Voltaix Group</b>
Revenue	14.6
Operating income recurring before depreciation and amortization	4.8
Depreciation and amortization expense	(1.8)
Operation income recurring	3.0
Other non-recurring operating expenses <sup>(b)</sup>	(2.3)
Operating income	0.7
Net finance costs and other financial income and expenses	(0.2)
Income taxes	(0.8)
Profit for the period	(0.3)
■ Net profit (Group share)	(0.3)

(a) Period between the acquisition date and December 31, 2013.

(b) This item includes acquisition costs which were expensed following the application of IFRS3 Revised "Business Combinations".

## 2.4 MAIN IMPACTS ON THE 2013 CASH FLOW STATEMENT

<i>(in millions of euros)</i>	<b>Voltaix Group</b>
Acquisition of subsidiaries and financial assets	211.8

## Note 3 – Segment information

### 3.1 INCOME STATEMENT FOR THE YEAR ENDED DECEMBER 31, 2014

<i>(in millions of euros)</i>	Gas and Services					Engineering & Technology	Other activities	Reconciliation	Total
	Europe	Americas	Asia- Pacific	Middle East and Africa	Sub-total				
<b>Revenue</b>	6,639.7	3,415.9	3,444.6	366.7	13,866.9	912.3	579.1		15,358.3
<i>Inter-segment revenue</i>						626.7		(626.7)	
<b>Operating income recurring</b>	1,345.5	776.0	551.5	64.5	2,737.5	75.8	35.6	(215.1)	2,633.8
<i>incl. depreciation and amortization</i>	(556.2)	(286.1)	(303.6)	(36.2)	(1,182.1)	(28.6)	(12.7)	(15.7)	(1,239.1)
Other non-recurring operating income									68.9
Other non-recurring operating expenses									(52.9)
Net finance costs									(228.9)
Other financial income									32.8
Other financial expenses									(54.5)
Income taxes									(678.4)
Share of profit of associates									4.0
<b>Profit for the period</b>									1,724.8
Purchase of intangible assets and property, plant and equipment	(718.0)	(612.5)	(378.8)	(83.4)	(1,792.7)	(74.4)	(13.3)	(21.3)	(1,901.7)

## 3.2 INCOME STATEMENT FOR THE YEAR ENDED DECEMBER 31, 2013

<i>(in millions of euros)</i>	Gas and Services					Engineering & Technology	Other activities	Reconciliation	Total
	Europe	Americas	Asia-Pacific	Middle East and Africa	Sub-total				
<b>Revenue</b>	7,058.3	3,225.0	3,184.0	369.7	13,837.0	802.9	585.3		15,225.2
<i>Inter-segment revenue</i>						693.2		(693.2)	
<b>Operating income recurring</b>	1,346.3	760.7	481.8	66.3	2,655.1	86.5	32.1	(193.1)	2,580.6
<i>incl. depreciation and amortization</i>	(589.6)	(289.0)	(274.4)	(33.3)	(1,186.3)	(27.9)	(14.0)	(8.1)	(1,236.3)
Other non-recurring operating income									235.1
Other non-recurring operating expenses									(209.2)
Net finance costs									(219.9)
Other financial income									14.4
Other financial expenses									(99.1)
Income taxes									(611.9)
Share of profit of associates									14.5
<b>Profit for the period</b>									1,704.5
Purchase of intangible assets and property, plant and equipment	(771.7)	(609.7)	(511.6)	(170.9)	(2,063.9)	(54.2)	(16.9)	(21.1)	(2,156.1)

## 3.3 BALANCE SHEET AS OF DECEMBER 31, 2014

<i>(in millions of euros)</i>	Gas and Services					Engineering & Technology	Other activities	Reconciliation	Total
	Europe	Americas	Asia-Pacific	Middle East and Africa	Sub-total				
<b>Segment assets</b>	10,174.5	5,785.2	6,339.8	1,189.5	23,489.0	1,110.5	463.9	185.4	25,248.8
Goodwill	2,821.5	831.2	1,172.1	104.7	4,929.5	219.3	109.8		5,258.6
Intangible assets and property, plant and equipment, net	5,560.1	4,175.8	4,270.6	817.7	14,824.2	311.9	95.5	86.9	15,318.5
Other segment assets	1,792.9	778.2	897.1	267.1	3,735.3	579.3	258.6	98.5	4,671.7
Non-segment assets									1,476.1
<b>Total assets</b>									26,724.9
<b>Segment liabilities</b>	2,646.0	735.9	781.3	129.5	4,292.7	1,239.4	198.5	371.5	6,102.1
Non-segment liabilities									8,795.9
Equity including minority interests									11,826.9
<b>Total equity and liabilities</b>									26,724.9



## 3.4 BALANCE SHEET AS OF DECEMBER 31, 2013

(in millions of euros)	Gas and Services					Engineering & Technology	Other activities	Reconciliation	Total
	Europe	Americas	Asia- Pacific	Middle East and Africa	Sub-total				
<b>Segment assets</b>	<b>10,089.2</b>	<b>4,873.2</b>	<b>5,797.1</b>	<b>1,042.6</b>	<b>21,802.1</b>	<b>911.2</b>	<b>482.9</b>	<b>201.2</b>	<b>23,397.4</b>
Goodwill	2,811.8	732.8	1,131.6	103.9	4,780.1	194.5	115.2		5,089.8
Intangible assets and property, plant and equipment, net	5,496.5	3,477.3	3,850.5	700.9	13,525.2	263.4	97.2	53.1	13,938.9
Other segment assets	1,780.9	663.1	815.0	237.8	3,496.8	453.3	270.5	148.1	4,368.7
Non-segment assets									1,697.2
<b>Total assets</b>									<b>25,094.6</b>
<b>Segment liabilities</b>	<b>2,621.5</b>	<b>598.7</b>	<b>749.6</b>	<b>116.7</b>	<b>4,086.5</b>	<b>1,218.9</b>	<b>190.6</b>	<b>312.3</b>	<b>5,808.3</b>
Non-segment liabilities									8,398.2
Equity including minority interests									10,888.1
<b>Total equity and liabilities</b>									<b>25,094.6</b>

The Research & Development and Holdings activities (corporate) are presented in the "Reconciliation" column. The operating income recurring of the Engineering & Technology activity includes financial income generated from advances received from customers. It is included in net finance costs in the consolidated income statement. The adjustment arising from the presentation difference is included in the "Reconciliation" column.

## 3.5 OTHER INFORMATION ON GEOGRAPHICAL AREAS

2014 (in millions of euros)	France	Europe excl. France	Americas	Asia-Pacific	Middle East and Africa	Total
	Revenue	2,498.9	5,077.9	3,751.8	3,663.0	366.7
Non-current assets <sup>(a)</sup>	2,326.2	6,820.5	5,052.4	5,486.9	991.5	20,677.5
<i>incl. Investments in associates</i>	4.1	12.2	0.2	14.9	69.0	100.4

(a) Excluding non-current financial assets, deferred taxes and non-current derivative assets.

2013 (in millions of euros)	France	Europe excl. France	Americas	Asia-Pacific	Middle East and Africa	Total
	Revenue	2,813.9	5,314.9	3,427.6	3,299.1	369.7
Non-current assets <sup>(a)</sup>	1,753.8	7,144.0	4,277.3	5,200.7	854.6	19,230.4
<i>incl. Investments in associates</i>	6.9	15.2	0.2	129.6	49.8	201.7

(a) Excluding non-current financial assets, deferred taxes and non-current derivative assets.

Due to the substantial number of customers served by the Group (over one million worldwide), their significant diversity in multiple sectors and their wide geographical dispersion, the Group's top external customer represents only 2.2% of Air Liquide revenue.

## Note 4 – Revenue

<i>(in millions of euros)</i>	2013	%	2014	%
Gas & Services	13,837.0	91%	13,866.9	90%
Engineering & Technology	802.9	5%	912.3	6%
Other activities	585.3	4%	579.1	4%
<b>TOTAL</b>	<b>15,225.2</b>	<b>100%</b>	<b>15,358.3</b>	<b>100%</b>

In 2014, consolidated revenue amounted to 15,358.3 million euros up +0.9% compared to 2013. Revenue was up +3.4% after adjusting for the cumulative impact of foreign exchange fluctuations and natural gas prices:

- the effect of foreign exchange rate fluctuations amounted to -293 million euros in 2014 representing -1.9% of Group

revenue. This was essentially due to the depreciation of the Japanese yen, the Argentinean peso and the Canadian dollar compared to the euro;

- the effect of natural gas prices fluctuations amounted to -87 million euros excluding foreign exchange fluctuations, representing -0.6% of Group revenue.

## Note 5 – Operating income recurring and expenses

Operating income recurring and expenses include purchases, personnel expenses, depreciation and amortization, other recurring income and other recurring expenses.

The Group purchases mainly consist of electricity, natural gas as well as industrial and medical products.

### 5.1 PERSONNEL EXPENSES

<i>(in millions of euros)</i>	2013	2014
Wages and social security charges	(2,684.3)	(2,705.4)
Defined contribution pension plans	(41.9)	(47.2)
Defined benefit pension plans <sup>(a)</sup>	(6.2)	117.6
Share-based payments	(18.7)	(18.1)
<b>TOTAL</b>	<b>(2,751.1)</b>	<b>(2,653.1)</b>

(a) In 2014, the expense relating to defined benefit plans included the effect of settlements, plan amendments and past service cost amounting to 157.9 million euros mainly in France, in the US and in the Netherlands compared to 39.8 million euros in 2013 (see note 24.3 on employee benefit obligations on page 240).

Fully consolidated companies employed 50,300 individuals as of December 31, 2014 (50,250 individuals as of December 31, 2013). Furthermore, changes in the scope of consolidation resulted in a decrease in the number of employees of 100 people.

### 5.2 OTHER OPERATING EXPENSES

Other operating expenses primarily include transport and distribution costs, sub-contracting costs, operating leases and insurance premiums.

### 5.3 RESEARCH AND DEVELOPMENT EXPENDITURE

In 2014, innovation costs amounted to 277.9 million euros (264.8 million euros in 2013) including Research & Development costs for 186.6 million euros (185.9 million euros in 2013).

Development costs incurred by the Group as part of its Research & Development projects were expensed. The Group did not meet the conditions set out in IFRS for the capitalization of development costs since expenditures did not systematically result in the completion of an intangible asset being available for use or sale.

## 5.4 DEPRECIATION AND AMORTIZATION EXPENSE

<i>(in millions of euros)</i>	<b>2013</b>	<b>2014</b>
Intangible assets	(91.3)	(91.0)
Property, plant and equipment (PP&E) <sup>(a)</sup>	(1,145.0)	(1,148.1)
<b>TOTAL</b>	<b>(1,236.3)</b>	<b>(1,239.1)</b>

(a) Including the depreciation expense after deduction of investment grants released to profit.

## Note 6 – Other non-recurring operating income and expenses

<i>(in millions of euros)</i>	<b>2013</b>	<b>2014</b>
<b>Expenses</b>		
Reorganization, restructuring and realignment programs costs	(127.6)	(36.9)
Acquisition costs	(10.7)	(4.9)
Others <sup>(a)</sup>	(70.9)	(11.1)
<b>TOTAL OTHER NON-RECURRING OPERATING EXPENSES</b>	<b>(209.2)</b>	<b>(52.9)</b>
<b>Income</b>		
Gain on the disposals of assets and financial investments	220.6	62.6
Others	14.5	6.3
<b>TOTAL OTHER NON-RECURRING OPERATING INCOME</b>	<b>235.1</b>	<b>68.9</b>
<b>TOTAL</b>	<b>25.9</b>	<b>16.0</b>

(a) Mainly related to risk provisions net of reversals.

In 2014, the Group recognized:

- capital gains on disposals calculated in accordance with IFRS10 section 25 mainly including the sale of the investment in its polymer engineering and construction activity in Germany on December 31, 2014;
- realignment programs in advanced economies totaling -36.9 million euros.

In 2013, the Group had recognized:

- capital gains on disposals in accordance with IFRS10 section 25, amounting to +207.9 million euros, which included:

- the disposal of its investment in Laboratoires Anios (France) on December 2, 2013;
- the disposal of its investment in the associate Neal & Massy Gas Products Ltd (Trinidad and Tobago) on December 31, 2013;
- realignment programs in advanced economies totaling -127.6 million euros;
- “other non-recurring operating expenses” including -31 million euros to cover litigation risks.

## Note 7 – Net finance costs and other financial income and expenses

### 7.1 NET FINANCE COSTS

<i>(in millions of euros)</i>	2013	2014
Finance cost	(229.3)	(236.3)
Financial income from short-term investments and loans	9.4	7.4
<b>TOTAL</b>	<b>(219.9)</b>	<b>(228.9)</b>

The average cost of debt stood at 4.0% in 2014 (4.0% in 2013) and is broken down in note 25.4.

Capitalized finance costs amounted to 39.9 million euros in 2014 (44.7 million euros in 2013).

### 7.2 OTHER FINANCIAL INCOME AND EXPENSES

<i>(in millions of euros)</i>	2013	2014
Other financial income	14.4	32.8
<b>TOTAL OTHER FINANCIAL INCOME</b>	<b>14.4</b>	<b>32.8</b>
Other financial expenses	(39.4)	(41.0)
Interest expense on the net defined benefit liability <sup>(a)</sup>	(59.7)	(13.5)
<b>TOTAL OTHER FINANCIAL EXPENSES</b>	<b>(99.1)</b>	<b>(54.5)</b>

(a) The interest expense on the net defined benefit liability includes the effect of past service costs following the amendment of a pension plan in France resulting in an income of 38.5 million euros in 2014 (see note 24.3 "Employee benefit obligations" on page 240).

In 2014, other financial income includes the capital gain on disposal of 3.32% of the investment in Plug Power Inc.

## Note 8 – Income taxes

### 8.1 INCOME TAX EXPENSE

<i>(in millions of euros)</i>	2013	2014
<b>Current tax</b>		
Income tax expense payable	(504.0)	(593.3)
<b>TOTAL CURRENT TAX</b>	<b>(504.0)</b>	<b>(593.3)</b>
<b>Deferred tax</b>		
Temporary differences	(111.6)	(79.9)
Impact of tax rate changes	3.7	(5.2)
<b>TOTAL DEFERRED TAX</b>	<b>(107.9)</b>	<b>(85.1)</b>
<b>TOTAL</b>	<b>(611.9)</b>	<b>(678.4)</b>

## 8.2 RECONCILIATION BETWEEN THE STANDARD TAX RATE AND THE GROUP EFFECTIVE TAX RATE

<i>(in %)</i>	<b>2013</b>	<b>2014</b>
<b>Standard tax rate</b>	<b>32.1</b>	<b>32.1</b>
Impact of transactions taxed at reduced rates	(6.2)	(3.5)
Impact of tax rate changes	(0.2)	(0.2)
Impact of tax exemptions and others	0.9	(0.1)
<b>Group effective tax rate</b>	<b>26.6</b>	<b>28.3</b>

The standard tax rate is the average rate obtained by applying the statutory tax rate in each country to their respective profits before tax.

The average effective tax rate is calculated as follows: (current and deferred income tax expense) / (net profit before tax less share of profit of associates, dividends received and net profit from discontinued operations).

In France, L'Air Liquide S.A. has elected to determine French income taxes on a consolidated basis. This scheme applies to all French subsidiaries complying with the legal requirements.

Foreign subsidiaries have elected to apply for similar rules wherever this is allowed under local regulations.

The average effective tax rate is up compared to 2013 due to the change in gains on disposals of tangible and financial assets being taxable at a reduced tax rate.

## Note 9 – Net earnings per share

### 9.1 BASIC EARNINGS PER SHARE

	<b>2013</b>	<b>2014</b>
Net profit (Group share) attributable to ordinary shareholders of the parent <i>(in millions of euros)</i>	1,640.3	1,665.0
Weighted average number of ordinary shares outstanding	342,664,899	343,214,086
<b>Basic earnings per share <i>(in euros)</i></b>	<b>4.79</b>	<b>4.85</b>

The average number of outstanding ordinary shares and net earnings per share for 2013 include the impact of the L'Air Liquide S.A. free share attribution on June 2, 2014.

Basic earnings per share is calculated by dividing net profit (Group share) attributable to ordinary shareholders of Air Liquide by the weighted average number of shares outstanding during the year, excluding ordinary shares purchased by Air Liquide and recognized in equity.

### 9.2. DILUTED EARNINGS PER SHARE

	<b>2013</b>	<b>2014</b>
<b>Net profit used to calculate diluted earnings per share <i>(in millions of euros)</i></b>	<b>1,640.3</b>	<b>1,665.0</b>
Weighted average number of ordinary shares outstanding	342,664,899	343,214,086
Adjustment for dilutive impact of share subscription options	932,340	967,083
Adjustment for dilutive impact of conditional grant of shares	291,601	278,223
<b>Adjusted weighted average number of shares outstanding used to calculate diluted earnings per share</b>	<b>343,888,840</b>	<b>344,459,392</b>
<b>Diluted earnings per share <i>(in euros)</i></b>	<b>4.77</b>	<b>4.83</b>

Diluted earnings per share take into account share subscription options and conditional share grants allocated to employees if:

- the issue price, adjusted for unrecognized expenses at the year-end pursuant to IFRS2, is lower than the Air Liquide annual average share price;
- the performance requirements meet the criteria set out in IAS33 section 52.

Diluted earnings per share for 2013 and the average number of outstanding shares include the impact of the L'Air Liquide S.A. free share attribution on June 2, 2014.

Instruments that could dilute net profit attributable to ordinary shareholders of the parent company, but were not included in the calculation of diluted earnings per share because they are antidilutive over the year, are as follows:

- in 2014, the 2012, 2013 and 2014 share subscription option plans;
- in 2013, the 2012 and 2013 share subscription option plans.

The Group has not issued any other financial instruments that may result in further dilution of net earnings per share.

## Note 10 – Dividend per share

The 2013 dividend on ordinary shares declared and paid on May 21, 2014 was 839.0 million euros (including additional premium and tax on dividends), and amounted to 2.55 euros per share.

The Amended Finance Act enacted in August 2012 introduced an additional 3% contribution on cash dividends. L'Air Liquide S.A. is subject to this tax for the dividends paid in May 2014, which amounted to 24.4 million euros as of December 31, 2014

(23.9 million euros as of December 31, 2013). The Group considers it as a cost associated with the dividend distribution and has therefore decided to recognize this contribution cost as a deduction of shareholders' equity.

A dividend payment of 2.55 euros per ordinary share (including treasury shares) amounting to 905.1 million euros will be proposed to the Annual General Meeting in respect of the financial year ended December 31, 2014.

## Note 11 – Goodwill

### 11.1 MOVEMENTS DURING THE PERIOD

<i>(in millions of euros)</i>	As of January 1	Goodwill recognized during the period	Goodwill removed during the period	Foreign exchange differences	Other movements	As of December 31
2013	5,132.7	287.8	(33.9)	(246.5)	(50.3)	5,089.8
<b>2014</b>	<b>5,089.8</b>	<b>40.7</b>	<b>(5.3)</b>	<b>143.0</b>	<b>(9.6)</b>	<b>5,258.6</b>

In 2013, goodwill recognized mainly resulted from goodwill related to the acquisition of the Voltaix group as detailed in note 2.1.

## 11.2 SIGNIFICANT GOODWILL

(in millions of euros)	2013	2014		
	Net carrying amount	Gross carrying amount	Impairment losses	Net carrying amount
Germany <sup>(a)</sup>	1,400.6	1,402.2		1,402.2
Japan	529.7	527.8		527.8
South-East Asia <sup>(b)</sup>	483.9	508.3		508.3
Engineering & Construction <sup>(b)</sup>	191.0	215.8		215.8
France <sup>(a)</sup>	411.8	412.2		412.2
Iberian Peninsula	245.2	246.2		246.2
United States <sup>(b)</sup>	368.0	420.2		420.2
ALAM <sup>(b) (c)</sup>	140.0	158.5		158.5
AL Welding	90.6	90.6		90.6
Others	1,229.0	1,278.3	(1.5)	1,276.8
<b>TOTAL GOODWILL</b>	<b>5,089.8</b>	<b>5,260.1</b>	<b>(1.5)</b>	<b>5,258.6</b>

(a) Goodwill allocated to groups of cash-generating units within Gas & Services activities but excluding the hygiene products and specialty ingredients activities within the Healthcare business line.

(b) The movement between 2013 and 2014 was mainly due to the effect of foreign exchange fluctuations.

(c) The ALAM cash-generating unit corresponds to the "advanced materials" business of the worldwide Electronics business line. The cash-generating unit in which the ALAM goodwill is allocated is tested for impairment on a worldwide basis.

In the last two fiscal years, the Group has not recorded any goodwill impairment losses.

Impairment tests were carried out using the methods detailed in note 5.f. of the Accounting Policies. The key model assumptions used, such as market multiples and the discount rate, took into account the stock market and worldwide economic context.

The growth rates used for estimating the cash flows of cash-generating units or groups of cash-generating units were significantly lower than the Group's historical average growth rates. Growth rates between 2% and 3% were used for cash-generating units or groups of cash-generating units operating in mature markets, and up to 5% for cash-generating units or groups of cash-generating units operating in emerging markets.

The market multiples used were determined using the Air Liquide Group market value as of December 31, 2014. Multiples obtained do not materially differ from those of companies whose activity is similar to that of the Group.

The weighted average cost of capital used was 5.7% as of December 31, 2014 (6.9% as of December 31, 2013).

The weighted average cost of capital and market multiples are adjusted for the activity and the geographical location of the cash-generating units being tested.

As of December 31, 2014 and 2013, the recoverable amount of each cash-generating unit or groups of cash-generating units significantly exceeded their net carrying amounts.

Considering the activity of the Air Liquide group, no reasonably possible change in key assumptions would result in an impairment. The Gas and Services activity favors synergies between the different business lines by pooling assets for a given geographical area. The geographical development of the activity is generally based on local industrial investments and external growth operations throughout the Large Industry business line. The supply of gas to clients of the Large Industry business is contracted for a minimum duration of 15 years. These customer contracts provide a good visibility and guarantee of future income.



## Note 12 – Other intangible assets

### 12.1 GROSS CARRYING AMOUNTS

2014 <i>(in millions of euros)</i>	As of January 1	Additions	Disposals	Foreign exchange differences	Acquisitions related to business combinations	Other movements <sup>(a)</sup>	As of December 31
Internally generated intangible assets	320.1	58.3	(0.1)	2.5		(27.9)	352.9
Other intangible assets	1,161.3	38.5	(7.1)	40.6	14.4	36.0	1,283.7
<b>TOTAL GROSS INTANGIBLE ASSETS</b>	<b>1,481.4</b>	<b>96.8</b>	<b>(7.2)</b>	<b>43.1</b>	<b>14.4</b>	<b>8.1</b>	<b>1,636.6</b>

(a) Other movements primarily include account reclassifications and changes in the scope of consolidation.

2013 <i>(in millions of euros)</i>	As of January 1	Additions	Disposals	Foreign exchange differences	Acquisitions related to business combinations <sup>(a)</sup>	Other movements <sup>(b)</sup>	As of December 31
Internally generated intangible assets	289.2	9.1	(2.9)	(1.0)		25.7	320.1
Other intangible assets	1,156.7	37.0	(24.5)	(25.7)	45.6	(27.8)	1,161.3
<b>TOTAL GROSS INTANGIBLE ASSETS</b>	<b>1,445.9</b>	<b>46.1</b>	<b>(27.4)</b>	<b>(26.7)</b>	<b>45.6</b>	<b>(2.1)</b>	<b>1,481.4</b>

(a) See note 2.2.

(b) Other movements primarily include account reclassifications and changes in the scope of consolidation.

### 12.2 AMORTIZATION AND IMPAIRMENT LOSSES

2014 <i>(in millions of euros)</i>	As of January 1	Charge for the period	Disposals	Foreign exchange differences	Acquisitions related to business combinations	Other movements <sup>(a)</sup>	As of December 31
Internally generated intangible assets	(226.6)	(13.3)	0.3	0.1		0.3	(239.2)
Other intangible assets	(541.6)	(77.7)	6.2	(15.9)		(3.9)	(632.9)
<b>TOTAL INTANGIBLE ASSET AMORTIZATION</b>	<b>(768.2)</b>	<b>(91.0)</b>	<b>6.5</b>	<b>(15.8)</b>		<b>(3.6)</b>	<b>(872.1)</b>
<b>TOTAL NET INTANGIBLE ASSETS</b>	<b>713.2</b>	<b>5.8</b>	<b>(0.7)</b>	<b>27.3</b>	<b>14.4</b>	<b>4.5</b>	<b>764.5</b>

(a) Other movements primarily include account reclassifications and changes in the scope of consolidation.

2013 (in millions of euros)	As of January 1	Charge for the period	Disposals	Foreign exchange differences	Acquisitions related to business combinations	Other movements <sup>(a)</sup>	As of December 31
Internally generated intangible assets	(212.2)	(17.7)	2.9	0.7		(0.3)	(226.6)
Other intangible assets	(507.2)	(73.6)	24.1	10.4		4.7	(541.6)
<b>TOTAL INTANGIBLE ASSET AMORTIZATION</b>	<b>(719.4)</b>	<b>(91.3)</b>	<b>27.0</b>	<b>11.1</b>		<b>4.4</b>	<b>(768.2)</b>
<b>TOTAL NET INTANGIBLE ASSETS</b>	<b>726.5</b>	<b>(45.2)</b>	<b>(0.4)</b>	<b>(15.6)</b>	<b>45.6</b>	<b>2.3</b>	<b>713.2</b>

(a) Other movements primarily include account reclassifications and changes in the scope of consolidation.

As of December 31, 2014, the Group had no material commitment to acquire intangible assets and was not subject to any restrictions over the use of existing intangible assets.

## Note 13 – Property, plant and equipment

### 13.1 GROSS CARRYING AMOUNTS

2014 (in millions of euros)	As of January 1	Additions	Disposals	Foreign exchange differences	Acquisitions related to business combinations	Other movements <sup>(a)</sup>	As of December 31
Land	281.0		(7.0)	7.1	(0.2)	5.0	285.9
Buildings	1,355.4	28.7	(50.9)	50.5	(3.2)	54.5	1,435.0
Equipment, cylinders, installations	24,106.8	413.5	(385.4)	1,077.5	29.0	1,418.5	26,659.9
<b>TOTAL PROPERTY, PLANT AND EQUIPMENT IN SERVICE</b>	<b>25,743.2</b>	<b>442.2</b>	<b>(443.3)</b>	<b>1,135.1</b>	<b>25.6</b>	<b>1,478.0</b>	<b>28,380.8</b>
Construction in progress	2,650.9	1,371.9		157.8		(1,410.1)	2,770.5
<b>TOTAL PROPERTY, PLANT AND EQUIPMENT</b>	<b>28,394.1</b>	<b>1,814.1</b>	<b>(443.3)</b>	<b>1,292.9</b>	<b>25.6</b>	<b>67.9</b>	<b>31,151.3</b>

(a) Other movements primarily include account reclassifications and changes in the scope of consolidation.

2013 (in millions of euros)	As of January 1	Additions	Disposals	Foreign exchange differences	Acquisitions related to business combinations <sup>(a)</sup>	Other movements <sup>(b)</sup>	As of December 31
Land	308.2	1.2	(2.1)	(31.6)	1.4	3.9	281.0
Buildings	1,355.6	31.6	(11.2)	(82.1)	30.1	31.4	1,355.4
Equipment, cylinders, installations	24,211.5	832.5	(345.7)	(1,287.9)	52.5	643.9	24,106.8
<b>TOTAL PROPERTY, PLANT AND EQUIPMENT IN SERVICE</b>	<b>25,875.3</b>	<b>865.3</b>	<b>(359.0)</b>	<b>(1,401.6)</b>	<b>84.0</b>	<b>679.2</b>	<b>25,743.2</b>
Construction in progress	2,133.1	1,313.7		(159.9)	23.8	(659.8)	2,650.9
<b>TOTAL PROPERTY, PLANT AND EQUIPMENT</b>	<b>28,008.4</b>	<b>2,179.0</b>	<b>(359.0)</b>	<b>(1,561.5)</b>	<b>107.8</b>	<b>19.4</b>	<b>28,394.1</b>

(a) See note 2.2.

(b) Other movements primarily include account reclassifications and changes in the scope of consolidation.

Purchases of property, plant and equipment and intangible assets presented in the consolidated statement of cash flows relate to the increase in property, plant and equipment and intangible assets adjusted for the change in the fixed asset suppliers' balance in the fiscal year.

## 13.2 DEPRECIATION AND IMPAIRMENT LOSSES

2014 (in millions of euros)	As of January 1	Charge for the period	Impairment losses	Impairment losses removed	Disposals	Foreign exchange differences	Acquisitions related to business combinations	Other movements <sup>(a)</sup>	As of December 31
Buildings	(822.5)	(46.3)			30.3	(24.1)		1.5	(861.1)
Equipment, cylinders, installations	(14,345.9)	(1,113.3)	(1.3)	0.8	352.8	(615.7)		(13.6)	(15,736.2)
<b>TOTAL PROPERTY, PLANT AND EQUIPMENT DEPRECIATION</b>	<b>(15,168.4)</b>	<b>(1,159.6)</b>	<b>(1.3)</b>	<b>0.8</b>	<b>383.1</b>	<b>(639.8)</b>		<b>(12.1)</b>	<b>(16,597.3)</b>
<b>TOTAL PROPERTY, PLANT AND EQUIPMENT, NET</b>	<b>13,225.7</b>	<b>654.5</b>	<b>(1.3)</b>	<b>0.8</b>	<b>(60.2)</b>	<b>653.1</b>	<b>25.6</b>	<b>55.8</b>	<b>14,554.0</b>

(a) Other movements primarily include changes in the scope of consolidation.

2013 (in millions of euros)	As of January 1	Charge for the period	Impairment losses	Impairment losses removed	Disposals	Foreign exchange differences	Acquisitions related to business combinations	Other movements <sup>(a)</sup>	As of December 31
Buildings	(837.0)	(44.2)			8.3	53.2		(2.8)	(822.5)
Equipment, cylinders, installations	(14,386.7)	(1,115.4)	(2.7)	0.2	316.0	806.5		36.2	(14,345.9)
<b>TOTAL PROPERTY, PLANT AND EQUIPMENT DEPRECIATION</b>	<b>(15,223.7)</b>	<b>(1,159.6)</b>	<b>(2.7)</b>	<b>0.2</b>	<b>324.3</b>	<b>859.7</b>		<b>33.4</b>	<b>(15,168.4)</b>
<b>TOTAL PROPERTY, PLANT AND EQUIPMENT, NET</b>	<b>12,784.7</b>	<b>1,019.4</b>	<b>(2.7)</b>	<b>0.2</b>	<b>(34.7)</b>	<b>(701.8)</b>	<b>107.8</b>	<b>52.8</b>	<b>13,225.7</b>

(a) Other movements primarily include changes in the scope of consolidation.

The charge for the period corresponds to the increase in depreciation, net of the investment grants released to the income statement.

## 13.3 FINANCE LEASES

Air Liquide enters into lease agreements for the use of some industrial assets. Some of these agreements meet in substance the definition of a finance lease.

These agreements mainly relate to office or industrial buildings, vehicle trailers and other industrial equipment as well as information technology hardware.

The present value of minimum lease payments for leased assets is recorded in the balance sheet under "Property, plant and equipment". The breakdown is as follows:

(in millions of euros)	2013		2014	
	Minimum lease payments	Present value of minimum lease payments	Minimum lease payments	Present value of minimum lease payments
Less than 1 year	6	6	6	6
1 to 5 years	15	12	19	16
More than 5 years	4	3	6	3
<b>Total minimum lease payments</b>	<b>25</b>	<b>21</b>	<b>31</b>	<b>25</b>
Less impact of discounting (finance charge)	(4)		(6)	
<b>Present value of minimum lease payments</b>	<b>21</b>		<b>25</b>	

## Note 14 – Non-current financial assets

<i>(in millions of euros)</i>	2013	2014
Available-for-sale financial assets	73.3	164.6
Loans	55.7	45.8
Other long-term receivables	301.6	235.1
Employee benefits – prepaid expenses	4.9	1.5
<b>NON-CURRENT FINANCIAL ASSETS</b>	<b>435.5</b>	<b>447.0</b>

As of December 31, 2013, other long-term receivables comprised the receivable related to the equalization charge refund claim paid for the 2000 to 2004 period in the amount of 71.7 million euros before interest on arrears which amounted to 33.4 million euros. In connection with the litigation concerning the reimbursement of the receivable, the Administrative Court of Montreuil partially

sided with Air Liquide on July 21, 2014. Following the court order, L'Air Liquide S.A. received 30.3 million euros in principal and 15.0 million euros in interest on arrears. As of December 31, 2014, the receivable stood at 62.7 million euros. On September 19, 2014, the company appealed the order of the Administrative Court of Montreuil regarding the recovery of the balance.

## Note 15 – Investments in associates

### 15.1 FINANCIAL INFORMATION RELATED TO JOINT VENTURES AND ASSOCIATES

<b>Group share of associates and joint ventures as of December 31, 2014</b> <i>(in millions of euros)</i>	Share of profit for the period	Share of equity <sup>(a)</sup>	Share of net income and gains and losses recognized directly in equity <sup>(b)</sup>
Joint ventures	8.0	68.8	6.0
Associates	(4.0)	31.6	15.1
<b>TOTAL</b>	<b>4.0</b>	<b>100.4</b>	<b>21.1</b>

(a) Including goodwill relating to associates and joint ventures.

(b) The share of net income and gains and losses recognized directly in equity primarily comprises the translation reserves.

<b>Group share of associates and joint ventures as of December 31, 2013</b> <i>(in millions of euros)</i>	Share of profit for the period	Share of equity <sup>(a)</sup>	Share of net income and gains and losses recognized directly in equity <sup>(b)</sup>
Joint ventures	5.1	47.1	(2.8)
Associates	9.4	154.6	(7.2)
<b>TOTAL</b>	<b>14.5</b>	<b>201.7</b>	<b>(10.0)</b>

(a) Including goodwill relating to associates and joint ventures.

(b) The share of net income and gains and losses recognized directly in equity primarily comprises the translation reserves.

### 15.2 MOVEMENTS DURING THE YEAR

<i>(in millions of euros)</i>	As of January 1	Share of profit for the period	Dividend distribution	Foreign exchange differences	Other movements <sup>(a)</sup>	As of December 31
2013	221.7	14.5	(26.7)	(10.0)	2.2	201.7
<b>2014</b>	<b>201.7</b>	<b>4.0</b>	<b>(9.1)</b>	<b>21.1</b>	<b>(117.3)</b>	<b>100.4</b>

(a) Other movements primarily include the disposal of the investment in Daesung Industrial Gases Co., Ltd (South Korea). The Group recognized a disposal gain of 2.3 million euros, calculated according to IAS28, section 22 and presented in "Gain on the disposals of assets and financial investments" (see note 6).

## Note 16 – Deferred taxes

Movements in deferred tax assets and liabilities during the period were as follows:

### 16.1 DEFERRED TAX ASSETS

<i>(in millions of euros)</i>	2013	2014
<b>AS OF JANUARY 1</b>	<b>372.8</b>	<b>301.7</b>
Income (charge) to the income statement	(63.2)	(102.7)
Income (charge) to equity for the period <sup>(a)</sup>	(15.1)	42.4
Acquisitions/Disposals	(2.0)	(2.2)
Foreign exchange differences	(5.5)	2.4
Others <sup>(b)</sup>	14.7	3.9
<b>AS OF DECEMBER 31</b>	<b>301.7</b>	<b>245.5</b>

(a) Relates to deferred taxes recognized in other items in the statement of net income and gains and losses recognized directly in equity: 5.4 million euros relate to changes in the fair value of derivatives and 37.0 million euros relate to actuarial gains and losses. In 2013, the respective effects amounted to -5.2 million euros relating to changes in the fair value of derivatives and -9.9 million euros relating to actuarial gains and losses.

(b) Other movements result from reclassifications between current and deferred taxes.

### 16.2 DEFERRED TAX LIABILITIES

<i>(in millions of euros)</i>	2013	2014
<b>AS OF JANUARY 1</b>	<b>1,132.6</b>	<b>1,196.3</b>
Charge (income) to the income statement	44.7	(17.6)
Charge (income) to equity for the period <sup>(a)</sup>	60.7	(64.4)
Acquisitions/Disposals	19.7	2.5
Foreign exchange differences	(57.1)	77.4
Others <sup>(b)</sup>	(4.3)	(6.5)
<b>AS OF DECEMBER 31</b>	<b>1,196.3</b>	<b>1,187.7</b>

(a) Relates to deferred taxes recognized in other items in the statement of net income and gains and losses recognized directly in equity: 8.7 million euros relate to changes in the fair value of derivatives and -73.0 million euros relate to actuarial gains and losses. In 2013, the respective effects amounted to 10.7 million euros relating to changes in the fair value of derivatives and 50.0 million euros relating to actuarial gains and losses.

(b) Other movements result from reclassifications between current and deferred taxes.

As of December 31, 2014, unrecognized deferred tax assets amounted to 35.8 million euros (38.1 million euros as of December 31, 2013).

Deferred taxes are mainly due to temporary differences between the tax and economic depreciation of assets, the carryforward of tax losses and provisions not immediately deductible for tax purposes such as employee benefit provisions.

## Note 17 – Inventories

<i>(in millions of euros)</i>	2013	2014
Raw materials and supplies	246.9	249.2
Finished and semi-finished goods	478.1	567.0
Work-in-progress	67.3	60.0
<b>NET INVENTORIES</b>	<b>792.3</b>	<b>876.2</b>

<i>(in millions of euros)</i>	2013	2014
Write-down of inventories	(16.5)	(15.7)
Reversals of write-down	15.9	18.4
<b>NET WRITE-DOWN RECOGNIZED IN THE INCOME STATEMENT</b>	<b>(0.6)</b>	<b>2.7</b>

## Note 18 – Trade receivables

<i>(in millions of euros)</i>	2013	2014
Trade and other operating receivables	2,829.9	3,031.2
Allowance for doubtful receivables	(138.8)	(151.4)
<b>TRADE RECEIVABLES</b>	<b>2,691.1</b>	<b>2,879.8</b>

For all Engineering & Technology contracts in progress at the year-end, the gross amounts payable from and to customers represent the sum of costs incurred plus profits recognized using the percentage of completion method, equivalent to total revenue recorded using the percentage of completion method, less the amount of advances received.

Trade and other operating receivables include gross amounts from Engineering & Technology customers of 223.7 million euros (203.1 million euros as of December 31, 2013).

Amounts due to customers are presented in other current liabilities (see note 26).

As of December 31, 2014, cumulative revenue recognized using the percentage of completion method and advances received amounted to 1,853.6 million euros and 1,783.4 million euros respectively.

As of December 31, 2013, cumulative revenue recognized using the percentage of completion method and advances received amounted to 2,043.5 million euros and 2,055.0 million euros respectively.

### 18.1 BREAKDOWN OF TRADE AND OTHER OPERATING RECEIVABLES

<i>(in millions of euros)</i>	Gross carrying amount	Not yet due	Impaired and overdue	Not impaired and overdue
2013	2,829.9	2,086.5	122.6	620.8
<b>2014</b>	<b>3,031.2</b>	<b>2,255.5</b>	<b>132.4</b>	<b>643.3</b>

Trade receivables overdue and not impaired at the year-end mainly included receivables due within three months (64.5% in 2014, 71.4% in 2013). The decision for not impairing overdue receivable balances arises from a detailed analysis of the associated risks.

Trade receivables overdue by more than three months and not impaired mainly relate to public sector customers in the Healthcare segment whose credit risk is deemed to be low.

## 18.2 ALLOWANCE FOR DOUBTFUL RECEIVABLES

<i>(in millions of euros)</i>	As of January 1	Charges	Reversals	Foreign exchange differences	Other movements	As of December 31
2013	(151.7)	(42.5)	53.3	4.8	(2.7)	(138.8)
<b>2014</b>	<b>(138.8)</b>	<b>(45.6)</b>	<b>34.4</b>	<b>(3.0)</b>	<b>1.6</b>	<b>(151.4)</b>

## Note 19 – Working capital requirement

The Group's working capital requirement presented in the consolidated cash flow statement, decreased by 73.5 million euros, and can be broken down as follows:

- decrease of 55.6 million euros in the working capital requirement of Gas & Services and Other activities;
- decrease of 86.9 million euros in the working capital resources of the Engineering & Technology activity;
- movements in current tax payables and receivables contributing to the decrease for 65.5 million euros.

## Note 20 – Other current assets

<i>(in millions of euros)</i>	2013	2014
Advances and down-payments made	110.9	107.9
Prepaid expenses	85.0	99.2
Other sundry current assets	253.9	261.6
<b>OTHER CURRENT ASSETS</b>	<b>449.8</b>	<b>468.7</b>

## Note 21 – Cash and cash equivalents

<i>(in millions of euros)</i>	2013	2014
Short-term loans	30.5	32.8
Short-term investments	381.0	324.9
Cash in bank	528.6	552.4
<b>CASH AND CASH EQUIVALENTS</b>	<b>940.1</b>	<b>910.1</b>

Short-term investments include temporary cash investments maturing in less than three months (commercial paper, certificates of deposit and money market funds) with banks or counterparties with a minimum long-term rating of A and a minimum short-term rating of A1 (S&P).

As of December 31, 2014, cash and cash equivalents comprised 95 million euros subject to restrictions, mainly in three countries: in China (in particular contractual restrictions as part of the

syndicated credit facility), in Luxembourg (regulatory restrictions relating to the Group's captive reinsurance company) and in Argentina (because of effective currency restrictions).

Furthermore, 20 million euros of cash and cash equivalents are held in countries in which a prerequisite authorization is necessary to transfer funds abroad. These liquidities are at Group's disposal in a reasonable deadline, if preliminary formalities are respected.



## Note 22 – Shareholders' equity

### 22.1 SHARES

#### Number of shares

	2013	2014
<b>NUMBER OF SHARES OUTSTANDING AS OF JANUARY 1</b>	<b>312,281,159</b>	<b>312,831,676</b>
Free share attribution		32,095,812
Capital increase reserved for employees	749,272	
Options exercised during the period	801,245	945,395
Cancelation of treasury shares	(1,000,000)	(1,000,000)
<b>NUMBER OF SHARES AS OF DECEMBER 31</b>	<b>312,831,676</b>	<b>344,872,883</b>

Shares have a par value of 5.50 euros each and are all issued and fully paid-up.

On May 7, 2014, the Board of Directors decided to create 31,234,327 new shares at a par value of 5.50 euros, and ranking for dividends as of January 1, 2014. On June 2, 2014, these shares were freely attributed to shareholders, by capitalization of premiums and reserves, at a rate of one new share for ten existing shares.

In addition, pursuant to article 21 of the articles of association, 861,485 new shares were created at a par value of 5.50 euros, and ranking for dividends as of January 1, 2014. These shares were granted as free shares to shareholders at the parity of one new share for one hundred former shares on June 2, 2014 by capitalizing retained earnings. The shares subject to this additional free share attribution are the shares held in registered form continuously from December 31, 2011 to June 1, 2014 inclusive.

In 2014, a total of 1,193,000 shares were purchased (net of disposals), including 1,199,000 shares before the free share attribution and -6,000 shares after the free share attribution.

### 22.2 TREASURY SHARES

Treasury shares are Air Liquide shares held by the Group, including shares forming part of the liquidity contract in accordance with an Ethics Charter recognized by the French financial markets authority (Autorité des marchés financiers). As of December 31, 2014, the Group held 1,293,164 treasury shares (1,093,367 as of December 31, 2013), including 5,250 treasury shares under a liquidity contract (11,000 as of December 31, 2013). Changes in the number of treasury shares are explained on pages 202 and 203 (in the consolidated statement of changes in equity).

### 22.3 SHARE-BASED PAYMENTS

#### Share subscription option plans

Pursuant to the decisions of the Board of Directors, the Supervisory Board and the Management Board, following the approval by the Annual General Meeting and based on the recommendations of the Remuneration Committee, the Group had adopted share subscription plans for some of the senior executives of the Company and its subsidiaries worldwide, as well as corporate officers.

The purpose of these options is to provide an incentive to key Group executives, by rewarding the loyalty of high-performing executives and their actions in exceptional situations, as well as associating them with the long-term interests of shareholders.

Stock options are granted for a minimum price which cannot be lower than the average closing market price over the 20 trading days preceding the grant date. Options granted between March 21, 2005 and June 28, 2010 inclusive must be exercised within eight years and options granted since October 14, 2011 must be exercised within 10 years.

A four-year vesting period applies for granted stock options.

On September 22, 2014, the Board of Directors consented to grant 868,385 stock options (863 beneficiaries) exercisable between September 22, 2018 and September 21, 2024, at a purchase price of 97.00 euros.

As of December 31, 2014, the number of outstanding share options granted by the Board of Directors, the Supervisory Board, and the Management Board under the plans approved by Annual General Meetings amounted to 5,052,423 options after adjustment (average price of 78.13 euros), or 1.47% of share capital, of which 1,144,218 options (average price of 75.73 euros) were granted to corporate officers present as of December 31, 2014.

Out of the total number of options issued pursuant to the approval by the Annual General Meeting on May 7, 2013, up to 5,260,207 options were retained for possible attribution by the Board of Directors as of December 31, 2014.

### Conditional grant of shares to employees

An additional compensation system involving the Conditional Grant of Shares to Employees (CGSE) was set up in 2008 as a way to reward our best employees and associate their medium-term performance with the Company's objectives.

The 12<sup>th</sup> resolution adopted by the Extraordinary Annual General Meeting held on May 7, 2013 authorizes the Board of Directors to grant free shares to Group employees, up to a maximum of 0.5% of the Company's share capital over a 38-month period. Free shares representing up to 0.15% of the Group's share capital can be attributed to corporate officers over the same period.

Under this authority, the Board of Directors adopted two different regulations on September 22, 2014 ("France" Plan and "World" Plan) governing the conditional grant of Company shares to employee beneficiaries by the Board. The beneficiaries or categories of beneficiaries are designated by the Company's Board of Directors following the application of performance-related criteria.

The "France" and "World" Plans mainly differ as to the number of years of service required and the correlative absence of any holding requirement for the "World" Plan, as described below.

Conditional employee share grants are subject to:

(a) a continued service requirement during the vesting period:

Shares granted to a beneficiary shall only finally vest if he or she has been an employee or corporate officer of a Group

company during a vesting period, calculated as from the grant date, of two years for "France" Plan beneficiaries from 2008 to 2012 inclusive, three years for "France" Plan beneficiaries from 2013 onwards and four years for "World" Plan beneficiaries. In the event of retirement, the beneficiary retains his rights, because he is no longer required to satisfy the continued service requirement;

(b) a performance requirement for all CGSE:

From 2013 onwards, this requirement is identical for both Plans: From now on, this requirement is calculated over a three-year period (previously two years). For further information, please refer to the Conditional Grant of Shares table on page 177;

(c) a holding requirement:

As from the final grant date, the beneficiaries of the "France" Plan are required to hold their shares for two additional years during which such shares may not be transferred (except in the event of disability or death).

The granted shares shall be either shares issued through a capital increase performed by the Company by no later than the definitive vesting date or shares bought back by the Company in the market prior to such date.

To date, conditional shares granted are treasury shares bought back as part of the Company's share buy-back programme.

The granted shares shall be of the same nature and category as those making up the Company's share capital at the date on which the plans are approved by the Board of Directors.

On September 22, 2014, the Board of Directors decided to grant 140,472 conditional shares to employees (1,248 beneficiaries).

### Options granted to the ten employees of the Company and its subsidiaries (excluding corporate officers) who were attributed the highest number of options

In 2014, 212,000 options were granted to the ten employees of the Company and its subsidiaries (excluding corporate officers), who were attributed the highest number of options.

