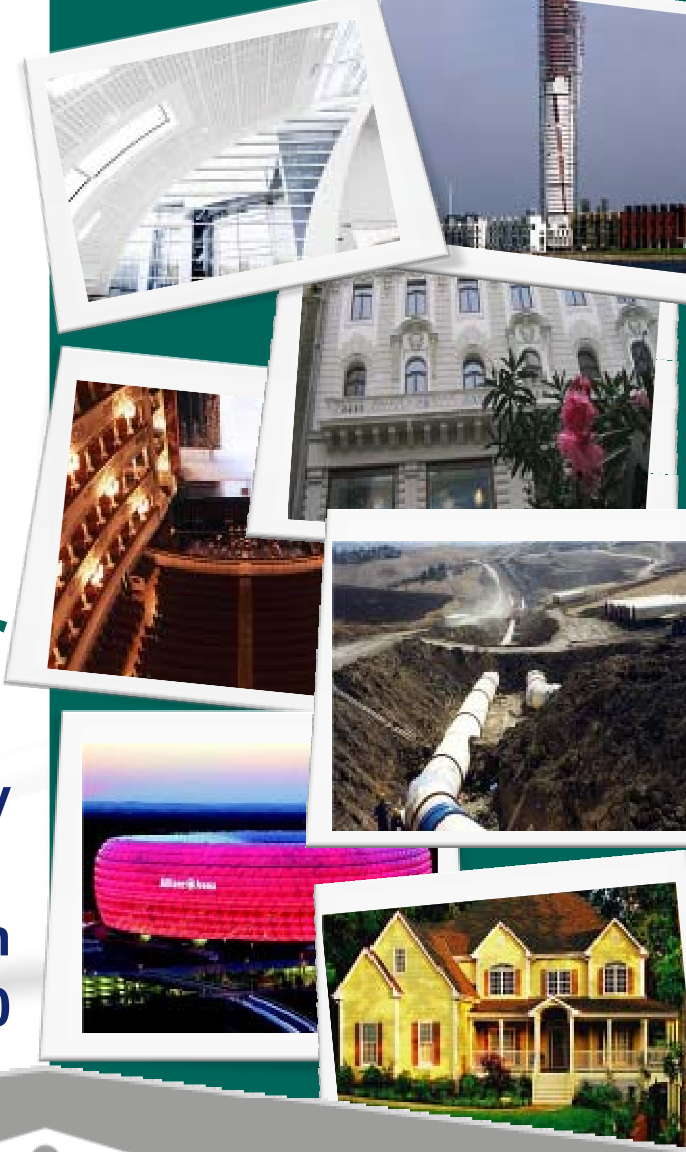

Energy efficiency: a growth driver

Investor Day

Claude Imauven
November 15, 2010

SAINT-GOBAIN
CONSTRUCTION PRODUCTS

Energy efficiency: a growth driver

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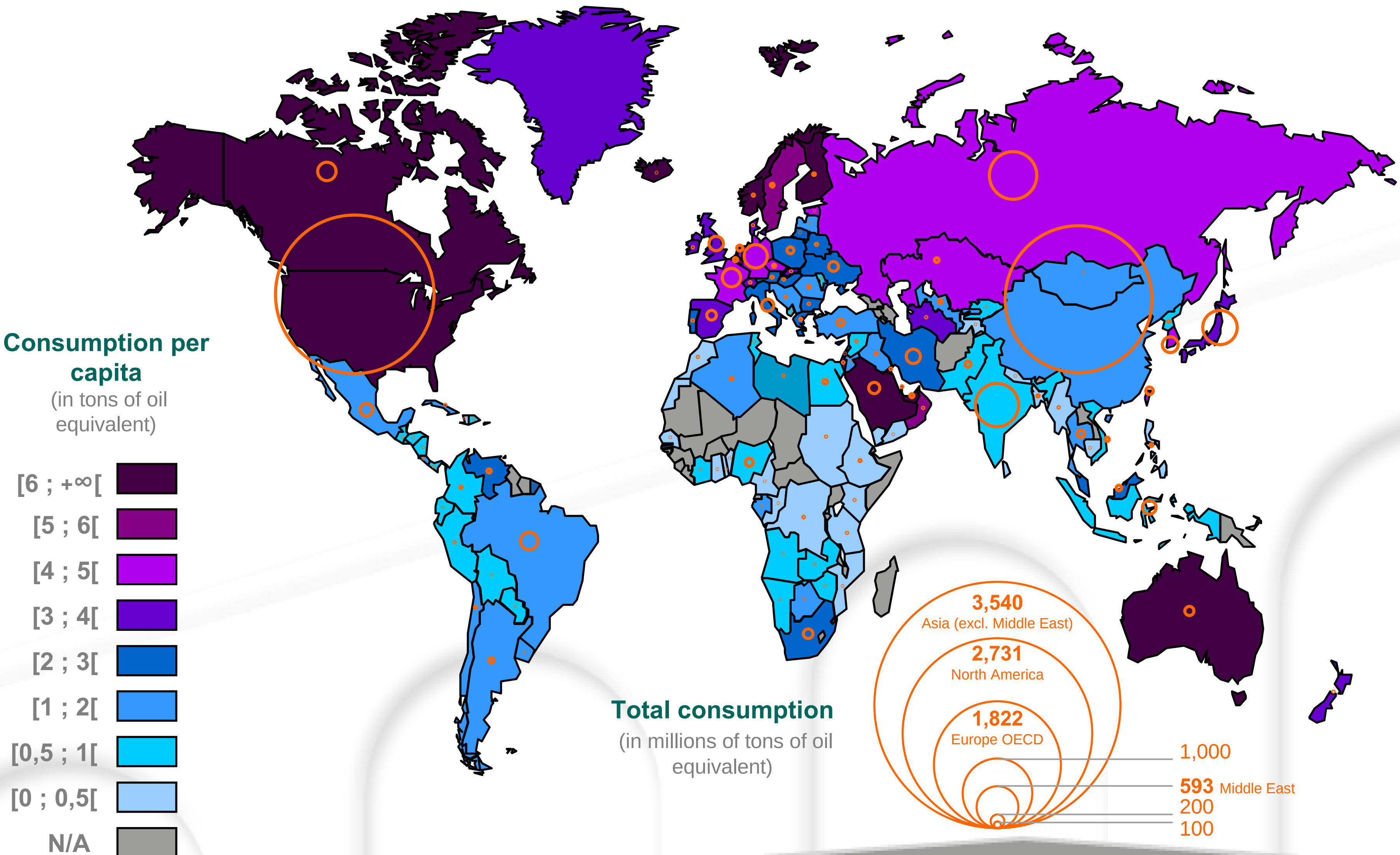
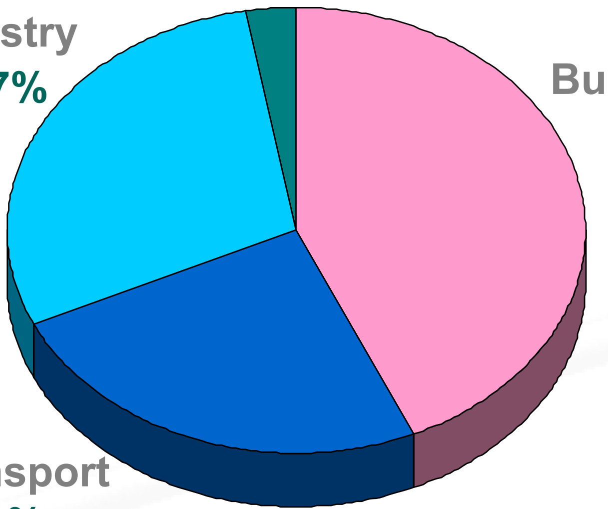
Current energy consumption trends are not sustainable

