



Building Better Cities

April 2015



Group profile

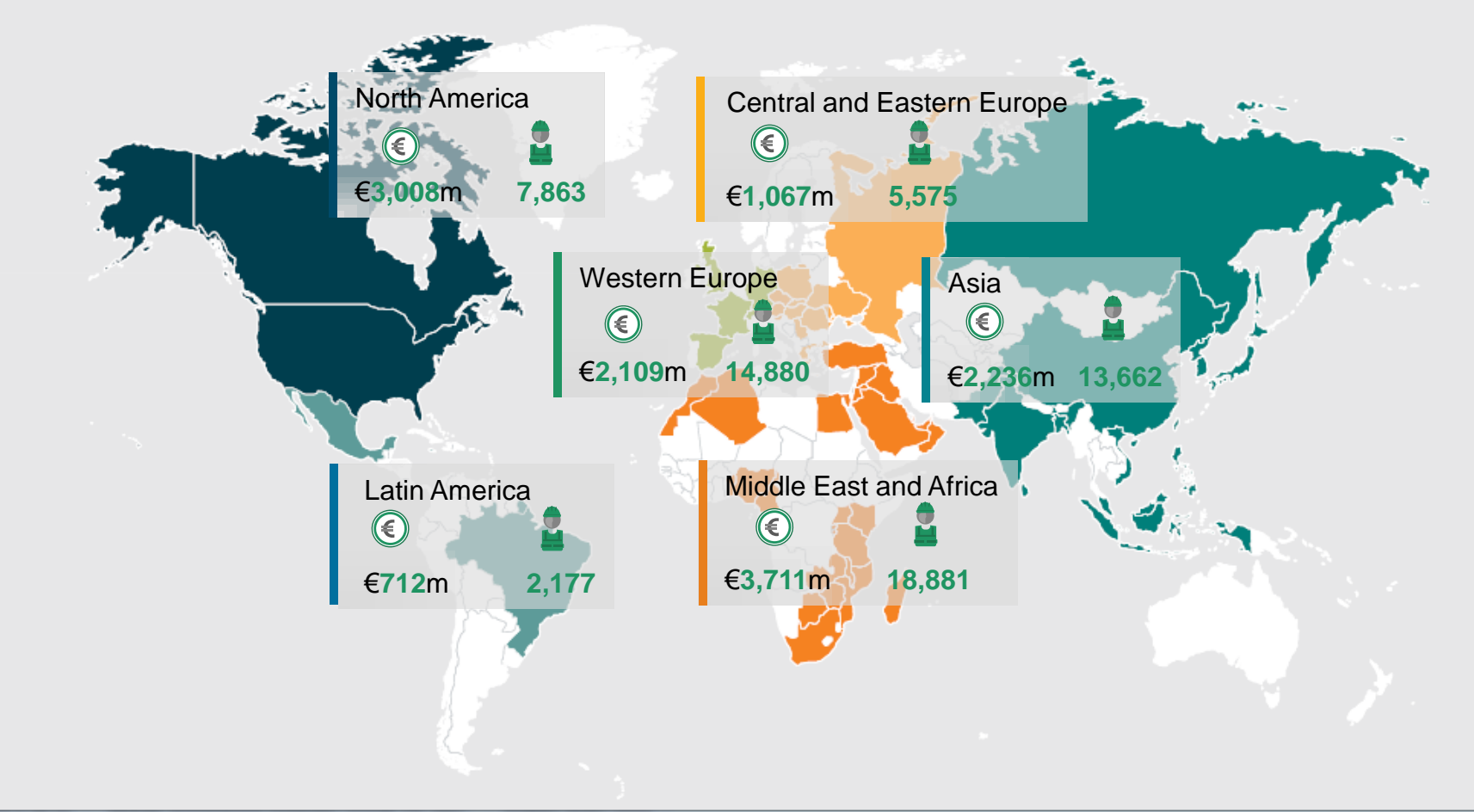
Group profile 2014

- Founded in 1833, Lafarge is a **world leader** in building materials
- Major player in the **cement, aggregates and concrete businesses**
- We contribute to the construction of cities throughout the world with **innovative** solutions, providing cities with more housing, and ensuring that they are more compact, more durable, more beautiful and better connected
- Operating in **61 countries**
- **63,000** employees
- **€12.843 billion** of annual sales
- **1,612** production sites
- Listed on the Paris Stock Exchange
- On April 7th, 2014, announcement by Lafarge and Holcim of their proposed **merger of equals**, with one objective: the creation of the **leading group in the advanced building materials industry** to better serve the growth of the markets.



© Lafarge Méditerranée - Véroonique Touahri

A well-balanced geographical portfolio



€ Annual Sales Person icon Employees

Our markets

BUILDING

RESIDENTIAL
AND NON
RESIDENTIAL
BUILDINGS



© Médiathèque Lafarge - G. Osodi - CAPA Pictures

COMMERCIAL
AND
INDUSTRIAL



© Lafarge Medialibrary - Septet Cécile (photographe) - Stéphane Maupin (Architecte) - RATP

AFFORDABLE
HOUSING



© Lafarge Medialibrary - Ronnel Cuison

PUBLIC
BUILDINGS



© Foundation Louis Vuitton - Iwan Baan - Frank Gehry

INFRASTRUCTURE

TRANSPORT



© Lafarge Medialibrary - C. Mulcahy - CAPA Pictures

ROADS



© Lafarge Medialibrary - Mikolaj Katus

ENERGY AND
MINES



© Lafarge Medialibrary - Mikolaj Katus

CULTURAL
AND SPORTS
CENTERS



© Lafarge Medialibrary - Charles Plumey-Faye - Rudy Ricciotti (architect)

OIL AND GAS



© Lafarge Medialibrary - Corbis

On all these markets, we provide innovative and environmentally-friendly solutions.