### Options exercised in 2014 by the ten employees of the Company and its subsidiaries (excluding corporate officers) with the highest number of options exercised

Year of grant	Number of options exercised	Average price (in euros) <sup>(a)</sup>
2006	22,587	58.92
2007	56,568	66.53
2008	35,246	65.42
2009	25,454	52.04
2010	23,349	68.26
<b>TOTAL</b>	<b>163,204</b>	<b>63.22</b>

(a) Average prices are impacted by the distribution of the number of options having been raised before or after the free share attribution on June 2, 2014.

## Options exercised in 2013 by the ten employees of the Company and its subsidiaries (excluding corporate officers) with the highest number of options exercised

Year of grant	Number of options exercised	Average price (in euros) <sup>(a)</sup>
2005	9,614	48.39
2006	43,022	58.92
2007	33,092	70.61
2008	14,073	71.31
2009	18,273	55.18
<b>TOTAL</b>	<b>118,074</b>	<b>62.24</b>

(a) Historical data.

## Number of share subscription options and weighted average strike price

	2013		2014	
	Options	Weighted average strike price (in euros)	Options	Weighted average strike price (in euros)
<b>Total number of options outstanding as of January 1</b> <i>(adjusted number and price)</i>	<b>5,243,316</b>	<b>66.31</b>	<b>5,203,391</b>	<b>72.09</b>
Options granted during the period <i>(adjusted number and price)</i>	847,801	92.49	868,385	97.00
Options exercised during the period <i>(adjusted number and price)</i>	826,347	56.79	945,395	63.53
Options canceled during the period <i>(adjusted number and price)</i>	61,379	66.21	73,958	80.52
<b>Total number of options as of December 31</b> <i>(adjusted number and price) <sup>(a)</sup></i>	<b>5,203,391</b>	<b>72.09</b>	<b>5,052,423</b>	<b>78.13</b>
<b>of which total number of options eligible for exercise</b>	<b>2,712,080</b>	<b>59.95</b>	<b>2,605,512</b>	<b>64.57</b>

(a) In 2014, the difference between the number of unexercised options at the end of the period and the number at the beginning of the period (the latter corrected for the movements included in the table) corresponds to options having expired.

The number of share subscription options and the weighted average exercise price in 2013 include the effect of L'Air Liquide S.A. free share attribution which was performed on June 2, 2014.

### Information on the fair value of share subscription options and conditional grants of shares

The Group grants stock options to senior management and certain employees. Employees are also entitled to conditional grants of shares.

#### Share subscription options

In accordance with IFRS2, stock options are measured at fair value at the grant date. The fair value is estimated using the binomial mathematical valuation model.

Valuation is based upon the following main underlying assumptions:

- volatility: implicit;
- risk-free interest rate: six-year zero-coupon benchmark rate at the plan issue date;
- dividend growth rate: based on the historical average annual growth rate;
- employee resignation rate: that of individuals belonging to the same age group as the plan beneficiaries. The resignation rate is used to extrapolate the number of options which will not be exercised due to the resignation of beneficiaries.

	2013 <sup>(d)</sup>		2014	
	Plan 1		Plan 1	
	September 26, 2013		September 22, 2014	
Duration of the option	6 years		6 years	
Fair value of the option (in euros)	18.78 <sup>(a)</sup>	15.81 <sup>(b)</sup>	17.32 <sup>(c)</sup>	14.07 <sup>(b)</sup>

(a) Fair value of options not subject to performance requirements and options subject to performance requirements related to the Group's results.

(b) Fair value of options subject to performance requirements related to the share price trend.

(c) Fair value of options subject to performance requirements related to the Group's results.

(d) Adjusted for the free share attribution which occurred in 2014.

### Conditional grants of shares

Conditional grants of shares are measured at fair value, taking into account a discount on non-transferable shares. The cost of non-transferability is measured as the cost of a two-step strategy consisting in the forward sale of shares being non-transferable for four years (or five years depending on the plan) and the purchase on the spot market of the same number of shares funded by an amortizable loan with an in fine capital repayment.

Valuation is based upon the following main underlying assumptions:

- risk-free interest rate: four-year zero-coupon benchmark rate (or five-year depending on the plan) at the plan issue date plus a credit margin that would be proposed to employees;

- dividend growth rate: based on the historical average annual growth rate;
- employee resignation rate: that of individuals belonging to the same age group as the plan beneficiaries. This resignation rate is used to extrapolate the shares which will not be allocated due to the resignation of beneficiaries;
- the achievement of the Group's performance requirement is not considered as an underlying assumption and was deemed to have been fully achieved at the valuation date.

	2013 <sup>(c)</sup>		2014	
	Plan 1		Plan 1	
	September 26, 2013		September 22, 2014	
Duration of the conditional grant	5 years	4 years	5 years	4 years
Fair value of the conditional grant (in euros)	91.16 <sup>(a)</sup>	87.00 <sup>(b)</sup>	95.81 <sup>(a)</sup>	91.40 <sup>(b)</sup>

(a) Conditional Grant of Shares to Employees to beneficiaries located in France.

(b) Conditional Grant of Shares to Employees to beneficiaries located outside France.

(c) Adjusted for the free share attribution which occurred in 2014.

An expense of 18.1 million euros (excluding taxes) relating to share subscription options and Conditional Grants of Shares to Employees was recognized in the income statement in 2014 (18.7 million euros in 2013). The corresponding entry was recorded in equity.

## Note 23 – Provisions, pensions and other employee benefits

2014 (in millions of euros)	As of January 1	Increase	Utilized	Other reversals	Discounting	Foreign exchange differences	Acquisitions related to business combination	Other movements <sup>(a)</sup>	As of December 31
Pensions and other employee benefits	1,671.1	(118.5)	(126.0)		356.2	15.5		(3.5)	1,794.8
Restructuring plans	94.9	20.3	(60.3)	(3.9)		1.0		(0.8)	51.2
Guarantees and other provisions of Engineering and Technology activity	93.6	54.2	(25.9)	(46.6)		2.5		(4.2)	73.6
Dismantling	170.5		(3.7)	(1.6)	6.5	0.5		16.0	188.2
Other provisions	256.9	145.8	(24.7)	(30.9)		3.5	6.2	(1.7)	355.1
<b>TOTAL PROVISIONS</b>	<b>2,287.0</b>	<b>101.8</b>	<b>(240.6)</b>	<b>(83.0)</b>	<b>362.7</b>	<b>23.0</b>	<b>6.2</b>	<b>5.8</b>	<b>2,462.9</b>

(a) Other movements correspond to account reclassifications, disposals and provisions for dismantling, with no impact on the consolidated cash flow statement.

2013 (in millions of euros)	As of January 1	Increase	Utilized	Other reversals	Discounting	Foreign exchange differences	Acquisitions related to business combination	Other movements <sup>(a)</sup>	As of December 31
Pensions and other employee benefits	1,971.5	6.2	(168.5)		(117.5)	(22.5)	0.9	1.0	1,671.1
Restructuring plans	23.5	83.5	(7.2)	(0.1)		(4.6)		(0.2)	94.9
Guarantees and other provisions of Engineering and Technology activity	123.9	63.6	(49.8)	(39.0)		(1.9)		(3.2)	93.6
Dismantling	178.0		(1.7)	(2.9)	5.8	(11.1)	2.6	(0.2)	170.5
Other provisions	193.2	94.5	(19.5)	(8.1)		(4.0)	3.3	(2.5)	256.9
<b>TOTAL PROVISIONS</b>	<b>2,490.1</b>	<b>247.8</b>	<b>(246.7)</b>	<b>(50.1)</b>	<b>(111.7)</b>	<b>(44.1)</b>	<b>6.8</b>	<b>(5.1)</b>	<b>2,287.0</b>

(a) Other movements correspond to account reclassifications, disposals and provisions for dismantling, with no impact on the consolidated cash flow statement.

In the normal course of its operations, the Group is party to arbitration, judicial or administrative proceedings. The potential costs of such proceedings are provided for, when they are probable, only if the amount can be quantified or estimated within a reasonable range. In the latter case, the amount provided for represents the best estimate of the Group's management. Provisions are determined based on a case-by-case risk assessment and events occurring during ongoing proceedings may result in a risk reappraisal at any time. These litigations are by nature diverse and involve various Group subsidiaries. Contingency provisions recorded with respect to all Group litigations amounted to 163 million euros as of December 31, 2014 (108 million euros as of December 31, 2013) and are presented in "Other provisions".

The Group does not provide the detail of these provisions considering that disclosing the amount provided for each individual litigation could be prejudicial to the Group. Nevertheless, no single litigation is likely to have a material effect on the Group's financial position or its profitability.

On May 26, 2011, Air Liquide Japan Ltd and three other competitors received a fine payment order from the Japanese Fair Trade Commission (JFTC) regarding alleged unfair practices in sales of liquid oxygen, liquid nitrogen and liquid argon (excluding medical use) in Japan between April 2008 and January 2010.

The JFTC required Air Liquide Japan Ltd to take corrective actions and a fine amounting to 4.8 billion Japanese Yen (equivalent to 33 million euros as of December 31, 2014) was paid August 29, 2011. Air Liquide Japan Ltd initiated administrative proceedings following the JFTC's decision. An expense was booked representing the best estimate of the risk related to this dispute.

In 2014, the appeal proceedings were still ongoing and no new development occurred which would likely call into question the amount provided for in 2011.

## Note 24 – Employee benefit obligations

### 24.1 PENSION PLANS

The Group provides its employees with various pension plans, termination benefits, jubilees and other post-employment benefits for both active and retired employees. The characteristics of each plan vary according to the laws and regulations applicable in each country as well as each subsidiary policy.

Employee benefits can be covered by two types of plan:

- defined contribution plans;
- defined benefit plans.

The most significant pension plans relate to France, Germany and the United States.

In France, Air Liquide provides an additional retirement benefit based on the final salary which is paid in addition to other normal pension plans. On December 31, 1995, this plan was closed to employees under age 45 or with less than 20 years of service as of January 1, 1996; the latter being covered by a defined contribution plan. These plans are unfunded. The annual amounts paid with regards to additional benefits cannot exceed a threshold set to 12% of total payroll or 12% of pre-tax profits of companies involved. From 2011 onwards, this 12% threshold will be proportionately reduced by comparing the number of plan beneficiaries for the year to the number of plan beneficiaries for the previous year.

IAS19 "Employee Benefits" provides a very restrictive definition of defined contribution plans; any plans not complying fully with the conditions required are defined benefit plans by default.

This restrictive definition given to defined contribution plans requires Air Liquide to account for these additional benefits as a defined benefit plan in spite of the limited obligations for the Company and the nature of the obligations not being stable and continuous.

The qualification as a defined benefit plan results in the recognition of a provision with regards to the future obligations.

The Company's obligations being limited, the valuation of what will actually be paid to retirees is uncertain. Since the effect of this threshold cannot be measured reliably, the provision recognized represents the actuarial value of the amounts to be paid out to

retirees until the plan is closed, excluding any potential threshold effect. In 2014, this plan was amended: from 2015 onwards, the additional retirement benefit paid by Air Liquide will be aligned with the indexation of French statutory and supplementary pension plans up to a maximum annuity. Any additional annuity will not be subject to any indexation. A revaluation cap and floor were also introduced and the date when thresholds are reduced was postponed to 2017. These thresholds will be proportionately reduced by comparing the number of plan beneficiaries for the year to the number of plan beneficiaries for the previous year. This reduction will be in proportion of the number of beneficiaries of the plan this year over the number of beneficiaries in the previous year. In accordance with IAS19 revised, this amendment was accounted for as past service costs and was consequently recognized in the consolidated income statement in 2014. The decrease of the commitment resulting from the non-revaluation of the annuity above a certain amount was accounted for in "personnel expenses". The effects related to the revaluation cap and floor were accounted for in "other financial expenses".

In Germany, there are two main Air Liquide pension plans.

The first plan provides the retirees of Lurgi (Engineering & Technology activity) with a lifetime annuity, based on the income and length of service vested in the plan at the time of retirement, the normal retirement age being 65. The plan also provides disability and widowhood pensions. This plan is now closed to new entrants, new employees benefiting from a defined contribution plan.

The second plan is an old plan covering employees of the Gas & Services activity. The plan provides a lifetime annuity, based on the average income earned over the employee's career and the length of service vested at the time of retirement, the normal retirement age being 65. The plan also provides disability, pre-retirement and widowhood pensions. It is now closed to new entrants, new employees benefiting from another defined benefit plan. Providing a minimum length of service of ten years, the plan provides a lifetime annuity based on the average income earned over the employee's career and the length of service vested at the time of retirement, the normal retirement age being 65. The plan also provides disability, pre-retirement and widowhood pensions.

In accordance with the common market practice in Germany, limited funding contributions are made to pension funds as both plans are mainly managed internally.

In the United States, Air Liquide grants retirees supplemental benefits in addition to the normal pension plans. The US plan provides a traditional final average pay benefit to those who continue to accrue benefits. A retiring employee may elect to receive their pension benefit as a lump sum or a lifetime annuity. This plan was closed to new participants in 2004, the latter now benefiting from a defined contribution plan. As required under US pension law the plan is managed by a fiduciary committee composed of Company management who are responsible for the governance of the plan. Annual actuarial valuations are performed in accordance with US pension law to determine minimum funding requirements and funded status. Air Liquide has historically made contributions to the plan's trust fund to satisfy the annual minimum funding requirements under US pension law. Excess funding can be used to offset minimum contribution requirements. The plan's assets are invested in a combination of return-seeking (mainly equities) and liability-hedging (mainly long duration fixed income) assets. The current allocation is approximately 60% return-seeking and 40% liability-hedging. The financial strategy consists in gradually shifting to a greater proportion of liability-hedging as funded status improves.

## 24.2 DETERMINATION OF ACTUARIAL ASSUMPTIONS AND METHODS

The Group's benefit obligations are valued by actuaries on a regular basis. Each plan is individually valued in accordance with IFRS.

The actuarial method used is the "projected unit credit method", taking into account each employee's final salary.

In accordance with IAS19 Revised, all actuarial gains and losses as well as any adjustment arising from the asset ceiling are immediately recognized in the period in which they occur.

Actuarial assumptions used (personnel turnover, mortality, retirement age, salary increase, etc.) vary according to the demographic and economic conditions prevailing in each country where the Group has pension plans.

Discount rates used to measure the present value of the Company's obligations and the net interest cost are determined by reference to market yields on High-Quality corporate bonds. Where there is no deep market in such bonds, the market yields on government bonds with the same maturity at the valuation date shall be used. In the Euro zone, the United States, the United Kingdom and Canada, discount rates were determined using tools designed by independent actuaries. Their database uses several hundred different corporate bonds with a minimum AA-rating and maturities ranging from one to 30 years. Cash-flows of expected benefits are subsequently discounted using a single rate equivalent to the weighted average rate associated to each maturity. Finally, the actuarial tool computes a single rate which, when applied to the entirety of the expected cash flows leads to the same present value as previously obtained.



## 24.3 OBLIGATIONS

Group obligations related to pension plans and similar benefits as of December 31, 2014 are shown below:

2014 <i>(in millions of euros)</i>	Defined benefit plans	Retirement termination payments	Other long term benefits	Medical Plans	Total
<b>A. Change in net liabilities</b>					
Net liabilities at the beginning of the period	(1,443.5)	(152.6)	(22.5)	(47.6)	(1,666.2)
(Acquisition) divestiture / transfer	3.0	3.2	(0.2)	(2.6)	3.4
(Expense) income recognized	122.2	(10.6)	(4.3)	(3.2)	104.1
Employer contributions	112.2	8.1	3.1	3.5	126.9
Gains (losses) for the period	(317.2)	(24.4)		(4.7)	(346.3)
Exchange rate movements	(14.9)	0.5	(0.1)	(0.7)	(15.2)
<b>Net liabilities at the end of the period</b>	<b>(1,538.2)</b>	<b>(175.8)</b>	<b>(24.0)</b>	<b>(55.3)</b>	<b>(1,793.3)</b>
<b>B. Expense recorded in 2014</b>					
Service cost	30.0	8.2	1.8	0.8	40.8
Interest expense on the net defined benefit liability	44.6	4.8	0.7	2.0	52.1
Past service cost	(140.3)			0.4	(139.9) <sup>(a)</sup>
Actuarial (gains) losses			1.9		1.9
Curtailment / settlement	(56.5)	(2.4)	(0.1)		(59.0) <sup>(a)</sup>
<b>Expense (income) recognized</b>	<b>(122.2)</b>	<b>10.6</b>	<b>4.3</b>	<b>3.2</b>	<b>(104.1)</b>
<b>C. Change in present value of obligations in 2014</b>					
DBO at the beginning of the period	2,530.0	154.8	23.3	47.6	2,755.7
Acquisition (divestiture) / transfer	(6.2)	(3.7)	0.2	2.7	(7.0)
Service cost	30.0	8.2	1.8	0.8	40.8
Interest cost	86.3	4.9	0.7	2.0	93.9
Employee contributions	3.1				3.1
Plan amendments	(140.3)			0.4	(139.9) <sup>(a)</sup>
Curtailment / settlement	(102.8)	(2.4)	(0.1)		(105.3) <sup>(a)</sup>
Benefit payments	(163.1)	(8.2)	(3.6)	(3.5)	(178.4)
Actuarial (gains) losses	374.1	24.4	1.9	4.7	405.1
Exchange rate movements	101.9		0.1	0.7	102.7
<b>Obligations at the end of the period</b>	<b>2,713.0</b>	<b>178.0</b>	<b>24.3</b>	<b>55.4</b>	<b>2,970.7</b>
<b>D. Change in plan assets in 2014</b>					
Fair value of assets at the beginning of the period	1,086.5	2.2	0.8		1,089.5
Acquisition (divestiture) / transfer	(3.2)	(0.5)		0.1	(3.6)
Actual return on plan assets	98.6	0.1			98.7
Employer contributions	96.3	7.8	2.8	3.5	110.4
Employee contributions	3.1				3.1
Benefit payments	(147.2)	(7.9)	(3.3)	(3.5)	(161.9)
Settlement	(46.3)				(46.3) <sup>(a)</sup>
Exchange rate movements	87.0	0.5			87.5
<b>Fair value of assets at the end of the period</b>	<b>1,174.8</b>	<b>2.2</b>	<b>0.3</b>	<b>0.1</b>	<b>1,177.4</b>
<b>E. Funded status at the end of 2014</b>					
Present value of obligations	(2,713.0)	(178.0)	(24.3)	(55.4)	(2,970.7)
Fair value of plan assets	1,174.8	2.2	0.3	0.1	1,177.4
<b>Net liabilities</b>	<b>(1,538.2)</b>	<b>(175.8)</b>	<b>(24.0)</b>	<b>(55.3)</b>	<b>(1,793.3)</b>
<b>F. Actuarial (gains) and losses recognized directly in equity</b>					
(Gains) and losses at the beginning of the period	669.1	26.7		5.4	701.2
Acquisition (divestiture) / transfer	(4.1)				(4.1)
(Gains) and losses on obligations	374.1	24.4		4.7	403.2
(Gains) and losses on plan assets	(56.9)				(56.9)
Exchange rate movements	38.6	(0.1)		(0.6)	37.9
<b>(Gains) and losses at the end of the period <sup>(b)</sup></b>	<b>1,020.8</b>	<b>51.0</b>		<b>9.5</b>	<b>1,081.3</b>

(a) Settlements, plan amendments and past service costs mainly related to pension plans in France, in the US and in the Netherlands.

(b) Losses (gains), net of tax, recognized in equity, amounted to 724 million euros as of December 31, 2014.

Group obligations related to pension plans and similar benefits as of December 31, 2013 are shown below:

2013 (in millions of euros)	Defined benefit plans	Retirement termination payments	Other long term benefits	Medical Plans	Total
<b>A. Change in net liabilities</b>					
Net liabilities at the beginning of the period	(1,730.4)	(149.3)	(25.2)	(65.4)	(1,970.3)
(Acquisition) divestiture / transfer	(1.3)	2.8		(0.3)	1.2
(Expense) income recognized	(68.4)	(12.0)	(2.0)	16.5	(65.9)
Employer contributions	154.5	6.4	4.3	3.9	169.1
Gains (losses) for the period	182.9	(1.3)		(4.4)	177.2
Exchange rate movements	19.2	0.8	0.4	2.1	22.5
<b>Net liabilities at the end of the period</b>	<b>(1,443.5)</b>	<b>(152.6)</b>	<b>(22.5)</b>	<b>(47.6)</b>	<b>(1,666.2)</b>
<b>B. Expense recorded in 2013</b>					
Service cost	35.6	8.0	1.9	1.1	46.6
Interest expense on the net defined benefit liability	52.1	4.7	0.8	2.1	59.7
Past service cost	(1.9)			(19.7)	(21.6) <sup>(a)</sup>
Actuarial (gains) losses			(0.6)		(0.6)
Curtailement / settlement	(17.4)	(0.7)	(0.1)		(18.2) <sup>(a)</sup>
<b>Expense (income) recognized</b>	<b>68.4</b>	<b>12.0</b>	<b>2.0</b>	<b>(16.5)</b>	<b>65.9</b>
<b>C. Change in present value of obligations in 2013</b>					
DBO at the beginning of the period	2,766.7	151.6	26.8	65.4	3,010.5
Acquisition (divestiture) / transfer	(1.8)	(3.3)		0.3	(4.8)
Service cost	35.6	8.0	1.9	1.1	46.6
Interest cost	85.8	4.8	0.8	2.1	93.5
Employee contributions	3.2				3.2
Plan amendments	(1.9)			(19.7)	(21.6) <sup>(a)</sup>
Curtailement / settlement	(17.4)	(0.7)	(0.1)		(18.2) <sup>(a)</sup>
Benefit payments	(145.7)	(6.6)	(5.1)	(3.9)	(161.3)
Actuarial (gains) losses	(118.1)	1.9	(0.6)	4.4	(112.4)
Exchange rate movements	(76.4)	(0.9)	(0.4)	(2.1)	(79.8)
<b>Obligations at the end of the period</b>	<b>2,530.0</b>	<b>154.8</b>	<b>23.3</b>	<b>47.6</b>	<b>2,755.7</b>
<b>D. Change in plan assets in 2013</b>					
Fair value of assets at the beginning of the period	1,036.3	2.3	1.6		1,040.2
Acquisition (divestiture) / transfer	(3.1)	(0.5)			(3.6)
Actual return on plan assets	98.5	0.7			99.2
Employer contributions	138.5	5.7	3.7	3.9	151.8
Employee contributions	3.2				3.2
Benefit payments	(129.7)	(5.9)	(4.5)	(3.9)	(144.0)
Exchange rate movements	(57.2)	(0.1)			(57.3)
<b>Fair value of assets at the end of the period</b>	<b>1,086.5</b>	<b>2.2</b>	<b>0.8</b>		<b>1,089.5</b>
<b>E. Funded status at the end of 2013</b>					
Present value of obligations	(2,530.0)	(154.8)	(23.3)	(47.6)	(2,755.7)
Fair value of plan assets	1,086.5	2.2	0.8		1,089.5
<b>Net liabilities</b>	<b>(1,443.5)</b>	<b>(152.6)</b>	<b>(22.5)</b>	<b>(47.6)</b>	<b>(1,666.2)</b>
<b>F. Actuarial (gains) and losses recognized directly in equity</b>					
(Gains) and losses at the beginning of the period	875.5	26.8		0.3	902.6
Acquisition (divestiture) / transfer	(1.6)	(1.1)			(2.7)
(Gains) and losses on obligations	(118.1)	1.9		4.4	(111.8)
(Gains) and losses on plan assets	(64.8)	(0.6)			(65.4)
Exchange rate movements	(21.9)	(0.3)		0.7	(21.5)
<b>(Gains) and losses at the end of the period<sup>(b)</sup></b>	<b>669.1</b>	<b>26.7</b>		<b>5.4</b>	<b>701.2</b>

(a) Settlements, plan amendments and past service cost mainly related to pension plans and medical plans in the US and Switzerland.

(b) Losses (gains), net of tax, recognized in equity, amounted to 467 million euros as of December 31, 2013.

The amounts mentioned above can be broken down as follows by geographical area as of December 31, 2014:

<b>2014</b> <i>(in millions of euros)</i>	<b>Obligations</b>	<b>Plan assets</b>	<b>Provisions in the balance sheet</b>
Europe / Africa	(1,983)	395	(1,588)
Americas	(906)	730	(176)
Asia-Pacific	(82)	52	(30)
<b>TOTAL</b>	<b>(2,971)</b>	<b>1,177</b>	<b>(1,794)</b>

The amounts mentioned above can be broken down as follows by geographical area as of December 31, 2013:

<b>2013</b> <i>(in millions of euros)</i>	<b>Obligations</b>	<b>Plan assets</b>	<b>Provisions in the balance sheet</b>
Europe / Africa	(1,933)	396	(1,537)
Americas	(722)	626	(96)
Asia-Pacific	(101)	68	(33)
<b>TOTAL</b>	<b>(2,756)</b>	<b>1,090</b>	<b>(1,666)</b>

## 24.4 MAIN ASSUMPTIONS

The main discount rates used are as follows:

	<b>2013</b>	<b>2014</b>
Euro zone	3.2%	1.8%
Canada	4.9%	4.0%
Japan	1.1%	0.8%
Switzerland	2.0%	1.2%
United States	4.8%	3.9%
United Kingdom	4.4%	3.6%

Differences between expected returns on plan assets and the main discount rates are as follows:

<b>2014</b>	<b>Expected return on assets <sup>(a)</sup></b>	<b>Discount rate 2013</b>	<b>Impact <i>(in bp)</i></b>
Euro zone	4.4%	3.2%	(125)
Canada	6.2%	4.9%	(135)
Japan	3.0%	1.1%	(195)
Switzerland	4.6%	2.0%	(260)
United States	7.2%	4.8%	(240)
United Kingdom	5.8%	4.4%	(140)

(a) The expected return on long-term assets was determined by taking into account, in each country, the asset allocation in the portfolio.

2013	Expected return on assets <sup>(a)</sup>	Discount rate 2012	Impact (in bp)
Euro zone	4.4%	3.2%	(120)
Canada	6.7%	4.3%	(240)
Japan	3.0%	1.3%	(170)
Switzerland	4.2%	1.7%	(250)
United States	8.0%	3.8%	(420)
United Kingdom	6.2%	4.4%	(180)

(a) The expected return on long-term assets was determined by taking into account, in each country, the asset allocation in the portfolio.

## 24.5 BREAKDOWN OF GAINS AND LOSSES FOR THE PERIOD

(in millions of euros)	2013	2014
Experience gains and losses on present value of the obligation	(34)	13
Gains and losses on present value of the defined obligation related to changes in assumptions	146	(412)
Experience gains and losses on fair value of assets	65	57

### Breakdown of experience gains and losses on financial assets

2014 (in millions of euros)	Interest income on financial assets	Actual return on assets	Gains and losses on assets
Europe / Africa	11.7	34.0	22.3
Americas	29.3	60.6	31.3
Asia-Pacific	0.8	4.1	3.3
<b>TOTAL</b>	<b>41.8</b>	<b>98.7</b>	<b>56.9</b>

2013 (in millions of euros)	Interest income on financial assets	Actual return on assets	Gains and losses on assets
Europe / Africa	10.2	31.0	20.8
Americas	22.8	55.1	32.3
Asia-Pacific	0.8	13.1	12.3
<b>TOTAL</b>	<b>33.8</b>	<b>99.2</b>	<b>65.4</b>

## 24.6 PENSION PLAN RISK ANALYSIS

## Sensitivity to movements in discount rates and other variables

The present value of obligations related to defined benefit plans is measured by discounting future cash flows. Discount rates are determined based on Government bonds rates or, when the financial markets are sufficiently liquid, high-quality corporate bond rates, which can vary from one period to another.

Changes in discount rates can materially change the present value of the Group's obligations and the expense recorded in the year.

The amount of obligations is affected to a lesser extent by revised wages and inflation indexes, as well as legal changes regarding retirement age or official mortality tables.

## Impact of a -0.25% decrease in discount rates

	Impact on obligations as of December 31, 2014 <i>(in millions of euros)</i>	% of total obligations as of December 31, 2014
Europe / Africa	68	3.4%
Americas	32	3.5%
Asia-Pacific	2	2.4%
<b>TOTAL</b>	<b>102</b>	<b>3.4%</b>

	Impact on obligations as of December 31, 2013 <i>(in millions of euros)</i>	% of total obligations as of December 31, 2013
Europe / Africa	59	3.1%
Americas	25	3.5%
Asia-Pacific	2	2.0%
<b>TOTAL</b>	<b>86</b>	<b>3.1%</b>

## Impact of a +0.25% increase in discount rates

	Impact on obligations as of December 31, 2014 <i>(in millions of euros)</i>	% of total obligations as of December 31, 2014
Europe / Africa	(67)	-3.4%
Americas	(30)	-3.3%
Asia-Pacific	(2)	-2.3%
<b>TOTAL</b>	<b>(99)</b>	<b>-3.3%</b>

	Impact on obligations as of December 31, 2013 <i>(in millions of euros)</i>	% of total obligations as of December 31, 2013
Europe / Africa	(59)	-3.1%
Americas	(24)	-3.3%
Asia-Pacific	(2)	-1.9%
<b>TOTAL</b>	<b>(85)</b>	<b>-3.1%</b>

### Sensitivity of the value of plan assets to market conditions

For the Group's defined benefit plans subject to funding requirements, the present value of plan assets is primarily dependent on interest rates, the performance of plan assets and amendments to local regulations. Any adverse movement in these variables would require additional Group contributions to the pension funds on a timely basis.

Plan assets consist of shares, bonds and other assets whose value is subject to market fluctuations. A downturn in the financial markets would increase the net liabilities of defined benefit plans. The plans' coverage ratios would decrease accordingly, requiring additional Group contributions on a timely basis.

	Shares		Bonds		Real estate		Cash		Others		Total	
	Amounts	%	Amounts	%	Amounts	%	Amounts	%	Amounts	%	Amounts	%
<b>2014</b>												
Europe / Africa	136	34.4%	152	38.5%	83	21.0%	6	1.5%	18	4.6%	395	100.0%
Americas	265	36.3%	429	58.8%	28	3.8%	5	0.7%	3	0.4%	730	100.0%
Asia-Pacific	21	40.4%	29	55.8%			1	1.9%	1	1.9%	52	100.0%
<b>TOTAL</b>	<b>422</b>		<b>610</b>		<b>111</b>		<b>12</b>		<b>22</b>		<b>1,177</b>	

	Shares		Bonds		Real estate		Cash		Others		Total	
	Amounts	%	Amounts	%	Amounts	%	Amounts	%	Amounts	%	Amounts	%
<b>2013</b>												
Europe / Africa	123	31.1%	142	36.0%	70	17.7%	11	2.8%	49	12.4%	395	100.0%
Americas	252	40.1%	297	47.3%	29	4.6%	3	0.5%	47	7.5%	628	100.0%
Asia-Pacific	27	40.3%	38	56.7%			2	3.0%			67	100.0%
<b>TOTAL</b>	<b>402</b>		<b>477</b>		<b>99</b>		<b>16</b>		<b>96</b>		<b>1,090</b>	

## Note 25 – Borrowings

This note provides information on the breakdown of the Group's borrowings by instrument. For further information on financial instruments and the exposure to foreign exchange and interest rate risks, please refer to note 28.

The Air Liquide Group net indebtedness breaks down as follows:

(in millions of euros)	2013			2014		
	Carrying amount			Carrying amount		
	Non-current	Current	Total	Non-current	Current	Total
Bonds and private placements	4,521.8	595.0	5,116.8	4,985.6	562.4	5,548.0
Commercial paper programs <sup>(a)</sup>	292.0		292.0		375.1	375.1
Bank debt and other financial debt	944.9	588.3	1,533.2	862.0	389.3	1,251.3
Finance leases <sup>(b)</sup>	15.1	5.5	20.6	18.8	5.8	24.6
Put options granted to minority shareholders	43.7		43.7	17.4		17.4
<b>TOTAL BORROWINGS (A)</b>	<b>5,817.5</b>	<b>1,188.8</b>	<b>7,006.3</b>	<b>5,883.8</b>	<b>1,332.6</b>	<b>7,216.4</b>
Loans maturing in less than one year		30.5	30.5		32.8	32.8
Short-term marketable securities		381.0	381.0		324.9	324.9
Cash in bank		528.6	528.6		552.4	552.4
<b>TOTAL CASH AND CASH EQUIVALENTS (B)</b>		<b>940.1</b>	<b>940.1</b>		<b>910.1</b>	<b>910.1</b>
Fair value of derivatives (assets) <sup>(c)</sup>		(4.3)	(4.3)			
<b>TOTAL DERIVATIVE INSTRUMENTS RELATING TO BORROWINGS (C)</b>		<b>(4.3)</b>	<b>(4.3)</b>			
<b>NET INDEBTEDNESS (A) - (B) + (C)</b>	<b>5,817.5</b>	<b>244.4</b>	<b>6,061.9</b>	<b>5,883.8</b>	<b>422.5</b>	<b>6,306.3</b>

(a) As of December 31, 2014, the Group reclassified outstanding commercial paper in current liabilities and ceased to align it with the maturity date of the credit lines used as a guarantee. Consequently, in the table above, the outstanding commercial paper is classified as a current liability as at December 31, 2014. If the reclassification had taken place in 2013, non-current borrowings would have amounted to 5,525.5 million euros, and current borrowings to 1,480.8 million euros.

(b) See note 13.3. Finance leases.

(c) Fair market value of derivative instruments hedging fixed-rate debt.

In accordance with the Group's policy to diversify funding sources, different types of instruments are used to meet the Group's funding requirements (capital markets and bank credit facilities). Long-term bonds and private placements are the primary sources of funding and represent 77% of gross debt as of December 31, 2014. At the end of 2014, outstanding notes under this program amounted to 5.5 billion euros, of which 0.9 billion euros (nominal amount) was issued in 2014 to finance the Group's growth and benefit from attractive market conditions.

Outstanding commercial paper amounted to 375.1 million euros as of December 31, 2014 versus 292.0 million euros as of December 31, 2013. In accordance with the Group's policy, the outstanding commercial paper programs are backed by committed long-term credit lines amounting to 2.6 billion euros as of December 31, 2014.

Gross indebtedness increased by 210.1 million euros following bond issues that exceeded loan repayments.

Bond issues in 2014 were as follows:

- on January 23, 2014, a private placement under the EMTN program for 150 million euros, maturing on January 23, 2026, at a fixed rate of 3%;
- on March 17, 2014, a private placement under the EMTN program for 100 million euros, maturing on March 17, 2029, at a fixed rate of 3%;
- on June 5, 2014, a bond issue under the EMTN program for 500 million euros, maturing on June 5, 2024, at a fixed rate of 1.875%, whose interest rate had been hedged at the end of 2013 (actuarial rate of 2.051%);
- on September 19, 2014, a private placement under the EMTN program for 130 million Swiss francs (equivalent to 108 million euros), maturing on September 19, 2022, at a fixed rate of 0.925%.



These issues were carried out by Air Liquide Finance S.A. and guaranteed by L'Air Liquide S.A..

The carrying amount of borrowings in the balance sheet is as follows:

	2013	2014			
	Carrying amount	Amount issued <sup>(a)</sup>	Amortized cost adjustments <sup>(b)</sup>	Fair value adjustments <sup>(c)</sup>	Carrying amount <sup>(a) + (b) + (c)</sup>
<i>(in millions of euros)</i>					
Air Liquide bonds (employee savings)	88.4	87.1	0.2		87.3
Bonds in the EMTN program	3,752.3	3,712.6	(17.8)		3,694.8
Bonds not in the EMTN program	313.4	347.2	2.6		349.8
Private placements in the EMTN program	451.7	825.8	9.6		835.4
Private placements not in the EMTN program	511.0	576.5	4.2		580.7
<b>TOTAL BONDS AND PRIVATE PLACEMENTS</b>	<b>5,116.8</b>	<b>5,549.2</b>	<b>(1.2)</b>		<b>5,548.0</b>
Commercial paper programs	292.0	379.1	(4.0)		375.1
Bank debt and other financial debt	1,533.2	1,235.2	16.1		1,251.3
Finance leases <sup>(d)</sup>	20.6	24.6			24.6
Put options granted to minority shareholders	43.7	17.4			17.4
<b>LONG-TERM BORROWINGS</b>	<b>7,006.3</b>	<b>7,205.5</b>	<b>10.9</b>		<b>7,216.4</b>

(a) Nominal amount.

(b) Amortized cost including accrued interest.

(c) Remeasurement of the debt in connection with fair value hedging.

(d) See note 13.3. Finance leases.

## 25.1 MATURITY OF BORROWINGS

2014 <i>(in millions of euros)</i>	Nominal amount	Carrying amount	Maturity										
			On demand	<1 year	≥1 year and ≤5 years				>5 years				
					2016	2017	2018	2019	2020	2021	2022	>2022	
Bonds	4,146.9	4,131.9		562.4	445.7	524.4	562.1	259.2		493.2	499.9	332.6	452.4
Private placements	1,402.3	1,416.1			93.1			274.5				108.2	940.3
Commercial paper programs <sup>(a)</sup>	379.1	375.1		375.1									
Bank debt and other financial debt	1,235.2	1,251.3		389.3	278.2	143.9	139.7	105.1		70.3	51.6	48.2	25.0
Finance leases <sup>(b)</sup>	24.6	24.6		5.8	7.8	4.4	2.7	1.2		1.1	1.4	0.2	
Put options granted to minority shareholders	17.4	17.4	17.4										
<b>TOTAL BORROWINGS</b>	<b>7,205.5</b>	<b>7,216.4</b>	<b>17.4</b>	<b>1,332.6</b>	<b>824.8</b>	<b>672.7</b>	<b>704.5</b>	<b>640.0</b>		<b>564.6</b>	<b>552.9</b>	<b>489.2</b>	<b>1,417.7</b>

(a) As of December 31, 2014, the Group reclassified outstanding commercial paper in current liabilities and ceased to align it with the maturity date of the credit lines used as a guarantee.

(b) See note 13.3. Finance leases.

2013 (in millions of euros)	Nominal amount	Carrying amount	On demand	<1 year	Maturity							
					≥1 year and ≤5 years				>5 years			
					2015	2016	2017	2018	2019	2020	2021	>2021
Bonds	4,149.3	4,154.1		595.0	526.1	421.7	525.0	546.1	251.5	488.7	498.8	301.2
Private placements	956.7	962.7				93.4			253.4			615.9
Commercial paper programs <sup>(a)</sup>	303.9	292.0								292.0		
Bank debt and other financial debt	1,517.2	1,533.2		588.3	214.3	237.7	128.5	94.2	75.9	64.3	51.2	78.8
Finance leases <sup>(b)</sup>	20.6	20.6		5.5	3.8	5.4	2.0	1.0	1.0	1.7	0.1	0.1
Put options granted to minority shareholders	43.7	43.7	43.7									
<b>TOTAL BORROWINGS</b>	<b>6,991.4</b>	<b>7,006.3</b>	<b>43.7</b>	<b>1,188.8</b>	<b>744.2</b>	<b>758.2</b>	<b>655.5</b>	<b>641.3</b>	<b>581.8</b>	<b>846.7</b>	<b>550.1</b>	<b>996.0</b>

(a) The maturity date of outstanding commercial paper used to be aligned with the maturity of committed credit lines. If the reclassification had taken place in 2013, the maturity of outstanding commercial paper amounting to 292 million euros would have been less than 1 year instead of 2020.

(b) See note 13.3. Finance leases.

It is the Group policy to spread over time the maturity of long-term debt (bonds, private placements and bank credit facilities) in order to limit the annual refinancing needs.

## 25.2 NET INDEBTEDNESS BY CURRENCY

The Group provides a natural hedge and reduces its exposure to currency fluctuations by raising debt mainly in the currency of the cash flows that are generated to repay the debt. In most of the countries, and especially outside the euro, US dollar and Japanese yen zones, financing is raised in either local or foreign currency (EUR or USD) when sales contracts are indexed in foreign currency. Debt in other foreign currency is mainly denominated in

Chinese renminbi, British pound sterling, Swiss franc, Brazilian real, Taiwanese dollar and South African rand.

As part of intra-group multi-currency financing, the Central Treasury Department converts the debt raised in financial markets into various currencies to refinance subsidiaries in their functional currencies or their cash flow currencies. The breakdown of this hedging portfolio is shown in the table below.

Accordingly, a portion of the euro debt raised was converted (2,566.7 million euros) to other currencies to refinance foreign subsidiaries. Out of the Group's US dollar gross debt amounting to 2,598.5 million euros, 1,121.6 million was raised directly in US dollar and 1,476.9 million euros was raised in euro and converted to US dollars using currency swap contracts.

2014 (in millions of euros)	Gross debt – original issue	Cash and cash equivalents	Currency swaps	Adjusted net indebtedness	Non-current assets
EUR	4,721.5	(550.5)	(2,566.7)	1,604.3	8,102.0
USD	1,121.6	(85.0)	1,476.9	2,513.5	4,885.6
JPY	343.2	(8.5)	358.4	693.1	1,083.6
CNY	616.1	(91.3)	344.5	869.3	2,181.5
Other currencies	414.0	(174.8)	386.9	626.1	5,186.2
<b>TOTAL</b>	<b>7,216.4</b>	<b>(910.1)</b>		<b>6,306.3</b>	<b>21,438.9</b>

2013 (in millions of euros)	Gross debt – original issue	Cash and cash equivalents	Currency swaps	Adjusted net indebtedness	Non-current assets
EUR	4,308.3	(507.5)	(1,903.2)	1,897.6	8,132.1
USD	1,009.8	(145.0)	1,089.9	1,954.7	4,004.7
JPY	517.9	(9.1)	271.5	780.3	1,110.1
CNY	643.9	(73.8)	247.6	817.7	1,904.8
Other currencies	522.1	(204.7)	294.2	611.6	4,938.3
<b>TOTAL</b>	<b>7,002.0</b>	<b>(940.1)</b>		<b>6,061.9</b>	<b>20,090.0</b>

### 25.3 FIXED-RATE PORTION OF GROSS DEBT

(as % of total debt)		2013	2014
EUR debt	Portion of fixed-rate debt	80%	85%
	Additional optional hedges <sup>(a)</sup>	5%	6%
USD debt	Portion of fixed-rate debt	56%	66%
	Additional optional hedges <sup>(a)</sup>		
JPY debt	Portion of fixed-rate debt	84%	90%
	Additional optional hedges <sup>(a)</sup>		
Total debt	Portion of fixed-rate debt	71%	77%
	Additional optional hedges <sup>(a)</sup>	2%	2%

(a) Additional optional hedging instruments consist of inactivated caps allowing a maximum interest rate to be set in advance, while benefiting from short-term interest rate movements, in return for the payment of a premium.

As of December 31, 2014, fixed-rate debt represented 77% of the gross debt. Including all optional hedging instruments up to the total amount of gross debt in each currency, the average debt hedging ratio (fixed-rate + hedging options) was 79%.

The hedging fixed-rate of the debt denominated in euro increased, including optional hedging instruments; in fact, the set-up of several currencies and interest rate swaps (fixed-rate euro/ fixed-rate currencies) to hedge intra-group loans to subsidiaries

is balanced by the maturing of a floating-rate hedge and the increase of euro bonds' issues at fixed-rate.

The hedging fixed-rate of the debt denominated in US dollar increased following the issue of new euro/US dollar currency and interest rate swaps, to replace the floating-rate debt.

The hedging fixed-rate of the debt denominated in Japanese yen also increased, following the repayment of a local floating-rate bank loan.

### 25.4 BREAKDOWN OF AVERAGE NET FINANCE COSTS

(in millions of euros)	2013			2014		
	Average outstanding debt	Net interests	Average net finance cost	Average outstanding debt	Net interests	Average net finance cost
EUR	2,063.6	92.3	4.5%	1,924.4	81.8	4.3%
USD	2,035.7	49.5	2.4%	2,352.7	59.5	2.5%
JPY	886.9	14.5	1.6%	742.7	13.8	1.9%
CNY	816.1	50.2	6.2%	846.4	51.7	6.1%
Other currencies	785.6	58.1	7.4%	845.0	62.0	7.3%
Capitalized interests <sup>(a)</sup>		(44.7)			(39.9)	
<b>TOTAL</b>	<b>6,587.9</b>	<b>219.9</b>	<b>4.0%</b>	<b>6,711.2</b>	<b>228.9</b>	<b>4.0%</b>

(a) Excluded from the cost of debt per currency.

The average net finance cost is stable at 4.0% in 2014. This stability arises from the compensation between the higher average debt in developing economies and related interest rates, with the lower bond refinancing costs and the profits generated by centralization.

Financial covenants are associated with three bank debt facilities exceeding 50 million euros:

- a long-term loan used by Air Liquide Far Eastern (Taiwan) with an outstanding amount of 2.6 billion Taiwanese dollars (equivalent to 67.9 million euros) as of December 31, 2014. Financial covenants were all met as of December 31, 2014;
- a long-term loan used by Air Liquide Yenakievo (Ukraine) with an outstanding amount of 81.0 million euros as of December 31, 2014. To cope with the consequences of the political

environment in Ukraine on Air Liquide Yenakievo, an additional clause to the loan agreement was signed in December 2014 between the lending institution and the borrower in order to adjust the loan conditions to the geopolitical context;

- a long-term loan used by Air Liquide Arabia (Saudi Arabia) with an outstanding amount of 227.0 million US dollars (equivalent to 187.0 million euros) as of December 31, 2014. Financial covenants were all met as of December 31, 2014.

Bank credit facilities subject to financial covenants slightly decreased to 11.4% of the Group's gross debt as of December 31, 2014.

Bonds issued by both L'Air Liquide S.A. and Air Liquide Finance S.A., and making up the carrying amount of bonds as of December 31, 2014, include a change of control clause.

## 25.5 PUT OPTIONS GRANTED TO MINORITY SHAREHOLDERS

<i>(in millions of euros)</i>	<b>2013</b>	<b>2014</b>
Put options granted to minority shareholders	43.7	17.4

## 25.6 OTHER INFORMATION

Non-recourse factoring represented 23.6 million euros compared to 33.1 million euros at the end of 2013. These transactions constitute neither a risk nor a financial commitment for the Group.

In addition, as of December 31, 2014, a portion of borrowings was guaranteed by assets valued at 175.9 million euros (158.7 million euros as of December 31, 2013).

# Note 26 – Other liabilities (non-current/current)

## 26.1 OTHER NON-CURRENT LIABILITIES

<i>(in millions of euros)</i>	<b>2013</b>	<b>2014</b>
Investment grants	67.6	64.5
Advances and deposits received from customers	72.4	66.3
Other non-current liabilities	51.0	101.4
<b>TOTAL OTHER NON-CURRENT LIABILITIES</b>	<b>191.0</b>	<b>232.2</b>

## 26.2 OTHER CURRENT LIABILITIES

<i>(in millions of euros)</i>	<b>2013</b>	<b>2014</b>
Advances received	305.0	275.3
Advances and deposits received from customers	96.5	92.3
Other payables	675.3	639.9
Accruals and deferred income	330.9	215.8
<b>TOTAL OTHER CURRENT LIABILITIES</b>	<b>1,407.7</b>	<b>1,223.3</b>

Amounts payable to customers under engineering contracts and amounting to 153,4 million euros are included in other current liabilities as of December 31, 2014 (214.5 million euros in 2013) (See note 18).

## Note 27 – Trade payables

<i>(in millions of euros)</i>	2013	2014
Operating suppliers	1,662.3	1,927.8
Property, plant and equipment and intangible assets suppliers	260.3	255.9
<b>TOTAL TRADE PAYABLES</b>	<b>1,922.6</b>	<b>2,183.7</b>

## Note 28 – Financial instruments

### 28.1 CARRYING AMOUNT AND FAIR VALUE OF FINANCIAL ASSETS AND LIABILITIES

Financial assets or liabilities with a carrying amount differing from their fair value are unhedged fixed-rate borrowings.