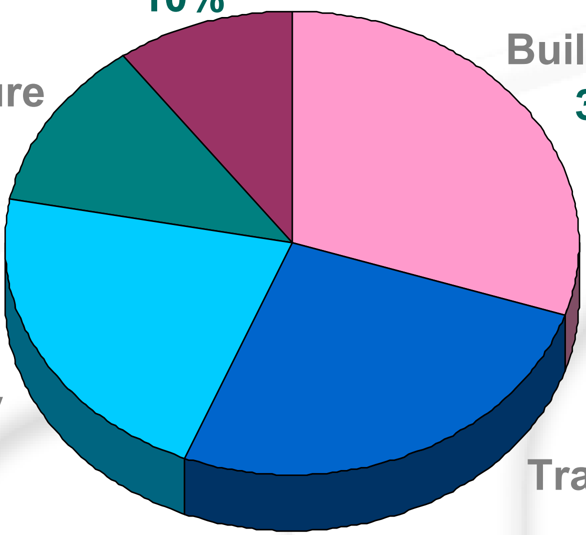


Buildings account for 40% of energy consumed and around 30% of CO_2 emissions

Energy used (Mt) Europe



$C0_2$ emissions (Mt) Europe



78% of energy used in buildings can be saved through thermal renovation

Source: EURIMA, ECOFIS-study "Mitigation of CO_2 Emissions from the European Building Stock"

Thermal efficiency: tightening regulations

In France

	1950-1975 buildings	Compliance with current regulations (TR 2005)	House compliant with TR 2012	Passive houses or positive energy buildings TR 2020
CO_2 emissions	60 kg/m² year	30 kg/m² year	10 kg/m² year	2 kg/m² year

Price of barrel

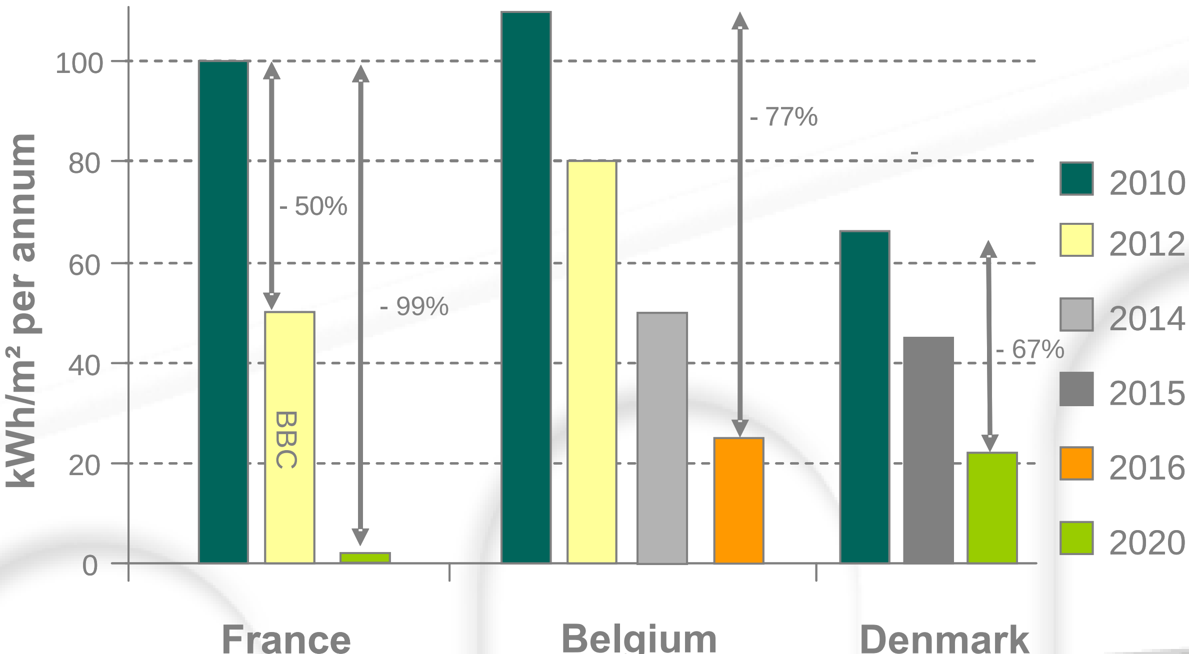
Annual heating cost for 100 m²

$80 (Nov. 2010)	€1,700	€880	€350	€110

Source: EURIMA, ECOFIS-study "Mitigation of CO_2 Emissions from the European Building Stock"

New-build: tightening of regulations across Europe…

- Energy Performance of Buildings Directive (introduced in 2010): "Nearly zero energy buildings" by 2020
- Some countries have already anticipated the new regulations: France (*BBC** 2012, *BEPOS*** 2020), UK (Zero Carbon 2016)



Energy consumption
- Heating (air & water)
- Air conditioning
- Lighting
- Ventilation

** Low-energy building*

*** Positive energy building*

…and across the globe

- United States
  - Lagging behind Europe
  - 11 States have adopted the 2009 International Energy Conservation Codes, which on average are only half as demanding as European regulations
- Stricter Building Codes in Eastern Europe, Russia, Japan, South Africa, Latin America, etc.

