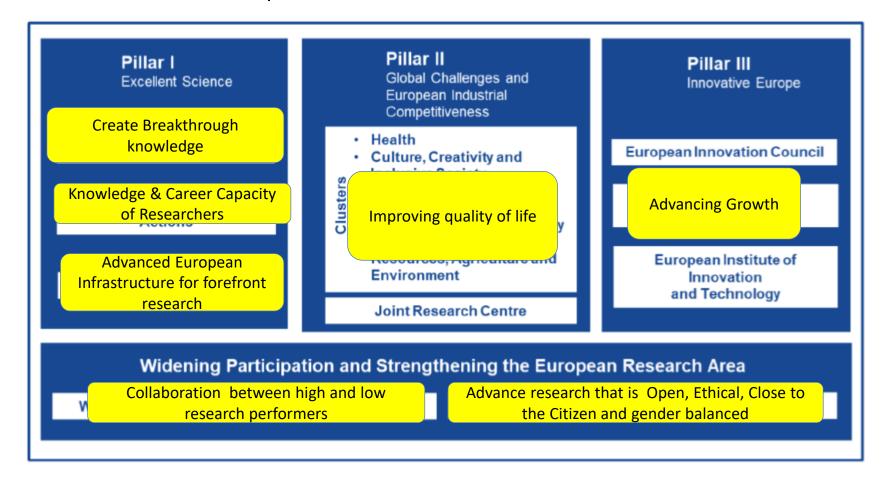
# Session 1: Horizon Europe Latest Developments

By

Nikolaos FLORATOS

**TH2020II Training Coordinator** 

#### Horizon Europe Structure based on its 5 foundations



#### Some key statistics about the Horizon Europe overall performance



Source: EC, Dashboard Cut-off Dec 2022

Programme part	Eligible proposals	High- quality proposals (above threshold)	Retained proposals	Above- threshold rate (percentage of eligible proposals)	Success rate of proposals (percentage of eligible proposals)	EU contribution requested in retained proposals (million EUR)	Additional funding needed to fund all high- quality proposals (million EUR)
Pillar 1 – excellent science							
ERC	14 814	3 135	1 769	21.2	11.9	2 906	2 263
Marie Skłodowska- Curie actions	16 672	12 484	2 692	74.9	16.1	1 093	4 205
Research infrastructures	139	115	74	82.7	53.2	512	278
Pillar 2 – global challenges and EU industrial competitiveness							
Health	1 307	805	288	61.6	22.0	2 291	3 883
Culture, creativity and inclusive society	1 120	651	144	58.1	12.9	444	1 607
Civil security for society	313	189	51	60.4	16.3	229	649
Digital, industry and space	2 736	1 947	564	71.2	20.6	3 606	7 857
Climate, energy and mobility	2 121	1 384	511	65.3	24.1	4 434	5 027
Food, bioeconomy natural resources, agriculture and environment	1 492	1 040	388	69.7	26.0	2 341	3 883
Pillar 3 – innovative Europe							
EIC	2 549	1 393	225	54.6	8.8	691	3 618
EIT	20	20	17	100	85.0	1 103	16
Horizontal pillar – widening participation and strengthening the European research area							
Widening participation and spreading excellence	831	608	241	73.2	29.0	666	867
Reforming and enhancing the European R & I system	149	109	51	73.2	34.2	125	151
Total for Horizon Europe	44 832	24 161	7 108	53.9	15.9	20 546	34 380

## Hands on task related to Horizon Dashboard for Day 2

Identify the same statistics for each subprogramme (ERC, MCSA, Research Infrastructures, CL1, CL2, CL3, CL4, CL5, CL6, EIC, EIT, Widening and Reforming) but for Turkey only

- No. of eligible proposals
- Proposals above threshold
- Retained proposals
- Ratio of proposals above threshold/No. of proposals submitted
- Ratio of proposals retained/ No. of proposals submitted
- EU funding requested by retained proposals
- Extra funding for proposals not retained but above threshold





### Some Breakthrough Updates

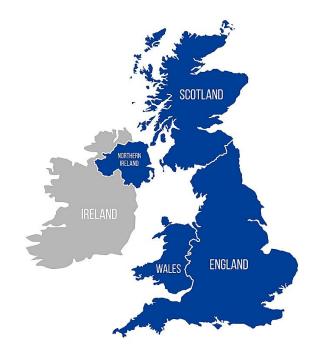
- UK joins Horizon Europe as an Associate Partner by Jan 2024 (Calls 2024)
- Other high research performing countries join Horizon Europe
- Blind Evaluation in some Pillar 2 calls
- Lump-Sum budget based calls
- 10 New European Partnerships proposed
- EIC Accelerator experts should do a test



