

Το νέο πρόγραμμα Ορίζοντας Ευρώπη

WORKSHOP | Τμήμα Γεωλογίας, ΕΚΠΑ 15 Νοεμβρίου 2022

Ορίζοντας Ευρώπη: Δομή Προγράμματος και Κανόνες Συμμετοχής



Τι προσπαθεί να επιτύχει ο Ορίζοντας Ευρώπη







Δομή του νέου Προγράμματος - Πλαίσιο Horizon Europe

HORIZON EUROPE

EURATOM

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



European Research Council

Marie Skłodowska-Curie

Research Infrastructures



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

Joint Research Centre



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

Fusion

Fission

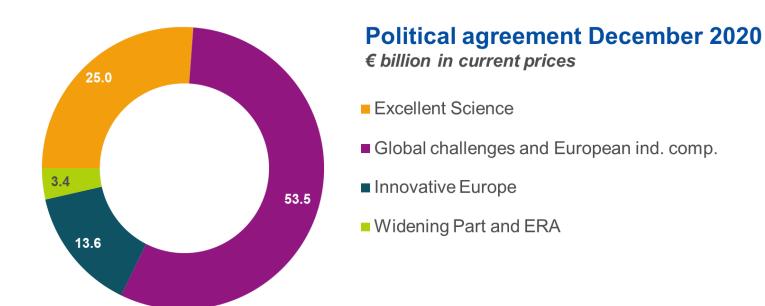
Joint Research Center

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



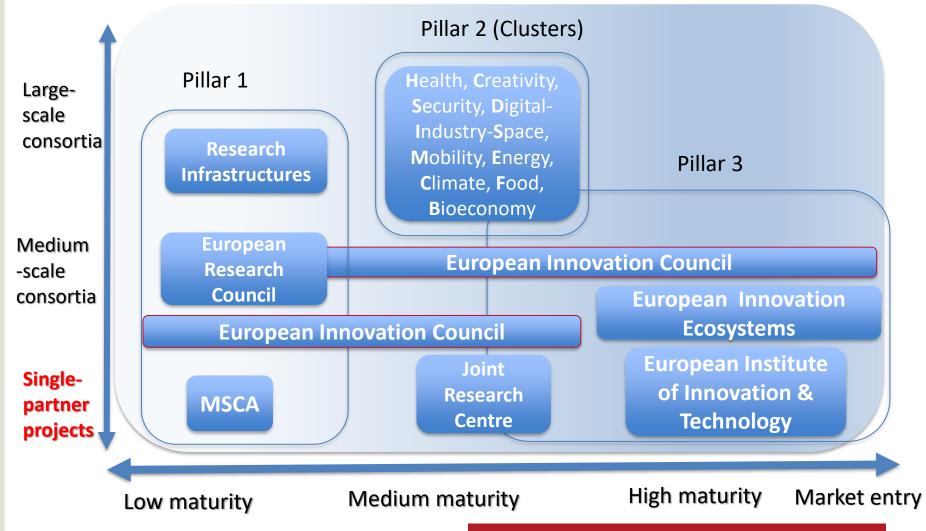
Horizon Europe Budget: €95.5 billion (2021-2027)

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





Βασικός προσανατολισμός





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

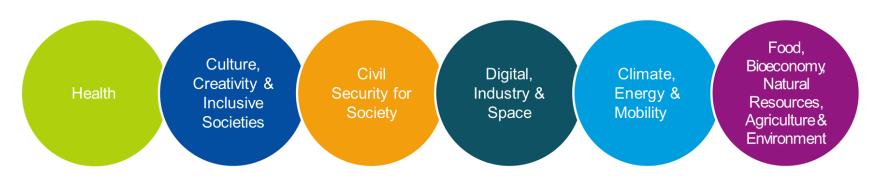
€2.4 billion



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



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





Αποστολές Έρευνας και Καινοτομίας

Στόχοι για το 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









Πυλώνας 2: Ευρωπαϊκές Συμπράξεις



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



Co-Programmed

Co-Funded

Ενδεικτικές Ευρωπαϊκές Συμπράξεις (προτεινόμενες)

