

Το νέο χρηματοδοτικό πρόγραμμα

"Ορίζοντας Ευρώπη": Στόχοι και δομή του προγράμματος

Βάγια Πιτέλη Εθνικό Σημείο Επαφής για τον Ορίζοντα Ευρώπη



The Framework Programme for Research & Innovation



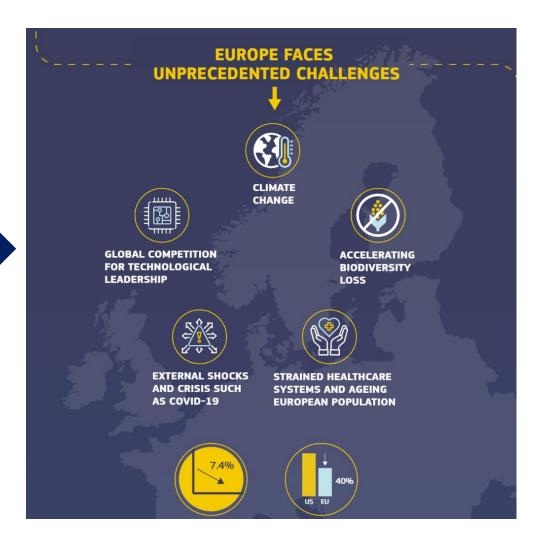




Horizon Europe - Vision



Research & Innovation







Policies, strategies and priorities shape Horizon Europe



Strategic Plan
2021-2024
DG Research & Innovation





Framework Programmes - impact on R&I

€1.5 million

Collaborations from more than 150 countries

84%

of investments address
Sustainable Development
Goals; 30% address
climate change

3X

more often among top 1%
cited publications
compared to output in
Member States

double

the proposals received per year compared to the previous programme

€48.2 million

Directed to coronavirus
R&I just seven days
after the first
EU case reported

19%

estimated labour productivity increase in funded companies thanks to the programme*

statistics from Horizon 2020 evaluation and monitoring and *Framework Programme 7 JRC research paper





Strategic plan gives direction to the work programme

Horizon Europe legislative package

Strategic Plan 2021-2024 Work programme 2021-2022

Calls for proposals

Main Features

Early involvement and extensive exchanges with Member States Extensive exchanges with the European Parliament Consultations with stakeholders and public at large



✓ Strategic plan 2021-2024:

https://ec.europa.eu/info/horizon-europe/strategic-plan_en



First Work Programmes preparation

Commission





with stakeholders and the

general public



Horizon Europe: An evolution

Lessons Learned

from Horizon 2020 Interim Evaluation



Support breakthrough innovation



European Innovation Council

Key Novelties

in Horizon Europe



Create more impact through missionorientation and citizens' involvement



EU Missions



Rationalise partnerships' landscape



New approach to partnerships



Reinforce openness



Open science policy



Strengthen international cooperation



Extended association possibilities



Encourage participation



Spreading Excellence





The ambitious EU research and innovation framework programme (2021-2027)



fuel EU's scientific and technological excellence and the strengthen the European Research Area (ERA)





tackle policy priorities, including green and digital transitions and Sustainable Development Goals

Society



boost Europe's innovation uptake, competitiveness and jobs

Economy





Horizon Europe structure

HORIZON EUROPE

EURATOM

Fusion

Fission

SPECIFIC PROGRAMME: EUROPEAN DEFENCE FUND

Exclusive focus on defence research & development

Research actions

Development actions

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

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

Joint Research Centre



Pillar III
INNOVATIVE EUROPE

European Innovation Council

European innovation ecosystems

European Institute of Innovation & Technology*

> Joint Research Center

WIDENING PARTICIPATION AND STRENGTHENING THE EUROPEAN RESEARCH AREA

Widening participation & spreading excellence

Reforming & Enhancing the European R&I system

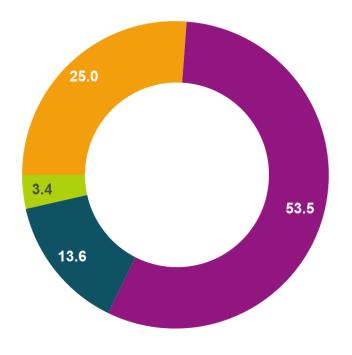


^{*} The European Institute of Innovation & Technology (EIT) is not part of the Specific Programme



