A strategic approach to ERA-Nets, infrastructures and other large-scale initiatives

Imelda Lambkin, Horizon 2020 Director, Enterprise Ireland
imelda.lambkin@enterprise-ireland.com
<table>
<thead>
<tr>
<th>Topic identifier &amp; Title</th>
<th>Instrument</th>
<th>Budget</th>
<th>Call closure</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Excellent Science</strong></td>
<td></td>
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<tr>
<td><strong>Future and Emerging Technologies</strong></td>
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<tr>
<td>FETPROACT-03-2018: FET ERA-NET Cofund</td>
<td>ERA-NET Cofund</td>
<td>6M€</td>
<td>18 Dec 2018</td>
</tr>
<tr>
<td>FETFLAG-02-2018: ERA-NET Cofund for FET Flagships</td>
<td>ERA-NET Cofund</td>
<td>10M€</td>
<td>17 Apr 2018</td>
</tr>
<tr>
<td><strong>Societal Challenges</strong></td>
<td></td>
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<tr>
<td><strong>SC1 - Health, demographic change and wellbeing</strong></td>
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<tr>
<td>SC1-BHC-04-2018: Rare Disease European Joint Programme Co-Fund [RTD]</td>
<td>EJP Cofund</td>
<td>55M€</td>
<td>16 Apr 2018</td>
</tr>
<tr>
<td>SC1-HCO-04-2018: ERA-NET to support the Joint Programming in Neurodegenerative Diseases strategic plan (JPND) [RTD]</td>
<td>ERA-NET Cofund</td>
<td>5M€</td>
<td>18 Apr 2018</td>
</tr>
<tr>
<td><strong>SC2 - Food security, sustainable agriculture and forestry, marine and maritime and inland water research and the bioeconomy</strong></td>
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<tr>
<td>BG-02-2018 Blue Bioeconomy Public-Public Partnership (ERA-NET-Cofund)</td>
<td>ERA-NET Cofund</td>
<td>6M€</td>
<td>13 Feb 2018</td>
</tr>
<tr>
<td><strong>SC3 - Secure, clean and efficient energy</strong></td>
<td></td>
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<tr>
<td>LC-SC3-JA-1-2018: Joint programming actions to foster innovative energy solutions</td>
<td>ERA-NET Cofund</td>
<td>10M€</td>
<td>11 Sept 2018</td>
</tr>
<tr>
<td>LC-SC3-JA-4-2018: Support action in preparation of a Joint Programming</td>
<td>CSA</td>
<td>1M€</td>
<td>31 Jan 2018</td>
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<tr>
<td><strong>SC6 - Europe in a changing world - inclusive, innovative and reflective Societies</strong></td>
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<tr>
<td>GOVERNANCE-14-2018: ERA-Net Co-fund - Renegotiating democratic governance in times of disruptions</td>
<td>ERA-NET Cofund</td>
<td>3M€</td>
<td>13 Mar 2018</td>
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<tr>
<td><strong>Spreading excellence and widening participation</strong></td>
<td></td>
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<tr>
<td>Planned: WIDESPREAD-02-2018: Support to JPI Urban Europe</td>
<td>CSA</td>
<td>1.5M€</td>
<td>15 Nov 2018</td>
</tr>
</tbody>
</table>

### Societal Challenges

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<tr>
<td>LC-SFS-20-2019 European Joint Programme on agricultural soil management (COFUND-EJP)</td>
<td>EJP Cofund</td>
<td>40M€</td>
<td>23 Jan 2019</td>
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<tr>
<td>SFS-31-2019: ERANETs in agri-food</td>
<td>ERA-NET Cofund</td>
<td>21M€</td>
<td>23 Jan 2019</td>
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<tr>
<td>A. [2019] ICT-enabled agri-food systems</td>
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<tr>
<td>B. [2019] Climate change and food systems</td>
<td></td>
<td></td>
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<tr>
<td>C. [2019] International veterinary vaccinology</td>
<td></td>
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</tr>
<tr>
<td><strong>SC3</strong> - Secure, clean and efficient energy</td>
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</tr>
<tr>
<td>LC-SC3-JA-5-2019: Joint Programming with EU and African partners for a R&amp;I actions in the area of renewable energy</td>
<td>EJP Cofund</td>
<td>15M€</td>
<td>27 Aug 2019</td>
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<tr>
<td><strong>SC4</strong> - Smart, green and integrated transport</td>
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<tr>
<td>MG-4-6-2019: Supporting Joint Actions on sustainable urban accessibility and connectivity</td>
<td>ERA-NET Cofund</td>
<td>5M€</td>
<td>24 Apr 2019</td>
</tr>
<tr>
<td><strong>SC5</strong> - Climate action, environment, resource efficiency and raw materials</td>
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<tr>
<td>SC5-21-2019-2020: ERA-NET Cofund action(s) for climate action, environment, resource efficiency and raw materials</td>
<td>ERA-NET Cofund</td>
<td>10M€</td>
<td>19 Feb 2019</td>
</tr>
</tbody>
</table>

