



HORIZON EUROPE

12 April 2021
10.00am – 11.30am

Francisco Rocha, Senior Consultant



Agenda

- I. **Opening Remarks**
- II. Introduction to SPI
- III. Introduction to Horizon Europe
- IV. Questions and Answers



Opening Remarks

- Intends to provide an overview of Horizon Europe
- Interactive session intended
 - Please put questions into the Q&A during presentations – they will be answered either during the presentation or in the specified Q&A session
- Presentations will be provided in English / Portuguese
 - All questions can be typed or said (in the specified Q&A session) in either English or Portuguese
- Any answers not answered in the session will be provided afterwards
- Information is available from many sources – we will provide links after the session

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- II. **Introduction to SPI**
- III. Introduction to Horizon Europe
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Introduction to SPI

- **Douglas Thompson:** Manager of the International Areas at SPI. Leads Horizon 2020 and Horizon Europe activities, along with the other international project areas, including with other European Commission organisations. Many of his projects have been funded by international agencies such as the European Commission, the World Bank and European Bank of Reconstruction and Development (EBRD).
- **Francisco Rocha:** Senior Consultant at SPI with experience in innovation strategy and business development. In 2014, was based in SPI's Representative Office in Beijing, and also previously based in Brussels. Key SPI team member in a range of European Commission projects, including in the fields of ICT, entrepreneurship, internationalization, social innovation, among others.



Introduction to SPI

Mission:

The management of projects which foster innovation and promote international opportunities. When appropriate, this mission will be accomplished through the creation of strategic partnerships.



Strategy:

The SPI Group positions itself as a unique catalyst for connections among companies, scientific and technological institutions, public administrations, and public and private national and international organisations.

Accelerate innovation

Promote research and technology transfer

Create knowledge

Enhance competitiveness

Establish partnerships

Penetrate markets

Achieve sustainability

Foster entrepreneurship

Develop and regenerate territories

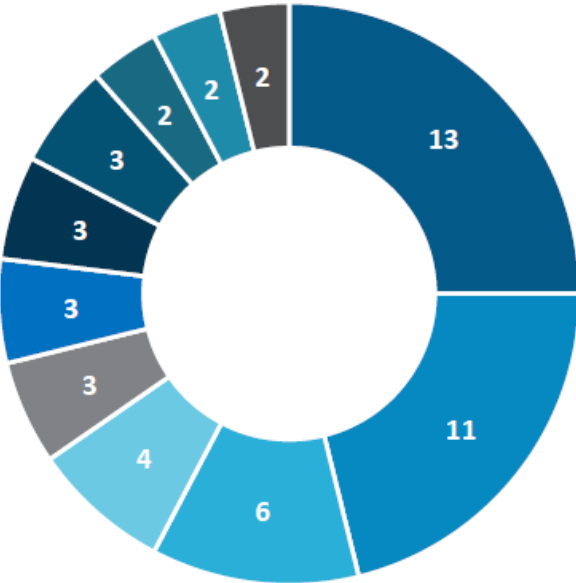
Introduction to SPI

- Research, development and innovation (R&DI) is one of SPI's main pillars of activity. SPI applies its entrepreneurial approach, business experience, and fundamental scientific knowledge to support the advancement of R&DI.
- SPI is very active in the EC's Framework Programmes, by coordinating projects, providing strategic advice to organisations and supporting organisations in their applications. SPI has access to an extensive network of contacts representing different types of stakeholders (academia, industry, associations, etc.) and sectors (health, agribusiness, biotechnology, industrial technology, information technology, nanotechnology, space technology, etc.) worldwide.
- SPI is currently or has led / been partner in over 25 Framework Programme 7 projects and over 50 Horizon 2020 projects across a range of research themes. SPI also has extensive experience in other European Commission programmes.



Introduction to SPI

• SPI’s Horizon 2020 projects across a range of topics and themes



- Europe in a changing world
- Spreading Excellence and Widening Participation
- Food security, sustainable agriculture and forestry, marine and maritime and inland water research, and the Bioeconomy
- Information and communication technologies
- Science with and for society
- Secure, clean and efficient energy
- Health, demographic change and wellbeing
- European research infrastructures (including e-Infrastructures)
- Climate action, environment, resource efficiency and raw materials
- Innovation in SMEs
- Nanotechnologies, Advanced Materials, Advanced Manufacturing and Processing, and Biotechnology



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Introduction to Horizon Europe – Main goals



Keeping the EU at the forefront of global research and innovation, Horizon Europe will:

- Maximise impact and deliver on the EU’s strategic priorities; Strengthen excellent EU science and technology; Foster the EU’s industrial competitiveness and its innovation performance; and Enhance access to excellence for researchers across Europe.

