



HORIZON EUROPE

THE EU
RESEARCH &
INNOVATION
PROGRAMME 2021 – 27

Anna Panagopoulou
Director ERA & Innovation
European Commission
Directorate General Research & Innovation

Research and
Innovation



Lessons Learned

from Horizon 2020 Interim Evaluation



Support breakthrough innovation



Create more impact through mission-orientation and citizens' involvement



Rationalise partnerships' landscape



Reinforce openness



Strengthen international cooperation



Encourage participation



Key Novelties

in Horizon Europe

European Innovation Council

EU Missions

New approach to partnerships

Open science policy

Extended association possibilities

Spreading Excellence

HORIZON EUROPE

SPECIFIC PROGRAMME IMPLEMENTING HORIZON EUROPE & EIT*

Exclusive focus on civil applications



Pillar I EXCELLENT SCIENCE

European Research Council

Marie Skłodowska-Curie

Research Infrastructures



Pillar II GLOBAL CHALLENGES & EUROPEAN INDUSTRIAL COMPETITIVENESS

Clusters

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

Joint Research Centre



Pillar III INNOVATIVE EUROPE

European Innovation
Council

European Innovation
Ecosystems

European Institute of
Innovation & Technology*

WIDENING PARTICIPATION AND STRENGTHENING THE EUROPEAN RESEARCH AREA

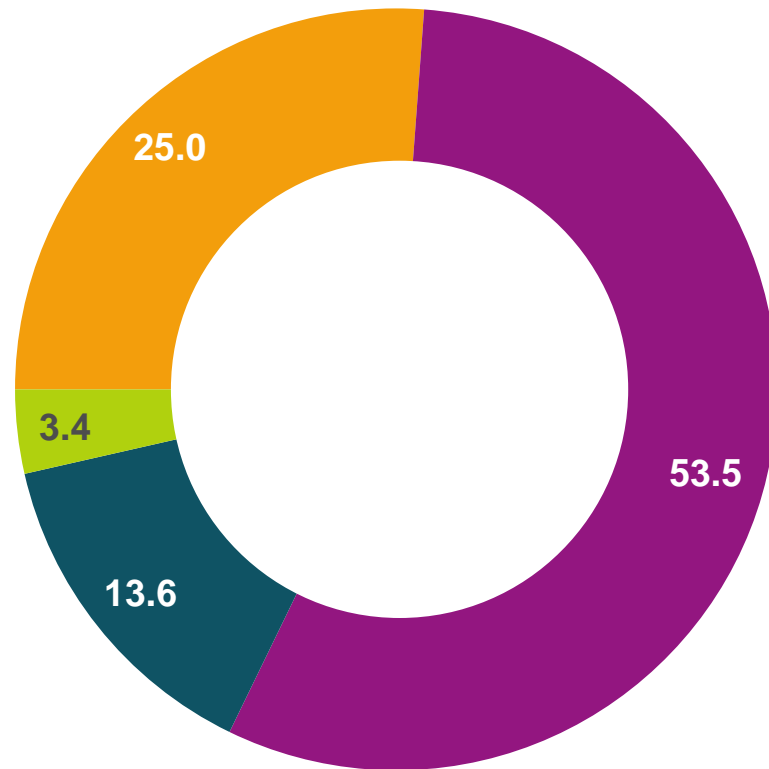
Widening participation & spreading excellence

Reforming & Enhancing the European R&I system

* The European Institute of Innovation & Technology (EIT) is not part of the Specific Programme

Horizon Europe Budget: €95.5 billion (2021-2027)

(including €5.4 billion from NGEU – Next Generation Europe – programme of EU for Recovery from COVID-19 crisis)



Political agreement December 2020

€ billion in current prices

- Excellent Science
- Global challenges and European ind. comp.
- Innovative Europe
- Widening Part and ERA