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		
Chemicals risk assessment	European Metrology	Europe's Rail	Blue Economy		
ERA for Health	(Art. 185)	Connected and Automated	Water4All		
	Al-Data-Robotics	Mobility (CCAM) Batteries	Animal Health & Welfare*		
Rare diseases*	Photonics		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*		
Decidencia Decidence	steelmaking	transport	Safe & Sustainable Food		
Pandemic Preparedness* Co-funded or co-programmed	Processes4Planet	Built4People	System*		
	Global competitive space systems**	Clean Energy Transition			
Institutionalised Partnerships (A	rt 185/7)	Driving Urban Transitions			
Institutionalised Partnerships / EIT KICs					

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:

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



Πυλώνας 3: Ευρωπαϊκό Συμβούλιο Καινοτομίας (ΕΙC)



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

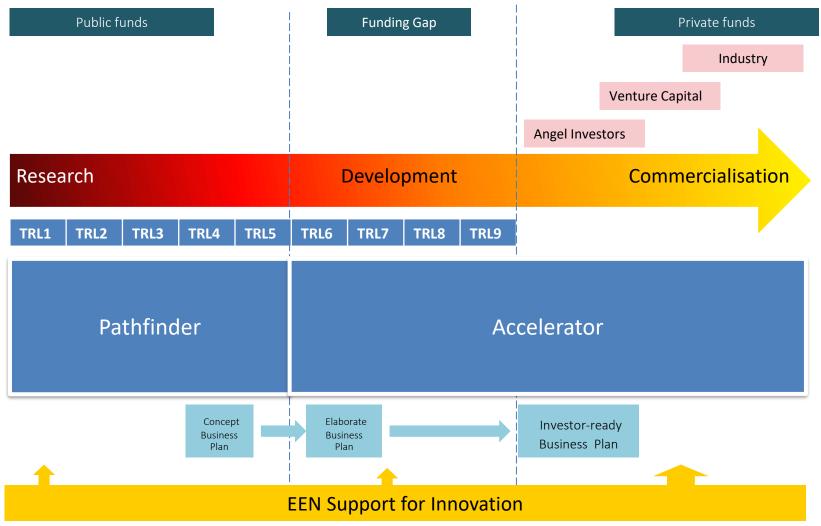
R&I grants (proof of concept to pre-commercial)

ACCELERATOR

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

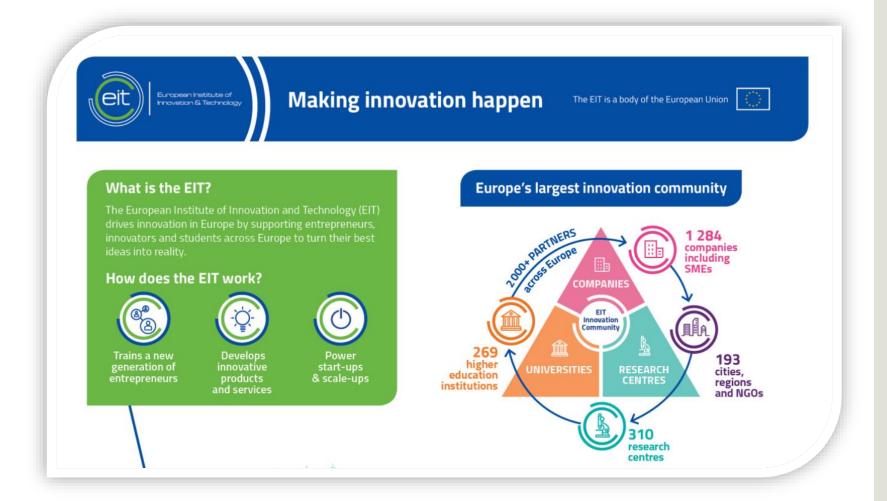


Χρηματοδοτικά εργαλεία : € 1bn





Ευρωπαϊκό Ινστιτούτο Τεχνολογίας και Καινοτομίας (ΕΙΤ)