- Horizon Europe aims to boost growth, trade and investment and to create a significant social and environmental impact.



Up to €11 of **GDP gains** over 25 years can be potentially generated by each euro invested at EU level in R&I



Over 35% of Horizon Europe **spending** will contribute to **climate objectives**



To create **300.000 jobs by 2040**, of which **40%** will be **highly skilled** jobs



Introduction to Horizon Europe – Timeline



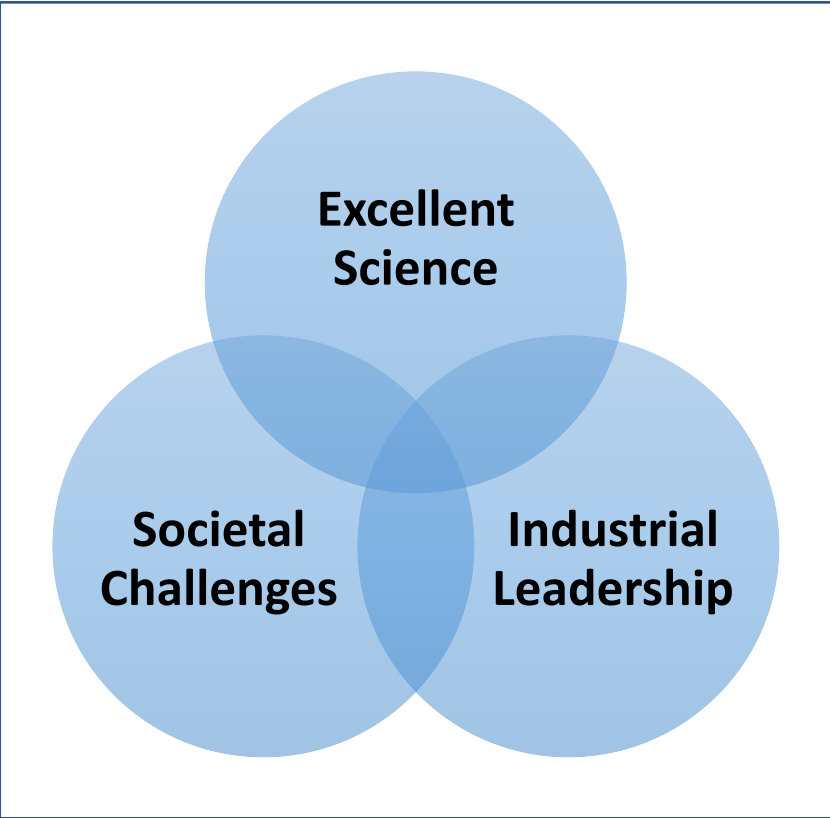
Draft calls have been available for a number of months

First calls expected later in April 2021, with many deadlines for September 2021

Consortia already being developed

Introduction to Horizon Europe – from the old to the new

Horizon 2020



Horizon Europe



Introduction to Horizon Europe - Pillars

Pillar 1

Excellent Science

European Research Council

Marie Skłodowska-Curie
Actions

Research Infrastructures

Pillar 2

Global Challenges and
European Industrial
Competitiveness

Clusters

- Health
- Culture, Creativity and Inclusive Society
- Civil Security for Society
- Digital, Industry and Space
- Climate, Energy and Mobility
- Food, Bioeconomy, Natural Resources, Agriculture and Environment

