SUSTAINABILITY

10th REPORT

2010

LAFARGE

bringing materials to *life*™

Lafarge's presence in the world

World leader in building materials, Lafarge holds top-ranking positions in each of its business lines. With a diversified and balanced geographic portfolio and 76,000 employees in 78 countries, Lafarge is at the heart of global growth supporting developing economies and responding to the tremendous need for housing and infrastructure in emerging countries.

Cement

Worldwide market position:
World Leader - Cement, hydraulic binders and lime for construction, renovation and public works

Employees: 44,253

Revenues: 9,656 million euros

Countries: 50

Number of plants: 168

Aggregates & Concrete

Worldwide market position:
N°2 for Aggregates and N°3 for Concrete - Ready-mix and precast concrete products, asphalt and paving for engineering structures, roads and buildings

Employees: 23,438

Revenues: 5,088 million euros

Countries: 36

Number of plants and quarries: 1,718

Gypsum

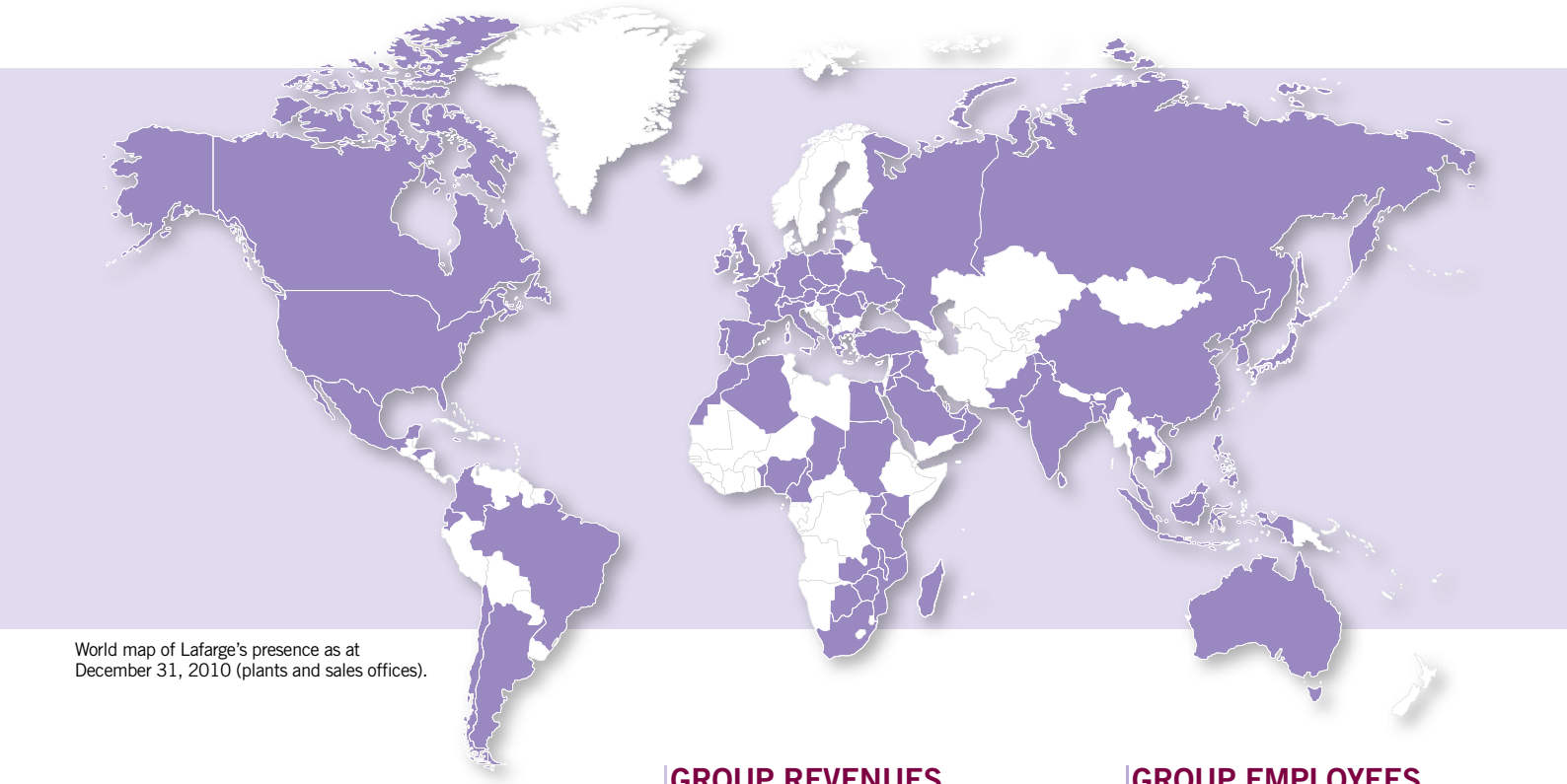
Worldwide market position:
N°3 - Plasterboard systems and gypsum-based interior solutions for new construction and renovation

Employees: 7,986

Revenues: 1,422 million euros

Countries: 30

Number of plants: 77

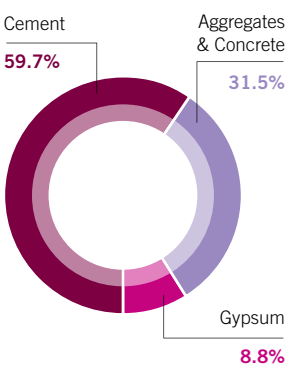


World map of Lafarge's presence as at December 31, 2010 (plants and sales offices).

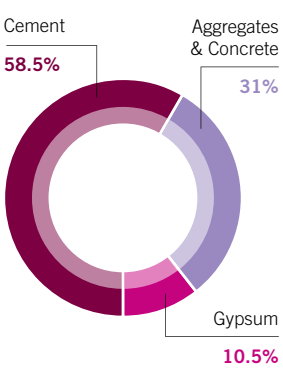
16,169
REVENUES (IN MILLION EUROS)

827
NET INCOME (IN MILLION EUROS)

GROUP REVENUES BY DIVISION



GROUP EMPLOYEES BY DIVISION



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The year at a glance

Values and Governance

Training in the Code of Business Conduct continues. The governance of our Board is largely consistent with the relevant corporate governance code and the Board now includes three women. We strive to improve our understanding of the practical implementation of human rights. Our competition compliance program continues with improved training tools. *See pages 6 and 7*

Public Positions

We have continued our lobbying work, explaining to policy-makers and stakeholders our views on key issues relevant to our business. Climate change, resources and biodiversity are key topics; we have well-informed and considered opinions on these and other policy issues which we articulate and promote in the public arena. *See pages 8 and 9*

People development and Social dialogue

The global recession has deeply affected our sector. Lafarge remains committed to social progress in its workforce: people development and social dialogue are progressing. Although our understanding of outsourcing practices and analysis of industrial actions have been improved, challenges still remain. *See pages 4 and 17 to 19*

Health and Safety

Health and safety remains our Number 1 priority. Although we have made progress in reducing incidents at our sites, overall we still had 44 fatalities in 2010. This is deeply regrettable. We are pursuing the initiatives designed in our 2006 roadmap. *See pages 4, 20 and 21*

Communities

Like any community member, it is important that our sites co-exist with their neighbors in a constructive manner, during periods of continuity and periods of change or development. In 2010, Lafarge faced new issues with neighboring communities; please see specifics on our website http//sustainabilityreport.lafarge.com @. *See pages 4, 22 and 23*

Sustainable Construction

Since early 2010, a dedicated sustainable construction team has been shaping Lafarge's development as a provider of construction solutions. New products and building systems continue to be developed and we have demonstrated our ability to work as partners on major projects alongside architects, engineers, contractors, specifiers and customers. *See pages 24 and 25*

Climate Change

We continued to outperform the greenhouse gas emissions target we set for 2010. Through innovation and continued progress in industrial ecology, Lafarge continues to make substantial progress in reducing CO_2. The quality of our greenhouse gas reporting practices (monitoring, verification and disclosure) was rated by the Carbon Disclosure Project and ranked amongst the top 10 in the world. S*ee pages 5 and 26 to 28*

Industrial Ecology and Recycling

New and varied ventures to replace fossil fuels with alternative, renewable sources of energy for our cement kilns are emerging throughout our business. They all contribute to reducing CO_2 emissions and we are encouraged that our commitment to this and other forms of industrial ecology shows such significant growth potential. *See page 29*

Managing our Emissions

As part of our agreed program of work with WWF to reduce persistent pollutants we have measured emissions from operating kilns(1) and started to implement action plans to reduce emissions from a group of plants with the highest emissions. We have also met our target for reducing particulate emissions. These actions will allow us to address identified and emerging issues related to air quality. *See pages 5, 30 and 31*

Biodiversity at our Sites

2010 was the International Year of Biodiversity, an opportunity for us to take part in a global campaign to celebrate and raise awareness of biodiversity. We continued to make progress with rehabilitation plans and site biodiversity management plans for quarries. *See pages 5, 32 and 33*

Water Footprint

In order for Lafarge to implement its strategy to reduce its water withdrawal from aquifers and lakes and rivers, **we have piloted a water footprinting assessment** to determine our sites' impact on water resources. We have also started taking action at sites in areas of extreme water scarcity. *See pages 34 and 35*

Sustainability Ratings

In January 2011 we learned that we had not been included in the most recent listing of the Global 100 Most Sustainable Corporations in the World. Having been in this list for six years, this is disappointing but shall motivate us to further improve our sustainability practices. **In 2010, we remained in the DJSI Europe Index and re-entered the DJSI World Index,** which we left in 2006. **Lafarge was granted the GRI application level A+ for the 2010 Sustainability report.**

(1) Includes kilns in the Group for at least 3 years that operated a minimum of 50% of the time. In 2010 there were five kilns which operated with very low utilization. These kilns will be tested when they are operated at a more normal level of utilization.

What's next?

Many of our Sustainability Ambitions 2012 targets were established in 2007 and have now been completed.

A capital intensive industry such as ours requires long term planning and we must normally project our activities far beyond current events. However, the rapid changes occurring in the world and the latest events in the Middle East or in Japan cannot be left unacknowledged: natural disasters, social changes and political upheaval will pose additional and different challenges. We need to address them in a responsible manner while continuing to ensure the safety, development and well-being of our workforce.

We believe that considering our size and our values, Lafarge can have a strong positive impact on local communities and their development. We will also progress in the field of sustainable construction, provide innovation that will increase the energy efficiency of buildings, address climate change issues and deliver solutions for affordable housing. Through the use of life cycle analysis we can benchmark our activities, promote the recycling and use of sustainable materials, and help preserve the world's natural resources. With this context in mind, and with our stakeholders helping to guide us, we will continue to set even more ambitious objectives.

Message from the CEO

2010 was marked by several new advances in our commitment to sustainable development: among them, a reduction in CO_2 emissions, continued progress on health and safety issues, the roll-out of our lobbying charter and increased dialogue with local communities. This commitment, which comprises societal, environmental and corporate governance aspects, has a twofold objective: to continue improving our performance and to act as a driving force for the industry and other companies in the building materials sector.

> **“ Act as a driving force for the industry and other companies in the building materials sector ”**

I am convinced that our approach to sustainable development can be shared and that it can be mutually enriched with the experience of other industry participants; I am also convinced that we must join with other industrial companies, collectively fashion a coherent message and make sure that it is heard; finally, I am convinced that our approach must be constantly challenged and questioned.

These various convictions are at the root of my personal commitment which, in 2010, led me to co-chair the Cement Sustainability Initiative (CSI) of the WBCSD (World Business Council for Sustainable Development), chair the “Energy and Climate change” working group of the European Round Table of Industrialists, and serve as chairman of EpE (Entreprises pour l’environnement).

> **“ I am convinced that our approach to sustainable development can be shared and that it can be mutually enriched with the experience of other industry participants ”**

Our partnerships with WWF and CARE, initiated several years ago and renewed and expanded in 2009, are in line with this same approach, which consists of working together on the major challenges of sustainable development, publicly recommending improvements on key issues and communicating on those to contribute to the progress of the entire industrial sector. I also want to continue our commitment to social dialogue, particularly with international trade union organizations.

As we endeavor to move towards more effective sustainable development, we must agree to measure and verify our progress, and do so publicly. I am delighted that Lafarge was among the top ten in the global ranking by the Carbon Disclosure Project (CDP) of companies with the best approach to greenhouse gas reporting.

The list of awards received by our business units in over fifteen countries, as well as the projects submitted by our employees recognized during our worldwide IdeaFactory competition, are a sure sign that all Lafarge employees have taken on the challenges of sustainable development.

It is in this spirit of progress, innovation and collective effort that we continue our journey towards a more environmentally and sustainable world on behalf of our stakeholders.

2011 will mark an important new milestone for the Group as we define our new ambitions for the year 2020.

Bruno Lafont
Chairman & Chief Executive Officer of Lafarge

Progress against our ambitions

Our Sustainability Ambitions for 2012 were established, following a period of consultation, in 2007. They set targets for the material sustainability issues that were identified at that time. This table, which we have updated each of the last four years, is a commentary on those ambitions.

NEW TARGETS WILL BE ANNOUNCED IN 2011

TARGET	Deadline	2009 Performance	2010 Performance	WHY IS LAFARGE PURSUING THIS AMBITION? WHAT WILL CHANGE? HOW ARE WE PROGRESSING AGAINST THIS AMBITION?
MANAGEMENT				
On **safety** reduce the employee lost time injury frequency rate for Lafarge employees to 0.94 or below in 2010.	2010	0.98	**0.76** EY	We continue to work towards our goal of zero accidents and to extend our health and safety culture to new businesses and those that work with us.
Continue to check the implementation of our **Competition compliance program** in our business units. 100% of all significant business units will be tested for compliance with it by end 2010.	2010	65%	**96%** EY	Two business units in Africa are still to be tested; this will be done in 2011, as part of the continuous process of implementation of the competition compliance program worldwide.
Manage and improve our **local stakeholder relationship management** by: • training 100% of units in the local stakeholder relationship methodology; • full reporting of the three new KPIs. Three additional targets (undertaking self-assessment on stakeholder relationships, launching a dedicated intranet site and providing an internal audit screening tool) were completed in 2009.	2012 2009	58% for Cement 12% for Gypsum done	**81% for Cement** EY **31% for Gypsum** EY	Training of the target populations in both Cement & Gypsum have increased this year (+23% for Cement; +19% for Gypsum). Aggregates & Concrete reporting for 2010 was suspended as the organization underwent realignment during the year. In 2010, six sessions involving 74 members of the Aggregates & Concrete division took place. In 2011, our focus will remain on providing appropriate training and workshops especially for the Aggregates & Concrete division. 76% (348 people) of our target populations now complete an annual self-assessment on their relations with stakeholders.
On **customers**, by 2012, the Group will achieve €3bn annual sales in new products.	2012	€1.8bn	**€1.9bn**	Although all sales were affected by the recession, sales of new products showed more resilience in the developed countries where they are primarily sold.
Reach 20% of **women in senior and executive management** (Lafarge Hay grades 18+) by 2012.	2012	12.7%	**13.5%** EY	In 2010, 13.5% positions in senior management were held by women, while our ambition remains at 20% by 2012. In 2010, 33% of business units had a specific recruitment and/or career development plan for women.
SOCIAL				
By end 2010, establish a comprehensive Group-wide occupational health program including, at a minimum, regular medical examination.	2010	On track	**Plan rolled-out but not implemented yet due to expanding ambition**	We have expanded the scope of this ambition so that we now address all the industrial risks facing our people. A Health Assessment Standard Operating Procedure is now in place and there is a plan for the implementation of a risk-based health assessment for all employees. We have analyzed potential exposure of our employees at all our cement plants, and through our Personal Protective Equipment Standard have taken appropriate steps to limit health impacts. This medical examination program will allow us to track our employees to assure that the mitigation steps that we have taken are effectively working.
For HIV/AIDS and malaria, by end 2010, Lafarge will have extended to major developing countries where it operates, its best practice currently implemented in Africa.	2010	On track	**Completed**	Our public health methodology has been extended to Russia and Ukraine, where we have broadened our approach to reflect better the public health issues that are prevalent in these countries.

	TARGET	Deadline	2009 Performance	2010 Performance	WHY IS LAFARGE PURSUING THIS AMBITION? WHAT WILL CHANGE? HOW ARE WE PROGRESSING AGAINST THIS AMBITION?
	ENVIRONMENT				
◐	Have 100% of our sites **audited environmentally** within the last four years.	Permanent	86%	**89%** EY	With around 2000 sites in 78 countries, this is a very ambitious objective. We continue to make progress in both having these sites audited and having more of these types of sites covered by an environmental management system. For our cement plants, nearly all except the most recent acquisitions are compliant with this objective. Coverage in our Aggregates & Concrete Division, as well as cement grinding stations, has improved, but has still not reached the desired targets.
●	By end 2010 reach a rate of 85% of **quarries with a rehabilitation plan** complying with Lafarge standards.	2010	79%	**84.5%** EY	This has proved to be a challenging objective, particularly because many quarries have had to alter their operational plans in response to the recession. In 2010, we made a significant improvement in the number of rehabilitation plans and we were only 0.5% from reaching the target of 85%.
◐	By end 2010, all our quarries will have been screened according to criteria validated by WWF International.	2010	64%	**94%**	There has been a significant improvement in the use of screening since 2009. Universal coverage was a very stretching target, given the diverse range of quarries we operate; we have not met it but we have achieved a high level of coverage.
●	Those in sensitive areas* will have developed a site **biodiversity** program by 2012.	2012	35%	**47%**	Screening is revealing that a higher than anticipated proportion of our sites do have potential. This is a positive outcome but poses a challenge for us in putting programs in place.
●	By end 2010: • cut our worldwide **net CO_2 emissions** per ton of cementitious by 20% as compared to 1990**. • cut our **absolute gross emissions** in the Cement Business **in industrialized countries** by 10% as compared to 1990. • cut our **absolute net emissions** in the Cement Business **in industrialized countries** by 15% as compared to 1990.	2010 2010 2010	-20.7% -37.7% -41.3%	**-21.7%** EY **-36.5%** EY **-40.6%** EY	All three of these objectives were met ahead of schedule; the first (concerning net emissions) in 2009 and the second and third (concerning absolute emissions) in 2008. In 2010 we focused our efforts on further reductions while working at the same time on setting new objectives. In the Kyoto Annex 1 countries we have cut our emissions by 20.5% per metric ton of cementitious and in the non-Annex 1, countries we have cut our emissions by 22.9%. Absolute gross and net emission cuts in industrialized countries by end of 2010 must be seen in the context of the current economic downturn which has significantly impacted our production volumes.
●	Cut our **dust emissions** in our cement plants by 30% over the period 2005-2012.	2012	-26.2%	**-35.7%** EY	Cement plants generate dust. In 2010 considerable progress in reducing emissions was made as new/retrofitted systems were introduced. The reduction target has been met, ahead of schedule.
●	Cut our **NO_x emissions** in our cement plants by 20% over the period 2005-2012.	2012	-22.2%	**-27.9%** EY	NO_x is emitted from virtually every combustion process, including cement manufacture. We achieved the targeted reduction in 2009, and in 2010 continued to implement programs which have further reduced emissions.
●	Cut our **SO_2 emissions** in our cement plants by 20% over the period 2005-2012.	2012	-49.6%	**-52.8%** EY	SO_2 is another unwanted product of cement manufacture. We achieved the targeted reduction in 2008, and again in 2010 implemented programs resulting in substantial reduction of emissions.
●	By end 2010 have a baseline for **persistent pollutants** in our cement plants for 100% of kilns and reinforce our Best Manufacturing Practices to limit emissions.	2010	69.2% of kilns analyzed	**100%*** ** EY	Persistent pollutants (some of which may be contained in raw materials used in cement manufacture) are emitted by cement kilns. Lafarge is working with WWF to achieve significant reductions in emissions. • The program has completed measurement of persistent pollutants in all operating kilns; • Plant specific action plans have been developed to reduce emissions from a group of top-emitting plants; • Progress with reducing emissions will be monitored and reported.