Growth of the renovation market

- **European Union:**
  - **Large market: 210 million buildings**
    - 50% built before the 1st oil crisis in 1973
    - Inadequate renovation
  - **European action plan: 20% improvement in energy efficiency by 2020**
  - **E.g. France: thermal renovation market grew +9% each year between 2006 and 2008**
- **Developing countries, e.g. Eastern Europe and Russia:**
  - **Urgent need for renovation (insulation, windows)**
  - **New requirements in terms of comfort**

Energy efficiency: a growth driver

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1. Context: the increased need for energy efficiency

2. **Saint-Gobain's solutions for the Habitat of tomorrow**

3. Group-wide initiatives to develop energy efficient solutions

Saint-Gobain’s solutions the Habitat of tomorrow

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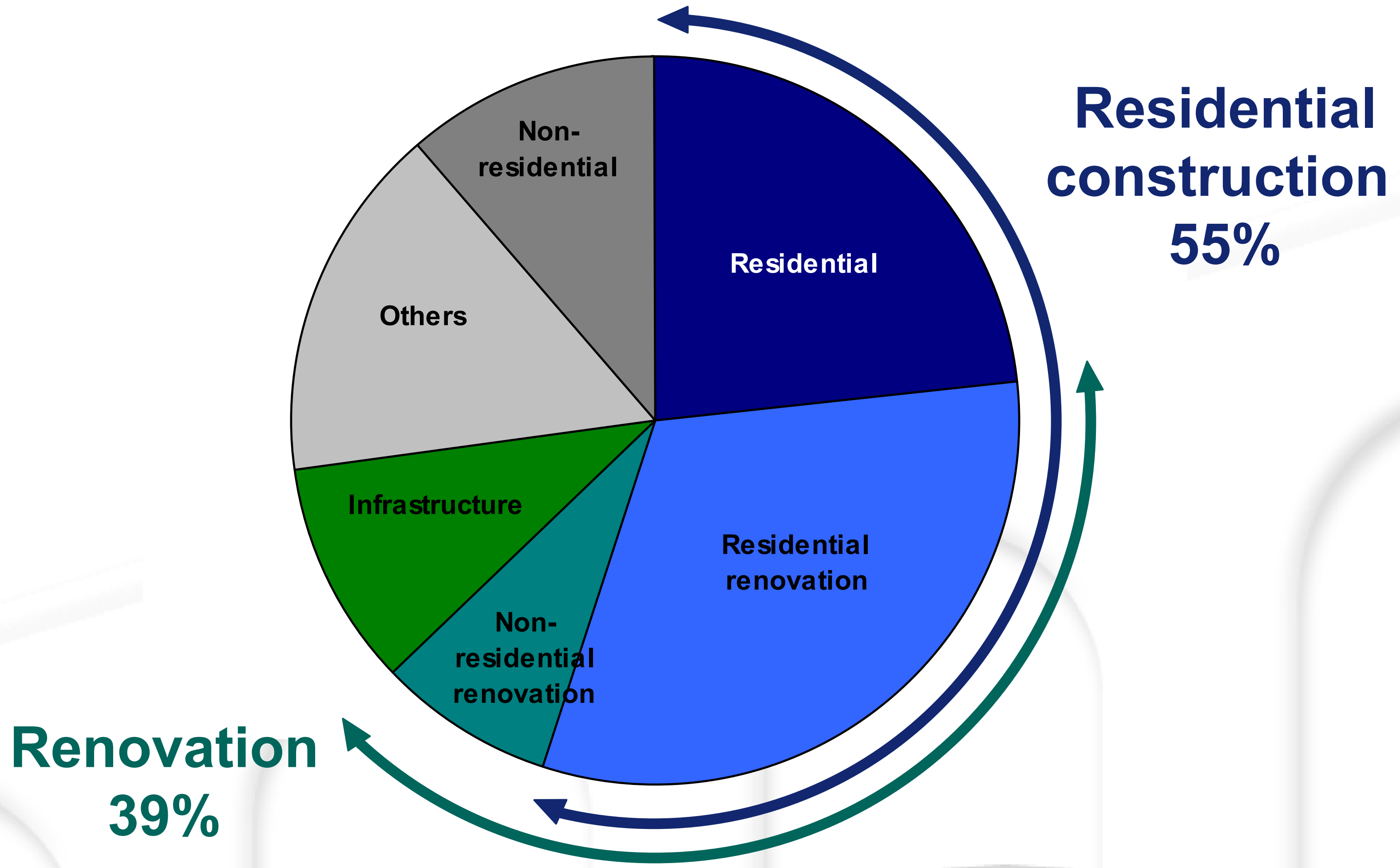
SAINT-GOBAIN
CONSTRUCTION PRODUCTS

Significantly oriented towards residential and renovation markets

Share of 2010e sales, excluding Packaging



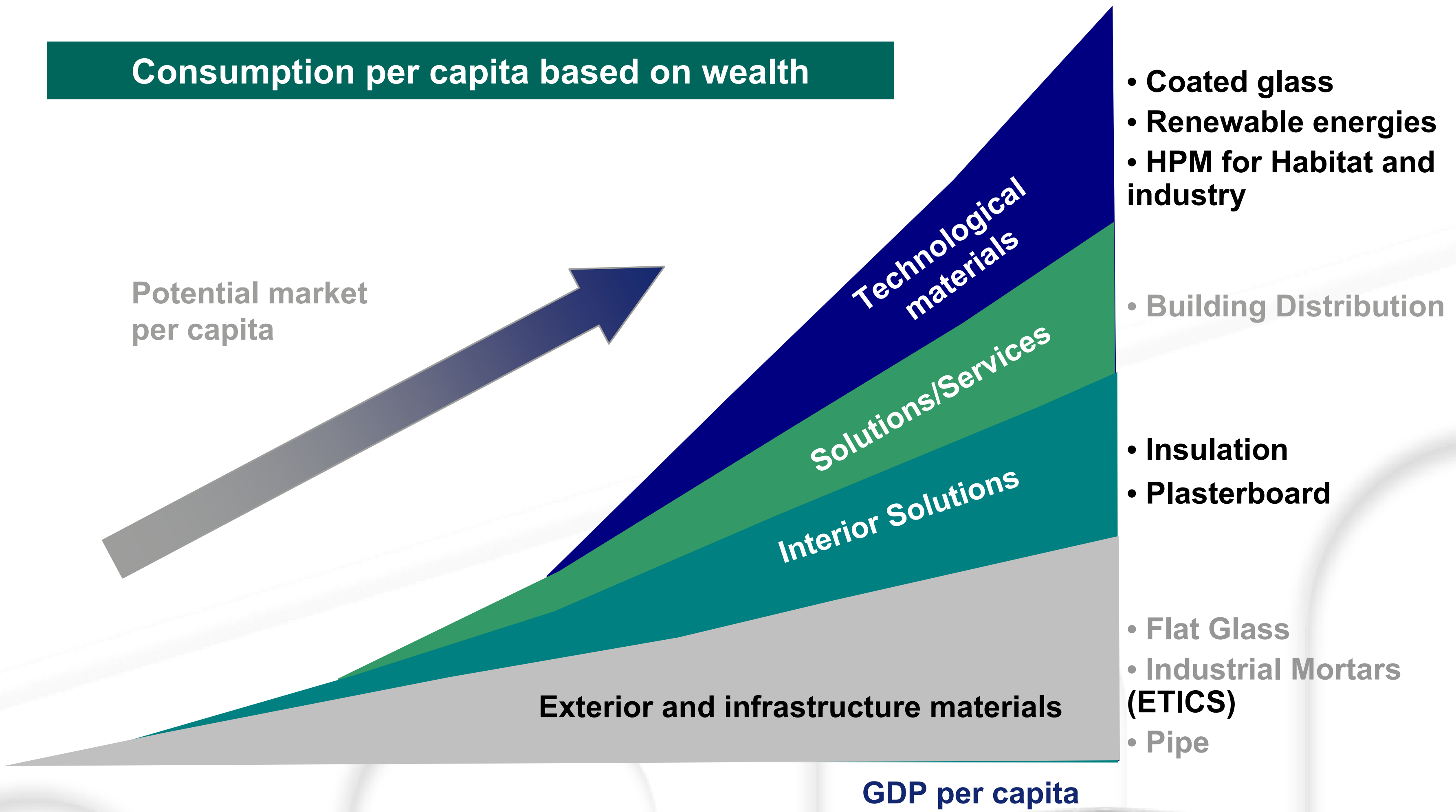
A global presence to meet energy efficiency needs in local markets