## UK Joins Horizon Europe as an Associate Country

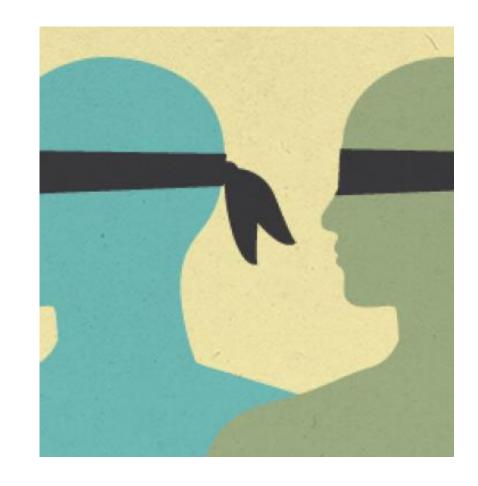
- UK will be able to fully participate from 1 January 2024 in the 2024 work programme
- February 2023, the Windsor Framework smoothed over the Northern Ireland issue (to avoid customs checks on the island of Ireland, in order to preserve peace)
- Brain drain from UK research institutions to ones in EU for ERC grants up to now
- The UK will pay in "almost €2.6 billion" a year for its participation in Horizon Europe
  - Note: 7,84B EUR in total the funding from Horizon 2020 to UK





### Blind Evaluation in Horizon Europe

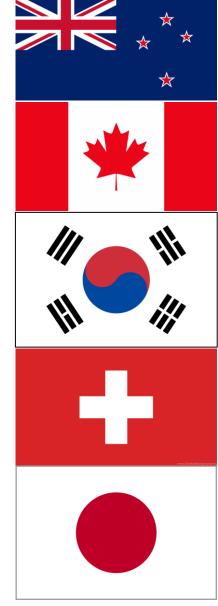
- The concept of blind evaluation requires that experts evaluators do not know the consortium structure and the applicant(s) involved. To accomplish this, the following safeguards are in place:
  - Part A of the proposal will not be transmitted to evaluators.
  - If Part B of the proposal includes any identification (even indirectly, e.g. The coordinator organisation was the one who first introduced the concept of m-RNA in vaccines') of the consortium, the proposal will be declared inadmissible and will be rejected.
- In the Horizon Europe Work Programme 2023-2024, all firststage proposals of two-stage call topics will be evaluated blindly (except one call for Widening, i.e TEAMING).



## Other high research performing countries join

Horizon Europe

- New Zeland has already joined Horizon Europe since 2022 and four more countries are inline/negotiations
- Canada (It appears closest to a deal)
- South Korea (only now preparing its first formal working-group meeting with the EU)
- Switzerland (largely cut off due to trade dispute and wait at least by 2025)
- Japan (Concerns within the Japanese government over whether and how to take up the EU offer)



Source: EC

### Lump-Sum In Horizon Europe

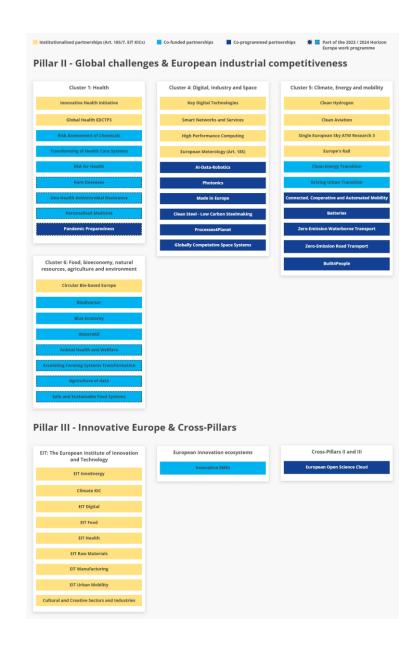
- EC wants to reduce bureaucracy in the research programme, enabling researchers to spend more time on research, rather
  than filling out expenses claims and time sheets. However, it demands detailed budget distribution and estimations at
  proposal stage
- With Horizon success rates hovering around 16%, some fear adding further requirements early on could deter researchers from applying, given the low chances of getting a grant.
- Only around 25 calls in the 2021-2022 work programme were based on lump sum grants. Horizon Europe is set for "the first significant wave" of lump sum calls in 2023 and 2024, with an estimated 20 to 25% of large scale collaborative research projects (in pillar 2) set to adopt the approach
  - In 2023, the percentage of lump sum funding is expected to fall somewhere between 10 and 15%, up from just 2%. or €306 million. at the end of 2022.
  - The percentage of lump sum grants awarded under Horizon Europe at the end of 2024 can be expected to as much as 30%
- The European Research Council (ERC) plans to introduce lump sum funding to its Advanced grants for experienced researchers starting in 2024. However,
  - Some claim it requires applicants to provide much more information on how the money is to be spent at the stage when the make their application for funding, while the evaluators will lose the focus on scientific quality if they have to guarantee the financial side of the project is detailed enough in the proposal
  - Lump-Sum imposes that the project be structured along a list of deliverables, something that has been a taboo at the ERC from day one because it rigidifies projects and limits the possibility of an open-ended quest
- Under the 2024 EIC work programme, each of the three schemes (Pathfinder, Transition and Accelerator) will have one lump sum call (that will include Transition, which only runs one annual call)



