Fit for the 21st century: how the EU energy efficiency legislation can deliver quality of life for European citizens

Claus Bugge Garn, VP ROCKWOOL International
33% of all energy in EU is used for transport

26% of all energy in EU is used by industry

41% of all energy in EU is used by buildings

2/3 of energy consumption in buildings is used for heating, cooling, and ventilation
EUs Building stock

Scale of the Opportunity
• 210 Million buildings (most of them poorly performing)
• Up to 90% still occupied and in use in 2050
• 80 Million Europeans live in damp / leaky buildings
• 10.8% of the European population unable to keep their home adequately warm
• New construction rate less than 1%
• Renovation rate app 1%

Technologies Exist Today
• Reduction of 80% in Energy Use is possible
  - with current technologies and processes
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EUs Construction Sector

- More than 9% of EU GDP
- Dominated by SMEs - over 3 mill enterprises - 92%
  micro-enterprises with less than 10 employees
- Large enterprises represent less than 1%
- Buildings are build according to building codes – less than 1% with better performance
- The majority of buildings are owned by ‘amateurs’

(Source: Transformation of the EU building Stock, OpenExp 2016. EBC and Renovate Europe)
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High Benefits from EE Renovation

Public Finances: €39bn per year
Boost to Public Finances in 2020
Rising to €78bn per year by 2030

New Direct Net Jobs: 1.1 million
Local, Permanent Jobs in Construction;
This Leads to over 2 million Total New Jobs

Boost to EU GDP: 0.7% per year
Estimate Increase in Construction Output is
in the Range €670 to €830bn per year
(from 2020)
Additional benefits

- Outdoor pollution
  - annual retrofit rate of 2% will cause a reduction of 9% particulate matter (DMI/Eurima)

- Impact on health and societal costs
  - 78678 saved life years annually
  - 6.64 billion €/year savings in societal costs (1.5-40 billion €/year)

- Energy poverty
  - For every 1% improvement in energy efficiency, three million more homes can be properly renovated and seven million citizens lifted out of energy poverty

- Energy Security
  - Buildings use a significant 61% of all imported gas
The Energy Performance of Buildings Directive with the target for **new** buildings to become NZEB by 2021 has been a huge success!

We need a similar approach for renovating the existing building stock

We know where we should be – an NZEB stock by 2050 – but industry cannot drive this transformation alone – we need cooperation at all levels