

Estreito hydro power plant, Brazil



Rodenhulze biomass plant, Belgium

March, 2013

# SUSTAINABILITY: GDF SUEZ STRATEGY TO FOSTER LONG TERM VALUE CREATION

### Sustainable Business

Identification and transformation  
of environmental and social issues  
into business opportunities

+

### Non-Financial Risk Management

**Environment**, Fighting against climate change

**Social**, Health & Safety

**Governance**, Dialogue with shareholders,  
Incentives, Ethics, Transparency

- 2012 results aligned with the 2015 targets
- Sustainability fully integrated within strategy & businesses
- 10 Sustainable Development criteria for investing
- Ratings & certifications strong results
- Fighting against energy poverty: *“Rassembleurs d’Energies”*

# Extra-financial targets well on-track

## Delivering on objectives

	2012 level	2015 targets
<b>RENEWABLE ENERGY</b> (installed capacity increase vs. 2009)	<b>+26%</b>	<b>+50%</b>
<b>HEALTH AND SAFETY<sup>(1)</sup></b>	<b>7.6</b>	<b>&lt;6</b>
<b>BIODIVERSITY<sup>(2)</sup></b>	<b>14%</b>	<b>100%</b>
<b>DIVERSITY</b> (% of women in managerial staff)	<b>23%</b>	<b>25%</b>
<b>TRAINING</b> (% of employees trained each year)	<b>69%</b>	<b>&gt;2/3</b>
<b>EMPLOYEE SHAREHOLDING</b> (% of Group's capital held )	<b>2.3%</b>	<b>3%</b>

## 2012 highlights

- Significant progress in Health & Safety
- French Government label granted to biodiversity action plan
- Diversity Label awarded by AFNOR<sup>(3)</sup>: 42,000 employees covered in France
- Sustainable development criteria integrated in investment decisions
- 10 projects for *Rassembleurs d'Energies*
- Strong Corporate Social Responsibility performance highlighted by Vigeo: 1<sup>st</sup> integrated energy company
- Ambitious job program: 18,000 permanent hires in France by 2015
- First Integrated Report targeted by 2015

(1) Frequency rate: (nb. of disabling injuries / nb. hours worked)x1,000,000 (2) % of sensitive sites in the EU with a biodiversity action plan (3) French standard institute

# Sustainable Business: identification and transformation of environmental and social issues into business opportunities

## POWER



Rodenhuize biomass power plant, Belgium

- No or low carbon emission energy projects (renewables, natural gas)
- Repowering existing power plants to improve energy and environmental efficiency

## GAS



Roussines, compressor station, France

- Developing the uses of natural gas to replace more carbon emitting energies in the heating and transport sectors
- Developing the bio-methane business

## SERVICES



London Olympic Park, London

- Enabling customers to achieve their own sustainability objectives
- Developing energy efficiency solutions for B2C and B2G customers in a favorable regulatory framework

## INNOVATION

- n Operational solutions: energy storage, smart grid systems, urban energy, small scale LNG
- n Promoting commercial offers integrating ESG competitive advantages

# Innovation

## Cutting-edge technologies



- **The Gjøa floating platform** is fully powered by mainland electricity, reducing CO<sub>2</sub> emissions by 210,000 ton/yr – first time in the offshore oil & gas industry



- **Best technologies** from inception and leverage inhouse research on LNG value chain



- **One of the world's largest combined power and desalination plant**, design optimization resulted in winning bid

### 2012 key figures

- **1,100 researchers, 9 research centers** contributing to the technological excellence of the Group
- **5 strategic corporate programs:** offshore LNG and future gas chains; renewable energies; smart Energy & Environment; City & building of tomorrow; CO<sub>2</sub> capture, transport and storage
- **~€240m invested** in Research & Innovation
- **Participation in 7 capital investment funds related to energy projects** including 2 in the US

# Non financial risk management

## Major ESG challenges

### Environment

- Implementation of **environmental management** to **comply with local regulations** (emissions in air, water and soils) and to **preserve biodiversity**
- **Anticipation of regulatory changes to capture new business opportunities**

### Social

- **Development of Human Capital**: talents and skills management to guarantee the most suitable workforce at each level of the company on the long run
- **Health & Safety Management**: ensuring progressively the highest levels of health & safety for workforce, subcontractors and installations
- **Local Involvement**: securing the acceptability of all GDF SUEZ activities and installations on the long run

### Governance

- **Ethics Principles**: guaranteeing full commitment to fight corruption, respect Human Rights and GDF SUEZ values within the Group
- **Corporate governance**: ensuring that the company is efficiently governed in full transparency

### Improving operational environmental performance

- **2015 objectives:** +50% renewable energy capacity<sup>(1)</sup>
- **Environment policy** set up in close relation with Global Compact, UN environmental Conventions requirements
- **High quality of reporting certified by the auditors:** 13 indicators: “reasonable” assurance, 8: “moderated” 70% share of relevant revenues under external certifications<sup>(2)</sup>

### Fighting against climate change

- **Low carbon emission power portfolio** >80% low CO<sub>2</sub> emissions, ~15% of renewables
- **Selective development in renewables in mature markets** (priority to wind onshore and hydro)
- **Repowering** existing power plants to improve energy and environmental efficiency