Pillar I

EXCELLENT SCIENCE:

reinforcing and extending the **excellence of the Union's science base**

European Research Council

Frontier research by the best researchers and their teams

€16 billion

Marie Skłodowska-Curie Actions

Equipping researchers with new knowledge and skills through mobility and training

€6.6 billion

Research Infrastructures

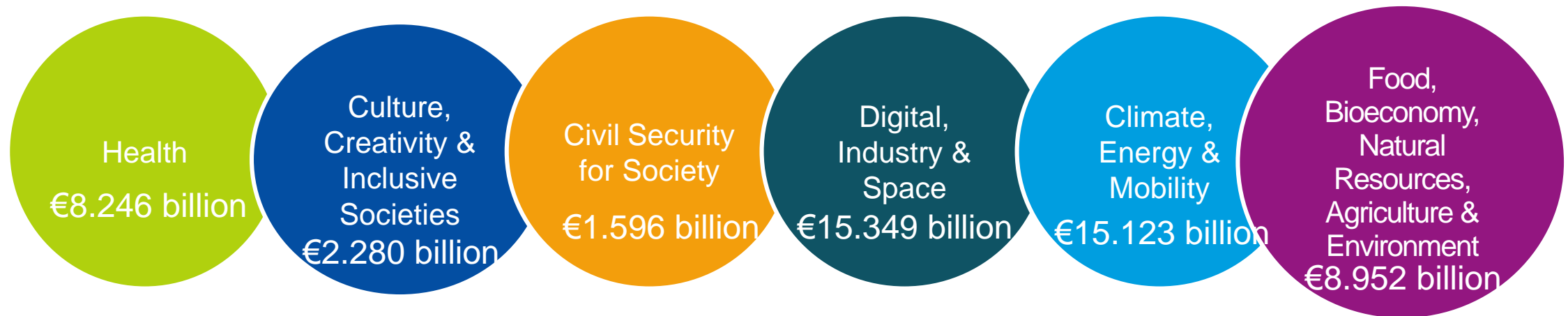
Integrated and inter-connected world-class research infrastructures

€2.4 billion

Pillar II - Clusters

GLOBAL CHALLENGES & EUROPEAN INDUSTRIAL COMPETITIVENESS:

boosting **key technologies** and solutions underpinning **EU policies & Sustainable Development Goals** (6 clusters)



€53.5 billion



EU Missions

R&I Missions

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

A mission is a portfolio of actions across disciplines intended to achieve a **bold and inspirational and measurable goal** within a set timeframe, with **impact** for society and policy making as well as relevance for a significant part of the European population and wide range of European citizens.

Five Missions Areas



Adaptation to climate change, including societal transformation



Cancer



Healthy oceans, seas, coastal & inland waters



Climate-neutral & smart cities



Soil health & food



New approach to European Partnerships

New generation of objective-driven and more ambitious partnerships in support of agreed EU policy objectives

Key Features

- **Strategic orientation**
- **Systemic approach**
- **Simple architecture and toolbox**
- **Common set of criteria for the life-cycle**

CO-PROGRAMMED

Based on Memoranda of Understanding/contractual arrangements; implemented independently by the partners and by Horizon Europe

CO-FUNDED

Based on a joint programme agreed and implemented by partners; commitment of partners for financial and in-kind contributions

INSTITUTIONALISED

Based on long-term dimension and need for high integration; partnerships based on Art 185/187 of TFEU and the EIT legal acts for 2021-2027

Overview of 49 candidate European Partnerships

HORIZON EUROPE PILLAR II - Global challenges & European industrial competitiveness

