Buildings: burden or opportunity?
An industry perspective.

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25 June 2013
Eurima in a nutshell

- Eurima represents the interests of all major glass and stone **mineral wool insulation producers** throughout Europe.
- Eurima members employ **over 21,000 people** across Europe, and have a total of **58 production facilities** in the countries marked in light green on the map; they operate in all European countries.
Associated members: 10 companies
Affiliated members: 17 national associations
A knowledge-based approach to energy efficiency and sustainability
Why care about buildings?

- 36% of GHG emissions
- 40% final EU energy consumption
- +400 to 450 Mtoe over the last 20 years
- 38% of EU27 natural gas consumption
- 59% of EU27 electricity consumption
- Housing costs = 15 - 30% of households’ budgets
- Fuel poverty
We must turn them from money wasters into human- and climate-friendly energy savers

- Expensive to heat
- Expensive to cool
- Uncomfortable to live
- Difficult to maintain
- Possibly unhealthy

- Very low energy
- Very low carbon
- Comfortable in winter
- Comfortable in summer
- Healthy indoor environment
- Affordable
We must and we can!

3 LEVERS TO ACT

- Very low energy demand
- No energy wastage
- Clean energy
We must and we can!

1. **Intrinsic building quality**
   - Bioclimatic design
   - High performance building envelope
   - Efficient ventilation, heating & cooling and lighting

2. **Occupants’ behaviours**
   - Education and information
   - Building automation and energy management systems

3. **Renewable energies**
We must and we can!

Cost-efficient solutions exist to build and renovate at very low or nearly zero energy standards.
High quality building envelope

- Efficient insulation
  - High thermal performances
  - Durability
  - Proper design and installation
  - Reduced thermal bridges

- Excellent air tightness

- High performance windows
More important than the technical solutions, the road you choose...

If very low or nearly zero energy buildings become mandatory
- All new constructions by 2020!

If very low or nearly zero energy building stock is not a shared objective
- Deep renovation of the existing building stock!
Already 10 years ago in France...

- Insulation companies advocating in 2003 for...
- ...all new constructions to be very low energy by 2015
- ...the whole building stock to be renovated according to very low energy standards until 2050.
New constructions and renovations are on different pathways

New construction: acceleration of the pace
- 2006
  Label BBC effinergie
- 2007 / 2008
- 2012
- 2020 Bépos-effinergie

• Existing buildings: still some way to go…
EU new constructions: a nice *avenue* ahead

The Energy Performance of Buildings Directive

NEARLY ZERO ENERGY

EUROPE 2020

European Insulation Manufacturers Association

Eu reputed leadership in the world
EU new constructions: still some steps on the avenue

Even on the most beautiful avenue in the World...

- Trafic lights
- Trafic jams
- Jobsite works
EU new constructions: still some steps on the avenue

- What national definitions for nZEB?
- nZEB versus cost-optimum level?
- Balance between decarbonised energies and actual energy performance of buildings?
- Education and training of designers and contractors
- New construction crisis

But for sure, success shall be at the end of the avenue!
Existing buildings: *THE* big challenge

- Renovation rates in the EU <1%
- 92% of the 2005 EU buildings still there in 2020 (75% in 2050)
- Very diffused market
- Refurbishment cycles: 30-40 years minimum
- Space heating and cooling: a key priority

Energy use in buildings:

- 4% Cooking
- 67% Space heating & cooling
- 14% Water heating
- 15% Lighting & electrical appliances

Source: European Commission
Existing buildings: *THE* big challenge

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We need to...

RENOCVATE EUROPE

but...

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[Source: European Commission]
Renovating existing buildings: a difficult journey?
Renovating existing buildings: a difficult journey?

✓ A lack of visibility for the stakeholders
  ✓ Where do we want to go?
  ✓ Where is the roadmap?

✓ A need to define and implement the right mix of solutions for each building to achieve the goal

✓ A few barriers to overcome
Stakeholders need clear direction
Stakeholders need clear direction


- What energy consumption for the building stock by 2050?
- What does that mean for each building?
- What shall be the rate of renovation?
- What shall be the depth of renovation?

✓ Deep renovation of the building stock until 2050 (80% energy demand reduction)
✓ Tripling of the current renovation rate
✓ All building (stage-) renovated into the best energy classes
Clear intermediate steps
Clear intermediate steps

- Intermediate targets for 2020, 2030, and 2040 shall be consistent with the 2050 objective for energy efficiency.
- Coherence of meaningful binding targets for 2030: EE, GHG and renewables.
- Political management of the national building stocks.
Adapting the mix of solutions to the building typology
Adapting the mix of solutions to the building typology

- No one-fit-all solutions
- All technologies will be needed
- Different types of buildings will require a different mix of measures to be implemented
- Each building will need a renovation passport
Adapting the mix of solutions to the building typology

energy efficiency

energy management

RESIDENTIAL

Heating & cooling

NON-RESIDENTIAL

Specific use of electricity

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Perceived barriers hinder the uptake of renovation measures
Perceived barriers hinder the uptake of renovation measures

- **Financial**
  - Access to finance
  - Payback expectations / investment horizons
  - Competing purchase decisions
  - Price signals

- **Institutional and administrative**
  - Regulatory & planning issues
    - Institutional
    - Structural
    - Multi-stakeholder issues

- **Awareness, advice and skills**
  - Information barrier
  - Awareness of potential/benefits
  - Skills & knowledge related to building professionals

- **Separation of expenditure and benefit**

Source: BPIE
Perceptions can be changed, and barriers can be removed!

- Long term schemes
- Public / private partnership

- Long term vision
- Stability and predictability

- Lead by example
- Education
Perceptions can be changed, and barriers can be removed!

Member States need to make it happen!
What shall drive Member States to do so?

• Reduction of energy imports
• Benefits to GDP of €153-291bn
  
  Source: Copenhagen Economics - 2012

• Job creation: €1 million in deep energy retrofit ➤ 19 new direct jobs

  Source: GTR study in Spain 2012

• €1 public spending on EE ➤ € 4 - 5 in tax revenue

  Source: Jülich Center / KfW - 2011

• Health benefits: €42-88bn savings p.a. from improved indoor climate

  Source: Copenhagen Economics - 2012
To conclude

• Buildings to be placed at the core of the energy and climate policy debate
  - it will boost **sustainable growth and competitiveness**
  - It will foster **job creation**
  - It will improve EU citizens’ **living conditions**

• What we need is **political vision, ambition and leadership**, at EU and national level

• Implementation is a team effort between all stakeholders: **the insulation industry is ready and prepared to go!**
Mineral Wool Insulation The most sustainable energy is saved energy!

Thank you!

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