- Transport costs

Reduced customer catchment area

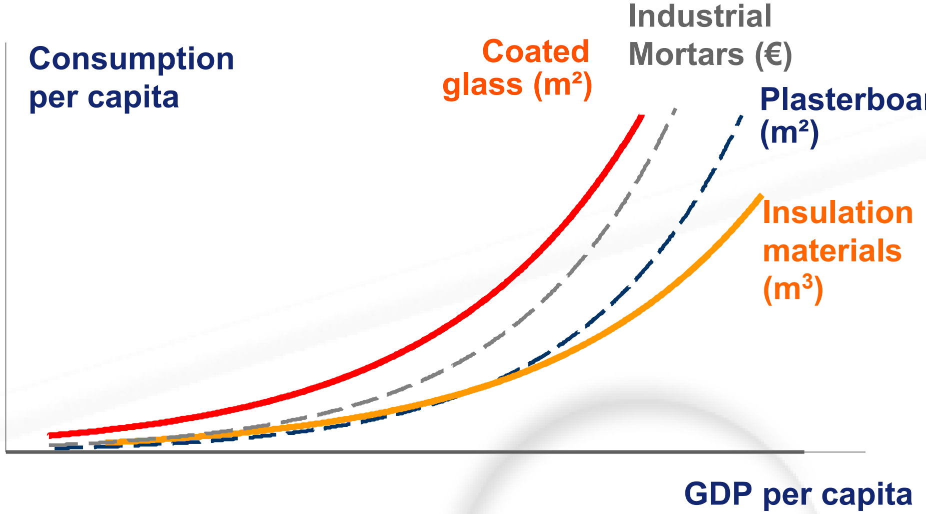
- Regional specificities
  - Housing habits
  - Regulations
  - Climate

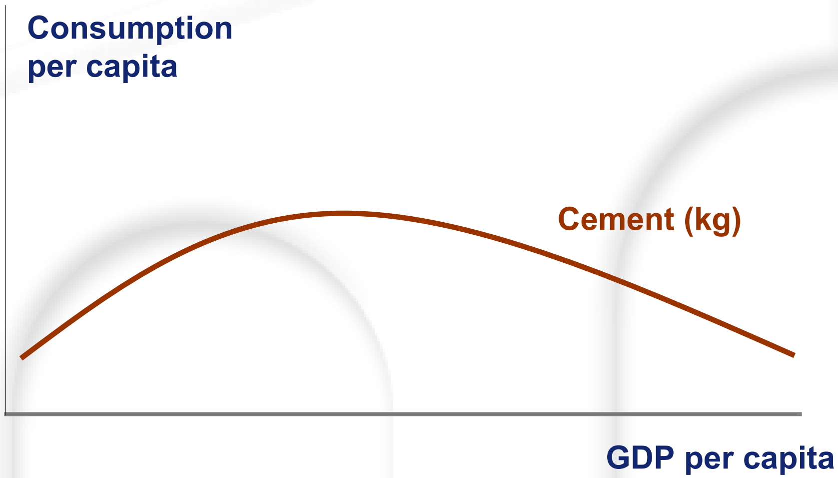
Energy efficiency solutions for each stage of the economic development cycle



Significant growth potential in mature countries

- Energy efficiency markets growing in line with national wealth





Saint-Gobain's solutions the Habitat of tomorrow

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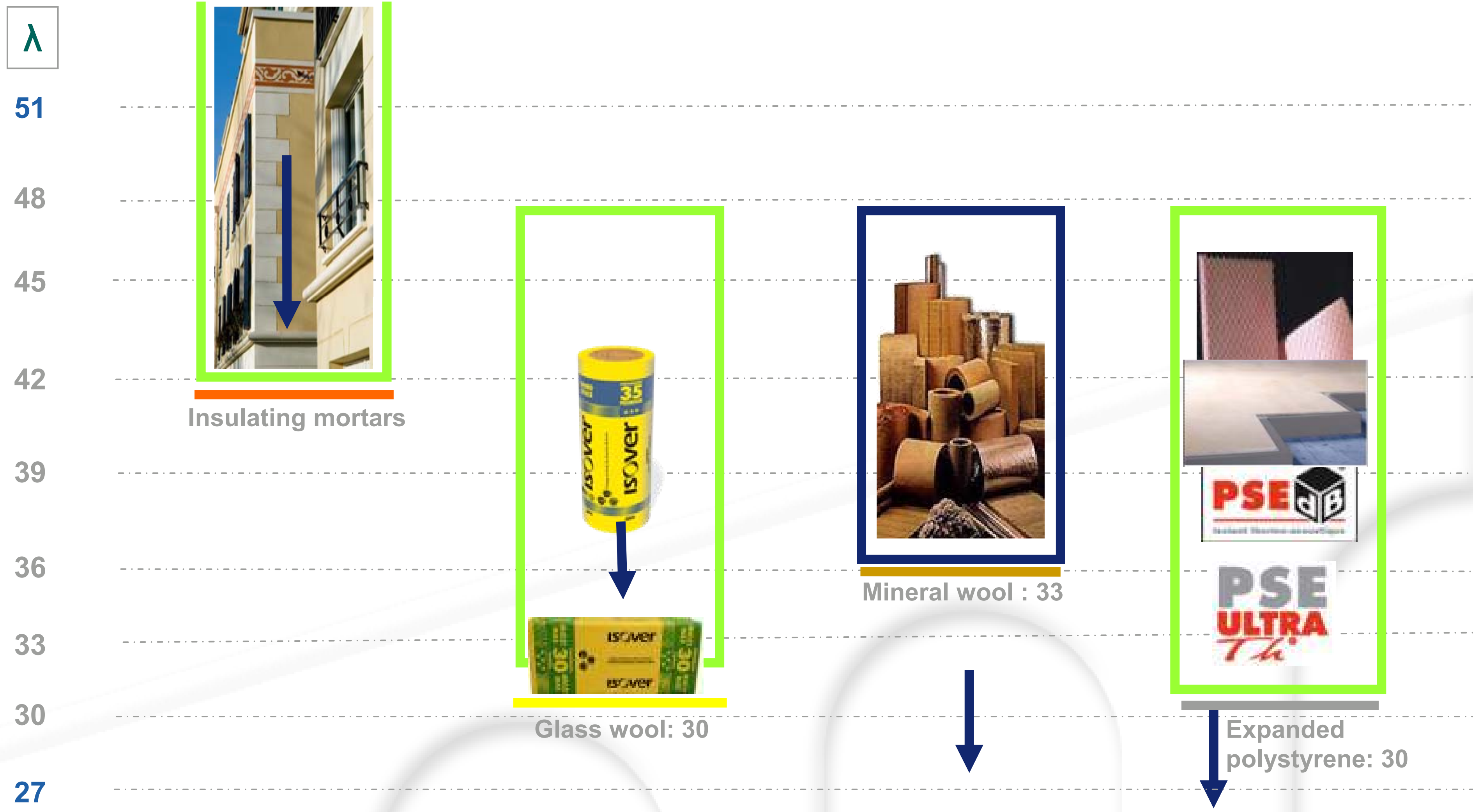
Our solutions for meeting stricter thermal performance standards