Progress on our Sustainability Ambitions:
● Fully achieved
◐ Partially achieved
● In progress

EY Indicators verified by Ernst & Young (2010 data).
* Sensitive areas are defined as IUCN Category I to VI sites and those containing IUCN red-listed threatened species.
** Net CO_2 emissions are the gross emissions less the emissions that come from burning waste (see page 28).
*** Due to the economic recession, in 2010 five kilns with very low utilization have been excluded from the previous scope; if included, the percent kilns analyzed would have been 97% instead of 100% for both mercury and dioxins/furans.

Values and governance

With the Group's growing presence in parts of the world undergoing radical social and political changes, we are more than ever convinced that our values are increasingly important sources of strength and pride. Lafarge has a long tradition of applying the values found in its Principles of Action in everything that it does. This can be very challenging as we must be sensitive to the social context in which we operate.

Our values

The Lafarge "Principles of Action" define the Lafarge values. Courage, integrity, commitment, consideration for others and an overriding concern for the Group's interests are the foundation of our management philosophy. These values are to be adopted by all Lafarge employees, everywhere.

The Code of Business Conduct supports and accompanies the Principles. First adopted in 2004, it sets out the principles of conduct that each individual is to adopt in everyday business situations. It covers compliance with laws and regulations, free competition, prevention of corruption, insider trading, conflicts of interest, participation in politics, health and safety, prevention of discrimination and harassment, respect for the environment, protection of assets, reliability of information, internal control and application of sanctions.

> **"Lafarge's Code of Business Conduct sets out the principles of conduct that each individual is to adopt in everyday business situations."**

Governance

The Board drives our sustainability agenda, provides governance and ensures adherence to our values. The Chairman and CEO plays a personal role in shaping the sustainability agenda and sustainability issues are addressed within the Board by the Strategy, Development and Sustainable Development Committee.

Values and governance in practice

... the Code of Business Conduct

Training to enhance the Code's adoption started in 2008. It is based on real business examples and has been reviewed by Transparency International, the International Chamber of Commerce and the Lafarge Stakeholder Panel. This training has continued in 2010 and has included our business units in India and China. The Group plans in 2011 to develop new training tools and provide improved means of reporting potential breaches.

... sustainability oversight

Responding to the Board's leadership, the Group Executive Committee considers sustainability issues throughout the year and meets the Stakeholder Panel annually (see page 10).

The Senior Vice-President, Sustainable Development and Public Affairs, has functional responsibility for sustainability. The Sustainable Development and Public Affairs department liaises with stakeholders, identifies risks, develops policies and key performance indicators and oversees sustainability reporting. Primary responsibility for implementation lies with each business unit's general manager.

... human rights

Lafarge recognizes the utmost importance of respecting human rights in all countries where it operates and believes that human rights must be addressed in business decision-making. Since 2009, we have been working through "Entreprises pour les Droits de l'Homme" (EDH, a group of eight France-based companies inspired by the Business Leaders' Initiative for Human Rights) to understand better our human rights challenges. Several employees have attended training sponsored by EDH so that awareness of human rights can be cascaded throughout the Group.

Lafarge is a member of the Global Compact and is committed to reflecting its 10 key principles through the Group's policies. The Global Compact fulfils an important function in ensuring that key principles extend to all businesses, not just the large multinationals; we welcome efforts to strengthen the Global Compact along these lines.

> **Lafarge is a member of the Global Compact and is committed to reflecting its 10 key principles through the Group's policies.**

●●● We recognize the UN Declaration on the Rights of Indigenous Peoples. On implementation we recognize the need to address how we handle the competing interests of local communities.
A key task for 2011 is developing our response to the recommendations of the UN Secretary-General's Special Representative on businesses and human rights (the "Ruggie report"). This report is stimulating and will inform and inspire all our business decisions.

... competition

A group with the geographical scope of Lafarge will always be subject to scrutiny by competition authorities. Our code and policy absolutely forbids anti-competitive behavior wherever we are present.
The Group Competition Compliance Program, set up in 2007, aims to ensure that Group employees adhere strictly to competition law. It applies in every country where the Group operates and to every type of activity, including partnerships with third parties.
The Program is deployed continuously; it includes awareness-building and training for employees, verification at business unit level and reporting by competition correspondents based in the countries where the Group operates. We believe all these actions are working effectively to reduce the risk of competition infringement. We have an on-going testing program started in 2006 and thus far 96% of all business units have been tested.
In 2010, the Group Competition Team began use of an improved training tool which presents practical business situations to be resolved from a competition law perspective. Competition correspondents attended "train the trainers" sessions and workshops were conducted subsequently.
These global compliance initiatives, which have been implemented for several years now, are part of the Group management systems described in more details in the Annual Report (see Section 2-2-2, page 20). They were designed and progressively reinforced after the decision of the European Commission having imposed in 2002 a significant fine on Lafarge (in the amount of 250 M€, 338 M€, including accrued interests), finally confirmed by the European Justice Court in July, 2010, for illegal practices related to the European plasterboard market between 1992 and 1998.

... political contributions

In most areas of the world Lafarge or its related entities do not contribute directly to the campaigns of political candidates. However, in the United States, when any collection of individuals wants to contribute to federal candidates or parties, it may do so through a Political Action Committee (PAC). PACs allow individuals to join their single contribution to a pool of funds to have a louder voice for political expression. As part of the standard US political system, the employees of Lafarge North America Inc. use a PAC to raise voluntary political contributions to support candidates in the US who the employees feel share the company's goals. The PAC is a separate legal entity from the company. The PAC does not necessarily agree with all the policy positions of candidates who receive its contributions. Support to candidates is based on whether the candidate is attuned to the well-being of the company and its employees and the ability of the candidate to work towards these goals. More information about the PAC can be found at www.lafarge-na.com and the full list of beneficiaries can be seen at http://www.fec/gov.

... board effectiveness

There are 18 Board Directors and they carry out their duties in line with our Director's Charter (see http://sustainabilityreport.lafarge.com @). The operations of our Board were reviewed in 2010 in personal interviews between each of the Directors and the Vice-Chairman. The Directors considered that the organization and practices of the Board and its committees were very satisfactory. They identified the following as possible areas for improvement: appropriate allocation of time, increasing the number of women directors and reducing the Board's size.
The corporate governance code applicable to our Board is that of the French employers' organizations AFEP and MEDEF (see http://archive.medef.com). We comply in all major areas except length of service of Board members; we have chosen not to adopt the recommended 12-year limitation on length of service of independent directors because in our industry, which is long-term, Board effectiveness is improved by stability and experience.
The proportion of women on our Board has now risen to 17% (previously 6%) so we are moving in the direction recommended by AFEP-MEDEF.
The posts of Chairman and Chief Executive Officer are both held by Mr. Bruno Lafont. The Vice-Chairman is independent, has prerogatives that guarantee a balance of power within the Board and chairs the annual review of the Chairman-Chief Executive Officer's performance and remuneration.

... shareholder meetings

The Annual General Meeting of Lafarge was the sole shareholders' meeting in 2010 and was held on May 6th 2010. Shareholders approved the 2009 financial statements and the nine resolutions put before them. The rate of approval ranged between 98.18% and 99.91%. Full details of the votes can be found online http://sustainabilityreport.lafarge.com @. ■

Public Positions

"Our approach to sustainable development can be shared and can be mutually enriched with the experience of other industry participants." - Bruno Lafont
We therefore articulate and promote our beliefs in the public arena and bring the business perspective on challenges and solutions to those forming public policy.

Responsible lobbying

Lafarge lobbies governments for high environmental, social and technical standards and for strict enforcement of regulations. In 2010, the Lafarge Lobbying Charter was disseminated within the Group and made available on Lafarge's website at http://sustainabilityreport.lafarge.com.
Lafarge is a member of trade associations at international, national and local levels and encourages all members of the building materials sector to engage with governments and other external stakeholders.
In 2010 our most important public positions were those covering climate change and resources and biodiversity.

Climate change

We are developing and implementing a comprehensive strategy contributing to the overall objective of limiting the Earth's temperature increase to a maximum of 2°C.
We believe that the fight against climate change is about fundamentally reshaping our economy, from the way electricity is generated and products are manufactured, to how we design buildings and cities and live and work.
We are already committed, worldwide, in the transition to this new sustainable economy. All our operations are engaged in CO_2 emission reduction and we are making significant improvements (see pages 26-28). We are changing our consumption behavior as a company, addressing the training and education needed for new skills and competencies, and encouraging innovation with low carbon solutions contributing to energy efficiency in buildings.

> **"The fight against climate change is about fundamentally reshaping our economy."**

We believe Governments have a key role to play in accelerating and facilitating this transition to a new sustainable economy. We look forward to an international legally binding agreement on climate change. But since the starting points differ from one country to another, intermediate actions (such as "Nationally Appropriate Mitigation Actions") and sectoral approaches are the most pragmatic solutions to be implemented today.
The sectoral approach promoted by the Cement Sustainability Initiative within the World Business Council for Sustainable Development, which comprises a combination of market-based mechanisms and adapted supporting policies (use of biomass, waste, alternative cementitious materials, norms and standards), is the one delivering the largest CO_2 emission reductions.
In 2010, critical decisions governing aspects of Phase 3 (2013-2020) of the EU Emissions Trading Scheme Directive were adopted; they covered allocations, benchmarks and auctioning rules. We welcome these decisions, even if implementation will be challenging for us. We will pursue our CO_2 emissions reduction efforts in our EU operations as in all other countries where we operate.
We believe that, in our industry, the most appropriate and efficient approach to CO_2 emission reductions, in advanced economies, is a cap and trade* system with benchmarks based on clinker.
In emerging economies, we support mechanisms which are based on sectoral intensity goals, policies enabling waste and biomass sourcing and harmonizing standards for cement and concrete.
We consider that climate change policy should not be limited to targets on CO_2 emissions reduction. Policies to encourage energy efficiency, innovation in the value chain (notably in buildings), promote renewable energies, and incentivize research and development should be the current priority and will deliver potentially more CO_2 emission reduction.

* The "cap" is the maximum – and decreasing - amount of carbon to be emitted and the "trade" is the possibility given to carbon emitters to freely trade carbon permits amongst themselves.

> **The integration of biodiversity and ecosystem concerns into other policies will be essential to halt the loss and degradation in biodiversity.**

Resources and biodiversity

Limestone, chalk, sand, clay, aggregates and gypsum provide the mineral resource base for our products. Our use of these resources can affect biodiversity and ecosystems, directly or indirectly throughout the life cycle of a quarry. We consider that our extractive activities are compatible with biodiversity protection; we believe that, with proper planning and rehabilitation, we can in some places make a net positive contribution to biodiversity conservation and ecosystems management, and thus protect our long term resources.

Local access to resources is critical; producing materials close to the point of use minimizes environmental and economic impacts such as CO_2 emissions, noise and cost. Therefore the planning framework for mineral extraction must be comprehensive. We believe that there need to be simplified and coordinated regional, national and local planning procedures to ensure the sustainable supply of resources. We support a "one-stop-shop" system for applying for authorization, with all environmental aspects assessed in a single process as has been proposed at European level.

Efficient use of resources

Mainstreaming ecosystem considerations into business is increasingly important as a way of addressing the challenges of a resource-constrained world; we are contributing to further development of effective tools for valuing ecosystem services.

Our industry supports efficient management of natural resources and the use of recycled resources; its use of alternative fuels and raw materials has been recognized as best practice by the European Commission. But we do need access to materials which can be recycled, recovered or reused from other industries, such as construction and demolition waste. We also believe that greater use of recycled resources could be achieved if product standards were defined with recycling in mind.

We believe that building partnerships with non-governmental organizations, working with conservation bodies and engaging with local or global stakeholders allows us to develop more responsive and comprehensive biodiversity and habitat rehabilitation plans; these actions contribute to Lafarge's credibility in the local community. This in turn enables us to operate effectively in a sector which depends on sustainable use of resources.

> **Local access to resources reduces impacts such as CO_2 emissions, noise and cost.**

The business role in biodiversity

At international level the role of business in addressing biodiversity loss and ecosystems degradation has been fully recognized. So there is a need for our industry to work (either directly or indirectly through trade associations) with governments; this work should seek to secure consistent policy frameworks and legislation, clear long-term signals and a level playing field.

The outcome of the Convention on Biological Diversity held in Nagoya in December 2010 led to the adoption of targets on reducing the loss of biodiversity and commitments to restore degraded areas. We are committed to the restoration of habitats, so that the targets are translated into national biodiversity action plans over the next two years. We will contribute to these goals.

In 2011, the EU will set a new target to halt the loss of biodiversity and the degradation of ecosystem services by 2020, and restore them as much as is feasible, while stepping up the EU contribution to averting global biodiversity loss. It is our view that the integration of biodiversity and ecosystem concerns into other policies will be essential to the achievement of these aims.

Because of the nature of our activities, we are often faced with difficult situations where we must balance competing interests of many parties. We must listen to our stakeholders and respond to them. Because this is an evolving dialogue, we invite you to visit our website on http://sustainabilityreport.lafarge.com @. ■

Our stakeholder panel

"I am convinced that our approach must be constantly challenged and questioned." - Bruno Lafont
This is the driving force behind our use of stakeholder panels at many levels in the company. At the Group level we have a unique panel of experts who serve as "critical friends" to advise our most senior executives.

The Panel

The mission of our Stakeholder Panel is to serve as "critical friends" of Lafarge, who challenge our approach to sustainability, identify weaknesses, suggest improvements and form each year an opinion on our overall sustainability performance.
The Panel members are selected for their expertise in and knowledge of sustainability as it affects Lafarge's operating environment. The members of the Panel are intended to represent the Group's main categories of stakeholders. There are currently ten members. In 2010 we took the decision to appoint Sheila Khama, a consultant to the African Center for Economic Transformation, who will join the Panel in 2011; Simon Zadek (formerly of AccountAbility) has stepped down. The terms of reference of the Panel are published online http://sustainabilityreport.lafarge.com @.

The work of the Panel in 2010

In March 2010 the Panel met to consider and comment on the Group's 2009 sustainability report. The Panel conducted site visits in July 2010, spending three days in Morocco. It visited three cement plants (Tetouan, Meknes and Bouskoura), the Meknes and Bouskoura quarries and the Tetouan wind farm, and held meetings with local community representatives, local media and school leaders.
In November 2010 the Panel held a one-day meeting with the Group Executive Committee, including the Group Chairman Chief Executive Officer Bruno Lafont. The agenda included innovation and sustainable construction, progress with the health roadmap and climate policies, and working with sub-contractors. There was also a discussion around new ambitions that might follow the completion of Sustainability Ambitions 2012. ■

MEMBERS OF THE LAFARGE STAKEHOLDER PANEL

- **ÉRIC BRASSART** (EUROPEAN WORKS COUNCIL)
- **MARION HELLMAN** (BUILDING AND WOOD WORKERS INTERNATIONAL)
- **JEAN-PAUL JEANRENAUD** (WWF)
- **SHEILA KHAMA** (AFRICAN CENTER FOR ECONOMIC TRANSFORMATION)
- **PHILIPPE LÉVÊQUE** (CARE)
- **KARINA LITVACK** (F&C ASSET MANAGEMENT)
- **ALASTAIR MCINTOSH** (CENTRE FOR HUMAN ECOLOGY)
- **FRANK ROSE** (INDEPENDENT)
- **LIVIA TIRONE** (ARCHITECT)
- **CORNIS VAN DER LUGT** (UNEP)

Stakeholder Panel 2010 comment

Now in its ninth year, the Lafarge Stakeholder Panel serves as the company's "critical friends". Through in-depth, robust debate with Bruno Lafont and his executive team, we aim to help the company anticipate and avoid problems, advance the boundaries of best practice, and raise standards across the building materials industry as a whole. We especially value Lafarge's willingness to explore difficult issues with us, and the mutual trust that has enabled Panel members and the executive to speak freely and drive positive change.

Defining a roadmap

The 2010 Report reflects a move to a more concise format - a response to reader evaluations. While welcome, this succinctness has also come at the expense of explanatory text, often leaving empirical data out of context and making it difficult to understand strategic intent. As such, this report understates how Lafarge has wrestled with challenging issues and developed a clear strategic vision to frame performance reporting. We therefore request that next year's report strike a better balance between data, narrative and forward-looking strategy.

Looking ahead, Lafarge will, in its 2020 Sustainability Ambitions, need to define not only new stretch targets, but also a long-term vision and roadmap for both itself and the building materials industry. Having broken new ground a decade ago, Lafarge has seen its lead narrow with peers, and must now reclaim its leadership position. In so doing, it must move beyond a strategy focused on sustainable building materials to one that embraces sustainable building systems and solutions, and takes into account product and energy lifecycles in a "cradle-to-cradle" manner. This means that while it must raise its game on curbing CO_2, SO_x and NO_x emissions, the greater but more important challenge lies in tackling the 80-85% of impacts that concrete has through building use, as well as the 15-20% generated during materials fabrication and construction. It also means that with political paralysis slowing transition to a low-carbon economy, Lafarge must use its leverage to challenge policymakers and fellow business leaders to drive systemic change across both its industry and its value chain. This is particularly urgent in a rapidly urbanizing world marked by rising physical and social stresses, including poverty, climate change, ecosystem damage, water scarcity and population growth. This creates an imperative for Lafarge to deliver product innovations that strengthen the resilience of both buildings and communities, by providing affordable, energy efficient building systems that support sustainable urban design while withstanding more extreme climate conditions.