### Leadership in energy efficiency

- **Active across the whole value chain:** heating networks, maintenance, engineering & installation
- **Green real estate policy** with a target of 40% reduction of primary energy consumption in 2020 vs. 2009
- **Target to increase revenues by** +40% by 2017
- **Objective to double international sales** by 2018

### Integrating biodiversity in operational management

- **2015 objective:** biodiversity action plan for every sensitive site in Europe in 2015
- **Partnerships with NGOs<sup>(3)</sup>** to operate in accordance and beyond the international regulations
- **Among the pioneer companies contributing to the National Strategy for Biodiversity in France:** Government label granted to the group's action plan

(1) vs. 2009 (2) ISO 14001, Eco Management & Audit Scheme and other external Environmental Management Scheme

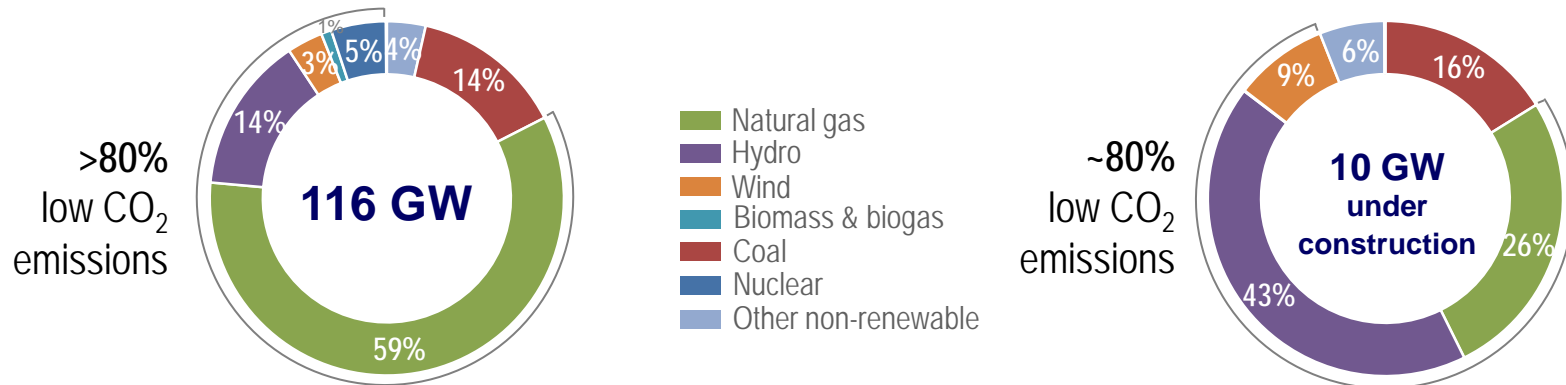
(3) International Union for Conservation of Nature, France Nature Environnement



# Fighting against climate change

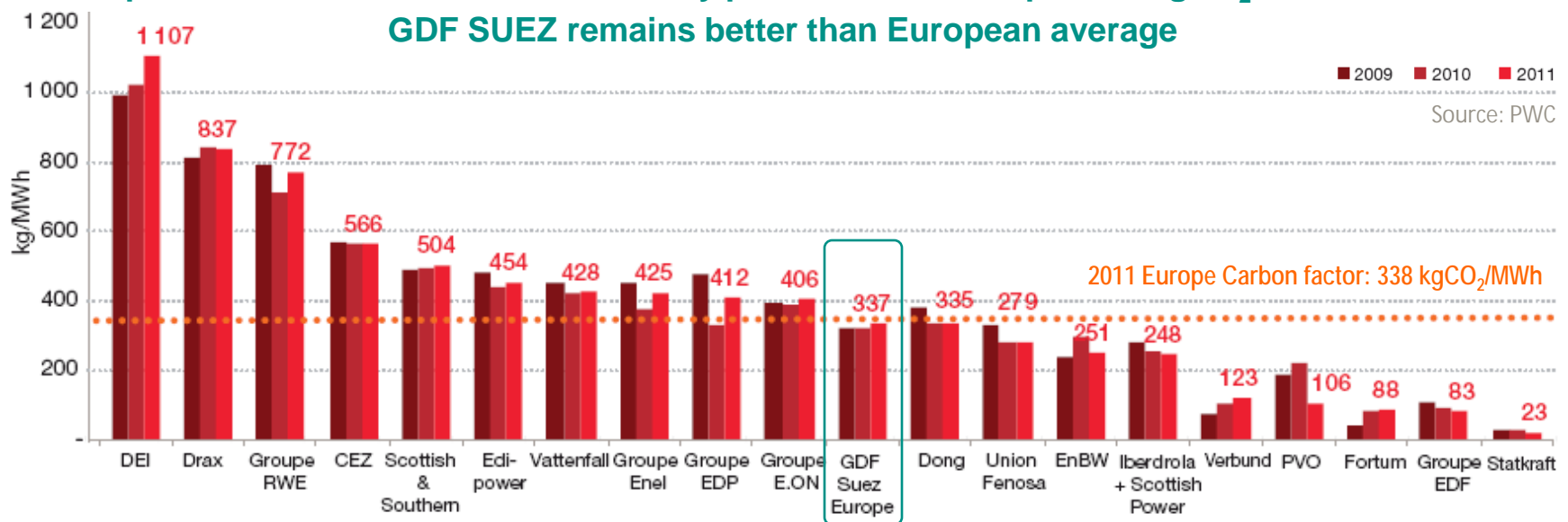
GDF SUEZ among the low-emission producers in Europe thanks to a low CO<sub>2</sub> emission energy mix

