Horizon Europe
Marine & Maritime
Brokerage event

28th April 2021

Photograph © Daniel Farrell and Ann Robinson, Coast Monkey
Practical details

The event will be recorded and available on https://horizoneurope.ie/

Slides, contact details and responses to questions will be uploaded to same website

Today’s presentations are based on DRAFT WORKPROGRAMMES

Please post your questions in the chat function as participants will be muted

After the pitching sessions participants should move to the B2B platform for the 1:1 meetings and brokerage sessions https://horizon-europe-marine-brokerage-event.b2match.io/
This event is a partnership between the European Enterprise Network, Invest Northern Ireland and Cluster 5 and Cluster 6 NCPs in Denmark, Ireland, the UK, Iceland, Northern Ireland, Scotland & Norway
What to expect today

Helicopter view of the new Horizon Europe funding programme

**Draft** high-level marine and maritime opportunities within:

- Cluster 5 (Climate, Energy and Mobility) &
- Cluster 6 (Food, Bioeconomy, Natural Resources, Agriculture and Environment)

Keep eye open in other Clusters and Pillars!
**Agenda**

9.10am - An Introduction to Horizon Europe – Niels Gøtke (Cluster 6 NCP Denmark)

9.30am - Marine & Maritime topics in Cluster 5 – Philip Cheasty (Cluster 5 NCP Ireland) & Bob Flynn (Cluster 5 NCP Ireland)

Waterborne Transport Partnership: Louise Mothersole (Cluster 5 NCP UK)

9.45am – Part 1 of Cluster 6 - Kolbrún Bjargmundsdóttir (Cluster 6 NCP Iceland)

10.00am - Part 2 of Cluster 6 – Helen Sweeney (Cluster 6 NCP UK)

10.15am – Supports available – Elaine Groom (Cluster 6 NCP Northern Ireland)

10.25am – Coffee Break

10.40am – Elevator Pitches - Lisbeth Vassaas (EEN NCP Norway)

12.30pm - 1:1 Meetings on B2B platform
Market Place Opportunities

https://horizon-europe-marine-brokerage-event.b2match.io/marketplace

You can still go to the B2B website to book meetings

Over 350 meetings and interactions have been booked and this will continue for the duration of the day

There are 282 Marketplace opportunities

The platform will be available to you to review marketplace opportunities and participant details after the event
Horizon Europe. Opportunities and novelties. EEN marine / maritime brokerage event 28 April 2021

Niels Gøtke, Head of Division Danish Agency for Science and Higher Education

nigoe@ufm.dk / 72318396
Agenda

1. Understanding HEU, (what is new, intervention logic, types of action, evaluation, partner or coordinator in the consortium)

2. Cluster 5 and Cluster 6 in HEU

3. Partnerships and Missions in HEU - why are they important)
What is Horizon Europe
Understanding Horizon Europe

- The 9th EU framework programme for research and innovation
- €95.5 billion funding for research, innovation and societal transitions 2021-2027
- European investments in order to shape our future
- Solutions to specific, European and/or Global challenges
Horizon Europe
Total budget cf. MFF: 95,5 bil. € (current prices)

Pillar I: Excellent Science
(25 bil. €)
- European Research Council (ERC) (16 bil. €)
- Marie Skłodowska-Curie Actions (6,6 bil. €)
- Research infrastructures (2,4 bil. €)

Pillar II: Global Challenges and European Industrial Competitiveness
(53,5 bil. €)

Clusters:
1. Health (8,2 bil. €)
2. Culture, Creativity and Inclusive Society (2,3 bil. €)
3. Civil Security for Society (1,6 bil. €)
4. Digital, Industry and Space (15,3 bil. €)
5. Climate, Energy and Mobility (15,1 bil. €)
6. Food, Bioeconomy, Natural Resources, Agriculture and Environment (8,9 bil. €)

Partnerships (max 40 % budget of pillar II)
Missions (max 10 % budget of pillar II)

Underlying topics: “Widening” and Strengthening the European Research Area (3,4 bil. €)

Pillar III: Innovative Europe
(13,6 bil. EUR)
- European Innovation Council (EIC) – Accelerator and Pathfinder (10,1 bil. €)
- European Innovation Ecosystems (0,5 bil. €)
- European Institute of Innovation and Technology + KICs (2,9 bil. €)
A vision for Europe

“A sustainable, fair and prosperous future for people and planet based on European values.”

