Affordable Housing

A business and social opportunity

- **Our definition** *“Housing for people who do not have access by usual financial ways to decent housing”*
  - Emerging countries: 4 billion people (“Base of the pyramid”)
  - Developed countries: 150 million people without decent house conditions

- **Our objective: build new markets for Lafarge and improve housing conditions**
  - Part of our 2015 Innovation & Transformation Programme
  - Part of our Sustainability ambitions: improving housing conditions for 2 million people by 2020

- **A dedicated team in Paris and local projects embedded within the marketing teams of Lafarge subsidiaries**

> A unique business initiative across the industry which improved the housing conditions of 120,000 people in 2013
Our 4 types of business initiatives

**MICROFINANCE**
- **Customer issue:** Individual home builder’s access to finance
- **Our solution:** Based on our cement bags retailers network: Providing access to credits & technical assistance (catalogues of house designs and bill of quantities.)

**EARTH&CEMENT**
- **Customer issue:** Looking for durable solution without concrete
- **Our solution:** Mix of cement and soil to produce non burnt clay bricks, keeping aesthetic and thermal inertia of earth construction

**SLUM REHABILITATION**
- **Customer issue:** Looking for good waterproof solution
- **Our solution:** Bagged concrete supplied to small customers in informal settlements

**MASS AFFORDABLE HOUSING**
- **Customer issue:** Quality & speed of large scale projects
- **Our solution:** Lafarge works with developers to improve quality & speed of construction.

18 countries with Affordable Housing projects
Affordable Housing Microfinance offer - Zambia

Affordable Housing Microfinance
A Housing Solution for Individual Home builders

TECHNICAL ASSITANCE
- Site visits
- Building Plans
- Costs estimates (Bills of Quantities)

ACCESS TO FINANCING
- Home improvements Loans
- Bit by bit Home Construction loans

ACCESS TO RETAILERS
- Availability of products
- Controlled Prices
Our approach of Housing Microfinance

Creating projects in partnership with MFIs and building material retailers

In September 2013, Lafarge Zambia launched its ‘Program for Housing Microfinance’, with BancABC as the first partner

Affordable Housing Microfinance

Achievements – Lafarge Zambia

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<th>Achievements</th>
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<td>Project Launch</td>
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<tr>
<td>September 2013</td>
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<tr>
<td>Number of Micro Credits to date</td>
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<td>819</td>
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<td>Financial Partners</td>
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<td>BancABC, Madison Finance, ZNBS</td>
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Our first client

Client Profile

- Name: Kelvin Kanyumbu
- Married with 2 children
- Borrowed for completion of House and building of a small shop
- Kelvin is a security officer and wife is a trader
Mass Affordable Housing
Alternative Building Technology

Mass Affordable Housing
Lafarge Approach

Addressing the needs for Social Housing in developing countries

Situation

- Government & developers are looking for new construction solutions to:
  - Build faster Social Housing projects
  - Improve the quality & perception of such projects (aesthetic, durability)

Lafarge approach

- Identification & test of construction systems to optimize cost, speed, quality and durability
  - Research Center in France & Construction Development Labs
- Facilitate implementation of such projects
  - Lafarge Construction Specialists in countries
Mass Affordable Housing
Lafarge Zambia - Alternative Building Technology

Show house
• A show house is being built at Lafarge Head office
• Stakeholders to be invited to come and appreciate the technology

Building Technology
• Structural Concrete Insulated Panels
• 3D TridiPanels

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Mass Affordable Housing
Lafarge Zambia – Roll out model

• Find an adequate technology to make houses affordable
• Build Employee houses as proof of concept
• Roll out to the rest of the country
Earth and Cement

A construction opportunity for developing countries

A Need for new solutions

- 2 billion people live in earth-based homes
- Individual houses are mainly built of mud brick or burnt clay brick

Environmental issues:
- Increasing deforestation due partially to the use of wood for burning clay bricks
- Low resistance to monsoons, requesting owners to rebuild houses every year

Urgency of finding constructive solutions in Africa, Asia and LATAM, providing
- durability
- comfort
- at a reasonable price
**Our offer: A cement for soil Stabilized Bricks**

Stabilized soil bricks: earth, sand and cement mix

- **Advantages**
  - Use of local materials (earth – sand)
  - On-site and easy fabrication
  - Standardized form
  - Durability of the product against shock, rain and insects.

- **Pilot started in Malawi in 2013, now being replicated in 8 countries**

- **Lafarge Zambia** is carrying out surveys to establish market for the product in DRC and Zambia