We interact with all actors in the construction chain

INDUSTRIAL CUSTOMERS

- Precast concrete product manufacturers
- Ready-mix concrete and construction businesses



DISTRIBUTORS

- From wholesalers and small retailers, to specialist chains and large do-it yourself stores



SPECIFIERS

- Engineering companies and architects that we advise in the design phase of projects



BUILDERS

- From major construction firms to craftsmen throughout construction work





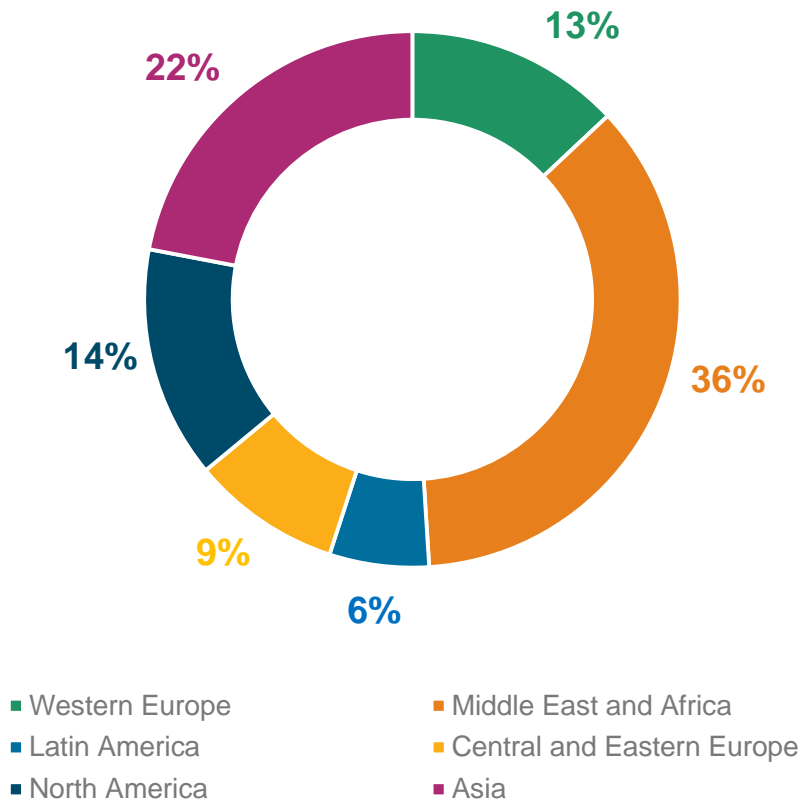
Our businesses

Cement, aggregates and concrete

Cement: key figures

Cement | A world leader

Sales by region



Cement, a hydraulic binder and a key ingredient in concretes and mortars, is mainly used by the building and public construction industries.



Sales

€8,545m



Employees

37,000



Production sites

149



Operating in

55 countries

Aggregates and Concrete: key figures (1/2)

Aggregates and Concrete | World no.2 and World no.4



Sales

€4,253m



Employees

26,000



Production sites

1,463



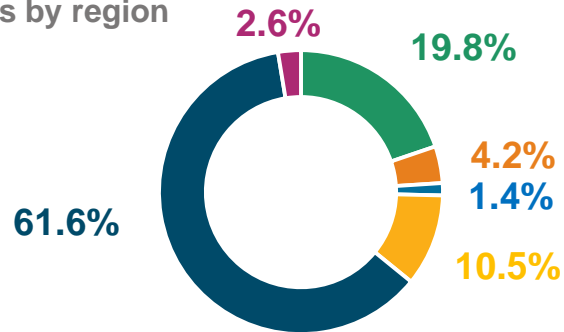
Operating in

37 countries

Aggregates and Concrete: key figures (2/2)

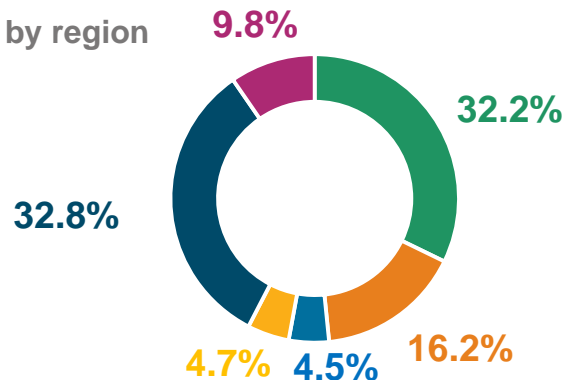
Aggregates and Concrete | World no.2 and World no.4

Aggregates sales by region



Aggregates are obtained by quarry extraction and grinding into different sizes. Aggregates can also be obtained from sand and gravel extraction.

Concrete sales by region



Ready-mix concrete is a mixture of aggregates, cement, additives and water to create the most used material in the world. Its various benefits include traction and pressure resistance, durability, placement speed, aesthetics, workability, and low environmental impact.

