JASPERS support to Major Projects

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The project

- Ministry of Culture and National Heritage - beneficiary.
- Owns and manages 416 schools across the country.
- EE renovation of 139 arts schools, 187 buildings, total surface of 250,000 m².
- 44% of the buildings are historically protected.
- Further 21% constructed before 1945.
- The only Major Project of this kind in the current FP.
Site visit
Energy performance

- Deep renovation well going beyond MEP standards in force.
  - 60% final energy savings at portfolio level.
  - 73% CO₂ savings.
- Heating: 260 kWh/(m²a) down to 94 kWh/(m²a)
- Total energy: 302 kWh/(m²a) down to 121 kWh/(m²a)

<table>
<thead>
<tr>
<th>Building component</th>
<th>as of 1 January 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>U-value [W/(m²K)]</td>
</tr>
<tr>
<td>External walls</td>
<td>0.20</td>
</tr>
<tr>
<td>Roof</td>
<td>0.15</td>
</tr>
<tr>
<td>Floor</td>
<td>0.30</td>
</tr>
<tr>
<td>Windows</td>
<td>0.90</td>
</tr>
<tr>
<td>Door</td>
<td>1.30</td>
</tr>
</tbody>
</table>
Investment cost

- CAPEX: EUR 120 m
- Eligible cost: EUR 115 m
- Specific cost: EUR 0.6 m per building
- Specific cost: 470 EUR/m²
EE improvements

- Insulation of building envelop: 315,539 m²
- Doors and windows replaced: 35,951 m²
- Heating systems refurbished: 171
- Heat sources replaced: 59
- Radiators replaced: 14,427
- DHW systems refurbished: 336
- Ventilation and AC refurbished: 161
- Lighting fixtures refurbished: 38,830
- BMS: 20
- RE: 3.6 MW
The problem

- Ministry lacks experience in preparing EE projects.
- Ministry lacks capacity in the area of CBA.
- Ministry does not use external consultants to prepare MPA.
Scope of JASPERS support

• Review of a sample of EA.
• Instructing beneficiary on the scope and format of documents to be prepared for the Implementing Authority.
• Guidance on CBA.
• Comprehensive review of MPA.
Effects of JASPERS support

• Project submission to EC: 15 May 2017
• Additional questions from EC: 23 June 2017
• Approval date: 28 August 2017
• Grant amount: EUR 97 m (85% of eligible cost, energy savings not considered a net revenue)
• Current status:
  • 105 contracts signed,
  • 74 schools completed, 31 on-going, 34 to be renovated.
Thank you for your attention
More Information

For info or further questions on this presentation please contact the JASPERS Networking and Competence Centre:

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