- **New regulations require:**
  - Greater thickness in application
  - Increasingly efficient solutions (reduce λ*)
- **Consequently:**
  - Mix evolves towards higher added-value products
- **Isover sales growth in France (2009-2010):**
  - 2% in m²
  - 8% in tons

The coefficient of thermal conductivity (λ) is expressed in W / (mK) and represents the amount of energy through a wall for a sq meter of material. The lower the λ, the higher the insulating effect of the material.

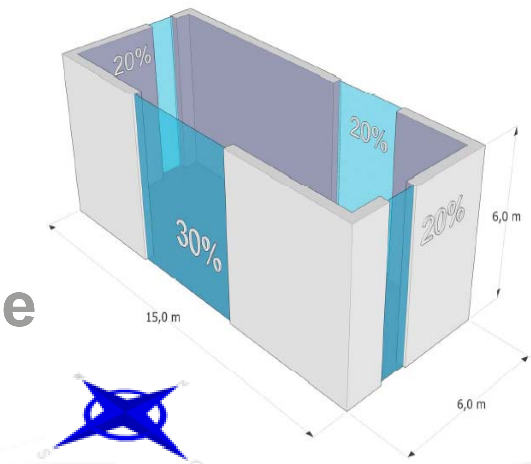
The race towards low lambda solutions is accelerating



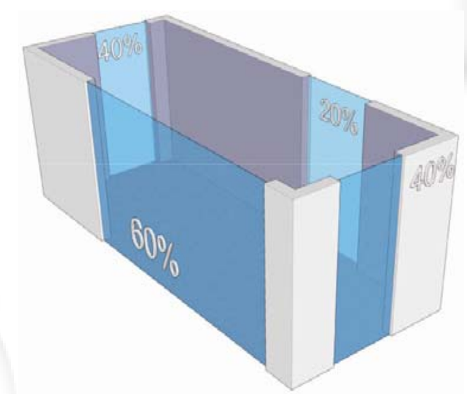
**The coefficient of thermal conductivity (λ) is expressed in W / (mK) and represents the amount of energy through a wall for a sq meter of material. The lower the λ, the higher the insulating effect of the material.*

The increasing performance of insulating glass

- Solar gains exist even for north-facing buildings
- Triple-glazing with a high solar factor is more energy-efficient than a wall, regardless of the direction it faces
- Glazing should be expanded to improve the overall energy performance of buildings



	South	East/West	North	Wall
Solar gains	+115	+69	+49	0
Thermal insulation	- 56	- 56	- 56	- 10
Energy balance kWh/m²	**+ 59**	**+13**	**- 7**	**- 10**

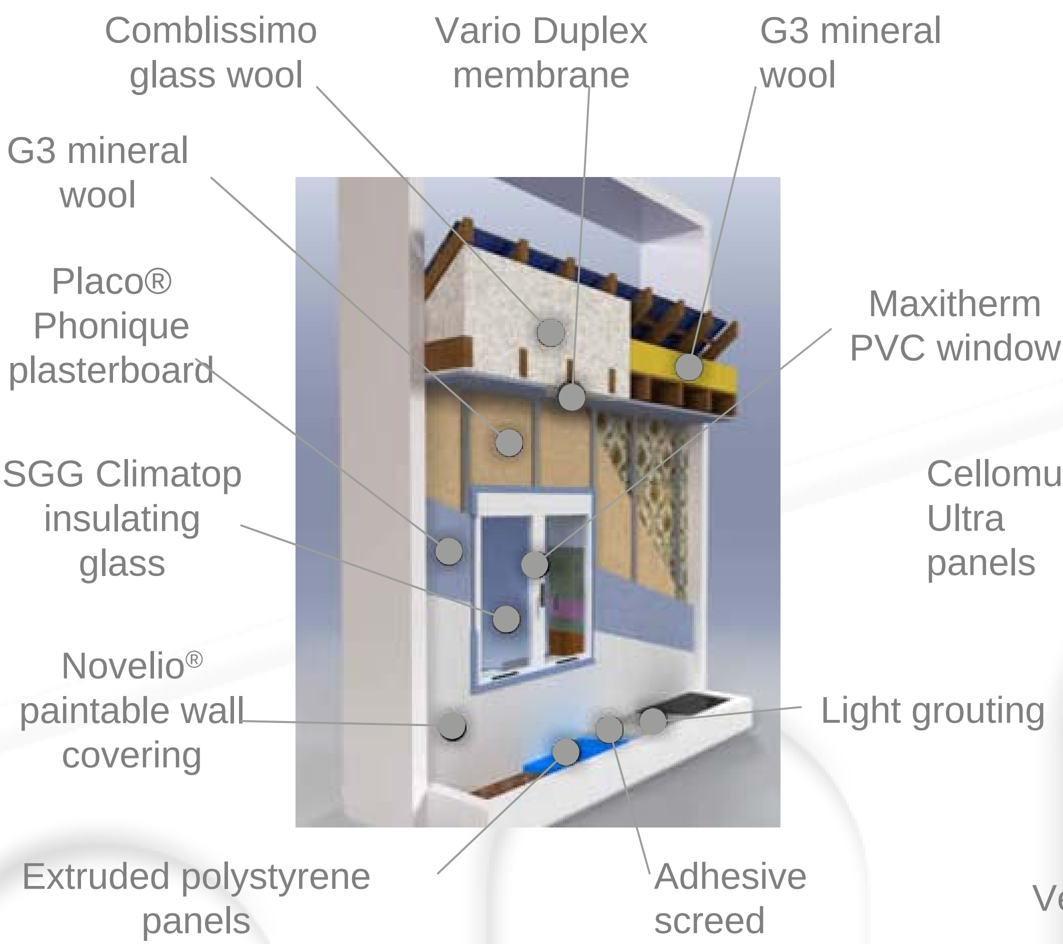


SAINT-GOBAIN GLASS's triple glazing solutions in Salzburg

With solar gains, triple glazing is becoming more energy efficient than walls!