- Western Europe
- Latin America
- North America
- Middle East and Africa
- Central and Eastern Europe
- Asia



Our strategy

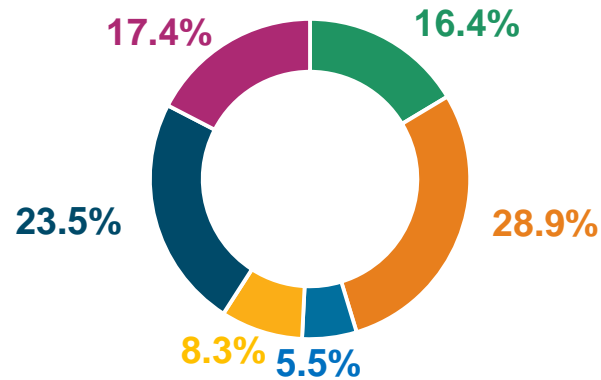
Solid foundations for growth (1/2)

- **A geographical portfolio with well-balanced positions and a strong presence in emerging countries.**
 - Share of sales in emerging markets: from **32%** in 2005 to **60%** in 2013
 - None of these countries account for more than **6%** of our sales
- **Focusing on our core businesses**
 - **Cement, aggregates** and **concrete**
 - High potential for development and significant prospects of synergies
- **A country-based organization**
 - To be **close** to our markets and customers

Solid foundations for growth (2/2)

A geographical portfolio with well-balanced positions

Breakdown of sales by region

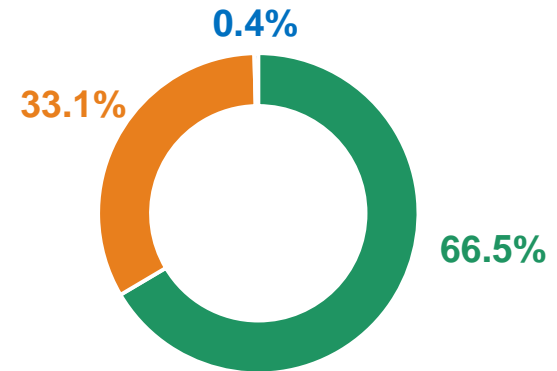


- Western Europe
- Latin America
- North America
- Middle East and Africa
- Central and Eastern Europe
- Asia



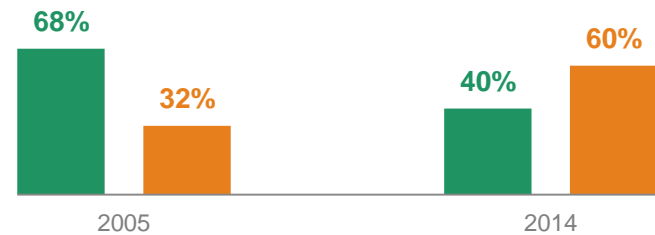
Focusing on our core businesses

Breakdown of sales by business



- Cement
- Aggregates & concrete
- Others

A strong presence in emerging markets



- Sales in developed markets
- Sales in emerging markets



Four priorities

Health and Safety: our first priority (1/2)

- **Be one of the world's safest industrial companies**
- **Ensure a safe working environment for every stakeholder**
 - Revised **Health and Safety Management System (HSMS)** which encompasses all aspects of Health and Safety for everyone who works for, and with, Lafarge
 - **Development of leaders** that are personally engaged in Health and Safety issues
 - **Health and Safety Management System (HSMS)** update
 - **Audit program** designed to allow each country **to monitor, analyze and make improvements** in all areas of Health and Safety
 - Development of tools and training **to enhance the implementation of Industrial Hygiene and Ergonomics.**
- **Being Committed, Open and Uncompromising**
 - Continued efforts to make positive behaviour changes, thanks to three main qualities: **Being Committed, Open and Uncompromising**

Health and Safety: our first priority (2/2)

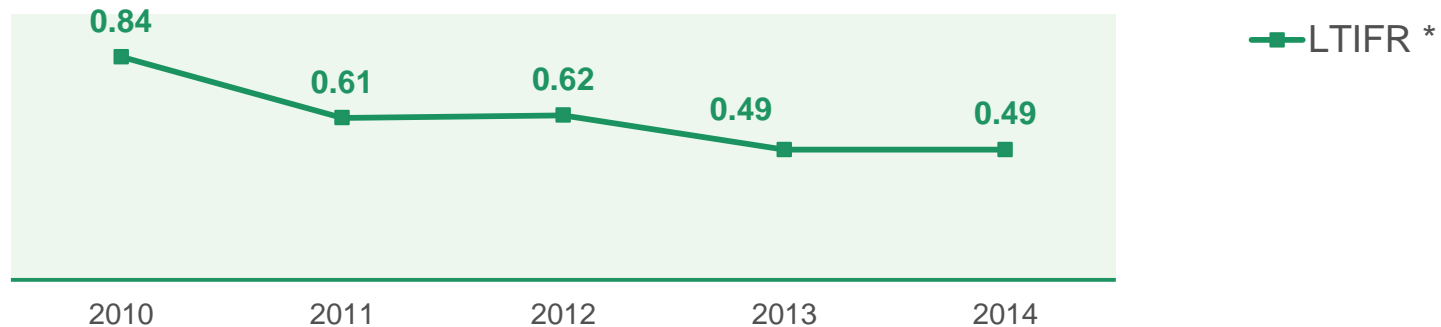


© DR Lafarge Medialibrary

Health and Safety month

Each year, the **Health and Safety month** is an opportunity to mobilize all employees on this subject and strengthen Health and Safety culture in the Group.

Lost Time Injury Frequency Rate for Employees and On Site Contractors



* Lost Time Injury Frequency Rate (LTIFR) = the Number of Fatalities and Lost Time injuries per Million of Working Hours

We believe health and safety is the responsibility of everyone

Putting people at the heart of the Group

- **Attract talent and develop competencies to support the Group priorities**
 - **Recruitment and development of new marketing and technical profiles** to understand and meet our markets' needs
 - **Training of our sales team** to develop a closer relationship with our customers
 - **Training and certification programs** for key operational positions in the plants
- **Accelerate diversity & inclusion**
 - **Diversity and inclusion assessment** for each country, notably through the deployment of an **evaluation grid**
 - Rewarded with the **Gender Equality European & International Standard** (GEEIS) label in November 2014, ensuring equal opportunity at work

Sales Force Effectiveness



The **Sales Force Effectiveness** program, specifically designed for marketing and sales teams in Lafarge countries, continued in 2014 with training delivered to more than **2,000** sales representatives and managers.