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

Reforming and enhancing the EU R&I system

- Strengthening the evidence base for R&I policy
- 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

€2.96 billion

€0.44 billion

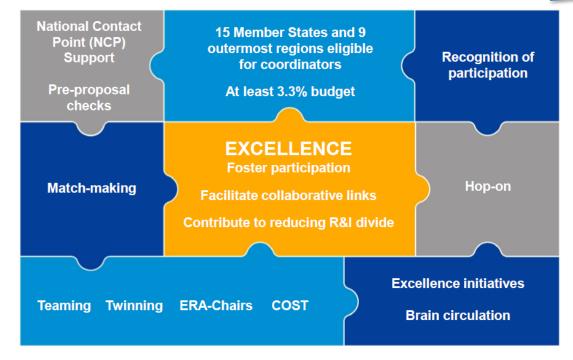


Διεύρυνση της συμμετοχής και επέκταση της αριστείας



Widening participation/spreading excellence

Νεο status της Ελλάδας-χώρα 'widening'- νέες ευκαιρίες





Ενδεικτικές ανοιχτές και επικείμενες προκηρύξεις



Ορίζοντας Ευρώπη: State of Play

Strategic plan gives direction to the work programme

Horizon Europe legislative package

Strategic Plan 2021-2024 Work
Programmes
2023-2024

Calls for proposals

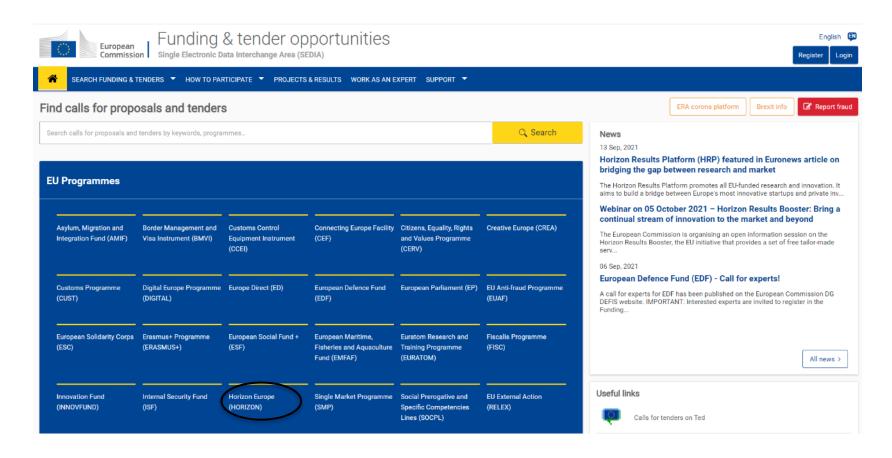
Main Features

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



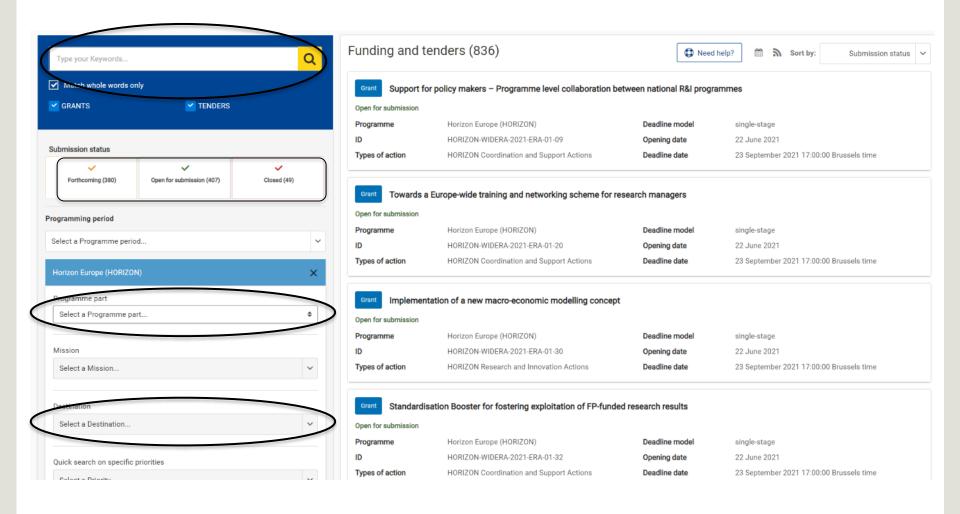
Funding and Tender Opportunities Portal

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





Funding and Tender Opportunities Portal: Topic search





ERC funding schemes





Starting Grant

Size of the grant: up to €1.5 million + up to €1 million

Duration: up to 5 years

2-7 years of experience since completion of their PhD



Consolidator Grant

Size of the grant: up to €2 million + up to €1 million

Duration: up to 5 years

7-12 years of experience since completion of their PhD



Advanced Grant

Size of the grant: up to €2.5 million + up to €1 million

Duration: up to 5 years

An excellent scientific track record of recognized achievements in the last 10 years







Synergy grant

Size of the grant: €10 million + up to €4 million

Duration: up to 6 years

Be composed of 2 to 4 researchers and their research groups

(one researcher can be based outside EU/AC)



Proof of Concept

Size of the grant: €150 000

Duration: up to 18 months

Demonstrate that the idea funded by the original ERC grant has innovation potential and significant economic or societal benefits



Marie Sklodowska Curie Actions

Doctoral Networks

In and outside academia incl. joint & industrial doctorates

Postdoctoral Fellowships

Support to excellent postdoctoral researchers

Staff Exchanges

Support for research and innovation staff exchanges

COFUND

Co-funding doctoral and postdoctoral programmes

MSCA and Citizens

Public outreach events (Night)

ERC calls	Call Opening	Submission Deadline
Starting Grants ERC-2023-StG	12/07/2022	25/10/2022