CLUSTER 1: Health	CLUSTER 4: Digital, Industry & Space	CLUSTER 5: Climate, Energy & Mobility	CLUSTER 6: Food, Bioeconomy, Agriculture, ...
Innovative Health Initiative	Key Digital Technologies	Clean Hydrogen	Circular Bio-based Europe
Global Health Partnership	Smart Networks & Services	Clean Aviation	Rescuing Biodiversity to Safeguard Life on Earth
Transformation of health systems	High Performance Computing	Single European Sky ATM Research 3	Climate Neutral, Sustainable & Productive Blue Economy
Chemicals risk assessment	European Metrology (Art. 185)	Europe's Rail	Water4All
ERA for Health	AI-Data-Robotics	Connected and Automated Mobility (CCAM)	Animal Health & Welfare*
Rare diseases*	Photonics	Batteries	Accelerating Farming Systems Transitions*
One-Health Anti Microbial Resistance*	Made in Europe	Zero-emission waterborne transport	Agriculture of Data*
Personalised Medicine*	Clean steel – low-carbon steelmaking	Zero-emission road transport	Safe & Sustainable Food System*
Pandemic Preparedness* <i>Co-funded or co-programmed</i>	Processes4Planet	Built4People	
	Global competitive space systems**	Clean Energy Transition	
		Driving Urban Transitions	

- Institutionalised Partnerships (Art 185/7)
- Institutionalised Partnerships / EIT KICs
- Co-Programmed
- Co-Funded

* Calls with opening dates in 2023-24
 ** Calls with opening dates not before 2022

PILLAR III - Innovative Europe

EIT (KNOWLEDGE & INNOVATION COMMUNITIES)	SUPPORT TO INNOVATION ECOSYSTEMS
InnoEnergy	Innovative SMEs
Climate	
Digital	
Food	
Health	
Raw Materials	
Manufacturing	
Urban Mobility	
Cultural and Creative Industries	

CROSS-PILLARS II & III

European Open Science Cloud

Pillar III

INNOVATIVE EUROPE:

stimulating **market-creating breakthroughs** and **ecosystems** conducive to innovation

European Innovation Council

Support to innovations with breakthrough and market creating potential

The budget: **€10.6 billion**, incl. up to **€527 million** for ecosystems (including NGEU – Recovery Fund parts dedicated to EIC).

European innovation ecosystems

Connecting with regional and national innovation actors

European Institute of Innovation and Technology (EIT)

Bringing key actors (research, education and business) together around a common goal for nurturing innovation

circa **€3 billion**



European Innovation Council

Support to innovations with breakthrough and disruptive nature and scale up potential that are too risky for private investors (**70% of the budget earmarked for SMEs**)

**European
Innovation Council –
a one-stop-shop**

- **Helping researchers and innovators create markets of the future, leverage private finance, scale up their companies**
- **Innovation centric, risk taking & agile, pro-active management and follow up**
- **Mostly 'bottom up', but also targeting strategic challenges**
- **EIC Programme Managers to develop visions for breakthroughs and steer portfolios**

Complementary instruments bridging the gap from idea to market

PATHFINDER

R&I grants
(from early technology
to proof of concept)

TRANSITION

R&I grants
(proof of concept to
pre-commercial)

ACCELERATOR

**Grants & investment (via EIC Fund) for
single SMEs & start-ups**
(from pre-commercial to market & scale-up)

Part

Widening Participation & Strengthening the European Research Area (ERA):

KEY objectives of Widening Participation and Spreading Excellence

- **Encourage** institutional reforms and transformation processes of the R&I system
- **Mobilise** national investments in R&I capacity in widening countries
- **Raise** the bar for excellence of R&I actors in widening countries
- **Increase** nr of participations & success rates of widening actors in research and innovation projects in other parts of Horizon Europe (notably in pillars 2 and 3)
- **Promote** the creation of new innovation ecosystems and scale up existing ones
- **Foster brain circulation**, including inter-sectoral mobility for researchers and innovators and turn it into brain gain for widening countries