- Tackling Climate change (35% budgetary target)
- Helping to achieve Sustainable Development Goals (Paris Agreement and European Green Deal)
- Boosting the Union's competitiveness and growth
The European Green Deal

- CLIMATE PACT AND CLIMATE LAW
- INVESTING IN SMARTER, MORE SUSTAINABLE TRANSPORT
- STRIVING FOR GREENER INDUSTRY
- ELIMINATING POLLUTION
- ENSURING A JUST TRANSITION FOR ALL
- FINANCING GREEN PROJECTS
- MAKING HOMES ENERGY EFFICIENT
- LEADING THE GREEN CHANGE GLOBALLY
- FROM FARM TO FORK
- PROTECTING NATURE
- PROMOTING CLEAN ENERGY

The European Green Deal
Horizon Europe Intervention Logic

- Horizon Europe (Legal base)
- Strategic Plan (Programme-level)
- Work programme (Cluster-level)
  - Pillars / Cluster
  - EU policy priorities
  - Key Strategic Orientations for R&I
- Intervention areas
  - Destinations
  - Topics
- Expected impacts
  - Expected outcomes
  - Scope
<table>
<thead>
<tr>
<th>EC POLICY PRIORITIES</th>
<th>Political Guidelines for the European Commission 2019-2024 (and other key strategic documents - e.g. Green Deal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>KEY STRATEGIC ORIENTATIONS FOR R&amp;I</td>
<td>Set of strategic objectives within the EC policy priorities where R&amp;I investments are expected to make a difference</td>
</tr>
<tr>
<td>IMPACT AREAS</td>
<td>Group of expected impacts highlighting the most important transformation to be fostered through R&amp;I</td>
</tr>
</tbody>
</table>

**EXPECTED IMPACTS**

- **DESTINATIONS**
  - **General objectives**
  - **EXAMPLE**
    - **Strategic Plan & Work Programme:** R&I contribution to seamless, smart, inclusive and sustainable mobility services
      - **Project:** Increase maximum passenger capacity by 15% and passenger average throughput by 10%, leading to a 28% reduction in infrastructure expansion costs

- **TOPICS**
  - **Specific objectives**
  - **EXAMPLE**
    - **Work Programme:** Innovative accessibility and logistics solutions applied by the European Transport sector
      - **Project:** At least 9 European airports adopt the advanced forecasting system that was demonstrated during the project

- **PROJECT RESULTS**
  - **Operational objectives**
  - **EXAMPLE**
    - **Project (by the end of its implementation):** Successful large-scale demonstration trial with 3 airports of an advanced forecasting system for proactive airport passenger flow management
Evaluation criteria – in Horizon Europe

Conditions set out in the Model Grant Agreement many novelties:

**Excellence** (up to 5 points)
Open science (novelty)

**Impact** (up to 5 points)
Key Impact Pathways to achieve outcome and impact (novelty)

**Implementation** (up to 5 points)
Quality of applicants (novelty)

More focus on D&E (novelty)
IMPACT DESIGN IN HORIZON EUROPE

**Scientific impact**
Promote scientific excellence, support the creation and diffusion of high-quality new fundamental and applied knowledge, skills, training and mobility of researchers, attract talent at all levels, and contribute to full engagement of Union's talent pool in actions supported under the Programme.

**Societal impact**
Generate knowledge, strengthen the impact of R&I in developing, supporting and implementing Union policies, and support the uptake of innovative solutions in industry, notably in SMEs, and society to address global challenges, inter alia the SDGs.

**Economic impact**
Foster all forms of innovation, facilitate technological development, demonstration and knowledge transfer, and strengthen deployment of innovative solutions.
Cluster 6: Work Programme 2021-2022 budget distribution per destination

Excluding funds allocated for missions and the EU contribution to CBE for Work Programme 2021-2022 available around EUR 1.8 billion. At this stage all figures are indicative and subject to MFF negotiations outcomes.