Joint Research Centre

Pillar 3

Innovative Europe

European Innovation Council

European innovation
ecosystems

European Institute of
Innovation
and Technology

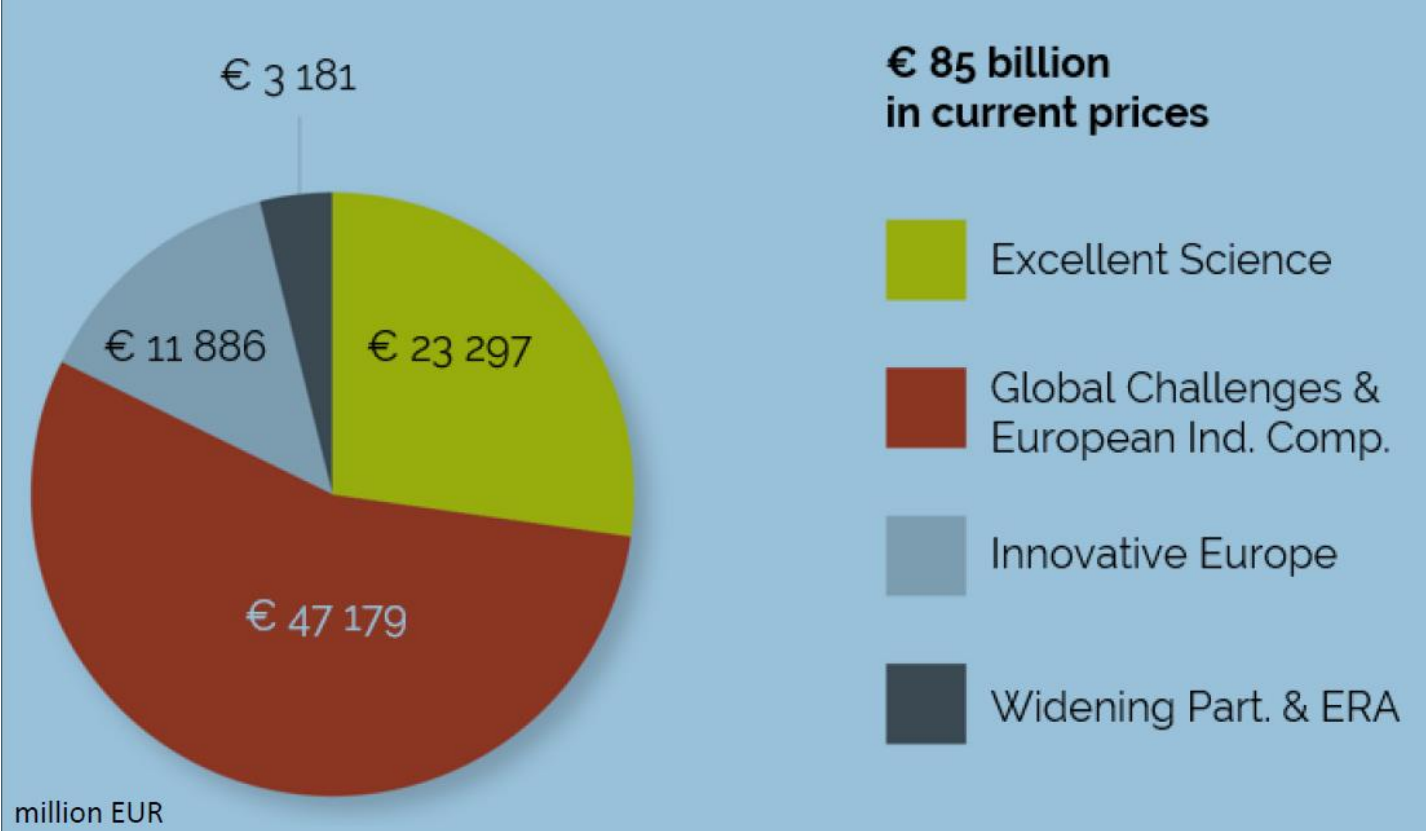
Widening Participation and Strengthening the European Research Area

Widening participation and spreading excellence

Reforming and Enhancing the European R&I system



Introduction to Horizon Europe - Budget



Source: EMDESK



Introduction to Horizon Europe

Pillar 1

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Widening Participation and Strengthening the European Research Area

Widening participation and spreading excellence

Reforming and Enhancing the European R&I system

Introduction to Horizon Europe – Pillar 1

Pillar 1: Excellent Science

Objective: Reinforcing and extending the excellence of the Union's science base

European Research Council (ERC)

- Supports frontier research, cross disciplinary proposals and pioneering ideas in new and emerging fields which introduce unconventional and innovative approaches.
 - Budget: **€ 14.8 billion**

Marie Skłodowska-Curie Actions

- Provides grants for all stages of researchers' careers (e.g. highly experienced researchers), and encourage transnational, intersectoral and interdisciplinary mobility
 - Budget: **€ 6.5 billion**

European Research Infrastructures (RI)

- Research Infrastructures are facilities that provide resources and services for research communities to conduct research and foster innovation.
 - Budget: **€ 2.2 billion**



Introduction to Horizon Europe

Pillar 1 Excellent Science

European Research Council

Marie Skłodowska-Curie
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Research Infrastructures