€2.96 billion

Reforming and enhancing the EU R&I system

- **Strengthening** the evidence base for R&I policy
- **Support for policy makers** to the ERA development
- **Support to national R&I policy reform**, including Policy Support Facility
- **Attractive researcher careers** and links with higher education
- **Open science, citizen science and science communication**
- **Gender equality**
- **Ethics and integrity**
- **Support to the Programme implementation**
- **Support for National Contact Points**
- **Support to dissemination & exploitation**

€0.44 billion



Open Science across the programme

Open
Science

Mainstreaming of open science practices for improved quality and efficiency of R&I, and active engagement of society

Mandatory immediate Open Access to publications: beneficiaries must retain sufficient IPRs to comply with open access requirements;

Data sharing as 'open as possible, as closed as necessary': mandatory Data Management Plan for FAIR (Findable, Accessible, Interoperable, Reusable) research data

- Work Programmes may incentivize or oblige to adhere to **open science practices** such as involvement of citizens, or to use the **European Open Science Cloud**
- Assessment of open science practices through the **award criteria** for proposal evaluation
- Dedicated support to **open science policy actions**
- **Open Research Europe** publishing platform



International Cooperation

International Cooperation

Tackling together global societal challenges; access to the world's best talents, expertise and resources; enhanced supply and demand of innovative solutions

Association to Horizon Europe

- Third countries with good capacity in science, technology and innovation
- Taking into account objective of driving economic growth in Europe through innovation
- Intensified targeted actions
- Strengthened support to multilateral cooperation
- Openness to international participation balanced with the promotion of EU strategic autonomy

Synergies with other Union programmes

HORIZON EUROPE			
Other Union Programmes, including			
Common Agricultural Policy	InvestEU	ESF+	Innovation Fund
External Instrument	LIFE	Digital Europe	Internal Security Fund and Instrument for Border Management
Maritime & Fisheries Fund	EU4Health	Space Programme	Single Market Programme
Connecting Europe Facility	ERDF	ERASMUS+	Recovery and Resilience Facility
Just Transition Mechanism		Creative Europe	



Enhanced synergies

COMPATIBILITY
Harmonisation of funding rules; flexible co-funding schemes; pooling resources at EU level

COHERENCE & COMPLEMENTARITY
Alignment of strategic priorities in support of a common vision

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Rules for Participation and Implementation novelties





Rules for Participation and Dissemination

Main novelties



Participation

- Collaborative projects: at least 3 independent legal entities, with a least **one legal entity from a Member State**
- Restricted participation on strategic importance topics → associated countries maybe excluded

