Supporting energy efficient heating & cooling through the Horizon 2020 Energy Challenge

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Horizon 2020 Energy Challenge: 200 Collaborative Projects on Energy Efficiency

- Market Uptake: 132 projects
- Innovation: 36 projects
- Research: 32 projects

- Buildings
- Heating & Cooling
- Public Authorities
- Industry & Products
- Consumers
- Smart Finance
22 projects* focusing on heating and cooling

- Technology for district heating and cooling (RIA)
- Models and tools for heating and cooling mapping and planning (RIA)
- Packages integrating renewable and energy efficiency solutions (IA)
- Solutions using low grade sources of thermal energy (IA)
- Waste heat recovery from urban facilities (IA)
- Removing market barriers to the uptake of efficient heating and cooling solutions (CSA)
- Improving the performance of inefficient district heating networks (CSA)

EU support: 62 M€
* 13 RIA, 5 IAs, 4 CSAs
In addition: 22 projects supporting local energy planning
### 7 projects supporting heat recovery in industry

<table>
<thead>
<tr>
<th>Project</th>
<th>Industry</th>
<th>Main innovation</th>
<th>Final result</th>
</tr>
</thead>
<tbody>
<tr>
<td>TASIO</td>
<td>Cement</td>
<td>ORC</td>
<td>Heat to Power</td>
</tr>
<tr>
<td>I-ThERM</td>
<td>Steel &amp; food</td>
<td>Two-phase heat transfer</td>
<td>Heat &amp; Electricity for process reintegration</td>
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<tr>
<td>SUSPIRE</td>
<td>Iron-steel casting</td>
<td>Storage (Phase change materials)</td>
<td>Heat for commercialisation over-the-fence</td>
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<tr>
<td>Indus3ES</td>
<td>Petrochemical</td>
<td>Absorption Heat Transformer</td>
<td>Low temperature waste heat recovery for process reintegration</td>
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<tr>
<td>DRYficiency</td>
<td>Ceramic, pet care/ feed and agro-food</td>
<td>Vapour compression heat pumps</td>
<td>High temperature recovery through closed loop for air drying and open loop for steam drying</td>
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<tr>
<td>Smartrec</td>
<td>Non-ferrous and ceramic</td>
<td>Storage (molten salts)</td>
<td>Waste heat recovery through custom Heat Pipe Heat Exchanger for process reintegration</td>
</tr>
<tr>
<td>ETEKINA</td>
<td>Non-ferrous, steel and ceramic</td>
<td>Heat Pipe Heat Exchanger</td>
<td>Technology highly adaptable to various industrial sectors for process reintegration</td>
</tr>
</tbody>
</table>
Concerted actions

• Gathering of National Implementing Bodies to make sustainable energy policy implementation more effective and efficient

• **Concerted Action on Energy Efficiency Directive** includes one working group (Domain) on efficiency in energy supply, high efficiency CHP and heating / cooling
  (Contact: Stane Merse from Jozef Stefan Institute)
Project Development Assistance

• Technical assistance to develop sizable projects

• Buildings, Street Lighting, Urban Transport, Industry, Infrastructure such as street lighting, district heating/cooling and water/wastewater services

• Funding for “project development” - actual investment by other public and private funds

• Requirement for leverage of 1:15
Project Development Assistance

Example of Efidistrict project in Navarra:

• 600 apartments renovated reducing energy bills by €560/year/household

• Renewal of the old district heating system in Pamplona and creation of a new network using biomass
New Calls!

Call 2019: Deadline
3 Sept 2019
112 M€

Call 2020: in preparation

Post 2020: follow-up of activities under Horizon Europe (R&I) and LIFE (market uptake)
EASME
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THANK YOU FOR YOUR ATTENTION