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 interconnected world-class research infrastructures

€2.4 billion

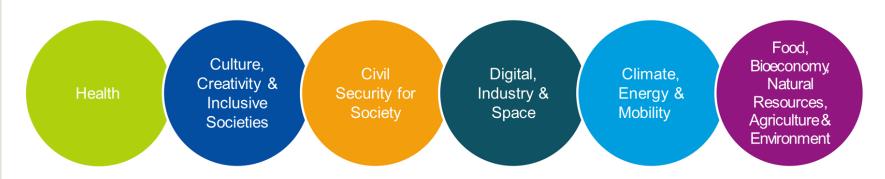




Pillar II - Clusters

GLOBAL CHALLENGES & EUROPEAN INDUSTRIAL COMPETITIVENESS:

boosting **key technologies** and solutions underpinning **EU policies & Sustainable Development Goals** (6 clusters and JRC – non-nuclear direct actions)



€53.5 billion





Pillar II

Budget for clusters & for JRC

in current prices

	JRC (non-nuclear direct actions)	€1.970 billion
Cluster 6	Food, Bioeconomy, Natural Resources, Agriculture & Environment	€8.952 billion
Cluster 5	Climate, Energy & Mobility	€15.123 billion (including €1.35 billion from NGEU)
Cluster 4	Digital, Industry & Space	€15.349 billion (including €1.35 billion from NGEU)
Cluster 3	Civil Security for Society	€1.596 billion
Cluster 2	Culture, Creativity & Inclusive Societies	€2.280 billion
Cluster 1	Health	€8.246 billion (including €1.35 billion from NGEU)

enterprise
europe ters are including a budget for Partnerships and Missions
included the control of the control



Pillar II: EU Missions - 5 areas



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.

Horizon Europe defines mission characteristics and elements of governance, and **5 missions** areas. Specific missions will be programmed within the Global Challenges and European Industrial Competitiveness pillar, but may also benefit from actions carried out within other parts of the Programme as well as complementary actions carried out under other Union programmes.



A climate-resilient Europe: Prepare Europe for climate disruptions and accelerate the transformation to a climate resilient and Just Europe

Mission
Starfish 2030:
Restore our
oceans and
Water

Adaptation to climate change, including societal transformation



Conquering
Cancer:
Mission
Possible

Healthy oceans, seas, coastal and inland waters



Mission areas



Cancer

Climate-neutral and smart cities



Soil health and food Caring for Soil is Caring for Life



100 Climate Neutral and Smart Cities by 2030





EU Missions: Targets by 2030

Prepare Europe to deal with climate disruptions, assisting citizens, communities and regions

ENGES FOR HUMANITY

Filling the knowledge gap,
regenerating marine and water
ecosystems, zero pollution











Pillar II: European partnerships



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 inkind 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





Pillar II: European partnerships

Overview of 49 candidate European Partnerships

HORIZON EUROPE PILLAR II - Global challenges & European industrial competitiveness

CLUSTER1: 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,
Chemicals risk assessment	European Metrology	Europe's Rail	Blue Economy
ERA for Health	(Art. 185)	Connected and Automated	Water4All
	Al-Data-Robotics	Mobility (CCAM)	Animal Health & Welfare*
Rare diseases*	Photonics	Batteries	Accelerating Farming
One-Health Anti Microbial Resistance*	Made in Europe	Zero-emission waterborne transport	Systems Transitions*
Personalised Medicine*	Clean steel – low-carbon	Zero-emission road	Agriculture of Data*
	steelmaking	transport	Safe & Sustainable Food
Pandemic Preparedness* Co-funded or co-programmed	Processes4Planet	Built4People	System*
	Global competitive space systems**	Clean Energy Transition	
		Driving Urban Transitions	
Institutionalised Partnerships (A	,		
Institutionalised Partnerships / E	IT KIUS		