Innovation (1/3)

1. From a product manufacturer to a building solutions provider (1/2)

- **Create value for our business**

- **€230m** of additional EBITDA thanks to innovation in 2014

- **A new market segmentation approach to provide differentiated offers for our markets**

- **Building**: residential and non residential buildings, individual and collective buildings, commercial and industrial, affordable housing, public buildings
- **Infrastructure**: transport, roads, energy and mines, cultural and sports center
- **Oil and Gas**: offshore and onshore wells

- **Continuous development of new products**

- Enhance our cement and concrete product ranges
- **Deploy our special concrete products** (34 % of sales volume of concrete in 2014) in all the countries we operate:
 - Artevia®, Agilia®, Hydromedia™, Thermedia®, Chronolia®, Ductal®, Extensia®
- Expand our **cement solutions** range for oil and gas wells :
 - The world's largest network of API (American Petroleum Institute) certified plants

Innovation (2/3)

1. From a product manufacturer to a building solutions provider (2/2)

- **New systems and solutions**
 - Packaged offers combining **different materials and services to answer the specific needs of our customers**
 - *Integrated offer for roads*
 - Efficient building systems to provide **specific parts of buildings**: foundations, floors, walls, facades...
 - **Microfinance program** and **innovative solutions** to develop affordable housing
- **Services**
 - **Advice and prescription** in the design phase of projects
 - **Turnkey service** for both supplying and applying our concrete, such as the “placing and finishing” service proposed in 21 countries
 - **Recycling of waste and building materials**
 - **Innovative distribution networks such as:**
 - *DIY stores (Batistore in Algeria), key distributors programs, containers in remote areas*

« Earth and Cement » solutions



Lafarge has developed a **new cement binder** which can be mixed with soil and sand to manufacture soil-stabilized blocks without passing through a kiln. A **reliable and inexpensive** solution.

Innovation (3/3)

2. Global & local research and development to support innovation

- **A Research and Development Center near Lyon (France)**
 - Expertise in **a wide range of cutting-edge scientific disciplines**
 - **High-level partnerships** (schools and universities from different countries)
- **Budget: €113m** dedicated to R&D in 2014
- **Development laboratories in some key countries to develop solutions geared towards the needs of local markets**
 - Already operating in **France, China, India** and **Algeria**
 - Inauguration of a new laboratory in Brazil in **2014**
 - **In 2014**, Lafarge created the first laboratory in the world dedicated to oil and gas cement solutions
- **A portfolio of more than 1,000 patents, which has tripled since 2005**
 - More than 100 new patents filed in 2014

Performance (1/2)

1- Strive to be a business reference, ahead of competition in each country

- **Cost savings efforts**

- **Costs reduced by €370m** in 2014, added to €1.9 billion of savings already generated between 2006 and 2013
- **Reduce energy consumption**
 - Alternative fuel increased to 21% of the cement plant consumption in 2014
 - Energy project launched in 2013, which is expected to result in significant savings in cement plants

- **A robust management of investments**

- **A maintenance policy for our plants**
- **Selective purchases and procurement**
 - Ensure the best price
 - Apply effective quality control

Performance (2/2)

2. Two key elements to increase our performance

- **Master all aspects of our business**
 - **Operating models** to formalize best practices for all core business areas
 - POM 2.0, new operating model for our cement plants
 - Optimization of the supply chain to better plan our provision and delivery to clients
- **Strengthen our performance culture**
 - **Skills enhancement** actions shared by all
 - Ensure the best level of expertise for operating and managing our product lines and plants
 - Share good practices to accelerate knowledge transfer

POM 2.0: an innovative operational model



© DR Lafarge Medialibrary

POM 2.0 (Plant Operating Model) aims to get the most out of each plant, by describing how to achieve optimum performance in the areas of Health and Safety, costs, volumes and product quality.



**Making a net positive
contribution to society
and nature**

Sustainable development, part of Lafarge's DNA

- **A pioneer of sustainable development in the industrial sector**
 - One of the first industrial companies to establish targets for **environmental performance** (1977) and founding member of the Cement Sustainability Initiative (WBCSD)
- **An integration of sustainable development into the business**
 - A unique, externally recognised methodology to integrate sustainability targets into the business (the Lafarge Sustainability Compass)
 - An international stakeholder panel to review our progress and provide feedback
- **Partnerships to promote sustainable development**
 - A main supporter of the World Urban Campaign (UN Habitat)
 - Involvement in the Clinton Global Initiative
 - Lead member of UN Global Compact







© Lafarge Medialibrary - Charles Plumey-Faye

Commitment at the highest level

Personal commitment of Bruno Lafont, Lafarge's CEO

- Member of the World Business Council for Sustainable Development (WBCSD)
- Co-chairman of Energy Efficiency in Buildings 2 (EEB2)
- Chairman of the Sustainable Development Commission in MEDEF (Mouvement des Entreprises de France), the largest union of employers in France

Environmental footprint reduction

Alternative fuel	Biodiversity	Water consumption	CO2 emissions
<p>38.1 %</p> <p>proportion of biomass content in alternative fuels used by our cement plants in 2014</p>	<p>99.3 %</p> <p>of quarries within / adjacent to internationally protected areas with a biodiversity management plan</p>	<p>72 %</p> <p>of our plants are equipped with water-recycling systems</p>	<p>26.4 %</p> <p>reduction of CO2 emissions per ton of cement compared to 1990</p>
			
