The Renovate Europe Campaign
A Driver for Growth in the Buildings Sector

ELA Annual Conference
Amsterdam
10th April 2014
The Energy Dependence of the EU

- 26 MS are Net Importers
- Dependence:
  - = 40% in the 1980’s
  - = 60% in 2011
  - = 80% in 2035 (projections)
- Russia = 1\textsuperscript{st} Supplier
  - 32% of gas imports
  - 38% of petrol imports
- The COST of our imports
  - = €400 billion
  - = 3.1% EU GDP (2012)

The Impact of our Energy Imports on the EU Trade Balance:

Sources: Eurostat, IEA, E3G

[Bar chart showing the impact of energy imports on EU trade balance with data points for France, Germany, Italy, Netherlands, Spain, and United Kingdom.]

Source: Eurostat
Example: Gas Dependence of the EU

Western Europe
- EU27
- Norway
- Russia
- Rest of the world

Eastern Europe

Source: IEA Statistics
The Benefits of Energy Efficiency

- Achieving 20% Energy Efficiency in 2020 would mean:

\[368 \text{ Mtoe} = 2.6 \text{ billion barrels of oil we do not have to import per year} = 193 \text{ billion EUR money saved at conservative 73 EUR/barrel per year} = 1000 \text{ fewer coal power plants or GDP of Portugal in current prices (2010)}\]

Source: European Commission, Presentation by DG ENER, 8/05/2012
The First Consumer of Energy in the EU

What are we talking about?
- 210 million buildings
- Mostly constructed before 1970
- Renovation Rate: +/- 1%
- Demolition Rate: +/- 0.1%
- 75%-90% still occupied in 2050 (OECD)

Energy Use of Buildings (EU27)
- 40% Primary energy
- 36% CO₂ Emissions
- 38% Of gas consumption
- 59% Of electricity consumption
- Residential: 2/3 of consumption

Sources: BPIE, IEA, Eurostat
Buildings – The Highest Demand

• Buildings are the principal source of increased energy consumption in the EU:
Buildings – The 1st Source for Savings:

The Potential to 2030
- 61% residential
- 38% tertiary
- 41% transport
- 21% industry
- Overall Potential in the EU = 41%

Realising this potential will allow households and industry to save €239 billion per year!

Realising the energy savings potential in the EU requires a great and extensive effort in buildings.
The Economic Benefits of Energy Efficient Renovations (1)

Energy savings:
- €66-93 billion per year to 2020
- €131-192 billion per year to 2030
- 127-190 MTOE cumulative to 2030
  = 10 à 16% final energy in the EU

Public Finances (EU)
- + €39 billion in 2020
- + €78 billion in 2030

Source: Copenhagen Economics
The Economic Benefits of Energy Efficient Renovations (2)

GDP Growth (EU)
- +/- 0.7 % per year
- €670 - €830 billion in increased turnover per year for the construction sector

New direct local jobs:
- 1.1 million on average per year to 2050
- 2 millions in the year 2020

Sources: Copenhagen Economics, BPIE, Renovate Europe
Induced Benefits of Energy Efficiency

- **Health**: €1 spent = €0.42 saved in health care
- **Productivity**: 15% gains (thermal and visual comfort plus better ventilation)
- **Air Quality**: €5 to 8 billion savings per year to 2020
- **Asset value**: + 4% for each letter change on an EPC

Sources: Copenhagen Economics, European Commission, Reinaud

The value of induced benefits can reach 2.5 times the value of energy savings (Reinaud 2012)
Measuring the Induced Benefits

The Copenhagen Economics Study, 2011

- Investments of €41 to €78 billion per year
- Deep Renovation:
  - The most attractive option for energy savings and reductions in GHG
  - Permanent annual benefits for society and public finances
- Benefits Identified:
  - Energy Savings
  - Reduced Subsidies
  - Reduced Air Pollution
  - Health Benefits

Multiple benefits of investing in energy efficient renovation of buildings

Impact on Public Finances

Commissioned by Bevraete Europe
5 October 2012
Societal Benefits (€bn)

€bn

<table>
<thead>
<tr>
<th>Year</th>
<th>Low EE</th>
<th>High EE</th>
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<tbody>
<tr>
<td>2020</td>
<td>104</td>
<td>175</td>
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<td>2030</td>
<td></td>
<td>208</td>
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Public Finance Benefits (€bn)

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<tr>
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<td>29</td>
<td>39</td>
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<td>2030</td>
<td>58</td>
<td>78</td>
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One-Off Benefits to 2018 (€bn)

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<tr>
<th>Year</th>
<th>Low EE</th>
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<tbody>
<tr>
<td>2012</td>
<td>67</td>
<td>128</td>
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<tr>
<td>2013</td>
<td>153</td>
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Societal Benefits

Public Finances
## Societal Benefits per Country

<table>
<thead>
<tr>
<th>Country</th>
<th>% EU GDP</th>
<th>In 2020 (€bn)</th>
<th>Up to 2018 (€bn)</th>
<th># Jobs 2020</th>
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<tbody>
<tr>
<td>BE</td>
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<td>5.25</td>
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<td>20.5</td>
<td>35.87</td>
<td>60.98</td>
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<td>IE</td>
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32 Partner Companies and Associations in 2014:
The Renovate Europe Ambition

1. **Reduce the Energy Demand of the Existing Building Stock by 80% by 2050 Compared to 2005 Levels**

2. **Raise the Renovation Rate of the Existing Building Stock to 3% Per Year by 2020 and Maintain that Rate to 2050**

3. **Ensure that all renovations are deep or staged deep renovations to avoid “lock-in”**

4. **Drive the Formulation and Implementation of an Effective Policy and Legal Framework for the Achievement of our Ambition**
Reduce Energy Demand by 80%

200 kWh/m²/year\textsuperscript{1}

2012

Reduce Energy Demand by 80%

180 kWh/m²/year

2015
Reduce Energy Demand by 80%

160 kWh/m²/year

2020
Reduce Energy Demand by 80%

140 kWh/m²/year

2025
Reduce Energy Demand by 80%

120 kWh/m²/year

2030
Reduce Energy Demand by 80%

100 kWh/m²/year

2035
Reduce Energy Demand by 80%

80 kWh/m²/year

2040

A Campaign of EuroACE
Reduce Energy Demand by 80%

60 kWh/m²/year

2045
Success!

40 kWh/m²/year

2050
Success!

40 kWh/m²/year

A Factor 5 Improvement

2050
Success!

A Campaign of EuroACE

40 kWh/m²/year

Note That Not All Buildings Have Been Renovated

A Factor 5 Improvement

2050

REN ovate EUROPE
A Campaign of EuroACE
Renovate Europe: Messages

Energy Efficient Renovations Boost Public Finances

Deep Renovation of the EU building stock could create local jobs and stimulate the economy

Improving efficiency through deep renovation reduces our dependence on foreign imports

Deep renovation of homes and businesses reduces energy bills whilst reducing Europe’s CO2 footprint
2014 European Manifesto

STOP Energy Waste in Buildings
Kick START the Economy
A Campaign of EuroACE

www.renovate-europe.eu
Thank you

More information:

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