IPR & Exploitation

Reinforced focus on exploitation

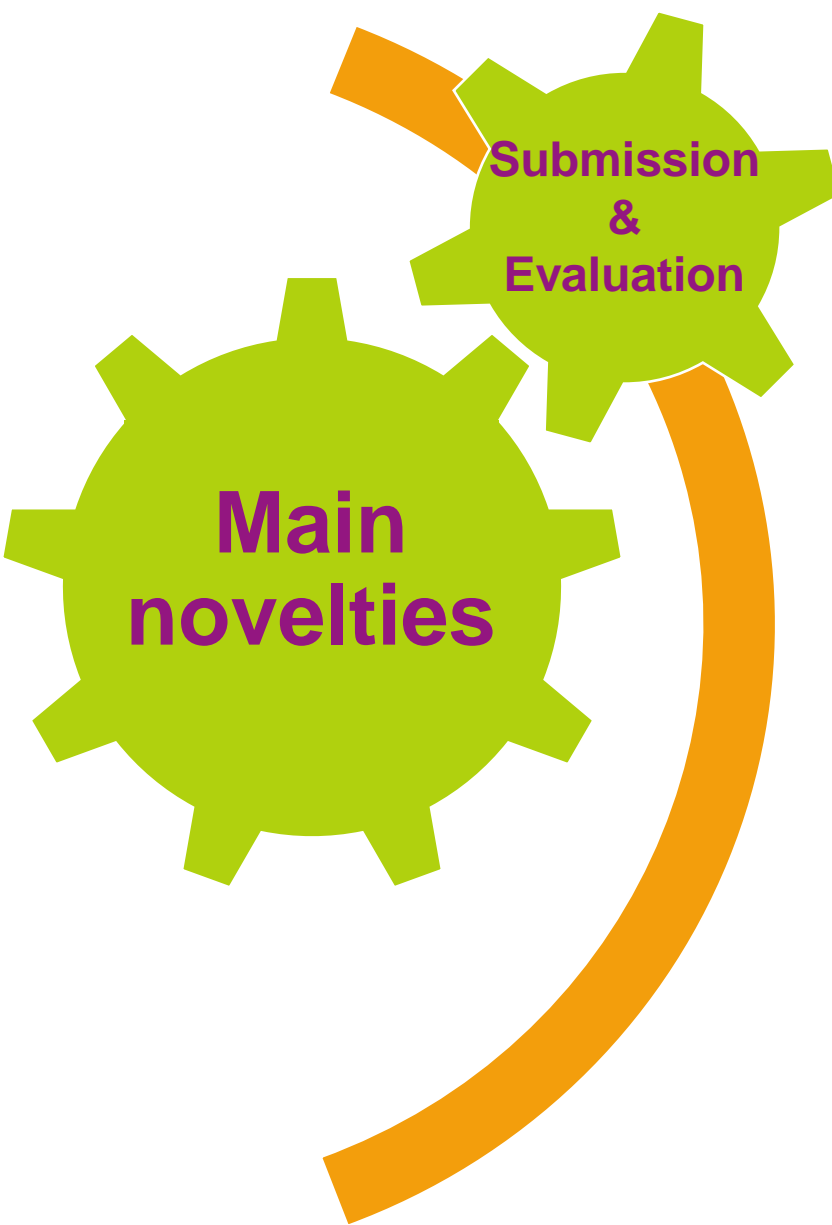
- Obligation to use an online platform (i.e. the **Horizon Results Platform**), if no exploitation of the results takes place after the end of the project (one year after as set out in the HE MGA)
- As default rule, proposals must include a **plan for the exploitation and dissemination of the results** which must be updated during and after the end of the project

Open Science

Mainstreaming Open Science

- Open access to scientific publications maintained and strengthened
- Research data must be handled according to the **FAIR** principles, open access provided under the **'as open as possible, as closed as necessary'** principle and beneficiaries must have a **Data Management Plan**

Key implementation features



Admissibility

- Applications must include **a plan for the exploitation and dissemination of results**, unless provided otherwise in the specific call conditions.
- **Reduced** page limits

Eligibility

- Applications from public bodies, research organisations or higher education establishments from Members States and Associated countries must have a **gender equality plan** (grace period in 2021 - applicable only from 2022 on)

Table of researchers

- **A table of researchers** involved in the project must be filled in (aiming at better monitoring researchers' career)

Project impact

- **Clear and detailed guidance** helping participants **to explain the potential impact** of their proposals (pathways to impact).

Key implementation features



Main novelties

Model Grant Agreement

Corporate structure & terminology alignment

- The Horizon Europe grant agreement is based on a **Commission-wide model** (so-called '**Corporate Model Grant Agreement**') to serve for all EU programmes under direct management and **allow for synergies**

Model Grant Agreement Specific Annex 5

- To capture **HE specific rules** in relation to Confidentiality and Security; Ethics (i.e. research integrity); Values (i.e. gender mainstreaming); IPR; Communication, Dissemination, Open Science and Visibility; Specific rules for carrying out the action (ERC, EIC, MSCA...)