## Breakdown of GDF SUEZ' generation capacity by technology (at 100%, as of 12/31/2012)



## Specific emissions linked to electricity production in Europe: 337 kgCO<sub>2</sub>/MWh in 2011

GDF SUEZ remains better than European average



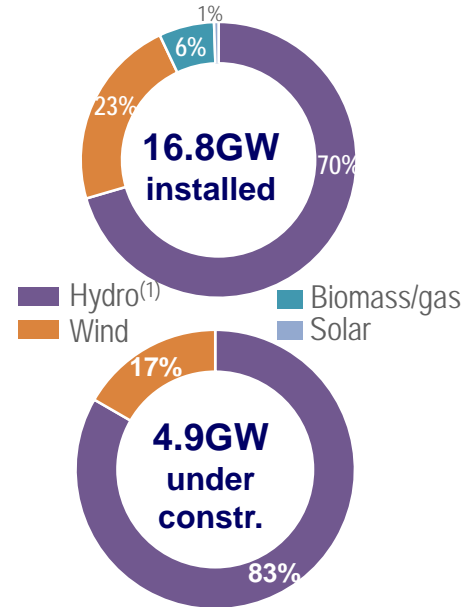


# Fighting against climate change: leveraging on existing platforms for energy efficiency and renewables

## Renewables

### Strong positions, clear ambitions

- 16.8 GW installed capacity: ~15% of the total mix
- 4.9 GW under construction: ~50% of the total pipeline
- #1 wind producer in France, #2 in hydro
- +50% installed capacity in 2015 vs. 2009, +26% end 2012
- Europe: + 2 GW commissioned over 2011-2017, Priority to wind onshore and hydro, selective and capital efficient development



## Energy efficiency

### Target to increase revenues by +40% by 2017 vs. 2011

	Revenues (2011)
• Energy performance solutions (buildings, green data centers)	€7.1bn
• Urban renovation (district heating, cooling and lighting networks)	€1.7bn
• Facility management	€0.7bn
• Upstream energy restructuring (renewables, nuclear dismantling)	€0.3bn

(1) excluding pumped storage

# Social policy: Human Resources

## Be a responsible and proactive company

### Anticipate for the Group' development

- **2 major European-wide agreements** signed in 2010 with European Unions on jobs and skills planning and H&S: reinforcing policies providing the appropriate quantitative & qualitative jobs & skills on the long term (**6-year action plan**)

### Create long term & shared value with the Group Social Project

- **Employee shareholding 2.3%<sup>(1)</sup>**: attribution of 21 million shares since the 1st plan in 2007. **Objective of 3%**
- **Social dialogue**: Common Agreements with Unions representatives of GDF SUEZ employees in Europe
- **Fight against discrimination and promoting diversity**:
  - **Precise quantified 2015 targets**: 25% of women in managerial staff, 30% of recruitments, 35% high potential, 1/3 senior managers nominations
  - **Diversity Label awarded in 2012 by AFNOR<sup>(2)</sup>**: 42,000 employees covered in France
- **Helping people into employment**:
  - **Strong participation in work/study insertion**: 4,772 people, 4.4% of the French workforce<sup>(1)</sup>
  - **Group's partnerships & local initiatives**: including *Fondation Agir Contre l'Exclusion*: 800 young people supported (Driving licence-Sport-Jobs) and *SITA REBOND*: over 3,000 people supported with over 800 below 25-year old people: among them, over 400 found back a stable job

### Develop to attract, retain & increase employees' skills

- **Management Way**: 42,000 managers, guaranteeing the implementation of GDF SUEZ values. Description of the 28 expected behaviors of every employee, in Group integration, in relation with the customers and in people development. 20% in the variable remuneration of the Top Executives
- **Expert Policy**: 3,000 experts, 500 Key Experts groups and 17 Top Experts groups. Dedicated policy to enable the full development of experts with a focus on GDF SUEZ business orientations
- **Training Policy**: 3 channels: GDF SUEZ University (7,000 managers/year), e-Learning and external programs. In 2012, 2/3 of the employees followed at least 1 training/year

### Innovate to evolve & spur the collective thinking

- **180 Sharing Practice Communities** covering 20 areas (including marketing & sales, engineering, business development, HR) gathering 25,000 employees
- Development of several internal **social networks**
- **Yearly Innovation Trophy** organized since 2009. 624 proposal received, 20 prizes, 8 value creation labels<sup>(3)</sup>