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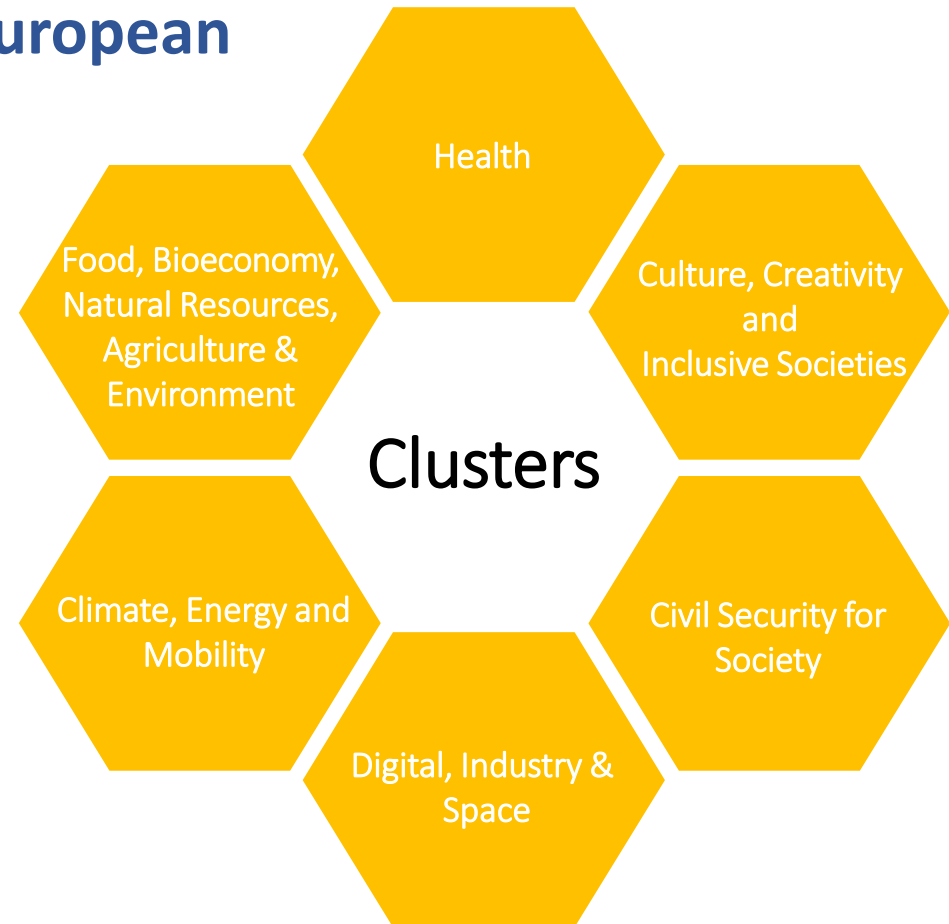


Introduction to Horizon Europe – Pillar 2

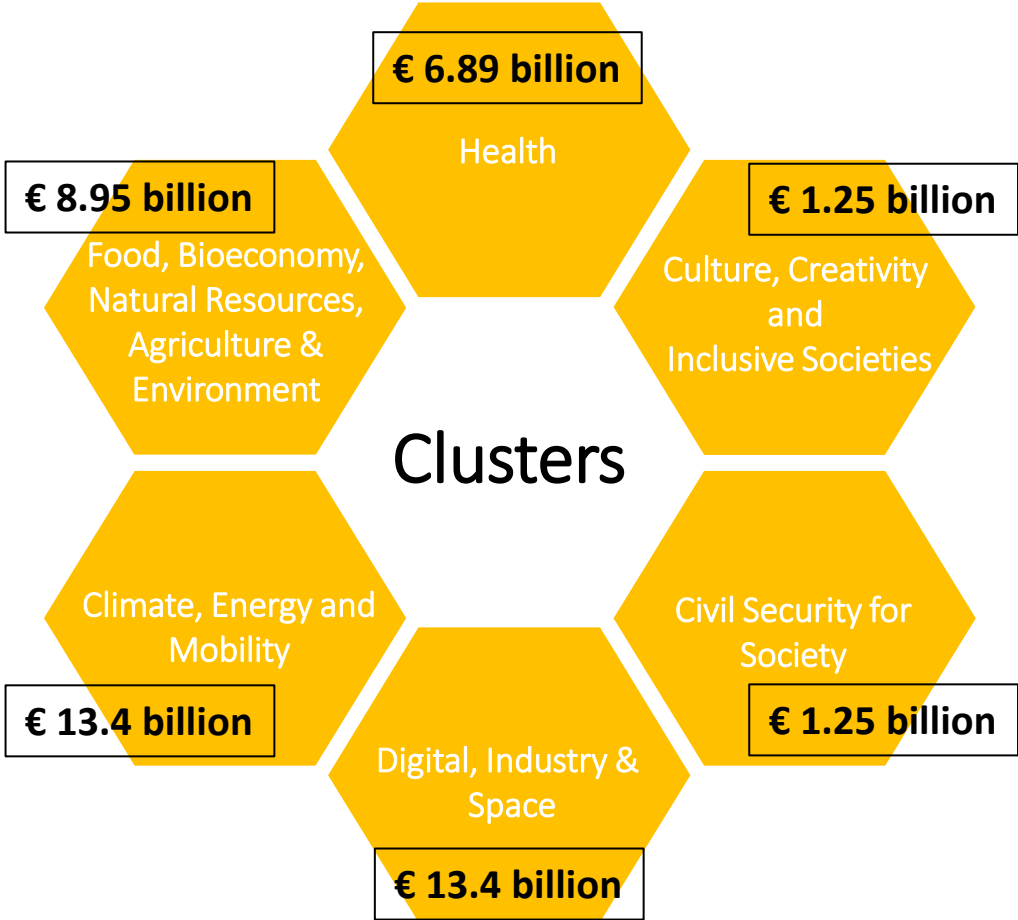
Pillar 2: Global Challenges & European Industrial Competitiveness