Saint-Gobain's comprehensive, integrated solutions

- **Individual and collective housing: examples of interior and exterior solutions**



A portfolio rich in high performance solutions…

E-Glas insulating glazing

High performance EPS

Blown wool

External Thermal Insulation Composite System

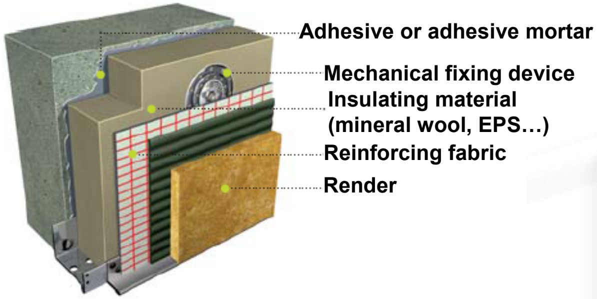
Thermal insulation solutions

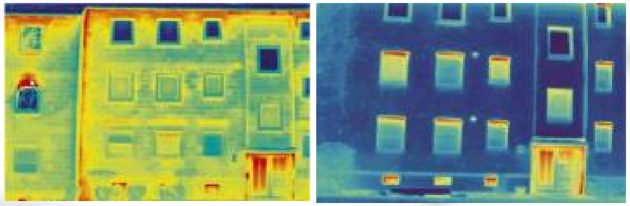
High thermal performance double-glazing

…for strong, profitable growth

- ***Planitherm*** **for reinforced thermal insulation glazing - A position of market leadership**
  - Price per m² 3 times higher than for single glazing
- ***ETICS***
  - Annual sales growth of at least 10% over 2010-2015
- ***E-Glas***
  - Annual sales growth of +33% through to 2015

ETICS (External Thermal Insulation Composite Systems)





Infrared image before and after installation of Weber insulating mortars, in Poland

For all these products, margins are significantly above those of basic products

Saint-Gobain's solutions the Habitat of tomorrow

CONTENTS

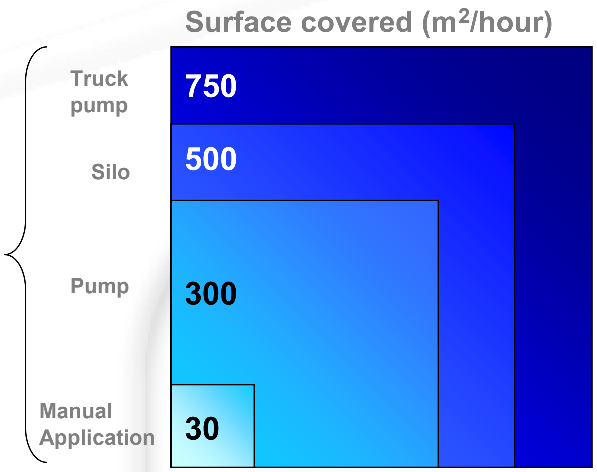
High added-value solutions to save manpower…

Installation phase

- Industrial Mortars: *Flooring*
- Gypsum: plasters
- Pipe: *Blutop*
- Prefab market
- Development of mechanization

***Flooring* example:**

Productivity of three men, according to the application method used



Maintenance phase

- Flat Glass: *Bioclean* self-cleaning glass





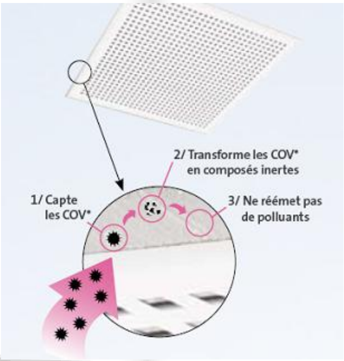

… and improve our product mix and profitability

- ***Flooring***
  - **Expected growth of nearly 10% per annum through to 2015**
    - **Sharp margin growth**
- ***Gyproc plasters***
  - **Growth through:**
    - Product development
    - Mechanization
    - Penetration vs. cement

- ***Bioclean***
  - **20% growth per annum through to 2015**
  - **Margins well above those for basic products**

High added-value solutions for increased comfort

- **Growing demand for technical performance**
  - **Soundproofing**
  - **Moisture-resistance**
  - **Fire-resistance**
  - **Health**
    - Air quality
    - Mould-resistance
  - **Aesthetics**



Industry-leading solutions with high added-value

- ***Activ'Air***, launched in 2010
  - Sales very quick to take off
- ***Placophonique*** (and other soundproofing solutions)
  - 100% premium on prices per m² compared to basic products
- ***Privalite***
  - 27% growth per annum through to 2015