Source: Science Business

## 10 New European Partnerships Proposed

- In addition to the 49 Partnerships in Horizon Europe and their recent performance report, there are 10 new ones are expected to be proposed in the new strategic plan (starting in 2025) as follows
  - 1. Brain Health
  - 2. Forests and Forestry for a sustainable future
  - 3. Innovative materials for EU
  - 4. In-orbit demonstration and validation
  - 5. Raw materials for the Green and Digital Transformation
  - 6. Resilient cultural heritage
  - 7. Social Transformations and Resilience
  - 8. Solar Photovoltaics
  - 9. Textiles of the Future
  - 10. Virtual Words



## Recent Research & Innovation Policies

- New European Innovation Agenda
- European Health Data Space
- Critical Raw Materials Act
- Net Zero Industry Act



### New European Innovation Agenda

- to position Europe at the forefront of the new wave of deep tech innovation and start-ups via <u>funding Scale-Ups</u> (Flagship 1) and <u>Experimentation Spaces</u> (Flagship 2)
- to help Europe to develop new technologies to address the most pressing societal challenges, and to bring them on the market via <u>interregional innovation projects</u> (Flagship 3) and and <u>improving policy making tools</u> (Flagship 5)
- to make Europe the place where the best talent work hand in hand with the best companies and where deep tech innovation thrives and creates breakthrough innovative solutions across the continent via Fostering Talents (Flagship 4) and improving policy making tools (Flagship 5)



## European Health Data Space

- In order to unleash the full potential of health data, the European Commission is presenting a regulation to set up the European Health Data Space. This proposal
  - supports individuals to take control of their own health data
  - supports the use of health data for better healthcare delivery, better research, innovation and policy making and
  - enables the EU to make full use of the potential offered by a safe and secure exchange, use and reuse of health data



### Critical Raw Materials Act

- The Critical Raw Materials Act will equip the EU with the tools to ensure the EU's access to a secure and sustainable supply of critical raw materials
- The Act identifies a list of strategic raw materials, which are crucial to technologies important to Europe's green and digital ambitions and for defence and space applications, while being subject to potential supply risks in the future
- The Act will reduce the administrative burden and **simplify** permitting procedures for critical raw materials projects in the EU
- The Act will establish a large-scale skills partnership on critical raw materials and of a Raw Materials Academy
- Ensure security and affordability of critical raw materials supplies along with respect of human and labour rights as well as of the environment



#### EUROPEAN CRITICAL RAW MATERIALS ACT

March 2023

The EU is aiming to ensure a secure and sustainable supply of critical raw materials for Europe's industry.

#### HOW?

Through concerted internal and external action: strengthening domestic supply chains as well as reinforcing international engagement to develop win-win partnerships with third countries.

Commission

#### CRITICAL RAW MATERIALS

Critical Raw Materials are at the beginning of many industrial supply chains and their global demand is increasing:

The demand of critical raw materials will increase in the next years:



of permanent magnets used in wind turbines motors

manufacturing

conductors

EU demand for lithium batteries powering our electric vehicles and energy storage set to increase 12 times by 2030 (21 times by 2050)

EU demand for rare earth metals, used in wind turbines and electric vehicles set to rise 5 to 6 times by 2030 (6 to 7 times by 2050)

### Net-Zero Industry Act

The Act promotes technologies towards mainly the decarbonisation by 2030.

- Solar photovoltaic and solar thermal technologies
- Onshore and offshore renewable technologies
- Battery/storage technologies
- Heat pumps and geothermal energy technologies
- Electrolysers and fuel cells
- Sustainable Biogas/Biomethane technologies
- Carbon Capture and Storage (CCS) technologies
- Grid technologies



## Upcoming Significant Documents

- Interim Evaluation of Horizon Europe by end of 2023
- Strategic Plan 2025-2027