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

^{*} Calls with opening dates in 2023-24

^{**} Calls with opening dates not before 2022



Pillar III: Innovative Europe

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

European innovation ecosystems

Connecting with regional and national innovation actors

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

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





Pillar III: European Innovation Council (EIC)







Pillar III: European Innovation Council (EIC)



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)

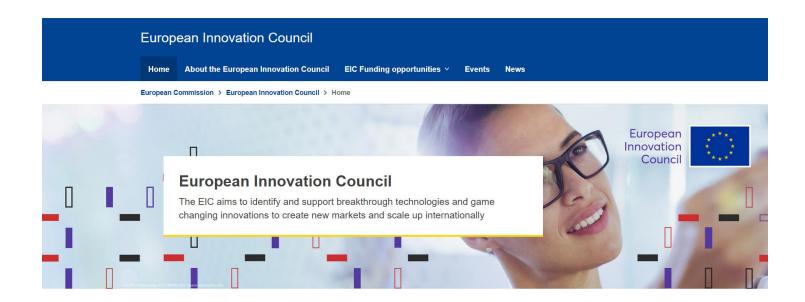
ACCELERATOR

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





European Innovation Council (EIC)



> EIC dedicated website: https://eic.ec.europa.eu





European Institute of Innovation and Technology (EIT)





EIT website: https://eit.europa.eu/



EIT Knowledge and Innovation Communities







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

Widening Participation and Spreading Excellence

- Teaming, Twinning, ERA Chairs,
- European Cooperation in Science and Technology (COST)
- Boosting National Contact Points' (NCPs) activities, preproposal checks and advice
- Brain circulation
- Excellence initiatives:
- Possibility for entities from widening countries to join already selected collaborative R&I actions
- · Recognition of participation
- Matchmaking services

Strengthening the evidence base for R&I policy

Reforming and enhancing the EU R&I system

- Foresight
- 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 international cooperation
- Scientific input to other policies
- Support to the Programme implementation
- Support for National Contact Points
- Support to dissemination & exploitation

€0.44 billion

€2.96 billion





Rules for participation: Admissibility conditions



Same general admissibility conditions

- Applications must be submitted before the call deadline, electronically via the Funding & Tenders Portal
- Applications must be complete, readable, accessible and printable, and include a
 plan for the exploitation and dissemination of results, unless provided otherwise in
 the specific call conditions.

Proposal page limit

Substantial reduction in maximum length:

- RIAs and IAs type of actions: limit for a full application is 45 pages
- CSAs: limit is 30 pages
- First stage proposals: limit is 10 pages
- EIC Pathfinder: limit is 17 pages
- Exceptions, if any, would be specified in the call text.





Rules for participation: Eligibility conditions



Consortium composition (collaborative projects)

- at least one independent legal entity established in a Member State, and
- at least two other independent legal entities each established either in a different Member State or an Associated Country.

Gender Equality Plan (applicable only from 2022 on)

Participants that are public bodies, research organisations or higher education establishments from Members States and Associated countries **must have a gender equality plan**, covering minimum process-related requirements.

- A self-declaration will be requested at proposal stage (for all types of participants).
- Included in the entity validation process (based on self-declaration)





Type of actions funded

Activities eligible for funding - Type of actions

Activities to establish new knowledge or to explore the feasibility of a new or improved technology, product, process, service or solution.

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Innovation action (IA)

Activities to produce plans and arrangements or designs for new, altered or improved products, processes or services.

Activities that contribute to the objectives of Horizon Europe. This excludes R&I activities, except for 'Widening participation and spreading excellence'

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Programme co-fund actions (CoFund)

A programme of activities established or implemented by legal entities managing or funding R&I programmes, other than EU funding bodies.