<i>(in millions of euros)</i>	2013		2014	
	Carrying amount	Fair value	Carrying amount	Fair value
<b>FINANCIAL LIABILITIES</b>				
Non-current borrowings	5,817.5	6,075.5	5,883.8	6,411.1

The Group's financial instruments are measured at fair value to the extent that available financial market data enables a reliable estimate of their market value assuming the absence of any intentions or needs to liquidate.

Group policy consists in using financial derivatives only when hedging actual financial flows. As a result, the majority of derivative instruments used by the Group benefit from hedge accounting. Derivative instruments that do not benefit from hedge accounting are not used for speculative purposes. In 2014, the decrease in long-term interest rates in euro (and to a lesser extent US dollars and Japanese yen) had a negative impact on the fair value of non-current borrowings, due to the preponderance of fixed-rate debt in Group debt.

### 28.2 FINANCIAL RISK POLICY AND MANAGEMENT

#### a. Financial risk management

Risk management is a priority for the Group. Consequently, the Finance and Operations Control Department defined its governance with regard to the financial decision-making process at two levels:

- **Strategic Finance Committee**, composed of Executive Management members as well as members of the Finance and Operations Control Department, whose purpose is to oversee the correct application of the Group's financial policy,

approve proposals and suggestions submitted to it and review on a regular basis the rules governing the Group's financial policy. The Committee meets at least three times a year and upon request if necessary. It includes the Group Finance and Operations Control Director, the Corporate Finance and M&A Director and the Group Financing and Treasury Director, under the authority of the Chairman and Chief Executive Officer;

- **Operational Finance Committee**, internal to the Finance and Operations Control Department, whose purpose is to make decisions on the Group's day-to-day financial management, submit proposals of structuring operations to the Strategic Finance Committee, and ensure that they are implemented once approved. The Committee meets every four to six weeks. It is composed of the Group Finance and Operations Control Director, the Corporate Finance and M&A Director and the Group Financing and Treasury Director, assisted by a Committee Secretary.

The Finance and Operations Control Department centrally manages the main financial risks, in accordance with decisions from the Strategic Finance Committee to which it reports on a regular basis. The Finance and Operations Control Department also performs country and customer risks analysis associated with investment decisions and attends Investment Committee meetings.

The financial policy adopted by Air Liquide, the purpose of which is to minimize the risks incurred by the Group and its subsidiaries, enabled the Group to ensure sustainable funding sources in 2014. In order to minimize the refinancing risk related to the debt

repayment schedules, the Group diversifies funding sources and spreads maturity dates over several years. In 2014, the Group reclassified outstanding commercial paper in short-term debt and ceased to align it with the maturity date of the credit lines used as a guarantee. Using this new calculation method, the maturity in 2013 would have stood at 5.0 years compared to 5.2 years, as published. In 2014, bond issues allowed to extend the average debt maturity to 5.4 years. As of December 31, 2014, the long-term debt ratio (gross debt maturing in more than one year / total gross debt) represents 82% of the overall Group debt, compared to 83% as published as of December 31, 2013 (ratio would have stood at 79% using the new calculation method).

Interest rate and foreign currency hedging strategies validated by the Operational Finance Committee are set up depending on market opportunities with a concern for optimization, while complying with prudence and risk limitation principles.

The Group also pays a particular attention to its bank and customer counterparty risks by regularly monitoring ratings and the level of risk associated with these counterparties.

## Foreign exchange risk

### Principles

Financial instruments are only used to hedge transaction-based foreign exchange risk. The risk is attached on the one hand to financial cash flows arising from patent royalties, technical support, dividends, intra-group loans and borrowings denominated in foreign currencies and on the other hand to foreign currency commercial cash flows from operating entities. Commercial

cash flows denominated in foreign currencies do not represent significant amounts compared to consolidated revenue.

Foreign exchange risk related to patent royalties, technical support, dividend flows and intra-group loans and borrowings in foreign currencies is hedged by the Central Treasury Department using currency forwards or options with a maximum term of 18 months.

Foreign currency commercial flows from operating units are being hedged either as part of the annual budgetary process for subsidiaries having recurring flows in foreign currencies or at the signing date of a sale or purchase contract for non-recurring flows, as is the case for the Engineering and Technology business line. Around sixty subsidiaries are exposed to foreign exchange risk. These subsidiaries mainly use currency forwards taken out by Air Liquide Finance S.A. (internal counterparty for hedging transactions) except in countries where it is prohibited by local regulations. The majority of these contracts have short maturities (three to twelve months) and market transactions are regulated by master Agreements of the French Banking Federation ("FBF") or by master Agreements of the International Swaps and Derivative Association ("ISDA") for local hedging operations.

When preparing their budget at the year-end, subsidiaries report their foreign exchange risk exposure to the Central Treasury Department in order to hedge the commercial cash flows expected in the following year.

In each case, the Central Treasury Department monitors the adequacy of hedging instruments with the identified risks and performs a full revaluation of all hedging instruments every six months.

### Sensitivity of income statement and balance sheet items to foreign currency fluctuations

The table below sets out the effect of a 1% increase in the foreign exchange rate on the following items:

<i>(in millions of euros)</i>	Revenue	% total Group	Operating income recurring	% total Group	Net profit	% total Group	Equity	% total Group
USD	25.6	0.17%	5.3	0.20%	2.2	0.13%	19.7	0.17%
CNY	12.5	0.08%	2.2	0.08%	0.9	0.05%	13.9	0.12%
JPY	8.7	0.06%	1.1	0.04%	0.4	0.02%	2.9	0.03%
CAD	6.4	0.04%	1.6	0.06%	1.0	0.06%	2.5	0.02%

The foreign currency risk sensitivity analysis shows that a 1% increase in the main four currencies as of December 31, 2014 would result in changes to revenue, operating income recurring, net profit and equity as indicated above.

A 1% decrease in the above currencies as of December 31, 2014, would have the equivalent but opposite effects as those presented above assuming that all other variables remained constant.

### Sensitivity of derivatives and their underlying hedged items to foreign currency fluctuations

The table below shows the effect of a 1% fluctuation in hedging currency exchange rates on the recognition of the foreign exchange derivatives portfolio in the Group's net profit and equity as of December 31, 2014. The sensitivity of net profit and equity primarily reflects the effect of foreign exchange swaps relating to the intra-group financing activity of the subsidiary Air Liquide Finance S.A., and currency forward hedging instruments contracted at head office level.

<i>(in millions of euros)</i>	Foreign exchange risk			
	+1%		-1%	
	P&L impact	Equity impact	P&L impact	Equity impact
Foreign exchange derivatives and their hedged underlying items	0.0	0.2	0.0	(0.5)

### Interest rate risk

#### Principles

Air Liquide centrally manages interest rate risk on the main currencies: euro, US dollar, Chinese renminbi and Japanese yen which represented 90% of the overall net debt at the end of 2014. Regarding other currencies, the Finance and Operations Control Department provides subsidiaries with advice as to the different types of bank loans and/or hedging transactions to enter into according to the characteristics of local financial markets.

The Group policy is to maintain the major portion of total debt at fixed rates and to protect the residual balance using optional hedging instruments. This approach enables the Group to limit the effect of interest rate fluctuations on financial expenses.

Consequently, at the 2014 year-end, 77% of the overall gross debt was fixed-rate debt and an additional 2% benefited from using optional hedging instruments. The fixed-rate/floating-rate breakdown is reviewed on a regular basis by the Strategic

Finance Committee, depending on interest rate fluctuations and the level of Group debt.

#### Sensitivity of floating-rate debt to interest rate fluctuations

The Group net indebtedness exposed to interest rate fluctuations amounted to around 607 million euros as of December 31, 2014 (gross debt adjusted for interest rate hedging instruments and short-term securities) compared to 926 million euros as of December 31, 2013.

The decrease in the portion of net debt exposed to interest rate fluctuations was mainly due to the non-renewal of euro variable-rate hedging instruments.

An increase or decrease in interest rates by 100 basis points ( $\pm 1\%$ ) on all yield curves would have an effect of approximately  $\pm 6$  million euros on the Group's annual financial expenses before tax, assuming outstanding debt remains constant.

### Sensitivity to interest rate fluctuations on derivatives and their underlying hedged items

The table below shows the effect of a 0.5% fluctuation of interest rates in all foreign currencies on the interest rate derivatives portfolio in the Group's net profit and equity, as of December 31, 2014.

<i>(in millions of euros)</i>	Interest rate risk			
	+0.5%		-0.5%	
	P&L impact	Equity impact	P&L impact	Equity impact
Interest rate derivatives and their hedged underlying items	0.0	(53.5)	0.0	55.4

All hedging instruments used for interest rate or foreign exchange risk management purposes relate to identified risks and were set up to comply with the Group's financial policy. The effect on equity primarily stems from the fixed-rate hedging instruments contracted by Air Liquide Finance S.A.

Moreover, to protect the Group against an increase in euro rates until the refinancing of two bond issues in euro (500 million euros) maturing in June 2015, a firm hedge for 250 million euros was set up in May 2014.



## Counterparty risk

Counterparty risks for Air Liquide potentially include customers and bank counterparties.

The Group's subsidiaries serve a very significant number of customers (over 1 million worldwide) located in extremely various markets: chemicals, steel, refining, food, pharmaceuticals, metals, automotive, manufacturing, healthcare, research laboratories, photovoltaic, etc. In 2014, the Group's main customer represents around 2% of revenue, the Group's 10 main customers represent around 13% of sales, and the Group's 50 main customers represent around 28% of sales. The geographical risk is limited by the Group's sustainable coverage in 80 countries on all continents. This diversity reduces customer and market risk.

To better assess its exposure, the Group has implemented procedures to regularly monitor the financial situation of its major customers, as well as a monthly reporting for the Group's 150 main transnational customers in order to monitor the related consolidated risk.

Moreover, customer risk assessment and in particular the quality of the customer's site is an important component of the investment decision process.

Bank counterparty risk relates to the outstanding amounts of deposits, market values of derivatives and to the credit lines contracted with each bank. Pursuant to its financial policy, the Group requires a long-term Standard & Poor's "A" rating or a Moody's "A2" rating from its counterparties to accept commitments on financial instruments. The Group's credit lines are also spread among several banks from various geographical areas to avoid the risk of concentration while complying with the same rating requirements. The Operational Finance Committee

The table below presents the maturities of the bilateral and syndicated credit lines:

<i>(in millions of euros)</i>	2016	2017	2018	2019	Total
Bilateral lines and syndicated credit lines	300.0	370.0	400.0	1,500.0	2,570.0

When the Group makes short-term financial investments other than bank deposits, it systematically favors monetary instruments with a short-term maturity in order to limit the risk of non-liquidity or high volatility.

regularly reviews and approves the list of bank counterparties related to investments and the list of financial instruments. With regards to short-term investments, outstandings are subject to strict limits per counterparty.

IFRS13 Fair value measurement specifies that the valuation of currency, interest rate and commodity hedging instruments must take into account the counterparty credit risk attached to these transactions. Considering the aforementioned counterparty selection criteria, the effect on the periodic valuations, by applying the historical default probabilities method is immaterial.

## Liquidity risk

It is Group financial policy to spread over time the maturity of long-term debt in order to avoid concentration of annual refinancing needs. Liquidity risk is also reduced by the stability of cash flows generated from operations as well as by having confirmed credit lines in place. The financial covenants attached to the current financing arrangements described in note 25.4 do not affect the Group's access to liquidity.

The carrying amount of short-term financing in the form of commercial paper amounted to 375.1 million euros as of December 31, 2014, an increase of 83.1 million euros compared to the end of 2013. The average amount of commercial paper amounted to 605.8 million euros in 2014, down compared to 767.5 million euros in 2013. The Group policy requires that commercial paper in issue be backed by confirmed long-term credit lines. In 2014, this requirement was met, the amount of confirmed credit lines of 2.6 billion euros largely exceeding outstanding commercial paper.

2014 <i>(in millions of euros)</i>	Book value as of December 31, 2014	Cash Flow <1 year		Cash flow ≥1 year and ≤5 years		Cash Flow >5 years	
		Interest	Capital refund	Interest	Capital refund	Interest	Capital refund
<b>Derivative instruments</b>							
<b>Assets</b>							
Fair value of derivatives (assets)	127.4	38.3	293.5	123.9	1,133.6	44.3	1,144.9
<b>Liabilities</b>							
Fair value of derivatives (liabilities)	(170.4)	(71.9)	(304.6)	(231.4)	(1,138.4)	(101.2)	(1,144.9)
<b>SUB-TOTAL DERIVATIVE INSTRUMENTS</b>		<b>(33.6)</b>	<b>(11.1)</b>	<b>(107.5)</b>	<b>(4.8)</b>	<b>(56.9)</b>	
<b>Assets</b>							
Loans and other non-current receivables	280.9				280.9		
Trade receivables	2,879.8		2,802.8		77.0		
Cash and cash equivalents	910.1	0.4	909.7				
<b>SUB-TOTAL ASSETS</b>		<b>0.4</b>	<b>3,712.5</b>		<b>357.9</b>		
<b>Liabilities</b>							
Non-current borrowings	(5,883.8)	(159.6)		(559.9)	(2,817.2)	(332.0)	(3,048.0)
Other non-current liabilities	(232.2)				(232.2)		
Trade and other payables	(2,183.7)		(2,155.5)		(28.2)		
Current borrowings <sup>(a)</sup>	(1,332.6)	(31.2)	(1,354.4)				
<b>SUB-TOTAL LIABILITIES</b>		<b>(190.8)</b>	<b>(3,509.9)</b>	<b>(559.9)</b>	<b>(3,077.6)</b>	<b>(332.0)</b>	<b>(3,048.0)</b>

(a) Current borrowings include outstanding commercial paper.

2013 <i>(in millions of euros)</i>	Book value as of December 31, 2013	Cash Flow <1 year		Cash flow ≥1 year and ≤5 years		Cash Flow >5 years	
		Interest	Capital refund	Interest	Capital refund	Interest	Capital refund
<b>Derivative instruments</b>							
<b>Assets</b>							
Fair value of derivatives (assets)	163.0	45.8	97.0	107.3	679.8	38.0	628.3
<b>Liabilities</b>							
Fair value of derivatives (liabilities)	(38.8)	(59.7)	(74.1)	(163.7)	(679.0)	(50.4)	(628.3)
<b>SUB-TOTAL DERIVATIVE INSTRUMENTS</b>		<b>(13.9)</b>	<b>22.9</b>	<b>(56.4)</b>	<b>0.8</b>	<b>(12.4)</b>	
<b>Assets</b>							
Loans and other non-current receivables	357.3				357.3		
Trade receivables	2,691.1		2,621.3		69.8		
Cash and cash equivalents	940.1	0.2	939.9				
<b>SUB-TOTAL ASSETS</b>		<b>0.2</b>	<b>3,561.2</b>		<b>427.1</b>		
<b>Liabilities</b>							
Non-current borrowings <sup>(a)</sup>	(5,817.5)	(151.1)		(521.4)	(2,766.7)	(272.1)	(3,014.7)
Other non-current liabilities	(191.0)				(191.0)		
Trade and other payables	(1,922.6)		(1,906.4)		(16.2)		
Current borrowings <sup>(a)</sup>	(1,188.8)	(47.7)	(1,170.5)				
<b>SUB-TOTAL LIABILITIES</b>		<b>(198.8)</b>	<b>(3,076.9)</b>	<b>(521.4)</b>	<b>(2,973.9)</b>	<b>(272.1)</b>	<b>(3,014.7)</b>

(a) Non-current borrowings include outstanding commercial paper. Maturity date of outstanding commercial paper is aligned with the one's of committed credit lines (see note 25.1). If the reclassification had taken place in 2013, non-current borrowings would have amounted to 5,525.5 million euros (of which capital refund over 5 years to 2,710.7 million euros), and current borrowings to 1,480.8 million euros.

The previous tables represent the future cash flows related to the main balance sheet items and to the financial derivatives recognized at the end of the last two periods. Interest flows are calculated in accordance with IFRS7 and represent the interest payable for each relevant period. Interest flows related to floating interest rate or foreign currency instruments were calculated using the closing interest and exchange rates as of December 31, 2013 and 2014. The flows related to debt repayment obligations differ from the amounts recognized in the Group's balance sheet due to the accounting treatment applied to borrowings and the exclusion of hedging instruments.

Outstanding cash and cash equivalents decreased at the end of 2014. The variation between outstanding non-current borrowings and outstanding current borrowings primarily reflects the repayment of short-term debt, especially in Japan, replaced by internal financing with longer maturities. Outstanding non-current borrowings increased. This results from the matching of the bonds' increase, following the 858 million euros bond issues maturing in 8, 10, 12 and 15 years.

2014 <i>(in millions of euros)</i>	Cash flow <1 year			
	<3 months		≥3 months and <1 year	
	Interest	Capital refund	Interest	Capital refund
<b>Derivative instruments</b>				
<b>Assets</b>				
Fair value of derivatives (assets)	0.2	98.2	38.1	195.3
<b>Liabilities</b>				
Fair value of derivatives (liabilities)	(5.0)	(105.6)	(66.9)	(199.0)
<b>SUB-TOTAL DERIVATIVE INSTRUMENTS</b>	<b>(4.8)</b>	<b>(7.4)</b>	<b>(28.8)</b>	<b>(3.7)</b>
<b>Liabilities</b>				
Non-current borrowings	(34.9)		(124.7)	
Trade payables		(1,910.4)		(245.1)
Current borrowings <sup>(a)</sup>	(6.8)	(614.8)	(24.4)	(739.6)
<b>SUB-TOTAL LIABILITIES</b>	<b>(41.7)</b>	<b>(2,525.2)</b>	<b>(149.1)</b>	<b>(984.7)</b>

(a) Current borrowings include outstanding commercial paper.

2013 <i>(in millions of euros)</i>	Cash flow <1 year			
	<3 months		≥3 months and <1 year	
	Interest	Capital refund	Interest	Capital refund
<b>Derivative instruments</b>				
<b>Assets</b>				
Fair value of derivatives (assets)	0.5	24.1	45.3	72.9
<b>Liabilities</b>				
Fair value of derivatives (liabilities)	(6.5)	(10.1)	(53.2)	(64.0)
<b>SUB-TOTAL DERIVATIVE INSTRUMENTS</b>	<b>(6.0)</b>	<b>14.0</b>	<b>(7.9)</b>	<b>8.9</b>
<b>Liabilities</b>				
Non-current borrowings	(28.2)		(122.9)	
Trade payables		(1,740.4)		(166.0)
Current borrowings <sup>(a)</sup>	(8.7)	(277.4)	(39.0)	(893.1)
<b>SUB-TOTAL LIABILITIES</b>	<b>(36.9)</b>	<b>(2,017.8)</b>	<b>(161.9)</b>	<b>(1,059.1)</b>

(a) The maturity date for outstanding commercial paper is the same as that of the confirmed credit lines (see note 25.1). If the reclassification had taken place in 2013, current borrowings would have amounted to 1,480.8 million euros, including 581.4 million euros to be repaid within 3 months.

The tables above represent the future cash flows maturing in less than one year relating to the main balance sheet items and derivative financial instruments. Interest and repayment flows relating to current borrowings maturing in less than three months correspond to bank overdrafts and a portion of short-

term borrowings recorded at the 2014 year-end. Interest and repayment flows relating to current borrowings maturing in more than three months and less than one year include short-term debt and the portion of the Group's long-term debt maturing in less than one year.

## Hierarchy of financial instruments fair value

<i>(in millions of euros)</i>	<b>2013</b>	<b>2014</b>
<b>Level 1</b>	<b>8.0</b>	<b>11.3</b>
Available-for-sale financial assets (listed shares)	8.0	11.3
<b>Level 2</b>	<b>124.2</b>	<b>(43.0)</b>
Derivatives	124.2	(43.0)
<b>Level 3</b>	<b>43.7</b>	<b>17.4</b>
Put options granted to minority shareholders	43.7	17.4

### Commodity risk (energy contracts)

Most of Air Liquide's energy supplies are obtained through forward purchase contracts at a fixed or indexed price.

IAS39 provides for the inclusion within its scope of forward purchases and sales of non-financial assets when these transactions are deemed similar to derivative instruments.

However, IAS39 considers that forward contracts for non-financial assets should not be considered as derivatives when they have been entered into to meet the Company's "normal" business requirements, resulting in the delivery upon maturity of the underlying item for use in the Company's industrial process. As Air Liquide does not purchase electricity or natural gas for speculation or arbitrage on commodity price trend purposes, no forward contracts relating to energy meet the definition of a derivative instrument. These contracts were entered into as part of the Company's normal business to be used in the industrial process.

Furthermore, in a global context of highly volatile electricity and natural gas market prices, Air Liquide continues to index long-term customer contracts to hedge these risks. For natural gas and electricity prices, the opening of some markets led the Group, under these circumstances, to replace the price indices used during the regulated period by indices relevant to each local market.

Nonetheless, a few isolated contracts remain for which price indexation alone cannot guarantee a total and effective hedge against the risk of energy price fluctuations. These risks are therefore hedged by Air Liquide, and specifically Air Liquide Finance S.A., using adequate commodity derivatives, mainly swaps with maturities of less than two years.

The fair value recognition of these derivative instruments had no material impact on Group equity or profits as of December 31, 2014.

## b. Information on derivative instruments

Impact of the fair value recognition of derivative instruments on the balance sheet:

2014 (in millions of euros)	IFRS classification	ASSETS					EQUITY AND LIABILITIES							
		Deferred tax assets	Trade receivables	Fair value of derivatives		Total	Net income recognized in equity	Profit for the period	Deferred tax liabilities	Borrowings	Trade payables	Fair value of derivatives		Total
				Assets – non current	Assets – current							Liabilities – non current	Liabilities – current	
<b>Foreign exchange risk</b>														
Currency forwards hedging future cash flows	CFH <sup>(a)</sup>	2.0		25.5	27.5	(2.3)	(2.3)						32.1	27.5
Currency forwards hedging transactions recorded in the accounts and Cross Currency Swaps	FVH <sup>(b)</sup>		7.2	45.8	22.0	75.0	(0.5)	(75.0)	16.0	103.4	31.1	75.0		
Other derivatives	<sup>(c)</sup>	0.1		4.2	4.3	(0.1)		4.2 <sup>(e)</sup>			0.2	4.3		
Currency embedded derivatives and Cross Currency Swaps	NIH <sup>(d)</sup>	5.6		2.5	0.9	9.0	(9.6)			18.6		9.0		
<b>Interest rate risk</b>														
Interest rate swaps	FVH <sup>(b)</sup>													
Swaps, options and Cross Currency Swaps	CFH <sup>(a)</sup> and NIH <sup>(d)</sup>	(12.3)		20.6	8.3	23.4				(49.0)	33.9	8.3		
Other derivatives	<sup>(c)</sup>						(0.1)				0.1			
<b>Commodity risk (Energy)</b>														
Forwards hedging future cash flows	CFH <sup>(a)</sup>	(2.0)		5.9	3.9	3.9						3.9		
<b>TOTAL</b>		<b>(6.6)</b>	<b>7.2</b>	<b>68.9</b>	<b>58.5</b>	<b>128.0</b>	<b>15.4</b>	<b>(3.0)</b>		<b>(70.8)</b>	<b>16.0</b>	<b>73.0</b>	<b>97.4</b>	<b>128.0</b>

(a) CFH: Cash Flow Hedge.

(b) FVH: Fair Value Hedge.

(c) Derivative instruments not benefiting from hedge accounting.

(d) NIH: Net Investment Hedge.

(e) Financial instrument not recognized as a hedging instrument under IAS39.

2013 (in millions of euros)	IFRS classification	ASSETS					EQUITY AND LIABILITIES								
		Deferred tax assets	Trade receivables	Fair value of derivatives		Total	Net income recognized in equity	Profit for the period	Deferred tax liabilities	Borrowings	Trade payables	Fair value of derivatives		Total	
				Assets – non current	Assets – current							Liabilities – non current	Liabilities – current		
<b>Foreign exchange risk</b>															
Currency forwards hedging future cash flows	CFH <sup>(a)</sup>	2.0			20.6	22.6	12.0	(2.5)	6.2					6.9	22.6
Currency forwards hedging transactions recorded in the accounts and Cross Currency Swaps	FVH <sup>(b)</sup>	26.9	1.4	100.9	1.6	130.8		(0.3)	26.8	101.0	2.0			1.3	130.8
Other derivatives	<sup>(c)</sup>	2.9			8.3	11.2		(0.1)	2.9	8.3 <sup>(e)</sup>		0.1			11.2
Currency embedded derivatives and Cross Currency Swaps	NIH <sup>(d)</sup>	6.6			5.2	13.2	(7.4)		1.6				19.0		13.2
<b>Interest rate risk</b>															
Interest rate swaps	FVH <sup>(b)</sup>				4.3	4.3		0.1		4.2					4.3
Swaps, options and Cross Currency Swaps	CFH <sup>(a)</sup> and NIH <sup>(d)</sup>	3.7			16.3	24.4	3.7	3.0	7.1			10.3		0.3	24.4
Other derivatives	<sup>(c)</sup>							(0.2)						0.2	
<b>Commodity risk (Energy)</b>															
Forwards hedging future cash flows	CFH <sup>(a)</sup>	0.2				0.2	(0.5)							0.7	0.2
<b>TOTAL</b>		<b>42.3</b>	<b>1.4</b>	<b>122.4</b>	<b>40.6</b>	<b>206.7</b>	<b>7.8</b>		<b>44.6</b>	<b>113.5</b>	<b>2.0</b>	<b>29.4</b>		<b>9.4</b>	<b>206.7</b>

(a) CFH: Cash Flow Hedge.

(b) FVH: Fair Value Hedge.

(c) Derivative instruments not benefiting from hedge accounting.

(d) NIH: Net Investment Hedge.

(e) Financial instrument not recognized as a hedging instrument under IAS39.

The Group records the accounting effects arising from the use of derivative financial instruments to hedge highly probable future cash flows as CFH (Cash Flow Hedge). The accounting effects recorded as FVH (Fair Value Hedge) relate to derivative financial instruments used to hedge items that have already been recognized.

The effects recognized as NIH (Net Investment Hedge) correspond to foreign exchange transactions performed by the Group in connection with its dividend hedging policy and hedges of net investments in a foreign entity.



## Interest-rate repricing schedule for fixed-rate debt and interest-rate risk hedging instruments

2014 <i>(in millions of euros)</i>	Currency of issue	Carrying amount	Nominal amount outstanding	Interest rates repricing dates		
				<1 year	≥1 and ≤5 years	>5 years
Original issue – left at fixed rate	EUR	1,710.6	1,710.6	265.1	539.4	906.1
Interest rate swaps hedges	EUR		104.9	50.0	54.9	
Caps hedges	EUR		125.0	50.0	75.0	
Original issue – left at fixed rate	USD	1,691.9	1,691.9	0.6	392.6	1,298.7
Interest rate swaps hedges	USD		33.2	1.2	32.0	
Original issue – left at fixed rate	JPY	631.9	631.9		426.0	205.9

2013 <i>(in millions of euros)</i>	Currency of issue	Carrying amount	Nominal amount outstanding	Interest rates repricing dates		
				<1 year	≥1 and ≤5 years	>5 years
Original issue – left at fixed rate	EUR	1,808.4	1,808.4	240.2	873.3	694.9
Interest rate swaps hedges	EUR		109.9		109.9	
Caps hedges	EUR		125.0		125.0	
Original issue – left at fixed rate	USD	1,131.4	1,131.4		146.1	985.3
Interest rate swaps hedges	USD		34.0		34.0	
Original issue – left at fixed rate	JPY	553.4	553.4	41.6	301.1	210.7
Interest rate swaps hedges	JPY		103.6	103.6		

## 28.3 REGULATION

The purpose of the European Market Infrastructure Regulation (EMIR) covering OTC derivatives is to improve the transparency of OTC (“Over the Counter”) markets and reduce the systemic risk of financial markets following the 2008 crisis. It applies to all derivative transactions carried out by European Union entities (financial and non-financial counterparties) with European Union and non-European Union counterparties.

The main EMIR requirements are as follows:

- central clearing for certain classes of OTC derivatives and certain classifications of market player;
- application of risk mitigation techniques for non-centrally cleared OTC derivatives;

- reporting of all derivative transactions to trade repositories, which will make this information available to the public or regulatory authorities;
- application of organizational, conduct of business and prudential requirements for clearing houses.

Pursuant to this regulation which came into force in August 2012, Air Liquide Finance S.A., the Group’s centralizing entity for financial transactions continues to be classified as a non-financial counterparty (NFC-), since the transactions fell below the clearing thresholds at the 2014 year-end. It is however required to apply risk mitigation measures and report all its derivative transactions to the trade repository as of February 12, 2014, in accordance with the technical standards published by ESMA. The trade repository Depository Trust & Clearing Corporation (DTCC) has been selected by the Group, since it has been centralizing via the same body the mandatory reporting arising from the 2010 Dodd-Frank Act since mid-2013.

## Note 29 – Related party information

### 29.1 TRANSACTIONS WITH COMPANIES INCLUDED IN THE SCOPE OF CONSOLIDATION

The consolidated financial statements include the financial statements of L'Air Liquide S.A. and all the subsidiaries listed on pages 266 to 268. L'Air Liquide S.A. is the ultimate parent company.

Due to the activities and legal organization of the Group, only transactions with executives and associates are considered to

be related party transactions. Transactions performed between these individuals or these companies and Group subsidiaries are not material.

Information related to associates is disclosed in note 15 to the consolidated financial statements.

### 29.2 REMUNERATIONS ALLOCATED TO MEMBERS OF THE BOARD OF DIRECTORS AND MANAGEMENT BODIES

The remuneration of Group executives includes the remuneration allocated to the Board of Directors and the Company's management bodies as compensation for their duties within the entire Group as employees and corporate officers for the respective fiscal years. The Company's management bodies include all the members of Executive Management and the Executive Committee. The amounts expensed in this respect are as follows:

<i>(in thousands of euros)</i>	<b>2013</b>	<b>2014</b>
Short-term benefits	11,882	14,871
Post-employment benefits: pension and health coverage	2,172	2,312
Share-based payments	6,422	5,854
<b>TOTAL</b>	<b>20,476</b>	<b>23,037</b>

#### Short-term benefits

Short-term benefits include fixed remuneration, variable remuneration, benefits in kind and Directors' fees. The entire variable remuneration portion due for any given year is paid the following year after the financial statements have been approved.

The remuneration policy for members of the executive team takes into account market practices. It includes a substantial variable portion depending on the achievement of earnings and individual performance objectives.

#### Post-employment benefits

Post-employment benefits include the contributions paid to external pension funds for members of Executive Management and of the Executive Committee. Retirement commitments for executives and former executives of the Board of Directors amounted to 46,544 thousand euros in 2014 and 44,022 thousand euros in 2013.

## Share-Based payments

Stock options held by members of Executive Management and of the Executive Committee have the following expiry dates and strike prices:

Year	Expiry date	Strike price (in euros)	Number 2013	Number 2014
2006	03/19/14	58.92	3,859	
2007 (May 9)	05/08/15	64.03	173,389	56,034
2008 (July 9)	07/08/16	64.66	244,943	189,265
2009 (June 15)	06/14/17	50.03	301,357	290,214
2010	06/27/18	68.26	364,789	354,443
2011 (October 14)	10/13/21	71.54	376,955	383,038
2012 (May 11)	05/10/22	79.77	7,297	7,297
2012 (September 27)	09/26/22	87.60	354,017	365,493
2013 (September 26)	09/25/23	92.49	402,531	424,594
2014 (September 22)	09/21/24	97.00		395,000

The fair value of options granted in September 2014 and determined according to IFRS2 amounted to:

- 17.32 euros per option for options subject to performance conditions linked to the Group's results (20.71 euros per option in September 2013);
- 14.07 euros per option for options subject to performance conditions linked to the share price trend (17.44 euros per option in September 2013).

These amounts are expensed over the options' vesting period. The amounts that will be recognized in future periods in respect of the granted options totaled 14,662 thousand euros as of December 31, 2014 (14,048 thousand euros as of December 31, 2013).

The 2014 plan options granted to corporate officers and Executive Committee members cannot be exercised unless the Company achieves certain performance conditions.

No options were granted to other Non-executive Directors under these plans.

## Note 30 – Commitments

Commitments are given in the normal course of the Group's business.

(in millions of euros)	2013	2014
Firm purchase orders for fixed assets	915.9	1,439.8
Lease commitments which cannot be terminated	586.0	716.0
Other commitments related to operating activities	283.3	229.9
<b>Commitments relating to operating activities</b>	<b>1,785.2</b>	<b>2,385.7</b>
<b>Commitments relating to financing operations and consolidation scope</b>	<b>74.4</b>	<b>74.0</b>
<b>TOTAL</b>	<b>1,859.6</b>	<b>2,459.7</b>

Air Liquide owns a 13.7% stake in Exeltium S.A.S. amounting to 23.8 million euros.

On March 24, 2010, Exeltium and EDF entered into an industrial partnership agreement under which Exeltium can acquire rights to a portion of EDF's electronuclear production. In consideration, Exeltium and its shareholder clients signed long-term electricity supply contracts. The contract signed by Air Liquide has a 20-year term and can be suspended after 10 years. This contract provides

a long-term view over the price of the electricity to be supplied. This project was approved by the European Commission.

The Group's energy purchase commitments amounted to 2,184 million euros as of December 31, 2014 (1,803 million euros as of December 31, 2013). This amount includes the energy purchase commitments relating to the Exeltium contract.

Almost all of these commitments are covered by mutual commitments received from clients in connection with long-term gas supply contracts.

Confirmed credit lines and the amount of loans guaranteed by assets are shown in note 25.6.

Commitments related to associates amounted to 11.8 million euros as of December 31, 2014.

Future minimum lease payments under non-cancelable operating leases payable as of December 31, 2014 are as follows:

<i>(in millions of euros)</i>	<b>2013</b>	<b>2014</b>
Due within 1 year	150	167
Due in 1 to 5 years	292	318
Due after 5 years	144	231
<b>TOTAL</b>	<b>586</b>	<b>716</b>

## Note 31 – Contingent liabilities

To the best of the Group's knowledge, there is no exceptional event or litigation which has affected in the recent past or which is likely to materially affect its financial situation or profitability.

In September 2010, the Brazilian competition authority (CADE) fined the major industrial gas companies operating in Brazil, including Air Liquide Brazil, for unfair trade practices prior to 2004. Air Liquide Brazil was fined 197.6 million Brazilian reals before interest on arrears amounting to 93.8 million Brazilian reals as of

## Operating leases

Assets used for industrial activities are leased under an operating lease when the acquisition of such assets does not present any economic benefits. The primary assets included are utility vehicles and transport equipment.

The Group has neither contingent rental commitments nor sublease contracts.

December 31, 2014 (equivalent to 61 million euros regarding the fine and 29 million euros regarding interest on arrears).

Air Liquide Brazil strongly contests this decision and has consequently filed an application to annul the fine before the Brasilia Federal Court. In May 2014, the CADE ruling was annulled in first instance by this Court. In September 2014, the CADE filed an appeal against this decision. At this stage, the Group considers it probable that Air Liquide Brazil will prevail and consequently no provision has been recorded.

## Note 32 – Greenhouse gas emission quotas

The ETS (Emission Trading Scheme) European Directive which established a quota system for greenhouse gas emissions in the European Union has entered its third phase (2013-2020), which will feature an expanded scope for industrial plants subject to the ETS and a gradual reduction in the free allocation of quotas.

With phase III, the Group is required to obtain CO<sub>2</sub> quotas for the portion of emissions from hydrogen production sites not covered by free allocations, as well as for all emissions from cogeneration sites. As the Group manages CO<sub>2</sub> quotas solely to cover its industrial needs, they are classified as a commodity and managed

as such. The quotas are therefore valued at acquisition cost and presented in inventories.

The Group recognizes a provision when the year-end quotas covering greenhouse gas emissions are insufficient, based on the best estimate of the outflow of resources required to settle the obligation.

As of December 31, 2014, the amounts recognized in assets and liabilities are immaterial.

## Note 33 – Post-balance sheet events

There were no significant post-balance sheet events.

## Foreign exchange rates and main consolidated companies

### FOREIGN EXCHANGE RATES

#### Main currency rates used

##### Average rates

Euros for 1 currency	2013	2014
USD	0.75	0.75
CNY	0.12	0.12
CAD	0.73	0.68
Yen (1,000)	7.73	7.13

##### Closing rates

Euros for 1 currency	2013	2014
USD	0.73	0.82
CNY	0.12	0.13
CAD	0.68	0.71
Yen (1,000)	6.91	6.89

## MAIN CONSOLIDATED COMPANIES

Companies marked with P are consolidated by proportionate method and those marked with E by the equity method. Other companies are fully consolidated.

The total Group interest is given after the name of each company.

Main consolidated companies	Country	Integration	% interest	Main consolidated companies	Country	Integration	% interest
<b>GAS AND SERVICES</b>							
<b>EUROPE</b>							
Air Liquide Austria GmbH	AUT		100.00%	Pharma Dom (Orkyn') S.A.	FRA		100.00%
L'Air Liquide Belge S.A.	BEL		99.95%	Société d'Exploitation de Produits pour les Industries Chimiques S.A.	FRA		99.98%
Air Liquide Industries Belgium S.A.	BEL		100.00%	VitalAire S.A.	FRA		100.00%
Air Liquide Large Industry S.A.	BEL		100.00%	Air Liquide Ltd	GBR		100.00%
Air Liquide Medical S.A.	BEL		99.95%	Air Liquide (Homecare) Ltd	GBR		100.00%
Air Liquide Bulgaria EOOD	BGR		100.00%	Air Liquide UK Ltd	GBR		100.00%
Carbagas S.A.	CHE		100.00%	Energas Ltd	GBR		100.00%
Air Liquide CZ, s.r.o.	CZE		100.00%	Air Liquide Hellas S.A.G.I.	GRC		99.78%
Air Liquide Deutschland GmbH	DEU		100.00%	Air Liquide Ipari Gaztermelo Kft	HUN		100.00%
Air Liquide Electronics GmbH	DEU		100.00%	Air Liquide Italia S.p.A.	ITA		99.77%
Air Liquide Industriegase GmbH & Co. KG	DEU		100.00%	Air Liquide Italia Service S.r.l.	ITA		99.77%
EVC Dresden-Wilschdorf GmbH & Co. KG <sup>(a)</sup>	DEU		40.00%	Air Liquide Sanità Service S.p.A.	ITA		99.77%
Fabig-Peters Medizintechnik GmbH & Co. KG	DEU		100.00%	Air Liquide Produzione S.r.l.	ITA		99.77%
Schülke & Mayr GmbH	DEU		100.00%	VitalAire Italia S.p.A.	ITA		99.77%
VitalAire GmbH	DEU		100.00%	Air Liquide Luxembourg S.A.	LUX		99.97%
Zweite EVC Dresden-Wilschdorf GmbH & Co. KG	DEU		50.00%	Air Liquide Acetylene B.V.	NLD		100.00%
Air Liquide Danemark A/S	DNK		100.00%	Air Liquide B.V.	NLD		100.00%
Air Liquide España S.A.	ESP		99.89%	Air Liquide Industrie B.V.	NLD		100.00%
Air Liquide Ibérica de Gases S.L.U.	ESP		100.00%	Air Liquide Nederland B.V.	NLD		100.00%
Air Liquide Medicinal S.L.U.	ESP		99.89%	Scott Specialty Gases Netherlands B.V.	NLD		100.00%
Grupo Gasmedí S.L.U.	ESP		100.00%	Air Liquide Norway A.S.	NOR		100.00%
AL Finland Oy.	FIN		100.00%	Air Liquide Katowice Sp.z.o.o.	POL		79.25%
Air Liquide Eastern Europe S.A.	FRA		100.00%	Air Liquide Polska Sp.z.o.o.	POL		100.00%
Air Liquide Electronics Materials S.A.	FRA		100.00%	Air Liquide Medicinal S.A.	PRT		99.85%
Air Liquide Eurotonnage S.A.	FRA		100.00%	Sociedade Portuguesa do Ar Liquido Lda	PRT		99.93%
Air Liquide France Industrie S.A.	FRA		99.99%	Air Liquide Romania S.r.l.	ROM		100.00%
Air Liquide Medical Systems S.A.	FRA		100.00%	Air Liquide OOO	RUS		100.00%
Air Liquide Russie S.A.	FRA		100.00%	Air Liquide Severstal CJSC	RUS		75.00%
Air Liquide Santé (International) S.A.	FRA		100.00%	Air Liquide Slovakia s.r.o.	SVK		100.00%
Air Liquide Santé France S.A.	FRA		100.00%	Air Liquide Gas A.B.	SWE		100.00%
Air Liquide Ukraine S.A.	FRA		100.00%	Nordicinfu Care A.B.	SWE		100.00%
Hélium Services S.A.	FRA		100.00%	Air Liquide Gaz Sanayi Ve Ticaret A.S.	TUR		100.00%
Lavéra Energies S.N.C.	FRA	JO	50.00%				
LVL Médical Groupe S.A.	FRA		100.00%				
				<b>AMERICAS</b>			
				Air Liquide Argentina S.A.	ARG		100.00%
				Air Liquide Brasil Ltda	BRA		100.00%

Main consolidated companies	Country	Integration	% interest
Air Liquide Canada, Inc.	CAN		100.00%
Vitalaire Canada, Inc.	CAN		100.00%
Air Liquide Chile S.A.	CHL		100.00%
Air Liquide Dominicana S.A.S.	DOM		100.00%
Société des Gaz Industriels de la Guadeloupe S.A.	GLP		95.88%
Air Liquide Spatial S.A.	GUY		98.80%
Société Guyanaise de L'Air Liquide S.A.	GUY		97.04%
Air Liquide Mexico, S. de RL de CV	MEX		100.00%
Société Martiniquaise de L'Air Liquide S.A.	MTQ		95.87%
Cryogas de Centroamérica, S.A.	PAN		100.00%
La Oxigena Paraguaya S.A.	PRY		87.89%
Air Liquide Trinidad and Tobago Ltd	TTO		100.00%
Air Liquide Uruguay S.A.	URY		94.34%
Air Liquide America Specialty Gases LLC	USA		100.00%
Air Liquide Electronics U.S. LP	USA		100.00%
Air Liquide Healthcare America Corporation	USA		100.00%
Air Liquide Industrial U.S. LP	USA		100.00%
Air Liquide Large Industries U.S. LP	USA		100.00%
Air Liquide Advanced Materials, Inc.	USA		100.00%

**MIDDLE EAST AND AFRICA**

Air Liquide Afrique S.A.	FRA		100.00%
Air Liquide Angola LDA	AGO		73.99%
Air Liquide Middle East & North Africa FZCO	ARE		100.00%
Pure Helium Gulf FZE	ARE		100.00%
Air Liquide Bénin S.A.	BEN	E	99.98%
Air Liquide Burkina Faso S.A.	BFA		64.88%
Air Liquide Botswana Proprietary Ltd	BWA		99.91%
Air Liquide Côte d'Ivoire S.A.	CIV		72.08%
Air Liquide Cameroun S.A.	CMR		100.00%
Air Liquide Congo S.A.	COG		100.00%
Société d'Installations et de Diffusion de Matériel Technique S.P.A.	DZA	E	100.00%
Air Liquide Alexandria for Medical & Industrial Gases S.A.E.	EGY		100.00%
Air Liquide El Soukhna for Industrial Gases S.A.E.	EGY		100.00%
Air Liquide Misr S.A.E.	EGY		100.00%
Air Liquide Middle East S.A.	FRA		100.00%
Air Liquide Gabon S.A.	GAB		98.57%

Main consolidated companies	Country	Integration	% interest
Air Liquide Ghana Ltd	GHA		100.00%
Shuaiba Oxygen Company K.S.C.C. <sup>(a)</sup>	KWT		49.81%
Société d'Oxygène et d'Acétylène du Liban S.A.L.	LBN	E	49.93%
Air Liquide Maroc S.A.	MAR		74.80%
Air Liquide Madagascar S.A.	MDG		73.73%
Air Liquide Mali S.A.	MLI		99.97%
Air Liquide Namibia Proprietary Ltd	NAM		100.00%
Air Liquide Nigeria Plc	NGA		61.11%
Air Liquide Sohar Industrial Gases LLC	OMN		50.11%
Gasal Q.S.C.	QAT	E	40.00%
Air Liquide Al-Khafrah Industrial Gases LLC	SAU		75.00%
Air Liquide Arabia LLC	SAU		65.00%
Air Liquide Sénégal S.A.	SEN	E	83.60%
Air Liquide Syria LLC	SYR		100.00%
Air Liquide Togo S.A.	TGO	E	70.58%
Air Liquide Tunisie S.A.	TUN		59.17%
Air Liquide Proprietary Ltd	ZAF		99.91%

**ASIA-PACIFIC**

Air Liquide Australia Ltd	AUS		100.00%
Air Liquide Healthcare P/L	AUS		100.00%
Air Liquide W.A. Pty Ltd	AUS		100.00%
Brunei Oxygen Ltd	BRN	E	50.00%
Air Liquide Cangzhou Co., Ltd	CHN		100.00%
Air Liquide China Holding Co., Ltd	CHN		100.00%
Air Liquide Shanghai Co., Ltd	CHN		100.00%
Air Liquide Shanghai International Trading Co. Ltd	CHN		100.00%
Air Liquide Tianjin Co., Ltd	CHN		100.00%
Air Liquide Yongli Tianjin Co., Ltd	CHN		55.00%
Air Liquide Zhangjiagang Industry Gas Co., Ltd	CHN		100.00%
Shanghai Chemical Industry Park Industrial Gases Co., Ltd	CHN	JO	50.00%
Société d'Oxygène et d'Acétylène d'Extrême-Orient S.A.	FRA		100.00%
Celki International Ltd	HKG		100.00%
P.T. Air Liquide Indonesia	IDN		100.00%
Air Liquide India Holding Pvt. Ltd	IND		100.00%
Air Liquide Asia Pacific Co. Ltd	JPN		100.00%
Air Liquide Japan Ltd	JPN		100.00%
Toshiba Nano Analysis K.K.	JPN		51.00%
Vital Air Japan K.K.	JPN		100.00%



Main consolidated companies	Country	Integration	% interest
Air Liquide Korea Co., Ltd	KOR		100.00%
VitalAire Korea Inc.	KOR		100.00%
Air Liquide Malaysia Sdn Bhd	MYS		100.00%
Air Liquide New Zealand Ltd	NZL		100.00%
Air Liquide Philippines Inc.	PHL		100.00%
Air Liquide Réunion S.A.	REU		95.01%
Singapore Oxygen Air Liquide Pte Ltd	SGP		100.00%
Air Liquide Thailand Ltd	THA		100.00%
Air Liquide Electronics Systems Asia Ltd	TWN		100.00%
Air Liquide Far Eastern Ltd	TWN		65.00%
Air Liquide Vietnam Co., Ltd	VNM		100.00%

#### ENGINEERING AND TECHNOLOGY

Air Liquide Global E&C Solutions Canada LP	CAN		100.00%
Air Liquide Global E&C Solutions Hangzhou Co., Ltd.	CHN		100.00%
Air Liquide Global E&C Solutions Germany GmbH	DEU		100.00%
Air Liquide Electronics Systems S.A.	FRA		100.00%
Air Liquide Services S.A.	FRA		100.00%
Air Liquide Advanced Technologies S.A.	FRA		100.00%
Air Liquide Global E&C Solutions France S.A.	FRA		100.00%
Cryolor S.A.	FRA		100.00%

Main consolidated companies	Country	Integration	% interest
GIE Cryospace	FRA		55.00%
JJ-Lurgi Engineering Sdn Bhd	MYS	E	50.00%
Air Liquide Global E&C Solutions Singapore Pte. Ltd	SGP		100.00%
Air Liquide Global E&C Solutions US, Inc.	USA		100.00%
Lurgi, Inc.	USA		100.00%
Air Liquide Engineering Southern Africa Ltd	ZAF	E	100.00%

#### OTHER ACTIVITIES

Oerlikon Schweissttechnik GmbH	DEU		100.00%
Air Liquide Welding France S.A.	FRA		100.00%
Air Liquide Welding S.A.	FRA		100.00%
Aqua Lung International S.A.	FRA		98.36%
La Spirotechnique I.C. S.A.	FRA		98.36%
Fro Air Liquide Welding Italia S.p.A.	ITA		100.00%

#### HOLDING COMPANIES AND R&D ACTIVITIES

Air Liquide Finance S.A.	FRA		100.00%
Air Liquide International S.A.	FRA		100.00%
Air Liquide Participations S.A.	FRA		100.00%
L' Air Liquide S.A.	FRA		100.00%
Orsay-Re S.A.	LUX		100.00%
Air Liquide International Corp.	USA		100.00%
American Air Liquide, Inc.	USA		100.00%
American Air Liquide Holdings, Inc.	USA		100.00%

(a) Consolidation method differs from percentage of shares due to a contractual agreement.

