EASME
Executive Agency for Small and Medium-sized Enterprises

Innovation in Smart Buildings under Horizon 2020

Philippe MOSELEY, Amandine LACOURT
Project Advisors
Horizon 2020 Energy Unit (Buildings)
EASME's role within the European Commission

- Manage EU programmes
- Feed project outcomes into EU policymaking
THE FRAMEWORK PROGRAMME FOR RESEARCH AND INNOVATION

Research  Demonstration  Market Uptake
Horizon 2020 Budget (2014-2020)

- **Excellent Science**
  - EUR 24.4 billion
- **Industrial Leadership**
  - EUR 17.0 billion
- **European Institute of Innovation and Technology**
  - EUR 2.7 billion
- **Euratom (2014-2018)**
  - EUR 1.6 billion
- **Societal Challenges**
  - EUR 29.7 billion
- **Other**
  - EUR 3.2 billion

Executive Agency for SMEs
Horizon 2020 Budget (2014-2020)

- 1. Health, demographic change & well-being
- 2. Food security, sustainable agriculture, marine research & the Bioeconomy
- 3. Secure, clean & efficient energy **EUR 5.9 Billion**
- 4. Smart, green & integrated transport
- 5. Climate action, environment & raw materials
- 6. Europe in a changing world
- 7. Secure societies

Societal Challenges
EUR 29.7 billion
## Secure, Clean and Efficient Energy

<table>
<thead>
<tr>
<th>Main areas</th>
<th>2017, Million EUR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy Efficiency</td>
<td>104</td>
</tr>
<tr>
<td>Smart Cities and Communities</td>
<td>69</td>
</tr>
<tr>
<td>Competitive Low-Carbon Energy</td>
<td>423</td>
</tr>
<tr>
<td>SME Instrument</td>
<td>50</td>
</tr>
<tr>
<td>ELENA (project dev. assistance)</td>
<td>20</td>
</tr>
<tr>
<td>Tenders and other actions</td>
<td>34</td>
</tr>
</tbody>
</table>
Secure, Clean and Efficient Energy

<table>
<thead>
<tr>
<th>Main areas</th>
<th>2017, Million EUR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy Efficiency</td>
<td>104</td>
</tr>
</tbody>
</table>

Funding areas

- Buildings
- Heating & Cooling
- Consumers
- Industry & Products
- Finance for Sustainable Energy
H2020 Energy Efficiency 2016 call results

- **Heating & cooling**: 7 projects, ~24 M€
- **Consumers**: 8 projects, ~14 M€
- **Innovative Financing**: 10 projects, ~13.5 M€
- **Industry and Products**: 4 projects, ~15 M€
- **Local Authorities**: 2 projects, ~3.5 M€
- **Buildings**: 13 projects, ~26 M€

**Total**: €96 M
- 44 projects
- 38 countries
- 500 participants
- 23% SMEs
Secure, Clean and Efficient Energy

<table>
<thead>
<tr>
<th>Main areas</th>
<th>2017, Million EUR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy Efficiency</td>
<td>104</td>
</tr>
</tbody>
</table>

Types of action

- **Research**
  - 100% funding

- **Demonstration**
  - 70% funding

- **Market Uptake**
  - 100% funding
• Demonstrate positive energy settlements
• Manage energy loads between NZEB using smart micro-grid and energy storage
• Achieve 16% investment cost reduction using a modular system

www.zeroplus.org
Demonstration 70% funding

www.zeroplus.org
Electricity price

User requirements

Weather forecast

www.chess-setup.net
MANLLEU (offices)
Short term storage, possible integration with solar cooling

CORBY (46 new homes)
Earth bank heat storage system

SANT CUGAT (Sport centre)
Swimming pool including 500m3 storage tank

www.chess-setup.net
Demonstration
70% funding

Variable renewable generation makes it more difficult to maintain a stable frequency in the power grid.

This can be offset by activating demand response potential.

“Use power when the wind is blowing”

www.sim4blocks.eu
Demonstration
70% funding

www.sim4blocks.eu
Buildings

Heat & Cooling
Consumers
Buildings
Industry & Products
Finance for Sustainable Energy

Innovation
Actions
49 million EUR
Deadline 19 January 2017

Coordination & Support Actions
55 million EUR
Deadline 7 June 2017

http://ec.europa.eu/easme/en/energy
**Innovation Actions**

EE12 - Integrating demand response in energy management systems

Closed for proposals

**Coordination & Support Actions**

EE11 - Promoting deep renovation
EE14 - Construction skills

Deadline 7 June 2017

http://ec.europa.eu/easme/en/energy
Innovation Actions

EE01 - Recovering urban waste heat
EE04 - Using of low grade energy sources

Closed for proposals

Coordination & Support Actions

EE02 - Improving existing district heating networks

Deadline 7 June 2017

BUILD UP – the EU portal for energy efficiency in buildings

www.buildup.eu

- Latest news, research, live webinars, data tools
- Upload material, collaborate
- Follow on LinkedIn
- Now in 7 major EU languages
- Integration of BUILD UP Skills
THANK YOU FOR YOUR ATTENTION

Find out more
http://ec.europa.eu/easme/en/energy