For all these products, margins are significantly above those of basic products

Energy efficiency: a growth driver

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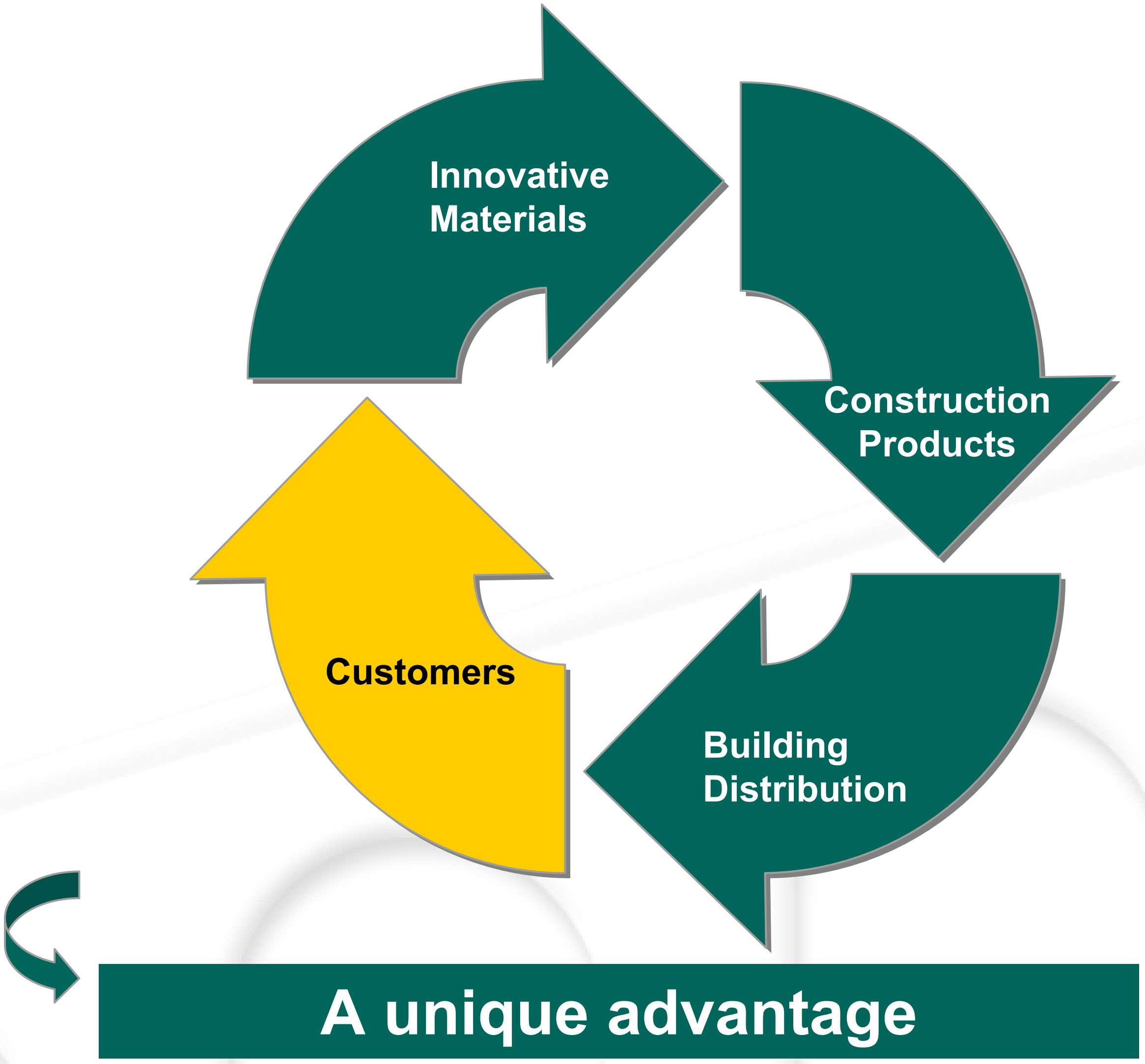
The complementary nature of the Group's three Business Sectors drives delivery of energy efficient solutions



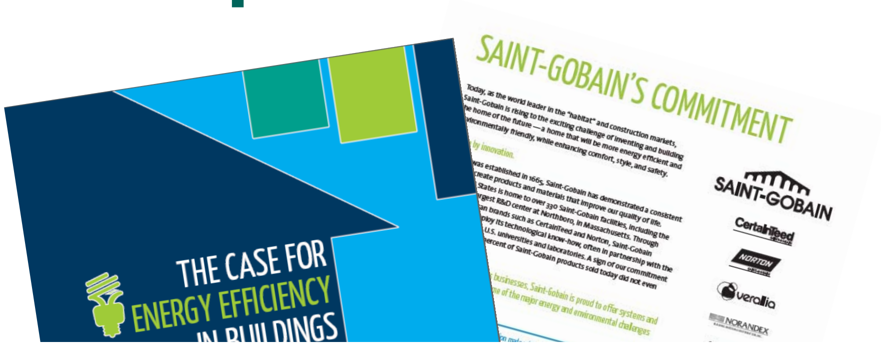
R&D for developing increasingly innovative solutions

- Leadership achieved through the creation of cutting-edge technologies for energy efficiency markets (TEL process, thin pipes)
- Common approach between R&D and Marketing departments
  - Shared view of the market
  - Combined effort on the innovation portfolio
  - Reinforced customer orientation to realize the Habitat solutions of tomorrow

Habitat marketing initiatives to boost growth

- Cross-business marketing approaches: Habitat committees already in place in 26 countries
- Action plans based on 6 common themes:
  - Strategic market intelligence
  - Specification and projects
  - Combined solutions and innovation
  - Customer training
  - Targeted cross-business offers
  - Communication and promotion

Examples of Habitat committee initiatives



US: publication of a brochure to raise awareness of energy efficiency issues in the Habitat market among business referral agents

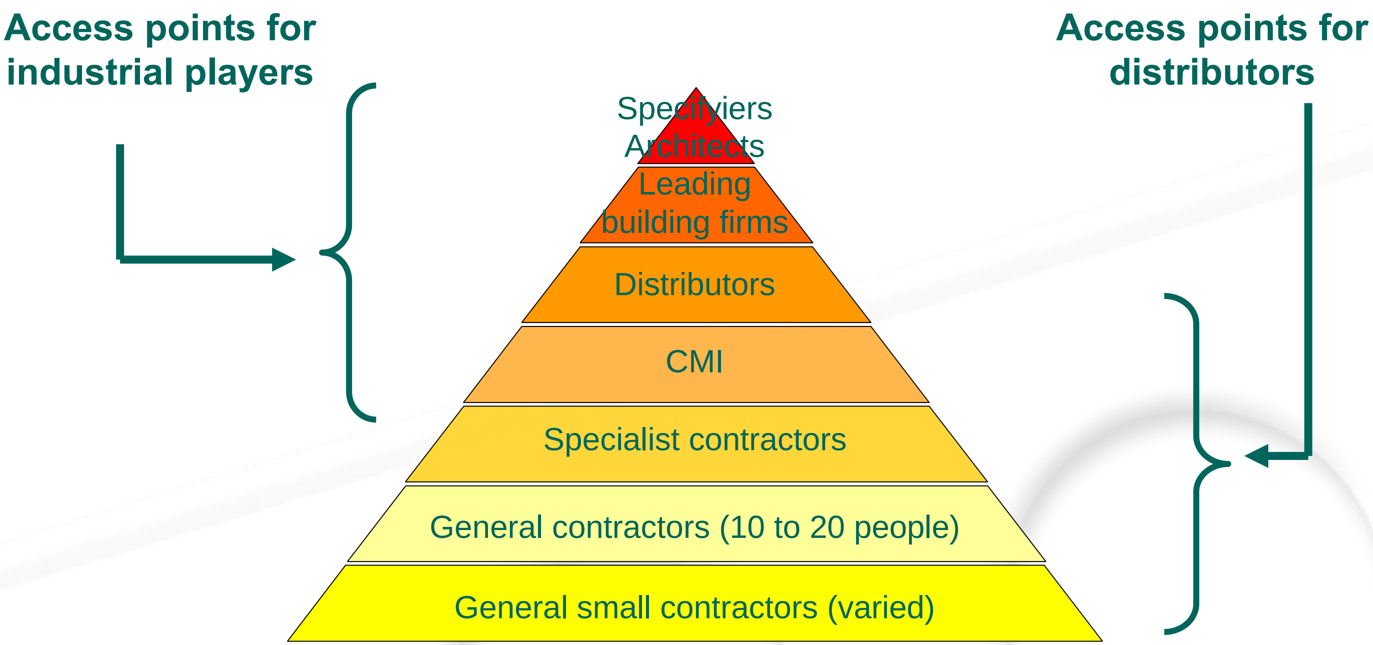
France: dedicated comprehensive range of products for healthy buildings bringing together 12 banners