## Remuneration of Statutory Auditors and their network

Fees reported in 2013 and 2014 by the Air Liquide Group for engagements awarded to the Statutory Auditors related to audit services were as follows:

<i>(in thousands of euros)</i>	2014							
	Ernst & Young		Mazars		Others		Total	
Statutory audit, certification, review of individual and consolidated financial statements	5,809	73.2%	4,544	92.8%	714	79.6%	11,067	80.6%
■ Issuer	730		547				1,277	
■ Fully consolidated subsidiaries	5,079		3,997		714		9,790	
Other statutory audit engagements	994	12.5%	141	2.9%	3	0.3%	1,138	8.3%
■ Issuer	243		86				329	
■ Fully consolidated subsidiaries	751		55		3		809	
<b>TOTAL OF AUDIT SERVICES</b>	<b>6,803</b>	<b>85.7%</b>	<b>4,685</b>	<b>95.7%</b>	<b>717</b>	<b>79.9%</b>	<b>12,205</b>	<b>88.9%</b>

<i>(in thousands of euros)</i>	2013							
	Ernst & Young		Mazars		Others		Total	
Statutory audit, certification, review of individual and consolidated financial statements	5,539	75.2%	4,452	89.7%	765	64.8%	10,756	79.6%
■ Issuer	723		549				1,272	
■ Fully consolidated subsidiaries	4,816		3,903		765		9,484	
Other statutory audit engagements	627	8.5%	367	7.4%	4	0.3%	998	7.4%
■ Issuer	245		161				406	
■ Fully consolidated subsidiaries	382		206		4		592	
<b>TOTAL OF AUDIT SERVICES</b>	<b>6,166</b>	<b>83.7%</b>	<b>4,819</b>	<b>97.1%</b>	<b>769</b>	<b>65.1%</b>	<b>11,754</b>	<b>87.0%</b>

## Statutory Auditors' Report on the consolidated financial statements

*This is a free translation into English of the Statutory Auditors' Report on the consolidated financial statements issued in French and it is provided solely for the convenience of English-speaking readers. The Statutory Auditors' Report includes information specifically required by French law in such reports, whether modified or not. This information is presented below the audit opinion on the consolidated financial statements and includes an explanatory paragraph discussing the auditors' assessment of certain significant accounting and auditing matters. These assessments were considered for the purpose of issuing an audit opinion on the consolidated financial statements taken as a whole and not to provide separate assurance on individual account balances, transactions, or disclosures. This report also includes information relating to the specific verification of information given in the Group's Management Report. This report should be read in conjunction with, and construed in accordance with, French law and professional auditing standards applicable in France.*

To the Shareholders,

In compliance with the assignment entrusted to us by your Annual Shareholders' Meeting, we hereby report to you, for the year ended December 31, 2014, on:

- the audit of the accompanying consolidated financial statements of L'Air Liquide;
- the justification of our assessments;
- the specific verification required by French law.

These consolidated financial statements have been approved by the Board of Directors. Our role is to express an opinion on these consolidated financial statements based on our audit.

### I. OPINION ON THE CONSOLIDATED FINANCIAL STATEMENTS

We conducted our audit in accordance with professional standards applicable in France; those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement. An audit involves performing procedures, using sampling techniques or other methods of selection, to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made, as well as the overall presentation of the consolidated financial statements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

In our opinion, the consolidated financial statements present a true and fair view of the assets and liabilities, the financial position of the Group as of December 31, 2014 and of the results of its operations for the year then ended in accordance with International Financial Reporting Standards, as adopted by the European Union.

### II. JUSTIFICATION OF OUR ASSESSMENTS

In accordance with the requirements of article L. 823-9 of the French Commercial Code (Code de commerce) relating to the justification of our assessments, we bring to your attention the following matters:

- goodwill is subject to impairment tests performed in accordance with the principles set out in paragraph 5.f of the consolidated financial statements relating to "Accounting principles". We have reviewed the soundness of the chosen approach and the assumptions used for these impairment tests and we carried out the assessment of the reasonableness of these estimates, and have ensured that the information given in note 11.2 to the consolidated financial statements is appropriate;
- we have reviewed the methodology used to recognize "Provisions, pensions and other employee benefits", as well as the assumptions used for their estimation. We ensured that such provisions were recognized in accordance with the principles set out in paragraphs 11.a and 11.b of the consolidated financial statements relating to "Accounting principles" and that the information given in notes 23 and 24 to the consolidated financial statements is appropriate.

These assessments were made as part of our audit of the consolidated financial statements taken as a whole, and therefore contributed to the opinion we formed which is expressed in the first part of this report.

### III SPECIFIC VERIFICATION

As required by law we have also verified, in accordance with professional standards applicable in France, the information relating to the Group presented in the Directors' Report.

We have no matters to report as to the fair presentation and the consistency of this information with the consolidated financial statements.

Paris-La Défense, March 4, 2015

The Statutory Auditors *French original signed by*

Isabelle Sapet  
Mazars

Daniel Escudeiro

Jean-Yves Jégourel

Ernst & Young et Autres

Pierre-Yves Caër

## ➤ STATUTORY ACCOUNTS OF THE PARENT COMPANY

### Income statement

For the year ended December 31

<i>(in millions of euros)</i>	Notes	2013	2014
Revenue	(1)	232.0	166.6
Royalties and other operating income	(2)	508.0	511.5
<b>Total operating income (I)</b>		<b>740.0</b>	<b>678.1</b>
Purchases		(93.1)	(67.5)
Duties and taxes other than corporate income tax		(26.8)	(31.6)
Personnel expenses		(228.7)	(212.7)
Depreciation, amortization and provision expenses	(4)	(50.5)	(32.0)
Other operating expenses	(3)	(225.1)	(234.3)
<b>Total operating expenses (II)</b>		<b>(624.2)</b>	<b>(578.1)</b>
<b>Net operating profit (loss) (I + II)</b>		<b>115.8</b>	<b>100.0</b>
Financial income from equity affiliates	(5)	994.0	4,916.9
Interests, similar income and expenses	(5)	(132.3)	(121.6)
Other financial income and expenses	(5)	(4.3)	(6.6)
<b>Financial income and expenses (III)</b>		<b>857.4</b>	<b>4,788.7</b>
<b>Net profit / (loss) from ordinary activities before tax (I + II + III)</b>		<b>973.2</b>	<b>4,888.7</b>
<b>Exceptional income and expenses</b>	<b>(6)</b>	<b>100.9</b>	<b>227.9</b>
Statutory employee profit-sharing		(3.3)	(2.7)
Corporate income tax	(7)	(52.9)	(53.1)
<b>NET PROFIT FOR THE YEAR</b>		<b>1,017.9</b>	<b>5,060.8</b>

## Balance sheet

For the year ended December 31

(in millions of euros)	Notes	December 31, 2013	December 31, 2014		
		Net	Gross carrying amounts	Amortization, depreciation and provisions	Net
<b>ASSETS</b>					
Intangible assets	(8)	59.3	246.7	195.5	51.2
Tangible assets	(8)	37.7	100.6	65.4	35.2
Financial assets	(9) & (10)	10,447.6	10,486.6	51.9	10,434.7
<b>TOTAL NON-CURRENT ASSETS</b>		<b>10,544.6</b>	<b>10,833.9</b>	<b>312.8</b>	<b>10,521.1</b>
Inventories and work-in-progress	(10)	28.3	31.0	1.5	29.5
Operating receivables	(10) & (13)	363.9	378.1	38.2	339.9
Current account loans with subsidiaries	(10) & (13)	177.8	450.6		450.6
Short-term financial investments	(11)	64.2	57.0		57.0
Cash		4.1	7.4		7.4
Prepaid expenses		3.2	1.3		1.3
<b>TOTAL CURRENT ASSETS</b>		<b>641.5</b>	<b>925.4</b>	<b>39.7</b>	<b>885.7</b>
Loan issue premiums	(14)	2.3	1.7		1.7
Bond redemption premiums	(14)	26.8	21.2		21.2
Unrealized foreign exchange losses		2.3	0.6		0.6
<b>TOTAL ASSETS</b>		<b>11,217.5</b>	<b>11,782.8</b>	<b>352.5</b>	<b>11,430.3</b>
<b>EQUITY AND LIABILITIES</b>					
Share capital		1,720.6			1,896.8
Additional paid-in capital		81.2			25.7
Revaluation reserve		25.4			25.4
Legal reserve		171.7			172.0
Other reserves		388.5			388.5
Retained earnings		1,315.6			1,360.6
Net profit for the year		1,017.9			5,060.8
Tax-driven provisions		5.8			5.1
<b>TOTAL SHAREHOLDERS' EQUITY</b>	<b>(12)</b>	<b>4,726.7</b>			<b>8,934.9</b>
<b>PROVISIONS</b>	<b>(10)</b>	<b>27.5</b>			<b>27.2</b>
Other bonds	(13)	1,572.9			1,024.3
Bank borrowings	(13)	217.0			352.0
Other borrowings	(13)	1,938.9			87.2
Operating payables	(13)	405.2			374.1
Current account borrowings with subsidiaries	(13)	2,328.5			627.1
Deferred income					0.2
		<b>6,462.5</b>			<b>2,464.9</b>
Unrealized foreign exchange gains		0.8			3.3
<b>TOTAL EQUITY AND LIABILITIES</b>		<b>11,217.5</b>			<b>11,430.3</b>

## Notes to the statutory accounts

### ACCOUNTING POLICIES

#### 1. General principles

The year-end financial statements of L'Air Liquide S.A. have been prepared in accordance with general accounting principles applicable in France and in particular those of the French Chart of Accounts (*Plan Comptable Général*) and the French Commercial Code.

#### 2. Non-current assets

##### A. Intangible assets

Internally generated intangible assets primarily include the development costs of information management systems. They are capitalized only if they generate probable future economic benefits. Internal and external costs corresponding to detailed application design, programming, the performance of tests and the drafting of technical documentation intended for internal or external use are capitalized.

Significant upgrade and improvement costs are added to the initial cost of assets if they specifically meet the capitalization criteria.

Other intangible assets include separately acquired intangible assets such as software, licenses, certain businesses and intellectual property rights and are measured at acquisition cost.

Intangible assets are amortized according to the straight-line method over their estimated useful lives.

##### B. Tangible assets

Land, buildings and equipment are recognized at historical cost. Interim interest expense is not included in the cost.

Where components of a tangible asset have different useful lives, they are accounted for separately and depreciated over their own useful lives.

Depreciation is computed according to the straight-line method over their estimated useful lives as follows:

- buildings: 20 years;
- other equipment: 5 to 15 years.

Land is not depreciated.

##### C. Impairment of intangible and tangible assets

The Company assesses at each closing date whether there is any indication of impairment loss of intangible and tangible assets. If such indications exist, an impairment test is performed to assess

whether the carrying amount of the asset exceeds its present value, which is defined as the greater of its fair value less costs to sell and its value in use.

In assessing value in use, the estimated future cash flows are discounted to their present value as this would be done for an investment decision.

When the present amount of an asset is lower than its net carrying amount, an impairment loss is recognized in the income statement. When the present value exceeds the carrying amount, the previously recognized impairment is reversed to the income statement.

##### D. Equity investments

Equity investments are recognized at their initial amount on the entry date, with the exception of those subject to a revaluation as provided by Law 76-1232 of December 29, 1976. Acquisition costs that are not representative of market value are expensed.

When the carrying amount, determined using the criteria normally adopted for the measurement of equity investments (market multiples method based on the Air Liquide group market valuation, estimated cash flow approach, and net asset value remeasured at fair value), is lower than the gross amount, an impairment loss is recognized for the difference.

##### E. Treasury shares

When the Company purchases its own shares, they are recognized at cost as treasury shares in other long-term investment securities. The gains or losses on disposals of treasury shares contribute to the net profit for the year.

However, shares allocated for the purpose of implementing plans for free grants of shares are reclassified to a "Short-term financial investments – Company treasury shares" caption at the balance sheet value on the date of allotment.

A provision is recorded over the rights vesting period to cover the future charge relating to the remittance of current shares when the performance criteria can be determined with certainty. Conversely, the amount corresponding to the maximum performance level is presented in off-balance sheet commitments.

When the purchase cost of shares is higher than their valuation based on the average share price during the last month of the fiscal year, treasury shares earmarked for cancellation or allocated for the purpose of implementing plans for free grants of shares are not impaired.

### 3. Inventories and work-in-progress

Raw materials, supplies and goods are primarily measured at weighted average cost.

Costs related to construction contracts in progress at the year-end are recognized as work-in-progress.

An impairment loss is recognized for inventories and work-in-progress when the estimated realizable amount is lower than cost.

### 4. Trade receivables and other operating assets

Trade receivables and other operating assets are measured at historical cost.

An impairment loss for doubtful receivables is recognized when it becomes probable that the amount due will not be collected and the loss can be reasonably estimated.

### 5. Foreign currency transactions

Foreign currency transactions are translated at the exchange rate prevailing on the transaction date, with the exception of forward hedging transactions that are translated at the hedging rate.

At year-end, the difference arising from the translation of receivables and payables, not subject to a forward hedge and denominated in a foreign currency, are recognized in suspense accounts in assets and liabilities ("Unrealized foreign currency gains or losses").

When the forecasted date for settlement of hedged transactions is brought forward or deferred, changes in fair value of the hedging instruments (difference between the initial forward price and the adjustment forward price) are recognized in suspense accounts in the balance sheet ("differences offset by foreign exchange hedges") until the hedges are fully settled.

Unrealized foreign exchange losses are subject to a contingency provision.

### 6. Provisions

Provisions are recognized when:

- the Company has a present obligation as a result of a past event;
- it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation;
- a reliable estimate can be made of the amount of the obligation.

A provision for onerous contracts is recognized when the expected benefits from the contract are lower than the cost of meeting the obligations under the contract.

### 7. Financial instruments

Gains or losses relating to financial instruments used in hedging transactions are determined and recognized in line with the recording of income and expenses on the hedged items.

When the financial instruments used do not constitute hedging transactions, the losses resulting from their year-end fair value measurement are recognized in the income statement. Pursuant to the prudence principle, unrealized gains are not recognized in the income statement.

### 8. Post-employment benefits

The Company applies CNC recommendation 2003-R01 related to the recognition and measurement of retirement benefits and similar obligations.

The Company provides its employees with various pension plans, termination benefits, jubilees (awards based on years of service) and other post-employment benefits for both active employees and retirees. These benefits are covered in two ways:

- by so-called defined contribution plans;
- by so-called defined benefit plans.

Defined contribution plans are plans under which the employer's sole obligation is to pay regular contributions. The employer does not grant any guarantee on the future level of benefits paid to the employee or retiree ("means-based obligation"). The annual pension expense is equal to the contribution paid during the fiscal year which relieves the employer from any further obligation.

Defined benefit plans are those by which the employer guarantees the future level of benefits defined in the agreement, most often depending on the employee's salary and seniority ("result-based obligation"). Defined benefit plans can be:

- either financed by contributions to a fund specialized in managing the contributions paid;
- or managed internally.

The Company grants both defined benefit and defined contribution plans.

In the case of defined benefit plans, retirement and similar obligations are measured by independent actuaries, according to the projected unit credit method. The actuarial calculations mainly take into account the following assumptions: salary increases, employee turnover, retirement date, expected salary trends, mortality, inflation and appropriate discount rates.

Actuarial gains and losses exceeding the greater of 10% of the obligations or 10% of the fair value of plan assets at the beginning of the reporting period are amortized over the expected average working lives of the plan participants.



In accordance with the option offered by CRC recommendation 2003-R01, the Company maintained its previous practices: obligations related to retirement termination payments and jubilees are provided whereas retirement obligations related to defined benefit plans are not provided but are disclosed in the notes.

## 9. Revenue recognition

### A. Revenue from the sale of goods and services

Revenue from the sale of goods is recognized when the risks and rewards of ownership have been transferred to the buyer.

Revenue associated with delivery of services is recognized depending on the stage of completion of the transaction at the balance sheet date, when this can be reliably measured.

### B. Engineering and Construction contracts

Revenue from construction contracts, and their related costs and margin are recognized using the completed contract method.

When it is probable that total contract costs will exceed total contract revenue, the expected loss is immediately expensed.

## 10. Tax consolidation

L'Air Liquide S.A. has set up a tax consolidation group with the French subsidiaries in which it holds a direct or indirect interest exceeding 95%, as defined by Article 223-A of the French General Tax Code.

Each company calculates its tax provision as if it was taxed separately. L'Air Liquide S.A., as head of the tax consolidation group, recognizes as an expense the tax corresponding to its own profits and recognizes in a balance sheet current tax account the impact of restatements and eliminations when determining taxable profit as a whole and the tax deferrals of subsidiaries with losses.

## 11. Research and Development expenditures

Development costs shall be recognized as assets if and only if the Company can demonstrate all of the following:

- the project is clearly identified and the related costs are individualized and reliably monitored;
- the technical and industrial feasibility of the project is demonstrated;
- there is a clear intention to complete the project and use or sell the products arising from it;
- it is probable that the project will generate future economic benefits for the Company.

The conditions required by accounting standards for the capitalization of development costs are deemed not to have been met, since the work carried out does not systematically result in the completion of an intangible asset that will be available for use or sale.

As a result, the development costs incurred by the Company in the course of its research and innovation development projects are expensed as incurred.

## ADDITIONAL NOTES ON THE BALANCE SHEET AND INCOME STATEMENT

### 1. Revenue breakdown by geographical area

<i>(in millions of euros)</i>	2013	2014
France	211.6	138.0
Abroad	20.4	28.6
<b>REVENUE</b>	<b>232.0</b>	<b>166.6</b>

By the nature of its activities, the revenue of L'Air Liquide S.A. mainly corresponds to services and pension expenses recharged to its subsidiaries (see note 16.A).

The decrease in revenue mainly results from the partial disposal to Air Liquide IT of the business related to IT services provided to all Air Liquide group subsidiaries.

### 2. Royalties and other operating income

Other operating income mainly includes change in inventories of goods and services, production of assets capitalized, operating subsidies, operating expense reclassifications, as well as operating provision and impairment reversals.

### 3. Other operating expenses

Other operating expenses primarily consist of research and development costs and other external expenses such as subcontracting and maintenance costs, fees, travel expenses, telecommunication costs and rental expenses.

### 4. Depreciation, amortization and provision expenses

Depreciation, amortization and provision expenses break down as follows:

<i>(in millions of euros)</i>	2013	2014
Depreciation and amortization expenses	(25.0)	(16.4)
Provision expenses	(25.5)	(15.6)
<b>DEPRECIATION, AMORTIZATION AND PROVISION EXPENSES</b>	<b>(50.5)</b>	<b>(32.0)</b>

### 5. Financial income and expenses

Financial income from equity affiliates amounts to 4,916.9 million euros in 2014 (994.0 million euros in 2013). In 2014, Air Liquide International made an one-off dividend payment out of reserves for 4,401.8 million euros. In 2013, this company paid an interim dividend for 601.1 million euros.

Interests, similar income and expenses break down as follows:

<i>(in millions of euros)</i>	2013	2014
Revenues from other marketable securities and long-term loans	7.3	6.5
Other interest and similar income	(139.6)	(128.1)
<b>INTERESTS, SIMILAR INCOME AND EXPENSES</b>	<b>(132.3)</b>	<b>(121.6)</b>

Other financial income and expenses break down as follows:

<i>(in millions of euros)</i>	2013	2014
Other financial expenses, impairment and provisions net of reversals	0.4	(7.4)
Foreign exchange gains / losses (net)	(4.7)	0.8
<b>OTHER FINANCIAL INCOME AND EXPENSES</b>	<b>(4.3)</b>	<b>(6.6)</b>

## 6. Exceptional income and expenses

As part of the tax consolidation of L'Air Liquide S.A. and its consolidated French subsidiaries, exceptional income in the amount of 56.9 million euros was booked in 2014 (123.9 million euros in 2013). This income had no impact on the Group's consolidated tax position or the profit or loss of the relevant subsidiaries.

Exceptional income and expenses also include the impact of eliminations related to the tax consolidation regime in the amount of 121.5 million euros in 2014 and 32.6 million euros in 2013.

In 2014, L'Air Liquide S.A. recognized a capital gain on the disposal of its investment in Daesung Industrial Gases Co, Ltd (South Korea), amounting to 55.9 million euros.

## 7. Corporate income tax

The total tax charge amounts to 53.1 million euros, compared to 52.9 million euros in 2013.

After allocation of add-backs, deductions and tax credits relating to profits, it breaks down as follows:

<i>(in millions of euros)</i>	2013	2014
Net profit from ordinary activities before tax	(22.3)	(21.8)
Additional contributions on earnings <sup>(a)</sup>	(6.7)	(6.9)
Additional contribution on cash dividend <sup>(b)</sup>	(23.9)	(24.4)
<b>TOTAL</b>	<b>(52.9)</b>	<b>(53.1)</b>

(a) 3.3% social security contribution on earnings and a 10.7% exceptional contribution.

(b) Corresponds to a 3% contribution on the amount of the dividend paid in cash.

The Company elected the tax consolidation regime to determine corporate income tax.

## 8. Intangible and tangible assets

Changes in gross value break down as follows:

<i>(in millions of euros)</i>	Gross value as of January 1, 2014	Additions	Disposals	Gross value as of December 31, 2014
Concessions, patents, licenses	104.8	2.7	(14.6)	92.9
Other intangible assets	158.4	8.0	(12.6)	153.8
<b>INTANGIBLE ASSETS</b>	<b>263.2</b>	<b>10.7</b>	<b>(27.2)</b>	<b>246.7</b>
Land and buildings	38.7	6.1	(0.1)	44.7
Plant, machinery and equipment	39.7	2.2	(7.3)	34.6
Other tangible assets	48.5	0.7	(30.6)	18.6
Tangible assets under construction and payments on account – tangible assets	1.9	0.8		2.7
<b>TANGIBLE ASSETS</b>	<b>128.8</b>	<b>9.8</b>	<b>(38.0)</b>	<b>100.6</b>
<b>TOTAL</b>	<b>392.0</b>	<b>20.5</b>	<b>(65.2)</b>	<b>347.3</b>

Changes in amortization, depreciation and impairment losses break down as follows:

<i>(in millions of euros)</i>	Amortization, depreciation, and impairment losses as of January 1, 2014	Amortization and depreciation	Decreases, disposals, scrappings	Amortization, depreciation and impairment losses as of December 31, 2014
Intangible assets	203.9	9.1	(17.5)	195.5
Tangible assets	91.1	7.5	(33.2)	65.4
<b>TOTAL</b>	<b>295.0</b>	<b>16.6</b>	<b>(50.7)</b>	<b>260.9</b>

The decrease in amortization and impairment losses mainly results from the partial disposal to Air Liquide IT of the business related to IT services provided to all Air Liquide group subsidiaries.

## 9. Financial assets

Changes in gross value break down as follows:

<i>(in millions of euros)</i>	Gross value as of January 1, 2014	Increases	Decreases	Gross value as of December 31, 2014
Equity investments	10,296.1	26.7 <sup>(a)</sup>	(5.1) <sup>(b)</sup>	10,317.7
Other long-term investment securities <sup>(c)</sup>	62.0	302.1	(281.6)	82.5 <sup>(d)</sup>
Loans	30.6	0.4	(10.2)	20.8
Other long-term financial assets	108.0	2.9	(45.3)	65.6 <sup>(e)</sup>
<b>FINANCIAL ASSETS</b>	<b>10,496.7</b>	<b>332.1</b>	<b>(342.2)</b>	<b>10,486.6</b>

(a) The increase in equity investments mainly corresponds to the capital increase of the subsidiary Air Liquide Advanced Business for 25.0 million euros.

(b) The decrease in equity investments results from the disposal of the investment in Daesung Industrial Gases Co., Ltd (South Korea).

(c) The change in other long-term investment securities mainly corresponds to:

- the acquisition and sale of Company treasury shares under the liquidity contract for 185.3 million euros and -185.9 million euros respectively;
- the acquisition of 1,200,000 Company treasury shares for 116.8 million euros;
- the cancelation of 1,000,000 Company treasury shares in the amount of -95.7 million euros.

At the 2014 year-end:

(d) the "Other long-term investment securities" caption includes a total of 836,412 treasury shares valued at an average price of 88.58 euros, i.e. a total amount of 74.1 million euros, of which 831,162 shares allocated for the purpose of share exchanges or as payment in connection with possible external growth transactions and 5,250 shares held under the liquidity contract;

(e) the "Other long-term investments" caption mainly includes the receivable linked to the refund claim on the equalization charge paid for the years 2000 to 2004 for 41.4 million euros and the interest on arrears for 21.3 million euros. As of December 31, 2013, the receivable amounted to 71.7 million euros before interest arrears which amounted to 33.4 million euros. In connection with the litigation concerning the reimbursement of the receivable, the Administrative Court of Montreuil partially sided with Air Liquide on July 21, 2014. Following this decision, L'Air Liquide S.A. received 30.3 million euros in principal and 15.0 million euros in interest on arrears. On September 19, 2014, the Company appealed the decision of the Administrative Court of Montreuil regarding the recovery of the balance.

## 10. Impairment, allowances and provisions

### A. Impairment and allowances

Impairment and allowances are recognized when the asset's carrying amount is lower than its entry value.

They break down as follows:

<i>(in millions of euros)</i>	2013	Charges	Reversals	2014
Tangible assets		0.2		0.2
Equity investments	40.4	2.8		43.2
Other long-term investment securities	8.3			8.3
Other long-term investments	0.4			0.4
Inventories and work-in-progress	1.6	0.3	(0.4)	1.5
Operating receivables	25.6	12.6		38.2
<b>IMPAIRMENT AND ALLOWANCES</b>	<b>76.3</b>	<b>15.9</b>	<b>(0.4)</b>	<b>91.8</b>
<i>Whose charges and reversals: operating items</i>		12.9	(0.4)	
<i>exceptional items</i>		3.0		

## B. Provisions

Provisions mainly include:

- third party or employee contingency and litigation provisions;
- jubilee awards and vested rights with regard to retirement termination payments (19.0 million euros in 2014 and 17.4 million euros in 2013).

<i>(in millions of euros)</i>	2013	Charges/ increases	Reversals	2014
Provisions for contingencies	8.8	2.2	(3.8)	7.2
Provisions for losses	18.7	3.3	(2.0)	20.0
<b>PROVISIONS</b>	<b>27.5</b>	<b>5.5</b>	<b>(5.8)</b>	<b>27.2</b>

Charges mainly relate to provisions for jubilee awards and vested rights with regard to retirement termination payments for 2.7 million euros and third party contingency provisions for 1.7 million euros.

Reversals primarily stem from the cancelation of foreign exchange provisions for -2.3 million euros, from the utilization of provisions for jubilee awards and vested rights with regard to retirement benefits for -1.1 million euros and for third party contingency provisions for -0.7 million euros.

## 11. Short-term financial investments

The item breaks down as follows:

<i>(in millions of euros)</i>	Gross value as of December 31, 2013	Gross value as of December 31, 2014
Company treasury shares	35.0	27.0
Other short-term financial investments	29.2	30.0
<b>SHORT-TERM FINANCIAL INVESTMENTS</b>	<b>64.2</b>	<b>57.0</b>

At the 2014 year-end, the "Company treasury shares" caption consisted of 360,871 shares (440,143 shares in 2013) allocated for the implementation of any Conditional Grants of Shares to Employees plans.

## 12. Shareholders' equity

As of December 31, 2014, the share capital comprised 344,872,883 shares with a par value of 5.50 euros.

The portion of share capital arising from the special revaluation reserve totals 71.4 million euros.

<i>(in millions of euros)</i>	As of December 31, 2013 (before appropriation of earnings)	Appropriation of 2013 net profit <sup>(a)</sup>	Capital increases	Capital decreases	Other changes	As of December 31, 2014 (before appropriation of earnings)
Share capital <sup>(b)</sup>	1,720.6		181.7	(5.5)		1,896.8
Additional paid-in capital <sup>(b)</sup>	81.2		30.3	(84.3)	(1.5)	25.7
Revaluation reserve	25.4					25.4
Reserves:						
■ Legal reserve	171.7	0.3				172.0
■ Tax-driven reserves	307.8					307.8
■ Translation reserve	7.7					7.7
■ Other reserves	73.0					73.0
Retained earnings <sup>(b) (c)</sup>	1,315.6	196.7	(151.8)	(5.9)	6.0	1,360.6
Net profit for the year	1,017.9	(1,017.9)			5,060.8	5,060.8
Accelerated depreciation <sup>(e)</sup>	5.8				(0.7)	5.1
<b>SHAREHOLDERS' EQUITY</b>	<b>4,726.7</b>	<b>(820.9) <sup>(d)</sup></b>	<b>60.2</b>	<b>(95.7)</b>	<b>5,064.6</b>	<b>8,934.9</b>

(a) Following the decision of the Combined Annual Shareholders' Meeting of May 7, 2014.

(b) The change in the "Share capital", "Additional paid-in capital", and "Retained earnings" captions results from the following transactions:

- Capital decrease in the amount of -5.5 million euros by canceling 1,000,000 treasury shares, as decided by the Board of Directors on May 7, 2014. The "Additional paid-in capital" caption and "Retained earnings" were reduced by the amount of premiums related to these shares, i.e. respectively -84.3 million euros and -5.9 million euros.
- Capital increase of 176.5 million euros, noted by the Chairman and Chief Executive Officer, as delegated by the Board of Directors on May 7, 2014, resulting from the granting of one free share for 10 existing shares (creation of 31,234,327 new shares) and one free share for 100 existing shares as part of a 10% bonus allotment (creation of 861,485 new shares) by deducting -24.7 million euros from "Additional paid-in-capital" and -151.8 million euros from "Retained earnings".
- Capital increases of 5.2 million euros resulting from the exercise of 511,594 subscription options before the free share attribution and 433,801 subscription options after the free share attribution. The "Additional paid-in capital" caption was increased by the premiums related to these share capital increases, i.e. 55.0 million euros.

The "Additional paid-in capital" caption was reduced by the capital increase costs, i.e. -1.5 million euros.

(c) The change in "Retained earnings" also includes the difference between the estimated loyalty dividend and the loyalty dividend actually paid and the cancelation of the dividend pertaining to treasury shares.

(d) Amount distributed.

(e) The change in the "Accelerated depreciation" caption results from the reversal of accelerated depreciation in accordance with asset depreciation and amortization policies.

### 13. Debt maturity analysis

(in millions of euros)	December 31, 2014		
	Gross	≤1 year	>1 year
Loans	20.8	10.8	10.0
Other long-term investments	65.6	1.3	64.3
Operating receivables	378.1	374.2	3.9
Current account loans with subsidiaries <sup>(a)</sup>	450.6	450.6	
<b>ASSETS</b>	<b>915.1</b>	<b>836.9</b>	<b>78.2</b>

(a) Current amount loans agreements are concluded for an indefinite period.

(in millions of euros)	December 31, 2014			
	Gross	≤1 year	>1 to ≤5 years	>5 years
Other bonds <sup>(a) (b)</sup>	1,024.3	267.5	456.8	300.0
Bank borrowings <sup>(c)</sup>	352.0	352.0		
Other borrowings <sup>(d)</sup>	87.2	50.3	36.9	
Operating payables	374.1	371.9	2.2	
Current account borrowings with subsidiaries <sup>(e)</sup>	627.1	627.1		
<b>DEBTS</b>	<b>2,464.7</b>	<b>1,668.8</b>	<b>495.9</b>	<b>300.0</b>

(a) All new bond issues carried out by L'Air Liquide S.A., and constituting the outstanding bonds as of December 31, 2014, include a change of control clause.

(b) A bond of 535.5 million euros at a fixed rate of 4.75% was reimbursed on June 25, 2014.

(c) Including commercial papers in amount of 352.0 million euros.

(d) Two long-term loans for 1,400 million euros (initially maturing in 2016 and 2019) and the short-term loan in the amount of 450 million euros subscribed with Air Liquide Finance were repaid in advance in December 2014.

(e) Current amount borrowings agreements are concluded for an indefinite period.

### 14. Loan issue and bond redemption premiums

The change in the item breaks down as follows:

(in millions of euros)	Net value as of January 1, 2014	Increases	Charges	Net value as of December 31, 2014
Loan issue premiums	2.3		(0.6)	1.7
Bond redemption premiums	26.8		(5.6)	21.2
<b>TOTAL</b>	<b>29.1</b>		<b>(6.2)</b>	<b>22.9</b>

The change in bond redemption premiums mainly corresponds to the amortization of a 43.8 million euro premium related to the 2010 bond exchange over the term of the new bond, i.e. until October 2018.



## 15. Financial instruments

Unsettled derivatives as of December 31, 2014 break down as follows:

<i>(in millions of euros)</i>	December 31, 2014	
	Carrying value	Fair value difference
Currency forwards		
■ Buy	55.3	1.9
■ Sell	92.4	(2.8)
<b>FOREIGN EXCHANGE RISK</b>		<b>(0.9)</b>

The fair value difference represents the difference between the derivative's valuation and the value of the contract determined at the closing year-end exchange rate.

Insofar as these instruments are all allocated to hedging transactions, the fair value differences had no impact on the financial statements for the 2014 year-end.

## 16. Retirement and similar plans

### A. Group retirement benefit guarantee agreement

In France, Air Liquide grants additional benefits to retirees (4,334 retirees as of December 31, 2014) and to employees over 45, or with more than 20 years of service as of January 1, 1996 (68 employees as of December 31, 2014). These benefits provide a supplemental retirement income based on final pay, which is paid in addition to other normal retirement benefits. This plan is closed to employees under the age 45, or with less than 20 years of service as of January 1, 1996. These plans are unfunded. The annual amount paid with regards to additional benefits cannot exceed 12% of total payroll or 12% of pre-tax profits of companies involved. From 2011 onwards, this 12% threshold will be proportionately reduced by comparing the number of plan beneficiaries for the year to the number of plan beneficiaries for the previous year. In 2014, this plan was amended: from 2015 onwards, the additional retirement benefit paid by Air Liquide will be aligned with the indexation of French statutory and supplementary pension plans up to a maximum annuity. Any additional annuity will not be subject to any indexation. A revaluation cap and floor were also introduced and the date when thresholds are reduced was postponed to 2017. These thresholds will be proportionately reduced by comparing the number of plan beneficiaries for the year to the number of plan beneficiaries for the previous year (see note 16.E).

The contributions amounted to 12.0 million euros in 2014 (13.7 million euros in 2013) after re-invoicing subsidiaries. Excluding the impact of timelines, and until the plan ends, the actuarial value of obligations vis-à-vis retirees and those eligible as of December 31, 2014 amounts to 684.7 million euros (647.1 million euros for retirees and 37.6 million euros for active employees).

Based on the assumptions used for the valuation of the retirement obligations, an estimated 481.1 million euros will be recharged to the subsidiaries of L'Air Liquide S.A. included within the scope of the Group agreement as and when benefits are paid to the retirees.

### B. Externally funded plan

L'Air Liquide S.A. grants to employees not covered by the preceding plan (987 employees as of December 31, 2014) and with at least one half-year of service benefit from an externally funded defined contribution plan. Contributions to this plan are jointly paid by the employer and employee. For 2014, employer contributions (net of re-invoicing to subsidiaries) amounted to 6.0 million euros (6.0 million euros in 2013).

### C. Retirement termination payments and jubilees

The corresponding obligations are provided for in the amount of 18.1 million euros (net of tax) and 0.9 million euros, respectively.

### D. Calculation of actuarial assumptions and methods

The calculations with respect to the Group's retirement benefit guarantee agreement, retirement termination payments and jubilees are performed by independent actuaries using the projected unit credit method.

Actuarial gains and losses exceeding the greater of 10% of the obligations related to retirement termination payments and unrecognized past service costs are amortized over the expected average working lives of the plan participants. As of December 31, 2014, the amounts stand at 19.7 million euros (15.5 million euros in 2013).

The actuarial assumptions (turnover, mortality, retirement age, salary increase) vary according to demographic and economic conditions.

The discount rates used to determine the present value of obligations are based on Government bonds or High-quality Corporate bonds, with the same duration as the obligations at the valuation date (1.75% as of December 31, 2014).

## E. Change in retirement obligations and similar benefits

Company obligations with respect to pension plans and similar benefits break down as follows:

<i>(in millions of euros)</i>	<b>Defined benefit plan</b>	<b>Retirement indemnities</b>	<b>Jubilees</b>	<b>Total</b>
<b>OBLIGATIONS AS OF JANUARY 1, 2014</b>	<b>767.4</b>	<b>40.9</b>	<b>0.9</b>	<b>809.2</b>
Service cost	1.1	2.1	0.1	3.3
Interest cost	23.0	1.2		24.2
Plan amendments <sup>(a)</sup>	(137.5)			(137.5)
Transfers		(1.3)		(1.3)
Benefit payments	(45.2)	(0.4)		(45.6)
Actuarial (gains) / losses <sup>(b)</sup>	75.9	4.9		80.8
<b>OBLIGATIONS AS OF DECEMBER 31, 2014 <sup>(c)</sup></b>	<b>684.7</b>	<b>47.4</b>	<b>1.0</b>	<b>733.1</b>

(a) See note 16.A.

(b) The amounts recognized in "Actuarial (gains) / losses" mainly arise from the difference between the December 31, 2014 discount rate (1.75%) and the December 31, 2013 discount rate (3.15%).

(c) Commitments as of December 31, 2014 are covered by assets amounting to 8.8 million euros.

## 17. Accrued income and accrued expenses

<i>(in millions of euros)</i>	<b>December 31, 2014</b>
<b>Accrued income</b>	
Other long-term financial assets	62.8
Operating receivables	10.6
<b>ACCRUED INCOME</b>	<b>73.4</b>
<b>Accrued expenses</b>	
Other bonds	11.7
Other borrowings	0.2
Operating payables	120.1
<b>ACCRUED EXPENSES</b>	<b>132.0</b>

## 18. Deferred taxes

Deferred taxes arise from timing differences between the tax regime and the accounting treatment of income and expenses. According to the nature of the differences, these deferred taxes will increase or decrease the future tax expense and are not recorded pursuant to the provisions of the chart of accounts.

Deferred taxes as of December 31, 2014 are estimated as follows:

<i>(in millions of euros)</i>	<b>December 31, 2013</b>	<b>December 31, 2014</b>
Deferred tax assets (decrease in future tax expense)	5.7	4.4
Deferred tax liabilities (increase in future tax expense)	12.3	8.5

Deferred taxes were calculated taking into account the 3.3% social security contribution on earnings and a 10.7% exceptional contribution i.e. a general rate of 38%.

## OTHER INFORMATIONS

## 1. Items concerning related undertakings

The Company conducted related party transactions with its wholly owned subsidiaries or subsidiaries that were directly or indirectly controlled.

(in millions of euros)	December 31, 2014	
	Gross	Including related undertakings
<b>Balance sheet</b>		
Loans	20.8	20.2
Other long-term financial assets	65.6	
Operating receivables	378.1	335.3
Current account loans with subsidiaries	450.6	450.6
Other borrowings	87.2	
Operating payables	374.1	79.0
Current account borrowings with subsidiaries	627.1	627.1
<b>Income statement</b>		
Financial income from equity affiliates	4,916.9	4,916.4
Interests, similar income and expenses	(121.6)	(78.7)
Other financial income and expenses	(6.6)	

## 2. Off-balance sheet commitments

Off-balance sheet commitments break down as follows:

(in millions of euros)	December 31, 2013	December 31, 2014
<b>Commitments given</b>		
Endorsements, securities and guarantees given <sup>(a)</sup>	733.4	751.8
To Air Liquide Finance and Air Liquide US LLC on transactions performed <sup>(b)</sup>	3,718.1	4,630.5
<b>COMMITMENTS GIVEN</b>	<b>4,451.5</b>	<b>5,382.3</b>

(a) Guarantees given mainly concerned the joint and several liability guarantee of the subsidiary Air Liquide France Industrie in connection with energy purchases, and a guarantee covering the obligations of the Air Liquide Arabia and Air Liquide Global E&C Solutions France subsidiaries under Middle Eastern projects.

(b) L'Air Liquide S.A. holds 100% of the French subsidiary Air Liquide Finance, which manages the Group's cash position and interest rate risk, as well as financing. In addition, Air Liquide Finance holds 100% of Air Liquide US LLC, in order to borrow on the US market. Insofar as the sole activity of Air Liquide Finance and Air Liquide US LLC is the Group's financing, L'Air Liquide S.A. is required to guarantee any issuances performed by these companies.

### 3. Remuneration paid to members of Executive Management and the Board of Directors

The remuneration (short-term benefits: fixed and variable portions, benefits in kind, retirement termination payments, Directors' fees) paid by the Company to members of Executive Management and the Board of Directors respectively, amounts to:

<i>(in millions of euros)</i>	<b>2014</b>
Remuneration of the Board of Directors	0.6
Remuneration of Executive Management	3.5
<b>TOTAL</b>	<b>4.1</b>

During 2014, the Company paid to third parties the total amount of 278,306 euros.

For Benoît Potier and Pierre Dufour: with respect to supplementary defined contribution pension plans: 16,384 euros and 7,406 euros respectively, with respect to the collective life insurance contract: 192,566 euros for Benoît Potier and with respect to the supplementary death and disability benefits plan: 61,950 euros.

### 4. Average number of employees

The monthly average number of employees is:

	<b>2013</b>	<b>2014</b>
Engineers and executives	943	793
Supervisory staff	286	264
Employees	13	12
Laborers	22	28
<b>TOTAL</b>	<b>1,264</b>	<b>1,097 <sup>(a)</sup></b>

*(a) The decrease in the average number of employees is mainly due to the transfer of 124 employees to the company Air Liquide IT.*

## 5. Subsidiaries and affiliates information

(in thousands of euros)

	Share capital as of December 31, 2014	Other equity as of December 31, 2014	% share holding
<b>A. Detailed information on affiliates whose carrying amounts exceed 1% of the capital of the Company required to publish its financial statements</b>			
<b>a) Companies operating in France</b>			
Air Liquide International <sup>(b)</sup> – 75, quai d'Orsay – 75007 Paris	2,880,780	1,649,364	99.99
Air Liquide France Industrie – 6, rue Cognacq-Jay – 75007 Paris	72,268	482,111	99.99
Air Liquide Finance – 6, rue Cognacq-Jay – 75007 Paris	72,000	8,119	99.99
Air Liquide Santé (International) – 75, quai d'Orsay – 75007 Paris	38,477	350,137	99.99
Chemoxal <sup>(b)</sup> – 75, quai d'Orsay – 75007 Paris	30,036	3,365	99.99
Air Liquide Investissements d'Avenir et de Démonstration – 6, rue Cognacq-Jay – 75007 Paris	25,050	(1,976)	99.99
Air Liquide Advanced Business – 6, rue Cognacq-Jay – 75007 Paris	25,050	(1,589)	99.99
Air Liquide Santé France – 6, rue Cognacq-Jay – 75007 Paris	10,403	21,687	10.12
<b>b) Companies operating outside of France</b>			
Air Liquide Industriegase GmbH & Co. KG – Hans-Günther-Sohl-Strasse 5 – 40235 Düsseldorf – Germany	10	2,754,463	100.00
<b>B. General information on other subsidiaries and affiliates</b>			
a) French companies (together)			
b) Foreign companies (together)			
<i>(a) Most recent year-end accounts approved by the competent decision-making bodies.</i>			
<i>(b) Holding company.</i>			

Carrying amount of shares held after the revaluations of 1976, 1978 and 1979			Loans and advances granted by the Company and not repaid	Guarantees and endorsements given by the Company	2013 net revenue <sup>(a)</sup>	Net profit (or loss) for 2013 <sup>(a)</sup>	Dividends collected by the Company during 2014
Gross	Net	Including revaluation difference					
7,333,883	7,333,883	21,186			861	692,081	4,401,832
285,126	285,126				1,128,791	100,858	107,197
72,901	72,901		255,745	4,603,394		58,138	58,140
331,728	331,728	6,301	24,470		17,020	302,964	190,099
30,326	30,326					28,906	28,952
25,050	25,050				191	(1,547)	
25,050	25,050				9,435	(2,367)	
20,388	20,388		3,485		186,633	28,139	2,733
2,106,474	2,106,474				63,282	126,600	100,000
81,479	38,960	18,335	12,517	2,623			22,261
3,963	3,206		20,151				4,926

## Statutory Auditors' Report on the annual financial statements

*This is a free translation into English of the Statutory Auditors' Report on the financial statements issued in French and it is provided solely for the convenience of English speaking readers.*

*The Statutory Auditors' Report includes information specifically required by French law in such reports, whether modified or not. This information is presented below the audit opinion on the financial statements and includes an explanatory paragraph discussing the auditors' assessments of certain significant accounting and auditing matters. These assessments were considered for the purpose of issuing an audit opinion on the financial statements taken as a whole and not to provide separate assurance on individual account balances, transactions, or disclosures.*

*This report also includes information relating to the specific verification of information given in the management report and in the documents addressed to shareholders.*

*This report should be read in conjunction with, and construed in accordance with, French law and professional auditing standards applicable in France.*

To the Shareholders,

In compliance with the assignment entrusted to us by your Annual Shareholders' Meeting, we hereby report to you, for the year ended December 31, 2014, on:

- the audit of the accompanying annual financial statements of L'Air Liquide S.A.;
- the justification of our assessments;
- the specific verifications and information required by French law.

These annual financial statements have been approved by the Board of Directors. Our role is to express an opinion on these financial statements based on our audit.

### I. OPINION ON THE FINANCIAL STATEMENTS

We conducted our audit in accordance with the professional standards applicable in France. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit involves performing procedures, by audit sampling and other selective testing methods, to obtain audit evidence about the amounts and disclosures in the financial statements. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made, as well as the overall financial statements presentation. We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2014 and the results of its operations for the year then ended, in accordance with the accounting rules and principles applicable in France.

### II. JUSTIFICATION OF ASSESSMENTS

In accordance with the requirements of article L. 823-9 of the French Commercial Code (Code de Commerce) relating to the justification of our assessments, we bring to your attention the following matters:

- Investments are valued in accordance with the methods set out in paragraph 2.D of the notes to the annual financial statements relating to "Accounting policies". We assessed the approach and the estimates used by the Company were reasonable, and checked the depreciation computation, if any.
- These assessments were made as part of our audit of the financial statements taken as a whole, and therefore contributed to the opinion we formed which is expressed in the first part of this report.



### III. SPECIFIC VERIFICATION AND INFORMATION

We have also performed, in accordance with professional standards applicable in France, the specific verifications required by French law.

We have no matters to report as to the fair presentation and the consistency with the financial statements of the information given in the management report of the Board of Directors and in the documents addressed to shareholders with respect to the financial position and the financial statements.

Concerning the information given in accordance with the requirements of article L. 225-102-1 of French Commercial Code (Code de Commerce) relating to remunerations and benefits received by the directors and any other commitments made in their favour, we have verified its consistency with the financial statements, or with the underlying information used to prepare these financial statements and, where applicable, with the information obtained by your Company from companies it controls. Based on this work, we concur with the accuracy and fair presentation of this information.