Objective: Boosting key technologies and solutions underpinning EU policies & Sustainable Development Goals.

- Built on clusters that exploit European strengths by generating new knowledge and innovations, along with a new mission approach.
- Ensure that R&I activities support EU policy priorities in areas such as the achievement of the Sustainable Development Goals and Societal Challenges.
- Industrial leadership prominent within the pillar.



Introduction to Horizon Europe – Pillar 2



Introduction to Horizon Europe – Pillar 2

Clusters	Areas of intervention	
Health	<ul style="list-style-type: none"> • Health throughout the life course • Non communicable and rare diseases • Tools, technologies and digital solutions for health and care, including personalised medicine 	<ul style="list-style-type: none"> • Environmental and social health determinants • Infectious diseases, including poverty related and neglected disease • Health care systems
Culture, creativity and inclusive society	<ul style="list-style-type: none"> • Democracy and Governance • Social and economic transformations 	<ul style="list-style-type: none"> • Culture, cultural heritage and creativity
Civil security for society	<ul style="list-style-type: none"> • Disaster resilient societies • Protection and Security 	<ul style="list-style-type: none"> • Cybersecurity

Introduction to Horizon Europe – Pillar 2

Clusters	Areas of intervention	
Digital, Industry and Space	<ul style="list-style-type: none"> • Manufacturing technologies • Advanced materials • Next generation internet • Circular industries • Space, including Earth Observation 	<ul style="list-style-type: none"> • Key digital technologies • Artificial Intelligence and robotics • Advanced computing and Big Data • Low carbon and clean industry • Emerging enabling technologies
Climate, Energy and Mobility	<ul style="list-style-type: none"> • Climate science and solutions • Energy systems and grids • Communities and cities • Industrial competitiveness in transport • Smart mobility 	<ul style="list-style-type: none"> • Energy supply • Buildings and industrial facilities in energy transition • Clean, safe and accessible transport and mobility • Energy storage
Food, bio-economy, natural resources, agriculture and Environment	<ul style="list-style-type: none"> • Environmental observation • Agriculture, forestry and rural areas • Circular systems • Food systems 	<ul style="list-style-type: none"> • Biodiversity and natural resources • Seas, oceans and inland waters • Bio based innovation systems in the EU • Bio-economy



Introduction to Horizon Europe – Pillar 2

Contribution to Sustainable Development Goals



Health: SDG 3 – Good Health and Well-Being for People; SDG13 – Climate Action



Culture, creativity and inclusive society: SDG 1 - No Poverty; SDG 3 – Good Health and Well-Being for People; SDG 4 - Quality Education; SDG 5 - Gender Equality; SDG 8; SDG 9; SDG 10; SDG 16



Civil Security for Society: SDG 16 – Peace, Justice and Strong Institutions



Digital, Industry and Space: SDG 8 - Decent Work and Economic Growth; SDG 9 - Industry, Innovation and Infrastructure; SDG 12 - Responsible Consumption and Production; SDG-13 Climate Action