We have begun to see evidence of Lafarge's commitment to driving innovation - particularly in the context of cutting CO_2 emissions through new, lower-carbon forms of cement. We now look forward to seeing how the 2020 Sustainability Ambitions will drive the development of real breakthrough technologies and deeper engagement in sustainable construction projects around the world.

We likewise welcome Lafarge's heightened focus on water, and its move to map water risk and manage its footprint. Growing scarcity and competition will translate into significant business risks in the coming decades, with water already a scarce and vital resource in a number of countries where Lafarge operates. This will increasingly form a critical element of community engagement and ecosystems planning.

Implementing the standards

We commend Lafarge for referencing the Ruggie Report on Human Rights and for the Board-level recognition given to this issue. This must now be followed by a clear set of standards to address human and trade union rights, so as to translate the company's commitment to the principles of the UN Global Compact into day-to-day behaviour right down to site level. This is especially urgent in the volatile regions of the Middle East and North Africa, where Lafarge has significant exposure. We also welcome Lafarge's recognition of the UN Declaration on the Rights of Indigenous Peoples. Reconciling unique indigenous concepts of attachment to land and land tenure with conventional legal systems poses a very real challenge, especially if Lafarge seeks to uphold the principle of "free, prior and informed consent", as encouraged by members of this Panel. In this regard, we appreciate the frank discussion of difficulties in India, and look forward to leading-edge practice.

Finally, 2010 saw Lafarge increase out-sourced employees from 28% to 30% of its workforce. With heightened attention accorded to risks associated with the actions of business partners, such as occurred in the 2010 Gulf of Mexico tragedy, we have pressed Lafarge to improve its due diligence and oversight practices of contractors, suppliers and other partners. We look forward to a clear articulation of the scale, nature, goals and performance of outsourcing activity, as well as how Lafarge selects partners and ensures its standards are effectively rolled-out in co-owned ventures. ■

reporting

Key to symbols:

- Audited by Ernst & Young (2010 data)
- GRI
- Sustainability Ambitions 2012
- CSI
- Benchmark

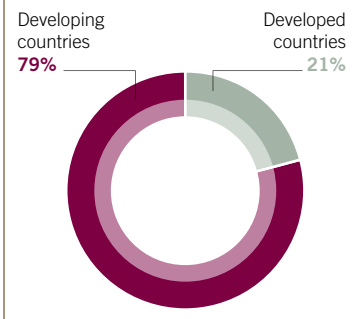
How we report

Understanding our business

Our business provides materials for the construction of homes, other buildings and infrastructure. As world population increases, economies develop and urbanization extends, demand for our materials increases. To be sustainable, we must meet that demand in ways that have a positive social outcome but with less impact on natural resources and support construction that is more sustainable.

Getting an understanding about cement market

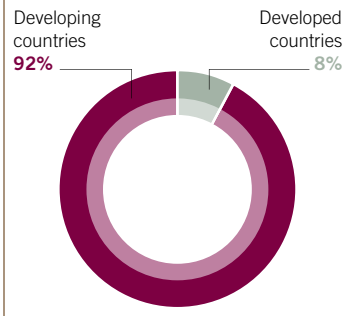
2005 Cement consumption



Total consumption (millions of metric tons)
- Developed countries: 455.1
- Developing countries: 1,761.5

2025 Cement consumption

(estimate in %)

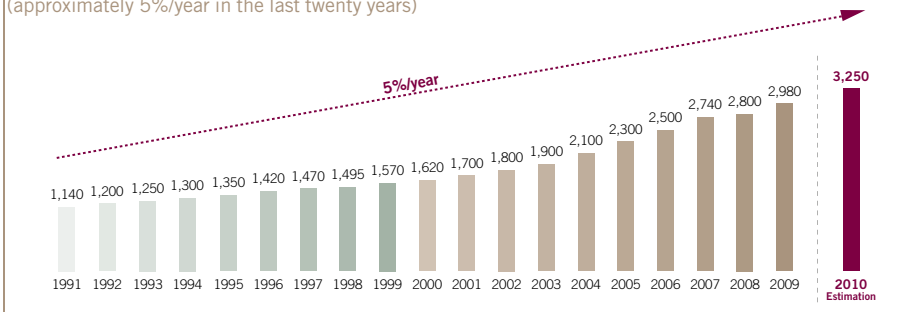


Estimated total consumption (millions of metric tons)
- Developed countries: 400
- Developing countries: 4,500

Source: Cembureau and J.P. Morgan estimates.
Over the next two decades the balance of cement consumption between developed and emerging countries will continue to shift with further growth in developing countries.

Average annual growth rate of cement demand

(approximately 5%/year in the last twenty years)



Sources: Cembureau, Lafarge estimates
World cement consumption has significantly increased with an average rate of growth of +5% per annum, the mid and long term prospects remain favorable, especially in emerging markets, where demography, urbanization and needs in housing and infrastructure are powerful.

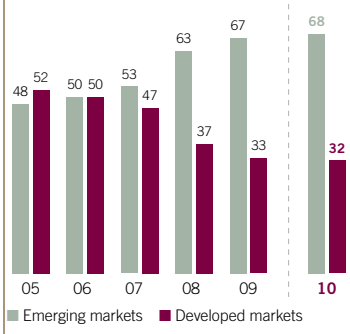
Our industry

An explanation of:
- the processes involved in our operations,
- how a cement plant works, and
- the lifecycle of a quarry can be found at http://sustainabilityreport.lafarge.com @.

Detailed information about our business is given in Section 3.3 Business Description in our 2010 Annual Report, to be found at http://sustainabilityreport.lafarge.com @. This includes information of the cost structure of our products. ■

Cement sales growth in emerging markets

(cement sales by value – split of sales in percentage)

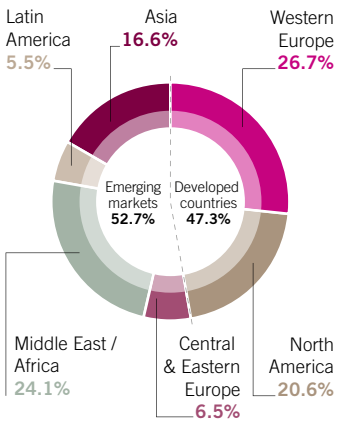


The balance of cement sales continues to shift reflecting global trends and our declared strategy. Over two-thirds of cement sales in 2010 were in emerging markets.

Understanding the regional impacts of our business

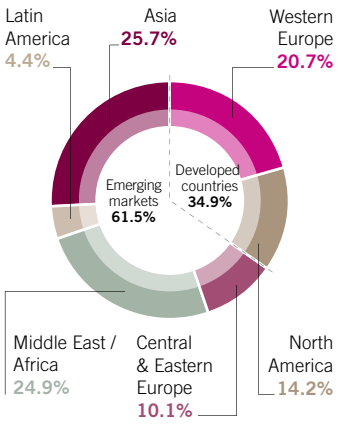
Group sales by region

(in %)



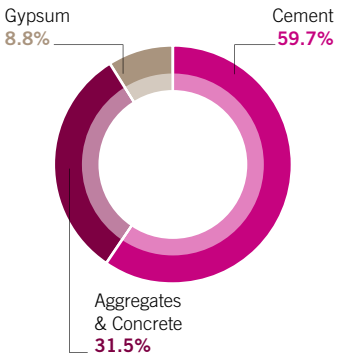
Employees by region

(in %)



Group sales by business line

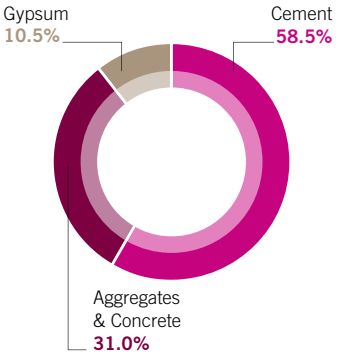
(in %)



Developed countries have declined from 66.2% of sales in 2005 to 47.3% in 2010. This reflects both acquisitions, notably that of Orascom Cement, and organic growth. Over the same period the percentage of sales from cement has grown from 52.3% to 59.7%, as the development in emerging areas is quicker in cement.

Employees by business line

(in %)



At year-end 2005 51% of our employees were based in Western Europe or North America, by 2010 this percentage had declined to 35%. At year end 2005 just over half of employees were in the Cement Division.
At end 2010, the Cement Division accounted for 58.5% of our employees.

Who benefits from our operations

(cash value added)

	€ million	%
Sales	**16,169**	
Cost of goods sold	**10,045**	
Cash value added (1)	**6,124**	**100**
Paid to employees for their services	2,664	43.5
Paid to lenders as a return on their borrowings	919	15.0
Retained for growth	1,267	20.7
Community investment	11	0.2
Net cash	1,263	20.6
Taxes to be paid to governments (2)	414	32.8
Paid to investors for providing capital (2)	849	67.2

(1) Figure adjusted to take account of community investment.
(2) Percentage of net cash.
Employees are the single biggest beneficiary group from our cash value added.

Shareholders by type and geography

(in %)

By type	2010
Institutional (France)	16.7
Institutional (other countries)	72.1
Individual	11.1
Treasury	0.1

By geography	2010
France	27.7
United States	15.1
Belgium	22.3
Luxembourg	14.4
United Kingdom	4.0
Rest of the world	16.5

As of 31 December 2010 Groupe Bruxelles Lambert held 21.1% of total shares issued, NNS Holding SARL 13.9% and Dodge & Cox 4.7%. A further 6 institutional shareholders held between 1% and 4%, of these: 3 held between 1% and 2% of our shares, two held between 2% and 3% of our shares and 1 held between 3% and 4%.

PANEL

CORNIS VAN DER LUGT
UNEP

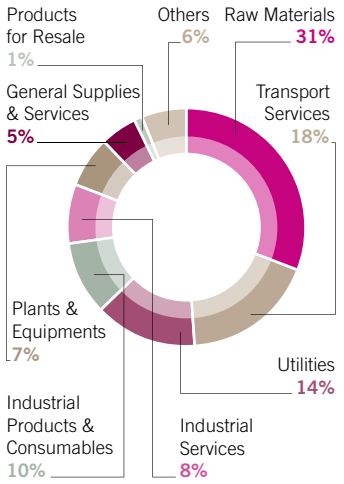
Amidst economic recovery, the cement industry faces severe energy efficiency and systems challenges in an urbanizing world. As producers seek to advance efficiency through improved heat recovery, fuel substitution and alternative blends, one hopes that production in countries such as the US, China and India will find inspiration from levels of efficiency reached in Japan.

In addition, analysts continue to seek evidence of greater focus beyond the product to broader systems of construction, buildings and infrastructure. Cement and concrete as building materials will be with us for centuries to come. The really transformative change we expect is likely to be in the more efficient use of these materials, in combination with others, in alternative designs and systems that enable efficient use of buildings. It implies that bigger is not by definition better.

This lesson starts upstream with resource extraction, where we expect the industry to improve its ability to manage ecosystem supplies responsibly. In the making of this transformation, I expect Lafarge to play a leading role.

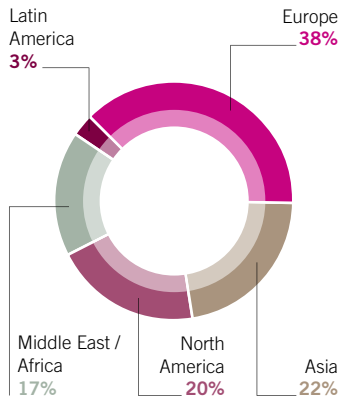
Understanding our supply chain impacts

Breakdown of our suppliers by type



2010 saw an increase in commodity cost on raw materials and transportation. 44% of total raw materials are fuels.

Purchases by region

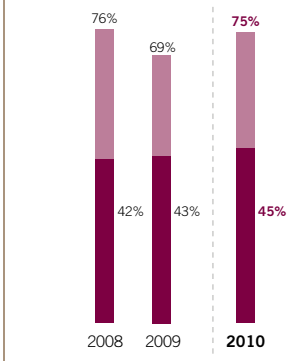


We see growth in our spending in Middle-East/ Africa and Asia. Most of our supply spending is local spending.

Environmental management

Sites covered by environmental management systems (EMS), including ISO 14001

(as % sales)

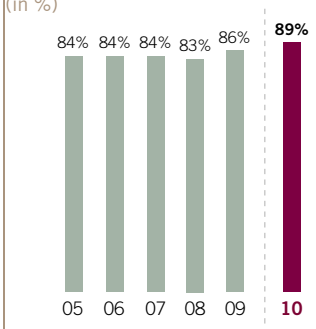


■ Covered by Lafarge internal management system and ISO certified system
■ Covered by Lafarge internal management system

75% of sales are covered by an environmental management system and 45% use an ISO 14001 certified EMS system (64% of our cement plants). Our goal is to have 100% of our sites covered by an EMS system.

Sites audited environmentally within the last 4 years

(in %)

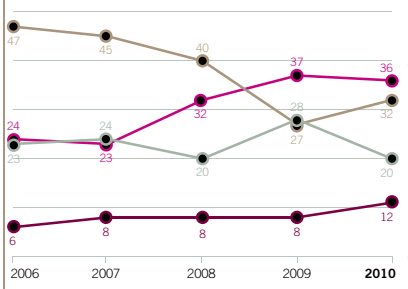


For our cement plants, all but two of our sites have been audited. This indicator continues to increase and our goal is to achieve 100%. The figures for the businesses are: Cement 94%, Aggregates & Concrete 88% and Gypsum 100%.

Monitoring corruption risks and human rights challenges

Breakdown of sales by country risk according to Transparency International

(in %)



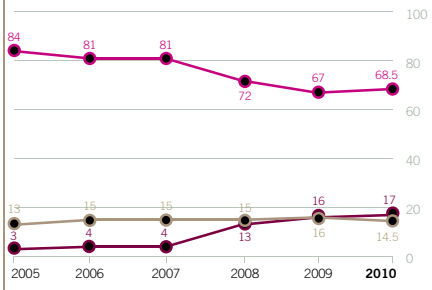
Moderate risk area (7.5-10) Medium risk area (5.0-7.4)
High risk area (2.5-4.9) Very high risk area (< 2.5)

An increasing proportion of our business is carried out in countries with higher corruption risks.

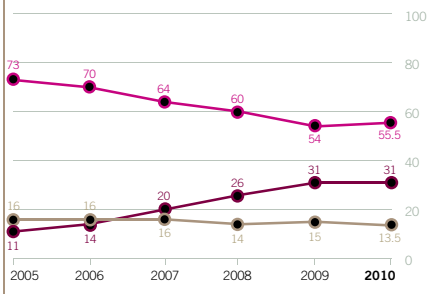
Breakdown of activities in countries of concern regarding human rights*

(in %)

Sales breakdown



Workforce breakdown



Free Partly free Not free

As a result of changing Group structure and growth, an increasing proportion of our business is conducted in countries with human rights concerns.

* Based on Freedom House's Freedom in the World 2010 Index, which rates countries on their levels of civil and political rights.

Understanding our environmental expenses

Increased focus on sustainability within R&D

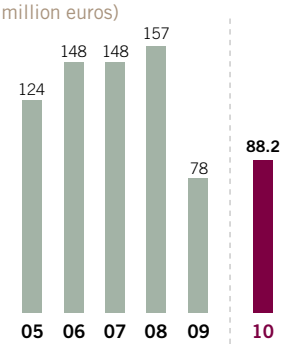
(in %)

	2008	2009	2010
Reduction of CO_2 emissions	18%	16%	**22%**
Energy efficiency	13%	15%	**17%**
Natural resources	10%	8%	**8%**
Safety & security	6%	5%	**7%**
Comfort & quality of life	6%	5%	**4%**
Others	47%	51%	**42%**
R&D Spend (in million euros)	160	152	**153**

More than half of R&D in the past three years has been focused on sustainability (see page 24).

Environmental and safety investment amounts committed

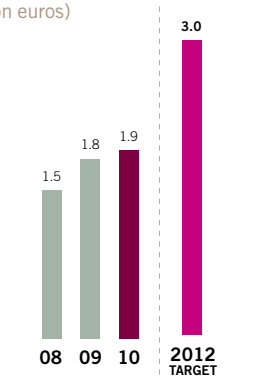
(in million euros)



After a large reduction in spending in 2009 due to the economic downturn, spending increased by 13% in 2010 but is still affected by the recession. In comparison to 2008, the reduction in spending in this area has decreased 44% compared to an overall reduction in capital expenditure of 52%. The €88.2 million breaks down between businesses: Cement €77.3m, Aggregates & Concrete €4.5m and Gypsum €6.4m.

New product sales over time

(in bn euros)



Although all sales were affected by the recession, sales of new products showed more resilience in the developed countries where they are primarily sold.

People development and social dialogue

People development and social dialogue are key elements of our strategy to support our business changes. Our strategy is to have the right capacities, through competency, diversity and social dialogue, in place to achieve our performance goals. Our challenges are diverse as we face various situations throughout our worldwide network.

Employment

There has been a difficult economic context in some countries where the Group operates which has resulted in an overall headcount reduction of 3%. The Group Employment Policy defines our approach to reorganization and is especially focused on helping those who are directly affected. Further information on our employment practices can be found on http://sustainabilityreport.lafarge.com @.

Investment in training

Despite the recession the Group has maintained its training effort with the overall average of training hours per employee slightly increasing. The use of e-learning has tripled since 2009 with 8,500 employees now taking part on a regular basis. In addition, the appointment of a "Learning & Development" Project Director during the year reflects the Group's commitment to the development of its people.

Well-being at work

Six additional surveys on well-being have been scheduled or carried out in Europe; these surveys are intended to help maintain dialogue with our employees and provide customized improvements to local situations. Usually the feedbacks are positive with very few remarks on stress issue.

Diversity

We believe that diversity creates competitiveness and innovation. Diversity for Lafarge includes gender, geographic origin, integration of disabled people and equal opportunity without discrimination. Because progress is not fast enough, particularly for gender diversity, a senior person has been appointed to drive diversity and inclusion throughout the Group.