<p>© Lafarge Medialibrary</p>	<p>© Lafarge Medialibrary</p>	<p>© Lafarge Medialibrary - Ignus Gerber</p>	<p>© Lafarge Medialibrary - Jack Clark</p>

A strong strategy to fight against climate change

- **Innovative construction solutions to improve building energy efficiency**
 - New products such as our Thermedia range of structural, insulating concrete
 - Efficient Building™ construction systems
 - Solutions for sustainable cities
 - *Partner of Zenata, eco-city project in Morocco, which aims to create a city of 300,000 citizens, fully respecting every ecological, economical and social principle of sustainable development*
- **Reducing direct and indirect emissions**
 - Industrial performance programs and R&D to develop lower carbon solutions
 - Use more renewable energy and lower carbon transport
 - In 2001, Lafarge set a target for the reduction of 20% of CO2 emissions before 2010. The objective was fulfilled one year ahead of schedule.
 - In 2012, the 2020 Ambitions program was launched (all commitments under its precursor – Ambitions 2012 - were fulfilled). Today, the Group aims to reduce its CO2 emissions by 33%.
- **Promote responsible energy and climate policies**
 - Participation in business sector forums and contributions to the Conference Of the Parties (COP21), taking place in Paris, France in December 2015.

Community development and outreach

- **Access to housing**

- Packed concrete solutions for slum rehabilitation (rickshaw delivery)
- 300,000 people in 18 countries have benefited from Lafarge's affordable housing programs
- Target: deliver 10,000 microfinance projects in 10 countries by the end of 2015

- **A driver of local socio-economic development**

- 2,500 programs with the community took place in 2014. 44% of countries had programs to create jobs (2020 target: 75% of countries to have a job creation program)



© Lafarge Medialibrary - Yang Yu

Volunteering

2014 : 118,000 volunteering hours were completed across 30 countries, involving 10,000 volunteers. These include actions in the areas of biodiversity, water-supply management, training, affordable housing, Health and Safety and job creation.

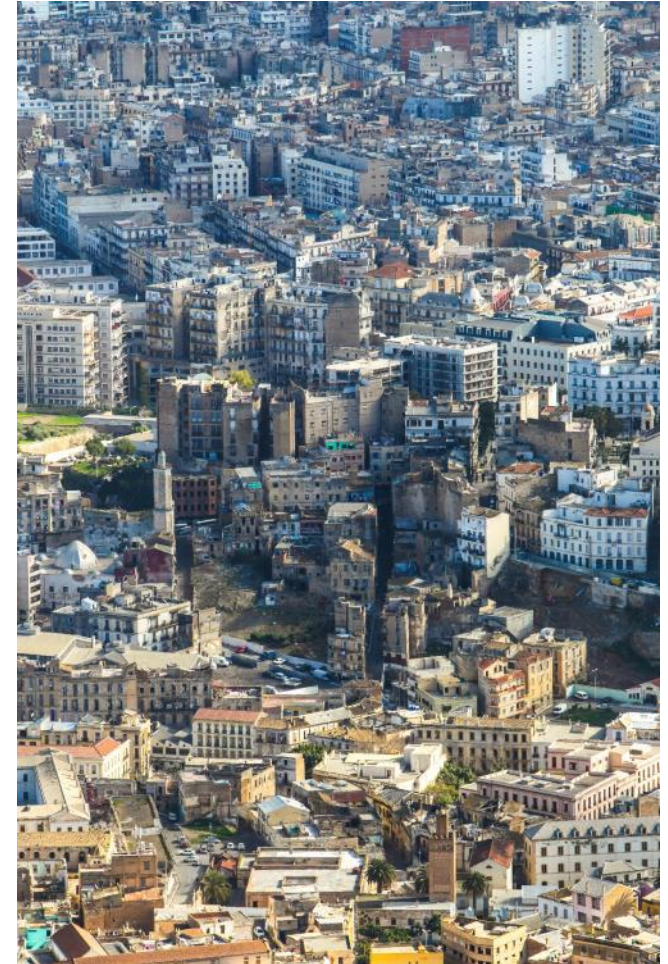


Challenges of urbanization

Cities at the heart of development

- **Population growth**
 - **7 billion people** in 2011 and **9 billion** in 2050, based on UN forecasts
- **Urbanization rate**
 - Two trends will characterize urban landscapes by 2050:
 - Average-sized cities (100,000 to 500,000 inhabitants) will contain **around half of the total urban population**
 - **Increasing proportion of megalopolises** (metropolitan areas with more than 10 million inhabitants): from **28** today to **40** in 2025