Plan on an Annual or Multi-annual basis
P2P Networks

https://www.era-learn.eu/network-information/networks/view

Review by:
- Pillar, Priority Area & Instrument
- Status
- Country
- Organisation

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Full Name</th>
<th>Start Date</th>
<th>End Date</th>
<th>Funding Framework</th>
<th>Network Type</th>
<th>Countries</th>
<th>Coordinator</th>
</tr>
</thead>
<tbody>
<tr>
<td>HBM4EU</td>
<td>European Human Biomonitoring Initiative</td>
<td>01/01/2017</td>
<td>31/12/2021</td>
<td>Horizon 2020</td>
<td>EJP Cofund</td>
<td>25</td>
<td>UBA</td>
</tr>
<tr>
<td>NEURON Cofund</td>
<td>ERA NET NEURON in the area of brain-related diseases and disorders of the nervous system</td>
<td>01/01/2016</td>
<td>31/12/2020</td>
<td>Horizon 2020</td>
<td>ERA-NET Cofund</td>
<td>17</td>
<td>DLR</td>
</tr>
<tr>
<td>JPI-EC-AMR</td>
<td>ERA-NET for establishing synergies between the Joint Programming Initiative on Antimicrobial Resistance Research and Horizon 2020</td>
<td>01/11/2015</td>
<td>31/10/2020</td>
<td>Horizon 2020</td>
<td>ERA-NET Cofund</td>
<td>16</td>
<td>VR/SRC</td>
</tr>
<tr>
<td>ERA-CVD</td>
<td>ERA-NET on cardiovascular diseases to implement joint transnational research projects and set up international cooperations</td>
<td>01/10/2015</td>
<td>30/09/2020</td>
<td>Horizon 2020</td>
<td>ERA-NET Cofund</td>
<td>18</td>
<td>DLR</td>
</tr>
<tr>
<td>ERAcSysMed</td>
<td>ERAcSysMed – Collaboration on systems medicine funding to promote the implementation of systems biology approaches in clinical research and healthcare</td>
<td>01/01/2015</td>
<td>31/12/2019</td>
<td>Horizon 2020</td>
<td>ERA-NET Cofund</td>
<td>13</td>
<td>PTJ/FZJ</td>
</tr>
</tbody>
</table>
Joint Calls and Funded Projects
https://www.era-learn.eu/network-information/jointcalls

Get into the detail
Thematic clustering of ERA initiatives

https://www.era-learn.eu/network-information/thematic-clustering

Example: ENERGY
Joint Activities
Mapping national/trans-national activities

• **Example BiodivERsA Database**
  - A comprehensive ‘map’ of the current state of research on biodiversity and associated ecosystem services in Europe in terms of projects, programmes and funding, to improve the identification of existing gaps and future needs for new research programmes, new facilities, as well as detecting potential barriers for successful cooperation.

• **Example BiodivERsA Strategic analysis**
  - BiodivERsA has used the BiodivERsA database to analyse selected features of the European funding landscape for biodiversity research. BiodivERsA mainly focused on the funding derived from the Framework programme at the European scale, and on BiodivERsA’s funding agencies at the national one; these represent major players in funding research within their countries. Though such an analysis does not allow for a complete cross-country comparison, it can still elucidate some major trends in the funding of biodiversity research in Europe.
Alignment of national/regional activities under common research agendas

16 case studies
e.g. Process towards a Common Position on Alignment in Austria

Definition & typology

Toolbox of current and novel alignment modalities

- synthesises the lessons learned from the case studies
- describes specific alignment actions or instruments in practical terms: key benefits and weaknesses and the success factors necessary to ensure effective implementation and impact

current approaches

novel modalities

trans-regional perspective

SWOT analysis

based on the assessment criteria developed for the national level and the regional level

illustrates potential future benefits and risks of each specific alignment modality, under given contexts (governance, institutional, operational)
• CURRENT APPROACHES
  – 1. FACCE-JPI’s Knowledge Hub for Modelling European Agriculture with Climate Change for Food Security (MACSUR)
  – 2. European Metrology Research Programme (EMRP) Article 185 Initiative’s Joint Research Proposals
  – 3. Infravation ERA-NET Plus’ Real Common Pot Approach
  – 4. Network for Humanities in the European Research Area (HERA)
  – 5. JPI Oceans’ Shared Research Vessel
  – 6. FACCE-JPI’s Joint Mapping Meetings
  – 7. Open Access Infrastructure for Research in Europe (OpenAIRE)
  – 8. Network of Centres of Excellence in Neuro-Degeneration (CoEN) – JPND
  – 9. JPI Climate’s Updated Strategic Research and Innovation Agenda