In accordance with French law, we have ensured that the required information concerning the purchase of investments and controlling interests and the names of the principal shareholders and holders of the voting rights has been properly disclosed in the Directors' Report.

Paris-La Défense, March 4, 2015

The Statutory Auditors  
*French original signed by*

	Mazars		Ernst & Young et Autres
Isabelle Sapet	Daniel Escudeiro	Jean-Yves Jégourel	Pierre-Yves Caër

## Five-year summary of Company results

(Articles R. 225-83 and R. 225-102 of the French Commercial Code)

	2010	2011	2012	2013	2014
<b>I – Share capital at the end of the year</b>					
a) Share capital <i>(in euros)</i> <sup>(a)</sup> <sup>(b)</sup> <sup>(c)</sup>	1,562,523,012	1,560,971,176	1,717,546,375	1,720,574,218	1,896,800,857
b) Number of outstanding ordinary shares	284,095,093	283,812,941	312,281,159	312,831,676	344,872,883
c) Number of shares with loyalty dividend entitlement <sup>(d)</sup>	71,940,478	78,070,815	90,629,532	92,705,933	102,644,011
d) Convertible bonds					
<b>II – Operations and results of the year</b> <i>(in millions of euros)</i>					
a) Revenue <sup>(e)</sup>	1,606.3	258.8	256.2	232.0	166.6
b) Net profit before tax, employee profit-sharing, depreciation, amortization and provisions	909.8	1,342.3	1,111.0	1,149.2	5,160.5
c) Corporate income tax	14.6	24.8	27.5	52.9	53.1
d) Employee profit-sharing for the year	3.2	3.6	3.6	3.3	2.7
e) Net profit after tax, employee profit-sharing, depreciation, amortization and provisions	822.2	1,273.3	1,039.9	1,017.9	5,060.8
f) Distributed profit	684.2	729.1	803.4	820.9	905.1
<b>III – Per share data</b> <i>(in euros)</i>					
a) Net profit after tax, employee profit-sharing, but before depreciation, amortization and provisions					
■ over the number of ordinary shares outstanding	3.14	4.63	3.46	3.49	14.80
■ over the adjusted number of shares <sup>(f)</sup>	2.61	3.82	3.15	3.19	14.87
b) Net profit after tax, employee profit-sharing, depreciation, amortization and provisions					
■ over the number of ordinary shares outstanding	2.89	4.49	3.33	3.25	14.67
■ over the adjusted number of shares <sup>(f)</sup>	2.40	3.70	3.03	2.97	14.74
c) Dividend allocated to each share					
■ over the number of ordinary shares outstanding	2.35	2.50	2.50	2.55	2.55
■ over the adjusted number of shares <sup>(g)</sup>	1.93	2.06	2.27	2.31	2.55
d) Loyalty dividend					
■ over the number of beneficiary shares	0.23	0.25	0.25	0.25	0.25
■ over the adjusted number of shares <sup>(g)</sup>	0.19	0.21	0.23	0.23	0.25
<b>IV – Employees working in France</b> <sup>(e)</sup>					
a) Average number of employees during the year	4,888	1,525	1,290	1,264	1,097
b) Total payroll for the year <i>(in millions of euros)</i>	259.8	172.9	158.9	159.1	145.1
c) Amounts paid with respect to employee benefits during the year (social security, staff benefits, etc.) <i>(in millions of euros)</i>	221.1	72.5	68.7	69.6	67.6

- (a) Using the authorization granted by the 10<sup>th</sup> resolution of the Combined Annual Shareholders' Meeting of May 4, 2011, the 8<sup>th</sup> resolution of the Combined Annual Shareholders' Meeting of May 9, 2012, the 10<sup>th</sup> resolution of the Combined Annual Shareholders' Meeting of May 7, 2013 and the 15<sup>th</sup> resolution of the Combined Annual Shareholders' Meeting of May 7, 2014, the Board of Directors made the following decisions:
- in its meeting of May 4, 2011, capital decrease by cancelation of 1,200,000 treasury shares;
  - in its meeting of May 9, 2012, capital decrease by cancelation of 1,200,000 treasury shares;
  - in its meeting of May 7, 2013, capital decrease by cancelation of 1,000,000 treasury shares;
  - in its meeting of May 7, 2014, capital decrease by cancelation of 1,000,000 treasury shares.
- (b) Using the authorization granted by the 19<sup>th</sup> resolution of the Combined Annual Shareholders' Meeting of May 5, 2010, the Board of Directors decided in its meeting of May 5, 2010, the granting of one free share for 15 existing shares (ranking for dividends as of January 1, 2010), and the granting of a 10% bonus for shares held in registered form from December 31, 2007 to May 27, 2010 (ranking for dividends as of January 1, 2010).
- Using the authorization granted by the 9<sup>th</sup> resolution of the Combined Annual Shareholders' Meeting of May 9, 2012, the Board of Directors decided in its meeting of May 9, 2012, the granting of one free share for ten existing shares (ranking for dividends as of January 1, 2012), and the granting of a 10% bonus for shares held in registered form from December 31, 2009 to May 30, 2012 (ranking for dividends as of January 1, 2012).
- Using the authorization granted by the 16<sup>th</sup> resolution of the Combined Annual Shareholders' Meeting of May 7, 2014, the Board of Directors decided in its meeting of May 7, 2014, the granting of one free share for ten existing shares (ranking for dividends as of January 1, 2014), and the granting of a 10% bonus for shares held in registered form from December 31, 2011 to June 1, 2014 (ranking for dividends as of January 1, 2014).
- (c) Using the authorizations granted by the resolutions of Combined Annual Shareholders' Meeting of May 12, 2004, May 9, 2007 and May 5, 2010,
- the Board of Directors noted in its meeting of February 17, 2014 the issuance of 55,559 shares (ranking for dividends as of January 1, 2014) arising from:
    - the exercise of 31,259 options subscribed at the price of 58.92 euros;
    - the exercise of 5,389 options subscribed at the price of 60.02 euros;
    - the exercise of 11,627 options subscribed at the price of 70.61 euros;
    - the exercise of 1,471 options subscribed at the price of 71.31 euros;
    - the exercise of 5,813 options subscribed at the price of 55.18 euros.
  - Pursuant to the delegation granted by the Board of Directors in its meeting of May 7, 2014, the Chairman and CEO noted on May 27, 2014 the issuance of 456,035 shares (ranking for dividends as of January 1, 2014) arising from:
    - the exercise of 199,046 options subscribed at the price of 58.92 euros;
    - the exercise of 31,122 options subscribed at the price of 60.02 euros;
    - the exercise of 115,205 options subscribed at the price of 70.61 euros;
    - the exercise of 5,185 options subscribed at the price of 72.54 euros;
    - the exercise of 64,508 options subscribed at the price of 71.31 euros;
    - the exercise of 33,082 options subscribed at the price of 55.18 euros;
    - the exercise of 3,198 options subscribed at the price of 75.28 euros;
    - the exercise of 2,449 options subscribed at the price of 78.90 euros;
    - the exercise of 2,240 options subscribed at the price of 96.61 euros.
  - The Board of Directors noted in its meeting of February 16, 2015 the issuance of 433,801 shares (ranking for dividends as of January 1, 2014) arising from:
    - the exercise of 272,977 options subscribed at the price of 64.03 euros;
    - the exercise of 80,045 options subscribed at the price of 64.66 euros;
    - the exercise of 32,021 options subscribed at the price of 50.03 euros;
    - the exercise of 48,758 options subscribed at the price of 68.26 euros.
- (d) Beginning December 31, 1995, shareholders holding their shares in registered form for at least two years at the period-end, and who will retain these shares in this form until the dividend payment date, will receive a dividend with a 10% bonus compared to the dividend paid to other shares. The difference between the loyalty dividend calculated on the number of shares outstanding as of the period-end and the loyalty dividend actually paid shall be allocated to retaining earnings.
- (e) The evolution of the data is impacted by the contribution in 2011 of the operational and the technological activities to specialized and wholly-owned subsidiaries:
- contribution to Air Liquide France Industrie of the Industrial gases business;
  - contribution to Air Liquide Advanced Technologies of the design and production of equipment for the aerospace, aeronautics and cryogenics fields;
  - contribution to Cryopal of the production and marketing of cryogenics reservoirs;
  - contribution to Air Liquide Engineering of the technical assessment activities conducted at the Blanc-Mesnil site;
  - contribution to Air Liquide Services of the development, installation and operation of industrial information systems.
- These contributions have no impact on the activity and the results of the Group.
- (f) Adjusted to take into account, in the weighted average, the capital increases performed via capitalization of reserves or additional paid-in capital, cash subscriptions and treasury shares.
- (g) Adjusted to take into account the capital increases performed via capitalization of reserves or additional paid-in capital.





# 5

## ANNUAL GENERAL MEETING 2015

### Board of Directors' report on the resolutions presented to the 2015 Combined Shareholders' Meeting

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## ➤ BOARD OF DIRECTORS' REPORT ON THE RESOLUTIONS PRESENTED TO THE 2015 COMBINED SHAREHOLDERS' MEETING

### Results for the fiscal year

The financial statements of L'Air Liquide S.A. that have been prepared by applying the methods provided for by law and the standards of the French General Chart of Accounts are attached to this report – pages 271 and 272.

Revenue for the fiscal year ended December 31, 2014 amounted to 166.6 million euros, compared to 232.0 million euros in 2013, down by 28.2%.

The income from French and foreign equity securities amounted to 4,916.9 million euros, compared to 994.0 million euros in 2013.

Net profit for the fiscal year ended December 31, 2014 amounted to 5,060.8 million euros, compared to 1,017.9 million euros in 2013.

In 2013 and 2014, L'Air Liquide S.A. net profit is impacted by exceptional items.

Consolidated revenue for 2014 amounted to 15,358.3 million euros, compared to 15,225.2 million euros in 2013, up by 0.9%. After adjustment for the impacts of foreign exchange fluctuations and natural gas prices, the increase is 3.4%.

Consolidated net profit, after deduction of minority interests, amounted to 1,665.0 million euros, compared to 1,640.3 million euros in 2013, an increase of 1.5% (a 2.9% increase excluding the foreign exchange impact).

These results are described in detail in the Management Report and the financial statements.

### Information on share capital

#### AMOUNT OF SHARE CAPITAL HELD BY EMPLOYEES

Please refer to the chapter "Additional Information" of this Reference Document – page 329.

#### CROSSING OF SHARE CAPITAL AND VOTING RIGHTS THRESHOLDS IN 2014

Please refer to the chapter "Additional Information" of this Reference Document – page 329.

### Investments and acquisition of controlling interests

In accordance with the provisions of article L. 233-6 of the French Commercial Code, there is no new transaction performed by L'Air Liquide S.A. in 2014.

## Resolutions within the authority of the Ordinary Shareholders' Meeting

We ask you, after having reviewed:

- the Report of the Board of Directors on the operation and management of the Company and its Group during the 2014 fiscal year;
- the Company's financial statements, income statement, balance sheet and notes thereto;
- the Group's consolidated financial statements; and
- the Reports of the Statutory Auditors,

to approve the Company's financial statements and the consolidated financial statements for the year ended December 31, 2014 as presented, as well as the transactions set out in these financial statements or mentioned in these reports.

Your Company's net profit allows the Board to propose the payment of a dividend of 2.55 euros for each share entitled to a dividend, it being specified that in the event of a change in the number of shares entitled to a dividend compared to the 344,872,883 shares making up the share capital as of December 31, 2014, the overall dividend amount would be adjusted accordingly and the amount appropriated to the retained earnings account would be determined on the basis of the dividend effectively paid.

The proposed dividend amounts to 2.55 euros, a rise of 10.3% in Shareholders' return, taking into account the free share attribution of one for 10 in 2014.

The ex-dividend date has been set for May 18, 2015. The dividend payment date will be set for May 20, 2015.

In accordance with the provisions of article 243 bis of the French Tax Code, it is specified that this dividend is eligible in its entirety for the 40% allowance referred to in section 2° of paragraph 3 of article 158 of the French Tax Code.

In addition, shareholders who have held their shares in registered form for at least two years as of December 31, 2014 and who retain such shares in registered form up to the dividend payment date, shall be entitled, for such shares (i.e. a total number of 102,644,011 shares at December 31, 2014), to a loyalty dividend of 10% compared with the dividend paid to the other shares, i.e. an additional dividend of 0.25 euro per share. In accordance with the provisions of article 243 bis of the French Tax Code, it is specified that this dividend is also eligible in its entirety for the 40% allowance referred to in section 2° of paragraph 3 of article 158 of the French Tax Code.

The difference between the loyalty dividend calculated on the number of shares known to exist at December 31, 2014 and the loyalty dividend actually paid will be allocated to the retained earnings account.

We also ask you to take due note of distributable earnings for the year. Such amount includes profits for 2014 of 5,060,836,696 euros plus available retained earnings at December 31, 2014 of 1,360,559,422 euros, i.e. a total of 6,421,396,118 euros.

We propose that you appropriate the distributable earnings for fiscal year 2014, i.e. 6,421,396,118 euros, as follows:

Legal reserve	17,622,664 euros
Retained earnings	5,498,686,600 euros
<b>Dividend (including the loyalty dividend)</b>	<b>905,086,854 euros</b>



## DISTRIBUTION

In accordance with French law, we wish to remind you that the distributions made in respect of the last three fiscal years were as follows:

	Total amount distributed <sup>(a)</sup> (in euros)	Number of shares concerned <sup>(b)</sup>	Dividend distributed eligible in its entirety for the 40% allowance referred to in article 158-3-2° of the French Tax Code (in euros)
<b>Fiscal year 2011</b>			
Ordinary dividend	709,532,352	283,812,941	2.50
Loyalty dividend	19,517,704	78,070,815	0.25
<b>Fiscal year 2012</b>			
Ordinary dividend	780,702,897	312,281,159	2.50
Loyalty dividend	22,657,383	90,629,532	0.25
<b>Fiscal year 2013</b>			
Ordinary dividend	797,720,774	312,831,676	2.55
Loyalty dividend	23,176,483	92,705,933	0.25

(a) Theoretical values calculated based on the number of shares as of December 31 for each fiscal year.

(b) Number of shares expressed historically as of December 31 for each fiscal year.

The amounts effectively paid after adjustment were as follows:

- fiscal year 2011 – ordinary dividend: 704,800,280 euros for 281,920,112 shares; loyalty dividend: 17,872,597 euros for 71,490,388 shares;
- fiscal year 2012 – ordinary dividend: 776,404,573 euros for 310,561,829 shares; loyalty dividend: 20,886,338 euros for 83,545,351 shares;
- fiscal year 2013 – ordinary dividend: 793,400,084 euros for 311,137,288 shares; loyalty dividend: 21,538,427 euros for 86,153,707 shares.

The adjustment arises from the change in the number of treasury shares, from the final determination of the loyalty dividend taking into account shares sold between January 1 and the ex-dividend date, and from the exercise of options over this same period.

## BUYBACK BY THE COMPANY OF ITS OWN SHARES

## A. Information on the completion of the Company's share buy-back program (pursuant to article L. 225-211 of the French Commercial Code)

The Combined Shareholders' Meeting of May 7, 2014 authorized the Board, for a period of 18 months, in accordance with articles L. 225-209 et seq. of the French Commercial Code and the directly applicable provisions of EC Regulation 2273/2003 of December 22, 2003, to allow the Company to repurchase its own shares in order to:

- cancel them;
- retain them for the purpose of tendering them within the scope of an exchange offer or for payment in external growth transactions, in accordance with recognized market practice and applicable regulations;
- tender them following the exercise of rights attached to marketable securities conferring entitlement to Company shares by redemption, conversion, exchange, presentation of a warrant or any other means;

- implement (i) any share purchase option plans or (ii) plans for free grants of share, or (iii) any employee share ownership transactions reserved for members of a Company savings plan, performed through the transfer of shares acquired previously by the Company, or providing for a free grant of shares in respect of a contribution in shares by the Company and/or to replace the discount, or (iv) allocation of shares to employees and/or Executive Officers of the Company and affiliated companies, in accordance with the laws and regulations in force;
- maintain an active market in the Company's shares pursuant to a market liquidity contract in accordance with an Ethics Charter recognized by the French financial market authority (*Autorité des marchés financiers*).

The maximum purchase price was set at 165 euros per share, and the maximum number of shares that can be bought back was set at 10% of the total number of shares making up the share capital as of December 31, 2013, namely 31,283,167 shares for a maximum total amount of 5,161,722,555 euros, subject to the legal limits.

These shares could be purchased at any time, excluding the periods for takeover bids on the Company's share capital, on one or more occasions and by all available means, either on or off a stock exchange, in private transactions, including the purchase of blocks of shares, or through the use of derivative financial instruments, and, if applicable, by all third parties acting on behalf of the Company, under the conditions stipulated in the provisions of the last paragraph of article L. 225-206 of the French Commercial Code.

## Board of Directors' report on the resolutions presented to the 2015 Combined Shareholders' Meeting

Pursuant to this authorization and the previous delegation authorized by the Combined Shareholders' Meeting of May 7, 2013:

- a liquidity contract was set up, which led to the following movements during the 2014 fiscal year:
  - 1,903,223 shares were purchased for a total price of 185,288,656 euros, or an average purchase price of 97.36 euros,
  - 1,908,973 shares were sold for a total price of 186,113,775 euros, or an average purchase price of 97.49 euros;
- on February 19, 2014, 1.2 million shares were bought back for a total price of 116,803,440 euros, i.e. an average share price of 97.34 euros. No other shares were bought back before the end of fiscal 2014.

The total cost of the buy-backs was thus limited to 302,092,096 euros;

- in addition, during the fiscal year the Company also carried out a share tender to certain beneficiaries of plans for the conditional grants of share (2012 CGSE France Plan and 2010 CGSE World Plan) in the amount of 28,709 and 96,956 treasury shares, respectively.

The total amount of the transaction fees (exclusive of taxes) was 0.2 million euros.

As of December 31, 2014, the Company directly owned 1,192,033 shares at an average purchase price of 84.34 euros, i.e. a balance sheet value of 100,532,195 euros. These shares, each with a par value of 5.50 euros, represented 0.35% of the Company's share capital. They are allocated for the purpose of share exchanges or as payment in connection with possible external growth transactions (831,162 shares) and for the purpose of the implementation of any conditional grants of shares to employees (360,871 shares).

Under the liquidity contract, as of December 31, 2014 a total of 5,250 shares were on the balance sheet for a net value of 528,817 euros.

## B. Draft resolution

As the authorization granted by the Ordinary Shareholders' Meeting of May 7, 2014 was partially used, the Board proposes to replace it with a new authorization to allow the Company to repurchase its own shares in order to:

- cancel them, subject to the adoption of the 10<sup>th</sup> resolution;
- retain them for the purpose of tendering them within the scope of an exchange offer or for payment in external growth transactions, in accordance with recognized market practice and applicable regulations;
- tender them following the exercise of rights attached to marketable securities conferring entitlement to Company shares by redemption, conversion, exchange, presentation of a warrant or any other means;

- implement (i) any share purchase option plans or (ii) free share attribution plans, or (iii) any employee share ownership transactions reserved for members of a Company savings plan, performed under the terms and conditions set forth in articles L. 3331-1 et seq. of the French Labor Code through the transfer of shares bought back previously by the Company under this resolution, or providing for a free attribution of shares in respect of a contribution in shares by the Company and/or to replace the discount; or (iv) share grants to employees and/or Executive Officers of the Company or affiliated companies, in accordance with the laws and regulations in force;
- maintain an active market in the Company's shares pursuant to a market liquidity contract in accordance with an Ethics Charter recognized by the French financial market authority.

The maximum purchase price will be set at 165 euros (excluding acquisition costs) per share with a par value of 5.50 euros per share, and the maximum number of shares that can be bought back will be set at 10% of the total number of shares making up the share capital as of December 31, 2014, or 34,487,288 shares with a par value of 5.50 euros, for a maximum total amount of 5,690,402,520 euros, subject to the legal limits.

As in previous years, the resolution stipulates that the authorization does not apply during takeover bid periods. With the introduction of the new regime under the law of March 29, 2014 (the "*loi Florange*"), the Board of Directors decided to maintain the right for shareholders to express an opinion on share buybacks in the event of a takeover bid.

These shares may thus be purchased at any time, excluding the periods for takeover bids on the Company's share capital, on one or more occasions and by all available means, either on or off a stock exchange, in private transactions, including the purchase of blocks of shares, or through the use of derivative financial instruments, and, if applicable, by all third parties acting on behalf of the Company, under the conditions stipulated in the provisions of the last paragraph of article L. 225-206 of the French Commercial Code.

Shares bought back may be assigned or transferred in any manner on or off a stock exchange or through private transactions, including the sale of blocks of shares, in accordance with the applicable regulations.

Dividends on treasury shares held by the Company shall be allocated to retained earnings.

This authorization shall be granted for a period of 18 months starting from the date of this Shareholders' Meeting. It supersedes the authorization granted by the Ordinary Shareholders' Meeting of May 7, 2014 in its 4<sup>th</sup> resolution with respect to its non-utilized portion.

## RENEWAL OF THE TERM OF OFFICE OF A DIRECTOR

The Board of Directors is currently composed of 13 members, including since last year one Employee Director, Mr Philippe Dubrulle. The terms of office of Ms Siân Herbert-Jones, Mr Gérard de La Martinière and Mr Cornelis van Lede will expire at the end of this Shareholders' Meeting.

The Board took due note Mr Gérard de La Martinière and Mr Cornelis van Lede's terms of office will expire at the end of this Shareholders' Meeting, in compliance with the internal regulations of the Board of Directors. The Board expressed its deep gratitude to them for their significant contribution to the work of the Board and its Committees these past years.

On the recommendation of the Appointments and Governance Committee, the 5<sup>th</sup> resolution concerns the renewal, for a period of four years, of the term of office of Ms Siân Herbert-Jones, who has been a member of the Company's Board of Directors since 2011. Ms Siân Herbert-Jones will continue to provide the Company with her financial expertise and her knowledge of the Services sector gained at an international listed company.

## APPOINTMENT OF A NEW MEMBER TO THE BOARD OF DIRECTORS

On the recommendation of the Appointments and Governance Committee following a selection process led by the Committee and assisted by an external consultant, the 6<sup>th</sup> resolution concerns the nomination, for a period of four years, of Ms Geneviève Berger.

With a PhD in physics, Doctor of Medecine and a PhD in human biology, Ms Geneviève Berger was Director of the mixed parametric laboratory for imaging CNRS-University Paris VI from 1991 to 2000. She was General Manager of the CNRS between 2000 and 2003. She served as University Professor and Hospital Managing Director at La Pitié-Salpêtrière between 2003 and 2008 before joining Unilever as Chief Research Officer and then Chief Science Officer from 2008 to 2014. Ms Geneviève Berger will provide the Board of Directors with her expertise in healthcare and research.

At the end of this Shareholders' Meeting, the Board of Directors will comprise 12 members. Nine of the eleven members elected by the General Shareholders' Meeting will be independent according to the internal regulations. In particular, the Board will include five women and six foreign nationals.

## APPROVAL OF RELATED PARTY AGREEMENTS

The 7<sup>th</sup> resolution concern the approval, under a specific resolution of the application for Mr Benoît Potier of modifications made to the death and disability benefits plan and the life insurance plan, as well as the approval of the related Statutory Auditors' Special Report.

- Two additional death and disability benefits plans, exclusively funded by employer contributions, were in force in the Company:

- i. a first plan applicable to all the employees and Executive Officers, which covered the risks of incapacity, disability and death and the contribution to which was assessed on the basis of the fraction of the gross annual remuneration amounting to between 0 and 8 times the annual social security ceiling; and
- ii. a second plan known as the "death benefits plan for 'senior managers'" applicable to senior managers and executives and Executive Officers whose remuneration exceeded 8 times the annual social security ceiling meeting certain conditions, which covered the risk of death and the contribution to which was based on the fraction of the gross annual remuneration exceeding 8 times the annual social security ceiling.

It was decided, in an overall logic of simplification (one unified plan instead of the two that currently exist) and ensuring the legal security of the various supplementary social protection schemes, effective as from January 1, 2015, to change the death and disability benefits plan set up for the benefit of all the personnel, in order to extend the basis for assessment of the contributions and benefits and to put an end, at the same time, to application of the death benefits plan for "senior managers". From now on, only one unified supplementary death and disability benefits plan is applied, covering all the personnel and the Executive Officers duly authorized to benefit from the plan, in which:

- the remuneration taken into account for the calculation of the contributions is capped at:
  - i. 16 times the annual social security ceiling for the incapacity and disability cover,
  - ii. 24 times the annual social security ceiling for the death cover,
- the rate of the employer's contribution is 1.02%, subject to subsequent changes that may take place pursuant to the contractual provisions.

An insurance contract was entered into with an insurance company in this respect at the end of 2014, which specifies the limits of the incapacity/disability and death benefits for the same insured party.

Pursuant to a decision of November 20, 2014 made in accordance with the regulated agreements and commitments procedure, the Board of Directors authorized Benoît Potier, in respect of his duties as Chairman and Chief Executive Officer, to benefit, as from January 1, 2015, from this new unified death, disability and related benefits plan covering all the personnel. A report was made to the Board on February 16, 2015 on the effective implementation of such authorization, the terms and conditions of which were then published on the Company's website.

In the light of the pooling of the risks covered, the amount of the annual contribution paid for Benoît Potier should amount to substantially less than the contribution paid up until now by the Company within the scope of the "death benefits plan for 'senior managers'".

- In the light of the recent changes in the legislative and regulatory framework governing the social security treatment of the funding of the defined contribution pension plan for senior managers and executives limited to the remuneration that does not exceed 8 times the annual social security ceiling, it has been decided to change the category of beneficiaries of this plan, and to exclude from it the Executive Officers, the contribution paid for their benefit being transferred to the life insurance plan. Accordingly, pursuant to a decision made on November 20, 2014 made in accordance with the regulated agreements and commitments procedure, the Board of Directors authorized the amendment of the collective life insurance plan, in order to permit the transfer to this plan as from 2015 of the contribution paid up until then under the defined contribution pension plan for senior managers and executives. The impact of the extension of the collective life insurance plan to the Reference Remuneration amounting to between 0 and 8 times the annual social security ceiling is practically neutral for the Company. The contributions paid by the Company to the third-party plan manager are assessed on the basis of the portions of the Reference Remuneration of the beneficiaries in accordance with conditions identical to those of the previous plan. A report was made to the Board on February 16, 2015 on the effective implementation of such authorization, the terms and conditions of which were then published on the Company's website.

These agreements are shown in the Statutory Auditors' Special Report on regulated agreements and commitments (see pages 317 to 321 and the Company's website).

### **OPINION ON THE REMUNERATION OF THE COMPANY'S EXECUTIVE OFFICERS FOR THE 2014 FISCAL YEAR ("SAY ON PAY")**

In compliance with the AFEP/MEDEF governance Code, to which the Company refers, the Board of Directors asks you to express an opinion on the remuneration of the Company's Executive Officers for the year ended. This vote remains an advisory vote. The Remuneration Committee will analyze the results of the vote in order to issue to the Board of Directors its recommendations for the future.

By the 8<sup>th</sup> and 9<sup>th</sup> resolutions, you are asked to express a favorable opinion on the remuneration components due or allocated to Mr Benoît Potier, Chairman and Chief Executive Officer, and Mr Pierre Dufour, Senior Executive Vice-President, in respect of 2014, as described in this Reference Document – pages 163 to 168.

## Resolutions within the authority of the Extraordinary Shareholders' Meeting

### AUTHORIZATION TO REDUCE THE SHARE CAPITAL BY CANCELATION OF TREASURY SHARES

To recap, in 2014 a total of 1 million shares with a total carrying amount of 95,705,230 euros were canceled by the Board of Directors on May 7, 2014.

You are asked to authorize the Board of Directors to cancel, at its sole discretion, on one or more occasions, and within the limit of 10% of the Company's share capital per 24 month period, any or all of the shares bought back by the Company within the scope of the authorization adopted by this Ordinary Shareholders' Meeting in its 4<sup>th</sup> resolution and those shares bought back within the scope of the authorizations adopted by the Ordinary Shareholders' Meetings of May 7, 2014 and May 7, 2013, and to reduce the share capital by this amount.

The difference between the carrying amount of the canceled shares and their nominal amount will be allocated to reserve or additional paid-in capital accounts.

This authorization shall be granted for a period of 24 months starting from the date hereof and supersedes the authorization granted by the Extraordinary Shareholders' Meeting of May 7, 2014 in its 15<sup>th</sup> resolution.

### CONDITIONAL GRANTS OF SHARES TO EMPLOYEES AND EXECUTIVE OFFICERS WITH WAIVER BY SHAREHOLDERS OF THEIR PREFERENTIAL SUBSCRIPTION RIGHTS

The Company's policy for Conditional Grants of Shares to Employees (CGSE) is described in detail in this Reference Document – page 171.

The Extraordinary Shareholders' Meeting of May 7, 2013 authorized the Board, for a period of 38 months, to carry out conditional share attributions to Company employees and to the Executive Officers of the Company and its subsidiaries. The total number of shares thus granted over the period of 38 months may not exceed 0.5% of the Company's share capital on the date the shares were granted by the Board of Directors; the shares granted to Executive Officers may not represent more than 0.15% of the share capital on the date of this decision. This authorization was partially used when the Board of Directors implemented CGSE plans in 2013 and 2014, under which a total of 263,067 shares were granted (subject to the requirements set by the Board) representing, as of December 31, 2014, 0.08% of the Company's share capital. The Executive Officers of the Company have not been beneficiaries of these plans.

Since the initial grant in 2008, all grants are subject to a continued service requirement and performance conditions. The performance conditions are determined by reference to

a growth target for recurring net earnings per share calculated since 2013 over three fiscal years (the conditions are described in this Reference Document – pages 175-177). As the grant traditionally takes place in the autumn, the reference fiscal year for the application of the performance conditions is the previous year with, however, extremely stable objectives over time. In future, it could be proposed to the Board that it set the performance conditions at the beginning of the year whatever the date of grant.

The objectives are made public ex post, along with the result achieved and the percentage of CGSE acquired. For the 2012 CGSE Plan, the rate of achievement of the performance condition is reported on page 178 of the 2013 Reference Document. For the 2013 grant, the rate of achievement of the performance condition shall be determined by the Board of Directors at the meeting held to approve the 2015 financial statements.

The Board of Directors has confirmed that, at the time when an award to Executive Officers would be decided, it would be made within the scope of a plan providing for a 3-year vesting period and performance conditions also over three years that would be identical to those provided in respect of stock options.

In order for conditional grant of shares to employees (CGSE) to benefit both the employees and the Executive Officers within the new legislative framework, where applicable, and to provide for more competitive remuneration in the Company on a worldwide basis, you are invited in the 11<sup>th</sup> resolution to renew for a period of 38 months, the authorization given to the Board of Directors in 2013 to consent of conditional shares of the Company in favor of Group employees, under unchanged conditions as compared to 2013.

Pursuant to the authorization provided for in this draft resolution, the total number of shares that may be granted is maintained at 0.5% of the share capital over a period of 38 months while the maximum number of shares that may be granted to Executive Officers is set at 0.15% of the share capital over the same period.

The Board of Directors shall determine the beneficiaries of the CGSE plans.

Subject to the achievement of these continued service and performance conditions, the grant shall be definitive at the end of a minimum vesting period of either (i) four years minimum (with no holding requirement after this period) or (ii) two years (in this case with a holding requirement after the minimum two-year minimum period), depending on the Board of Directors' decision. These periods are unchanged as compared to 2013.

This authorization is granted for a period of 38 months and supersedes the authorization granted by virtue of the 12<sup>th</sup> resolution of the Extraordinary Shareholders' Meeting of May 7, 2013, for its non-utilized portion.



## **INCREASE IN SHARE CAPITAL VIA THE ISSUANCE OF ORDINARY SHARES OR MARKETABLE SECURITIES CONFERRING ENTITLEMENT TO THE COMPANY'S SHARE CAPITAL, WITH RETENTION OF SHAREHOLDER PREFERENTIAL SHARE SUBSCRIPTION RIGHTS**

The Extraordinary Shareholders' Meeting of May 7, 2013 had delegated to the Board of Directors the authority to decide to increase share capital for a maximum nominal amount of 430 million euros corresponding to around 25% of share capital as of December 31, 2012, by issuing, on one or more occasions, shares or marketable securities conferring entitlement, immediately or in the future, to the Company's shares, with retention of shareholders' preferential subscription rights. This authorization, granted for 26 months, is due to expire. It was not used.

To finance the Group's growth investments, shareholders are asked in the 12<sup>th</sup> resolution to renew the delegation granted to the Board of Directors to increase the share capital for a maximum nominal amount of 470 million euros corresponding to around 25% of the share capital as of December 31, 2014, by issuing, on one or more occasions, ordinary shares or compound dilutive marketable securities. This delegation of authority would be valid for a period of 26 months and supersede the delegation granted by the Extraordinary Shareholders' Meeting of May 7, 2013 in its 13<sup>th</sup> resolution.

The shareholders shall have, in proportion to the amount of shares they own, a preferential subscription right to the shares or marketable securities issued.

The total amount of capital increases carried out pursuant to the 13<sup>th</sup> resolution and any resolutions allowing employees and Executive Officers to benefit from shares (11<sup>th</sup> resolution of the May 7, 2013 Extraordinary Shareholders' Meeting and 12<sup>th</sup> of the May 7, 2013 Extraordinary Shareholders' Meeting as substituted by the 11<sup>th</sup> resolution of this Shareholders' Meeting subject to its approval, and the 16<sup>th</sup> and 17<sup>th</sup> resolutions submitted to this Shareholder's meeting) is deducted from this ceiling of 470 million euros. Furthermore, the maximum nominal amount of marketable debt securities conferring entitlement to the Company's share capital issued by virtue of the 12<sup>th</sup> resolution may not exceed a limit of 3 billion euros.

The law dated March 29, 2014 (the "*loi Florange*") confers on the Board of Directors the possibility of making any decisions for which their implementation may lead to the failing of a takeover bid without prior authorization from the Shareholders' Meeting.

However, during periods of takeover bids, the Shareholders' Meeting remains free to restrict the Board of Directors' use of the financial delegations of authority that it grants; for this reason, in order to provide shareholders with the possibility to express an opinion on the issued subject to this delegation of authority during periods of takeover bids, it is proposed that this delegation of authority is suspended during periods of takeover bids on the Company's share capital.

Lastly, the regulation dated July 31, 2014 relating to company law limited the powers of the Extraordinary Shareholders' Meeting in terms of the issue of composite marketable securities to the issue of composite dilutive marketable securities. The resolution was established to comply with this new regulation.

The 13<sup>th</sup> resolution allows for the amount of shares issued to be increased, within the legal limits of 15%, in the event of over subscription and is valid for a period of 26 months.

## **AMENDMENT OF THE ARTICLES OF ASSOCIATION RELATING TO VOTING RIGHTS**

The law dated March 29, 2014 (the "*loi Florange*") automatically confers double voting rights to all shares that have been registered continuously for at least two years in a company with shares listed on a regulated market, thus reversing the previous legal scheme. This new scheme can be voted down through statutory means to return to the "one share one vote" principle. The amendment to the articles of association that you are asked to approve in the 14<sup>th</sup> resolution falls within this context.

This affirmation of shareholder equality is in line with the principles that your Company has supported for more than 20 years. The Shareholders' Meeting of May 19, 1993 removed double voting rights from the Company's articles of the association in order to avoid, in particular, significant shareholders holding disproportionate power compared with the percentage of shares they held, and therefore the funds that they had invested.

Nonetheless, to continue to encourage a policy of long-term Company shareholder loyalty, the same Shareholders' Meeting voted for a loyalty dividend of 10% to be paid to shareholders of registered shares held continuously for more than two years, and in the event of free share attribution to these same shareholders, a 10% bonus allocation.

It is therefore in the interest of consistency and continuity in the protection of shareholders' interest that you are asked to vote in favor of not attributing double voting rights to shares that have been registered continuously for at least two years; while provisions in the articles of association relating to the 10% loyalty dividend and the number of free shares attributed remain unchanged.

## **OTHER AMENDMENT TO THE ARTICLES OF ASSOCIATION**

A new regulation recently amended the record date by setting the closing date for the book-entry of the shares at the second business day preceding the Shareholders' Meeting. Article 18 of the articles of association which states that shares must be registered, on the third business day preceding the Shareholders' Meeting, in compliance with the previous regulation, has thus become obsolete. You are asked, in the 15<sup>th</sup> resolution, to amend it to simplify its drafting to include a referral to the applicable regulation.

## SHARE CAPITAL INCREASE RESERVED FOR EMPLOYEES WITH CANCELATION OF SHAREHOLDER PREFERENTIAL SUBSCRIPTION RIGHTS

The Extraordinary Shareholders' Meeting of May 7, 2013 had authorized the Board of Directors to increase share capital for a maximum nominal amount of 30.25 million euros and 5.5 million shares for Group employees belonging to a Group or Company savings plan. Upon the decision of the Board of Directors, in accordance with the delegation of authority granted to it by the May 7, 2013 General Shareholders' Meeting, a capital increase reserved for all Group employees was carried out at end-2013. This capital increase, carried out in 73 countries, resulted in the subscription of 749,272 shares by 16,812 Group employees.

In accordance with legal provisions, these resolutions are submitted again to the vote at the Shareholders' Meeting. The two resolutions proposed to the Shareholders' Meeting are identical to those approved on May 7, 2013.

Shareholders, having read the Board of Directors' Report and the Statutory Auditors' Special Report, are therefore asked to authorize the Board of Directors to decide one or more share capital increases, at the time or times and in the proportions that it deems appropriate, via the issuance of ordinary shares of the Company, as well as other marketable securities granting access to the Company's share capital, reserved for:

- under the 16<sup>th</sup> resolution, the members, from the Company and the French or foreign companies which are affiliated to it within the meaning of article L. 225-180 of the French Commercial Code and article L. 3344-1 of the French Labor Code, of a Company or Group savings plan (directly or through a Company mutual fund or all other structures or entities permitted by applicable legal or regulatory provisions). The delegation shall be valid for a period of 26 months starting from the date of this Shareholders' Meeting;
- under the 17<sup>th</sup> resolution, a category of beneficiaries, defined as any bank or subsidiary of such an institution mandated by the Company, which would subscribe to shares, or other share capital issued by the Company pursuant to the 16<sup>th</sup> resolution, with the sole intent of enabling employees and Executive Officers of foreign companies, affiliated to the Company within the meaning of article L. 225-180 of the French Commercial Code and article L. 3344-1 of the French Labor Code, to benefit from a plan with an economic profile comparable to an employee share ownership scheme that would be set up in connection with a share capital increase undertaken in accordance with the 16<sup>th</sup> resolution of this Shareholders' Meeting, taking into account the regulatory and fiscal and/or social framework applicable in the country of residence of the employees and Executive Officers of the aforementioned foreign companies. The delegation shall be valid for a period of 18 months starting from the date of this Shareholders' Meeting.

The Board of Directors shall be competent to determine, within those categories, the identity of the beneficiaries of these share capital increases.

The total amount of share capital increases likely to be performed in accordance with these two resolutions may not exceed a maximum nominal amount of 30.25 million euros, corresponding to the issue of a maximum of 5.5 million shares (amounts identical to those approved in 2013). Furthermore, the total maximum nominal amount of share capital increases likely to be performed on the basis of these two resolutions shall be deducted from the overall limit stipulated in paragraph 2 of the 12<sup>th</sup> resolution subject to the approval of this Extraordinary Shareholders' Meeting. In the event that they are used, the proposed resolutions will automatically result in the cancellation of the shareholders' preferential subscription rights in favor of the above-mentioned beneficiaries.

The subscription price of the shares that would be issued pursuant to these two resolutions may not exceed the average, determined in accordance with article L. 3332-19 of the French Labor Code, of the opening trading prices for the Company's share during the 20 stock market trading days preceding the date of the decision setting the opening date for the subscription to a share capital increase made on the basis of the 16<sup>th</sup> resolution, or be more than 20% lower than such average, bearing in mind that the shareholders will officially authorize the Board of Directors, if deemed appropriate, to reduce or cancel the aforementioned discount, within the legal, regulatory and tax limits under the applicable foreign law. In accordance with article L. 3332-21 of the French Labor Code, the Board of Directors may provide for the grant, on a bonus basis, to the beneficiaries referred to in the 16<sup>th</sup> resolution, of shares to be issued or already issued or other marketable securities granting access to the Company's share capital to be issued or already issued, in respect of (i) the contribution that could be paid in accordance with the regulations governing Company or Group saving plans, and/or (ii) where appropriate, the discount.

Should the beneficiaries referred to in the 16<sup>th</sup> resolution not subscribe to the entire share capital increase within the allotted deadlines, the share capital increase would only be performed for the amount of the shares subscribed, and the non-subscribed shares may be offered again to the beneficiaries concerned within the scope of a subsequent share capital increase.

Finally, the shareholders shall grant full powers to the Board of Directors, with the option of sub-delegation under the conditions determined by law, to set, within the limits described above, the various terms and conditions governing the implementation of the two proposed resolutions.



## ➤ RESOLUTIONS PRESENTED FOR THE APPROVAL OF THE COMBINED SHAREHOLDERS' MEETING – MAY 6, 2015

### Ordinary Shareholders' Meeting

#### Resolutions 1 and 2 Approval of the financial statements for the year

#### PURPOSE

Shareholders are asked in the **1<sup>st</sup> and 2<sup>nd</sup> resolutions** to approve both Company and consolidated financial statements of Air Liquide for the year ended December 31, 2014.

#### FIRST RESOLUTION

##### *(Approval of the Company financial statements for the year ended December 31, 2014)*

The shareholders, deliberating according to the quorum and majority required for Ordinary Shareholders' Meetings, having reviewed:

- the Reports of the Board of Directors and the Statutory Auditors;
- the Company's financial statements, income statement, balance sheet and notes thereto,

approve the Company's financial statements for the year ended December 31, 2014 as presented, and approve the transactions reflected in these financial statements or mentioned in these reports.

The shareholders determined the amount of net earnings for the fiscal year at 5,060,836,696 euros.

#### SECOND RESOLUTION

##### *(Approval of the consolidated financial statements for the year ended December 31, 2014)*

The shareholders, deliberating according to the quorum and majority required for Ordinary Shareholders' Meetings, having reviewed:

- the Reports of the Board of Directors and the Statutory Auditors;
- the Group's consolidated financial statements,

approve the consolidated financial statements for the year ended December 31, 2014 as presented.

#### Resolution 3 Appropriation of earnings and setting of the dividend

#### PURPOSE

In the **3<sup>rd</sup> resolution**, shareholders are asked to approve **the distribution of a dividend with the nominal value maintained at 2.55 euros per share**, a rise of +10.3% in shareholders' return, taking into account the free share attribution of one for 10 in 2014.

**A loyalty dividend of 10%**, i.e. **0.25 euro per share**, shall be granted to shares which have been held in registered form since December 31, 2012, and which remain held in this form continuously until May 20, 2015, the dividend payment date. As of December 31, 2014, 29.8% of the shares making up the share capital are likely to benefit from this loyalty dividend.

With a **pay-out ratio of 54.0% of the Group's net profit**, estimated taking into account share buybacks and cancelations, the proposed dividend is an integral part of Air Liquide's policy to reward and grow shareholder portfolios over the long term.

The ex-dividend date has been set for May 18, 2015 and the dividend payment date will be set for May 20, 2015.

**THIRD RESOLUTION****(Appropriation of 2014 earnings and setting of the dividend)**

The shareholders, deliberating according to the quorum and majority required for Ordinary Shareholders' Meetings, having noted that, considering the fiscal year 2014 earnings of 5,060,836,696 euros and the retained earnings of 1,360,559,422 euros as of December 31, 2014, distributable earnings for the year amount to a total of 6,421,396,118 euros, approve the proposals of the Board of Directors regarding the appropriation of earnings. The shareholders hereby decide to appropriate distributable earnings as follows:

Legal reserve	17,622,664 euros
Retained earnings	5,498,686,600 euros
Dividend (including the loyalty dividend)	905,086,854 euros

The dividend distributions made with respect to the last three fiscal years are as follows:

	Total amount distributed <sup>(a)</sup> (in euros)	Number of shares concerned <sup>(b)</sup>	Dividend distributed eligible in its entirety for the 40% allowance referred to in article 158-3-2° of the French Tax Code (in euros)
<b>Fiscal year 2011</b>			
Ordinary dividend	709,532,352	283,812,941	2.50
Loyalty dividend	19,517,704	78,070,815	0.25
<b>Fiscal year 2012</b>			
Ordinary dividend	780,702,897	312,281,159	2.50
Loyalty dividend	22,657,383	90,629,532	0.25
<b>Fiscal year 2013</b>			
Ordinary dividend	797,720,774	312,831,676	2.55
Loyalty dividend	23,176,483	92,705,933	0.25

(a) Theoretical values calculated based on the number of shares as of December 31 for each fiscal year.

(b) Number of shares expressed historically as of December 31 for each fiscal year.

The amounts effectively paid after adjustment were as follows:

- fiscal year 2011 – ordinary dividend: 704,800,280 euros for 281,920,112 shares; loyalty dividend: 17,872,597 euros for 71,490,388 shares;
- fiscal year 2012 – ordinary dividend: 776,404,573 euros for 310,561,829 shares; loyalty dividend: 20,886,338 euros for 83,545,351 shares;
- fiscal year 2013 – ordinary dividend: 793,400,084 euros for 311,137,288 shares; loyalty dividend: 21,538,427 euros for 86,153,707 shares.

The adjustment arises from the change in the number of treasury shares, from the final determination of the loyalty dividend taking into account shares sold between January 1 and the ex-dividend date, and from the exercise of options over this same period.

Pursuant to the provisions of the articles of association, a loyalty dividend of 10%, i.e. 0.25 euro per share with a par value of 5.50 euros, shall be granted to shares which have been held in registered form since December 31, 2012, and which remain held in this form continuously until May 20, 2015, the dividend payment date.

In accordance with the provisions of article 243 bis of the French Tax Code, it is specified that the ordinary and loyalty dividends are also in their entirety eligible for the 40% allowance referred to in section 2° of paragraph 3 of article 158 of the aforementioned Code.

Hence, a dividend of 2.55 euros shall be paid to each of the shares conferring entitlement to a dividend, it being specified that in the event of a change in the number of shares conferring entitlement to a dividend compared to the 344,872,883 shares making up the share capital as of December 31, 2014, the overall dividend amount would be adjusted accordingly and the amount appropriated to the retained earnings account would be determined on the basis of the dividend effectively paid.

The dividend payment date will be set for May 20, 2015:

- for direct registered shares: directly by the Company, based on the means of payment indicated by the holders;
- for intermediary registered shares, as well as for bearer shares which are registered in shareholder accounts: by the authorized intermediaries to whom the management of these shares has been entrusted.

The total amount of the loyalty dividend for the 102,644,011 shares which have been held in registered form since December 31, 2012, and which remained held in this form continuously until December 31, 2014, amounts to 25,661,003 euros.

The total loyalty dividend corresponding to these 102,644,011 shares that cease to be held in registered form between January 1, 2015 and May 20, 2015, the dividend payment date, shall be deducted from the aforementioned amount.

## Resolution 4

## Buyback by the Company of its own shares

## PURPOSE

The 4<sup>th</sup> resolution renews the authorization granted to the Board, for a term of 18 months, to allow the Company to buy back its own shares (including under a liquidity contract).

The maximum purchase price is set at 165 euros (unchanged amount) per share and the maximum number of shares that can be bought back is limited to 10% of the total number of shares comprising the share capital as of December 31, 2014, i.e. 34,487,288 shares for a maximum total amount of 5,690,402,520 euros.

The shares purchased may be canceled in order to offset, in the long term, the dilutive impact resulting from diverse capital increases.