Corporate Daily Rate

- A **single and simpler corporate formula** to calculate **actual personnel costs**

How to apply for funding

Go to the Portal

Find a call

Look for open calls

Submit your proposal

The screenshot shows the 'Funding & tender opportunities' portal. The search filters on the left include: 'Type your Keywords...' (with a search icon), 'Match whole words only' (checked), 'GRANTS' (checked), and 'TENDERS' (checked). Under 'Submission status', there are three boxes: 'Forthcoming' (1 icon), 'Open for submission (13)' (1 icon), and 'Closed (8)' (1 icon). The 'Programming period' is set to '2021 - 2027 (21)'. The selected programme is 'Horizon Europe (HORIZON)'. The 'Programme part' dropdown is set to 'Select a Programme part...'. The 'Mission' dropdown is set to 'Select a Mission...'. The main content area shows 'Funding and tenders (21)' with a 'Need help?' button. Three funding opportunities are listed:

Grant	Open for submission	Programme	ID	Types of action	Deadline model	Opening date	Deadline date
Innovation Procurement Strategy Award	Horizon Europe (HORIZON)	HORIZON-EIC-2021-InnovationProcurementAwardPrize-1		HORIZON Recognition Prize	single-stage	14 April 2021	29 July 2021 17:00:00 Bruss
Enhancing synergies between the EIC and Startup Europe	Horizon Europe (HORIZON)	HORIZON-EIC-2021-STARTUPEU-01-01		HORIZON Coordination and Support Actions	single-stage	01 June 2021	22 September 2021 17:00:00
EU Prize for Women Innovators	Horizon Europe (HORIZON)	HORIZON-EIC-2021-WomenInnovatorsPrize		HORIZON Recognition Prize	single-stage	18 March 2021	30 June 2021 17:00:00 Brus

At the bottom of the list, 'EIC Transition Open 2021' is partially visible.

Currently, there are 13 open calls (e.g. ERC and EIC grants)
8 have already closed

How to understand the calls and rules



European Commission | Funding & tender opportunities
Single Electronic Data Interchange Area (SEDIA)

SEARCH FUNDING & TENDERS | HOW TO PARTICIPATE | PROJECTS & RESULTS | WORK AS AN EXPERT | SUPPORT

Horizon Europe (HORIZON)

Programming period: 2021-2027

Horizon Europe (HORIZON)

Clear filter

Reference Documents

Grants
This page includes reference documents of the programmes managed on the EU Funding & Ten. Please select the programme to see the reference documents.

Procurement
Reference Documents related to tendering opportunities are published on TED eTendering in the

Filter

- Legislation
- Work programme & call documents
 - 2021-2022
 - HE Main Work Programme 2021-2022
 - HE and Euratom Work Programme on Horizontal Expenditure 2021-2022
 - General introduction v1.0
 - 3. Research Infrastructures v1.0
 - 4. Health v1.0
 - 13. General Annexes v1.0
 - EIC Work Programme 2021
 - ERC Work Programme 2021
 - Grant agreements and contracts
 - Guidance
 - Templates & forms

Adoption of Horizon Europe Work Programmes



- Expected adoption of main WP and publication of calls by mid June
- Thematic Info Days will be organised from end of June until mid July 2021
- By end of 2021 updates and Mission WP envisaged



23/24
JUNE 2021

The European Research and Innovation Days represent a unique opportunity to add your voice to the conversation.

The event is all about collaboration: bringing together individuals and experts from all areas to build connections and ignite a brighter future.



EUROPEAN RESEARCH & INNOVATION DAYS



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The 2021 edition of the European Research and Innovation Days could not have come at a more important time. Together, we can recover from the coronavirus pandemic and ensure a green and digital future for everyone. Join the conversation on 23 and 24 June and share your thoughts on how Horizon Europe and the European Research Area can help us to reach these goals.



Mariya Gabriel, Commissioner for Innovation, Research, Culture, Education and Youth

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Horizon Magazine: @HorizonMagEU

Horizon Europe website: <http://ec.europa.eu/horizon-europe>

European Innovation Council: <http://ec.europa.eu/research/eic>

European Research Council: <https://erc.europa.eu/>





Thank you!

#HorizonEU

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