Synergy Grants ERC-2023-SyG	13/07/2022	08/11/2022
Consolidator Grants ERC-2023-CoG	28/09/2022	02/02/2023
Advanced Grants ERC-2023-AdG	08/12/2022	23/05/2023

And ERC-2024 calls to be announced soon for 2023-2024!



Marie Sklodowska Curie – open & upcoming calls

HORIZON-MSCA-2022-DN-01: call deadline: 15 Nov 2022,

2023 call expected

HORIZON-MSCA-2022-COFUND-01: call open, deadline:

09 February 2023

HORIZON-MSCA-2022-SE-01: call open, deadline:

08 March 2023

HORIZON-MSCA-2023-PF-01: expected to open in April 2023



Areas of intervention

environmental and social health determinants



- Environment and health
 - Environmental pollution
 - Climate change
 - Health impacts



Indicative opening and closing dates
January 2023
April 2023



Cluster 2: Culture, Creativity and Inclusive society

Areas of intervention

- Democracy
- Cultural heritage
- Social and economic transformations

Indicative thematic areas and keywords

- Cultural heritage
 - Technologies, tools, materials
 - Climate change and transition
- Social and economic transformations
 - Green and digital transition



Indicative opening and closing dates
December 2022
February 2023



Cluster 3: Civil security for society

- Cluster 3 WP responds to the challenges arising from persistent security threats, including cybercrime, as well as natural and man-made disasters.
- It builds on lessons learnt from Covid-19 crisis (prevention, mitigation, preparedness and capacity building for crises).

Areas of Intervention:

- disaster-resilient societies
 - Call: Disaster-Resilient Society 2023 expected to open ~ June 2023





Cluster 4: Digital, Industry and Space

Indicative thematic areas and keywords

- Climate change and related issues
- Raw materials
- Earth observation

Indicative opening and closing dates
December 2022
April 2023



Cluster 4: Digital, Industry and Space

Destinations

- Climate neutral, circular and digitised production
- Processes4Planet partnership
- Clean Steel Partnership
- World leading data and computing technologies
- > AI Data and Robotics Partnership
- Digital and emerging technologies for competitiveness and fit for the Green Deal
- Open strategic autonomy in developing, deploying and using global space-based infrastructures, services, applications and data
- A human-centred and ethical development of digital and industrial technologies