In 2014, the buyback program resulted in the purchase of 1.2 million shares, representing 0.38% of the capital and the cancellation of 1 million shares. Additionally, under the liquidity contract, 1.9 million shares were purchased and 1.9 million were sold. As of December 31, 2014, 5,250 shares were held under the liquidity contract.

As of December 31, 2014, the Company held approximately 1.2 million shares for the purpose of exchange or payment in the context of external growth transactions and the implementation of conditional share grants to employees. **These shares represent 0.35% of the Company's share capital.** They do not have any voting rights and their related dividends are allocated to retained earnings.

As in previous years, the resolution stipulates that the authorization does not apply during takeover bid periods. With the introduction of the new regime under the Law of March 29, 2014 (the "*loi Florange*"), the Board of Directors decided to maintain the possibility for shareholders to express an opinion on share buybacks in the event of a takeover bid.

The objectives of the share buyback program are detailed in the 4<sup>th</sup> resolution and the program description available on the Company's website, [www.airliquide.com](http://www.airliquide.com), prior to the Shareholders' Meeting.

## FOURTH RESOLUTION

***(Authorization granted to the Board of Directors for a period of 18 months to allow the Company to trade in its own shares)***

The shareholders, deliberating according to the quorum and majority required for Ordinary Shareholders' Meetings, after having reviewed the Report of the Board of Directors, in accordance with articles L. 225-209 et seq. of the French Commercial Code and the directly applicable provisions of European Commission regulation No. 2273/2003 of December 22, 2003, authorize the Board of Directors to allow the Company to repurchase its own shares in order to:

- cancel them, subject to the adoption of the tenth resolution;
- retain them for the purpose of tendering them within the scope of an exchange offer or for payment in external growth transactions, in accordance with recognized market practice and applicable regulations;
- tender them following the exercise of rights attached to marketable securities conferring entitlement to Company shares by redemption, conversion, exchange, presentation of a warrant or any other means;
- implement (i) any share purchase option plans or (ii) plans for free grants of shares, or (iii) any employee share ownership transactions reserved for members of a Company savings

plan, performed under the terms and conditions set forth in articles L. 3331-1 et seq. of the French Labor Code through the transfer of shares bought back previously by the Company under this resolution, or providing for a free grants of shares in respect of a contribution in shares by the Company and/or to replace the discount; or (iv) share grants to employees and/or Executive Officers of the Company or affiliated companies, in accordance with the laws and regulations in force;

- maintain an active market in the Company's shares pursuant to a market liquidity contract in accordance with an Ethics Charter recognized by the French financial market authority (*Autorité des marchés financiers*).

The shareholders set the maximum purchase price at 165 euros (excluding acquisition costs) per share with a par value of 5.50 euros and the maximum number of shares that can be bought back at 10% of the total number of shares comprising the share capital at December 31, 2014, i.e. 34,487,288 shares with a par value of 5.50 euros, for a maximum total amount of 5,690,402,520 euros, subject to the legal limits.

These shares may be purchased at any time, excluding the periods for takeover bids on the Company's share capital, on one or more occasions, and by all available means, either on or off a stock exchange, in private transactions, including the purchase of blocks of shares, or through the use of derivative instruments, and, if applicable, by all third parties acting on behalf of the Company, under the terms and conditions stipulated in the last paragraph of article L. 225-206 of the French Commercial Code.

## Resolutions presented for the approval of the Combined Shareholders' Meeting – May 6, 2015

Shares bought back may be commuted, assigned or transferred in any manner on or off a stock exchange or through private transactions, including the sale of blocks of shares, in accordance with the applicable regulations.

Dividends on treasury shares held by the Company shall be allocated to retained earnings.

This authorization is granted for a period of 18 months starting from the date of this Shareholders' Meeting. It supersedes the authorization granted by the fourth resolution of the Ordinary Shareholders' Meeting of May 7, 2014 with respect to the non-utilized portion of such authorization.

The shareholders give full powers to the Board of Directors, with the possibility of delegating such powers, to implement this authorization, place orders for trades, enter into all agreements, perform all formalities and make all declarations with regard to all authorities and, generally, do all that is necessary for the execution of any of the Board's decisions made in connection with this authorization.

The Board of Directors shall inform the shareholders of any transactions performed in light of this authorization in accordance with applicable regulations.

## Resolutions 5 and 6

## Appointment or renewal of terms of office of Directors

## PURPOSE

The Board of Directors is currently composed of 13 members, including since last year one employee Director. The terms of office of Ms Siân Herbert-Jones, Mr Gérard de La Martinière and Mr Cornelis van Lede will expire at the end of this Shareholders' Meeting.

The Board took due note of Mr Gérard de La Martinière and Mr Cornelis van Lede's terms of office will expire at the end of this Shareholders' Meeting, in compliance with the internal regulations of the Board of Directors.

On the recommendation of the Appointments and Governance Committee, the **5<sup>th</sup> resolution** concerns the **renewal**, for a period of four years, of the term of office of Ms Siân Herbert-Jones, who has been a member of the Company's Board of Directors since 2011. Ms Siân Herbert-Jones will continue to provide the Company with her financial expertise and her knowledge of the Services sector gained at an international listed company.

On the recommendation of the Appointments and Governance Committee following a selection process led by the Committee and assisted by an external consultant, the **6<sup>th</sup> resolution** concerns the **nomination**, for a period of four years, of Ms Geneviève Berger. With a PhD in physics, Doctor of Medecine and with a PhD in human biology, Ms Geneviève Berger was Director of the mixed laboratory for parametric imaging CNRS-University Paris VI from 1991 to 2000. She was General Manager of the CNRS between 2000 and 2003. She served as University Professor and Hospital Managing Director at La Pitié-Salpêtrière between 2003 and 2008 before joining Unilever as Chief Research & Development Officer and then Chief Science Officer from 2008 to 2014. Ms Geneviève Berger will provide the Board of Directors with her expertise in healthcare and research.

At the end of this Shareholders' Meeting, the Board of Directors will comprise 12 members. Nine of the 11 members elected by the General Shareholders' Meeting will be independent according to the internal regulations. In particular, the Board will include five women and six foreign nationals.

## FIFTH RESOLUTION

*(Renewal of the term of office of Ms Siân Herbert-Jones as Director)*

The shareholders, deliberating according to the quorum and majority required for Ordinary Shareholders' Meetings, after having reviewed the Report of the Board of Directors, decide to renew the term of office of Ms Siân Herbert-Jones as a Director for a term of four years, which will expire at the end of the Ordinary Shareholders' Meeting in 2019, held to approve the financial statements for the fiscal year ending December 31, 2018.

## SIXTH RESOLUTION

*(Appointment of Ms Geneviève Berger as Director)*

The shareholders, deliberating according to the quorum and majority required for Ordinary Shareholders' Meetings, after having reviewed the Report of the Board of Directors, decide to appoint Ms Geneviève Berger as a Director for a term of four years, which will expire at the end of the Ordinary Shareholders' Meeting in 2019, held to approve the financial statements for the fiscal year ending December 31, 2018.

## Resolution 7

## Approval of related agreements

## PURPOSE

The 7<sup>th</sup> resolution concerns the approval, under a specific resolution, of the application for Mr Benoît Potier of modifications made to the death and disability benefits plan and the life insurance plan:

- It was decided to apply, taking effect as of January 1, 2015, to all employees and senior managers and executives a unified complementary death and disability benefits plan, providing broader coverage, without a significant increase in cost for the Company. As a result, the death and disability benefits plan for “senior managers” from which Mr Benoît Potier benefited was terminated. You are asked to approve the application of the unified death and disability benefits plan for Mr Benoît Potier.
- It has been decided to transfer to the collective life insurance plan from which Mr Benoît Potier benefits as from 2015 the contribution, paid up until then under the defined contribution pension plan for senior managers and executives from which he no longer benefits. The cost to the Company will remain unchanged. You are asked to approve the application of this amended plan for Mr Benoît Potier.

These agreements are shown in the Statutory Auditors' Special Report on regulated agreements and commitments (see 2014 Reference Document and the Company's website).

## SEVENTH RESOLUTION

*(Approval of the agreements referred to in articles L. 225-38 et seq. of the French Commercial Code and the Statutory Auditors' Special Report, relating to Mr Benoît Potier)*

The shareholders, deliberating according to the quorum and majority required for Ordinary Shareholders' Meetings, duly note

that the Special Report provided for by the laws and regulations currently in force on the new agreements referred to in articles L. 225-38 et seq. of the French Commercial Code undertaken in favor of Mr Benoît Potier, has been submitted to them.

The shareholders approve the agreements and the report prepared with regard to such agreements pursuant to articles L. 225-38 et seq. of the French Commercial Code.

## Resolutions 8 and 9

## Opinion on remuneration of Executive Officers for 2014 (“Say on Pay”)

## PURPOSE

The AFEP/MEDEF governance Code, to which the Company refers, suggests since last year that companies submit to the opinion of shareholders the elements of remuneration of Executive Officers for the previous fiscal year.

In the 8<sup>th</sup> and 9<sup>th</sup> resolutions, you are asked to express a favorable opinion on the elements of remuneration due or allocated to Mr Benoît Potier, Chairman and CEO, and Mr Pierre Dufour, Senior Executive Vice-President, in respect of 2014, as described in the 2014 Reference Document and in the Invitation to Shareholders' Meeting – pages 30 to 34.

## EIGHTH RESOLUTION

*(Opinion on elements of remuneration due or allocated to Mr Benoît Potier for the year ended December 31, 2014)*

The shareholders, consulted in accordance with the AFEP/MEDEF corporate governance Code for listed companies, and deliberating according to the quorum and majority required for Ordinary Shareholders' Meetings, issues a favorable opinion on the elements of remuneration for 2014 due or allocated to Mr Benoît Potier, as presented in the Company's 2014 Reference Document, in chapter 3 “Corporate Governance”, sub-section “Elements of remuneration for 2014 due or allocated to Mr Benoît Potier, submitted for the shareholders' opinion”.

## NINTH RESOLUTION

*(Opinion on elements of remuneration due or allocated to Mr Pierre Dufour for the year ended December 31, 2014)*

The shareholders, consulted in accordance with the AFEP/MEDEF corporate governance Code for listed companies, and deliberating according to the quorum and majority required for Ordinary Shareholders' Meetings, issues a favorable opinion on the elements of remuneration for 2014 due or allocated to Mr Pierre Dufour, as presented in the Company's 2014 Reference Document, in chapter 3 “Corporate Governance”, sub-section “Elements of remuneration for 2014 due or allocated to Mr Pierre Dufour, submitted for the shareholders' opinion”.

## Extraordinary Shareholders' Meeting

### Resolution 10

### Authorization to reduce the share capital by cancelation of treasury shares

#### PURPOSE

As it is the case each year, we ask you, in the **10<sup>th</sup> resolution**, to authorize the Board of Directors to cancel any or all of the shares purchased in the share buyback program and reduce share capital under certain conditions, particularly in order to fully offset, where necessary, any potential dilution resulting from diverse capital increases.

The difference between the carrying amount of the canceled shares and their par value will be allocated to reserve or additional paid-in capital accounts. This authorization granted to the Board of Directors will be for a period of 24 months.

#### TENTH RESOLUTION

##### *(Authorization granted to the Board of Directors for a period of 24 months to reduce the share capital by cancelation of treasury shares)*

The shareholders, deliberating according to the quorum and majority required for Extraordinary Shareholders' Meetings, after having reviewed the Report of the Board of Directors and the Statutory Auditors' Special Report, authorize the Board of Directors to cancel, via its decisions alone, on one or more occasions, and within the limit of 10% of the Company's share capital per 24-month period, any or all of the shares bought back by the Company within the scope of the authorization adopted by this Ordinary Shareholders' Meeting in its fourth resolution and of those shares bought back within the scope of the authorizations adopted by the Ordinary Shareholders' Meetings of May 7, 2014 and May 7, 2013 and to reduce the share capital by this amount.

The difference between the carrying amount of the canceled shares and their par value will be allocated to any reserve or additional paid-in capital accounts.

This authorization is granted for a period of 24 months starting from the date of this Shareholders' Meeting. It supersedes the authorization granted by the Extraordinary Shareholders' Meeting of May 7, 2014 in its fifteenth resolution with respect to the non-utilized portion of such authorization.

Full powers are granted to the Board of Directors, with the possibility of sub-delegation under the conditions set by law, to implement this authorization, deduct the difference between the carrying amount of the shares canceled and their par value amount from all reserve and additional paid-in capital accounts and to carry out the necessary formalities to implement the reduction in capital which shall be decided in accordance with this resolution and amend the articles of association accordingly.

### Resolution 11

### Conditional grants of shares

#### PURPOSE

In order for conditional grant of shares to employees (CGSE) to benefit both the employees and the Executive Officers within the new legislative framework, where applicable, and to provide for more competitive remuneration in the Company on a worldwide basis, you are invited in the **11<sup>th</sup> resolution** to renew for a period of 38 months, the authorization given to the Board of Directors in 2013 to grant conditional shares of the Company in favor of Group employees.

Since the initial grant in 2008, the Board of Directors has decided, upon the Remuneration Committee's recommendation that all conditional shares grants must be subject to a continued service requirement and performance conditions. The performance conditions are determined by reference to a growth target for recurring net earnings per share calculated, since 2013, over three fiscal years and are made public ex post. This share grant policy would be continued within the scope of the authorization which the shareholders are being asked to renew. The number of shares granted to employees under the 2013 resolution (subject to fulfillment of the conditions set by the Board), represents as of December 31, 2014, 0.08% of the Company's share capital, it being specified that the Company's Executive Officers have not been beneficiaries of these allotments. If an award to Executive Officers would be decided, it would be made within the scope of a plan providing for a three-year vesting period and performance conditions identical to those provided in respect of stock-options.

Pursuant to the authorization provided for in this draft resolution, the total number of shares that may be granted is maintained at 0.5% of the share capital over a period of 38 months while the maximum number of shares that may be granted to Executive Officers is set at 0.15% of the share capital over the same period.



**ELEVENTH RESOLUTION**

***(Authorization granted to the Board of Directors for a period of 38 months to grant existing or new shares to employees and Executive Officers of the Group, or some of such employees or Executive Officers, resulting in the waiver by shareholders of their preferential subscription rights to the shares to be issued)***

The shareholders, deliberating according to the quorum and majority required for Extraordinary Shareholders' Meetings, after having reviewed the Report of the Board of Directors and the Statutory Auditors' Special Report,

1. authorize the Board of Directors, within the scope of articles L. 225-197-1 et seq. of the French Commercial Code, to proceed, on one or more occasions, to free share attribution of existing or new shares to beneficiaries whom it will determine from among the employees and Executive Officers of the Company and entities affiliated with the Company within the meaning of article L. 225-197-2 of the aforementioned Code, under the conditions set out below;
2. decide that the existing or new shares that are granted pursuant to this authorization may not represent more than 0.5% of the share capital on the date of the decision by the Board of Directors to grant them, bearing in mind that the shares granted to Executive Officers of the Company pursuant to this authorization may not represent more than 0.15% of the share capital on the date of the decision by the Board of Directors to grant them; the total numbers of shares thus determined do not take into account any adjustments that could be made in the event of a transaction involving the Company's share capital;
3. decide that the maximum par value amount of share capital increases performed on the basis of this authorization shall be deducted from the overall limit stipulated in paragraph 2. of the twelfth resolution (or any resolution which would replace it at a later date);
4. decide that the grant of such shares to their beneficiaries shall become definitive either:
  - i) at the end of a minimum vesting period of two years, it being specified that the beneficiaries shall then be required to hold such shares for a minimum period of two years as from their final grant date, or
  - ii) for all or some of the shares granted, at the end of a minimum vesting period of four years, in which case no minimum holding period shall apply,

it being specified that the Board of Directors shall have the option to choose between these two possibilities and to use them alternatively or concurrently, and that it may, in either case, extend the vesting period, and, in the first case, extend the holding period and, in the second case, provide for a holding period;

5. decide that the grant of such shares to their beneficiaries shall become definitive prior to the end of the above-mentioned vesting periods and that such shares shall be freely transferable in the event of disability of the beneficiary, under the conditions provided for by law;
6. take due note that, in the event of the free share attribution of new shares, this authorization shall entail, as and when such shares are definitively granted, an increase in capital by capitalization of additional paid-in capital, reserves or profits in favor of the beneficiaries of the shares and the correlative waiver by the shareholders of their preferential subscription rights to such shares in favor of the beneficiaries;
7. grant full powers to the Board of Directors, with the possibility of sub-delegation under the conditions set by law, in order to implement this authorization. The Board of Directors shall have full powers in order to, in particular:
  - determine the identity of the beneficiaries, or the category or categories of beneficiaries, of the share attribution and the number of shares attributed to each of them,
  - set the conditions and, where applicable, the criteria for the attribution of shares,
  - provide for the possibility to provisionally suspend the rights to the attribution under the conditions provided for by law and the applicable regulations,
  - enter the free shares attributed in a registered account in the name of their holder, mentioning, where applicable, the holding period and the length of such period, and to waive the holding period for the shares in any circumstances in which this resolution or the applicable regulations make it possible to waive such holding period,
  - provide for the possibility, if it deems necessary, to make adjustments to the number of free shares attributed in order to preserve the rights of the beneficiaries, depending on any transactions involving the Company's share capital carried out during the vesting period, as referred to in section 2 of article L. 225-181 of the French Commercial Code, and under such conditions as it may determine,
  - in the event of the issue of new shares, to deduct, where applicable, from additional paid-in capital, reserves or profits as it chooses, the amounts required to pay for such shares, record the completion of the capital increases carried out pursuant to this authorization, make the corresponding amendments to the articles of association and, in general, carry out all acts and complete all formalities that may be required;

This authorization is granted for a period of 38 months as from the date hereof and supersedes the authorization granted by virtue of the twelfth resolution of the Extraordinary Shareholders' Meeting of May 7, 2013, for its non-utilized part.



## Resolutions 12 and 13

## Increase in share capital via the issuance of ordinary shares or marketable securities conferring entitlement to the share capital with retention of preferential subscription rights

## PURPOSE

To finance the Group's growth investments, shareholders are asked in the **12<sup>th</sup> resolution** to renew the delegation granted to the Board of Directors to increase the share capital for a maximum nominal amount of 470 million euros corresponding to around 25% of the share capital as of December 31, 2014, by issuing, on one or more occasions, ordinary shares or composite dilutive marketable securities. The shareholders shall have, in proportion to the amount of shares they own, a preferential subscription right to the shares or to the marketable securities issued.

This delegation of authority would be valid for a period of 26 months.

The total amount of capital increases carried out pursuant to the **13<sup>th</sup> resolution** set out below and any resolutions allowing employees and Executive Officers to benefit from shares (11<sup>th</sup> resolution of the May 7, 2013 Extraordinary Shareholders' Meeting and the 11<sup>th</sup>, 16<sup>th</sup> and 17<sup>th</sup> resolutions submitted to this Shareholders' Meeting) is deducted from this ceiling of 470 million euros.

The law dated March 29, 2014 (the "*loi Florange*") confers on the Board of Directors the possibility of making any decisions the implementation of which may lead to the failing of a takeover bid without prior authorization from the Shareholders' Meeting. This requirement may be waived. In order to provide shareholders with the right to express an opinion on the issues subject to this delegation of authority during periods of takeover bids, it is proposed that this delegation of authority is suspended during periods of takeover bids.

In its previous delegation, the Extraordinary Shareholders' Meeting of May 7, 2013 had delegated to the Board of Directors the authority to decide to increase the share capital for a maximum nominal amount of 430 million euros corresponding to around 25% of the share capital as of December 31, 2012. This authorization, granted for 26 months, has not been used.

The **13<sup>th</sup> resolution** allows for the amount of shares issued to be increased, within the legal limits of 15%, in the event of oversubscription.

## TWELFTH RESOLUTION

*(Delegation of authority granted to the Board of Directors for a period of 26 months in order to increase the share capital via the issuance of ordinary shares or marketable securities conferring entitlement, immediately and/or in the future, to the Company's share capital, with retention of shareholder preferential share subscription rights for a maximum nominal amount of 470 million euros)*

The shareholders, deliberating according to the quorum and majority required for Extraordinary Shareholders' Meetings, after having reviewed the Board of Directors' Report and the Statutory Auditors' Special Report and in accordance with articles L. 225-129 to L. 225-129-6 and L. 228-91 to L. 228-93 of the French Commercial Code:

1. delegate to the Board of Directors, with the option of subdelegation, in accordance with the legal provisions, the authority to decide, in the amount and on the dates it will determine, with retention of preferential share subscription rights, one or more capital increases via the issue, in France and other countries, in euros, foreign currencies or units of account determined according to several currencies, (i) of ordinary Company shares, (ii) of marketable securities governed by articles L. 228-91 et seq. of the French Commercial Code which are the Company's capital securities, granting access to other Company share capital and/or entitlement to Company debt securities and/or (iii) of marketable securities representing a debt claim governed or not by articles L. 228-91 et seq. of

the French Commercial Code, conferring entitlement to or likely to confer entitlement to share capital to be issued by the Company, these marketable securities could also potentially grant access to the Company's existing share capital and/or debt securities, the subscription of which may be completed in cash or by offsetting against liquid and payable debts.

The delegation thereby granted to the Board of Directors is valid for a period of 26 months starting from the date of this Shareholders' Meeting, it being specified however that the Board of Directors will not be authorized to make use of it during periods of takeover bids on the Company's share capital;

2. decide that the total amount of share capital increases likely to be performed thereby immediately and/or in the future may not exceed the nominal amount of 470 million euros, from which shall be deducted (i) the issuance amount of shares or marketable securities in the event of oversubscription, pursuant to the thirteenth resolution (or any resolution which would replace it at a later date), and (ii) the total amount of share capital increases performed in accordance with the eleventh resolution of the Extraordinary Shareholders' Meeting of May 7, 2013 and the twelfth resolution of the Extraordinary Shareholders' Meeting of May 7, 2013 (as substituted by the eleventh resolution of this Shareholders' Meeting subject to its approval) and the sixteenth and seventeenth resolutions of this Shareholders' Meeting (or any resolutions which would replace them at a later date), this limit being increased by the number of shares necessary for adjustments likely to be made in accordance with applicable legislative and regulatory

## Resolutions presented for the approval of the Combined Shareholders' Meeting – May 6, 2015

provisions and, as the case may be, in accordance with the contractual provisions providing for other cases of adjustment, to preserve the rights of holders of marketable securities conferring entitlement to the Company's shares; the maximum nominal amount (or its counter-value in euros on the issue decision date in the event of an issue in foreign currencies or units of account determined by reference to several currencies) of the marketable debt securities conferring entitlement to the Company's share capital issued by virtue of this delegation may not exceed a limit of 3 billion euros from which shall be deducted, as the case may be, the issuance amount, in the event of oversubscription, pursuant to the thirteenth resolution below (or any resolution which would replace it at a later date);

3. decide that the shareholders have, proportional to the amount of their shares, a preferential share subscription right to the shares or marketable securities conferring entitlement, immediately and/or in the future, to the Company's shares issued pursuant to this resolution;
4. decide that if the subscriptions made by the shareholders prorata to their existing shareholding and, as the case may be, over and above their existing shareholding if allowed by the Board of Directors, have not resulted in the purchase of all of the shares or marketable securities defined above, the Board of Directors may use, in the order it shall deem appropriate, each or some of the options set forth in article L. 225-134 of the French Commercial Code;
5. acknowledge and decide, as necessary, that all issuance decisions under this delegation of authority shall entail, to the benefit of the holders of issued marketable securities giving access, or likely to give access to capital securities to be issued by the Company, the waiver by Company shareholders of their preferential subscription rights to shares to be issued to which these marketable securities will give entitlement immediately and/or in the future;
6. grant full powers to the Board of Directors, with the option of sub-delegation under the conditions set by law, to implement this delegation and specifically:
  - determine the price, the terms and conditions and dates of issues, and the form and characteristics of the marketable securities to be created,
  - set the amounts to be issued, suspend, where necessary, the exercise of Company share attribution rights attached to marketable securities to be issued within a period not exceeding three months, determine the terms and conditions ensuring, as the case may be, the preservation

of rights of holders of marketable securities conferring future entitlement to Company shares, in accordance with the legal, regulatory and, as the case may be, contractual provisions, and proceed, where necessary, with any deductions from any issue premiums and specifically deductions of costs arising from issues,

- list, where necessary, the marketable securities to be issued for trading in a regulated market, make all necessary arrangements and enter into any agreements in order to successfully conclude the issues contemplated, duly record the share capital increases arising from any issue carried out via this delegation and amend the articles of association accordingly;
7. take due note that this delegation supersedes the delegation granted by the Extraordinary Shareholders' Meeting of May 7, 2013 in its thirteenth resolution;

### THIRTEENTH RESOLUTION

***(Authorization granted to the Board of Directors for a period of 26 months to increase the issuance amount of shares or marketable securities in the event of oversubscription)***

The shareholders, deliberating according to the quorum and majority required for Extraordinary Shareholders' Meetings, after having reviewed the Board of Directors' Report and the Statutory Auditors' Special Report, and pursuant to the provisions of article L. 225-135-1 of the French Commercial Code, in the event of an issue of shares or marketable securities with retention of preferential subscription rights as provided by the twelfth resolution:

- authorize the Board of Directors, with the option of subdelegation, to increase, under the conditions set by the law, the number of shares or marketable securities to be issued with shareholder preferential subscription rights, at the same price as set for the initial issue, within the deadlines and limits set by the applicable regulations;
- decide that the nominal amount of the increase in the issue determined in accordance with this resolution shall be deducted from the initial limit and, in the event of an issue of debt securities, from the second limit stated in the twelfth resolution;
- decide that the authorization thereby granted to the Board of Directors is valid for a period of 26 months starting from the date of this Shareholders' Meeting.

## Resolution 14

## Amendment to article 8 of the articles of association relating to voting rights

## PURPOSE

The law dated March 29, 2014 (the “*loi Florange*”) automatically confers double voting rights to all shares that have been registered continuously for at least two years in a company with shares listed on a regulated market, thus reversing the previous legal scheme. This new scheme can be voted down through statutory means to return to the “one share one vote” principle. The amendment to the articles of association that you are asked to approve in the **14<sup>th</sup> resolution** falls within this context.

This affirmation of shareholder equality is in line with the principles that your Company has supported for more than 20 years. The Shareholders' Meeting of May 19, 1993 removed double voting rights from the Company's articles of association in order to avoid, in particular, that significant shareholders holding disproportionate power compared with the percentage of shares they held, and therefore the funds that they had invested. Nonetheless, to continue to encourage a policy of long-term Company shareholder loyalty, the same Shareholder Meeting voted for a loyalty dividend of 10% to be paid to shareholders of registered shares held continuously for more than two years. In the event of free share attributions to these same shareholders, it was also decided that the latter would receive a 10% bonus allocation. It is therefore in the interest of consistency and continuity in the protection of shareholders' interests that you are asked to vote in favor of not attributing double voting rights to shares that have been registered continuously for at least two years; while provisions in the articles of association relating to the 10% loyalty dividend and the number of free shares attributed remain unchanged.

## FOURTEENTH RESOLUTION

***(Amendment to article 8 (Rights and obligations governing shares) of the Company's articles of association)***

The shareholders, deliberating according to the quorum and majority required for Extraordinary Shareholders' Meetings, after having reviewed the Board of Directors' Report, decide, in accordance with the option provided for in paragraph 3 of article L. 225-123 of the French Commercial Code amended by Law No. 2014-384 dated March 29, 2014 aimed at bolstering

the French economy, not to confer double voting rights and as a result add a new paragraph 3 to article 8 of the Company's articles of association (“Rights and obligations governing shares”), which reads as follows:

“Subject to legal and regulatory restrictions, voting rights attached to the shares are proportionate to the capital quota they represent and each share confers the right to one vote. In accordance with the option provided for in paragraph 3 of article L. 225-123 of the French Commercial Code, double voting rights will not be conferred to paid-up shares and for which a nominative registration for at least two years in the name of the same shareholder can be proved.”

## Resolution 15

## Amendment to article 18 of the articles of association

## PURPOSE

In accordance with a new regulation setting the closing date for registration in the share register at the 2<sup>nd</sup> working day preceding the Shareholders' Meeting, you are asked, in the **15<sup>th</sup> resolution**, to approve the amendment of article 18 of the articles of association to comply with this new regulation.

## FIFTEENTH RESOLUTION

***(Amendment to article 18 (Shareholders' Meetings) of the Company's articles of association)***

The shareholders, deliberating according to the quorum and majority required for Extraordinary Shareholders' Meeting, after having reviewed the Board of Directors' Report, decide to amend article 18 of the Company's articles of association as follows:

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*“Article 18  
Shareholders' Meetings*

The Shareholders' Meeting is comprised of all the shareholders, regardless of the number of shares they own, provided that all shares are fully paid up and that they are not stripped of voting rights.

Existing text	New text
<p>The right to attend Shareholders' Meetings of the Company shall be justified by the registration of the shares in the name of the shareholder or of the intermediary registered on behalf of the shareholder (pursuant to legal provisions) at 00:00 a.m., Paris time, on the third business day preceding the Shareholders' Meeting:</p> <ul style="list-style-type: none"> <li>■ for owners of registered shares: in the registered share accounts kept by the Company;</li> <li>■ for owners of bearer shares: in the bearer share accounts kept by the duly empowered intermediary, in accordance with prevailing regulations.</li> </ul>	<p>The right to attend Shareholders' Meetings of the Company shall be justified by the recording of the shares, in the book-entry form, in the name of the shareholder or of the intermediary registered on behalf of the shareholder within the time frames and under the conditions provided for by French law.”</p>

The rest of article 18 remains unchanged.

## Resolutions 16 and 17

## Share capital increases reserved for employees

**PURPOSE**

The Group wishes to continue increasing the involvement of employees in its development. These employee share ownership transactions contribute significantly to increasing employee motivation and sense of belonging to the Group.

Shareholders are therefore asked in the **16<sup>th</sup> resolution** to renew the authorization to increase share capital for employees who contribute to a Company or Group savings plan under the same terms and conditions as those approved at the Shareholders Meeting of May 7, 2013; this resolution is supplemented in the **17<sup>th</sup> resolution** by a comparable scheme for the employees and Executive Officers of the Group's foreign companies who could not take advantage of the share ownership scheme set up in accordance with the 16<sup>th</sup> resolution. The total nominal amount of share capital increases likely to be performed under these resolutions remains unchanged at 30.25 million euros, corresponding to the issue of a maximum of 5.5 million shares, or 1.6% of share capital as of December 31, 2014. This amount shall be deducted from the maximum amount of 25% of the share capital, as stipulated in the 12<sup>th</sup> resolution relating to the overall limit for share capital increases likely to be performed with delegation to the Board of Directors. The subscription price of the shares to be issued pursuant to the two proposed resolutions shall be defined in accordance with the French Labor Code and may hence be subject to a maximum discount of 20%.

Both these resolutions shall result in cancelation of the preferential subscription rights of shareholders in favor of the beneficiaries.

At the end of 2014, the share capital held by employees and former employees of the Group is estimated at 2.4%, of which 1.5% corresponds to shares subscribed by employees during capital increases reserved for employees or held through dedicated mutual funds.

**SIXTEENTH RESOLUTION**

***(Delegation of authority granted to the Board of Directors for a period of 26 months to perform share capital increases, with cancelation of preferential subscription rights, reserved for members of a Company or group savings plan)***

The shareholders, deliberating according to the quorum and majority required for Extraordinary Shareholders' Meetings, after having reviewed the Report of the Board of Directors and

the Statutory Auditors' Special Report, deliberating pursuant to articles L. 225-129-6 and L. 225-138-1 of the French Commercial Code and articles L. 3331-1 et seq. of the French Labor Code:

1. delegate to the Board of Directors the authority to decide to increase share capital, on one or more occasions, at the time or times and in the proportions that it deems appropriate, via the issuance of ordinary shares of the Company as well as equity securities granting access to the Company's share capital, reserved for employees who contribute to a Company or group savings plan;

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2. decide that the total amount of share capital increases likely to be performed under this resolution may not exceed a maximum nominal amount of 30.25 million euros, corresponding to the issue of a maximum of 5.5 million shares, it being specified that this amount does not include additional shares to be issued, in accordance with applicable legal and regulatory provisions, and when relevant, contractual stipulations providing for other adjustments, to preserve the rights of holders of equity securities conferring access to share capital and that the total amount of share capital increases likely to be performed under this resolution and the seventeenth resolution may not exceed the aforementioned nominal amount of 30.25 million euros;
3. decide that the maximum nominal amount of share capital increases likely to be performed on the basis of this delegation shall be deducted from the overall limit stipulated in paragraph 2. of the twelfth resolution (or any resolution which would replace it at a later date);
4. decide that the beneficiaries of these capital increases will be, directly or through an intermediary of a Company mutual fund or all other structures or entities permitted by applicable legal or regulatory provisions, the members, within the Company and the French or foreign companies, which are affiliated to it within the meaning of article L. 225-180 of the French Commercial Code and article L. 3344-1 of the French Labor Code, of a Company or group savings plan;
5. decide to cancel the preferential subscription rights of shareholders to the new shares or other equity securities, and equity securities to which the latter would confer entitlement, which shall be issued in favor of the aforementioned members of a Company or group savings plan in accordance with this resolution;
6. decide that the subscription price may not exceed the average, determined in accordance with article L. 3332-19 of the French Labor Code, of the opening trading prices for the Company's share during the 20 trading days preceding the date of the decision setting the opening date for the subscription period, or be more than 20% lower than such average, bearing in mind that the shareholders officially authorize the Board of Directors, if deemed appropriate, to reduce or cancel the aforementioned discount, in view of the legal, regulatory and tax constraints under the applicable foreign law, where applicable;
7. decide, in accordance with article L. 3332-21 of the French Labor Code, that the Board of Directors may provide for the free share attribution, to the aforementioned beneficiaries, of shares to be issued or already issued or other equity securities or securities granting access to the Company's capital to be issued or already issued, in respect of (i) the contribution that could be paid in accordance with the regulations governing Company or group saving plans, and/or (ii) where appropriate, the discount;
8. also decide that, should the beneficiaries not subscribe to the entire capital increase within the allotted deadlines, the capital increase would only be performed for the amount of the shares subscribed, and that the non-subscribed shares may be offered again to the beneficiaries concerned within the scope of a subsequent capital increase;
9. grant full powers to the Board of Directors with the option of sub-delegation under the conditions set by law, to determine, within the limits described above, the various terms and conditions of the transaction and particularly:
  - define the criteria which the companies must meet in order for their employees to be entitled to benefit from the capital increases,
  - determine a list of these companies,
  - set the terms and conditions of the share issue, the characteristics of the shares, and, where appropriate, the other equity securities, determine the subscription price calculated based on the method defined above, set the terms and conditions and deadline for fully paying up the subscribed shares, deduct from the "Additional paid-in capital" account all costs relating to these capital increases and, if deemed appropriate, all sums necessary to bring the legal reserve up to one tenth of the new share capital after each share issue, and generally complete, directly or through an authorized representative, all the transactions and formalities relating to the share capital increases performed under this resolution and, specifically, perform all the necessary formalities, and where appropriate, take any measures with a view to listing the shares issued pursuant to this resolution for trading on the Euronext Paris exchange,
  - set the opening and closing dates for the subscription period, record the completion of the corresponding capital increase and amend the articles of association accordingly;
10. decide that this delegation granted to the Board of Directors is valid for a period of 26 months starting from the date of this Shareholders' Meeting and strips of all legal effect the delegation granted to the Board of Directors pursuant to the fifteenth resolution of the Extraordinary Shareholders' Meeting of May 7, 2013, for the amount of the non-utilized portion of such delegation.

## SEVENTEENTH RESOLUTION

***(Delegation of authority granted to the Board of Directors for a period of 18 months to perform share capital increases, with cancelation of preferential subscription rights, reserved for a category of beneficiaries)***

The shareholders, deliberating according to the quorum and majority required for Extraordinary Shareholders' Meetings, after having reviewed the Report of the Board of Directors and the Statutory Auditors' Special Report, pursuant to articles L. 225-129 to L. 225-129-2 and article L. 225-138 of the French Commercial Code:

1. delegate to the Board of Directors the authority to decide to increase share capital, on one or more occasions, at the time or times and in the proportions it shall deem fit, via the issuance of ordinary shares of the Company as well as any other equity securities conferring entitlement to the Company's share capital, reserved for the category of beneficiaries defined hereafter;



## Resolutions presented for the approval of the Combined Shareholders' Meeting – May 6, 2015

2. decide that the total amount of share capital increases likely to be performed under this resolution may not exceed a maximum nominal amount of 30.25 million euros, corresponding to the issue of a maximum of 5.5 million shares, it being specified that this amount does not include additional shares to be issued, in accordance with applicable legal and regulatory provisions, and when relevant, contractual stipulations providing for other adjustments, to preserve the rights of holders of capital securities conferring access to share capital and that the total amount of share capital increases likely to be performed under this resolution and the sixteenth resolution may not exceed the aforementioned par value amount of 30.25 million euros;
3. decide that the maximum nominal amount of share capital increases likely to be performed on the basis of this delegation shall be deducted from the overall limit stipulated in paragraph 2. of the twelfth resolution (or any resolution which would replace it at a later date);
4. decide to cancel the preferential subscription rights of shareholders to the shares or other equity securities and to the equity securities to which the latter would confer entitlement, which shall be issued pursuant to this resolution and to reserve the right to subscribe them to the category of beneficiaries meeting the following characteristics: any financial institution or subsidiary of such an institution mandated by the Company and which would subscribe to shares, or other equity securities issued by the Company pursuant to this resolution, with the sole intent to enable employees and Executive Officers of foreign companies, affiliated to the Company within the meaning of article L. 225-180 of the French Commercial Code and article L. 3344-1 of the French Labor Code, to benefit from a shareholding or investment plan with an economic profile comparable to an employee share ownership scheme that would be set up in connection with a share capital increase performed in accordance with the sixteenth resolution submitted to the vote of this Shareholders' Meeting, taking into account the regulatory and fiscal and/or social framework applicable in the country of residence of the employees and Executive Officers of the aforementioned foreign companies;
5. decide that the unit price for the issue of the shares to be issued pursuant to this resolution shall be determined by the Board of Directors based on the Company's share price; this issue price shall be equal to the average of the opening trading prices for the share during the 20 trading days preceding the date of the Board of Directors' decision setting the opening date for the period of subscription to a share capital increase performed on the basis of the sixteenth resolution, with the possibility of reducing this average by a maximum discount of 20%; the amount of this discount shall be determined by the Board of Directors within the aforementioned limit;
6. decide that the Board of Directors shall have full powers, under the terms and conditions set forth by law and within the limits defined above, with the option of sub-delegation, so as to implement this delegation and particularly in order to:
  - set the date and price for the issue of shares or other equity securities to be issued in accordance with this resolution as well as the other terms and conditions governing the issue,
  - determine the beneficiary (or list of beneficiaries) for the cancelation of the preferential subscription right within the above-defined category, as well as the number of shares to be subscribed by such beneficiary (or each beneficiary),
  - where appropriate, determine the characteristics of the other equity securities granting access to the Company's share capital under the applicable legal and regulatory conditions,
  - record the completion of the share capital increase, complete, directly or through an authorized representative, all the transactions and formalities involving the share capital increases and on its sole decision and if it deems appropriate, deduct the share capital increase costs from the amount of additional paid-in capital relating to such increases, amend the articles of association accordingly and perform all the necessary formalities, and where appropriate, take any measures with a view to listing the shares issued pursuant to this resolution for trading on the Euronext Paris exchange;
7. decide that this delegation of authority granted to the Board of Directors is valid for a period of 18 months starting from the date of this Shareholders' Meeting.

## Ordinary Shareholders' Meeting

### Resolution 18

### Powers

#### PURPOSE

The 18<sup>th</sup> resolution is a standard resolution required for the completion of publications and legal formalities.

#### EIGHTEENTH RESOLUTION

##### *(Powers for formalities)*

Full powers are granted to a holder of a copy or extract of the minutes of this Shareholders' Meeting to perform all official publications and other formalities required by law and the regulations.



## ➤ STATUTORY AUDITORS' REPORTS

### Statutory Auditors' Special Report on related party agreements and commitments

*This is an unofficial translation into English of the Statutory Auditors' Special Report on related-party agreements and commitments that is issued in French and it is provided solely for the convenience of English-speaking readers.*

*This report should be read in conjunction with, and construed in accordance with, French law and professional standards applicable in France.*

*It should be understood that the agreements and commitments reported on are only those provided for by the French Commercial Code and that the report does not apply to those related-party transactions described in IAS24 or other equivalent accounting standards.*

To the Shareholders,

In our capacity as Statutory Auditors of your Company, we hereby report on the agreements and commitments with related parties.

We are required to inform you, based on the information provided to us, of the characteristics and principal terms and conditions of those agreements and commitments of which we have been informed or which we discovered at the time of our engagement, without expressing an opinion on their usefulness and appropriateness or seeking to identify other agreements or commitments. It is your responsibility, pursuant to article R. 225-31 of the French Commercial Code (Code de commerce), to assess the benefits resulting from the conclusion of these agreements and commitments prior to their approval.

Furthermore, we are required, where applicable, to inform you in accordance with article R. 225-31 of the French Commercial Code (Code de commerce) relating to the performance, during the past fiscal year, of the agreements and commitments already approved by an Annual Shareholders' Meeting.

We performed those procedures which we considered necessary to comply with professional guidance issued by the national auditing body (Compagnie Nationale des Commissaires aux Comptes) relating to this type of engagement. These procedures consisted in verifying that information provided to us is consistent with the documentation from which it has been extracted.

#### AGREEMENTS AND COMMITMENTS SUBMITTED FOR APPROVAL OF THE ANNUAL SHAREHOLDERS' MEETING

##### Agreements and commitments authorized during the past fiscal year

Pursuant to article L. 225-40 of the French Commercial Code (Code de commerce), we have been advised of certain related party agreements and commitments which received prior authorization from your Board of Directors.

*With Mr. Benoît Potier, Chairman and Chief Executive Officer*

##### Modifications made to the death and disability benefits plan

Mr. Benoît Potier used to benefit until December 31, 2014 from two additional death and disability benefits plans:

- a first benefit plan applicable to all the employees and Executive Officers which covered the risks of incapacity, disability and death and the contribution to which was assessed on the basis of the portion of the gross annual remuneration not exceeding eight times the annual social security ceiling;
- a second plan known as the "death benefits plan for senior managers" applicable to senior managers and executives, which guaranteed the payment of a capital sum in the event of death or permanent and absolute invalidity. The contribution was based on the portion of remuneration exceeding eight times the annual social security ceiling.

**Statutory Auditors' Reports**

It was decided, effective as from January 1, 2015, to change the death and disability benefits plan set up for the benefit of all the personnel, in order to extend the basis for assessment of the contributions and benefits and to put an end, at the same time, to application of the death benefits plan for senior managers. From now on, only one unified supplementary death and disability benefits plan is applied, covering all the personnel and the Executive Officers duly authorized to benefit from the plan, in which the remuneration taken into account for the calculation of the contributions is capped at (i) sixteen times the annual social security ceiling for the incapacity and disability cover; (ii) twenty-fourth times the annual social security ceiling for the death cover.

This scheme guarantees the payment of a pension in the event of incapacity, the payment of a capital sum in the event of death.

Pursuant to a decision of November 20, 2014, the Board of Directors authorized Mr. Benoît Potier to benefit, as from January 1, 2015, from this new unified death, disability and related benefits plan. A report was made to the Board of Directors on February 16, 2015 on the effective implementation of such authorization.

**Exclusion of Executive Officers from the defined contribution pension scheme for senior managers and executives and extension of life insurance plan**

In the light of the recent changes in the legislative and regulatory framework governing the social security treatment of the defined contribution pension plan for senior managers and executives limited to the remuneration that does not exceed eight times the annual social security ceiling, it has been decided to exclude from the category of beneficiaries the Executive Officers, the contribution paid for their benefit being transferred to the life insurance plan.

Accordingly, pursuant to a decision made on November 20, 2014, the Board of Directors authorized the amendment of the collective life insurance plan, in order to permit the transfer to this plan as from 2015 of the contribution paid up until then to the benefit of Mr. Benoît Potier under the defined contribution pension plan for senior managers and executives. Since 2013, Mr. Benoît Potier benefits from a life insurance contract for the portion of his reference remuneration amounting between eight and twenty-fourth times the annual social security ceiling. Thus, the amendment of life insurance scheme extends this plan to the portion of remuneration not exceeding eight times the annual social security ceiling for the contributions to be paid as from January 1, 2015.

The rights resulting from the contributions paid have been definitively acquired by Mr. Benoît Potier and savings have been created that are available at any time.

A report was made to the Board of Directors on February 16, 2015 on the effective implementation of such authorization.

**AGREEMENTS AND COMMITMENTS ALREADY APPROVED BY AN ANNUAL SHAREHOLDERS' MEETING****Agreements and commitments approved during the past year and prior fiscal years****a) The performance of which continued during the past year**

Pursuant to article R. 225-30 of the French Commercial Code (Code de commerce), we have been informed that the performance of the following agreements and commitments already approved by the Annual Shareholders' Meeting during prior fiscal years, continued during the last fiscal year.

**1. With Mr. Benoît Potier, Chairman and Chief Executive Officer****Defined contribution pension schemes**

As mentioned above, Mr. Benoît Potier does no more benefit, as from 2014, from the defined contribution pension scheme applicable to senior managers and executives for the part of remuneration which amounts to less than eight times the annual social security ceiling, the contribution paid for his benefit being transferred to the life insurance plan. However, Mr. Benoît Potier still benefits from the pension scheme applicable to all the employees for the portion of remuneration amounting to less than eight times the annual social security ceiling.

The amount of contributions paid by your Company in respect of the defined contribution schemes in 2014 totals 16,384 euros and relates to the previous fiscal year.

**Defined benefit pension scheme**

Mr. Benoît Potier benefits from the defined benefit pension scheme for the portion of his remuneration exceeding twenty-fourth times the annual social security ceiling. Pursuant to this scheme, total pension benefits, under all pension plans, may not exceed 45% of the average of the best three years out of the last five years of annual fixed and variable remuneration, whether paid by the Company or any French or foreign subsidiary of the Group, exceeding twenty-four times the annual social security ceiling. For the purpose of this calculation, the average of the variable portions of remuneration taken into account may not exceed 100% of the average of the fixed portions. Should

this ceiling be reached, the amount paid under the defined benefit plan would be reduced accordingly. In addition, it is specified that the above-mentioned limit of 45% includes all pension schemes, of public or private origin, in France or a foreign country.

This agreement, modified in 2014, was approved by the Annual Shareholders' Meeting on May 7, 2014 upon the Statutory Auditors' Special Report of March 4, 2014.

#### **Life insurance contract**

Since 2013 and following the revision of the defined contribution pension plan, Mr. Benoît Potier benefits from a life insurance contract for the portion of his reference remuneration amounting to between eight and twenty-fourth times the annual social security ceiling. The reference remuneration includes the fixed remuneration and the variable remuneration within the limit of 100% of the fixed remuneration.

The rights resulting from the contributions paid have been definitely acquired by Mr. Benoît Potier and savings have been created that are available at any time.

The amount of the contributions paid in respect of this contract in 2014 totals 192,566 euros for Mr. Benoît Potier.

As mentioned above, it has been proposed to the Annual Shareholders' Meeting to approve the extension of life insurance contract to the portion of remuneration which amounts to less than eight times the annual social security ceiling for the contributions to be paid as from January 1, 2015.

#### **Death and disability benefits plan**

As an Executive Officer, Mr. Benoît Potier used to benefit from the death and disability benefits plan applicable to senior managers and executives whose remuneration exceeds eight times the annual social security ceiling. This scheme guaranteed the payment of a capital sum in the event of death or permanent and absolute invalidity.

The amount of the contributions paid in this respect by your Company in 2014 totals 61,950 euros.