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Innovation and market deployment actions (IMDA)

Precommercial procurement actions/ (PCP)

Public procurement of innovative solutions actions (PPI)

Activities that embed an innovation action and other activities necessary to deploy an innovation on the market. (EIC)

Activities that aim to improve the skills. knowledge and career prospects of researchers, based on mobility between countries and, if relevant, between sectors or disciplines. (MSCA)

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Activities that aim to help a buyers' group to strengthen the public procurement of research, development, validation and, possibly, the first deployment of new solutions

Activities that aim to strengthen the ability of a buyers' group to deploy innovative solutions early

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Impact in Horizon Europe



Measures to maximise impact

Dissemination, exploitation and communication. To include a draft plan in proposal is an admissibility condition, unless the work programme topic explicitly states otherwise.

All measures should be proportionate to the scale of the project, and should contain concrete actions to be implemented both during and after the end of the project

Elements of the D&E&C plan

- Planned measures to maximise the impact of projects
- Target groups (e.g. scientific community, end users, financial actors, public at large) and proposed channels to interact
- Communication measures for promoting the project and its findings throughout the full lifespan of the project
- Policy feedback measures to contribute to policy shaping and supporting the implementation of new policy initiatives and decisions
- Follow-up plan to foster exploitation/uptake of the results
 - Comprehensive and feasible strategy for the management of the intellectual property (the provision of a results ownership list is mandatory at the end of the project)
 - If exploitation is expected primarily in non-associated third countries, give a convincing justification that this is still in the Union's interest.







Key Impact Pathways

Horizon Europe legislation defines three types of impact tracked through **Key Impact Pathways**

- 1. Creating high-quality new knowledge
- 2. Strengthening human capital in R&I
- 3. Fostering diffusion of knowledge and Open Science

Scientific Impact



- 4. Addressing EU policy priorities & global challenges through R&I
- 5. Delivering benefits & impact via R&I missions
- 6. Strengthening the uptake of R&I in society

Societal Impact



- 7. Generating innovation-based growth
- 8. Creating more and better jobs
- 9. Leveraging investments in R&I

Economic Impact







Why do we need a robust monitoring system?

- Make sense of a complex funding landscape
- Connect micro-data with programme's objectives
- Get insights on time
- Account for the inherit risk and time lag of R&I investments
- Uncover the true added value of EU funding
- Reduce administrative burden on beneficiaries

Key principles of **Key Impact Pathways** Ambitious & pragmatic framework

- Proximity from broad overview to continuous monitoring of each project
- Attribution details about most granular details (VAT numbers, researcher identifiers, DOIs...)
- Traceability multiple data sources in one place minimize reporting burden (publications, patents, companies, researchers)
- Holistic approach knowing how each part of the programme contributes to its impact
- Stability building on current systems, piloting new advanced counterfactual approaches



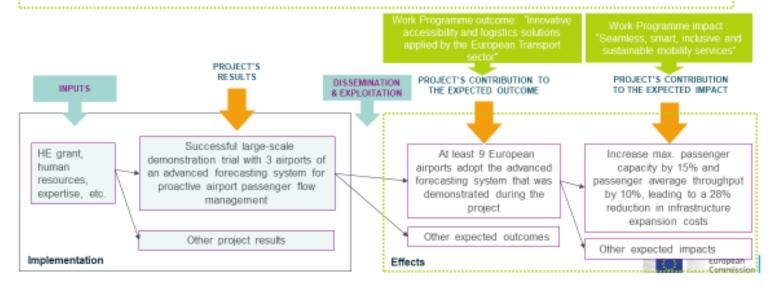


Pathway towards impact



Describing the impact of your proposal

Project's pathway towards impact ...by thinking about the specific contribution the project can make to the expected outcomes and impacts set out in the Work Programme.







Gender Dimension in Horizon Europe



Gender dimension in R&I content

Gender Dimension Addressing the gender dimension in research and innovation entails taking into account sex and gender in the whole research & innovation process.

The integration of the gender dimension into R&I content is mandatory, unless it is explicitly mentioned in the topic description

Why is gender dimension important?