<table>
<thead>
<tr>
<th>Destination</th>
<th>Number of topics</th>
<th>Budget [mln EUR]</th>
<th>% Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Biodiversity and ecosystem services</td>
<td>36</td>
<td>369.5</td>
<td>20.2%</td>
</tr>
<tr>
<td>2 Fair, healthy and environmentally-friendly food systems from primary production to consumption</td>
<td>43</td>
<td>425</td>
<td>23.3%</td>
</tr>
<tr>
<td>3 Circular economy and bioeconomy sectors</td>
<td>21</td>
<td>230</td>
<td>12.6%</td>
</tr>
<tr>
<td>4 Clean environment and zero pollution</td>
<td>11</td>
<td>86</td>
<td>4.7%</td>
</tr>
<tr>
<td>5 Land, oceans and water for climate action</td>
<td>15</td>
<td>195</td>
<td>10.7%</td>
</tr>
<tr>
<td>6 Resilient, inclusive, healthy and green rural, coastal and urban communities</td>
<td>13</td>
<td>127</td>
<td>7.0%</td>
</tr>
<tr>
<td>7 Innovative governance, environmental observations and digital solutions in support of the Green Deal</td>
<td>42</td>
<td>356.5</td>
<td>19.6%</td>
</tr>
<tr>
<td>Other actions</td>
<td>11</td>
<td>35.5</td>
<td>1.9%</td>
</tr>
</tbody>
</table>
WP Cluster 5 - Overview

**Destination 1 – Climate science**
- 9 topics in 2021
  - 7 RIA, 2 CSA
- 8 topics in 2022
  - 8 RIA

**Destination 2 – Cross-cutting solutions**
- 16 topics in 2021
  - 11 RIA, 4 CSA, (1 CA)
- 11 topics in 2022
  - 2 IA, 7 RIA, 2 CSA

**Destination 3 – Energy supply**
- 35 topics in 2021
  - 11 IA, 8 CSA, 15 RIA, (1 CA)
- 32 topics in 2022
  - 20 IA, 12 RIA

**Destination 4 – Energy demand**
- 7 topics in 2021
  - 7 IA
- 11 topics in 2022
  - 7 IA, 3 RIA, 1 CSA

**Destination 5 - Clean and competitive solutions for all transport modes**
- 16 topics in 2021
  - 6 IA, 8 RIA, 2 CSA
- 13 topics in 2021
  - 6 IA, 7 RIA

**Destination 6 - Transport and Smart Mobility services**
- 15 topics in 2022
  - 8 IA, 7 RIA

**RIA**: Research and Innovation Action
**CSA**: Control and Support Actions
**IA**: Innovation Actions
**CA**: Co-funded Actions

- **Batteries**
- **Cities**
- **Breakthrough technologies**
- **Citizen and stakeholder engagement**
- **Renewable energy**
- **Energy system, grids and storage**
- **CCUS**
- **Cross-cutting activities**
- **Buildings**
- **Aviation**
- **Waterborne transport**
- **Transport-related health and environmental issues**
- **Connected, Cooperative and Automated Mobility**
- **Multimodal and sustainable transport systems for passengers and goods**
- **Safety and resilience**
Partnerships in HEU
European Partnerships: what is new?

- Only support partnerships if there is evidence that they are more effectively achieving policy objectives than Horizon Europe alone
- Fewer partnerships with higher impacts
- Common and coherent framework of criteria along the life cycle of partnerships, across all pillars, even across programmes and other regulations
- Increase openness and encourage a broader set of actors to participate
- Improve coherence between partnerships and Horizon Europe, also the missions
- Time limited with conditions for phasing-out the Programme funding (impact by 2030)
Cluster 6 Co-funded partnerships in WP - figures to be revised according to MS commitments