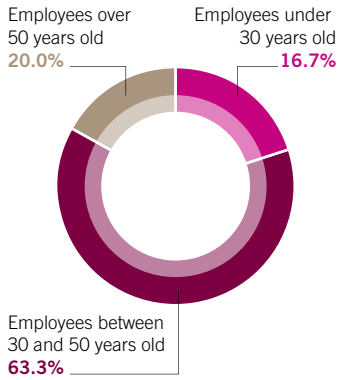
Collaborating with unions

Through improvement in our data collection, we now know that the majority of strikes in our business units derive from social conflicts triggered by events at a wider national level. Social dialogue is important at all levels. In 2010, this dialogue at international level was key to reaching a common understanding regarding freedom of association in the USA. We also have maintained good relations with the European Works Council.

Improving out-sourcing practices

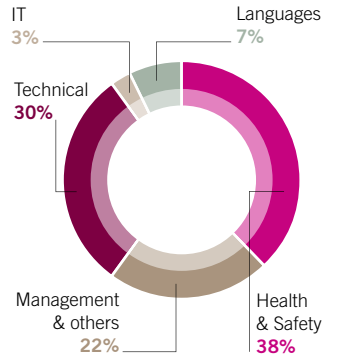
During the year we initiated an audit of sub-contracting activities and carried out surveys to investigate how fundamental labor rights are embodied in our labor practices. This is an essential step in improving out-sourcing practice; for instance it helps us improve the safety of our contractors, ensure that fundamental rights are preserved in out-sourcing contracts and share good practice. ■

Age structure of our workforce



The average age of our workforce is broadly stable year on year.

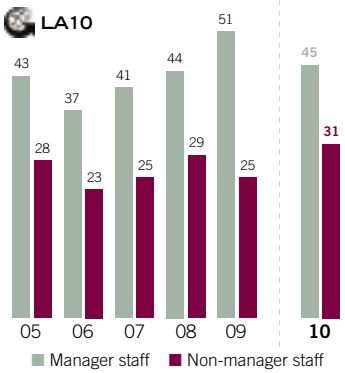
Investment in training by type



The focus was again on health and safety, which is the Group's priority. In addition, 33% of business units set up skills management training and lifelong learning programs for non-managers.

Investment in a skilled workforce

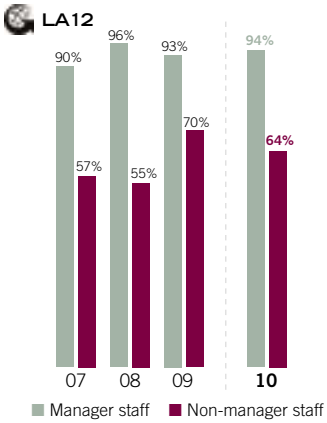
(average number of training hours)



Our efforts to boost training uptake by non-management staff are generating results. The average number of hours of training for this category of employees has increased by over 20% since 2009.

Staff performance assessment

(employee performance review)



This year the focus was placed on talent management and increased use of Individual Development Plans, to reflect one of the Group's top priorities: People Development.

Increasing women in senior management is still challenging

(%) SA 12

	2008	2009	2010	2012 target
Senior executives & managers (Lafarge Grade 18+) EY	12.0	12.7	**13.5**	**20**
Board of directors	5.5	5.5	**17**	
Senior executives (Lafarge grade 23+)	7.5	8.4	**9.9**	
Senior managers (Lafarge Grades 18-22)	12.9	13.2	**13.9**	
Managers (all categories)	19.2	19	**19**	
Employees	16.3	16	**16**	

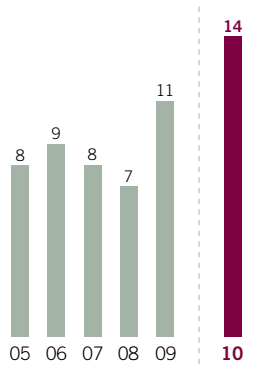
Senior executives and managers' jobs are those graded 18 and above using the Hay classification.

example

ECUADOR – A POSITIVE ATTITUDE TO DISABILITY

Lafarge Cementos SA (Ecuador) ran an internal program to raise awareness on the recruitment and integration of disabled people. As a result the number of disabled employees was increased from two to 13. This was more than the number required by local labor laws and showed how a business can respond to the needs of an often vulnerable and marginalized group in society.

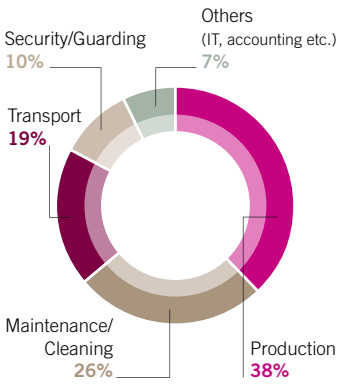
Number of business units with strike actions



We improved our collection of data on industrial actions. We now know that the majority of strikes in our business units derive from social conflicts triggered at national level, such as pensions in France.

Use of out-sourced employees

(breakdown of out-sourced employees in %)



In 2010 Lafarge worked with 33,169 out-sourced contractors accounting for some 30% of the workforce (2009: 28%). In the production area, most of the out-sourced jobs are related to packing, engineering and shipping. We make sure that their working conditions comply with our own standards.

Job creation and losses

(number) LA2

	2008	2009	2010
Hirings	8,481	4,058	5,991
Resignations	4,148	2,813	3,752
Retirements	958	947	1,057
Redundancies and lay-offs	5,009	5,625	3,986
Deaths	143	119	142
Balance	**-1,777**	**-5,446**	**-2,946**

Lafarge underwent a 3% decline in global headcount. We endeavored to limit or postpone headcount reductions, and to assist every affected employee as prescribed in our Employment Policy.
See http://sustainabilityreport.lafarge.com for examples on how we implement our employment policy locally.

3%

REDUCTION IN GROUP HEADCOUNT BETWEEN 2009 AND 2010, CONSISTENT WITH A 3% REDUCTION IN SALES ADJUSTED FOR SCOPE AND INFLATION

PANEL

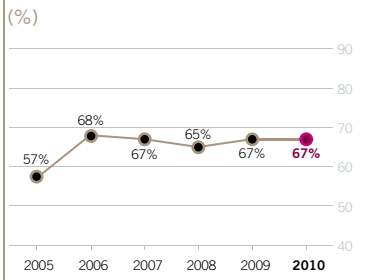
MARION HELLMANN
BUILDING AND WOOD WORKERS INTERNATIONAL

Trade unions welcome Lafarge efforts to improving out-sourcing practices because companies often use subcontractors and temporary agencies to avoid their legal obligations employers.

The number of out-sourced employees increased to 30%! Lafarge should explain the reason for the decrease in employment and the increase in outsourcing as well as how they make sure that subcontractor working conditions comply with Lafarge standards. In addition, Lafarge should report the gender breakdown of out-sourced employees as it might become evident that outsourcing is a gender issue, with women being the main victims of outsourcing. We also appreciate Lafarge's contribution to different Business Human Rights actions.

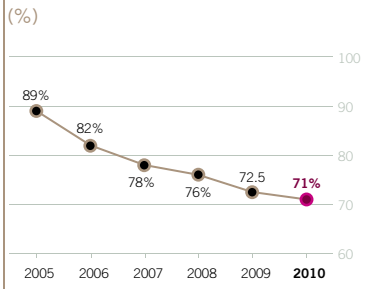
As Lafarge is investing more and more in countries with a critical human and trade union rights record, it would be good to explain what it is doing to promote human and trade union rights at a plant and company level. The Ruggie report should not only inspire Lafarge in decision-making. Trade unions expect a clear message from Lafarge to take on responsibility for human rights and supply chain management in its businesses in all countries.

Representation by staff or trade union organizations



The figure is stable year on year.

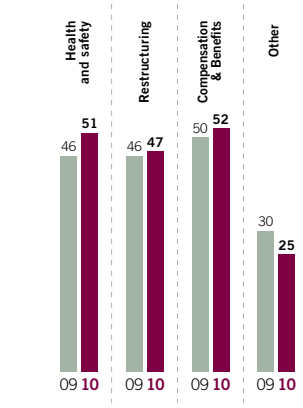
Business units with collective agreements



71% of our business units have staff covered by collective agreements on different topics. The figure is stable year on year, and may fluctuate due to changes in scope; we must allow more time for new business units to align with the Group's collective agreements practices.

Employees covered by collective agreements

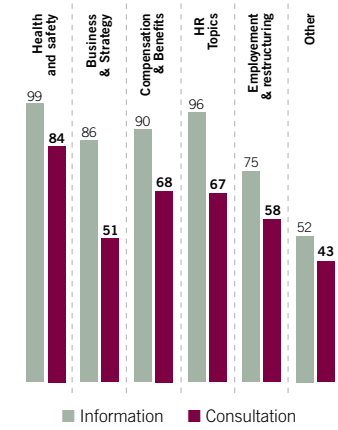
(% of employees covered by agreements on specific areas) LA4



This number is steadily increasing year on year; Health & Safety remains a priority.
Other: retirement, working hours, professional relations, training, etc.

Information and consultation

(number and type)



Consultation on major topics was increased worldwide. Social dialogue is implemented locally throughout the organization.

38%

OF ALL TRAINING IN THE GROUP IN 2010 RELATED TO HEALTH & SAFETY

Comparative wage rates

Lafarge business unit minimum wage relative to sector minimum wage: Index = legal minimum wage =100

example

U.S. GENDER DIVERSITY

Twenty workshops took place at regional and then business unit level in 2010, in order to stimulate long-term cultural change in attitudes to diversity. By thinking of a diverse workforce as making business sense, it is easier to initiate action plans and bring about a change in attitudes.

Measures to mitigate job changes

	2005	2006	2007	2008	2009	2010
% of business units having implemented significant headcount reduction impacting more than 5% of workforce	9%	10%	15%	18%	27%	**27%**
% of business units having set up an employment channel for employees	–	–	79%	50%	69%	**57%**
% of business units having set up a local economic development channel for local communities	–	–	69%	31%	17%	**30%**
Number of Lafarge employees re-employed outside the Group (in another group or in their own business)	91	111	873	572	679	**1,393**
Number of external jobs created through the local economic development program	–	–	468	521	1,041	1,637

In 2010, 27% of business units had to face headcount reductions of more than 5% of the workforce. This figure includes those that decided to subcontract an activity, and who transferred employees to a new company, enabling them to carry on with their job. The number of external jobs created through the local economic development program increased significantly between 2009 and 2010. In France for instance, we signed two partnerships aimed at selecting and facilitating company creation, thus driving job creation.

Health and Safety

From a safety perspective, Lafarge has one very clear goal: reach zero incidents and rank among the safest companies in the world. We have made progress in reducing incidents at our sites but fatalities are still occurring. This is deeply regrettable but we are confident that the measures we have put in place should allow us to make significant progress towards our zero incident goal.

A challenging journey to excellence

Health and Safety is the first operational priority of the Group, and Lafarge has one very clear goal: reach zero incidents and rank among the safest companies in the world. Lafarge's objective is to have a low total injury frequency rate over the long-term and across all our units, with contractors working with the same standards as employees, leading to a low level of occupational health and safety incidents. Moreover, Lafarge wants to be recognized by NGOs and the business community as a world leader in safety.

To show its commitment to Health and Safety and reinforce this priority, a senior manager, a former Regional President reporting directly to the CEO and part of the Executive Team, is responsible for the Health and Safety function. Additionally, for Lafarge employees having a bonus, 30% of their personal bonus is based on Health and Safety.

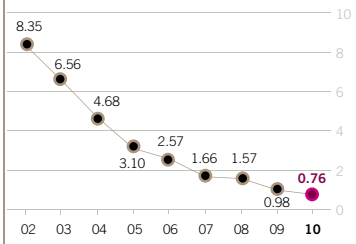
As shown in the graph, Lafarge has greatly improved its employee lost time incident frequency rate, with over half its business units not having recorded any employee LTIs (Lost Time Injury) for over a year. In 2010 Lafarge has achieved its targeted reduction in injuries to employees and there were fewer fatalities on Lafarge sites. The safety reporting for lost time injuries now includes two important sub-groups acquired since 2008 (Orascom Cement in Middle East and Africa and Larson & Toubro in India) and these results also show a sharp decrease; a similar measurement for contractors also shows a reduction. This demonstrates progress in extending the Health and Safety culture over the Group.

To bring about lasting change, a Health and Safety Management System (HSMS) has been issued in 2010. The HSMS is a comprehensive and systematic approach to managing H&S. It is a high level, overarching "system" which connects together all H&S initiatives and activities including our existing roadmap. It describes the elements to be implemented to achieve the ambition of becoming a leader in H&S. It focuses on continuous improvement by clarifying the gaps to be addressed. It is Lafarge's belief that the full and successful implementation of the HSMS elements would enable the Group to achieve world class H&S performance.

At the beginning of 2010, Lafarge issued a Standard addressing Energy Isolation (EI), one of our major risks: This standard impacts the manufacturing process and team behavior. To ensure effective ●●●

Reduction of Employee LTIFR

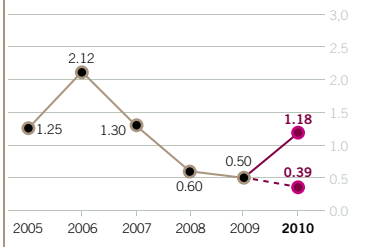
(lost time injury frequency rate: number of accidents leading to loss of time by million hours worked)



Lost time injury is a work related injury causing absence for one or more scheduled workdays (or scheduled shifts), counting from the day after the injury occurs to the day before the individual returns to normal or modified work. The 2010 LTIFRs for the individual businesses were 0.81 (Cement), 0.69 (Aggregates & Concrete) and 0.74 (Gypsum). In 2010 we widened our coverage of injury data; using the same coverage as in 2009, the Group rate for 2010 was 0.72 and individual business rates were 0.80 (Cement), 0.62 (Aggregates & Concrete) and 0.74 (Gypsum). **In the benchmark group Lafarge was 2nd out of 7.** In Egypt, Pakistan and China all non-Lafarge employees are included in our reporting on contractors.

Group Employee fatality rate

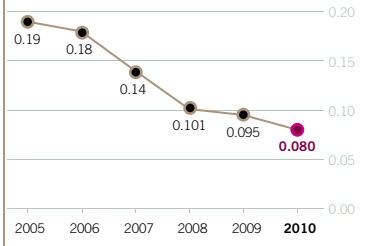
(number of fatal accidents per 10,000 employees)



All fatalities are included from the moment of any acquisition. 0.39 represents the rate with the scope that we had up to 2009. 1.18 represents the rate with the new enlarged 2010 scope.

Days lost over six years

(lost time injury severity rate: number of calendar days lost as a result of accidents by thousand hours worked)



Although our standards and advisories are rolled-out as soon as an acquisition takes place, we allow a period of two years for acquisitions to catch up with the full implementation of these health and safety standards and advisories. For a period of two years, lost time injuries for employees and contractors are not counted. The injury severity rate was 0.080 for Cement, 0.086 for Aggregates & Concrete and 0.088 for Gypsum.

example

THE KAIYUAN PLANT

The Kaiyuan plant and its six grinding stations in China had, as a consequence of its history, very poor safety management and many safety risks. After joining Lafarge, in one year, the plant implemented the Lafarge safety roadmap and invested heavily in safety culture training and facilities. By the end of 2010, 98.4% of the critical corrective actions and 90% of all corrective actions had been implemented and the improvement program continues with employees now better able to manage their own health and safety.

●●● implementation of this standard worldwide, we have deployed 8 full-time experts around the world. Their mission should be completed at the end of 2011. Team efforts to instill a health and safety culture that permeates the entire Group have continued with an increase in "Visible Felt Leadership" (VFL) visits by management, training to create a sense of empowerment in the area of health and safety and with local initiatives. Local initiatives are important and reflect the fact that a sustainable health and safety culture cannot be imposed by Group driven top down measures.

Lafarge continues the relatively recent tradition of declaring June Health and Safety Month. This period is used to organize activities to stimulate initiatives and celebrate results in each operating Unit and site. Another working axis has been the Good Practice of "Systematic Housekeeping" and the Group expects this good practice to result in a significant improvement both in diminishing risks and improving the Safety mindset.

Nevertheless, the level of fatalities remains an area of great concern as the Group again recorded some fatalities in 2010. In 2010, 21 fatalities, representing two-thirds of the total (employees and contractors), took place on the road. Some of the countries where Lafarge operates have high road accident rates where driver training needs improvement. Lafarge remains committed to tackling transport related safety in all countries where it operates. A specific focus has put on this topic, and in 2010, Lafarge issued three group-wide transport advisory documents that have been benchmarked against the oil industry. Locally-led transport safety initiatives are also taking place in many business units. Lafarge believes that road fatalities will be avoided when the recommendations of these advisories will be fully implemented, but this will take several years.

Building a Health & Safety culture

In addition, three Lafarge or contractor employees died on customers' job sites. To improve the health and safety of our employees and contractors on these sites, improvements have been identified and proposed to customers. More generally, continuous efforts are made with our business partners to share Health and Safety culture and exchange experience and knowledge.

We have continued the roll-out of the new Group security policy; a network of people with security responsibilities, travel-related security rules and a risk assessment program are all in place. We have analyzed potential exposure of our employees at all our cement plants, and through our Personal Protective Equipment Standard have taken appropriate steps to limit health impacts. A medical examination program will allow us to track our employees to assure that the mitigation steps that we have taken are effectively working.

A Health Assessment Standard Operating Procedure is now in place; it provides for basic health assessments for all employees, with complementary assessments for those facing higher risks. It forms a key part of our Health Strategy and Roadmap; ●●● the roll-out plan specifies full implementation by 2011 for Western Europe and North America and by 2014 for the business units in other regions.

The Group approach to public health has evolved to focus on the issues impacting our local employees and communities. The public health methodology developed in Africa for tackling HIV/AIDS and malaria has been successfully extended to Russia and Ukraine but with some adjustment to reflect local public health needs and culture. In the future our business units will address Public Health issues which are relevant to the communities where they operate. ■

PANEL
ERIC BRASSART
EUROPEAN WORKS COUNCIL

The Health policy is now being rolled out throughout the Group with a first roadmap defined.

We now expect its practical implementation as well as feedback on the actions that will be carried out. It will however be difficult to monitor the effective carrying out of the roadmap in countries where subcontracting accounts for almost 50% of our staff.

The Group's future policy on subcontracting will have a crucial impact on Lafarge's Health policy success.

