Energy efficiency in buildings: how to accelerate investments?

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A 2 °C pathway requires more technological innovation, investment & policy ambition.

**CO₂ emissions in a post COP 21 world**

- **Trend post-COP 21**
- **2 °C Scenario**

Source: IEA, World Energy Outlook
Investments in buildings are crucial in EU decarbonisation scenarios.

Buildings is the largest untapped sector.
Building energy performance standards: what has changed?

1970s

Current

NZEB

20 barrels / year

6 barrels / year

1.5 barrels / year
Share of new dwellings built according to national NZEB definition

Unit: %

- Below 5
- 5 to 10
- 10 to 20
- Above 20
- No data

Source: Zebra
Overview of EE lending in EU and France

- Overall EE-lending increased by 3x since 2012
- 75% for Buildings
- 25% in France
Typical EIB products for EE projects

- **Investment loans (direct)** – barriers tackled plus possible blending
- **Framework loans (intermediated)** – to promote aggregation and crowding in of commercial lending
- **Investment funds (equity)** – to catalyse private investors
- **Advisory services**– typically upstream, with or without link to EIB loans
### Case study
- **SPEE in Picardie (France)**
- **Framework loan – signed 2015**

### Promoter
- **Regional Division of the Environment and Energy Efficiency Agency (ADEME) and the Picardie Region**

### Investments
- **Objective:** EE renovations of private houses (as of mid 2017, 1,480 ongoing, investment cost of EUR 31.5m) to generate 50-75% energy savings

### Final Recipients
- **Natural persons, home-owner associations,**

### EE Loans
- **Estimated investment programme cost:** EUR 52m
- **EIB loan:** EUR 43.5m

### Elena
- **Development of a one-stop shop**
- **ELENA grant budget. EUR 1.8m** (Set up of the SPEE operational team, external assistance to support each homeowner in the implementation phase, marketing)
Private Finance for EE (PF4EE)

(joint instrument of the EIB and the EC)

PF4EE comprises three components

1. EE Loan
2. Risk Sharing Facility
3. Expert Support Facility

- A loan to the financial intermediary to be on-lent for financing of energy efficiency investments ("EE Loan")
- A FLP risk mitigation mechanism (sponsored by the EC), which covers losses incurred in the portfolio of EE loans granted by the financial intermediary to on-lend the EE Loan ("Risk Sharing Facility")
- Consultancy services aiming at supporting the financial intermediary to create the abovementioned EE loans portfolio ("Expert Support Facility")
## PF4EE operations – Nov 2017

<table>
<thead>
<tr>
<th>Operation</th>
<th>Country</th>
<th>Status</th>
<th>EIB loan (EUR m)</th>
<th>Energy savings (MWh/year)</th>
<th>CO2 (tons/year)</th>
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<tbody>
<tr>
<td>Belfius</td>
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<td>75.0</td>
<td>75,900</td>
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<td>n.a.</td>
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<td>35,571</td>
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<td>CC</td>
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<td>CCB</td>
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<td>Greece</td>
<td>Approved</td>
<td>100.0</td>
<td>35,215</td>
<td>25,750</td>
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<tr>
<td><strong>Total (signed)</strong></td>
<td></td>
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<td><strong>415.0</strong></td>
<td><strong>383,121</strong></td>
<td><strong>110,569</strong></td>
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</table>
The ‘Smart Finance for Smart Buildings’ initiative – SFSB initiative

A single financial instrument combining up to 3 components

- Launched on Nov. 30th, 2016 by the European Commission;
- Developed in cooperation with EIB Group (EIB/EIF);
- Part of the “Clean Energy for all Europeans” package;
- Aims to unlock EUR 10bn of public and private funds by 2020 for energy efficiency (“EE”) in buildings;
- Consists mainly in an unfunded credit risk protection fronted by EIB Group (EIF);
- Relies heavily on MS Contribution to the First Loss Piece (most likely ESIF – ERDF);
- Contains reasonable eligibility criteria to ensure consistency with policy objectives
- May be combined with an EIB Global Loan

A comprehensive financial instrument providing SFSB stakeholders with a holistic solution
ELENA: TA required to deliver investment needs

INVESTMENT PROGRAMME
Energy efficiency and distributed renewable energy in public and private buildings, public lighting and traffic light network, roof top photovoltaics, heating/cooling systems (e.g. biomass);

Efficient urban transport and mobility
clean and energy - efficient road transport vehicles, trams, trolleybuses, metros, and trains; investments to improve public transport;

Local energy facilities that support EE/RE smart grids, district heating and cooling infrastructure for recharging electrically powered vehicles, information and communications technologies,

ELENA Technical Assistance
Support for Project developers (public or private) for e.g.:
• Additional personnel
• Technical studies
• Preparation, evaluation of calls for tender
• Financial structuring
Unlocking EE investments in buildings

Challenges and EIB’s response

- Fragmentation (small projects and high transaction costs)
- Aggregation (FIs, Funds, IT tools)
- Lack of technical expertise
- Financial and capital constraints
- Horizontal role (industry, SMEs, social housing)
- Strategic decision and bottom-up (EE first)
- Blending (provision of TA and first loss funding)
- Linking EE assets and liabilities (EEMAP and green bonds)
THANK YOU!

Any questions?