South Africa: successful training courses run by the Saint-Gobain Academy, with a 100% hiring rate on graduation and the creation of extremely loyal future customers

UK: management of key accounts for 2012 Olympic Games

Training: a unique asset offered by Saint-Gobain

- **Significant skills and training needs**
  - New businesses in the value chain
  - New training needs regarding materials and solutions, regulations and financial aid
- **Different points of contact between industrial businesses and Building Distribution**



Distributors are the vital link for training the wide range of small contractors

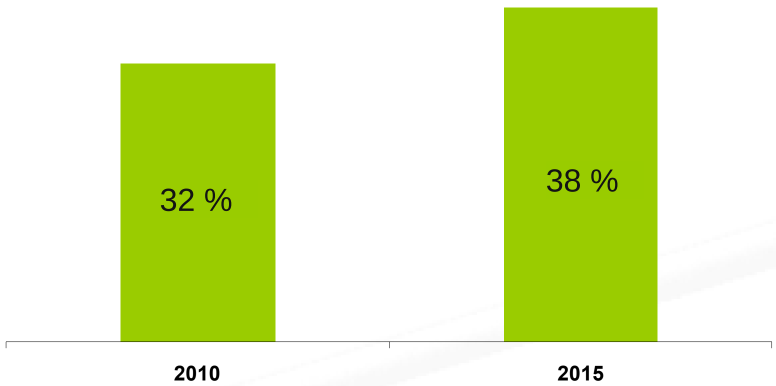
Conclusion - Energy efficiency

- **Fundamental growth markets**
- **High added-value solutions for energy efficiency in Habitat markets**
- **A solid organization to capture growth**
  - Three complementary Sectors to develop, produce and commercialize sustainable Habitat solutions
  - Innovation
  - Marketing Habitat
  - Training

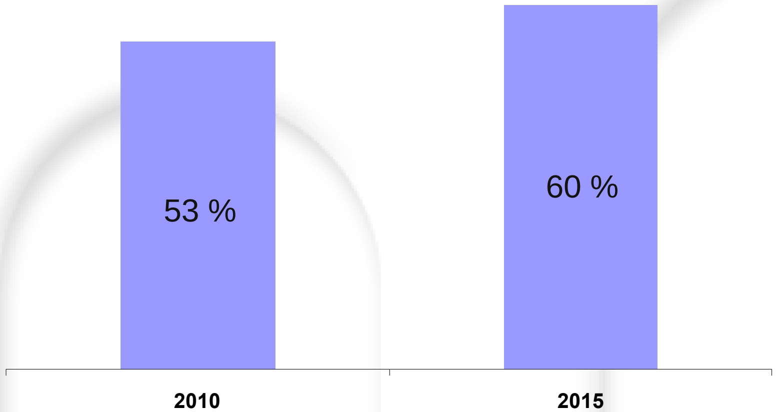
Conclusion - Energy efficiency: a growth driver

- Factors **unique** to Saint-Gobain…
  - Strong focus on EEE*
  - Broad portfolio of high added-value solutions in Habitat markets
- …to deliver **growth**…
  - Superior to the growth of the underlying markets
- …and **profitability**
  - Exceeding current profitability
  - Exceeding profitability of basic products

EEE* solutions as % of Sales**



High added-value Habitat solutions as % of Sales**



**Energy efficiency, environment and energy*
***Saint-Gobain Group, excluding Packaging*

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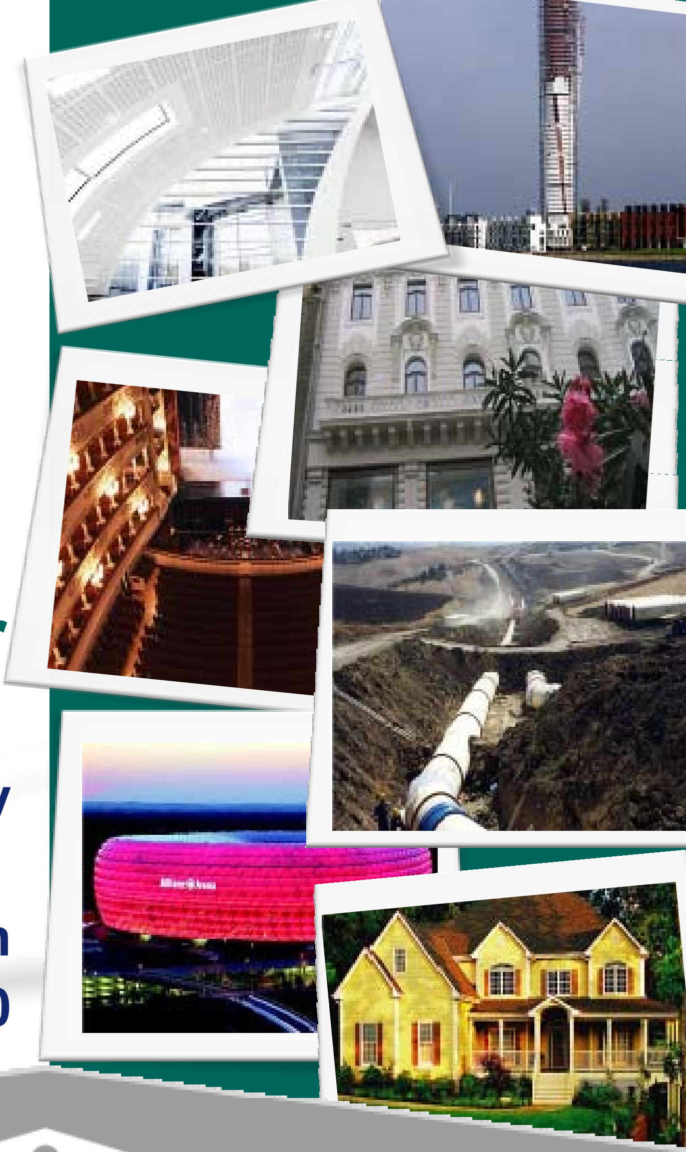

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