0.76
EMPLOYEE LOST-TIME INJURY FREQUENCY RATE IN 2010

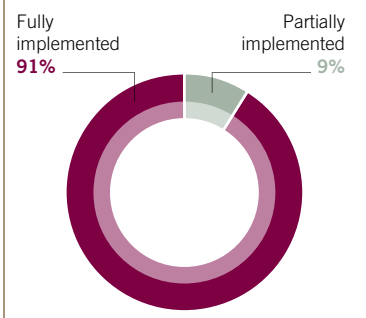
example

MEDICAL EMERGENCY PLAN IN ZAMBIA

Having identified a need to better manage their response to injuries, Lafarge in Zambia has developed and implemented a Medical Emergency Plan in all its plants. It describes roles and responsibilities of everyone involved. It also provides guidance on training, communications and regular drills, and details health facilities and equipment required on our sites and found in the community. As a result, our sites in Zambia are better prepared to provide an effective response in case of medical emergencies. The Group will use the Zambia experience as a valuable template for other business units.

Public health roadmap

(implementation in %)



All our business units in Sub Saharan Africa have a public health program addressing HIV/Aids and Malaria. Ten out of eleven business units have fully implemented the roadmap and the remaining business units should be aligned by the end of 2011.

Our safety record

		2009	2010
Lost Time Injuries	Employee	142	120
	Contractor	119	111
On Site	Employee	5	1
	Contractor	13	8
	Third Party	1	0
	Total	**19**	**9**
Job Site	Employee	1	1
	Contractor	1	2
	Third Party	–	2
	Total	**2**	**5**
Transport	Employee	1	7 (1)*
	Contractor	11	14 (9)*
	Third Party	6	9
	Total	**18**	**30 (19)***

* Data for 2010 reflects the wider scope that we have now adopted. Data in brackets is that for 2010 using the same scope as in 2009.

Communities: a long-term relationship

By their nature, our sites have a long term presence. Like any community member, it is important that our sites co-exist with their neighbors in a constructive manner, during periods of continuity and periods of change or development.

Engagement with communities

Recognition of the importance of being responsible and caring for the well-being of the communities in which we operate is stated within our values. Engagement with communities and stakeholders, in fact, represents communicating and working with a wide variety of people and groups that have a 'stake' in our operations (who exercise, or could exercise, influence and those who are, or could be, affected by the activity of a site).

The Group seeks to provide expertise and tools and share experiences, both within and outside the Group, to support business units and sites. We believe our business units are best situated to understand local contexts and challenges and take the appropriate engagement actions.

The development and delivery of workshops and training materials on stakeholder relations continued throughout the year. We must acknowledge that we have had some difficult community issues, including those at Ravena, in the state of New York and Himachal Pradesh in India. These examples as well as others can be found on our website at http//sustainabilityreport.lafarge.com @.

Developing a long-term vision

The importance of sites developing a shared vision of working within and together with their communities has been emphasized in 2010. This emphasis appears to have been well accepted by the sites – 70% of respondents to the Group-wide survey believed this vision was in place and shared with teams. Recognized excellence in health and safety and focus on minimizing environmental footprint are the most common pillars on which this vision, and actions associated with this vision, are built.

Sustained community programs

Our approach to community programs, including partnerships and sponsorships, underwent a step change in 2010. Programs are mainly devised by business units but now reflect better the core values of the Group. The goal is: to align Lafarge actions over the long-term with the needs of each local community, especially with respect to health and safety, the education of its young people and local economic development. Internal guidance to this effect has been put in place. 78% of respondents indicated that community programs were in place at their sites; for these programs, there appears ●●●

Operational sites corporate citizenship

(types of contribution by plant)

	2010
Sites and plants undertaking community actions	78%
Total financial contribution to community activities (in million euros)	10.7
Sites and plants making donations in kind	58%
Sites and plants contributing material	88%
Sites and plants contributing workforce time	35%

This data refers to contributions made by plants and sites to their surrounding local communities' development. It does not include all contributions made at business unit and corporate level.

example

LOANS FOR ENTERPRISES IN INDONESIA

A micro-finance scheme of 170,000 euros has been launched to support small or micro enterprises in Indonesia in communities local to our operation. This has resulted in 81 successful applications for loans, for amounts varying between IDR 3 and 10 million (between €239 and €797 per loan). Eighty per cent of loan recipients were female, with total indirect beneficiaries of about 400 persons living in the surroundings of our plants.

example

COMMUNITY INITIATIVES IN BRAZIL AND SPAIN

Following a workshop on stakeholder engagement in November 2009, Brazil has launched a number of initiatives in 2010, including liaison committees for all its plants and new community initiatives at the same time as integrating new operations into the organization.

A wide range of initiatives related to stakeholders has been launched by the cement operations in Spain, including a contest for businesses local to operations, run in partnership with labor unions and NGOs.

PANEL

PHILIPPE LÉVÊQUE
CARE

In the 2009 sustainable development report, I was stressing the fact that it was crucial for Lafarge to develop efficient strategies and tools to create a positive and meaningful impact on local communities in the developing countries where the group operates. In 2010, we want to insist on the very same issue.

The "Arab spring" demonstrates how important it is for multinationals to develop strong ties with the host communities, beyond the traditional bonds that multinationals establish with governments. It is of great importance on community matters to give a vision for the group; it is also crucial to breathe life into this vision at the local level while taking into account its distinctive and multiple identities. Lafarge made a success of its ambition on complex issues like safety in the workplace or HIV migration in Africa.

We are eager to see the same level of commitment and achievements in the business units of the Group on stakeholder engagement and the contribution of the units to local socioeconomic development. That requires significant investments that in my opinion are not yet commensurate to what is at stake for the Group.

23
BUSINESS UNITS...

... AND MORE THAN
300
MANAGERS TRAINED IN DEDICATED WORKSHOPS ON STAKEHOLDER ENGAGEMENT

●●● to be an overall balanced provision between financial and non-financial support (which includes donations of products, expertise within the company and employee volunteering).

Measuring footprint

Across the Group in 2010, there were a number of developments in regard to understanding our social footprint. Working closely with CARE France, a tool was developed to help sites measure their socio-economic footprint. Using this tool can help sites understand better their employment impact (direct, indirect and induced), economic contribution and contribution through their value chain. Pilots were launched at the end of the year using the tool.

Responding to evolving expectations

We recognize that we must continue to evolve with the growing expectations of our local stakeholders. This is a challenge, particularly for sites varying in size and permanence and also for new operations. However, this continues to provide us with the opportunity to establish new standards of best practice with engagement tools being adapted and further developed to support sites in these and other operational scenarios. Within the pages dedicated to this report on the Group's website, a number of our current activities are reported. In some cases a gap exists between the approach adopted on a particular project and the views of some stakeholders. Because this is an evolving dialogue, we invite you to visit our website on http://sustainabilityreport.lafarge.com. ■

example

SERBIA: OPENING OF A BUSINESS PARK

Lafarge teamed up with local authorities in Serbia to create a business park; the objective was to revitalize the region by encouraging the creation of jobs. The initiative involved offering new companies an 18 hectare serviced site close to the country's major waterways. Lafarge also provided several advantages through the creation of a shared services center with assistance for administration services, permanent access to competitively-priced services, office space, permanent administration and manpower support at cost. In return, investors undertook to comply with the Group's health and safety rules. The first contract was signed in 2010 with 50 persons employed and there are plans to double this in 2011.

KPIs to measure engagement with local stakeholders

	% units / population trained EY	% of sites meeting with communities**	% of sites with local action plans**
Cement	81%	85%	64%
Aggregates & Concrete	N/A*	60%	28%
Gypsum	31%	67%	21%

*Aggregates & Concrete reporting for 2010 was suspended as the organization underwent realignment during the year. In 2010, six sessions involving 74 members of the Aggregates & Concrete division took place. In 2011, a focus will remain on increasing appropriate training throughout the division, by aligning processes and tools to the size and locations of the sites and their main interfaces with the community.
**Results for these categories drawn from the Group's self-assessment, completed by 348 people (76% of the Group's key population on the topic).

Sustainable Construction

At least 80% of the energy consumption of a building occurs during its use. To address the climate change challenge the world faces, emissions must be reduced from buildings over their entire life-cycle. Lafarge's sustainable construction priorities are to reduce the carbon footprint of its products, to contribute to energy efficiency in buildings and to optimize the cost of construction.

A field of opportunity

Lafarge's approach to sustainable construction moved forward significantly in 2010.

Previous work had demonstrated that the major driver for sustainable construction was the energy efficiency of buildings: at least 80% of the energy consumption of a building occurs during its use. We have now created a Group-level team to spearhead our provision of sustainable construction solutions. This work complements our existing commitment to reduce the emissions associated with our own activities. (See pages 26-28)

The team's activities have already included an in-depth analysis of risks and opportunities in sustainable construction in more than 10 countries. Results show that fresh thinking about building systems, with customers moving beyond their traditional choices, offers huge opportunities for Lafarge. They highlight, for instance, opportunities for innovative concrete blocks in high-rise developments in China and as an alternative to brick in France.

Designing for energy efficient buildings

It is clear that our customers' challenge is to design buildings with low environmental impact. This principally means energy efficient buildings. Life cycle analysis is critical but very sensitive to the hypothesis on which it is based. For instance, realistic assumptions need to be made about the expected service life of the building or the likelihood of refurbishment. The durability, the flexibility of usage and the energy efficiency of the building will considerably affect its environmental impact. We have started to design Lafarge systems that can reduce impact by taking these factors into account. Meanwhile, Lafarge initiated a global assessment of its own offices building in terms of energy efficiency according to the WBCSD EEB Manifesto signed in 2009.

The solution to one sustainable construction challenge, organizing Lafarge to lead its provision, is in our hands. The new team's role includes creating the new competencies and organizations (at business unit and country level) to ensure we support our customers at the stage when buildings are designed and specified.

Such skills will also help answer some questions about the role of traditional building techniques in relation to sustainable buildings. Our cooperative project with housing designer Bernard Jambert to build an energy-efficient, single-family house was completed in 2010; it demonstrated that the requested levels of energy efficiency in France can be obtained using traditional skills.

example

NOT JUST SUSTAINABLE MATERIALS

Concrete used to build a low CO_2 wall is a sustainable building material. A solar wall, made of concrete but incorporating glass, with heat-absorbing and heat-reflecting finishes at specific locations according to orientation, is a sustainable construction solution.

example

SOLUTIONS FOR SUSTAINABLE CONSTRUCTION

EFFICIENT BUILDING™ is the Lafarge approach to contribute to more efficient, sustainable construction. It encompasses products, solutions and initiatives in this field and will be progressively deployed among the Group in 2011.

example

COLLABORATION ON AN ENERGY-POSITIVE BUILDING

Essilor has commissioned the Arte-Charpentier architectural firm to design its European Research Center, a 16,000 m² energy-positive building aiming for BREEAM and NF-HQE high environmental quality certification. This construction project is the origin of a unique collaborative effort that will allow the architects to draw on the Lafarge teams' expertise in concrete technology – particularly in the sphere of high-performance concretes – while offering Lafarge an opportunity to explore new concrete-based building solutions within the entire construction chain.

Innovating to meet sustainable construction challenges

Innovation is a strategic priority for Lafarge and a way of tackling new challenges in the construction industry.

The Group devotes more than €150 million euros per year to innovation and employs more than 1,000 people around the world on this key subject. The Lafarge Research Center (LCR), near Lyon, France, is the world's largest research facility devoted to building materials, employing 250 researchers of 13 different nationalities. Focusing on fundamental research, LCR's research teams work closely with experts from the world's most prestigious universities and engineering schools: MIT, Georgia Tech and Princeton in the United States; the Ecole Polytechnique and the Ecole des Ponts in France; Tsinghua and Tongji Universities in China; IISc Bangalore and IIT Madras in India. They also work in close partnership with the Group's international network of technical centers and laboratories, to facilitate the development and industrialization of solutions.

Over the past five years, Lafarge has accelerated its development of new products and solutions for the construction sector, in both developed and emerging markets. The Group's patent portfolio has more than doubled since 2005.

Sustainable construction concerns are at the heart of Lafarge's research and development and in 2010, more than 50% of the Group's central research budget was devoted to such issues. Lafarge's research teams are working on improving energy efficiency in the Group's production processes, but also on developing solutions to improve the energy efficiency of buildings. They are carrying out groundbreaking research to reduce CO_2 emissions linked to cement production, as well as working on solutions to improve water management, preserve natural resources or optimize the cost of construction. ■

PANEL

LIVIA TIRONE
ARCHITECT

If Lafarge sets the goal for 2050, to make concrete 100% recyclable, back into the same quality concrete required for sustainable construction, our need for raw materials will be vastly reduced. Quarries in the countryside will become rare, and we will rely on our cities as mines, for this important construction raw material.

Concrete is a highly qualified and necessary material for sustainable construction and many factors lead to its increasingly relevant role – population intensification in cities being one of these drivers, as compact urban contexts require a high performance of the built environment.

The role of reinforced concrete in the built environment's performance goes beyond its structural strength, as concrete is an ideal medium for storing mean temperatures and for allowing these to contribute to indoor comfort.

Different geographical contexts require different construction solutions, which rely on the correct combination of concrete with other construction materials, in order to bring out the best qualities of concrete. In my view, Lafarge must identify these applications for concrete in each climatic and cultural context and actively contribute to mainstream sustainable construction solutions and the best performance of the built environment.

WE WORK TO REDUCE THE ENVIRONMENTAL FOOTPRINT FROM CLINKER PRODUCTION TO BUILDINGS AND INFRASTRUCTURE

Lafarge is involved in standards and labelling that relate to sustainable construction. We work in partnership with other players in organizations such as the UNEP's Sustainable Building and Climate Initiative and the WBCSD.

Lafarge promotes the use of construction and demolition waste as raw materials in building projects.

In 2010, we carried out more than eight pilot projects with architects, customers and engineering offices. Our engineers were involved in the early stages, during the design and selection of the construction system. Working in this way is demonstrating – as our partners will confirm – that Lafarge has suggestions to make and solutions to offer.

Building / Infrastructure

The main challenge in reducing the environmental footprint of the building sector is to improve the energy efficiency of the existing building stock and new buildings. Lafarge has three priorities:
• reduce CO_2 emissions,
• save energy,
• optimize the costs of construction.
The Group develops solutions that are less carbon-intensive and improve buildings' carbon and energy footprint over their life-cycle.

Building Systems

Aggregates → **Concrete** | **Gypsum Plasterboard**

The average carbon footprint of concrete is low:
• 180 kg CO_2 / m^3 of concrete*;
• 80 kg CO_2 / metric ton of concrete*
Lafarge develops a range of innovative concrete types which contribute to reducing the footprint of structures and buildings over their entire life cycle:
• Launched in France, Thermedia® 0.6B is a ready-mix concrete that reduces heat losses in buildings. We are working on new concretes with thermal insulation properties.
• Ductal®, an ultra-high performance concrete, typically delivers a 35% saving in raw materials whilst providing the same levels of strength and resistance and allows more room for insulating materials in the building envelop system.

Plasterboard manufacture requires energy mainly at the calcination and drying stages. Lafarge plants use alternative fuels to provide the heat for drying.
Lafarge is also developing plasterboard solutions to improve the energy efficiency of buildings:
• Pregymax™ 29.5 and other insulation system are plasterboard solutions associated with thermal insulation materials.

The average carbon footprint of clinker is 816 kg CO_2/ metric ton of clinker*.
60% of this CO_2 is released from limestone and 40% from fossil fuels used in the combustion process.
To reduce them, Lafarge is:
• **increasing the energy efficiency of its plants**
• **using locally available alternatives** to fossil fuels such as biomass, used tires, coffee husks and industrial waste.

Cement → **Clinker**

The average carbon footprint of cement is 606 kg CO_2/metric ton of cement*.
The CO_2 emissions associated with cement depend upon its clinker content.
To reduce these emissions, we are:
• using industrial by-products such as fly ash and slag to minimize the amount of clinker required and lower the carbon intensity of cement;
• using naturally occurring local products such as a volcanic rock called Pozzolan.
Today, 60% of cement products sold by Lafarge are blended cements.

* These figures intend to give rough estimates of the carbon footprint of each element manufactured. They can vary according to countries' conditions, to the specific use of each product, to the type of kiln used to produce the clinker etc.

Climate Change

Lafarge has developed and is implementing a comprehensive strategy contributing to the overall objective of limiting the Earth's temperature increase to a maximum of 2°C. This strategy includes leadership actions within the Cement Sustainability Initiative to engage further our sector on CO_2 emission mitigation actions and policies, as well as an approach to sustainable construction.

Monitoring and reporting of greenhouse gas emissions

The monitoring and reporting of greenhouse gas emissions, in a comprehensive and transparent manner, are essential parts of the global effort to tackle climate change. This was one of the key conclusions of the United Nations Climate Change Conference held in Cancun in December 2010 and applies to companies as much as it does to nations. We started our own reporting in 2000 and have since worked to ensure that the cement industry's disclosure practices become a true CO_2 performance management tool. In 2010 the quality of our greenhouse gas reporting practices (monitoring, verifying, and disclosing emissions for which we are responsible) was rated by the Carbon Disclosure Project and ranked amongst the top 10 in the world. For more information, visit http://www.cdproject.net.

Further involving the Chinese cement industry

Disclosure will only be effective in tackling climate change if it is widespread – across all companies, all sectors and all countries. Having contributed to bringing five Chinese cement companies into the Cement Sustainability Initiative (CSI) in 2009, we worked last year (in China and at corporate level) to facilitate their integration. We also contributed, via the CSI, to the efforts of the Chinese authorities to design a CO_2 protocol applicable to our sector.

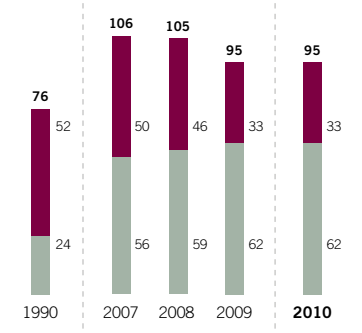
Expanding our climate actions

We continued to outperform the greenhouse gas emissions targets we set for 2010. Our "second generation" climate change commitments will include market-facing goals reflecting better our innovation strategy towards sustainable construction solutions as well as our "downstream" engagement; this is when we get involved in construction projects where we can propose and implement existing as well as innovative product solutions and systems that improve energy efficiency and reduce carbon footprint. We aim at designing solutions in line with local climate conditions and local climate challenges, including adaptation. Moving forward it will become increasingly difficult to reduce at the same pace as we start to reach technical limits. We will need to rely more on innovation to drive further reductions. ■

Lafarge total gross CO_2 emissions

(millions of metric tons/year)

EY SA12 EN16 CSI 1



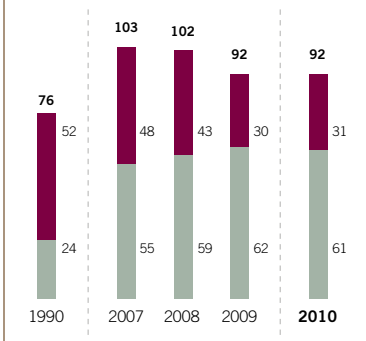
Emerging markets ■ Developed countries

Our gross emissions stabilized in 2010. Overall our gross emissions have grown by a quarter since 1990. Gross emissions in developed countries have seen a reduction of 37%, partly due to the impact of last year's recession. Emissions in emerging markets have more than doubled.