Cluster 4: Digital, Industry and Space

Indicative open topics

EGNSS applications for Safety and Crisis management

TOPIC ID: HORIZON-EUSPA-2022-SPACE-02-52 (IA)

Deadline: 2 March 2023

GOVSATCOM Service developments and demonstrations

TOPIC ID: HORIZON-EUSPA-2022-SPACE-02-61 (RIA)

Deadline: 2 March 2023

Public sector as Galileo and/or Copernicus user

TOPIC ID: HORIZON-EUSPA-2022-SPACE-02-52 (HORIZON Pre-commercial

Procurement)

Deadline: 2 March 2023

Large-scale Copernicus data uptake with AI and HPC

TOPIC ID: HORIZON-EUSPA-2022-SPACE-02-55 (RIA)

Deadline: 2 March 2023



Cluster 5: Climate, Energy and Mobility

Areas of intervention

- climate science and solutions
- energy storage



Indicative open topics

Novel Thin Film (TF) technologies targeting high efficiencies (RIA)

TOPIC ID: HORIZON-CL5-2022-D3-03-05

Deadline: 10 Jan 2023



Cluster 5: Climate, Energy and Mobility

Indicative thematic areas and keywords

- Climate sciences
- Climate change, solutions, transition, adaptation
- Energy use, supply, efficiency etc.
- Renewable energy

Indicative opening and closing dates
December 2022
April 2023



Cluster 6: Food, Bioeconomy, Natural Resources, Agriculture and Environment

Areas of intervention

- environmental observation
- biodiversity and natural resources
- agriculture, forestry and rural areas
- seas, oceans and inland waters
- food systems
- bio-based innovation systems in the EU's bioeconomy
- circular systems





Cluster 6: Food, Bioeconomy, Natural Resources, Agriculture and Environment

Indicative thematic areas and keywords

- Climate change and environment / ecosystems
- Climate and biodiversity
- Climate and water
- Clean environment and zero pollution

Indicative opening and closing dates November 2022 February2023



- Mission: Adaptation to Climate Change
- Call Demonstration of climate resilience solutions in support of the implementation of the Adaptation to Climate Change Mission (3 topics expected to open: Jan 2023)
- Mission: Restore our Ocean and Waters by 2030
 - Call Actions for the implementation of the Mission Restore our ocean and waters by 2030 (11 topics - expected to open: Jan 2023)
- Mission: A Soil Deal for Europe
 - Call Research and Innovation and other actions to support the implementation of mission A Soil Deal for Europe (9 topics - expected to open: Jan 2023)



HE Missions – upcoming calls (cont'd)

- Joint Call between Mission 100 Climate Neutral and Smart Cities by 2030 and Mission Adaptation to Climate Change (1 topic - expected to open: Jan 2023)
- Joint Call between Mission Restore our Ocean and Waters by 2030, Mission Adaptation to Climate Change and Mission A Soil Deal for Europe (1 topic - expected to open: Jan 2023)
- Joint Call between Mission Restore our Ocean and Seas by 2030 and Mission A Soil Deal for Europe (1 topic - expected to open: Jan 2023)