Climate, Energy and Mobility: SDG 6 - Clean water and sanitation; SDG 7 - Affordable and Clean Energy; SDG 9 - Industry, Innovation and Infrastructure; SDG 11 - Sustainable Cities and Communities; SDG 12; SDG 13



Food, Bioeconomy, Natural Resources, Agriculture and Environment: SDG 2 – Zero Hunger; SDG 3 – Good Health and Well-Being; SDG 6 - Clean Water and Sanitation; SDG 8 – Decent Work and Economic Growth; SDG 9; SDG 11; SDG 12; SDG 13; SDG 14; SDG 15

Source: EMDESK

Introduction to Horizon Europe – Pillar 2

R&I Missions

Objective: Relating EU's research and innovation better to society and citizens' needs; with strong visibility and impact

- Each mission will operate as a portfolio of actions – such as research projects, policy measures or even legislative initiatives – to achieve a measurable goal that could not be achieved through individual actions.
- “The EU missions’ idea is to tackle these societal challenges in a new way: targeted, time-bound and with a measurable goal. They bring together policies and instruments as a coherent, joined-up approach to ensure a strong impact on society and drive long-term, systemic and disruptive change. It is a huge ambition that we plan to fulfil together for a sustainable Europe for all.”
 - Mariya Gabriel, Commissioner for Innovation, Research, Culture, Education and Youth



Introduction to Horizon Europe – Pillar 2

R&I Missions

Preparatory phase in 2021 – more information expected during the year

Adaptation to climate change, including societal transformation

Healthy oceans, seas, coastal and inland waters



Mission areas



Cancer

Climate-neutral and smart cities



Soil health and food

Introduction to Horizon Europe

Pillar 1 Excellent Science

European Research Council

Marie Skłodowska-Curie
Actions

Research Infrastructures

Pillar 2 Global Challenges and European Industrial Competitiveness

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Joint Research Centre

Pillar 3 Innovative Europe

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Widening Participation and Strengthening the European Research Area

Widening participation and spreading excellence

Reforming and Enhancing the European R&I system



Introduction to Horizon Europe – Pillar 3

Pillar 3: Innovative Europe

Objective: Stimulating market-creating breakthroughs and ecosystems conducive to innovation. One-stop shop for high potential innovators, aiming to put Europe at the forefront of market-creating innovation through a "bottom-up" approach.

European Innovation Council (EIC)

- Supports researchers and innovators developing high-risk, breakthrough innovations with the potential to create new markets and boost jobs, growth and prosperity in Europe.
 - Budget: **€ 8.55 billion**

European Innovation Ecosystems (EIE)

- Joint programmes connecting regional and national innovation actors.
 - Budget: **€ 448 million**

European Institute of Innovation and Technology (EIT)

- Bringing key actors (research, education and business) together around a common goal for nurturing innovation (cross-cutting).
 - Budget: **€ 2.68 billion**



Introduction to Horizon Europe

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Introduction to Horizon Europe - Widening

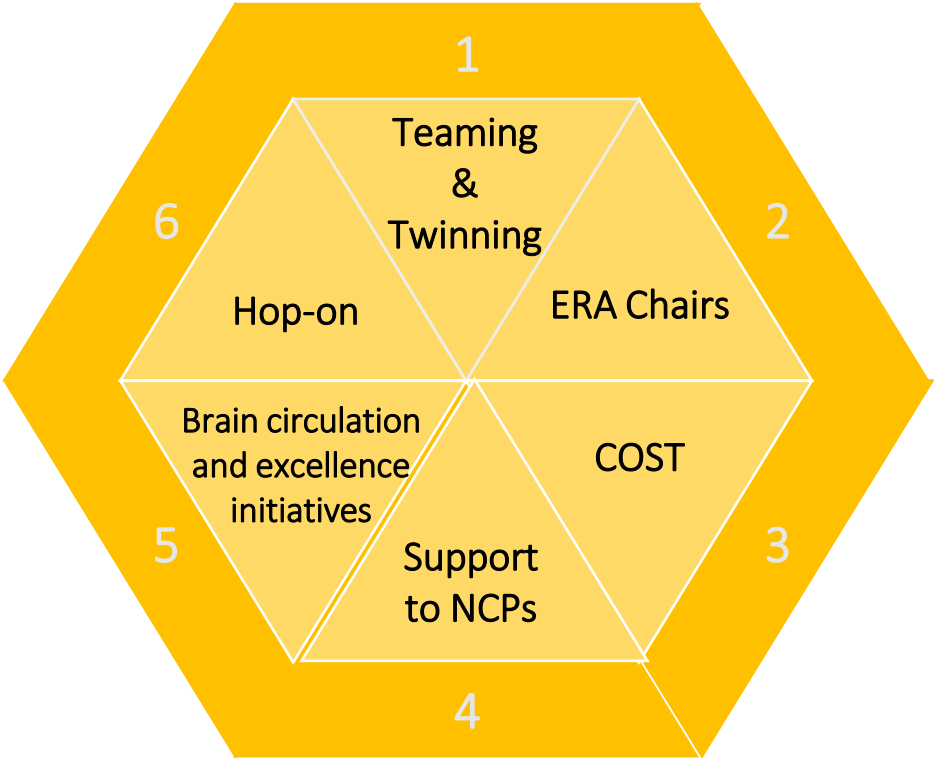
Widening Participation and Strengthening the European Research Area