Lafarge total net* CO_2 emissions

(millions of metric tons/year)

EY SA12 EN16 CSI 2



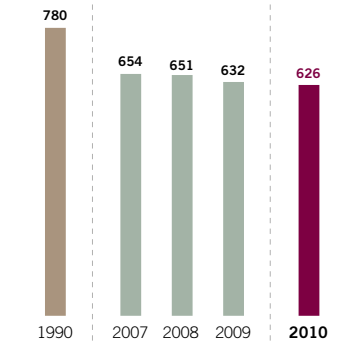
Emerging markets ■ Developed countries

Net emissions stabilized in 2010. Since 1990 net emissions have risen by 19%. Developed countries saw a 41% decline while in emerging economies net emissions are almost two and a half times higher than in 1990, reflecting the changes in Lafarge geographical mix.

Gross CO_2 emissions

(per metric ton of cementitious product)

EY SA12 CSI 5

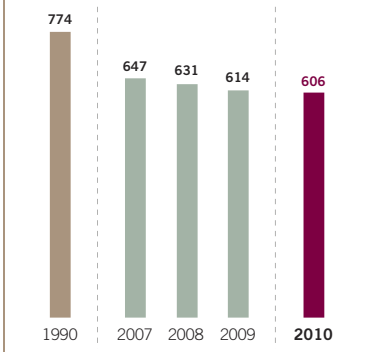


Our gross emissions per metric ton were 19.7% down on 1990 levels. On average, developed countries and emerging markets have reached the same level of performance per metric ton (gross and net emissions).

Net CO_2 emissions*

(per metric ton of cementitious product)

EY SA12 CSI 3 B



Our net emissions per metric ton were 21.7% down on 1990 levels, already better than our Sustainability Ambition which was achieved in 2009.

* Net CO_2 emissions are the gross emissions less the emissions that come from burning waste (see page 28)

21.7%

REDUCTION IN NET CO_2 EMISSIONS PER METRIC TON OF CEMENTITIOUS IN 2010 COMPARED TO 1990

example

AETHER – A NEW CLINKER

In 2010, Lafarge announced the launch of Project Aether, in partnership with Building Research Establishment in the UK and ICiMB, the Polish Institute of Ceramics and Building Materials. The project, which has received the support of the European Union through its LIFE+ financial instrument for the environment, concerns the development of a new class of clinker with a lower carbon footprint. This clinker can be manufactured from conventional raw materials and in existing industrial installations, but it requires less limestone and less energy to produce. This allows a 25-30% reduction in CO_2 emissions during the production process, for an end product that should offer similar performances to conventional Portland cement.

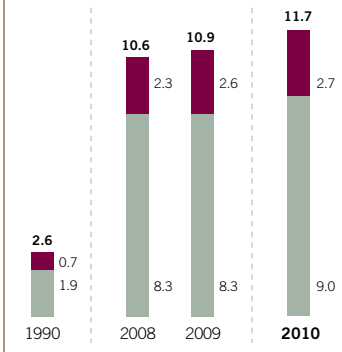
6th

IN 2010 LAFARGE WAS 6TH WORLDWIDE FOR QUALITY OF GREENHOUSE GAS REPORTING ACCORDING TO THE CARBON DISCLOSURE PROJECT

Use of alternative fuels, including biomass

(consumption of waste and biomass as % thermal consumption)

CSI 7 CSI 8 B

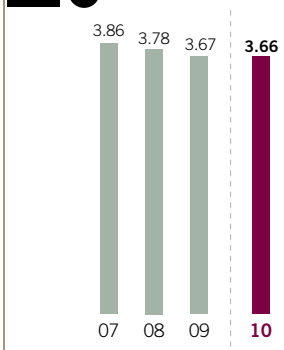


Our use of non-fossil fuels accelerated in 2010. It has increased by more than 30% over the last 3 years. We have high ambitions to increase their usage in future years. Our use of biomass fuels is also growing strongly; it has increased by 40% over the last 3 years.

Specific heat consumption

(energy production per metric ton of clinker produced - GJ per ton of clinker)

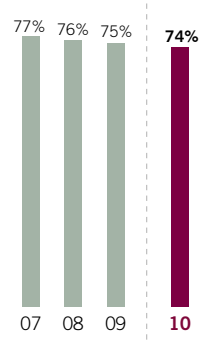
CSI 6 B



The average specific heat consumption is improving driven by the continuous deployment of the best technologies especially in emerging countries.

Clinker factor

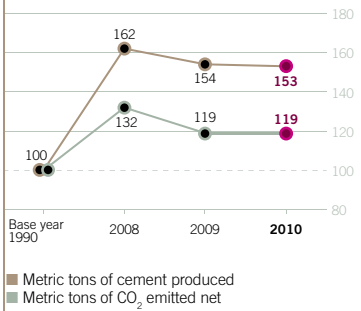
(ratio between clinker consumption and cement production calculated according to CSI Protocol) CSI 10 B



We are steadily reducing the clinker proportion of our cement, especially in emerging countries whose use of clinker is at the same level as industrialized countries. This is the major driver of CO_2 reductions.

Carbon efficiency in operations

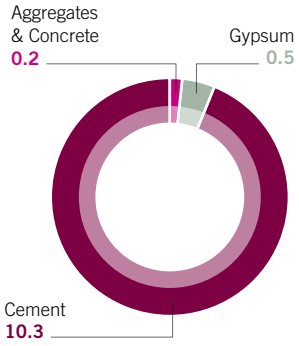
(trends in net emissions and cement produced)



In 2010, we produced 53% more cement than in 1990 but our CO_2 emissions increased by only 19% over the same period.

Total energy consumption

(MTOE - million metric tons of oil equivalent by business unit) EN3



Our total enegy consumption has not changed since 2009 (11.0 MTOE). 94% of our energy consumption takes place in the Cement business.

example

ALGAE TO CAPTURE CO_2

As part of their long-term, exploratory research, Lafarge researchers have been studying the cultivation of micro-algae that absorb CO_2 released by kilns and that can subsequently be used as biofuel, as a possible technique for reducing CO_2 emissions from cement manufacture. Lafarge has carried out a pilot project at its Val d'Azergues plant in France with German company Salata GmbH, specialists in the cultivation of micro-algae. This has demonstrated the feasibility of the procedure, although new advances in processes and biotechnologies will be necessary to improve the overall results, both in economic and environmental terms.

Fuel mix in the cement business

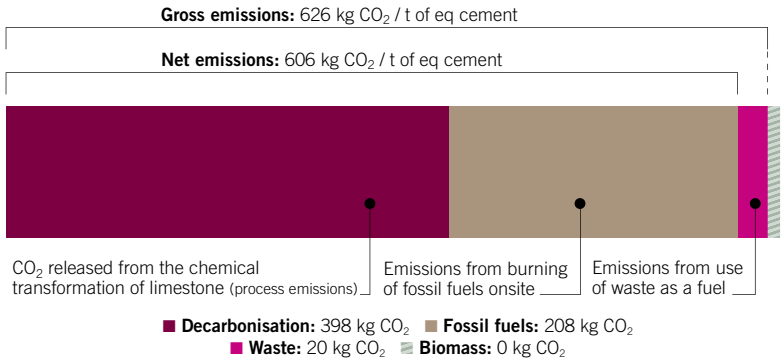
(% of total) EN3

	1990	2008	2009	2010
Coal	56.1%	44.3%	43.4%	**45.4%**
Coke	7.6%	19.0%	19.9%	**19.2%**
Oil	13.5%	7.5%	8.4%	**7.0%**
High viscosity fuels	2.1%	0.7%	0.1%	**0.1%**
Gas	18.1%	17.9%	17.2%	**16.6%**
Waste*	1.9%	8.3%	8.3%	**9.0%**
Biomass	0.7%	2.3%	2.6%	**2.7%**

Since 1990 use of alternative fuels has grown while coal and oil has declined. As a percentage of use, high viscosity fuels have almost disappeared. Gas whose use remains stable, has a CO_2 emission factor 40% lower than coal.
* Used oils, solvents, tires, solid shredded waste, impregnated sawdust.

Explaining gross and net emissions

(gross and net CO_2 emissions from the manufacture of 1 metric ton equivalent cement)



Net emissions exclude emissions due to burning of waste because the disposal of that waste by other means would also give rise to greenhouse gas emissions.

PANEL

KARINA LITVACK
F&C ASSET MANAGEMENT

Lafarge's progress in wringing CO_2 savings out of the concrete production process continues to be far outstripped by growth and urbanisation in emerging markets.

Financial crisis and the consequent collapse in emissions notwithstanding, the chemistry of limestone still poses a stubborn challenge that only radical innovation will overcome. This means that Lafarge's R&D must deliver a commercially viable cement substitute that will enable it to exist and prosper in a 2-degree scenario.

But while this effort is still full of unknowns, the company deserves particular praise for adopting a much more entrepreneurial approach to Industrial Ecology. From humble back-office function, this is blossoming into a dynamic brokerage activity that functions on the principle that one man's waste is another man's feedstock. Having pressed Lafarge to create a dedicated team to run this as a separate profit centre – a sort of 'Lafarge Materials Trading Inc.' – we are delighted to see the emergence of a venture that has the potential to optimize growth, thereby earning a financial reward for driving down costs, waste and greenhouse gas emissions.

Industrial ecology and recycling

We are a resource-based business in a world with limited resources. Therefore our strategy is to increase our use of recycled fuels and materials to ensure that our long-term business model is more resilient. The use of waste fuels, especially waste biomass, is also consistent with our strategy to reduce greenhouse gas emissions.

Portfolio of projects

Many new projects to replace fossil fuels with renewable sources of energy for our cement plants started during the year. They make use of a diverse range of fuel types; waste tires, industrial liquids and food processing by-products are still prominent but we see the greatest potential in using household and commercial waste which has gone through sophisticated sorting processes. Alternative fuels account for 12% of the Group's total fuel use (11% in 2009). We see potential for this to exceed 30% by 2015. They make a contribution to reducing CO_2 emissions (see chart on page 27 for details).

The expanding project portfolio affirms the previous year's decision to create a team dedicated to supporting this aspect of our business. We are now developing a roadmap to ensure we optimize our investment decisions and bring forward a steady stream of opportunities year on year.

Potential in emerging economies

Opportunities are not restricted to cement plants supplying mature economies. And for projects in emerging economies, we focus on improving the efficiency and safety of manual waste handling techniques (instead of introducing mechanical equipment); this benefits the local economy as well as the local environment.

Industrial ecology in aggregates and gypsum

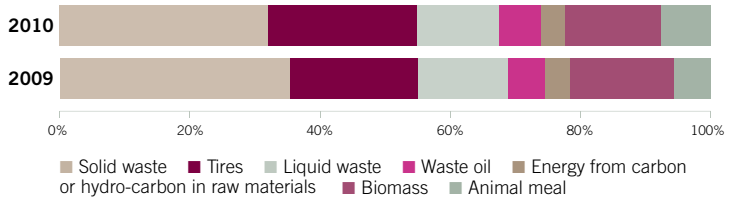
Quarry mining plans are reviewed regularly to optimize the use of the resource. A review in 2010 demonstrated that demolition waste recycling takes place in many of the aggregates and concrete businesses in Europe and North America. 40% of the gypsum used in our business is a by-product of flue-gas desulfurization in the power industry. The paper used to produce plasterboard contains 95% recycled cellulose fiber. ■

20%

INCREASE IN USE OF SOLID WASTE AS FUEL FOR OUR CEMENT PLANTS SINCE 2009

Fossil fuel alternatives

(types of alternative fuel used in cement plants in 2009 and 2010 as % of total alternative fuel use)

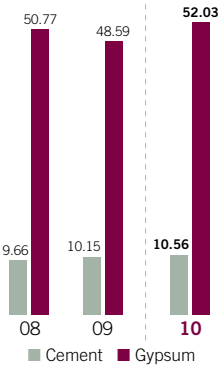


84%

OF PLANTS USE ALTERNATIVE FUELS

Use of alternative materials

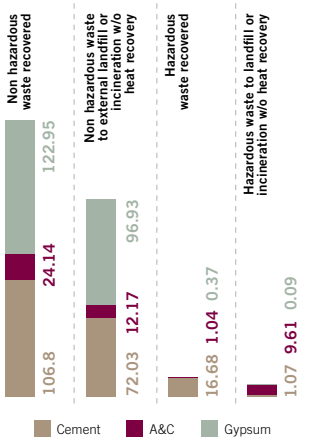
(consumption of alternative raw materials as % of total raw materials consumed)



Alternative materials include fly ash, slag and the rock Pozzolan (for cement manufacture) and the by-product of flue gas desulphurization (for manufacture of plasterboard).

Waste from operations

(in thousands of metric tons) EN22



example

A CLOSED-LOOP CONTRACT

A major international manufacturing company was planning the construction of a new sales and marketing facility in the USA. Lafarge developed and promoted a sustainable construction concept that offered a construction waste management service, together with supply of cement and concrete from Lafarge's nearby plant. The proposition, which will create a resource recovery closed-loop system, has been accepted and Lafarge is the supplier of choice for the entire project.

Managing our Emissions

As part of our agreed program of work with WWF to reduce persistent pollutants we have measured emissions from operating kilns(1) and started to implement action plans to reduce emissions from a group of plants with the highest emissions. We have also met our target for reducing particulate emissions. These actions will allow us to address identified and emerging issues related to air quality.

Reducing emissions

The program of work agreed with WWF to reduce persistent pollutants is progressing. In addition to measuring emissions of persistent pollutants from all operating kilns(1), standard practices are being developed and implemented to ensure persistent pollutants are controlled in all aspects of Lafarge's operations, and action plans to reduce emissions from a group of top emitting plants have started to be implemented.

In early 2010 we reached a voluntary agreement with the USA Environmental Protection Agency to invest up to $170 million (c. €128 million) in equipment to reduce SO_2 and NO_x emissions below current legal requirements.

And looking ahead

New standards for emissions of mercury, total hydrocarbons, particulates and hydrochloric acid set by the USA in September 2010 (for full implementation by 2013) indicate how society tends to seek ever-higher environmental standards. These are challenges that we are considering as we define our next set of improvement targets for years to come.

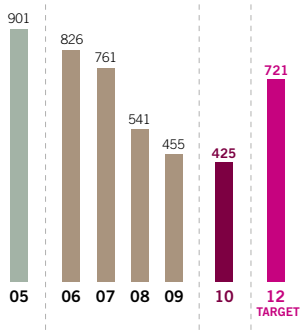
Coal fired power plants are under increased pressure to reduce their mercury emissions. Some power plant mercury emission reduction processes have the potential to increase the mercury in the flue-gas desulfurization by-product that is subsequently used as a raw material in some of Lafarge's gypsum plants. As the input of mercury increases in the raw material, there is a potential for some of this mercury to be emitted from our plants during the drywall manufacturing process. We are currently measuring the mercury emissions of our gypsum plants that could have the potential to emit mercury and will develop appropriate management practices, or if necessary install mercury emission reduction systems. ■

(1) Includes kilns in the Group for at least 3 years that operated a minimum of 50% of the time. In 2010 there were five kilns which operated with very low utilization. These kilns will be tested when they are operated at a more normal level of utilization.

SO_2 emissions

(grams/metric ton clinker)

EY SA12 CSI 17 CSI 20 CSI 23 B



There has been a reduction of 52.8% since 2005, more than the targeted reduction of 20%. The total amount of SO_2 emitted in 2010 was 47,790 metric tons.

example

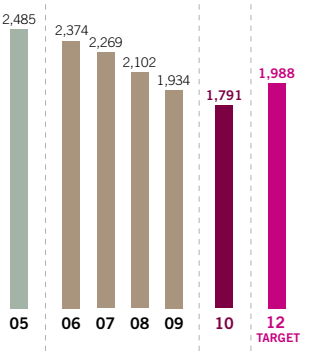
NO_x IN ROMANIA

NO_x emissions at the Hoghiz cement plant in Romania have been reduced from 3,300 to 1,600 metric tons/year as a result of a €1 million investment in new abatement technology. The technology includes urea injection into the hot gas stream which, with careful optimization, has generated excellent results in a very short time.

NO_x emissions

(grams/metric ton clinker)

EY SA12 CSI 16 CSI 19 CSI 22 B

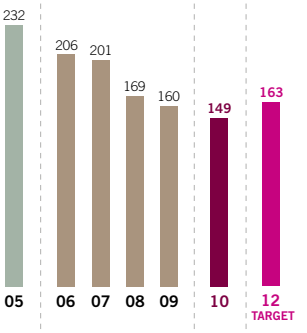


There has been a reduction of 27.9% since 2005, more than the targeted reduction of 20%. The total amount of NO_x emitted in 2010 was 201,410 metric tons.

Stack dust emissions

(grams/metric ton clinker)

EY SA12 CSI 18 CSI 21 CSI 24 B



We have met our targeted reduction of 30%, two years ahead of schedule. The total amount of stack dust emitted in 2010 was 16,800 metric tons.

PANEL
FRANK ROSE
INDEPENDENT

The achievements in reducing emissions and meeting objectives on persistent pollutants demonstrate Lafarge's commitment to deliver and this must continue with challenging targets for 2020. Progress on implementing environmental management systems and routine auditing requires similar priority. Lafarge has recognised this with the goal to have 100% of sites managed by an EMS, but little improvement has been made. Likewise the target to have 100% of sites audited environmentally within the last four years shows little progress and performance is at the level in 2004 (90%).

It is accepted that these are ambitious objectives particularly with respect to acquisitions and emerging markets. However these are the very sites which should have priority and Lafarge should now set public dated action plans to achieve this.

Lafarge has recognized that long-term economic performance is inseparable from respect for the environment and robust assurance and verification are integral parts of this.