- Why do we observe differences between women and men in infection levels and mortality rates in the COVID-19 pandemic?
- Does it make sense to study cardiovascular diseases only on male animals and on men, or osteoporosis only on women?
- Does it make sense to design car safety equipment only on the basis of male body standards?
- Is it responsible to develop Al products that spread gender and racial biases due to a lack of diversity in the data used in training Al applications?
- Is it normal that household travel surveys, and thus mobility analysis and transport planning, underrate trips performed as part
 of caring work?
- Did you know that pheromones given off by men experimenters, but not women, induce a stress response in laboratory mice sufficient to trigger pain relief?
- And did you know that climate change is affecting sex determination in a number of marine species and that certain populations is an are now at risk of extinction?





Open Science in Horizon Europe



Open Science across the programme

Open Science Open science is an approach based on open cooperative work and systematic sharing of knowledge and tools as early and widely as possible in the process. Including 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 excellence award criteria for proposal evaluation. Under quality of participants previous experience on open sciences practices will be evaluated positively.
- Dedicated support to open science policy actions
- Open Research Europe publishing platform





Open Research Europe



- ✓ Submissions as of end November 2020
- ✓ Tendered by the EC, total of 5.8 million euros/4 years
- ✓ Flat article fees paid by EC; 780 euros
- ✓ Powered by F1000 Research
- ✓ Commitment to the platform: new European Research Area

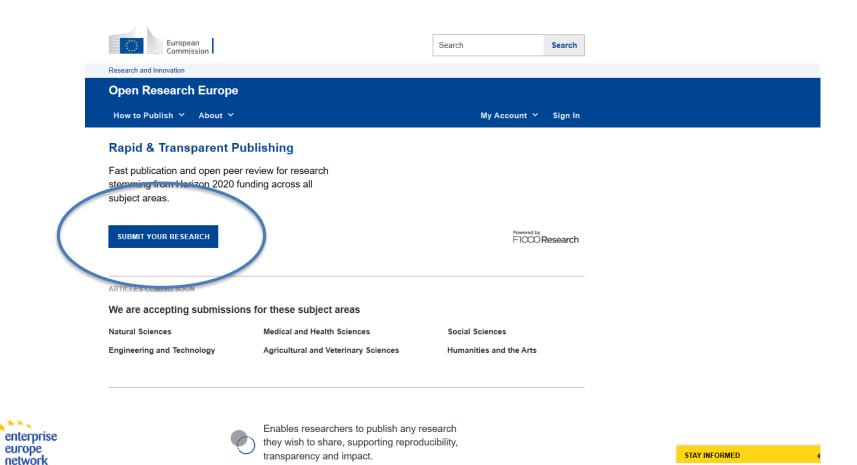




Business Support on Your Doorste

Open Research Europe

https://open-research-europe.ec.europa.eu/





European Open Science Cloud

https://eosc-portal.eu/ **EUROPEAN OPEN SCIENCE CLOUD SERVICES USE CASES RESOURCES POLICY PROVIDERS FUNDING ONBOARDING OPPORTUNITIES**





Horizon Europe website

https://ec.europa.eu/info/research-and-innovation/funding/fundingopportunities/funding-programmes-and-open-calls/horizon-europe_en



Home > Research and innovation > Funding > Funding opportunities > Funding programmes and open calls > Horizon E	urope #HorizonEU
Horizon Europe	
Research and innovation funding programme until 2027. How to get funding, programme structure, missions, European partnerships, news and events.	EURORS

What is Horizon Europe?

Horizon Europe is the EU's key funding programme for research and innovation with a budget of €95.5 billion.

It tackles climate change, helps to achieve the UN's Sustainable Development Goals and boosts the EU's competitiveness and growth.