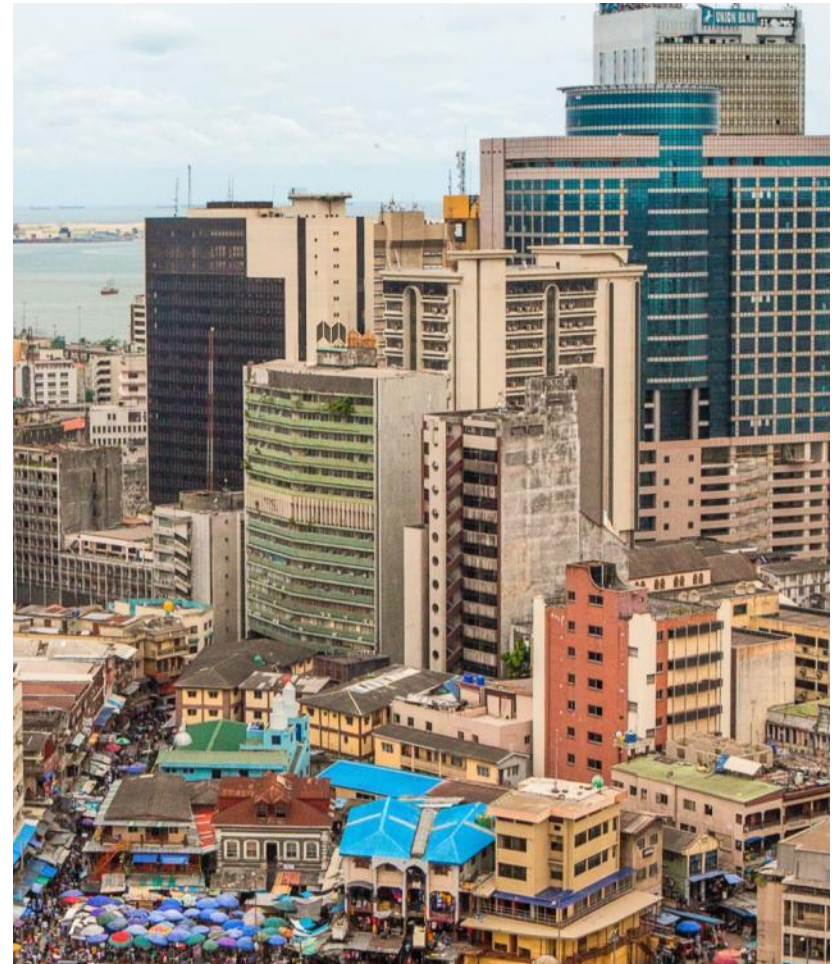
Source: the United Nations



© Lafarge MediaLibrary - M. Keenri - CAPA Pictures

Major challenges for cities

- **Better management of population density and fluidity of movement**
- **Access for all to decent housing**
- **Reduction of urban sprawl**
- **Significant improvement in the quality of housing**
- **Preservation of natural resources**



© Lafarge Medialibrary - A. Esiebo - CAPA Pictures



Building Better Cities

Our solutions to build better cities

Contribute to building cities ...

More housing



Contribute to building housing for all and promoting affordable housing

More compact



Develop solutions for vertical constructions to limitate urban sprawl

More durable



Contributing to long-lasting buildings, which protect the environment

More beautiful



Encouraging architectural performance and creativity

Better connected



Contributing to making journeys easier and faster

More housing for cities

Our contribution

Contributing to **building** new, individual or collective homes and **refurbishing** existing ones

Build **well**, **faster** and **cheaper**

Promote affordable housing for population with low purchasing power, thanks to microcredit programs

Our solutions

Concrete (solid, available and reasonably priced) offers **a wide range of solutions** for the **construction** and **renovation** of buildings and individual homes



© Lafarge Medialibrary - Ronnel Cuison

Some achievements



© Lafarge MediaLibrary - Ronnel Cuison

Philippines: Lafarge proposes micro-loans for housing projects, partnering with a local microfinance institution. 400 new houses are being built each month.



© Lafarge MediaLibrary - MD Kamato - MDK Photo services

Malawi: A new « Earth and Cement » solution has been specifically formulated to manufacture soil-stabilized blocks, for affordable and green-friendly housing.

More compact cities

Our contribution

Solutions for **vertical constructions** from small buildings to skyscrapers



© Lafarge Medialibrary - J-M. Giboux - CAPA Pictures

Our solutions

Very high strength concrete for foundations and lower parts, such as **Ductal®**

Lightweight concretes for upper parts

Insulating concrete such as **Thermedia®** for intervening storeys

Some achievements



New York, USA: Lafarge has provided 150 000 m³ of concrete used in the superstructure of the One World Trade Center in New York. This tower was designed to be the safest and most respectful commercial building in the world.



Zenata, Morocco: construction of an eco-city of 300,000 inhabitants respecting ecologic, economic and social principles of sustainable development.

© Lafarge Medialbray - J. Leynse - CAPA Pictures - David Chids (architect) - Skidmore, Owings and Merrill

© Lafarge Medialbray - Reichen & Robert & Associés - Société d'aménagement de Zenata (SAZ)

More durable cities

Our contribution

Concrete is a resistant material which is needed for buildings that resist corrosion. It **doesn't require maintenance** and is **long-lasting**

Our solutions contribute to the **energy efficiency** of buildings



© Lafarge Medialibrary - Edouard François (architecte)

Our solutions

Special concretes formulated to **withstand earthquakes** and **cyclones**

Solutions to reinforce thermal insulation:

- The ultra-high strength concrete-based thermal breaker: **Ductal®**
- **Thermedia®** range