35.7%
CUT IN DUST EMISSIONS IN 2010 COMPARED TO 2005

Making progress on persistent pollutants

Analysis of kilns for micro-pollutants

(cumulative percent of kilns analyzed) SA12 CSI

	2007	2008	2009	2010
Total number of kilns	211	216	172	191
Kilns in perimeter of persistent pollutants reporting*				169
Persistent pollutants kiln analyses performed at main stack for mercury EY	49.3%	53.7%	69.2%	100%
Micro-pollutants kiln analyses performed at main stack for Dioxins/Furans EY	40.3%	47.7%	66.9%	100%
Persistent pollutants kiln analyses performed at main stack for VOC	-	26.4%	65.7%	72.3%

Persistent pollutants and VOC

	Analyzed kilns (nb)			Quantity (g TEQ/year)			Specific (µg/T Cem)			Specific (µg/T Ck)		
	2008	2009	2010	2008	2009	2010	2008	2009	2010	2008	2009	2010
Dioxins/Furans	103	115	**169**	11.82	8.72	**9.55**	0.07	0.06	**0.06**	0.094	0.077	**0.09**
	Analyzed kilns (nb)			**Quantity** (T/year)			**Specific** (mg/T Cem)			**Specific** (mg/T Ck)		
Mercury	116	119	**169**	4.13	4.65	**4.30**	25.2	30.4	**28.4**	33.2	41.3	**38.2**
	Analyzed kilns (nb)			**Quantity** (T/year)			**Specific** (g/T Cem)			**Specific** (g/T Ck)		
VOC**	57	113	**128**	6.98	5.24	**4.49**	42.0	34.2	**29.6**	55.6	46.5	**39.9**

The increase in emissions of dioxins/furans in 2010 is primarily due to the larger reporting periphery as we now capture measurements from all operating kilns.
* % kilns analyzed refers to kilns in the Group for at least 3 years. Due to the economic recession, in 2010 there are five kilns with very low utilization that could not be tested; if these kilns were included in the scope the cumulative percent of kilns analyzed would have been 97% instead of 100% for both mercury and dioxins/furans.
** Where multiple tests are available, VOC shown is a 3-year average, whereas mercury and dioxins/furans are the average of the 3 most recent years for which data is available.

example

REDUCING PARTICULATE EMISSIONS IN RUSSIA

Since February 2010, a €6 million investment in new filters has improved by a factor of 10 stack dust emissions from one of two kilns at our Korkino cement plant, in the Chelyabinsk region of Russia. This is just one stage in a €30 million improvement program that began when Lafarge acquired the plant in 2003, has already improved emissions from the mills and silos and has continued despite the recession. A similar improvement to the second kiln has been done in April 2011.

27.9%
CUT IN NO_x EMISSIONS IN 2010 COMPARED TO 2005

52.8%
CUT IN SO_2 EMISSIONS IN 2010 COMPARED TO 2005

Biodiversity at our sites

Because of our geographic scope, as a long-term business with local impacts, we aim at making an overall positive contribution to biodiversity. This is central to our licence to operate and to our values. We have the long-term involvement and the tools to lead in our sector. Since most of our quarries are operated by ourselves, we can manage biodiversity at every stage.

Special year for biodiversity

The United Nations designated 2010 as the year when the world would be invited to celebrate the importance of biodiversity and take action to safeguard it. In response to the UN focus, Lafarge engaged in a special project to help raise awareness of biodiversity in the many areas in which it operates. Examples of our work include publishing a "Biodiversity Review", an illustrated book on biodiversity in Spain, taking part in national and international events and widely focusing on biodiversity on our website. Lafarge has also been working to raise awareness of biodiversity in schools.

Biodiversity at our sites

At the same time work on our own sites continued. We made a significant improvement in the percentage of quarries with rehabilitation plans complying with Lafarge standards; this increased to 84.5%. We significantly increased the number of active quarries screened (from 64% to 94% in 2010). The detailed findings of our screening can be found on page 33. Forty-seven per cent of our quarries located in sensitive areas* already have developed biodiversity management plans. Rehabilitation can not only restore and often improve biodiversity after quarrying but can also be a source of employment for local communities. We are also widening our scope to encompass cement plants and other non-quarrying sites.

Ecosystem services

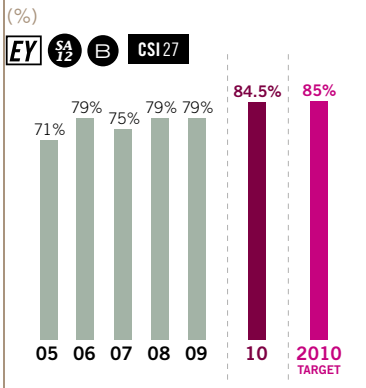
We completed a joint project with WWF-US, Wildlife Habitat Council (WHC) and World Resources Institute in the Presque Isle quarry in Michigan, USA to identify the ecosystem services of the quarry and review different models to value them. The services identified included fishing, hunting, wildlife viewing and providing a location for educational purposes for the local community. This study will be included in a World Business Council for Sustainable Development (WBCSD) publication on Corporate Ecosystem Valuation in 2011. ■

* Sensitive areas are defined as IUCN Category I to VI sites and those containing IUCN red-listed threatened species.

84.5%

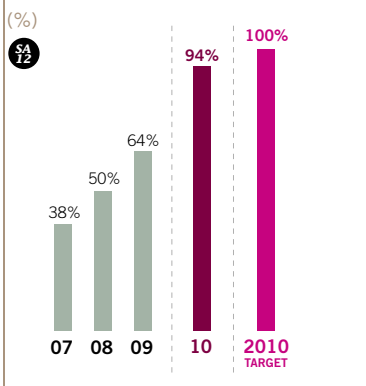
OF QUARRIES HAVE A REHABILITATION PLAN IN 2010

Quarries with a rehabilitation plan



Figures by division for 2010 are Cement 74%, Aggregates 90% and Gypsum 91%.

Quarries screened according to WWF criteria



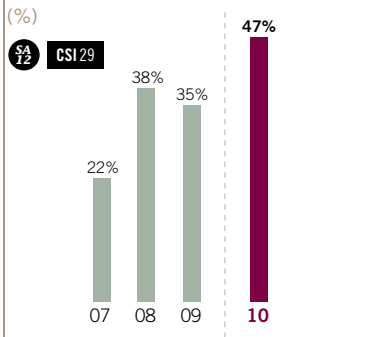
The numbers of quarries screened has increased significantly in 2010 and we only just missed our target of 100%. For further details of the screening phase refer to the table on page 33. Figures by division for 2010 are Cement 99%, Aggregates 91% and Gypsum 100%.

example

KOREA - LANDSCAPE ARCHITECTURE GRAND PRIZE

Lafarge received in 2010 the Landscape Architecture Grand Prize, awarded by the Korea Institute of Landscape Architecture, an entity associated with the Department of Environment. It is the first time that this prize has been awarded to a cement company. The specific project included:
• several landscape rehabilitation areas, such as the creation of walking trails or the transplantation of an ecological site;
• the streamlining of the governance system through steering committees on each site and signing of partnerships for environmental protection.
This has been done in close cooperation with local residents and environmental protection associations to respond to their expectations and to the area's ecological characteristics.

Quarries in sensitive areas* with a site biodiversity program



The percentage of quarries with biodiversity programs has also increased significantly in 2010. Figures by division for 2010 are Cement 65%, Aggregates 38% and Gypsum 43%.

74

LAFARGE CEMENT AND AGGREGATES SITES HAVE BEEN CERTIFIED BY THE WILDLIFE HABITAT COUNCIL IN 2010

example

CROPS FROM A REHABILITATED QUARRY IN MOROCCO

In 2010 the first harvest of olives and honey was obtained from Lafarge's rehabilitated quarry in Meknes, Morocco. Rehabilitation was first planned in 2003; work, including tree planting, started in 2005 and beehives were introduced in 2009.

BIODIVERSITY AWARDS IN 2010 – HIGHLIGHTS

Lafarge has been recognized for doing outstanding work, on its sites and elsewhere, in rehabilitation and biodiversity. The following are examples of awards won in 2010:

- UEPG (European Mineral Producers' Association) Restoration Best Practice Special Award: for Lafarge Aggregates UK for supporting the National Memorial Arboretum Alrewas, Staffordshire UK.
- UEPG Grand Prize in the Social Category: for Lafarge Aggregates North France for its partnership with EIPC to explore paleontology, geology and biodiversity at the Rivecourt Quarry, Oise, France.
- Lafarge Philippines received the Presidential Titanium Award for environmental management recognizing the protection of mining areas, land use improvement and site rehabilitation.
- Wildlife Habitat Council Awards in the USA: Aggregates & Concrete's Hudson Pit and Frederic Cement won awards for biodiversity programs.

See details of these and other awards at http://sustainabilityreport.lafarge.com @.

Progress with ambitions for rehabilitation and biodiversity

Sample of 754 quarries	2010 Achievement
% of Quarries with **rehabilitation plans (target 85% by 2010)**	**84.5%**
% of Quarries that have completed **biodiversity screening (using WWF validated checklist) (target 100% by 2010)***	**94%**
Biodiversity Checklist results	
Protected areas or protected species	
Quarries which operate within a protected area or where a red-listed threatened species** has been identified	33%
Quarries close to protected areas	46%
Opportunities and partnerships	
Quarries having identified local opportunities for habitat enhancement or education	36%
Quarries engaged in formalized partnerships with NGOs for nature conservation	30%

*It was not possible to screen all quarries due to change in ownership.
** A species categorized by the IUCN as threatened.
The international advisory panel met twice in the year to discuss the initial results of screening.

PANEL

JEAN-PAUL JEANRENAUD
WWF

After 10 years, we remain convinced that we can help Lafarge to reduce its footprint and catalyze improvements across the sector. As such, we welcome the commitment to develop a KPI for quarry rehabilitation, measuring and improving biodiversity values. Moving forward, we would like to see more reference of IUCN designated protected areas at the feasibility and planning stages for new sites as well prioritising the quality control of Environmental Impact Assessments and Management Systems. We encourage Lafarge to purchase all its paper and wood supplies from FSC certified sources. The work on water footprint assessment is encouraging and a number of pilot projects are well established and an implementation guide has been developed. Rolling out the guide is crucial to reducing impacts in water-scarce areas.

The 2010 CO_2 reduction target has been achieved, and Lafarge should now set new targets for net and gross emissions. Lafarge should also commit to BAT for all new production and agree specific energy consumption values (GJ/t of Clinker) for all new plants. It is crucial that they show leadership and support the shift to a low carbon economy, by increasing its use of renewable energy and incentivising this market.

Lafarge has measured persistent pollutants at each of their kilns in the last 4 years, as per their WBCSD CSI commitments, providing baseline data critical for targeting reductions. Together we will now develop plans to reduce persistent pollutants emissions at top emitting plants and develop reduction targets and systems to ensure that persistent pollutants are well managed at all plants.

WWF is delighted that Lafarge will prioritise sustainable construction in 2011, take a leading role in developing new energy efficient products, and engage in sustainable construction projects around the world.

Water Footprint

Globally it is recognized that water is a highly constrained resource with many competing uses. In some areas where we operate, the complexity of water allocation will impact on our business and our relationships with communities. Reducing our water footprint is our key contribution to this issue.

Assessing the impact of water usage

Water footprinting enables us to set site-specific reduction targets and to prioritize our actions. Seven pilots were chosen in 2009 to set up water programs and to learn how to apply water management to our sector. This year the water footprint methodology from the Water Footprint Network was used in these seven sites to assess their water impact.

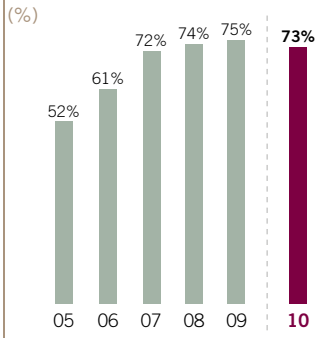
Completing a water footprint for our 2000-plus sites will take time. We need to take action sooner in areas of extreme water scarcity. This principle is enshrined in our global partnership with WWF. We have therefore mapped the location of all cement and plasterboard sites using the WBCSD Global Water Tool and will announce in 2011 planned water consumption reductions at most locations in extreme scarcity areas. Progress on the aggregates and concrete sites will follow country by country. The WBCSD Global Water Tool is now being used by some 300 corporations worldwide and is increasingly being recognized as a critical and practical tool by non-business stakeholders. The Global Water Tool is able to determine which sites are in extremely water-scarce areas (see www.wbcsd.org/web/watertool.htm) and it is according to this tool that Lafarge makes its classifications.

The map of our sites located in water scarcity areas can be found on http://sustainabilityreport.lafarge.com @.

Reducing the impact of water usage

Four of the seven plants that began piloting water footprinting in 2009 have completed their investigations and have identified water management practices applicable to them and to other sites. These include harvesting rain water, washing without water and condensing steam in stacks. This work was received very positively by employees at the pilot sites; this demonstrates that locally-based employees are aware of water issues in their environment and reinforces our commitment to progress further. The remaining three plants will complete their studies this year. Seven new pilots were launched in 2010. During the year, Group reporting standards were updated to support more effectively water footprinting. Although this work is focused on our own operations, we have added water to our list of information required from suppliers. ■

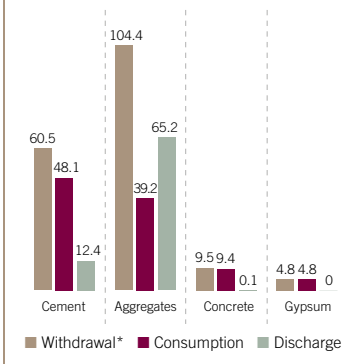
Sites equipped with water recycling systems



Recycling process water is one way of reducing water footprint. The equivalent figures by business line in 2010 are Cement 83%. Aggregates & Concrete 72%, Gypsum 69%

Water Footprint

(water withdrawal, use and discharge, in million m³)



These figures are provisional pending the completion of water footprints for all sites. Most process water is returned to the environment directly, e.g. after being used for cooling or as a result of being transferred to allow access for extraction. In some cases it will contain sediments and must go through settlement lagoons prior to discharge; our aim is that it should be recycled to the plant instead.
*Net withdrawal (Total withdrawal less clean water returned to same source).

example

WATER FOR BRAZIL

The Aggregates & Concrete business in Brazil launched a water-saving campaign during 2010. Through sharing best practice and looking at ways to reduce water, most involving no capital expenditure, the concrete operations reduced their consumption from 435 l/m³ to 270 l/m³ of concrete. Their target is to reduce consumption to 250 l/m³. The entire business in Brazil saved in the region 81 million liters in 2010; this is equivalent to 34 days' consumption by the population of Brazil. The campaign also includes water saving ideas for at-home use by employees and contractors, and water saving ideas for schools.

7 FOOTPRINTING STUDIES AT OUR 7 PILOT PLANTS ARE GENERATING WATER-SAVING IDEAS

PANEL

ALASTAIR MCINTOSH
CENTRE FOR HUMAN ECOLOGY

I welcome the fact that water footprint is now a new but important work-stream under Lafarge's partnership with WWF. Quarrying can contribute to water stress in several ways. Blasting can disrupt watercourses. Filthy waste water can contaminate aquifers. Pumping can lower water tables and deplete wells, springs, wetlands and rivers, as well as leading to salt water ingression near coasts.

Host communities may not understand their hydrology because much of it is underground. This places a burden of care on extractive industries. It calls for intelligent planning, the use of mitigating technologies and new forms of good-neighbor relationships.

In this respect I applaud the group's recognition (p. 7 of this report) of the UN Declaration on the Rights of Indigenous Peoples. This affirms "free, prior and informed consent" (FPIC) around the resources of indigenous peoples. But FPIC is an emerging issue for all communities. Lafarge can help to pioneer such new approaches, not just for water footprint but also for tough issues like new site acquisition.

73%

OF SITES HAD A WATER RECYCLING SYSTEM IN 2010

example

EACH DROP COUNTS!

The Lafarge cement business in Medgidia, Romania has been running a pilot water footprinting project to raise awareness of water scarcity risks, to identify some quick-win actions and to test a communications kit for later use with external stakeholders. They are now working with the local water authority, WWF in Romania, local politicians and local schools to widen the project's scope.

Total water withdrawal by source

(in million m^3) EN8

	Cement EY	Aggregates	Concrete	Gypsum	Total
Surface water including from rivers, lakes, wetlands and oceans	166.05	11.19	1.20	0.28	**178.72**
Ground water	24.39	69.28	3.52	1.23	**98.42**
Rain water collected directly and stored by Lafarge	10.11	23.21	0.17	0.09	**33. 58**
Municipal water supplies or other water utilities	4.13	0.79	4.61	3.18	**12.71**
Total withdrawal*	204.68	104.47	9.50	4.78	**323.43**
Surface water returned to the same sources	138.48	-	-	-	**138.48**
Rainwater returned to collector	5.70	-	-	-	**5.70**
Water returned to source	144.18	-	-	-	**144.18**
Net withdrawal	60.50	104.47	9.50	4.78	**179.25**

* According to GRI G3 EN8.
GRI guidelines recommend coverage of a fifth possible source: "wastewater from other organizations". We will have data on this for the 2011 report.
For the Cement division, reporting covers 97.6% of the business. The average for the division is used to estimate data not reported for the remaining 2.4%.

23

OF OUR CEMENT AND PLASTERBOARD SITES ARE LOCATED IN EXTREME SCARCITY AREAS

Reporting methodology

A central system dedicated to sustainable development is used for the collection and storage of environmental and social data. Key Performance Indicators (KPIs) are produced by this system for the current and reference years, to measure progress against the Group Sustainability Ambitions and other targets.

Reporting standards

The rules for computing the KPIs are consistent with the GRI G3 reporting standard. All elements for calculating KPIs are documented in a glossary specific to the cement, gypsum or aggregate and concrete businesses. Compliance with GRI G3 is documented online at http://sustainabilityreport.lafarge.com.
Health and safety data is collected separately taking into account our internal guidelines and external best practice. The Group's Social Policies Department conducts a separate survey on social data.
The indicator on local stakeholder relationship management training is reported and controlled. Training on the Group methodology is organized around plant managers (in Cement and Gypsum) and area/regional managers in Aggregates & Concrete.
Our 2008 and 2009 reports were awarded an A+ rating against the GRI G3 guidelines; this is a standard we intend to maintain.