(1) end 2012 (2) French Association of Normalization (3) in 2012

# Social policy: Health & Safety

## Achieving a high level performance

### Challenges

#### Reduce the number of accidents:

H&S Action Plan 2010-2015

**Reduce the number of fatalities** for employees and subcontractors

**Carcinogenic Mutagenic and Reprotoxic** chemicals inventory, substitution when possible

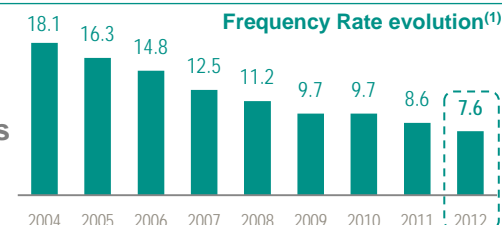
**Preventing psycho-social risks by improving the quality of life at work**

**Musculoskeletal disorders** action plan

**Managers involvement** through personal targets and through variable remuneration.

### Achievements / Objectives

- **Frequency rate (employees)**  
7.6 in 2012, more than halved vs 2004
- **Steady improvement in all business lines**
- **Target of < 6 in 2015**



- **Action plan for eradication of fatalities (2013-2015)**  
Life-saving rules to prevent the main causes of fatalities identified during the last 3 years within the Group
- **Target of Zero fatal accident** linked with the Group activity by the end of 2015

- **Inventory (2012), substitution planned for 2013**

- **Diagnosis and action plan by each entity**  
in France (2012) and other countries (2013)

- **Group standard (2012), e-learning action plan (2013)**

- **At least 10% of variable remuneration** with 40% of quantitative results and 60% of qualitative assessment

### Benchmarks

**Accident frequency rate<sup>(1)</sup>** power generation (FR:2) **among the best**, gas infrastructures (FR:3.4) **within the average**, water (FR:5) **better than average**, waste (FR:19) **within the average** and energy services (FR:7.4) **among the best<sup>(2)</sup>**

**Fatalities rate** **within the average** of 3 fatal accidents per 100 million hours worked <sup>(2,3)</sup>

(1) FR: (nb. of disabling injuries / nb. hours worked) x 1,000,000 (2) Source: companies reports , 2011 data (3) Oil & Gas producers

# Governance policy

An active, diversified & balanced Board



Challenges	Achievements
Reducing the size of the Board of Directors	<ul style="list-style-type: none"> <li>24 directors in 2008 (due to the merger of GDF and SUEZ) reduced to 19 directors at the 2012 shareholders' meeting</li> </ul>
Reducing the number of censors <sup>(1)</sup>	<ul style="list-style-type: none"> <li>The number of censors<sup>(1)</sup> was reduced from 2 to 1; the current censor, a former CFO of the Group, brings his experience to the Board</li> </ul>
A significant number of independent directors	<ul style="list-style-type: none"> <li>8 independent directors</li> </ul>
An international Board	<ul style="list-style-type: none"> <li>4 foreign directors</li> </ul>
A significant presence of women on the Board	<ul style="list-style-type: none"> <li>5 directors are women, above the average of the CAC40 (23%) Ahead of French law and governance code requirements</li> </ul>
Fostering attendance at Board meetings	<ul style="list-style-type: none"> <li>Attendance at Board meeting: 89%, in increase</li> </ul>
4 committees assist the Board, all chaired by an independent Director	<ul style="list-style-type: none"> <li>Audit, Strategy &amp; Investment, Nomination &amp; Compensation, Ethics, Environment &amp; Sustainable Development</li> </ul>
Improving operating procedures of the Board	<ul style="list-style-type: none"> <li>Annual review of Board operating procedures under the supervision of an independent director</li> </ul>
Efficiency of strategy and risk management	<ul style="list-style-type: none"> <li>Annual Board seminars on Group strategy ; Chairmen of Audit and Strategy committees attending each other's committee ; as the case may be, joint meetings of Audit and Strategy committees</li> </ul>

(1) Observer elected by the Shareholders' Meeting who acts in an advisory capacity without voting right

# Governance policy

## Sustained dialogue with shareholders & investors

### Challenges

#### Facilitating shareholders vote at annual shareholders' meeting

- Internet voting offered at annual shareholders' meeting

#### Preserving shareholders' rights

- No double voting right shares
- Some financial authorizations with limited amounts and use

#### Dialogue with proxy advisors and investors on shareholders' resolutions

- Exchanges on published resolutions presented to the shareholders meeting, taking into consideration proxy advisors' and investors' voting policies

#### Improving shareholders' role on transparency of executive compensation

- Favorable to non binding « say on pay » vote limited to executive compensation policy