<table>
<thead>
<tr>
<th>Co-funded partnership</th>
<th>Work Programme where the topic is introduced</th>
<th>Proposed EU budget for 7-years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rescuing biodiversity to safeguard life on Earth</td>
<td>2021-2022</td>
<td>140 mln EUR</td>
</tr>
<tr>
<td>Climate neutral, sustainable and productive Blue Economy</td>
<td>2021-2022</td>
<td>200 mln EUR</td>
</tr>
<tr>
<td>Water4All</td>
<td>2021-2022</td>
<td>126 mln EUR</td>
</tr>
<tr>
<td>Accelerating farming systems transition: agroecology</td>
<td>2023-2024</td>
<td>150 mln EUR</td>
</tr>
<tr>
<td>ive labs and research infrastructures</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Animal health: fighting infectious diseases</td>
<td>2023-2024</td>
<td>180 mln EUR</td>
</tr>
<tr>
<td>Environmental observations for a sustainable EU agriculture</td>
<td>2023-2024</td>
<td>75 mln EUR</td>
</tr>
<tr>
<td>Safe and sustainable food systems for people, planet and climate</td>
<td>2023-2024</td>
<td>175 mln EUR</td>
</tr>
</tbody>
</table>

Total budget for all co-funded partnerships around EUR 1 billion, (figures are subject to changes depending on MS commitments).

Outside the WP: Circular bio-based Europe (Joint Undertaking): EUR 1 billion
Cluster 5 WP

Including European Partnerships

Co-programmed:
- Buildings
- Zero-emission road transport
- Batteries
- Zero-emission waterborne transport
- Connected, Cooperative and Automated Mobility

Co-funded:
- Driving urban transitions
- Clean Energy Transition

Cluster 5 WP

Cluster 5 – Links to missions/partnerships

Other EU funding programmes

Missions
- Cities
- Climate
- Oceans

Other HE parts and Partnerships

Cluster 5 Institutional Partnerships
- Rail
- Hydrogen
- Clean Aviation
- Air Traffic Management

25
Co-programmed partnership: ‘Zero Emission Waterborne Transport’

- Contribution from the EU-Commission 2021-2027: 530 mio. euro

- Contribution from the EU-Commission in 2021-2022 work programme: 162,5 mio. euro = 12 topics in cluster 5 work programme
Missions in HEU

- Cancer,
- Adaptation to Climate Change,
- Healthy Oceans, Seas, Coastal and Inland Waters",
- Climate Neutral and Smart Cities,
- Soil Health and Food.

12 month preparation phase,.Missions will have their own work-programme.

https://ec.europa.eu/info/horizon-europe/missions-horizon-europe_en
“European research and innovation missions sit between broad challenges and concrete projects. Missions set clear and ambitious objectives that can only be achieved by a portfolio of research and innovation projects and supportive measures.” (Mazzucato 2018)
Mission Healthy Oceans, Seas, Coastal and Inland Waters:
Strategic objective

Make the EU fit by 2030 for systemic ocean and water restoration
From mission recommendation to implementation plan and the mission

- Sept 2020: Handover of mission report by Mission Board
- until May: Preparation of implementation plan (IP) by EC services
- June/July: Assessment of IPs; decision on missions by college of Commissioners
- July: Update of first Horizon Europe Work Programme
- Q3: Official start of missions
- Mid-end 2022: Start of HE mission projects

Overall mission orientations
Practical implementation steps
Mission implementation phases

**Phase I (2022-2024)**
- Large scale area based lighthouses covering all Mission objectives
- Boosting protection of blue ecosystems
- **ENABlers:**
  - Actions to increase knowledge and understanding of ecosystems, innovation, digitalisation and governance
  - Launch of programme to boost blue education and skills
  - Launch of citizen and stakeholder engagement activities throughout the EU

**Phase II (2025-2030)**
- Scale up of large area based lighthouses
- Replication of lighthouses for all Mission objectives throughout the EU through a bottom-up selection process
- Implementation and scale up of the Blue programmes
- Actions to further boost knowledge, innovation, digitalisation, training and education, and governance
- Citizen and stakeholder engagement activities throughout the EU
Citizen and stakeholder engagement

- Blue volunteer corps to help ecosystem restoration and protection
- Citizen science campaigns to boost knowledge and awareness
- Opportunities for involvement in the Mission lighthouses and in the Blue Parks programme
Possible funding sources for the Mission

In addition, in cooperation with the EIB Advisory, new sources of sustainable financing for conservation, non-financial/innovative instruments will be investigated such as fiscal incentives, green and blue bonds, pension funds, environment finance corporations, blue carbon resilience credits, insurance, etc.