Perimeter for consolidation

The reporting covers all business units and their industrial production sites under the Group's management control throughout the world.
When a new site is acquired by Lafarge, procedures and definitions for sustainability data are not necessarily in line with Lafarge standards. Accordingly we give the new site a maximum of four years to meet our standards. This period is necessary to implement the appropriate management and data collection systems, in order to yield good, reliable data for reporting.
When a plant is sold, we cease to include its performance data and we remove its data from the baseline data used for our Sustainability Ambitions, whether the base year is 1990 or 2005.
We use the CSI Protocol (see page 37) to calculate CO_2 emissions between the 1990 baseline and the reporting year.
For dust, SO_2 and NO_x emissions, when measurements are missing, we use standard emission concentrations based on the site's kiln process. In 2010 these standards represented 95% of clinker production for dust emissions, 97% for SO_2 emissions and 91% for NO_x emissions. For persistent pollutants, we use the average of concentration measurements available over the three most recent years since 2007 (see page 31).

Control and assurance

Environmental data is collected by business line and consolidated at Group level. For cement, environmental experts in the regional technical centers (Beijing, Cairo, Montreal and Vienna) review and validate the performance data for the plants within their regions.


Global Reporting Initiative

Statement

GRI Application Level Check

A+ GRI REPORT GRI CHECKED

Social data and health and safety data is collected by business units and consolidated at Group level. Social data for 2010 in this report is derived from a social survey covering 120 business units in 60 countries representing 97% of the total Group workforce.
Ernst & Young provides independent assurance for lost time injury frequency rate, competition policy, training on stakeholder relationship methodology (Cement and Gypsum divisions), female senior managers, environmental audit, quarry rehabilitation, CO_2, dust, NO_x, SO_2 and number of kilns analyzed for persistent pollutants and water withdrawal in cement (See page 40.)
You can find more information on how we report on our website http://sustainabilityreport.lafarge.com. ■

Common Reporting

We benchmark our sustainability performance against that of our competitors in the same industry, utilizing the common reporting recommendations from the World Business Council for Sustainable Development (WBCSD) Cement Sustainability Initiative (CSI). It is through benchmarking that we have a base for making further progress in reducing our environmental footprint.

How We Report – Common Reporting

We benchmark our sustainability performance against that of our competitors in the same industry. The Cement Sustainability Initiative (CSI) operates within the World Business Council for Sustainable Development (WBCSD). The Initiative is a global effort by 23 major cement producers with operations in more than 100 countries who believe there is a strong business case for the pursuit of sustainable development. Collectively these companies account for about one third of the world's cement production and range in size from very large multinationals to smaller local producers.

One of the achievements of the CSI has been the establishment of a set of sustainability measures for use by its members in sustainability reporting. We report on all 29 of these measures in this report; they are indicated by CSI.

Benchmarking

There are eight other CSI member companies that also report how they perform on some or all of the measures. We have compared our performance against those companies who are most similar to us in size and scope by looking at our position in the ranked order of each of the eight measures that we use. The comparison uses 2009 data which is the most recent available for the relevant companies. Performance is ranked from 1 (the best) downwards but because not all companies use the same measures as us the number of comparative companies is different for each indicator.

With regard to:
LTIFR we were 2nd of 7.
Fatality rate we were 7th of 9.
Net CO_2 emissions we were 1st of 9.
SO_x emissions we were 8th of 8
NO_x emissions we were 8th of 9
Stack dust emissions we were 5th of 9.
Alternative fuels we were 5th of 8.
Alternative materials we were 4th of 8.

In a number of the benchmarked categories the Group's overall performance is significantly impacted by the poor performance of just a few acquired plants. Upgrading these facilities is normally a multi-year task and in some cases the timing of the planned investments has been prolonged due to the economic climate.

More information about the CSI can be found at http://www.wbcsdcement.org @. ■

CSI Reporting Elements

ELEMENT	PAGES	RESULTS
CLIMATE CHANGE MANAGEMENT		
1. CO_2 emissions – Gross (metric tons)	26	
2. CO_2 emissions – Net (metric tons)	26	
3. Specific CO_2 emissions – Net (Kg/ton cementitious material)	26	
4. Target reduction for CO_2	26	
5. Independently verified CO_2 data	26	
6. Specific heat consumption of clinker production (MJ/ton clinker)	27	
7. Alternative Fuel Rate (% of thermal energy consumption)	27	
8. Biomass Fuel Rate (% of thermal energy consumption)	27	
9. Alternative Raw Materials Rate (% total raw materials for cement production)	29	
10. Clinker/Cement Ratio (%)	27	
HEALTH AND SAFETY		
11. No. of fatalities (directly employed)	21	
12. No. of fatalities (indirectly employed)	21	
13. No. of fatalities (involving 3rd parties)	21	
14. No. of fatalities per 10,000 directly employed	20	
15. No. of Lost Time Injuries (LTIs) per 1m man-hours (directly employed)	20	
EMISSIONS MONITORING AND REPORTING		
16. NO_x emissions (metric tons/year)	30	
17. SO_x emissions (metric tons/year)	30	
18. Dust emissions (metric tons/year)	30	
19. Specific NO_x emissions (g/ton clinker)	30	
20. Specific SO_x emissions (g/ton clinker)	30	
21. Specific Dust emissions (g/ton clinker)	30	
22. Target reduction for NO_x	30	
23. Target reduction for SO_x	30	
24. Target reduction for Dust	30	
25. % Clinker produced with monitoring of major and minor emissions		91%*
26. % Clinker produced with continuous monitoring of major emissions – NO_x, SO_x, Dust		62%
LOCAL IMPACTS		
27. % of sites with quarry rehabilitation plans in place	32	
28. % of sites with community engagement plans in place	22	
29. No. of active sites where biodiversity issues are addressed	32	

* 91% refers to main pollutants – see page 31 for Persistent Pollutants

Overview of differences in scope

Company profiles (Base year 2009)	Sales (M€)	Employees (Number)	Production (Mt)	Production capacity (Mt)	Countries (Number)
Cemex	10,200	47,000	72.0	97	> 50
Cimpor	2,452	6,432	24.9	31	12
CRH	17,373	79,882	13.2		35
Heidelberg	11,117	53,302	79.3	100	40
Holcim	13,900	81,498	131.9	203	> 70
Italcementi	5,006	21,155	55.7	70	22
Lafarge	**15,884**	**77,994**	**149.4**	**193**	**78**
Siam Cement	1,120	28,000	24,0	56	–
Titan	1,360	5,904	15.9	16	13

Measuring Up

Sustainability ratings and indices show us how our performance compares with other companies, highlight where we need to improve and help to identify emerging issues. We are recognized for inclusion in the Dow Jones Sustainability Index and several other similar indices.

SRI ratings and indices

Socially responsible investment (SRI) ratings and indices are produced by organizations that supply information to the investment market. They are produced by sustainability teams within established financial rating agencies, sustainability consulting firms, investment advisors, asset managers, suppliers of investment products, non-governmental organizations and others.

Most operate by collecting information on companies' sustainability activities and then rating these activities according to criteria that they define. In many cases the collection of information includes asking detailed questions of the company (the "SRI questionnaire") and conducting their own research. Inclusion in an index is a function of a company's own performance (its score) and how this compares with other companies in its sector of activity (its rank position). In a climate in which other companies' sustainability performance is improving, remaining in an index can be very challenging.

Lafarge is frequently approached by agencies producing SRI ratings and indices. Provided the methodology is transparent and the information requests are reasonable, we respond to their questionnaires and welcome the opportunity for dialogue. We want investors to have access to information about our sustainability approach, and engagement with SRI agencies is an opportunity for us to consider where and how we must improve.

Dow Jones Sustainability Indices

Our overall score in 2010 was 78%; this was another small improvement, following those in 2009 (76%) and 2008 (70%), on the score of 64% awarded in 2007. Most noticeable improvements were in anti-trust policy, recycling, and transport and logistics; there was also a significant improvement in occupational health and safety which was the subject of additional questions compared to 2009 and is allocated the highest weighting of any category in the Index. There were new questions on water-related risks where our score was above average. The results also indicated that, in this rating scheme, our practices in talent retention, corporate citizenship and philanthropy, and labor policy need improvement. Our actions for these areas are described on pages 17-19 and 22-23 of this report.

With this improved score we remain in the DJSI Europe Index and have also re-entered the DJSI World Index (which we left in 2006).

FTSE4Good Index Series

Until partway through 2010 Lafarge was included in all the applicable FTSE4Good Index series. We have now been removed from the FTSE4Good Environment Leaders Europe 40 Index but remain in the others. The Europe 40 Index has more stringent criteria and the identified shortfalls are our lack of public targets for effluent, waste and water. We are examining what needs to improve to regain our position.

Ethibel Sustainability Index

Lafarge has been selected for inclusion in the Ethibel PIONEER and the Ethibel EXCELLENCE Investment Registers (see http://www.ethibel.org @) since December 2004 and was reconfirmed in February 2010; it is being monitored regarding its CSR profile since then.

Sarasin Sustainability Matrix

Sarasin updated their assessment of Lafarge in January 2011. They found Lafarge to perform better than the industry average in all of the five environmental categories except environmental management systems and in five out of the eight social categories (ratings for general public, clients and competitors were below industry average). Overall, Lafarge is rated "above average" and qualifies for inclusion in Sarasin Sustainability Funds.

Other indices

There has been no change to the evaluation of Lafarge by Vigeo, who rated the company's overall CSR performance above sector average in February 2009. In January 2011 we learnt that we had not been included in the most recent listing of the Global 100 Most Sustainable Corporations in the World. Having been in this list for six years, this is disappointing but shall motivate us to further improve our sustainability practices. The Oekom 2009 rating (C+ Prime, indicating a company which "ranks among the world's best companies within the same industry and fulfils the sector specific minimum requirements") has not been repeated this year but we continue to address the topics of recyclability and reusability of construction materials which were highlighted for attention. ■

Correspondence with French NRE law

ART 148-2	SOCIAL TOPICS	PAGES
1.a	Total headcount, hirings (fixed-term/permanent), recruitments, redundancies and reasons, overtime, external manpower	Pages 4,5,17-19
1.b	Headcount reduction and job protection, job-seeking assistance, rehires and supporting measures	Pages 4,5,17-19
2	Organization of working time, length of working hours for full-time and part-time employees, absenteeism and reasons	
3	Remuneration and trends, payroll taxes, application of Book III of Part III of the French labor regulations, professional equality between men and women	Pages 4,5,17-19
4	Professional relations and appraisal of collective agreements	Pages 17-19
5	Health and safety conditions	Pages 4, 20, 21
6	Training	Pages 17-19, 22-23
7	Employment and integration of disabled workers	Page 17-19
8	Social initiatives	Pages 5, 10, 11, 22-23
9	Importance of subcontracting	Pages 17-19
ART 148-3	**ENVIRONMENTAL TOPICS**	**PAGES**
1	Consumption of water, raw materials and energy. Measures taken to improve energy efficiency, use of renewable energy, usage of soil, emissions into air, water and soil, noise pollution, offensive odors, waste	Pages 8, 9, 24-35
2	Measures taken to limit harm to biological equilibrium, natural environments and protected fauna and flora	Pages 8, 9, 24, 25, 26, 27, 32-33
3	Evaluation or certification measures taken on environmental matters	Pages 15-16
4	Measures taken to ensure the company's activities comply with the laws and regulations applicable to this matter	Pages 15-16
5	Expenditure incurred to avert any impact on the environment from the company's activities	Pages 15-16
6	Internal environmental management services, environmental training and information for employees, resources used to reduce environmental risks, system put in place to deal with pollution accidents having an impact beyond the confines of the company's premises	Pages 15,17
7	Amount of provisions and guarantees for environment related risks, unless such information is liable to cause serious harm to the company in an ongoing dispute	See section 2.21 and note 24 of 2010 Financial Statement in Annual Report
8	Amount of compensation paid during the year in execution of a court ruling on environmental matters and measures taken to make good any damage caused to the environment	See note 29 of 2010 Financial Statement in Annual Report
9	All elements of the objectives set by the company for its foreign subsidiaries with regard to points 1 to 6 above	Page 5

Ernst & Young Assurance

Lafarge, S.A. - Financial year ended on December 31. 2010
Statutory auditor's report on a selection of sustainable development indicators
Free translation of the original French text

Further to Lafarge's request and in our capacity of statutory auditor of Lafarge, we have performed a review on the selection of sustainability indicators for the financial year 2010 identified by the EY symbol in the sustainability report on pages 4, 5 and 35 (the "Indicators") to obtain limited assurance that the Indicators were prepared in accordance with the reporting criteria applicable in 2010 (the "Reporting Criteria"), consisting in:

- Lafarge Group specific instructions and procedures. a summary of which is provided on page 36 under the heading "Reporting methodology", in the comments related to the Indicators presentation on pages 13 to 35 of the sustainability report and on the Group website[1].
- External standards and guidelines elaborated by the Cement Sustainable initiative (CSI) of the World Business Council for Sustainable Development (WBCSD) for environment and safety indicators and the international Hay job evaluation method for data on senior managers. Those standards and guidelines are available on the WBCSD and Hay websites, respectively[2];

It is the responsibility of Lafarge's Sustainable Development and Public Affairs Department to prepare these Indicators and to provide information on the Criteria.

It is our responsibility to express a conclusion on these Indicators on the basis of our review. Our review was conducted in compliance with the international standard ISAE 3000[3] of IFAC. Our independence is defined by legal and regulatory texts as well as by our professional code of ethics.

A higher level of assurance would have required more extensive work.

Nature and scope of our review

We performed the following review to be able to express a conclusion:

- We have assessed the Reporting Criteria with respect to their relevance, completeness, neutrality, understandability, and reliability.
- At the Group level and at the Cement. Aggregates and Concrete, and Gypsum Branch levels, we have conducted interviews with the persons responsible for environmental, safety, human resources, competition policy, and stakeholder relationship reporting in order to assess the application of the Reporting Criteria. At this level, we have implemented analytical procedures and verified, on a test basis, the calculations and the consolidation of data.
- At the Cement Branch level, we checked the consistency of CO_2 emissions with figures declared to authorities and verified in the framework of the 2007/589/CE European Directive on "allowances".
- At the Cement Branch level, for the indicators related to CO_2 emission reduction compared to 1990 emissions, our review was limited to reviewing modifications brought since 2005 to the 1990 baseline.
- We have selected a sample of four cement sites, one gypsum site, three regional technical centers, and seven business units[4] on the basis of their activity, their contribution to the Group's consolidated data, their location, and the results of the review performed during prior financial years. At the level of the selected sites and entities, we have verified the understanding and application of the Reporting Criteria, and verified, on a test basis, calculations and reconciliation with supporting documents.
- We reviewed the presentation of the indicators in the sustainable development report and the associated notes on methodology.

On average, our tests covered 35% of environmental indicators[5], 11% of hours worked used in the calculation of the lost time injury frequency rate, and 17% of senior management staff, 6% of the targeted population considered for the calculation of the population trained to stakeholder's management[6]. Taking into account the review performed during the past five financial years in different activities and countries, we assess that these coverage rates provide a sufficient basis for the conclusion expressed below.

Information about the Reporting Criteria

Relevance

- The Group publishes key performance indicators defined for cement activities by the working groups of the WBCSD-CSI, as indicated on page 37.
- Methodologies selected by the Group are consistent with the latest versions of the WBCSD-CSI standards and guidelines; the Group's amendments or specificities are specified in the notes on methodology (see details on pages 36 to 38, and on the Group website[1]).

Completeness

- The Indicators reporting perimeter aims to cover the whole Group worldwide. Methods for estimating missing data, notably atmospheric emissions or 1990 baseline for CO_2 emissions, as well as the perimeters covered by the Indicators (expressed in percentage) have been indicated in the notes on methodology on pages 13 to 35, and on the Group website[1].
- As for the calculation of the "targeted population trained on stakeholders' relationship management", the scope of work focused on Cement and Gypsum divisions. This indicator for the Aggregates & Concrete division is planned to be re-integrated in the Group reporting in financial year 2011.

Neutrality

- The Group provides detailed information on methodologies used to establish the Indicators in the notes on methodology on page 36, in the comments next to the published data, in particular for indicators related to "SO_2, NO_x and dust emissions", the "% of women in senior management", the "quarries with a rehabilitation plan", the "share of audited sites", the "implementation of the competition policy", and the "training on stakeholder relationship management" on pages 13 to 35, and on its website[1]

Reliability

- Efforts have been made to improve internal controls by the regional technical centre in Europe (ETC). Efforts to formalise controls carried out by regional technical centres should be continued.
- For the indicator "women in senior management" (all divisions) and for the indicators linked to "quarries with a rehabilitation plan" and "active sites audited environmentally" (Aggregates & Concrete division), controls on the consolidated data could be strengthened.
- For the indicator "total water withdrawals" for which the reporting started recently, efforts that were engaged for the definition and the communication of Group procedures and standards to the Business Units should be continued.

Conclusion

Based on our review, nothing has come to our attention that causes us to believe that the Indicators were not established, in all material respects, in accordance with the Reporting Criteria.

Paris-La Défense. April 13th 2011
The Statutory Auditor

ERNST & YOUNG
Audit
Christian Mouillon

ERNST & YOUNG
Environment and Sustainable Development
Eric Duvaud

1 | http://sustainabilityreport.lafarge.com in the section "Reporting Methodology" **2** | http://www.wbcsd.org/ Sector Project / Cement and http://www.haygroup.com / Our Services / Job evaluation **3** | SAE 3000: "Assurance Engagement other than reviews of historical data', International Federation of Accountants, International Audit and Assurance Board, December 2003 **4** | Four cement plants: Exshaw (Canada). El Sokhna (Egypt), Nanshan (China), and Voskressensk (Russia); the Gypsum site of Chongqing (China); the Cement Branch regional technical center, Corporate Technical Services (CTS) based in Montréal (Canada), Asia Technical Center (ATC) based in Beijing and Europe Technical Center (ETC) based in Vienna (Austria); four business units of the Cement Branch (Egypt. Western Region Canada., Russia, and Chongqing in China), three business units of the Aggregates and Concrete Branch: East Canada (ECAN), Egypt and France (North and South) **5** | 49 % of CO_2 emissions, 46 % on average of SO_2, NO_x and dust emissions, 13% of screenings on persistent pollutants, 35% on average of sites and active quarries and 7% of total water withdrawals. **6** | Target populations for the Cement and Gypsum divisions

TO KNOW MORE VISIT ↓

sustainabilityreport.lafarge.com

ON THE PAGE DEVOTED TO "OUR 2010 REPORT" ON THE GROUP'S WEBSITE, YOU WILL FIND:

- The 2010 Report (PDF version) along with previous editions.
- Details on our reporting methodology.
- Additional information to help you better understand our values and priorities.
- Other case studies providing practical illustrations of the Group's actions.

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