### Achievements

### Strong dialogue with investors

Roadshows:  
2012: 29 days  
2011: 21 days

1<sup>st</sup> SRI roadshow in 2011

Quarterly results calls

Thematic calls

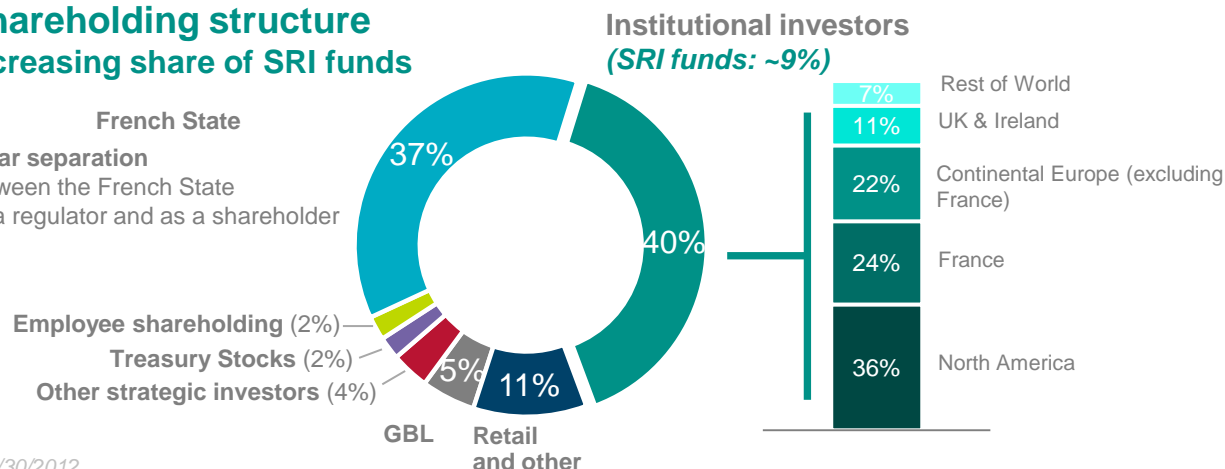
Newsletter Sustainability

Individual shareholders club: 29,000 members

### Shareholding structure

#### Increasing share of SRI funds

**French State**  
Clear separation between the French State as a regulator and as a shareholder



### Benchmark

Among the first CAC40 companies to offer internet voting to its shareholders (registered and bearer shareholders)

**“Grand Prix Transparence 2012”:** GDF SUEZ ranked 9<sup>th</sup> out of 170 companies

# Governance policy: Incentives

Clear commitments & indicators

## Commitments

**Concentrate on  
Recurring EPS**

**Group  
identity**

**Corporate Social  
Responsibility**

**Health &  
Safety**

## Indicators

### Variable compensation for 2012

#### For the 2 Executive Corporate officers

- § 70% quantitative:
  - 50% Recurring EPS<sup>(1)</sup>,
  - 50% Free Cash Flow, ROCE, Net debt(2011: 1/3 EBITDA, FCF, 1/3 Adj. EPS, ROCE, 1/3 Efficio, Net debt)
- § 30% qualitative including Corporate Social Responsibility, notably Health & Safety

#### For Senior executives (~750 people)

- § 50% collective financial indicators:
  - 50% Net Recurring Income group share,
  - 50% Free Cash Flow, ROCE, Net debt, Efficio
- § 30% personal indicators (operational, industrial)
- § 20% management way score, monitoring how results are delivered compared to company values including Corporate Social Responsibility

### Group identity:

- § **Variable compensation multiplied by a coefficient related to the Group's overall performance**
- § **Target of 3% of employee shareholding**, 2.3% as of end 2012
- § **Employee shareholder plans:** 21 million shares granted to employees between 2007 and 2011

**Health & Safety:** at least 10% of annual variable compensation for all operational managers

(1) Net Recurring Income group share per share

# Governance policy: Ethics

Guaranteeing implementation in the whole organization

Challenges	Achievements
<b>Implement Ethics</b>  At the highest level of governance  And through the whole Group	<ul style="list-style-type: none"><li>• <b>A Board Committee for Ethics and Sustainable development</b></li><li>• <b>Ethical Charter adopted by the Board</b></li></ul> <hr/> <ul style="list-style-type: none"><li>• <b><i>“Guidelines Ethics in Practice”</i></b>, publication in 21 languages, Objective: reach every employee</li><li>• <b>A network of 170 Ethics Officers</b></li><li>• <b>Annual analysis of ethical risks</b> embedded in the Group’s risk review</li></ul> <hr/>
<b>“Integrity Referential”: GDF SUEZ anti-fraud and corruption program</b>	<ul style="list-style-type: none"><li>• <b>Action plan</b><ul style="list-style-type: none"><li>- New principles for commercial relationships</li><li>- A mandatory training for 800 senior executives about risk of fraud and corruption</li><li>- A new policy for business consultants in order to obtain an external certification</li><li>- E-learning training for employees</li></ul></li></ul> <hr/>
<b>Managing Ethical Compliance Referential</b>	<ul style="list-style-type: none"><li>• <b>To ensure the effectiveness of ethical programs</b><ul style="list-style-type: none"><li>- A compliance Committee</li><li>- Annual Compliance procedure</li><li>- Monitoring tool for ethical incidents</li><li>- A whistle blowing e-mail</li></ul></li></ul> <hr/>
<b>Ethics, suppliers &amp; projects</b>	<ul style="list-style-type: none"><li>• <b>Ethical and Sustainable Development clauses in purchasing contracts</b> for each new contract or renewal since 2010</li><li>• <b>Prevention and respect of human rights criteria</b> integrated in the extra-financial assessment of the large projects</li></ul> <hr/>



# Governance policy: Transparency

## Commitments to fight against corruption

### Challenges

### Achievements



**Public reporting on the 10<sup>th</sup> principle of the Global Compact**  
(on the U.N. Global Compact web site)

- **Transparency for stakeholders** on anti-corruption commitments, policies, process, action plans and monitoring
- **Information for employees**, mean of control and improvement of anti-corruption policies and programs
- Group's **decision to report on 22 « desired reporting elements »**, beside the 7 « basic reporting elements »