European Innovation Council: WP 2022

https://eic.ec.europa.eu/index_en

			EIC Open		EIC Challenges		
Call	Who can apply	What for	Deadlines	Indicative Budget (EUR million)	EIC Challenge	Deadlines	Indicative Budget (EUR million)
EIC Pathfinder	Consortia of at least three different independent legal entities ¹⁴ established in at least three different eligible countries. Additionally, single applicants or small consortia (two partners) for EIC Pathfinder Challenges only.	Grants of up to EUR 3 million (open) or EUR 4 million (challenge driven) (or more if properly justified) to achieve the proof of principle and validate the scientific basis of breakthrough technology (TRL 1-4)	3 May 2022	183	Carbon dioxide & Nitrogen management and valorisation Mid-long term, systems-integrated energy storage Cardiogenomics Healthcare Continuum technologies DNA-based digital data storage Alternative Quantum Information Processing, Communication, and Sensing	19 October 2022	167
EIC Transition	Single applicants (SMEs, spin-offs, start-ups, research organisations, universities) or small consortia (two partners) or consortia of three to five different independent legal entities established in at least three different eligible countries. Proposals must build on results from eligible EIC Pathfinder, FET or ERC Proof of Concept projects	Grants of up to EUR 2.5 million (or more if properly justified) to validate and demonstrate technology in application-relevant environment (TRL 4 to 5/6) and develop market readiness	4 May 2022 28 September 2022	70.9	Green digital devices for the future Process and system integration of clean energy technologies RNA-based therapies and diagnostics for complex or rare genetic diseases	4 May 2022 28 September 2022	60.5
EIC Accelerator	Single start-ups and SMEs (including spin-outs), individuals (intending to launch a start-up/ SME) and in exceptional cases small mid-caps (fewer than 499 employees)	Up to EUR 2.5 million grant component for technology development (TRL 5/6 to 9); EUR 0.5 up to 15 million ¹⁵ investment component for scaling up and other activities. Grant only/grant first under certain conditions. Investment component only for small mid-caps or as follow up to grant only.	Short applications: continuous Full applications: • 23 March 2022 • 15 June 2022 • 5 October 2022	630.9	Technologies for Open Strategic Autonomy Technologies for 'Fit for 55'	Short applications: continuous Full applications: • 23 March 2022 • 15 June 2022 • 5 October 2022	536.9

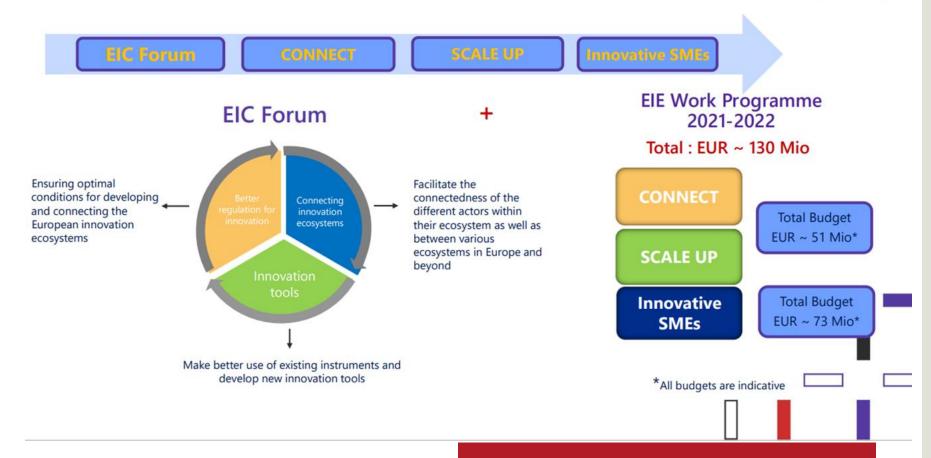


European Innovation Ecosystems

https://eic.ec.europa.eu/index_en

HEU SUPPORT TO INNOVATION ECOSYSTEMS







European Institute of Innovation and Technology (EIT)

EIT Climate-KIC



EIT Digital



EIT InnoEnergy



EIT Raw Materials



EIT Health



EIT Food





2022 Closed Calls

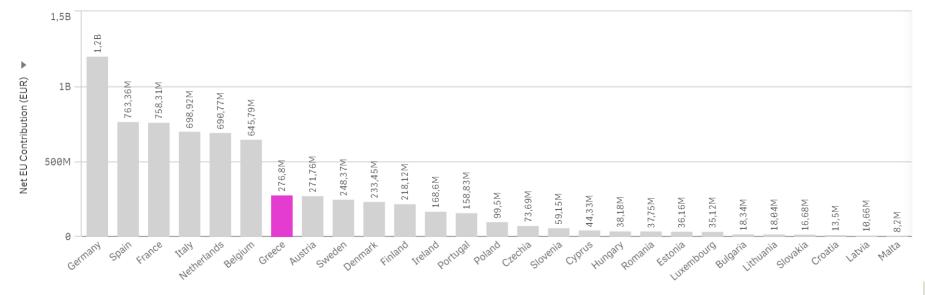
- CALL FOR START-UPS: Built Environment Circular ClimAccelerator
- CALL FOR START-UPS: CarbonRemoval ClimAccelerator
- CALL FOR APPLICATIONS: The EIT Circular Economy Community launches the Circular Economy Prize
- CALL FOR PROPOSALS: Pacific Islands Blue Economy Accelerator 2022/2023
- CALL FOR PROPOSALS: CEE Community Lab Implementation 2022 Call
- CALL FOR PARTNERS: Irish Agri-Food Deep Demonstration 2022/2023