This scheme terminated on December 31, 2014.

#### **Unemployment insurance**

As an Executive Officer, Mr. Benoît Potier benefits from the unemployment insurance for Company managers and corporate officers taken out by your Company.

The amount of the contributions paid in this respect by your Company in 2014 totals 7,306 euros.

### **2. With Mr. Pierre Dufour, Senior Executive Vice-President**

#### **Defined benefit pension scheme**

Mr. Pierre Dufour benefits from the defined benefit pension scheme for the portion of his remuneration exceeding twenty-fourth times the annual social security ceiling. Pursuant to this scheme, total pension benefits, under all pension plans, may not exceed 45% of the average of the best three years out of the last five years of fixed and variable annual remuneration, whether paid by the Company or any French or foreign subsidiary of the Group, exceeding twenty-four times the annual social security ceiling. For the purpose of this calculation, the average of the variable portions of remuneration taken into account may not exceed 100% of the average of the fixed portions. Should this ceiling be reached, the amount paid under the defined benefit plan would be reduced accordingly. In addition, it is specified that the above-mentioned limit of 45% includes all pension schemes, of public or private origin, in France or a foreign country.

This agreement, modified in 2014, was approved by the Annual Shareholders' Meeting on May 7, 2014 upon the Statutory Auditors' Special Report of March 4, 2014.

### **b) which were not implemented during the past year**

Furthermore, we have been informed of the continuance in effect of the following agreements and commitments, already approved by the Annual Shareholders' Meeting during prior fiscal years, which were not implemented during the last fiscal year.

#### **1. With Mr. Benoît Potier, Chairman and Chief Executive Officer**

##### **Termination indemnity**

In the context of the proposal for the renewal of Mr. Benoît Potier's term of office, the Board of Directors re-examined the conditions relating to his termination indemnity. These conditions were approved by the Annual Shareholders' Meeting on May 7, 2014 upon the Statutory Auditors' Special Report of March 4, 2014.

## Statutory Auditors' Reports

In the event of the forced departure, irrespective of its form (removal from office, non-renewal of his duties, request for resignation), of Mr. Benoît Potier from his corporate offices as Chairman and Chief Executive Officer:

- (a) related to a change of strategy; or
- (b) that takes place within twenty-fourth months following the acquisition of control of your Company by a person acting alone or several persons acting in concert;

your Company undertakes to pay Mr. Benoît Potier a fixed aggregate indemnity in full discharge equal to twenty-fourth months' gross fixed and variable remuneration, the calculation being based on the average monthly amount of gross fixed and variable remuneration received during the twenty-fourth months prior to departure. It is specified that the indemnities referred to in points (a) and (b) cannot be received in conjunction with one another.

Payment of the indemnity due in respect of forced departure as provided for above is subject to compliance with the conditions related to Mr. Benoît Potier's performance assessed in light of the Company's own performance, defined as of the date hereof as follows:

Entitlement to the indemnity will depend on, and the amount of the indemnity paid will be adjusted on the basis of, the average of the annual gap between Return on Capital Employed after tax (ROCE) and Weighted Average Cost of Capital (WACC) (assessed using the net equity method) calculated over the last three fiscal years prior to the year of departure. These performance conditions will be re-examined, in particular at the time of each renewal of Mr. Benoît Potier's term of office and, where applicable, during the course of his term of office.

The Board of Directors decided on February 17, 2014 to increase the performance criteria on which payment of the indemnity is contingent, with an average ROCE - WACC gap over three years of 300 basis points (instead of 200 basis points) now being required to benefit from the total indemnity. The declining formula has also been made stricter: the condition decreases down to a minimum variance of 100 basis points (instead of 0 previously), below which no indemnity is paid.

Average ROCE - WACC gap	Proportion of the indemnity due
≥ 300 bp*	100%
≥ 200 bp et < 300 bp	66%
≥ 150 bp et < 200 bp	50%
≥ 100 bp et < 150 bp	33%
< 100 bp	0%

\* bp: basis point.

In the event that the forced departure takes place during the twenty-fourth months prior to the date on which the term of office of Mr. Benoît Potier as Chairman and Chief Executive Officer terminates as a result of the age limit defined in the articles of association, the amount of the indemnity will be capped at the number of months of gross remuneration for the period between the date of forced departure and the date on which the age limit defined in the articles of association will be reached. No indemnity will be paid if, at the date of forced departure, the beneficiary claims his pension entitlements.

## 2. With Mr. Pierre Dufour, Senior Executive Vice-President

### Termination indemnity

In the context of the proposal for the renewal of Mr. Pierre Dufour's term of office, the Board of Directors re-examined the conditions relating to his termination indemnity. These conditions were approved by the Annual Shareholders' Meeting on May 7, 2014 upon the Statutory Auditors' Special Report of March 4, 2014.

In the event of the forced departure, irrespective of its form (removal from office, non-renewal of his duties, request for resignation), of Mr. Pierre Dufour from his corporate office as Senior Executive Vice-President:

- (a) related to a change of strategy; or
- (b) that takes place within twenty-fourth months following the acquisition of control of your Company by a person acting alone or several persons acting in concert;

your Company undertakes to pay Mr. Pierre Dufour a fixed aggregate indemnity in full discharge equal to twenty-fourth months' gross fixed and variable remuneration, the calculation being based on the average monthly amount of gross fixed and variable remuneration received on any basis whatsoever from any company of the Air Liquide group during the twenty-fourth months prior to departure. It is specified that the indemnities referred to in points (a) and (b) cannot be received in conjunction with one another.

Payment of the indemnity due in respect of forced departure as provided for above is subject to compliance with the conditions related to Mr. Pierre Dufour's performance assessed in light of the Company's own performance, defined as of the date hereof as follows:

Entitlement to the indemnity will depend on, and the amount of the indemnity paid will be adjusted on the basis of, the average of the annual gap between Return on Capital Employed after tax (ROCE) and Weighted Average Cost of Capital (WACC) (assessed using the net equity method) calculated over the last three fiscal years prior to the date of departure. These performance conditions will be re-examined, in particular, at the time of each renewal of Mr. Pierre Dufour's term of office and, where applicable, during the course of his term of office.

The Board of Directors decided on February 17, 2014 to increase the performance criteria on which payment of the indemnity is contingent, with an average ROCE - WACC gap over three years of 300 basis points (instead of 200 basis points) now being required to benefit from the total indemnity. The declining formula has also been made stricter: the condition decreases down to a minimum variance of 100 basis points (instead of 0 previously), below which no indemnity is paid.

Average ROCE - WACC gap	Proportion of the indemnity due
≥ 300 bp*	100%
≥ 200 bp et < 300 bp	66%
≥ 150 bp et < 200 bp	50%
≥ 100 bp et < 150 bp	33%
< 100 bp	0%

\* bp: basis point.

Any statutory or contractual indemnity or indemnity under the collective bargaining agreement that may be paid, where applicable, to Mr. Pierre Dufour in respect of the termination of any other functions or duties performed within the Air Liquide group, as well as any non-competition indemnity due in respect of this termination, are not subject to the above-mentioned conditions.

The sum of all indemnities paid in respect of termination of any other functions or duties held in the Air Liquide group and the indemnity due in the event of forced departure may not exceed twenty-fourth months' remuneration.

No indemnity will be paid if the beneficiary has the possibility to claim his full pension entitlements in the short term at the date of a forced departure.

Paris-La Défense, March 4, 2015

The Statutory Auditors  
French original signed by

Mazars  
Isabelle Sapet

Daniel Escudeiro

Ernst & Young et Autres  
Jean-Yves Jégourel

Pierre-Yves Caër

## Statutory Auditors' Report on the reduction in capital

*This is a free translation into English of a report issued in French and it is provided solely for the convenience of English-speaking readers. This report should be read in conjunction with, and is construed in accordance with, French law and professional auditing standards applicable in France.*

To the Shareholders,

In our capacity as Statutory Auditors of your Company and in compliance with article L. 225-209 of the French Commercial Code (Code de commerce) in respect of the reduction in capital by the cancelation of repurchased shares, we hereby report on our assessment of the terms and conditions for the proposed reduction in capital.

Your Board of Directors requests that it be authorized, for a period of 24 months starting from the date of this Shareholders' Meeting, to proceed with the cancelation of shares the Company was authorized to repurchase, representing an amount not exceeding 10% of its total share capital, by periods of 24 months in compliance with the article mentioned above.

We have performed those procedures which we considered necessary in accordance with professional guidance issued by the French auditing body (Compagnie Nationale des Commissaires aux Comptes) for this type of engagement. These procedures consisted in verifying that the terms and conditions for the proposed reduction in capital, which should not compromise equality among the shareholders, are fair.

We have no matters to report as to the terms and conditions of the proposed reduction in capital.

Paris-La Défense, March 4, 2015

The Statutory Auditors  
*French original signed by*

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## Statutory Auditors' Report on the authorization to grant free existing shares or shares to be issued

*This is a free translation into English of a report issued in French and it is provided solely for the convenience of English-speaking readers. This report should be read in conjunction with, and is construed in accordance with, French law and professional auditing standards applicable in France.*

To the Shareholders,

In our capacity as Statutory Auditors of your Company and in compliance with article L. 225-197-1 of the French Commercial Code (Code de commerce), we hereby report on the proposed authorization to allot free existing shares or shares to be issued to some employees and some officers of the Company and affiliated companies as defined by article L. 225-197-2 of the French Commercial Code (Code de commerce), an operation upon which you are called to vote.

The existing or new shares that are granted pursuant to this authorization may not represent more than 0.5% of the share capital on the date of the decision by the Board of Directors to grant them, bearing in mind that the number of shares granted to officers pursuant to this authorization may not represent more than 0.15% of the share capital on the date of the decision by the Board of Directors to grant them.

The par value amount of share capital increases likely to be performed on the basis of the present authorization shall be deducted from the €470 million overall limit stipulated in the twelfth resolution to the present Shareholders' Meeting.

Your Board of Directors proposes that, on the basis of its report, it be authorized, for a period of 38 months starting from the date of this Shareholders' Meeting, to allot free existing shares or shares to be issued.

It is the Board's responsibility to prepare a report on the operation that it wishes to implement. It is our responsibility, if necessary, to report our observations on the information provided to you in respect of the proposed operation.

We have performed those procedures which we considered necessary in accordance with professional guidance issued by the French auditing body (Compagnie Nationale des Commissaires aux Comptes) relating to this operation. These procedures consisted in verifying in particular the information provided in the Board of Directors' Report is in accordance with legal requirements.

We have nothing to report on the information contained in the Board of Directors' Report in connection with the proposed allotting of free shares.

Paris-La Défense, March 4, 2015

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## Statutory Auditors' Report on the issue of ordinary shares or marketable securities conferring entitlement to the share capital, with retention of preferential subscription rights

*This is a free translation into English of a report issued in French and it is provided solely for the convenience of English-speaking readers. This report should be read in conjunction with, and is construed in accordance with, French law and professional auditing standards applicable in France.*

To the Shareholders,

In our capacity as Statutory Auditors of your Company and in compliance with article L. 228-92 of the French Commercial Code (Code de commerce), we hereby report on the proposal to grant your Board of Directors the ability to decide on the issue of ordinary shares or marketable securities, conferring entitlement to the Company's share capital, an operation upon which you are called to vote.

Your Board of Directors proposes, on the basis of its report, that it be granted the ability, and to sub-delegate it, for a period of twenty six months, to decide the issuance of ordinary Company shares and/or of marketable securities which are capital securities, granting access to other Company share capital or entitlement to company debt securities and/or of marketable securities representing a debt, conferring entitlement to or likely to confer entitlement to share capital to be issued by the Company, these marketable securities could also potentially grant access to the Company's existing share capital and/or debt securities.

The maximum par value of the capital increase that may be implemented immediately or at a future date on the basis of this authorization may not exceed 470 million euros, provided that the total amount of share capital increases likely to be implemented immediately or at a future date in accordance with the eleventh resolution of the Extraordinary Shareholders' Meeting of May 7, 2013 and the twelfth resolution of the Extraordinary Shareholders' Meeting of May 7, 2013 (as substituted by the eleventh resolution of this Shareholders' Meeting subject to its approval) and the sixteenth and seventeenth resolutions of this Shareholders' Meeting shall be deducted from the overall limit.

The maximum nominal amount of marketable securities that may be issued under the present authorization may not exceed 3 billion euros.

These limits take into account the additional shares or marketable securities to be issued in accordance with article L. 225-135-1 of the French Commercial Code (Code de commerce) if the thirteenth resolution is adopted.

It is the responsibility of your Board of Directors to prepare a report in accordance with articles R. 225-113 and following of the French Commercial Code (Code de commerce). It is our responsibility to report on the fairness of the financial information taken from the financial statements, on the proposed issue and on other information relating to the share issue, provided in this report.

We have performed the procedures which we considered necessary in accordance with the professional guidance issued by the French auditing body (Compagnie Nationale des Commissaires aux Comptes) relating to this operation. These procedures consisted in verifying the contents of the Board of Directors' Report relating to this operation and the methods used to determine the issue price of the ordinary shares and of the marketable securities conferring entitlement to the Company's share capital, to be issued.

As this report does not specify the methods used to determine the issue price, we cannot report on the choice of constituent elements used to calculate the issue price.

In addition, as the final conditions in which the issue would be performed have not yet been determined, we cannot report on this.

In accordance with article R. 225-116 of the French Commercial Code (Code de commerce), we will issue an additional report, if necessary, when your Board of Directors exercises this authorization and marketable securities conferring entitlement to the Company's share are issued.

Paris-La Défense, March 4, 2015

The Statutory Auditors

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## Statutory Auditors' Report on the issue of ordinary shares and other equity securities conferring entitlement to the share capital, reserved for employees members of the Company's or Group's savings plan

*This is a free translation into English of a report issued in French and it is provided solely for the convenience of English-speaking readers. This report should be read in conjunction with, and is construed in accordance with, French law and professional auditing standards applicable in France.*

To the Shareholders,

In our capacity as Statutory Auditors of your Company and in compliance with articles L. 228-92 and L. 225-135 and following of the French Commercial Code (Code de commerce), we hereby report on the proposal to grant your Board of Directors the ability to decide on the issue of ordinary shares and other equity securities, conferring entitlement to the Company's share capital, with cancelation of preferential subscription rights. These increases are reserved to the employees who contribute to a savings plan set up by the Company or affiliated French and foreign companies as defined by articles L. 225-180 of the French Commercial Code (Code de commerce) and L. 3344-1 of the French Labor Code (Code du travail), an operation upon which you are called to vote.

The maximum par value of the capital increase that may result from this issue amounts to 30.25 million euros (corresponding to the issue of a maximum of 5.5 million shares), provided that:

- the total amount of share capital increases likely to be performed immediately or at a future date on the basis of the sixteenth and the seventeenth resolutions may not exceed the aforementioned par value amount of 30.25 million euros;
- the par value amount of share capital increases likely to be performed immediately or at a future date on the basis of the sixteenth and the seventeenth resolutions shall be deducted from the overall limit of 470 million euros stipulated in the twelfth resolution to the present Shareholders' Meeting.

This operation is submitted for your approval in accordance with articles L. 225-129-6 of the French Commercial Code (Code de commerce) and L. 3332-18 and following of the French Labor Code (Code du travail).

Your Board of Directors proposes that, on the basis of its report, it be authorized for a period of twenty-six months starting from the date of this Shareholders' Meeting to decide on whether to proceed with one or several increases in capital and proposes to cancel your preferential subscription rights to the ordinary shares and other equity securities conferring entitlement to the Company's share capital. If necessary, it will determine the final conditions for these operations.

It is the responsibility of the Board of Directors to prepare a report in accordance with articles R. 225-113 and following of the French Commercial Code (Code de commerce). It is our responsibility to report on the fairness of the financial information taken from the financial statements, on the proposed cancelation of preferential subscription rights and on other information relating to the share issue, provided in this report.

We have performed the procedures which we considered necessary in accordance with the professional guidance issued by the French auditing body (Compagnie Nationale des Commissaires aux Comptes) relating to this operation. These procedures require that we perform the necessary procedures to verify the contents of the Board of Directors' Report relating to this operation and on the methods for determining the issue price of the ordinary shares and of the other equity securities conferring entitlement to the Company's share capital to be issued.

Subject to a subsequent examination of the conditions for the issue that may be decided, we have nothing to report on the methods for determining the issue price of the ordinary shares and of the other equity securities conferring entitlement to the Company's share capital to be issued, provided in the Board of Directors' Report.

As the final conditions for the increase in capital have not yet been determined, we cannot report on these conditions and, consequently, on the proposed cancelation of preferential subscription rights.

In accordance with article R. 225-116 of the French Company Code (Code de commerce), we will prepare an additional report, if necessary, when your Board of Directors will exercise this delegation.

Paris-La Défense, March 4, 2015

The Statutory Auditors  
*French original signed by*

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## Statutory Auditors' Report on the issue of ordinary shares and other equity securities reserved for a category of beneficiaries

*This is a free translation into English of a report issued in French and it is provided solely for the convenience of English-speaking readers. This report should be read in conjunction with, and is construed in accordance with, French law and professional auditing standards applicable in France.*

To the Shareholders,

In our capacity as Statutory Auditors of your Company and in compliance with articles L. 228-92 and L. 225-135 and following of the French Commercial Code (Code de commerce), we hereby report on the proposal to grant your Board of Directors the ability to decide, on the issue of ordinary shares and other equity securities, conferring entitlement to the Company's share capital, with cancelation of preferential subscription rights, reserved for a category of beneficiaries as defined hereafter, an operation upon which you are called to vote.

This operation is reserved to any financial institution or subsidiary of such an institution mandated by your Company for the exclusive purpose of allowing employees and executives of foreign companies, related to the Company as defined in articles L. 225-180 of the French Company Code (Code de commerce) and L. 3344-1 of the French Labor Code (Code du travail), to benefit from an economical device comparable to a share ownership scheme that would be implemented under the sixteenth resolution of this Shareholders' Meeting, when implementing such a scheme would run into local legal, regulatory or tax constraints.

The maximum par value of the capital increase that may result from this issue amounts to 30.25 million euros (corresponding to the issue of a maximum of 5.5 million shares), provided that:

- the total amount of share capital increases likely to be performed immediately or at a future date on the basis of the sixteenth and the seventeenth resolutions may not exceed the aforementioned par value amount of 30.25 million euros;
- the par value amount of share capital increases likely to be performed immediately or at a future date on the basis of the sixteenth and the seventeenth resolutions shall be deducted from the 470 million euros overall limit stipulated in the twelfth resolution to the present Shareholders' Meeting.

Your Board of Directors proposes, on the basis of its report, that it be granted the ability for a period of eighteen months starting from the date of the Shareholders' Meeting, to decide on one increase in capital and to cancel your preferential subscription rights to the ordinary shares and other equity securities. If necessary, it will determine the final conditions for this operation.

It is the responsibility of the Board of Directors to prepare a report in accordance with articles R. 225-113 and following of the French Commercial Code (Code de commerce). It is our responsibility to report on the fairness of the financial information taken from the financial statements, on the proposed cancelation of preferential subscription rights and on other information relating to the share issue, provided in this report.

We have performed the procedures which we considered necessary in accordance with the professional guidance issued by the French auditing body (Compagnie Nationale des Commissaires aux Comptes) relating to this operation. These procedures consisted in verifying the contents of the Board of Director's Report relating to this operation and the methods for determining the issue price of the ordinary shares and of the other equity securities conferring entitlement to the Company's share capital, to be issued.

Subject to a subsequent examination of the conditions for the operation that may be decided, we have nothing to report on the methods for determining the issue price of the ordinary shares and of the other equity securities conferring entitlement to the Company's share capital, to be issued, provided in the Board of Directors' Report.

As the final conditions for the increase in capital have not yet been determined, we cannot report on these conditions and, consequently, on the proposed cancelation of preferential subscription rights.

In accordance with article R. 225-116 of the French Commercial Code (Code de commerce), we will prepare an additional report, if necessary, when your Board of Directors uses this delegation.

Paris-La Défense, March 4, 2015

The Statutory Auditors

*French original signed by*

Mazars

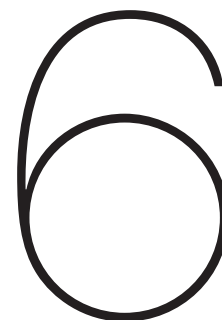
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## Share capital

## ➤ SHARE CAPITAL

## Trends in share capital over the past three years

Issue date	Type of transaction	Number of shares issued	Aggregate number of shares	Share capital increase	Issue premiums and reserves	Share capital
<i>(in euros, except for shares)</i>						
February 16, 2012	Exercise of share subscription options	439,581	283,897,539	2,417,695.50	24,970,558.76	1,561,436,464.50
May 9, 2012	Cancellation of shares	(1,200,000)	282,697,539	(6,600,000.00)	(109,415,825.60)	1,554,836,464.50
May 29, 2012	Exercise of share subscription options	160,422	282,857,961	882,321.00	9,598,169.91	1,555,718,785.50
May 29, 2012	Free share attribution (1 for 10)	28,285,796	311,143,757	155,571,878.00	(155,571,878.00)	1,711,290,663.50
May 29, 2012	Free share attribution loyalty bonus (1 for 100)	718,001	311,861,758	3,949,005.50	(3,949,005.50)	1,715,239,669.00
February 13, 2013	Exercise of share subscription options	479,125	312,340,883	2,635,187.50	24,831,930.35	1,717,874,856.50
May 7, 2013	Exercise of share subscription options	296,203	312,637,086	1,629,116.50	13,905,853.74	1,719,503,973.00
May 7, 2013	Cancellation of shares	(1,000,000)	311,637,086	(5,500,000.00)	(87,047,129.43)	1,714,003,973.00
December 6, 2013	Exercise of share subscription options	307,501	311,944,587	1,691,255.50	17,593,092.58	1,715,695,228.50
December 6, 2013	Share capital increase reserved for employees	749,272	312,693,859	4,120,996.00	56,558,339.15	1,719,816,224.50
February 17, 2014	Exercise of share subscription options	193,376	312,887,235	1,063,568.00	11,160,475.74	1,720,879,792.50
May 7, 2014	Cancellation of shares	(1,000,000)	311,887,235	(5,500,000.00)	(90,205,230.33)	1,715,379,792.50
May 27, 2014	Exercise of share subscription options	456,035	312,343,270	2,508,192.50	26,674,193.39	1,717,887,985.00
May 27, 2014	Free share attribution (1 for 10)	31,234,327	343,577,597	171,788,798.50	(171,788,798.50)	1,889,676,783.50
May 27, 2014	Free share attribution loyalty bonus (1 for 100)	861,485	344,439,082	4,738,167.50	(4,738,167.50)	1,894,414,951.00

Note: Between May 27 and December 31, 2014, 433,801 options were exercised, giving rise to an outstanding capital as at December 31, 2014 of 1,896,800,856.50 euros, divided up into 344,872,883 shares.

## Changes in share capital ownership over the last three years

	2012	2013	2014
Individual shareholders	37%	36%	37%
French institutional investors	19%	19%	17%
Foreign institutional investors	44%	45%	46%
Own shares held by the Company (directly and indirectly)	>0%	>0%	>0%

### THRESHOLD NOTIFICATIONS IN 2014

- On May 9, 2014, Royal Bank of Scotland declared that it had breached the threshold of 2% of the capital as fixed under the Company's articles of association and as of that date held 2.38% of the capital of the Company.
- On May 15, 2014, Royal Bank of Scotland declared that it had breached the threshold of 4% of the capital as fixed under the Company's articles of association and as of that date held 4.08% of the capital of the Company.
- On May 19, 2014, Royal Bank of Scotland declared that it had breached on the downside the threshold of 4% of the capital as fixed under the Company's articles of association and as of that date held 2.42% of the capital of the Company.
- On May 20, 2014, Royal Bank of Scotland declared that it had breached on the downside the threshold of 2% of the capital as fixed under the Company's articles of association and as of that date held 1.19% of the capital of the Company.
- On December 31, 2014, no shareholder had notified a holding 5% or more of the capital or voting rights.

## Share capital and voting rights for the last three years

	Number of shares comprising share capital	Theoretical number of voting rights (including treasury shares)	Actual number of voting rights (excluding treasury shares)
2012	312,281,159	312,281,159	311,277,765
2013	312,831,676	312,831,676	311,738,309
<b>2014</b>	<b>344,872,883</b>	<b>344,872,883</b>	<b>343,579,719</b>

There are no double voting rights.

To the best of the Company's knowledge, there are no shareholders' agreements or joint or concerted action agreements.

The portion of the L'Air Liquide S.A. share capital comprising the direct registered shares owned by the main shareholders and pledged is not material.

## Amount of share capital held by employees

Since 1986, L'Air Liquide S.A. has given the employees of certain Group companies the possibility to subscribe to capital increases reserved for them. At the end of 2014, the share of capital held by employees and former employees of the Group is estimated at 2.4%, of which 1.5%, that is 5,342,018 shares, (within

the meaning of article L. 225-102 of the French Commercial Code) corresponds to shares subscribed by employees during employee reserved capital increase operations or held through mutual funds.

## Share capital

## Delegations of authority granted at the Shareholders' Meeting

Type of authorization	Purpose of the authorization	Validity of the delegation	Maximum amount	Utilization in 2014
Share buyback	<p>Purchase own shares for the purpose of:</p> <ul style="list-style-type: none"> <li>■ canceling them;</li> <li>■ retaining them for the purpose of a share exchange or payment as part of an external growth strategy, in accordance with applicable regulations;</li> <li>■ tendering them following the exercise of rights attached to marketable securities conferring entitlement to Company shares by redemption, conversion, exchange, presentation of a warrant or any other means;</li> <li>■ implementing (i) share purchase option plans, or (ii) plans for free grants of shares, or (iii) any employee share ownership transactions in favor of its employees or those of its subsidiaries, or (iv) allocations of shares to employees and/or Corporate Officers of the Company and affiliated companies, in accordance with the laws and regulations in force;</li> <li>■ maintaining an active market in the Company's shares pursuant to a market liquidity contract in accordance with an Ethics Charter recognized by the French financial markets authority (Autorité des marchés financiers).</li> </ul>	<p>Granted by: AGM of May 7, 2014*  For a period of: 18 months  Maximum price: 165 euros (Balo <sup>(a)</sup> of March 19, 2014)</p>	<p>10% of share capital, representing 31,283,167 shares, for a maximum par value amount of 5,161,722,555 euros</p>	<p><b>Treasury shares:</b>  96,956 Company treasury shares were tendered in connection with the 2010 CGSE Plan ("World" Plan) and 28,709 Company treasury shares were tendered in connection with the 2012 CGSE Plan ("France" Plan).  Pursuant to the preceding delegation authorized by the AGM on May 7, 2013, 1.2 million shares were bought back on February 19, 2014 at an average purchase price of 97.34 euros.  No purchase was made to the end of fiscal year 2014 under the delegation granted by the AGM of May 7, 2014. As a result of these operations, as of December 31, 2014, the Company directly owned 1,192,033 shares at an average purchase price of 84.34 euros, i.e. a balance sheet value of 100,532,195 euros.</p> <p><b>Liquidity contract changes:</b>  1,903,223 shares purchased at an average price of 97.36 euros; and  1,908,973 shares sold at an average price of 97.49 euros. At December 31, 2014, under the liquidity contract, 5,250 shares are recorded in the balance sheet for a net value of 528,817 euros (see Information on the completion of the Company's share buyback program on page 296).</p>
Cancelation of shares purchased by the Company	<p>Reduce the number of outstanding shares and improve basic earnings per share.</p>	<p>Granted by: AGM of May 7, 2014*  For a period of: 24 months  (Balo of March 19, 2014)</p>	<p>10% of share capital</p>	<p>1 million shares were canceled in May 2014 for a total carrying amount of 95,705,230 euros (or an average price of 95.71 euros). (See Information on the completion of the Company's share buyback program on page 296).</p>

\* Renewal to be proposed to the Combined Shareholders' Meeting on May 6, 2015.

(a) Balo : Bulletin des Annonces Légales Obligatoires.



Share capital

Type of authorization	Purpose of the authorization	Validity of the delegation	Maximum amount	Utilization in 2014
Share capital increase	Increase share capital by the issuance of shares or marketable securities conferring entitlement, immediately or in the future, to the Company's capital, with retention of the shareholders' preferential share subscription rights.	Granted by: AGM of May 7, 2013* For a period of: 26 months (Balo of March 18, 2013)	<ul style="list-style-type: none"> <li>■ Share capital increase: for a maximum par value amount of 430 million euros (overall limit)</li> <li>■ Maximum nominal amount of marketable debt securities: 2.5 billion euros</li> </ul>	This authorization was not used in 2014.
Share capital increase	To be able to increase the amount of shares or marketable securities issued with retention of the shareholders' preferential share subscription rights in the event of oversubscription.	Granted by: AGM of May 7, 2013* For a period of: 26 months (Balo of March 18, 2013)	To be deducted from the aforementioned overall limit of 430 million euros (share capital increase) and 2.5 billion euros (maximum nominal amount of marketable debt securities)	This authorization was not used in 2014.
Share capital increase	Increase share capital by capitalization of additional paid-in capital, reserves, profits, or other items in view of the attribution of free shares and/or an increase in the par value of existing shares.	Granted by: AGM of May 7, 2014 For a period of: 26 months (Balo of March 19, 2014)	For a maximum par value amount of 250 million euros	In 2014, capitalization of the sum of 176.5 million euros taken from the "Additional paid-in capital" and "Retained earnings" accounts, by means of the creation of 31,234,327 new shares freely attributed to shareholders at 1 new share for every 10 existing shares and 861,485 new shares freely attributed to shareholders as part of a 10% bonus attribution.
Share capital increase	Increase share capital by the issuance of shares intended for subscription by employees of the Company and affiliated companies, members of a Company or Group savings plan, by canceling the shareholders' preferential share subscription rights to the issued shares. Increase share capital by the issuance of shares for subscription by employees and Corporate Officers of Group companies abroad, by canceling the shareholders' preferential share subscription rights to the issued shares.	Granted by: AGM of May 7, 2013* For a period of: 26 months (Balo of March 18, 2013) Granted by: AGM of May 7, 2013* For a period of: 18 months (Balo of March 18, 2013)	30.25 million euros in par value and 5.5 million shares. To be deducted from the aforementioned overall limit of 430 million euros	This authorization was not used in 2014.

\* Renewal to be proposed to the Combined Shareholders' Meeting on May 6, 2015.

## Share capital

Type of authorization	Purpose of the authorization	Validity of the delegation	Maximum amount	Utilization in 2014
Bond issuance	Issue one or more bonds.	Granted by: AGM of May 7, 2013 For a period of: five years (Balo of March 18, 2013)	12 billion euros	At December 31, 2014, outstanding bond issues amounted to 1.1 billion euros for L'Air Liquide S.A. and 5.5 billion euros for the Air Liquide Group.
Allotment of share subscription options	Grant to employees and Executive Officers of the Company or of French and foreign subsidiaries, or some of them, options conferring entitlement to subscribe to new shares of the Company to be issued to increase the share capital or options conferring entitlement to purchase the Air Liquide existing shares bought back by the Company.	Granted by: AGM of May 7, 2013 For a period of: 38 months (Balo of March 18, 2013)	2% of the Company's capital on the day the options were granted	868,385 options to subscribe to Air Liquide shares were granted by the Board on September 22, 2014.
Conditional grant of shares to employees (CGSE)	Proceed to free attribution of existing or new shares to employees and Executive Officers of the Group or some of them.	Granted by: AGM of May 7, 2013* For a period of: 38 months (Balo of March 18, 2013)	0.5% of the Company's capital on the day the shares were granted 0.15% of the Company's capital on the day the shares were granted for Executive Officers	140,472 free shares subject to performance requirements were granted by the Board on September 22, 2014. No free shares were granted by the Board on September 22, 2014 to Executive Officers or members of the Executive Committee.

\* Renewal to be proposed to the Combined Shareholders' Meeting on May 6, 2015.

## ➤ GENERAL INFORMATION

### General information

#### *Law applicable to L'Air Liquide S.A.*

French law.

#### *Incorporation and expiration dates*

The Company was incorporated on November 8, 1902, for a set term expiring on February 17, 2028.

#### *Business and Company register*

552 096 281 RCS Paris  
APE Code: 2011Z

#### *Consulting legal documents*

The articles of association, Minutes of Shareholders' Meetings and other Company documents may be consulted at Company headquarters.

#### *Fiscal year*

The Company's fiscal year starts on January 1, and ends on December 31, of the same year.

#### *Address and phone number of the head office*

75, quai d'Orsay, 75007 Paris – +33 (0)1 40 62 55 55

### Articles of association

#### SECTION I

#### NAME – PURPOSE – HEAD OFFICE – TERM

##### Article 1: Form and name

The Company is a joint stock company, with a Board of Directors. This Company will be governed by the laws and regulations in force and these articles of association.

The Company's name is "L'Air Liquide, société anonyme pour l'Étude et l'Exploitation des procédés Georges Claude".

##### Article 2: Purpose

The Company's corporate purpose includes:

- the study, exploitation, sale of the patents or inventions of Messrs. Georges and Eugène Claude pertaining to the liquifaction of gases, the industrial production of refrigeration, liquid air and oxygen, and the applications or utilizations thereof;
- the industrial production of refrigeration, of liquid air, the applications or uses thereof, the production and liquifaction of gases, and in particular oxygen, nitrogen, helium and hydrogen, the applications and uses thereof in all forms, pure, in blends and combinations, without any distinction as to state or origin, in all areas of application of their physical, thermodynamic, chemical, thermochemical and biological properties, and, in particular, in the domains of propulsion, the sea, health, agri-business and pollution;

- the purchase, manufacturing, sale, use of all products pertaining directly or indirectly to the aforementioned corporate purpose, as well as all sub-products resulting from their manufacturing or their use, of all machines or devices used for the utilization or application thereof and, more specifically, the purchase, manufacturing, sale, use of all products, metals or alloys, derived or resulting from a use of oxygen, nitrogen and hydrogen, pure, blended or combined, in particular of all oxygenated or nitrogenous products;
- the study, acquisition, direct or indirect exploitation or sale of all patents, inventions or methods pertaining to the same corporate purposes;
- the exploitation, directly or through the incorporation of companies, of all elements connected, directly or indirectly, with the Company's purpose or likely to contribute to the development of its industry;
- the supply of all services, or the supply of all products likely to develop its clientele in the industry or health sectors.

The Company may request or acquire all franchises, perform all constructions, acquire or lease all quarries, mines and all real property, and take over all operations connected with its corporate purpose, sell or lease these franchises, merge or create partnerships with other companies by acquiring Company shares or rights, through advances or in any appropriate manner. It may undertake these operations either alone or jointly.

Lastly, and more generally, it may carry out all industrial, commercial, real estate, personal or financial operations pertaining directly or indirectly to the corporate purposes specified above.

**General information****Article 3: Head office**

The Company's head office is located at 75, quai d'Orsay, Paris.

It may be transferred upon a Board of Directors' decision to any other location in Paris or a neighboring department, subject to the ratification of such decision by the next Ordinary General Shareholders' Meeting, and anywhere else by virtue of a decision by an Extraordinary Shareholders' Meeting.

**SECTION II****SHARE CAPITAL – SHARES – IDENTIFICATION OF SHAREHOLDERS****Article 5: Share capital**

The share capital has been set at 1,897,386,986 euros divided into 344,979,452 fully paid-up shares of a par value of 5.50 euros each.

Share capital is increased under the conditions stipulated by law either by issuing ordinary or preferred shares, or by raising the par value of existing shares. It may also be increased by exercising the rights attached to marketable securities granting access to share capital, under the conditions stipulated by law.

In accordance with prevailing legal provisions, unless otherwise decided by the Shareholders' Meeting, the shareholders have, in proportion to the amount of shares they own, a preferential subscription right to the shares issued in cash in order to increase share capital.

The share capital may also be reduced under the conditions stipulated by law, in particular, by reducing the par value of the shares, or by reimbursing or redeeming shares on the stock exchange and by canceling shares, or by exchanging existing shares for new shares, in an equivalent or lesser number, with or without the same par value, and with or without a cash balance to be paid or received. The Shareholders' Meeting may always compel the shareholders to sell or purchase existing shares to permit the exchange of existing shares for new shares, with or without a cash balance to be paid or received, even if such reduction is not a result of losses.

**Article 6: Shares**

If the new shares are not fully paid up upon issuance, calls for payment shall be performed, on dates set by the Board of Directors, by means of announcements posted one month in advance in one of the Paris official legal publications chosen for the legal publication of the Company's deeds.

Shares not fully paid up shall be held as registered shares until they are fully paid up.

**Article 4: Term**

The Company's term has been fixed at 99 years beginning on February 18, 1929, except in the event of early dissolution or extension.

Each payment on any subscribed shares will be registered in an account opened in the name of the subscriber.

All late payments shall automatically bear interest, for the benefit of the Company, as of the due date, without any formal notice or legal action, at the legal interest rate, subject to any personal action that the Company may take against any defaulting shareholder and the compulsory execution measures provided by law.

**Article 7: Type of shares**

Paid-up shares are registered as registered shares or bearer shares depending on the choice of the shareholder.

The provisions of the aforementioned paragraph also apply to other securities of any nature issued by the Company.

**Article 8: Rights and obligations governing shares**

Shareholders shall not be liable above the amount of their subscription.

Share ownership automatically binds shareholders to the articles of association and the decisions of the Shareholders' Meetings.

Any share grants entitlement, during the Company's term, as in the event of liquidation, to the payment of an identical net amount for any distribution or redemption.

Shares are freely transferable under the conditions provided by law.

**Article 9: Identification of shareholders**

The Company may avail itself at any time of the legal and statutory provisions in force permitting the identification of the owners of shares conferring immediately or in the future the right to vote in Shareholders' Meetings, as well as the number of shares they own.

In addition to the legal obligations to notify the Company, any person, acting alone or jointly, coming in direct or indirect

possession of a fraction of the Company's capital or voting rights equal to or greater than 2%, or a multiple of 2% of capital or voting rights (including above the 5% threshold), is required to inform the Company within fifteen days as of the date on which the threshold is exceeded and, as the case may be, independently of the effective transfer date of share ownership. The person shall state the number of shares and marketable securities granting entitlement to capital that he or she owns on the date of notification. Any decrease below the 2% threshold or a multiple of 2% of capital or voting rights shall be notified in the same manner.

In the event of a failure to meet this additional notification obligation, one or several shareholders, owning a fraction of the Company's capital or voting rights amounting to at least 2%, may, at a Shareholders' Meeting, request that the shares exceeding the fraction which should have been reported, be stripped of their voting rights for any Shareholders' Meeting held until the end of a two-year period following the date on which the notice is rectified. The request is recorded in the Minutes of the Shareholders' Meeting.

## SECTION III

### MANAGEMENT OF THE COMPANY

#### Article 11: Composition of the Board of Directors

The Company is managed by a Board of Directors, comprising a minimum of three members and a maximum of fourteen members (unless temporarily waived in the event of a merger), physical persons or legal entities.

The members of the Board of Directors are appointed by the Ordinary Shareholders' Meeting for a term of four years expiring at the close of the Shareholders' Meeting held to approve the financial statements for the previous year and which is held in the year during which the mandate expires. As an exception to this rule, the members of the first Board of Directors who exercised functions as members of the Supervisory Board in the Company under its former mode of administration shall be appointed for a period equal to the remaining term of their mandate as members of the Supervisory Board.

The members of the Board of Directors may be re-elected.

Each Director must own at least 500 registered shares in the Company during the term of his functions. If, on the date of his appointment, a Director does not own the required number of shares or if, during his term, he ceases to own them, he is deemed to have resigned with immediate effect if he has not rectified the situation within a period of three months.

In the event of a vacancy of one or more seats due to death or resignation, the Board of Directors may, between two Shareholders' Meetings, make temporary appointments. Provisional appointments made by the Board of Directors are subject to the approval of the next Ordinary Shareholders'

#### Article 10: Co-ownership and usufruct

As all shares are indivisible from the point of view of the Company, all joint owners of shares are required to be represented vis-à-vis the Company by a single owner selected from among them or proxy under the conditions provided by law.

The voting right attached to the share is exercised by the beneficial owner at both Ordinary and Extraordinary Shareholders' Meetings. However, the bare-owner shall be entitled to attend all Shareholders' Meetings. He or she may also represent the beneficial owner at Shareholders' Meetings.

The heirs, creditors, trustees or successors of a shareholder may not, on any grounds whatsoever, call for the affixing of seals on the Company's assets and securities, request the distribution thereof, or interfere in any manner whatsoever in its administration.

In order to exercise their rights, they must consult the Company's records and decisions of the Shareholders' Meetings.

Meeting. If the number of Directors falls below the legal minimum, the remaining Directors must immediately convene an Ordinary Shareholders' Meeting in order to make up the numbers of the Board.

No individual over the age of 70 shall be appointed as a member of the Board of Directors if his appointment increases the number of the members of the Board of Directors who have passed this age to over one third. If during their term, the number of the members of the Board of Directors who have passed 70 years of age exceeds one third of the Board's members, the oldest member of the Board of Directors who has not carried out management functions in the Company is deemed to have resigned at the end of the Annual Shareholders' Meeting held following the occurrence of this event.

During the Company's term, Directors are appointed and their mandates renewed under the conditions provided by law.

They may be dismissed by the Ordinary Shareholders' Meeting at any time.

#### Director(s) representing employees

In accordance with statutory requirements, if the number of members of the Board of Directors, calculated in accordance with article L. 225-27-1-II of the French Commercial Code, is less than or equal to 12, the Group Committee in France shall proceed to appoint a Director representing employees.

If the number of members of the Board of Directors, calculated in accordance with article L. 225-27-1-II of the French Commercial Code, is more than 12, and provided this criterion is still fulfilled on the date of the appointment, a second Director representing employees shall be appointed by the European Works Council.

**General information**

If the number of members of the Board of Directors, calculated in accordance with article L. 225-27-1-II of the French Commercial Code, was originally more than 12 members but becomes less than or equal to 12 members, the Director appointed by the European Works Council shall remain in office until his term of office expires.

As an exception to the foregoing, the Director representing employees appointed by virtue of this clause is not required to hold at least 500 registered shares during his term of office.

The Director representing employees shall be appointed for a four-year term expiring at the close of the Shareholders' Meeting called to approve the financial statements for the previous year and which is held in the year in which his term of office expires. The tenure of the Director representing employees may be renewed.

The tenure of the Director representing employees shall be terminated in accordance with statutory requirements and the provisions contained in this clause, particularly in the event of termination of said Director's employment contract; if the criteria for the application of article L. 225-27-1 of the French Commercial Code are no longer met, the tenure of the Director(s) representing employees shall expire at the end of the meeting during which the Board of Directors observes that the Company has been released from this obligation.

In the event that the seat of a Director representing employees is vacant for any reason whatsoever, the vacant seat shall be filled under the conditions set forth in article L. 225-34 of the French Commercial Code.

In addition to the provisions of the second paragraph of article L. 225-29 of the French Commercial Code, it is stipulated, if need be, that any failure to appoint a Director representing employees by the body designated herein, in accordance with the law and with this clause, shall not invalidate the resolutions of the Board of Directors.

**Article 12: Organization and management of the Board of Directors**

The Board of Directors elects from among its members who are individuals, a Chairman. It determines his remuneration and sets his term of office which may not exceed his term of office as Director. The Chairman may be re-elected.

The Chairman of the Board of Directors performs the duties entrusted to him by law. He chairs the Board of Directors, organizes and manages its work and reports on such work to the Shareholders' Meeting. He ensures that the Company's bodies operate properly and, in particular, that the Directors are able to fulfill their assignments.

The Board may also appoint from among its members one or more Vice-Chairmen, whose term of office shall be determined within the limit of their term as Director and whose role it is, subject to the legal provisions applicable in the event of the temporary

impediment or death of the Chairman, to convene and chair Board meetings or chair Shareholders' Meetings in accordance with these articles of association when the Chairman is impeded.

No Director who does not also assume the role of Chief Executive Officer may be appointed as Chairman of the Board of Directors after the age of 68. If, during the term of office, this age limit is reached, the Chairman's mandate shall terminate at the close of the Shareholders' Meeting held to approve the financial statements for the year during which he has reached the age of 68. If the Chairman of the Board of Directors also assumes the role of Chief Executive Officer, the applicable age limit is that applicable to the Chief Executive Officer.

The Chairman and each Vice-Chairman may be dismissed by the Board of Directors at any time. They may also be re-elected.

The Board may appoint a secretary who need not be a shareholder or one of its members.

**Article 13: General Management****Management organization**

In accordance with the law, the Company's General Management is assumed either by the Chairman of the Board of Directors or by any other physical person, Director or not, appointed by the Board of Directors and who assumes the role of Chief Executive Officer.

The choice between either of the two General Management organizations described above is made by the Board of Directors. The Board of Directors makes its decision relating to the choice of General Management organization under the quorum and majority conditions stipulated in article 14 of these articles of association. The shareholders and third parties are informed of the Board of Directors' decision under the conditions stipulated by the regulations in force.

When the Company's General Management is assumed by the Chairman of the Board of Directors, the Board of Directors must appoint, among its members considered as independent by the Board of Directors, a Lead Director. The conditions of appointment, the tasks and powers of the Lead Director (in particular, if applicable, the power to ask to convene a meeting of the Board of Directors), are set out in the Board of Directors' internal regulations.

The choice made by the Board of Directors remains valid until it decides otherwise.

The Board of Directors will review, as necessary, the choice made each time the mandate of the Chairman of the Board of Directors or the Chief Executive Officer comes up for renewal.



### Chief Executive Officer

If the Company's Chief Executive Officer is assumed by the Chairman of the Board of Directors, the following provisions relating to the Chief Executive Officer are applicable.

The Board of Directors sets the term of office and determines the remuneration of the Chief Executive Officer.

No individual over the age of 63 may be appointed as Chief Executive Officer. If, during the term of office, this age limit is reached, the Chief Executive Officer's mandate shall terminate at the close of the Shareholders' Meeting held to approve the financial statements for the year during which he has reached the age of 63.

The Chief Executive Officer may be dismissed at any time by the Board of Directors. The discharge of a Chief Executive Officer who does not assume the role of Chairman may give rise to damages if decided without reasonable cause.

The Chief Executive Officer may always be re-elected.

### Powers of the Chief Executive Officer

The Chief Executive Officer is vested with the broadest powers to act in all circumstances on behalf of the Company within the limit of the Company's corporate purpose, the articles of association, and subject to the powers expressly granted by law to Shareholders' Meetings and the Board of Directors.

The Board of Directors is responsible for defining the decisions of the Chief Executive Officer that require its prior approval. The Board of Directors' prior approval should be sought particularly for external acquisitions or sales of interests or assets, and for investment commitments, in each case under the conditions and exceeding the amounts corresponding to an efficient operation of the Company as set by the Board of Directors. It should also be sought for financing operations of any amount likely to substantially alter the Company's financial structure and for any decision likely to substantially alter the Company's strategic orientations determined by the Board of Directors.

### Senior Executive Vice-Presidents

On the Chief Executive Officer's proposal, whether he be Chairman of the Board of Directors or any other person, the Board of Directors may appoint one or more physical persons as Senior Executive Vice-Presidents to assist the Chief Executive Officer.

The maximum number of Senior Executive Vice-Presidents is set at three.

In accordance with the Chief Executive Officer, the Board of Directors determines the scope and term of the powers granted to the Senior Executive Vice-Presidents and sets their remuneration.

The Senior Executive Vice-Presidents have the same powers as the Chief Executive Officer vis-à-vis third parties.

In the event of impediment of the Chief Executive Officer or the cessation of his functions, the Senior Executive Vice-Presidents shall maintain, unless decided otherwise by the Board of Directors, their functions and powers until a new Chief Executive Officer is appointed.

The Senior Executive Vice-Presidents may be dismissed at any time by the Board of Directors, at the Chief Executive Officer's proposal. They are subject to the age limit provided by law.