• NOVEL MODALITIES
  – 1. European Energy Research Alliance (EERA) as a case for institutional alignment
  – 2. ERA-NET Cofund ‘The European network for observing our changing planet’ (ERA-PLANET)
  – 3. ERA-NET Cofund ‘European Research Area for Climate Services’ (ERA4CS)
  – 4. Process towards a Common Position on Alignment in Austria
  – 5. Alignment of national AAL Programmes – practical implementation from the Austrian perspective
  – 6. New York University Center for Urban Science and Progress
  – 7. Electronic Components and Systems for European Leadership (ECSEL JU)

• REGIONAL
  – 1. NordForsk
  – 2. BONUS Article 185
  – 3. EDCTP Article 169/185
  – 4. CERIC-ERIC
  – 5. The Vanguard Initiative
  – 6. The DACH Agreement and the Lead Agency Procedure
  – 7. The BLUEMED initiative
Other Analytical Activities

• Monitoring and Impact Assessment
  • Guide for P2P impact assessment
  • Updated *Policy Brief on the Impacts of Networks 2016*

• Reference library
  • Mature networks e.g. BiodivERsA, ICT-AGRI
  • Organisations e.g. Academy of Finland

• Events and publications
  • 15 Years of European Public-Public Partnerships in Research & Innovation
  • Workshop: Implementing ERA-NET Cofund

• Mapping tools for participating programmes
• Tools for internal review of participation in networks

[https://www.era-learn.eu/](https://www.era-learn.eu/)
Criteria for evaluation

**NETWORK**
- Complementarity to other instruments (FP7, Eurostars, national, regional, bilateral)
- National added value - critical mass of clients, need for international network
- Long-term perspective - maturity of network, sustainability, suitability of the instrument in a specific area
- Commitment – own, others, coordinator
- Consortium (composition) - appropriate countries (competence, competition or collaboration), relevant programmes available
- Joint calls – efficiency, national acceptance of joint call decision processes, interaction with other networks (other ERA NETs, EUREKA, ETPs)

**OUTPUT**
- Calls - real output vs. expected output (response of target group, client satisfaction with calls, minimum output reached (each agency defines own)
- Other activities (e.g. training, technology transfer, other support measures) – agency satisfaction, client satisfaction
- Learning effects - impact on internal programme design, impact measurement strategy
- Cost/benefit ratio - total overhead in joint calls acceptable compared to overhead for similar national/international projects, return from effort required by staff to run the ERA NET meets agency expectations

-Total score NETWORK
-Total score OUTPUT
Portfolio analysis

Agency A

[Diagram showing a scatter plot with labeled points for ERA-NET 1, ERA-NET 2, ERA-NET 3, ERA-NET 4, ERA-NET 5, ERA-NET 6, and ERA-NET 7. The x-axis is labeled Network and the y-axis is labeled Output.]
Network analysis

ERA-NET 3

[Diagram of network analysis with agency points labeled AGENCY 1, AGENCY 3, AGENCY 4, AGENCY 5, and AGENCY 2.]
IRELAND on ERA-LEARN

- No of networks involved: 113
- No. of networks involved as a coordinator: 2
- No. of Joint Calls involved in: 144
- No. of organisations involved in networks: 28
- No. of funded projects: 72

- Department of Agriculture, Food and the Marine 13
- Enterprise Ireland 12
- Environmental Protection Agency Ireland 8
- Agriculture and Food Development Authority Teagasc 7
- Higher Education Authority 7
- Marine Institute 7
- Science Foundation Ireland 7
IRELAND – MSCA Cofund

- Co-funding of regional, national and international programmes that finance fellowships involving mobility to or from another country
- 2015-2017: 9 Cofunds
- Researchers: 287
- Total cost: €49.25M
- European Contribution: €23.87M
ENTERPRISE IRELAND – CAREER-FIT

• Experienced researchers develop careers in market focused applied research
  - interdisciplinary, intersectoral, international -
• In Ireland’s Technology Centre programme
• Aligned with Smart Specialisation Strategy
• Direct relevance to industry agendas
• Structured training programme relating to innovation management

An investment in PEOPLE by an Enterprise Development Agency