### Extractive Industries Transparency Initiative (EITI)



**Commitment to transparency and fight against corruption**

**12 principles:** the prudent use of natural resource wealth should be an important engine for sustainable economic growth that contributes to sustainable development and poverty reduction

- **Supporting company since 2009**
- Publish from our **E&P activity** what we pay to the governments in countries part of this initiative: **tax and revenues published in 5 countries**
- To continue to participate in **EITI meetings organized by France's Ministry of Foreign Affairs**



## Sustainability management fully valued in business development to create long term value

- Combining financial and non-financial assessments for investment projects improves risks management and contributes to create value in the long-term
- Use of the Sustainable Development criteria in investment decisions

## 10 criteria covering the ESG issues

- Ethics
- CO<sub>2</sub> emissions
- Impact of CO<sub>2</sub> price (EUA/CER) on Project IRR
- Energy efficiency
- Management of ecosystems
- Cooperation with stakeholders
- Social impacts
- HR
- Local procurement
- Health & Safety

# Ratings & certifications: high acknowledgement of the quality of sustainability data and information

## Sustainable Development Report



Rated **B+** by Global Reporting Initiative (GRI)

## Certifications

Relevant share of revenues covered by ISO 14001, EMAS, other external EMS<sup>(1)</sup> certifications and internal EMS: **84%** (vs. 83% in 2011)

Relevant share of revenues covered by ISO 14001, EMAS<sup>(2)</sup> and other external EMS<sup>(1)</sup> certifications: **70%** (vs. 67% in 2011)

## Verification of the CSR data by the Statutory Auditors

Number of indicators in Reasonable assurance and Moderated assurance:

- 60 in 2012: +9 vs 2011
- Among the highest one in CAC40 in 2011

Indicators:		Environment	Social
2012	Reasonable assurance	13	6
	Moderated assurance	8	33
2011	Reasonable assurance	14	6
	Moderated assurance	8	23

(1) Environmental Management Scheme (2) Eco Management & Audit Scheme

# "GDF SUEZ Rassembleurs d'Energies" initiative

A unique and worldwide program

Help to reduce energy poverty of the poorest populations and contribute to their economic growth and social development by increasing access to sustainable energy



**A unique, innovative program supporting social entrepreneurs providing energy access for poor people through 3 levers:**

## DONATION

GDF SUEZ Foundation

## TECHNICAL ASSISTANCE

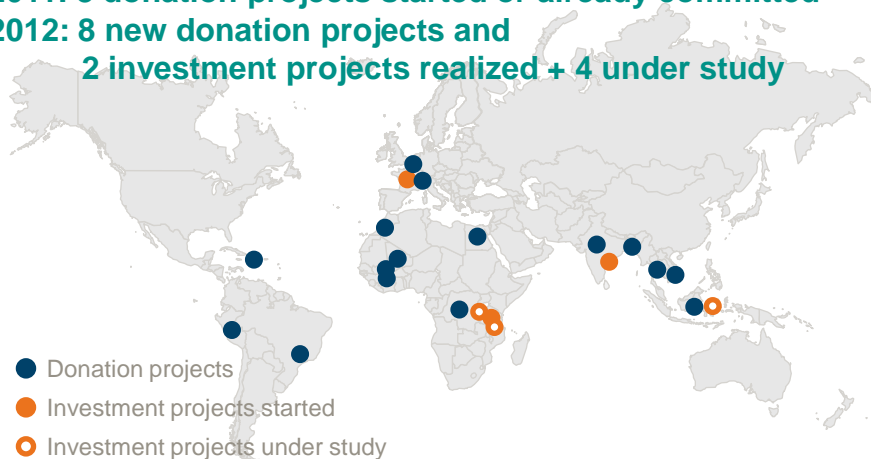
Involvement of employees' expertise and employees' internal NGOs (Codegaz, Energy Assistance, Aquassistance)

## INVESTMENT

Creation of a socially responsible investment fund, with a target of €100m under management at the end of 2013

**2011: 8 donation projects started or already committed**

**2012: 8 new donation projects and  
2 investment projects realized + 4 under study**



## New investment:

Support of EGG-Energy Tanzania



- Dedicated to helping low-income consumers in Sub-Saharan Africa gain access to clean, affordable energy, using a unique strategy based around portable rechargeable batteries.
- **€250k investment:** minority interest acquisition

- n **Combination of Sustainable Business & Non-Financial Risk Management to create long term value, shared with all the stakeholders**
  
- n **Sustainability fully integrated into the:**
  - Strategy with **clear 2015 objectives**
  - Investments policy through **10 criteria**
  - Organization with a **single division gathering Strategy & Sustainable Development**
  - Governance with a **dedicated Board Committee**
  
- n **Ongoing development**
  - Definition of the integrated performance to demonstrate the full value creation of the businesses
  - Publication of the first Integrated Report by 2015