The pervious concrete **Hydromedia™**, which **prevents flooding**

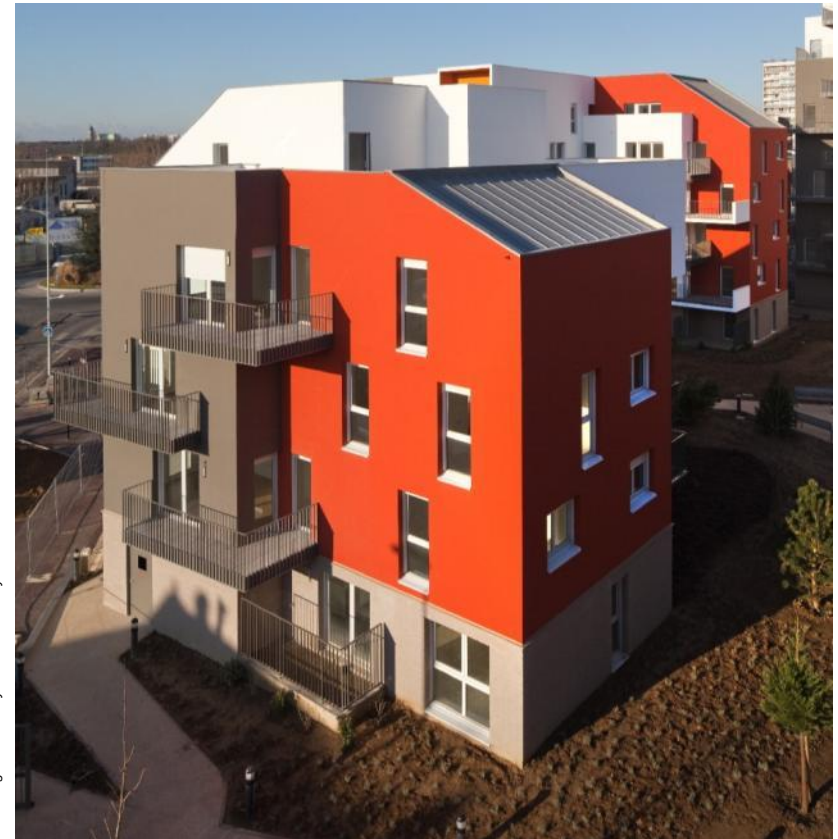
Lower-carbon cements such as our new generation **Aether®** cements

Some achievements



© Lafarge Medialibrary - Patrick Kennedy

Hamilton, Canada: pervious concrete Hydromedia™ - absorbing the rainwater and facilitating natural flow in the soil - was used to shape the forecourt of Mohawk College in Hamilton, Canada.



© Lafarge Medialibrary - Gérard Morand-Grahame - Olivier de Boisment (architect) - Agence Arc/Pole

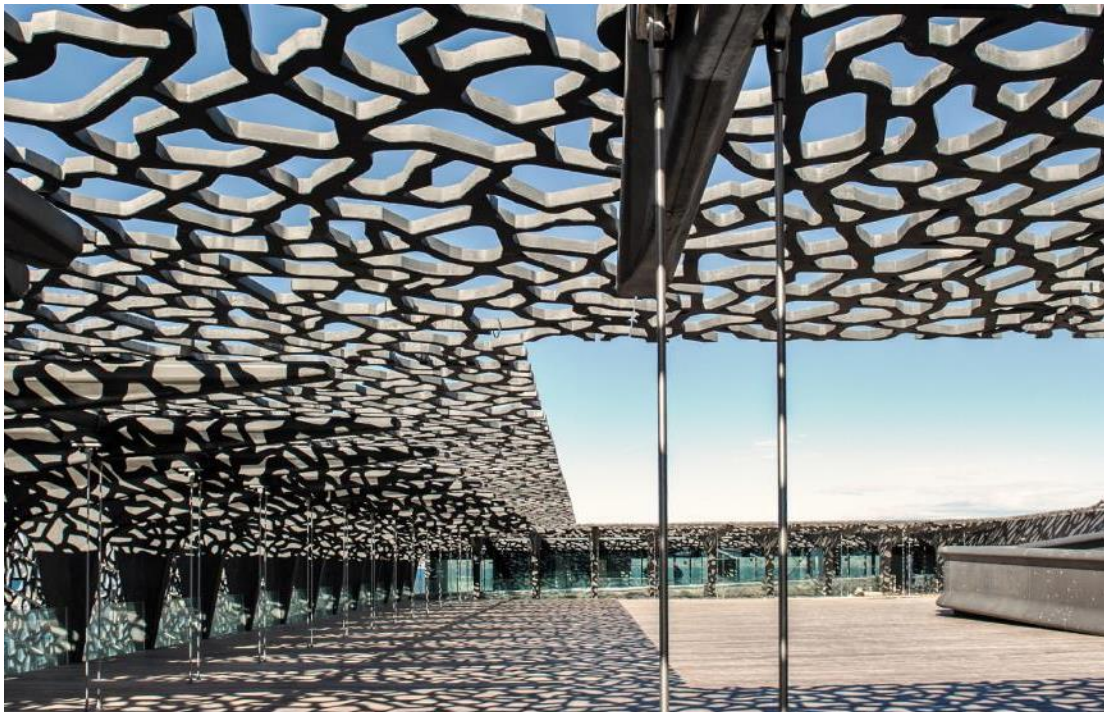
La Courneuve, France: our Thermedia® 0.6 concrete reduces energy loss in facades by 35%, thanks to a formulation that improves the insulation of concrete without affecting its structural performance.

More beautiful cities

Our contribution

Concrete can be **molded into a variety of shapes, colors and textures**, to produce very **innovative** structures.