The programme facilitates collaboration and strengthens the impact of research and innovation in



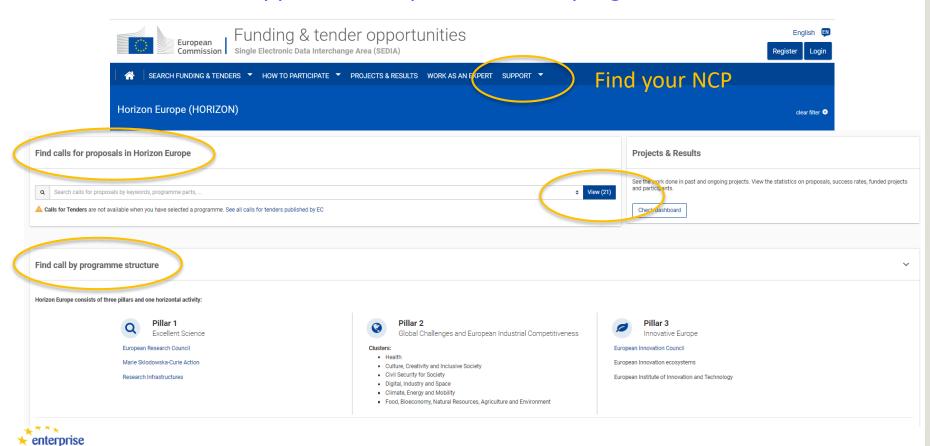


europe
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Business Support on Your Doorste

Funding & tenders opportunities portal

https://ec.europa.eu/info/fundingtenders/opportunities/portal/screen/programmes/horizon





Greek portal for Horizon Europe by PRAXI Network

http://horizoneurope.gr/









ΝΕΑ & ΕΚΔΗΛΩΣΕΙΣ

ΔΗΜΟΣΙΕΥΣΕΙΣ

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Horizon Europe info-days & brokerage events between 28 June and 9 July 2021 (recordings available)



Info-days in 9 thematic areas: www.horizon-europe-infodays2021.eu

- 28 June Infrastructures
- 29 & 30 June Digital, industry & space (cluster 4)
- 30 June Civil security for society (cluster 3)
- 1 July Culture, creativity & inclusive society (cluster 2)
- 1 July The Marie Skłodowska-Curie Actions
- 2 July Health (cluster 1)
- 5 & 6 July Climate, energy & mobility (cluster 5)
- 7 & 8 July Food, bioeconomy, natural resources, agriculture & environment (cluster 6)
- 9 July European Research Area (ERA) & Widening





National launch event for Horizon Europe - Greece





Recordings and Presentations:

http://horizoneurope.gr/news/gr_launch_event_horizon_europe/



EC webinars – useful information

- Webinar: How to prepare a successful proposal in Horizon Europe , 24/3/2021 Topics: Submission and evaluation of proposals. The Model Grant Agreement https://ec.europa.eu/research/participants/docs/h2020-funding-quide/other/event210324.htm
- Webinar: A successful proposal for Horizon Europe: Scientific-technical excellence is key, but don't forget the other aspects, 21/4/2021
 Topics: Impact, DEC, Open Science, Gender dimension
 https://ec.europa.eu/research/participants/docs/h2020-funding-guide/other/event210421.htm
- More info on past and upcoming events on F&T portal:

 https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/home





- Horizon Europe: https://ec.europa.eu/info/horizon-europe en
- R&I Missions (incl. reports): https://ec.europa.eu/info/horizon-europe europe/missions-horizon-europe en
- Partnerships for R&I: https://ec.europa.eu/info/horizon-europe/european-partnerships-horizon-europe en
- Open science policy: https://ec.europa.eu/info/research-and-
 innovation/strategy/goals-research-and-innovation-policy/open-science en
- EU approach to sustainable development:
 https://ec.europa.eu/info/strategy/international-strategies/sustainable-development-en
 development-goals/eu-holistic-approach-sustainable-development-en
- ➤ European Innovation Council: https://ec.europa.eu/research/eic/index.cfm
- ▶ European Institution of Innovation and Technology: https://eit.europa.eu/
- Knowledge and Innovation Communities: https://eit.europa.eu/our-communities
- European Open Science Cloud: https://eosc-portal.eu/



Σας ευχαριστώ!

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