Estreito hydro power plant, Brazil



Rodenhulze biomass plant, Belgium

**March, 2013**

# APPENDICES



# Ratings 2011-2012:

GDF SUEZ has improved its Vigeo scoring in 2012, being now the 1<sup>st</sup> integrated company of the Electric & Gas utility sector

GDF SUEZ



ASPI (Vigeo)  
(2012)

## Listed

EDF
E.ON
<b>GDF SUEZ</b>
Iberdrola
RWE
Suez Environnement
VEOLIA

- **1<sup>st</sup> among the integrated energy companies**
- **3<sup>rd</sup> in the Gas & Electric Utilities sector (5<sup>th</sup> in 2011)**
- **Listed in the new indices:**
  - Vigeo World 120 (16<sup>th</sup> company, 2<sup>nd</sup> Utility)
  - Vigeo Europe 120 (14<sup>th</sup> company, 2<sup>nd</sup> Utility),
  - Vigeo France 20 (5<sup>th</sup> company, 1<sup>st</sup> Utility)



DJSI (SAM)  
(2012)

**Listed in the Runners up among the Sustainability Leaders of the "Electricity" sector in the Yearbook 2013**



GRI  
(2011)

<b>A+</b>	ENEL
	Gas Natural
	Iberdrola
	RWE
	Tractebel Energia
<b>B+</b>	E.ON
	<b>GDF SUEZ</b>
	Suez Environnement

oekom research OEKOM  
(2011)

<b>B</b>	Suez Environnement
<b>B-</b>	Iberdrola
	VEOLIA
<b>C+</b>	<b>GDF SUEZ</b>
	RWE

**CARBON DISCLOSURE PROJECT**

CDP (2011)

<b>A</b>	Gas Natural
	Iberdrola
<b>B</b>	EDF
	ENEL
	<b>GDF SUEZ</b>
	VEOLIA
<b>C</b>	RWE

# Research & Innovation

A gateway to technology, a critical success factor

## 3 prospective R&D priorities

CO<sub>2</sub> free energy  
production

Smart Energy  
& Environment

Future gas  
chains

## Organized in 5 corporate programs

City and building of tomorrow  
Smart Energy and Environment  
CO<sub>2</sub> capture, transport and storage

Renewable energies  
Offshore LNG and future gas chains

## Research centers location

### UNITED STATES

- **DENARD**  
Degrémont  
& United Water,  
Richmond, VA

### SPAIN

- **CETAQUA**  
Agbar,  
Barcelona
- **LABAQUA**  
Alicante

### FRANCE

- **CIRSEE**  
SUEZ Environnement,  
Le Pecq & Croissy
- **CRIGEN**  
La Plaine Saint-Denis
- **CYLERGIE** Ecully
- **LyRE** Bordeaux

### BELGIUM

- **LABORELEC**  
Linkebeek

### CHINA

- **SWRC**  
Shanghai Chemical  
Industry Park,  
Shanghai

## RESEARCH CENTRES

**1,100** researchers   **9** research centres

## INVESTMENTS IN R&I

**~€240** million

## PROGRAMS

**5** strategic corporate  
programs

### Industrial solutions

#### Barcelona, city dash board

Unique IT tool designed and developed by GDF SUEZ for collection, analysis, and optimal use of available data about the city (energy, water, traffic).

Simultaneous monitoring and development of the city's territorial policy, control of infrastructures, event communication and optimization of investments.

#### Green Lys, smart electricity system

First full-scale smart electricity system set up in partnership with the cities of Lyon and Grenoble (1,000 residential customers and 40 tertiary sites).

Combining the most adapted generation and supply conditions to the most optimised uses of electricity by the customers.

### Commercial offers

#### AlpEnergy 100, 100% green electricity

100 % renewable electricity offer to B2B customers, enabling to reduce CO2 emissions of their production process: GDF SUEZ contribution to the sustainability objectives of its clients.

#### Vertuoz, energy management (synergy of *GDF SUEZ Energies France* and *Cofely Services*)

Energy management scorecard offer to B2B and B2G customers, to manage their energy consumption to optimize the environmental and economic performance of their buildings.

#### Degrés bleus, energy from waste

Energy offer based on a system of heat production from wastewater pipelines, reducing customers' carbon footprint by 30 to 70%.

5% saving of their energy bill as from the first year.

# Sustainable Business

## Renewable energy and energy efficiency

### Hydro

**16.5 GW installed, 4.1 GW in construction**

#### **Brazil: #1 independent power producer**

Jirau: 3,750 MW, in construction

Estreito: 1,087 MW progressive COD

**Peru:** Quitaracsa, 112 MW in construction

**Chile:** Laja, 34 MW in construction

### Wind

**3.8 GW installed, 0.8GW in construction**

#### **France: #1 wind producer**

1,200 MW installed capacity, 42 MW in construction

**Morocco:** Tarfaya (300 MW in construction)

**Canada:** 362 MW installed capacity, 297 MW in construction

**Brazil:** 44 MW installed capacity, 115 MW in construction

## Smart cities and energy efficiency



1<sup>st</sup> "Energy performance contract"



Tramway



Public lighting

**Issue:** Climate change

**Business opportunities:** Energy efficiency and renewables

### Energy plants, Olympic Games, London, 2012

- **Cofely:** 40 year contract (build, finance and operate)
- **East London: Olympic Games, Stratford**
  - 2 power plants (natural gas and biomass)
  - Tri-generation (heating, cooling and electricity)