Widening Participation and Spreading Excellence

Objective: Widening Participation and Spreading Excellence



Common understanding: At least 3.3 % of Horizon Europe budget (Widening as a whole)



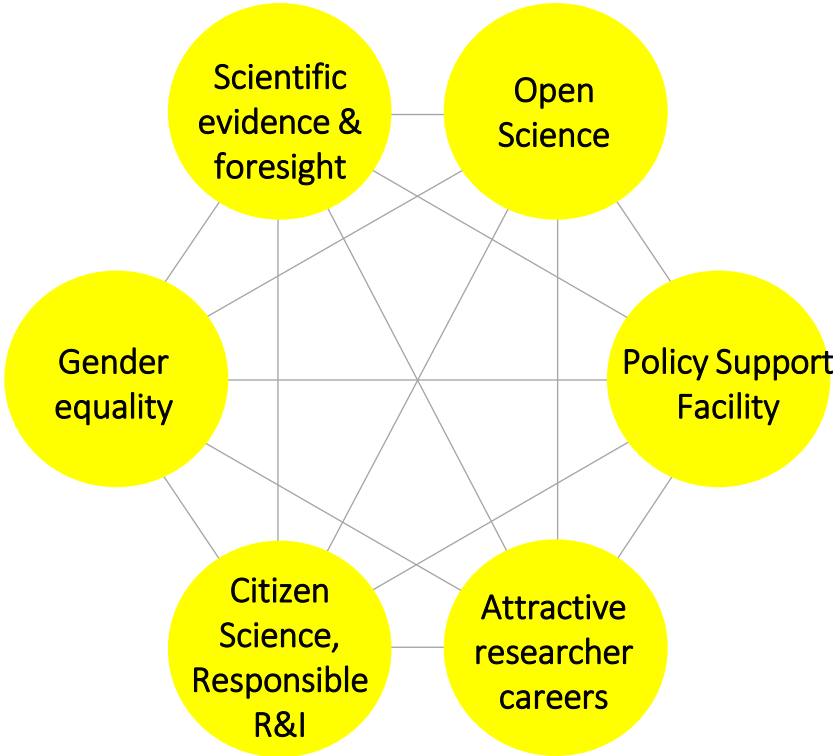
Introduction to Horizon Europe - Widening

Widening Participation and Strengthening the European Research Area

Objective: Reforming and enhancing the European R&I system



Common understanding: At least 3.3 % of Horizon Europe budget (Widening as a whole)