It is also used in projects to **restore the architectural heritage of cities**



© Lafarge Medialibrary - Charles Plumey-Faye - Rudy Ricciotti (architect)

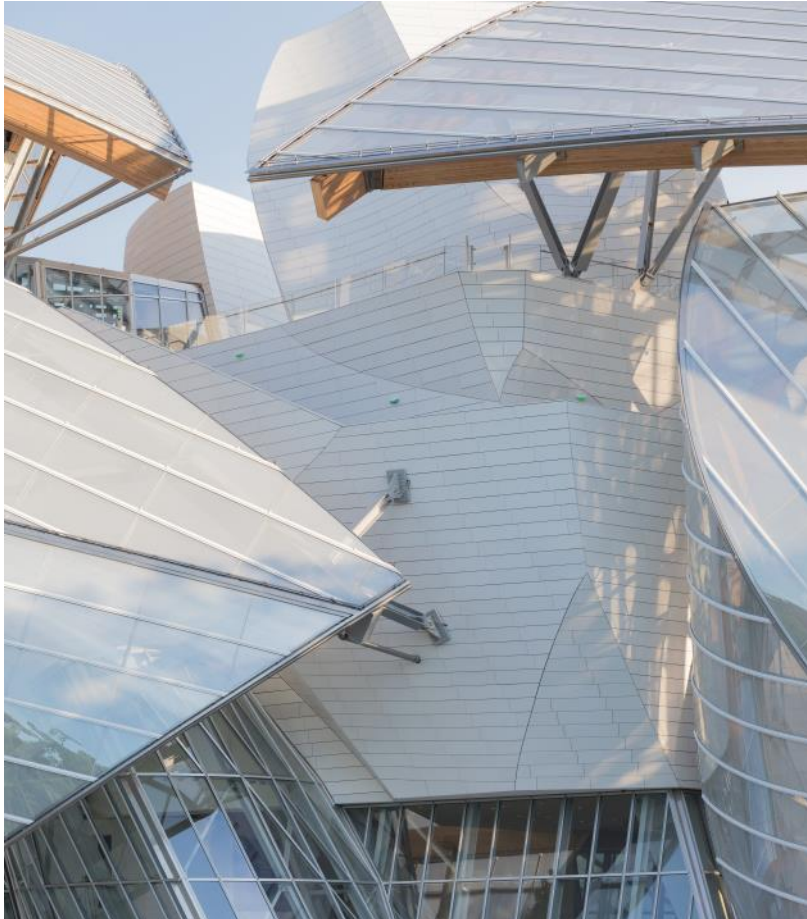
Our solutions

The ultra high-performance fiber-reinforced **Ductal®** ultra thin and ultra resistant

Artevia® decorative concretes

Agilia® self-placing concretes with an ultra-smooth finish

Some achievements



Paris , France: our ultra high performance concrete (Ductal®) was in the façade of the Louis Vuitton Foundation, perfectly matching the geometry of the structure, without neglecting mechanical strength and durability.



Paris, France: the Philharmonie de Paris was designed by French architect Jean Nouvel. 50 different Lafarge concrete formulations were used during the construction, covering 50 000 m³ in total.

Better connected cities

Notre contribution

Solutions for:

- **Transport infrastructure** (tramway, roads, stations, airports...)
- **Engineering structures** (bridges, tunnels)
- **Urban development** (sidewalk, parking place...)



© Lafarge Medialibrary - Ron Saari

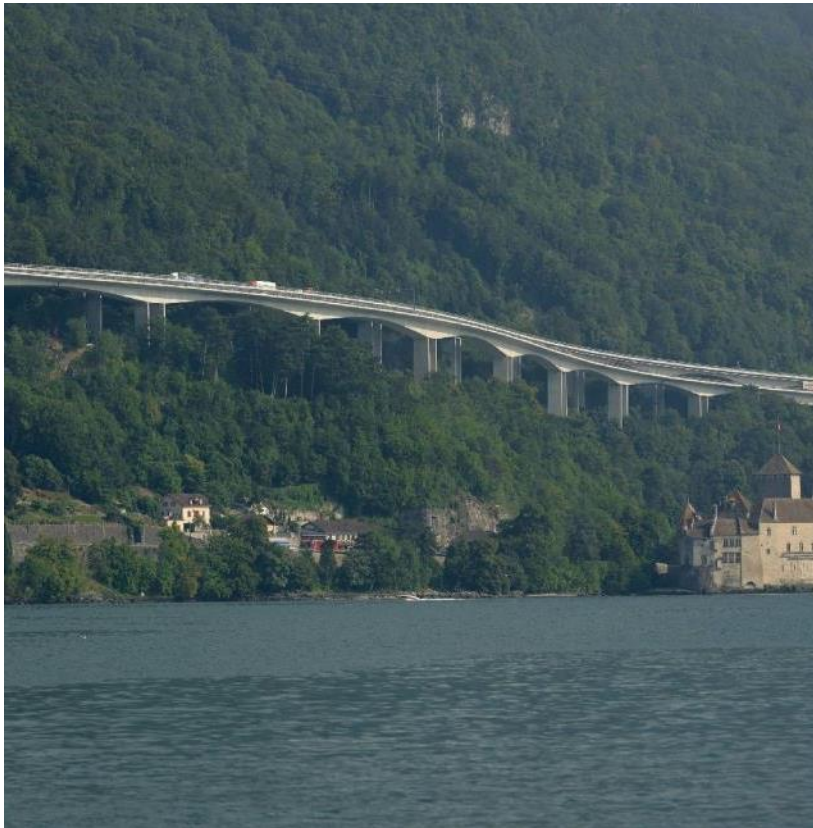
Nos solutions

Roads made of concrete last 30 years without maintenance

Special **cements and concretes** for tunnels and ports

Chronolia®, the fast-setting concrete to carry out road works without disrupting traffic

Some achievements



© Lafarge Medialibrary - Hannu Muihberg

Vaud, Switzerland: the renovation of Viaduc de Chillon with a specific Ductal® formulation will allow one of the most spectacular structures of the Swiss motorway network to be updated.



© Lafarge Medialibrary - Mikolaj Katus

Poland: Lafarge provided unique tailored solutions for almost 100 km of the S8 highway. These solutions involve concrete for bridges and road coating, bulk cement, and various services such as management of the supply chain.