Updates on the EU Funding Instruments: Horizon Europe, Innovation Fund and CEF

Reghina Dimitrisi

EGEC, Policy Office

05/02/2020

The sole responsibility of this publication lies with the author. The European Union is not responsible for any use that may be made of the information contained therein. This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No [838814]
Understanding EU funding instruments

- Horizon Europe – Research and innovation
- Innovation Fund – Large scale technology
- Connecting Europe Facility – Energy infrastructure
Horizon Europe 2021-2027
What has changed?
The Commission proposed a €100 billion research and innovation programme to succeed Horizon 2020.
INEXA-managed H2020 Energy Projects

(348 projects, €2.5 billion)

- **Grids & Storage, Energy...**
  - €735 M (100)
- **Smart Cities & Communities**
  - €361 M (17)
- **Biomass, Biofuels &...**
  - €322 M (63)
- **Solar Energy**
  - €273 M (43)
- **Carbon Capture & Storage,...**
  - €194 M (25)
- **Geothermal Energy**
  - €173 M (24)
- **Tidal, Wave & Hydropower**
  - €141 M (23)
- **Wind Energy**
  - €137 M (20)
- **Social Dimension of Energy**
  - €50 M (17)
- **Heating & Cooling**
  - €35 M (5)
- **Integration of Renewables in...**
  - €32 M (7)
- **Shale Gas**
  - €12 M (4)

Source: Innovation and Networks Executive Agency (INEA)
H2020 Geothermal Energy portfolio

Number of projects

EU funds (Mio Euro)

Source: Innovation and Networks Executive Agency (INEA)
Horizon 2020 funding: examples

<table>
<thead>
<tr>
<th>Project</th>
<th>Type of Action</th>
<th>Duration (months)</th>
<th>Start Date</th>
<th>End Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEEPESGS</td>
<td>IA</td>
<td>53</td>
<td>Dec-15</td>
<td>Apr-20</td>
</tr>
<tr>
<td>DESTRESS</td>
<td>IA</td>
<td>57</td>
<td>Mar-16</td>
<td>Nov-20</td>
</tr>
<tr>
<td>GECO</td>
<td>IA</td>
<td>48</td>
<td>Oct-18</td>
<td>Sep-22</td>
</tr>
<tr>
<td>GeoSmart</td>
<td>IA</td>
<td>48</td>
<td>Jun-19</td>
<td>May-23</td>
</tr>
<tr>
<td>MEET</td>
<td>IA</td>
<td>42</td>
<td>May-18</td>
<td>Oct-21</td>
</tr>
<tr>
<td>GEORISK</td>
<td>CSA</td>
<td>30</td>
<td>Oct-18</td>
<td>Mar-21</td>
</tr>
<tr>
<td>GEOENVI</td>
<td>CSA</td>
<td>30</td>
<td>Nov-18</td>
<td>Apr-21</td>
</tr>
<tr>
<td>CROWDTHermal</td>
<td>CSA</td>
<td>36</td>
<td>Sep-19</td>
<td>Aug-22</td>
</tr>
<tr>
<td>ThermoDrill</td>
<td>RIA</td>
<td>48</td>
<td>Sep-15</td>
<td>Aug-19</td>
</tr>
<tr>
<td>GeoDrill</td>
<td>RIA</td>
<td>42</td>
<td>Apr-19</td>
<td>Sep-22</td>
</tr>
<tr>
<td>SURE</td>
<td>RIA</td>
<td>42</td>
<td>Mar-16</td>
<td>Aug-19</td>
</tr>
<tr>
<td>GeoWell</td>
<td>RIA</td>
<td>36</td>
<td>Feb-16</td>
<td>Jan-19</td>
</tr>
<tr>
<td>DESCRAMBLE</td>
<td>RIA</td>
<td>36</td>
<td>May-15</td>
<td>Apr-18</td>
</tr>
<tr>
<td>GEMex</td>
<td>RIA</td>
<td>44</td>
<td>Oct-16</td>
<td>May-20</td>
</tr>
<tr>
<td>Geo-Coat</td>
<td>RIA</td>
<td>36</td>
<td>Feb-18</td>
<td>Jan-21</td>
</tr>
<tr>
<td>REFLECT</td>
<td>RIA</td>
<td>36</td>
<td>Jan-20</td>
<td>Dec-22</td>
</tr>
<tr>
<td>GEOPRO</td>
<td>RIA</td>
<td>36</td>
<td>Oct-19</td>
<td>Sep-22</td>
</tr>
<tr>
<td>MATCHING</td>
<td>IA</td>
<td>42</td>
<td>Mar-16</td>
<td>Aug-19</td>
</tr>
<tr>
<td>GeoHex</td>
<td>RIA</td>
<td>36</td>
<td>Nov-19</td>
<td>Oct-22</td>
</tr>
</tbody>
</table>

Source: [Innovation and Networks Executive Agency (INEA)](https://inea.ec.europa.eu)
• The current Horizon 2020 awards grants through competitive bids for tenders per project.

• Several geothermal energy projects may also be eligible for this call that are not directly related to the energy field: *Leadership in enabling and industrial technologies* or *nanotechnology* work programmes.

• **Mission area:** *Climate-neutral and smart cities*: mobility aspect included

• **Our objective:** More funding for research and innovation for geothermal
The Innovation Fund
Finance comes from the sale of EU Emission Trading System allowances and is therefore independent of MFF negotiations.

Source: European Commission
Lessons learnt from NER300

The following aspects have been improved:

- It is **open** to projects that require large scale technology;
- It improves the risk-sharing for projects, which means that its grants **cover up to 60% of the additional capital** and operational costs of innovation;
- It **provides** support in more flexible way, following the cash-flow needs of the project through pre-defined milestones;
- It has a **simpler selection process**
Geothermal projects have benefited from the NER300, and technologies such as Enhanced Geothermal System are well suited to be eligible under the Innovation Fund.

- **Improves the risk-sharing for projects**: its grants cover up to 60% of the additional capital and operational costs of innovation, which is suitable to geothermal project development.
CONNECTING EUROPE FACILITY (CEF)
CEF: Outline

- It is one of the key EU funding instrument to promote growth, jobs and competitiveness through targeted **infrastructure investment at the European level**.

- The EU’s energy infrastructure is aging and, in its current state, not suited to match future demand for energy, to ensure security of supply or to support large-scale deployment of energy from **renewable sources**.
In addition to financial grants, the CEF offers financial support to projects through innovative financial instruments such as guarantees and project bonds. These instruments act as a catalyst to attract further funding from the private sector and other public sector actors.

In the next long-term EU budget 2021-2027, the EC has proposed to renew the CEF, allocating €42.3 billion to support investments in European infrastructure networks, including €8.7 billion for energy.
• The geothermal energy perfectly fits the scope, as it provides reliable electricity and heating and cooling solutions at competitive prices; especially relevant to H&C infrastructure (to refocus from gas infrastructure to the renewable H&C infrastructure)

• Possibility to finance the equipment? (i.e. drilling equipment)