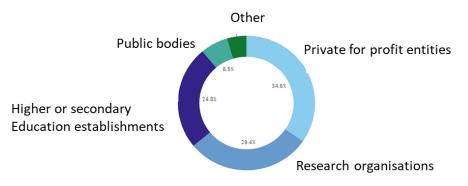
- CALL FOR PROPOSALS: Call for a Matchmaking Innovation Event with a focus on RIS countries
- CALL FOR WORK PLANS: Gender Mainstreaming for Entrepreneurship 2022/2023
- CALL FOR APPLICATIONS: Call for RIS Education experiments 2022
- CALL FOR START-UPS: MED ClimAccelerator
- CALL FOR PROPOSALS: Acceleration program for climate-positive ideas Baltics & Slovakia ClimAccelerator 2022
- CALL FOR PARTNERS: New European Bauhaus Hackathon
- CALL FOR PROPOSALS: New European Bauhaus Co-creation of Public Space Through Citizen Engagement
- CALL FOR PROPOSALS: New European Bauhaus Citizen Engagement Activities
- CALL FOR PROPOSALS: ETV Support Call

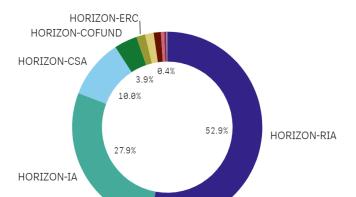


Ελληνική συμμετοχή στον Ορίζοντα Ευρώπη

HORIZON EUROPE Contribution (EUR) to Member States









Στοιχεία της ελληνικής συμμετοχής στο πρόγραμμα Ορίζοντας Ευρώπη

Net EU Contribution Total Cost

Signed Grants

Participation

Unique Participants

 $276.8 \, M_{\text{HORIZON EUR...}}^{3,73\%} \, 304.1 \, M_{\text{HORIZON EUR...}}^{3,71\%} \, 406^{13,15\%}_{\text{HORIZON EU...}} \, 765^{3,97\%}_{\text{HORIZON EU...}} \, 282^{3,53\%}_{\text{HORIZON EU...}}$



Overview by programme/pillar/thematic priority/keyword

Global Challenges and European Industrial Competitiveness 614

Excellent Science

Widening Participation and Strengthening the European tive Research Area

Innova-Europe 13



Χρήσιμοι σύνδεσμοι

- 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/



http://horizoneurope.gr/







HORIZON EUROPE

ТО ПРОГРАММА

ΝΕΑ & ΕΚΔΗΛΩΣΕΙΣ

ΥΠΟΣΤΗΡΙΞΗ

ΔΗΜΟΣΙΕΥΣΕΙΣ

ΕΠΙΚΟΙΝΩΝΙΑ

Framework Programmes Consultation Platform

Q

Nέα | 15-10-2021

Εκδηλώσεις δικτύωσης (Brokerage Events) για τον Ορίζοντα Ευρώπη – Προκήρυξη 2022

Το Ευρωπαϊκό δίκτυο των Εθνικών Σημείων Επαφής - Bridge2HE- σας προσκαλεί να συμμετάσχετε στις παρακάτω εκδηλώσεις δικτύωσης (Brokerage Events) για τον Ορίζοντα Ευρώπη.

Σας ευχαριστώ για την προσοχή σας!

Κατερίνα Παπαδούλη

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