Senior Executive Vice-Presidents may be re-elected.

### Article 14: Board of Directors' Meetings and deliberations

The Board of Directors meets as often as the interest of the Company so requires, by notice from its Chairman or in the case of impediment, from the oldest Vice-Chairman, if one or more Vice-Chairmen have been appointed, at the head office or in any other location indicated in the Notice of Meeting.

The agenda is set by the Chairman and may only be finalized at the time of the Meeting.

Directors representing at least one third of members of the Board of Directors may, while specifying the meeting's agenda, ask the Chairman to summon the Board if it has not met for more than two months.

Likewise, the Chief Executive Officer, if he does not chair the Board of Directors, may ask the Chairman to summon the Board of Directors on any specified agenda.

The Chairman is bound to the requests made to him.

In the event that the Chairman is impeded or fails in performing the aforementioned tasks, the oldest Vice-Chairman, if one or more Vice-Chairmen have been appointed, shall have the authority to call the Board and set the meeting's agenda at the request of at least one third of members of the Board of Directors or the Chief Executive Officer, as the case may be. In the absence of a Vice-Chairman, the minimum of one third of members of the Board of Directors or the Chief Executive Officer, depending on the case, shall have the authority to call the Board and set the meeting's agenda.

Notices may be made by all means, including verbally.

The presence of one half of the members of the Board of Directors is required for the validity of the Board's decisions.

Decisions are made by a simple majority of the votes of the members present or represented. In the event of a tie, the Chairman shall have the casting vote.

The Board of Directors will set its internal rules that it may amend by simple resolution.



### General information

The Board of Directors may stipulate in its internal rules that the members of the Board of Directors who take part in the Board's meeting by videoconference or telecommunications in accordance with the conditions provided by the regulations in force shall be considered as present for calculating the quorum and voting majority of the members, for all decisions in which the law does not exclude such possibility.

#### Article 15: Powers of the Board of Directors

The Board of Directors determines the orientations of the Company's activities and ensures their implementation.

Subject to the powers expressly attributed to Shareholders' Meetings by law and these articles of association and in accordance with the corporate purpose, the Board deals with any issues concerning the smooth running of the Company and manages corporate business pursuant to its decisions.

The Board of Directors may conduct controls and verifications as it deems appropriate.

The Board is authorized to issue bonds pursuant to a delegation granted by the Ordinary Shareholders' Meeting.

It may also decide to create Committees of its members responsible for analyzing issues which it itself or its Chairman submits thereto for review. The Board determines the composition and powers of the Committees which conduct their activities under its responsibility.

Issues related to the performance, remuneration and, where appropriate, the renewal of the term of office of the Chairman and Chief Executive Officer, or the Chief Executive Officer, shall be decided by the Board of Directors as and when required, and at least once a year, after analysis by the Committee(s) of the Board of Directors that deal with appointment and remuneration issues.

#### Article 16: Remuneration

The Ordinary Shareholders' Meeting may allocate to the members of the Board of Directors, as remuneration for their activity, a fixed annual amount in Directors' fees. The Board of Directors is free to distribute the overall sum thus allocated among its members. It may also allocate a greater amount to the Directors who are members of Committees set up within the Board than that allocated to the other Directors.

The Board may allocate exceptional sums to remunerate assignments or mandates entrusted to the members of the Board.

## SECTION IV

### STATUTORY AUDITORS

#### Article 17: Audit of the Company

At the Ordinary Shareholders' Meeting, the shareholders appoint, under the conditions and with the assignments set by law, the principal and deputy Statutory Auditors.

## SECTION V

### SHAREHOLDERS' MEETINGS

#### Article 18: Shareholders' Meetings

The Shareholders' Meeting is comprised of all the shareholders, regardless of the number of shares they own, provided that all shares are fully paid up and that they are not stripped of voting rights.

The right to attend Shareholders' Meetings of the Company shall be justified by the registration of the shares in the name of the shareholder or of the intermediary registered on behalf of the shareholder (pursuant to legal provisions) at 00:00, Paris time, on the third business day preceding the Shareholders' Meeting:

- for owners of registered shares: in the registered share accounts kept by the Company;

- for owners of bearer shares: in the bearer share accounts kept by the duly empowered intermediary, in accordance with prevailing regulations.

The owners of registered shares or bearer shares must furthermore have filed a proxy or absentee ballot form, or a single document presented in lieu thereof, or if the Board of Directors has so decided, a request for an admission card, at least three days prior to the meeting. The Board of Directors may however reduce this time period if it deems appropriate. It may also authorize the submission to the Company of the proxy or absentee ballot forms by teletransmission (including electronically) in accordance with prevailing regulatory and legal provisions.

The electronic signature can, when used, take the form of a process that satisfies the conditions defined in the first sentence of section 2 of article 1316-4 of the French Civil Code.

The Shareholders' Meeting, duly constituted, represents all of the shareholders.

Ordinary and Extraordinary Shareholders' Meetings, and where necessary, Special Shareholders' Meetings are convened, meet and deliberate under the conditions provided by law and these articles of association.

Meetings take place at the head office or at any other place designated by the author of the notice, even outside of the head office or the head office's department.

Shareholders' Meetings are chaired by the Chairman of the Board of Directors or, in his absence, by the Vice-Chairman or the oldest Vice-Chairman of the Board, if one or more Vice-Chairmen have been appointed, or otherwise by a Director specifically appointed for this purpose by the Board. In the event of impediment of the Vice-Chairman or Vice-Chairmen when Vice-Chairmen have been appointed or if the Board has not appointed a Director, the shareholders shall themselves appoint the Chairman.

The two members of the Shareholders' Meeting with the highest number of votes and having accepted the position act as ballot inspectors for the Shareholders' Meeting. The officers of the meeting appoint a secretary who need not be a shareholder.

In the event that the meeting is convened by a Statutory Auditor or by a judicial representative, the Shareholders' Meeting is chaired by the author of the notice.

## SECTION VI

### INVENTORY – RESERVES – DISTRIBUTION OF PROFITS

#### Article 20: Fiscal year

The fiscal year begins on January 1 and ends on December 31.

#### Article 21: Inventory, distribution of profits

The Company's net proceeds, established in the annual inventory, after deducting overheads and other costs, including all amortization, depreciation and provisions, constitute the net profits.

From these profits, less, as the case may be, previous losses, a deduction of at least 5% is first of all made to create the reserve required by law. This deduction ceases to be mandatory when the reserve amounts to 10% of the share capital. It is resumed if this reserve is ever used.

The distributable profits are made up of the annual net profits, less previous losses, as well as the sums to be placed on reserve pursuant to law, plus the profit carried forward.

From these profits, a deduction is made of the amount necessary to pay the shareholders, as a first dividend, 5% of the sums paid-up on their shares, and not amortized, and 5% of the sums from

Upon the decision of the Board of Directors published in the Notice of Meeting or notice of convocation to rely on means of telecommunication, the shareholders who take part in the Shareholders' Meeting by videoconference or using telecommunications means permitting their identification in accordance with the conditions provided by prevailing law, shall be considered as present for calculating the quorum and voting majority.

#### Article 19: Powers of Shareholders' Meetings

Ordinary and Extraordinary Shareholders' Meetings, and where necessary, Special Shareholders' Meetings allow shareholders to exercise the powers defined by law and these articles of association.

During the Ordinary Shareholders' Meeting, shareholders decide or authorize the issue of bonds secured, where necessary, by specific collateral in accordance with prevailing laws and regulations and authorize the Chairman to grant such collateral. They may delegate to the Board of Directors the competence and powers necessary to issue such bonds, in one or more installments, within a period set by them, and to determine the terms and conditions of the issuance of such bonds. The guarantees set up subsequent to the issue of the bonds are granted by the Chairman of the Board of Directors upon the Board's authorization.

premiums on shares issued in cash, and appearing in a "share premium" account, without it being possible, if the profits of a given year do not permit this payment, for the shareholders to claim such amounts from the profits of subsequent years.

The Shareholders' Meeting may decide to earmark any portion of the available surplus of said profits it wishes for the creation of general or special providence or reserve funds, under any name whatsoever or even simply as an amount carried forward.

The balance constitutes a surplus fund which is intended for the distribution of the second dividend as well as the amount provisionally assessed as necessary to pay a 10% increase to the registered shares satisfying the following conditions.

Starting on January 1, 1996, the shares registered at December 31 of each year in registered form for at least two years, and which remain registered until the date of the payment of the dividend, will entitle their owners to collect a dividend per share which is 10% higher, rounded down if necessary to the lower centime, than the dividend per share distributed in respect of other shares, provided that the amount of the dividend per share prior to any increase is at least equal to the amount of the dividend per share prior to any increase distributed in the preceding year, adjusted to take into account the change in the number of shares from one year to the next resulting in a capital increase by capitalizing premiums, reserves or profits or a share split.

**General information**

In the event that, starting on January 1, 1996, the Board of Directors, with the approval of the shareholders decides to increase the capital by capitalizing reserves, profits or premiums, the registered shares held on December 31 prior to the attribution for at least two years and that remain held until the day before the share attribution date will entitle their owners to an attribution of shares which is 10% higher than the attribution made in favor of other shares, and according to the same procedure.

The new shares created in this manner will be comparable in all respects to the existing shares from which they are issued, for calculating the entitlement to the higher dividends and the higher attributions.

**SECTION VII****LIQUIDATION****Article 22: Liquidation**

At the expiration of the Company's term, or in the event of early dissolution, the shareholders determine the method of liquidation, in accordance with the conditions stipulated by law. They appoint and determine the powers of one or more liquidators.

The liquidators may, pursuant to a decision of the shareholders, transfer to another company or sell to a company or to any other entity or person, all or part of the assets, rights and obligations of the dissolved Company.

**SECTION VIII****DISPUTES****Article 23: Disputes**

All disputes which may arise during the Company's term or liquidation, either between the shareholders and the Company or among the shareholders themselves, regarding Company affairs, are settled in accordance with law and submitted to the jurisdiction of the competent Paris courts.

The increases defined in each of the two preceding paragraphs may be modified or eliminated by simple decision during the Extraordinary Shareholders' Meeting, according to the procedures it determines.

Pursuant to law, the number of shares eligible for these increases shall not for any given shareholder exceed 0.5% of the Company's share capital.

The Shareholders' Meeting held to approve the financial statements for the year shall have the possibility of granting to each shareholder, for all or part of the dividend or interim dividends, an option for payment of the dividend or interim dividends in either cash or shares.

The duly constituted Shareholders' Meeting retains the same prerogatives during the liquidation as during the Company's term. In particular, it has the power to approve the accounts of the liquidation and to grant a discharge thereof.

After the Company's commitments have been settled, the net proceeds from the liquidation are used first to fully redeem the shares, and the surplus is then distributed equally among them.

For this purpose, in the event of disputes, all shareholders shall elect domicile in Paris, and all summonses and notices are duly served at this domicile.

Failing election of domicile, summonses and notices are validly served at the Office of Public Prosecution of the French Republic at the High Court of Paris.

## Dividends

Year	Paid	Ordinary dividend <sup>(a)</sup> Loyalty dividend <sup>(b)</sup>	Number of shares	Distribution <i>(in euros)</i>
2012 <sup>(e)</sup>	May 22, 2013	2.50 <sup>(a)</sup>	310,561,829	776,404,573
		0.25 <sup>(b)</sup>	83,545,351	20,886,337
				<b>797,290,910</b>
2013 <sup>(e)</sup>	May 21, 2014	2.55 <sup>(a)</sup>	311,137,288	793,400,084
		0.25 <sup>(b)</sup>	86,153,707	21,538,427
				<b>814,938,511</b>
2014 <sup>(c) (d)</sup>	May 20, 2015	2.55 <sup>(a)</sup>	344,872,883	879,425,852
		0.25 <sup>(b)</sup>	102,644,011	25,661,003
				<b>905,086,855</b>

(a) Ordinary dividend paid on all shares.

(b) Loyalty dividend paid only on registered shares held continuously for two full calendar years.

(c) Subject to the approval of the General Shareholders' Meeting on May 6, 2015.

(d) For 2014, amounts distributed are theoretical values calculated based on the number of shares as of December 31, 2014.

(e) For 2012 and 2013, amounts actually paid.

## Management of the Company

Pursuant to the statements made to the Company by each Corporate Officer, the Company confirms that Corporate Officers do not have any family ties with another Corporate Officer and have not been convicted of fraud at least during the last five years.

No incrimination and/or official public sanction has been pronounced against them by statutory or regulatory authorities (including professional organizations) and they have not been prevented by a court from acting in their capacity as a member of an administration, management or supervisory body or interfering in the management or carrying out of business of an issuer during at least the last five years. They have no potential conflicts of interest with L'Air Liquide S.A. except the potential conflict of interest resulting for Mr Paul Skinner from his membership of the public interest body of PWC LLP within the scope of the statutory auditor renewal process. No arrangements or agreements have been made with the significant shareholders, customers, suppliers or others, pursuant to which the persons mentioned above have been chosen as Corporate Officers.

There exist no restrictions accepted by these persons as to the transfer, within a certain lapse of time, of their interest in the capital of L'Air Liquide S.A. except for the rules on preventing insider trading and the obligation set forth in the articles of association requiring the members of the Board of Directors appointed by the Annual Shareholders' Meeting to own at least 500 registered shares of the Company during the term of their office and the obligation to hold shares imposed on corporate Executive Officers. Corporate Officers have not been associated with any bankruptcy, any receivership or liquidation during the last five years.

### COMPLIANCE WITH CORPORATE GOVERNANCE

The Company complies with all aspects of the recommendations set forth in the AFEP/MEDEF Code of corporate governance (see Report from the Chairman of the Board of Directors pages 122 et seq.), except for the points described in the Chairman's Report and summarized in the table on page 139.

## Property, plant and equipment

The Group's facilities and establishments are located in 80 countries around the world, with extremely diversified production capacities and characteristics.

No material tangible fixed asset exists at Group level.

The number of main plants by unit types is detailed in the 2014 Corporate Social Responsibility and Sustainable Development Report – pages 71 to 72.

## Documents accessible to the public

In accordance with Annex I of the European Regulation (EC) 809/2004, documents, or copies of the documents listed below may be consulted during the period of the Reference Document's validity at Shareholder Services located at the head office of Air Liquide (75, quai d'Orsay, 75007 Paris) and, if applicable, on the Company's Internet website ([www.airliquide.com](http://www.airliquide.com)), subject to the documents made available at the Company's head office or Internet site under the applicable laws and regulations:

- the Company's articles of association;
- all reports, letters and other documents, historical financial information, evaluations and official assertions and declarations prepared by an expert at the Company's request, some of which are included or referred to in this Reference Document;
- historical financial information of the Group, for each of the two fiscal years preceding publication of this Reference Document.

## Incorporation by reference

Pursuant to article 28 of EC Regulation No.809/2004, the following information is included in this Reference Document:

- the consolidated and parent company financial statements for the year ended December 31, 2012, accompanied by the Statutory Auditors' Reports which appear on pages 251 and 252, and on pages 270 and 271, respectively, of the 2012 Reference Document filed on March 14, 2013 with the French financial market authority (AMF) under number D.13-0133;
- the financial information shown on pages 10 to 56 of the 2012 Reference Document filed on March 14, 2013 with the French financial market authority (AMF) under number D.13-0133;

- the consolidated and parent company financial statements for the year ended December 31, 2013, accompanied by the Statutory Auditors' Reports which appear on pages 269 and 270, and on pages 288 and 289, respectively, of the 2013 Reference Document filed on March 17, 2014 with the French financial market authority (AMF) under number D.14-0146;
- the financial information shown on pages 10 to 59 of the 2013 Reference Document filed on March 17, 2014 with the French financial market authority (AMF) under number D.14-0146.

The sections not included in these documents serve no useful purpose to investors or are already covered in this Reference Document.

## ➤ TRADE PAYABLES

Pursuant to article D. 441-4 of the French Commercial Code, a breakdown by maturity date of the trade payables balance of L'Air Liquide S.A. as of December 31, 2013 and December 31, 2014, is provided below.

<i>(in millions of euros)</i>	Balance	Past due	Maturity			
			of which ≤30 days	of which >30 days and ≤45 days	of which >45 days and ≤60 days	of which >60 days
<b>2013</b>						
Trade payables and related accounts	29.7	-	3.8	16.3	9.1	0.5
Amounts payable in respect of fixed assets and related accounts	12.2	0.1	0.5	0.2	0.1	11.3
<b>TOTAL</b>	<b>41.9</b>	<b>0.1</b>	<b>4.3</b>	<b>16.5</b>	<b>9.2</b>	<b>11.8</b>
<b>2014</b>						
Trade payables and related accounts	30.4	3.4	14.2	10.8	2.0	0.1
Amounts payable in respect of fixed assets and related accounts	7.8	0.1	0.2	1.7	0.5	5.3
<b>TOTAL</b>	<b>38.2</b>	<b>3.5</b>	<b>14.4</b>	<b>12.5</b>	<b>2.5</b>	<b>5.4</b>

### Factors that may have an impact in the event of a takeover bid

## ➤ FACTORS THAT MAY HAVE AN IMPACT IN THE EVENT OF A TAKEOVER BID

Pursuant to article L. 225-100-3 of the French Commercial Code, the factors that may have an impact in the event of a takeover bid are set forth below.

### Board of Directors' powers

The share buyback authorization currently granted to the Company excludes any buybacks during a period of bidding on the Company's shares.

Furthermore, the delegation of authority granted to the Board of Directors (subject to the approval of the Shareholders' Meeting of May 6, 2015) to increase the share capital via the issuance

of ordinary shares or marketable securities is suspended during periods of takeover bids.

Some provisions relating to the regulations of the stock options plans are also applicable in the event of a takeover bid launched on the Company's shares – see page 172.

### Agreements that may be modified or terminated in the event of a change of control of the Company

Several bond issues under the Group's EMTN program include a clause providing that, under certain circumstances, the early repayment of such bonds may be requested in the event of a change of control of the Company:

- bond issued in July 2007 maturing in July 2017 (500 million euros);
- private placement issued in January 2008 maturing in January 2038 (15 billion yen, or 103.3 million euros equivalent <sup>(a)</sup>);
- bond issued in June 2009 maturing in June 2015 (255.85 million euros);
- bond issued in June 2010 maturing in June 2020 (500 million euros);
- bond issued in October 2010 maturing in October 2018 (456.75 million euros);
- private placement issued in December 2011 maturing in December 2019 (15.5 billion yen, or 106.7 million euros equivalent <sup>(a)</sup>);
- private placement issued in January 2012 maturing in March 2019 (200 million US Dollars, or 164.7 million euros equivalent <sup>(a)</sup>);
- private placement issued in August 2012 maturing in August 2016 (13.5 billion yen, or 93.0 million euros equivalent <sup>(a)</sup>);
- bond issued in October 2012 maturing in October 2021 (500 million euros);
- bond issued in March 2013 maturing in September 2023 (300 million euros);
- bond issued in June 2013 maturing in June 2015 (250 million euros), in June 2016 (200 million euros) and in June 2019 (250 million euros);
- private placement issued in January 2014 maturing in January 2026 (150 million euros);
- private placement issued in March 2014 maturing in March 2029 (100 million euros);
- bond issued in June 2014 maturing in June 2024 (500 million euros);
- private placement issued in September 2014 maturing in September 2022 (130 million Swiss francs, or 108.1 million euros equivalent <sup>(a)</sup>);
- bond issued in September 2011 maturing in September 2016 (1,750 million renminbis, or 232.2 million euros equivalent <sup>(a)</sup>);

Three bonds (or private placements) issued outside of the Group's EMTN program include a clause providing that, under certain circumstances, the early repayment of such bonds may be requested in the event of a change of control of the Company:

(a) Converted at closing rates as of December 31, 2014, with 1 EUR = 145.23 JPY, 1 EUR = 1.214 USD, 1 EUR = 7.536 CNY and 1 EUR = 1.20 CHF.



**Factors that may have an impact in the event of a takeover bid**

- bond issued in September 2011 maturing in September 2018 (850 million renminbis, or 112.8 million euros equivalent <sup>(a)</sup>);
- US Private Placement issued in September 2012, maturing in September 2022 (400 million US dollars, or 329.5 million euros equivalent <sup>(a)</sup>), September 2024 (200 million US dollars, or 164.7 million euros equivalent <sup>(a)</sup>) and September 2027 (100 million US dollars, or 82.4 million euros equivalent <sup>(a)</sup>).

Some credit agreements of the Group include a clause providing that, under certain circumstances, the early repayment of the advances made under those credit agreements may be requested in the event of a change of control of the Company.

## **Agreements providing indemnities for Board members or employees if they resign or are dismissed without good and sufficient cause or if their employment ends due to a takeover bid**

The indemnities granted to the Company's Corporate Officers in the event of a termination of their office are detailed on pages 160 et seq. of this Reference Document.

*(a) Converted at closing rates as of December 31, 2014, with 1 EUR = 145.23 JPY, 1 EUR = 1.214 USD, 1 EUR = 7.536 CNY and 1 EUR = 1.20 CHF.*

## ➤ PERSON RESPONSIBLE FOR THE REFERENCE DOCUMENT

### Person responsible for the Reference Document

Benoît Potier, Chairman and CEO of L'Air Liquide S.A.

### Certification by the person responsible for the Reference Document

I hereby attest, after having taken all reasonable measures for such purpose, that the information contained in this Reference Document reflects, to the best of my knowledge, the current situation and does not omit any information that could alter its scope.

I certify that, to the best of my knowledge, the financial statements have been prepared in accordance with applicable accounting standards and give a true and fair view of the assets and liabilities, and of the financial position and results of the Company and of its consolidated subsidiaries, and that the Management Report of the Annual Financial Report defined on the Cross-reference table available in this Reference Document pages 352 and 353 provides a true and fair view of the evolution of the business, results and financial condition of the Company and of its consolidated subsidiaries, and a description of the main risks and uncertainties the Company and its consolidated subsidiaries are subject to.

I have obtained a work completion letter from the Statutory Auditors indicating that they have, in accordance with French professional standards, verified the information on the financial position and the financial statements and have reviewed all of the information presented in the Reference Document.

Paris, March 13, 2015

**Benoît Potier**

Chairman and CEO

## ➤ CROSS-REFERENCE TABLE FOR THE REFERENCE DOCUMENT

The cross-reference table identifies the main information required by Regulation No. 809/2004 of the European Commission dated April 29, 2004 (the "Regulation"). The table indicates the pages of this Reference Document where is presented the information related to each item. The table indicates, when required by the Regulation, the pages of the Reference Document related to the year ended December 2013, filed on March 17, 2014 under the number D.14-0146 (the "DDR 2013"), and the pages of the Reference Document related to the year ended December 2012, filed on March 14, 2013 under the number D.13-0133 (the "DDR 2012"), which are incorporated by reference in this document.

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## ➤ CROSS-REFERENCE TABLE FOR THE ANNUAL FINANCIAL REPORT

In order to facilitate the reading of this document, the cross-reference table, hereafter, enables to identify in this Reference Document the information which constitutes the Annual Financial Report having to be published by the listed companies in accordance with article L. 451-1-2 of the French Monetary and Financial Code and article 222-3 of the French financial market authority's general regulations.

<b>N°</b>	<b>Required element</b>	<b>Chapter / Pages</b>
1.	Company annual financial statements	Chapter 4 / p. 271 to 287
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3.	Management report (within the meaning of the French Commercial Code)	Refer to the cross-reference table for the Management Report on page 352
4.	Statement of the persons responsible for the Annual Financial Report	Chapter 6 / p. 346
5.	Statutory Auditors' Report on the Company's annual financial statements and the Consolidated financial statements	Chapter 4 / p. 270, 288 to 289
6.	Fees of the Statutory Auditors	Chapter 3 / p. 194
7.	Report of the Chairman of the Board of Directors on the internal control procedures	Chapter 3 / p. 140 to 147
8.	Statutory Auditors' Report on the Report of the Chairman of the Board of Directors on internal control procedures	Chapter 3 / p. 169



## ➤ CROSS-REFERENCE TABLE FOR THE MANAGEMENT REPORT

In order to facilitate the reading of this document, the cross-reference table, hereafter, enables to identify in this Reference Document the management report information required by articles L. 225-100 et seq., L. 232-1 et seq. and R. 225-102 et seq. of the French Commercial Code (Code de commerce).

Required element	Reference text	Chapter / Pages
<b>Group situation and activity</b>		
Objective and comprehensive analysis of changes in business, results and the financial situation of the Company and the Group	L. 225-100, L. 225-100-2, L. 232-1 and L. 233-26 of the French Commercial Code	Key figures / p. 1, 2 to 8 Chapter 1 / p. 10 to 25, 32 to 57
Key non-financial performance indicators relating to the Company and the Group's specific activity	L. 225-100 and L. 225-100-2 of the French Commercial Code	Key figures / p.4, 8 Chapter 2 / p. 65 to 70
Significant events occurring between the fiscal year closing date and the management report preparation date	L. 232-1 and L. 233-26 of the French Commercial Code	Chapter 4 / p. 265
Description of the main risks and uncertainties and indication of the use of financial instruments by the Company and the Group	L. 225-100, paragraphs 4 and 6 and L. 225-100-2 paragraphs 2 and 4 of the French Commercial Code	Chapter 1 / p. 26 to 31 Chapter 3 / p. 140 to 147
Significant acquisitions during the fiscal year of equity interests in companies which have their registered office in France	L. 233-6, paragraph 1 of the French Commercial Code	Chapter 1 / p. 33, 41 to 42 Chapter 5 / p. 294
Company and Group foreseeable trends and outlook	L. 232-1 and L. 233-26 of the French Commercial Code	Chapter 1 / p. 58 to 61
Research and Development activities	L. 232-1 and L. 233-26 of the French Commercial Code	Chapter 1 / p. 50 to 57
<b>Corporate governance / Executive officers</b>		
List of all positions and functions held in any company by each executive officer during the fiscal year	L. 225-102-1 of the French Commercial Code	Chapter 3 / p. 120 to 121, 180 to 192
Remuneration and benefits of all kinds paid during the fiscal year to each executive officer by the Company	L. 225-102-1 of the French Commercial Code	Chapter 3 / p. 148 to 168
Agreements between an executive officer or a major shareholder and a subsidiary	L. 225-102-1 of the French Commercial Code	Chapter 3 / p. 160
Information on Company's shares trading by executive officers and related persons	L. 621-18-2 of the French Monetary and Financial Code	Chapter 3 / p. 170
Attribution and retention of stock options by executive officers Attribution and retention of free share grants to executive officers	L. 225-185 of the French Commercial Code L. 225-197-1 of the French Commercial Code	Chapter 3 / p. 153 to 157, 163 to 164, 166 to 167
<b>Share ownership and capital</b>		
Structure and change in Company capital	L. 233-13 of the French Commercial Code	Key figures / p. 7 Chapter 2 / p. 97 to 100 Chapter 6 / p. 328 to 329
Acquisition and disposal by the Company of treasury shares	L. 225-211 of the French Commercial Code	Chapter 5 / p. 296 to 297 Chapter 6 / p. 329
Employee share ownership	L. 225-102, paragraph 1 of the French Commercial Code	Chapter 3 / p. 171 to 179 Chapter 6 / p. 329
Shares acquired by employees as part of a management buyout	L. 225-102, paragraph 2 of the French Commercial Code	N/A

Cross-reference table for the Management Report

Required element	Reference text	Chapter / Pages
Possible adjustments for securities giving access to share capital in case of buy-backs of shares or financial transactions	R. 228-90 and R. 228-91 of the French Commercial Code	Chapter 3 / p. 171
Information that may have an impact in the event of a takeover bid	L. 225-100-3 of the French Commercial Code	Chapter 6 / p. 344 to 345
Amount of dividends paid out in respect of the three previous fiscal years	243-2 of the French Tax Code	Chapter 5 / p. 295 to 296 Chapter 6 / p. 341
<b>Environmental, social and societal information</b>		
Environmental information	L. 225-102-1 paragraphs 5 and 6 and R. 225-105 of the French Commercial Code	Key figures / p. 8 Chapter 2 / p. 68 to 69, 71 to 83, 112
Specific information for companies operating at least one site classed Seveso "high threshold"	L. 225-102-2 of the French Commercial Code	Chapter 2 / p. 81
Social information	L. 225-102-1 paragraphs 5 and 6 and R. 225-105 of the French Commercial Code	Key figures / p.4 Chapter 2 / p. 67 to 68, 83 to 93, 108 to 110
Societal information	L. 225-102-1 paragraphs 5 and 6 and R. 225-105 of the French Commercial Code	Key figures / p. 4 Chapter 2 / p. 64 to 66, 69 to 70, 94 to 97, 100 to 112
<b>Additional information</b>		
Additional tax information	223-4 and 223-5 of the French Tax Code	N/A
Injunctions or financial penalties in respect of anti-competitive practices	L. 464-2 of the French Commercial Code	N/A
Information on supplier payment terms	D. 441-6-1 of the French Commercial Code	Chapter 6 / p. 343
Summary table of delegations of authority currently in force granted by the Shareholders' Meeting relating to an increase in capital	L. 225-100 paragraph 7 of the French Commercial Code	Chapter 6 / p. 330 to 332
Table of Company results over the past five fiscal years	R. 225-102 of the French Commercial Code	Chapter 4 / p. 290
Report of the Chairman of the Board of Directors on conditions for the preparation and organization of the work of the Board as well as Internal control procedures implemented by the Company	L. 225-37 of the French Commercial Code	Chapter 3 / p. 122 to 147

## ➤ GLOSSARY

### Financial glossary

#### A

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##### *Adjusted price*

Share price adjusted to take account of changes in capital (issue of new shares, share split, etc.). The adjusted share price is used to produce meaningful comparisons of price changes over time.

##### *AMF (Autorité des marchés financiers, the French financial market authority)*

The AMF governs and oversees the conduct and professional ethics of the markets and protects the interests of investors and shareholders.

#### B

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##### *Bearer share*

Share held in a security account at the shareholder's financial broker.

##### *Bond*

Tradable debt security issued by a public or private company, a group, an association or a government. Bonds carry fixed interest for a specific period and are redeemable on maturity.

#### C

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##### *CAC 40 (Cotation assistée en continu – Continuous Automated Trading)*

The flagship stock market index of NYSE Euronext in Paris, the CAC 40 tracks the evolution of a selection of 40 stocks registered on this stock market. A committee of NYSE Euronext specialists regularly revises its composition to ensure that it remains representative. Air Liquide has been included in the CAC 40 since its inception in 1988.

##### *Capital employed*

Balance sheet capital corresponding to financial resources used by a company to develop its business. It is the sum of equity, minority interests and net debt.

##### *Capital gain*

Gain realized on the sale of a security, that is, the difference between its sale price and its original purchase price, or book value.

##### *Cash flow*

This indicator provides the exact measure of annual cash flow that the Company is able to generate from its operations, independently of the evolution of the working capital requirement, which can be seasonal or erratic. This indicator is before tax, dividends and cost of financing.

##### *Conditional grant of shares to employees (CGSE)*

Means of remuneration that grants free shares of the Company to all the employees or a specific employee category. The employee only becomes the owner of the shares after a given acquisition period and according to the plan's conditions. If the acquisition period is shorter than four years, the law provides that the employee must keep his/her shares for a minimum additional two-year period.

##### *Custody fees*

Fees charged by a financial intermediary for maintaining a share account. They generally represent a percentage of the portfolio or a set fee per line of shares held. Air Liquide's Shareholder Services provide this service free of charge for shares held in a direct registered account.

#### D

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##### *Deferred settlement service (SRD)*

Fee-based service available for the most traded stocks through which settlement for orders or delivery of shares is deferred to the last trading day of the month. Air Liquide shares are eligible for this service.

##### *Diluted earnings per share (Diluted EPS)*

Net profit Group share divided by the average weighted number of shares which would be outstanding, assuming conversion of all potential shares (exercise of share subscription options, definitive grant of free shares, etc.). The equivalent accounting term is diluted net profit by share.

##### *Direct registered shares*

Direct registered shares are managed by Air Liquide and registered in its accounts. They are held in a securities account opened at Air Liquide.

**E**

**Earnings per share (EPS)**

Net profit Group share divided by the average weighted number of shares outstanding. The equivalent accounting term is net profit per share.

**ESG (Environmental, Social and Corporate Governance)**

Environmental, social and corporate governance are the three main areas appraised by SRI analysts. A positive appraisal of these criteria is a guarantee of quality. It reflects the sustainability of a company's development.

**Euronext Paris**

Name of the firm which organizes, manages and develops the securities market in Paris, and acts as market regulator (financial transactions, monitoring of companies listed on the stock market) with the delegated authority of the AMF.

**Euro Stoxx 50**

Stock Exchange index composed of 50 of the highest capitalizations and most actively traded stocks listed in the eurozone.

**F**

**Fractional right**

Part of a share that cannot be distributed in the case of a free share attribution or subscription if the number of shares held is not a multiple of the transaction. Example: in a 1 for 10 free share attribution, a shareholder holding 68 shares is allocated 6 new shares and 8 fractional rights.

**Free float**

The part of a company's capital publicly available and tradable on the stock markets. The higher the free float, the greater the liquidity of the shares. Nearly 100% of Air Liquide's capital is floated.

**Free share attribution**

Transaction by which the Company issues new shares by capitalizing undistributed earnings at no cost to shareholders, and allocates new shares in proportion to the number of shares already held. Air Liquide allocates regularly such free shares.

**G**

**Goodwill**

Difference between the purchase price of a company and its net tangible assets on the day of the acquisition.

**I**

**IFRS (International Financial Reporting Standards)**

International accounting standards with effect from January 1, 2005, conceived by the International Accounting Standards Board, or IASB, for quoted companies to harmonize the presentation and increase the transparency of their financial statements.

**Indirectly/intermediary registered shares**

Indirectly/intermediary registered shares are registered in the Air Liquide accounts and held in a securities account at the shareholder's financial institution.

**ISIN Codes (International Securities Identification Numbers)**

Codes used to identify financial products quoted on the spot market on the stock exchanges (Air Liquide ISIN trading Code: FR0000120073; for the three other Air Liquide Codes, please refer to the shareholders section of this Reference Document – page 100).

**L**

**Liquidity**

Ratio of the volume of shares traded over the total number of shares outstanding, which make up the capital.

**Loyalty bonus**

The loyalty bonus increases the dividend distributed and the number of free shares attributed by 10% for registered shares held for more than two full calendar years and subject to the conditions defined by Air Liquide's articles of association.

**Loyalty dividend**

Pursuant to Air Liquide's articles of association, a dividend premium of 10%, granted to loyal shareholders for registered shares held continuously for more than two full calendar years and until the date of the payment of the dividend.

**M**

**Market capitalization**

A company's market value equal, at any given time, to the quoted share price multiplied by the total number of shares outstanding.

**Market sheet**

The market sheet presents all the buy and sell orders for a share, as well as the latest orders executed. Investors can only have access to the five best offers (sales) and the five best demands (purchases).

## Glossary

## N

*Net Dividend Per Share*

The part of a company's net profit distributed to shareholders. Shareholders vote the dividend at the Annual General Meeting after approval of the financial statements and the allocation of earnings proposed by the Board of Directors.

*Net profit (Group share)*

Profit or loss made by the Company. It is calculated by adding operating income recurring, other non recurring operating expenses, net finance costs, other net financial expenses, share of profit of associates, profit (loss) from discontinued operations, then subtracting Company tax and minority interests.

## O

*OPCVM (Organisme de placement collectif en valeurs mobilières – pooled investment funds)*

A savings product that makes it possible to hold part of a collective marketable security portfolio handled by a professional, like SICAVs (open-ended investment companies) or FCPs (mutual funds).

*Operating income recurring*

Annual sales minus the cost of producing, distributing and selling products and the depreciation or amortization on capital expenditures. It provides an operating performance indicator before financing and taxes.

## P

*Par value*

The issue price of a share as defined in a company's articles of association. A company's total capital is the par value of the share multiplied by the total number of shares outstanding.

*PER (Price Earnings Ratio)*

The ratio of the market price of a share over earnings per share.

*Preferential subscription right*

Tradable right giving shareholders priority in subscribing to a number of new shares in proportion to the number of shares already held in the event of a share issue. This is a negotiable right in the stock exchange. In exceptional cases, the Company may ask its shareholders to suspend their subscription right at an Extraordinary Shareholders' Meeting.

## Q

*Quorum*

Minimum percentage of shares with voting rights required to be present or represented for a General Shareholders' Meeting to be validly constituted.

## R

*Registered share*

Share registered in the Air Liquide accounts.

*Retained earnings*

Undistributed profit, held by the Company until further decision.

*Roadshow*

Organized series of meetings during which a listed company, represented by its management or an Investor Relations team, travels to meet with institutional investors in their offices.

*ROCE (Return On Capital Employed)*

The ratio of Net Profit before interest expenses and after taxes over average capital employed. It reflects the net return on funds invested by shareholders and those loaned by banks and financial institutions.

*ROE (Return On Equity)*

The ratio of Net Profit over shareholders' equity. It represents the net return on money invested by shareholders.

## S

*Share*

Tradable security representing a portion of a company's capital. The owner of a share, the shareholder, is a part-owner of the Company and enjoys certain rights. Shares can be held as registered or bearer shares.

*Share buyback*

Transaction by which a company buys its own stock on the market, up to the limit of 10% of its capital. The transaction requires shareholder approval at the Company's General Shareholders' Meeting. Bought back shares are not taken into account in the net earnings per share calculation and do not receive any dividends.

*Shareholders' equity*

The part of the Company's capital belonging to its shareholders. It includes the value of issued shares, retained earnings and Net Profit for the financial year.

*SRI (Socially Responsible Investment)*

Socially responsible investment integrates, over and above the standard financial criteria, environmental, social and corporate governance (ESG) criteria in the analysis process and investment decision.

*Stock option*

A subscription option that offers the right to subscribe, at a price set in advance, for a fixed period, a company's shares.

*Share split*

Split of a share's par value to improve its liquidity. A share split leads, in the same proportions, to a split in the share's market value and the multiplication of the number of shares comprising the capital. The value is unchanged.

**U**

*Usufruct*

The legal right to use and derive profit or benefit from property that belongs to another person, as long as the property is not damaged. The holder of an usufruct has the right to use and enjoy the property, as well as the right to receive profits from the fruits of the property.

**Technical glossary**

*Advanced precursors*

The increasing performance of electronic chips requires the use of new materials. These materials are supplied and integrated into the chips by advanced precursors, complex molecules that are generally liquid.

*Alternative energy*

Energy that represents an alternative to traditional energies, produced by transformation of natural gas or coal using gasification and/or gas cleaning techniques.

*ASU*

Air Separation Unit.

*Carrier Gases*

Carrier gases (nitrogen, oxygen, hydrogen, etc.) are used to transport and dilute process gases or to protect semiconductors from minute dust particles.

*Cogen*

Cogeneration is the simultaneous production of electricity and steam. It is an environmentally virtuous process as it avoids energy loss by harnessing the heat emitted during electricity production to produce steam.

*Cold technologies*

All cryogenic-related technologies used, primarily, in the production of air gases.

*Cryogenics*

Very low temperatures, necessary to the liquifaction of air gases, hydrogen and helium. Concerns temperatures below -150 degrees Celsius.

*Fab*

Production facility in the Electronics sector.

**V**

*Volatility*

The degree of variation of a share over a given period. It is a risk indicator: the greater the volatility, the higher the risk.

**Y**

*Yield*

Ratio of dividend per share over market share price.

*Fellow*

The second highest international level of expertise (among four) in the Air Liquide Technical Career Ladder. Fellows are recognized as worldwide authorities within their given field of expertise. Fellows are consultants of the top management in long-term company strategy.

*Hot technologies*

All heat-producing technologies, such as combustion processes. For Air Liquide, hot technologies comprise steam reforming of methane to produce hydrogen and carbon monoxide and cogeneration units.

*HyCO unit*

Unit that simultaneously produces hydrogen (H<sub>2</sub>) and carbon monoxide (CO).

*On-site*

On-site installations consist of gas production units installed directly on Industrial Merchant or Electronic customer premises, thanks to which truck deliveries can be avoided.

*Orders in hand*

They represent the contractual value of all Group and third-party engineering and construction contracts managed by the Engineering and Construction entities, excluding projects under warranty, from the signature date.

*Orders intake*

They represent the sum of all Group and third-party engineering contracts which entered into force during the period.

*Renewable energy*

Forms of energy whose production does not lead to a decline in resources on a human scale, e.g. solar, wind, geothermal and hydroelectric energies.

**Glossary*****Syngas***

Syngas, or synthesis gas, is a gas mixture consisting primarily of hydrogen, carbon monoxide, and in some cases carbon dioxide.

***Substrate***

Material on or in which components of a micro-electronic system or circuit are manufactured.

***Take-or-Pay***

Contracts used in Large Industries integrating fixed minimum payments below minimum volume thresholds.

***Traditional energy***

As opposed to renewable energies, energy whose production exhausts resources by consuming them more quickly than they are created. It is directly produced from fossil fuels: coal, oil, natural gas.





## TEN-YEAR CONSOLIDATED FINANCIAL SUMMARY

### ➤ TEN-YEAR CONSOLIDATED FINANCIAL SUMMARY

	Notes	2005	2006	2007
<b>Key figures</b> (in millions of euros)				
<b>Consolidated income statement</b>				
Revenue		10,434.8	10,948.7	11,801.2
<i>thereof Gas &amp; Services</i>		9,147.7	9,628.0	9,998.5
Operating Income Recurring		1,517.6	1,659.2	1,794.1
Operating Income Recurring / Revenue		14.5%	15.2%	15.2%
Net profit (Group share)		933.4	1,002.3	1,123.1
<b>Consolidated cash flow statement</b>				
Cash flow from operating activities before changes in working capital		1,804.8	1,889.3	2,054.4
Purchase of property, plant and equipment and intangible assets		975.2	1,128.2	1,359.3
Purchase of property, plant and equipment and intangible assets / Revenue		9.3%	10.3%	11.5%
Acquisition of subsidiaries and financial assets		76.2	72.3	1,308.2
Total capital expenditures / Revenue	(a)	10.1%	11.0%	22.6%
Dividends related to fiscal year and paid in the following year	(b)	432.1	497.0	551.0
<b>Consolidated balance sheet</b>				
Shareholders' equity at the end of the period		5,930.5	6,285.8	6,369.5 <sup>①</sup>
Net indebtedness at the end of the period		3,739.8	3,446.6	4,660.2
Gearing		60.2%	52.5%	71.5%
Capital employed at the end of the period	(c)	9,948.5	10,013.4	11,179.8 <sup>①</sup>
<b>Share capital</b>				
Number of shares issued and outstanding at the end of the period		109,538,475	121,149,189	238,844,710 <sup>①</sup>
Adjusted weighted average number of shares outstanding	(d)	340,176,575	343,784,590	342,562,885
<b>Key figures per share</b> (in euros)				
Net profit per share	(e)	2.74	2.92	3.28
Dividend per share		3.85	4.00	2.25
Dividend adjusted per share	(f)	1.22	1.40	1.57
<b>Ratios</b>				
Return on equity (ROE)	(g)	17.2%	16.4%	17.7% <sup>①</sup>
Return on capital employed after tax (ROCE)	(h)	11.7%	11.9%	12.3% <sup>①</sup>

Loyalty dividend:

Since 1995, a 10% loyalty dividend is attributed to shareholders holding their shares in registered form for at least two years on the December 31 preceding the period of distribution, and owned until the date of the payment of the dividend.

The dividend proposed to the Annual General Meeting for fiscal year 2014 amounts to 2.55 euros per share, and the enhanced dividend to 0.25 euros per share representing a total distribution of 905.1 million euros.

(a) Purchase of property, plant and equipment, intangible assets and long-term investments. Industrial and financial capital expenditures and transactions with minority shareholders are included.

(b) Including a loyalty dividend of 25.7 million euros in 2014, 23.2 million euros in 2013, 22.7 million euros in 2012, 19.5 million euros in 2011, 16.5 million euros in 2010, 14.7 million euros in 2009, 15.0 million euros in 2008, 13.5 million euros in 2007, 12.5 million euros in 2006 and 10.4 million euros in 2005.

(c) Capital employed at the end of period: shareholders' equity + minority interests + net indebtedness.

(d) Adjusted to account for, on a basis of a weighted number of shares outstanding, the two-for-one share split (in 2007), free share attribution (declared in 2014, 2012, 2010, 2008, 2006), stock offering (from 2005 to 2014) and treasury shares.

## TEN-YEAR CONSOLIDATED FINANCIAL SUMMARY

	2008	2009	2010	2011	2012	2013	2014
	13,103.1	11,976.1	13,488.0	14,456.9	15,326.3	15,225.2	15,358.3
	11,027.6	10,191.8	11,885.7	13,046.0 <sup>(k)</sup>	13,912.0	13,837.0	13,866.9
	1,949.0	1,949.0	2,252.2	2,408.7	2,553.0 <sup>(l)</sup>	2,580.6	2,633.8
	14.9%	16.3%	16.7%	16.7%	16.7% <sup>(l)</sup>	16.9%	17.1%
	1,220.0	1,230.0	1,403.6	1,534.9	1,591.1 <sup>(l)</sup>	1,640.3	1,665.0
	2,206.7	2,274.5	2,660.9	2,728.1	2,885.9 <sup>(l)</sup>	2,948.5	2,942.7
	1,908.3	1,411.0	1,449.8	1,755.0	2,007.9	2,156.1	2,080.7
	14.6%	11.8%	10.7%	12.1%	13.1%	14.2%	13.5%
	242.3	109.2	239.9	99.5	879.4	391.9	179.0
	16.4%	12.7%	13.2%	12.9%	18.9%	16.7%	14.7%
	602.0	609.2	684.2	729.1	803.4	820.9	905.1
	6,757.4 <sup>(l)</sup>	7,583.7	8,903.5	9,758.6	10,190.4 <sup>(l)</sup>	10,625.1	11,536.5
	5,484.4	4,890.8	5,039.3	5,248.1	6,102.5	6,061.9	6,306.3
	79.5%	63.1%	55.3%	52.5%	58.5%	55.7%	53.3%
	12,386.1 <sup>(l)</sup>	12,642.7	14,151.8	15,243.8	16,525.5	16,950.0	18,133.2
	260,922,348	264,254,354	284,095,093	283,812,941	312,281,159	312,831,676	344,872,883
	337,226,271	339,643,673	342,246,912	343,613,480	343,120,096	342,664,899	343,214,086
	3.62	3.62	4.10	4.47	4.69	4.79	4.85
	2.25	2.25	2.35	2.50	2.50	2.55	2.55
	1.73	1.73	1.93	2.06	2.27	2.31	2.55
	18.6% <sup>(l)</sup>	17.2%	17.0%	16.8%	16.1% <sup>(l)</sup>	16.0%	15.3%
	12.2% <sup>(l)</sup>	11.6%	12.1%	12.1%	11.6% <sup>(l)</sup>	11.1%	10.8%

(e) Calculated on the adjusted weighted number of shares outstanding during the year excluding treasury shares.

(f) Adjusted to account for share capital movements.

(g) Return on equity: (Net profit Group share)/(weighted average of shareholders' equity over the year).

(h) Return on capital employed after tax: (Net profit after tax before deduction of minority interests – net cost of debt after taxes) / weighted average for the year of (shareholders' equity + minority interests + net indebtedness).

(i) The L'Air Liquide S.A. two-for-one share split on June 13, 2007.

(j) Corresponds to the amounts as of December 31 restated for the impacts of the application of the option offered by the revised IAS19 "Employee Benefits", to immediately recognize all actuarial gains and losses and adjustments arising from the asset ceiling, net of deferred tax, in addition to the first-time adoption of IFRIC14.

(k) The specialty ingredients activities of Seppic and its subsidiaries were reclassified from "Other activities" to "Gas & Services".

(l) Corresponds to the amounts as of December 31, 2012 restated for the impacts of IAS19 revised "Employee Benefits".







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