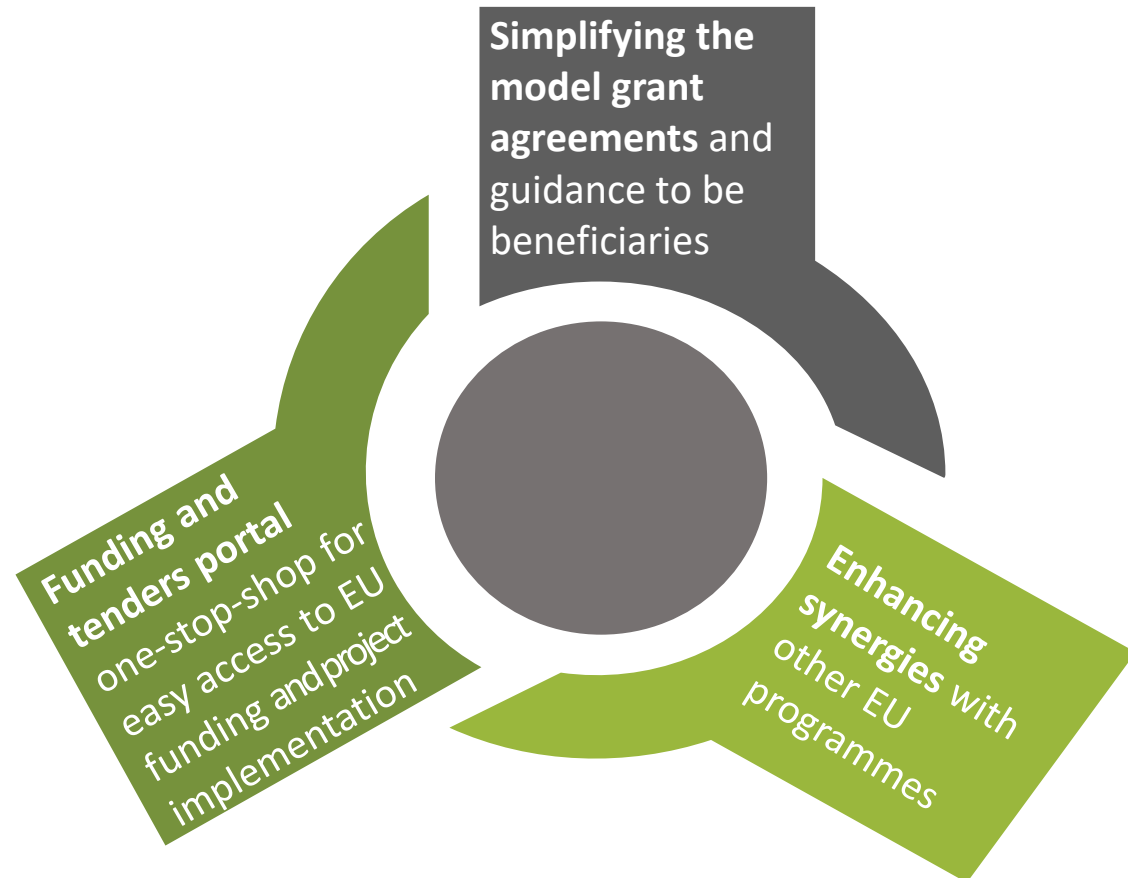


Introduction to Horizon Europe – Simplification of process

Implementation Strategy

Objective: To shift the focus from administration to content

Single Electronic Data Interchange Area (SEDIA) is the entry point to participate in funding programmes and tenders managed by the European Commission and other EU bodies.



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Questions and Answers – Some suggested questions

How many calls will be opened in 2021?

I have an idea for a project – what should I do next?

What does a proposal look like?

How large and international should be a consortium?

What are the likely chances of an approved project?

Where can I obtain further help?



Next session

- Selected Opportunities
- Tips and Recommendations



Selected Opportunities – for next session

TWINNING and TEAMING:

- **Twining** stands for institutional networking, aimed at strengthening a specific research field. Widening organisation linked to at least 2 leading research organisations. Projects of € 1.5 million for 3 years.
- **Teaming** aims to create new (or significant update of existing) centres of excellence in Widening countries through a coupling process with a leading scientific institution. Projects of 6-8 years with around 15 M€ funding.

Selected Opportunities – for next session

Marie Skłodowska-Curie Actions (MSCA): Promoting mobility

- *MSCA help develop doctoral networks, promote staff exchanges and fund mobility programmes with an international flavour.*
- *Different types of grants provided by MSCA are available for all stages of a researcher's career.*

Doctoral Networks
(Innovative Training Networks)
Integration of panels
360 PMs (+180 PMs for Industrial and Joint Doctorates)

Postdoctoral Fellowships
(Individual Fellowships - IFs)
Integration of Panels
12-24 m. for European Fellowships;
24-36 m. for Global Fellowships
(+ 6 m. in non-academic partner)

Staff Exchange
(Research and Innovation Staff Exchange – RISE)
Intersectoral secondments are privileged but interdisciplinary are possible within Europe

COFUND
(COFUND)
Maximum of 10 M € and 60 months; minimum of 3 hired researchers
Focus on new beneficiaries

Citizens
(European Researchers' Night)
Events up to 2 days
Focus on Green Deal

Selected Opportunities – for next session

OTHER OPPORTUNITIES:

- From discussion today, which Horizon Europe aspects and opportunities are of most interest?



Tips and Recommendations – for next session

- **Identifying an opportunity**
- **Developing or joining a consortium**
- **Developing a proposal**
- **Learning from failure**



Selected Opportunities

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