- **Production for 20,000 families:**

Heating	200 MW
Cooling	65 MW
Electricity generation	30 MW

- **Requirements for the final decision of Olympic Games Committee and Stratford City:**

- Energy efficiency (tri-generation)
- Low CO<sub>2</sub> emissions (biomass)

- **Investment:**  
€100m GDF SUEZ share

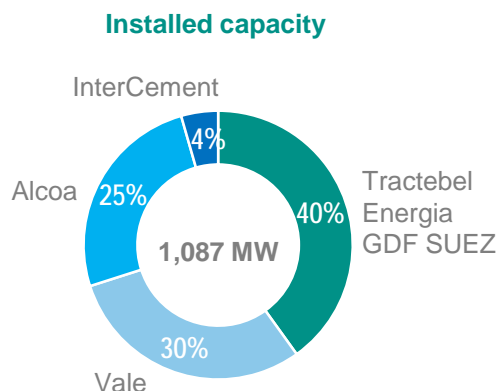
- **Total revenues:**  
€1.5bn



# Estreito: social & environmental programs



## Estreito Hydro Power Plant Figures



- Investment of **BRL 6 billion**
- **12 Municipalities** within the influence area
- **39** social and environmental programs
- **More than BRL 600 million invested** in social and environmental actions and benefits to municipalities
- About **36,000 direct and indirect jobs** created
- **Qualification of about 4,000 professionals** during construction

## Focus on One of the Programs *Healthy Children Health Future*

### PARTNERSHIP WITH NGO INMED

Objective	Method	Results
To improve the low health indexes of the children of Estreito HPP municipalities	Teach students the appropriate hygiene, sanitation and health practices, as well as cultivate school gardens and increase the access to drinking water in schools and homes through solar filtration	The index of anemic children fell from 53.4% to 7.9%, and the parasitological incidence decreased from 55% to 4%. 15,000 children in 197 schools were benefited

**The Program got the main prize of the LIF Sustainability Award 2012 by the France-Brazil Chamber of Commerce**

# Local involvement: securing the acceptability

Hydropower plant project, Jirau, Brazil

GDF SUEZ



## Comprehensive action plans to ensure the acceptability of the project

- Integrated into the Growth Acceleration Programme in Brazil
- **Run of the river** hydro power plant. Small flooded area: 208 km<sup>2</sup>
- 33 environmental and social programs defined by **IBAMA** and approved by **FUNAI** (National Indian Foundation) amounting to ~€0.5bn
- Programs built according to **IHA Protocol** (International Hydropower Association), certified by **Bureau Veritas** (external verification) and audited regularly.
- Resettlement program of **525 families**, approved by IBAMA
- **22,000 direct** and **40,000 indirect jobs** created (at the peak)
- **Voluntary socio-environmental programs:** beyond the demands of the law (construction of Nova Mutum Parana, a complete city with 1,600 houses and all facilities, health and agricultural programs, social programs with reputable international NGOs – INMED, Instituto ProNatura, etc)



# Health & Safety management

Very high level of requirement

**Group objective:** achieve a Frequency Rate<sup>(1)</sup> of less than 6 in 2015

**Example of E&P:** major industrial incident types that could occur:

- Fire and explosion on a large manned platform
- Leak in a pipeline including potential fire or explosion
- Blow-out on a drilling rig
- Major spill associated with transportation of hydrocarbons (offshore tanker or land transportation)
- Other potential incidents include the loss of a supply vessel, ship collision or a vehicular accident (including a helicopter crash)

è **Frequency Rate** (Global Gas & LNG): strong record thanks to risk management (FR<1 for the second year in a row)

è **All managers incentivised on H&S performance**

## Gjøa project, Norway



### Health & Safety management:

- High level of risks (flammable, under pressure)
- Comply with local H&S regulations and Group's requirements
- H&S into the management of all activities
- H&S responsibilities of the manager and the employees (actions: skills development, improved maintenance organization by increasing supporting staff)

### Gjøa, more specifically:

- Location in high density ship traffic area
- Actions: implementation of updated ship collision study, drills for ship collision

(1) 2015 target, FR: number of accidents with leave/hours worked x 1 million

# Environmental risks: preservation of biodiversity

Commitment to ensure the appropriate integration of installations into their environment

**Objective:** implement a biodiversity action plan at each sensitive site in the European Union by 2015

## Eridan project: Natural gas transport in France

A necessary constant back and forth between studies and dialogue

- **Public debate about the route map in 2009**, to discuss the opportunity of the project & dialogue locally with stakeholders
- **Charter of territorial commitments for a sustainable project** in answer to the public debate.
- **Specific biodiversity management resulting from the public debate and the charter:**
  - Comprehensive studies on the local fauna and flora by experts – collected data shared with environmental NGOs and the local authorities : « *Ateliers Biodiversité* »
  - Re-forestation: according to specific requirements excluding any non-local species and avoiding the introduction of invasive species
  - Residual impact compensated: land acquisition, then highlighted for its biological wealth
  - Future pipeline to be fostered the as a biological corridor

