

Οι Αποστολές Έρευνας και Καινοτομίας
Κατερίνα Παπαδούλη, Δίκτυο ΠΡΑΞΗ, ΕΑΔΠΠΑ
ΔΙΑΔΙΚΤΥΑΚΟ ΣΕΜΙΝΑΡΙΟ
Εθνικό και Καποδιστριακό Πανεπιστήμιο Αθηνών
Δευτέρα, 12 Ιουλίου, 2021



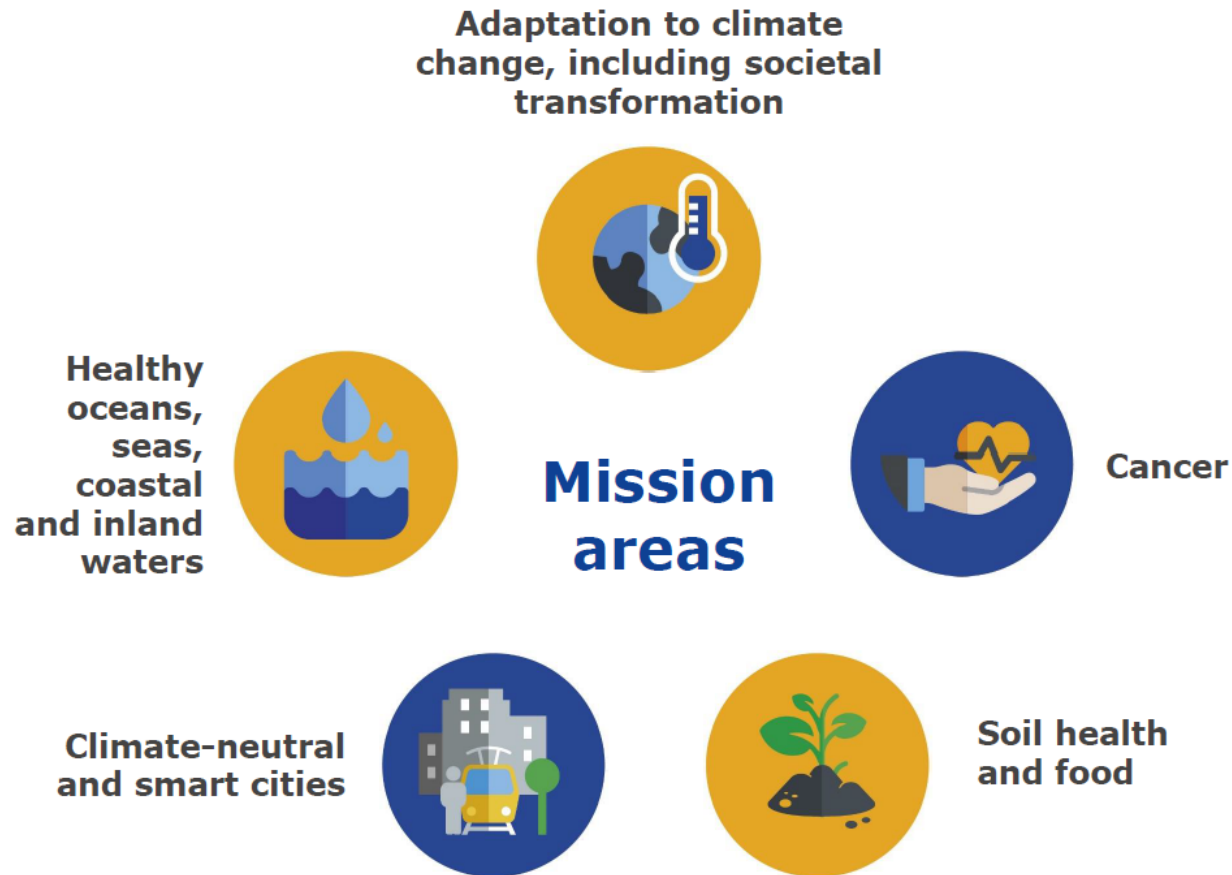
Missions in Horizon Europe

Partly inspired by the Apollo 11 mission to put a man on the moon, European research and innovation missions aim to deliver solutions to some of the greatest challenges facing our world.





Five Mission Areas





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

Healthy oceans, seas, coastal and inland waters



Adaptation to climate change, including societal transformation



Mission areas



Cancer

Conquering Cancer: Mission Possible

Climate-neutral and smart cities



100 Climate Neutral and Smart Cities by 2030



Soil health and food

Caring for Soil is Caring for Life



MISSION AREAS:

Soil health and food



Cancer



Adaptation to climate change, including societal transformation



Climate-neutral and smart cities



Healthy oceans, seas, coastal and inland waters



#HorizonEU



European
Commission



1. Conquering Cancer: Mission Possible

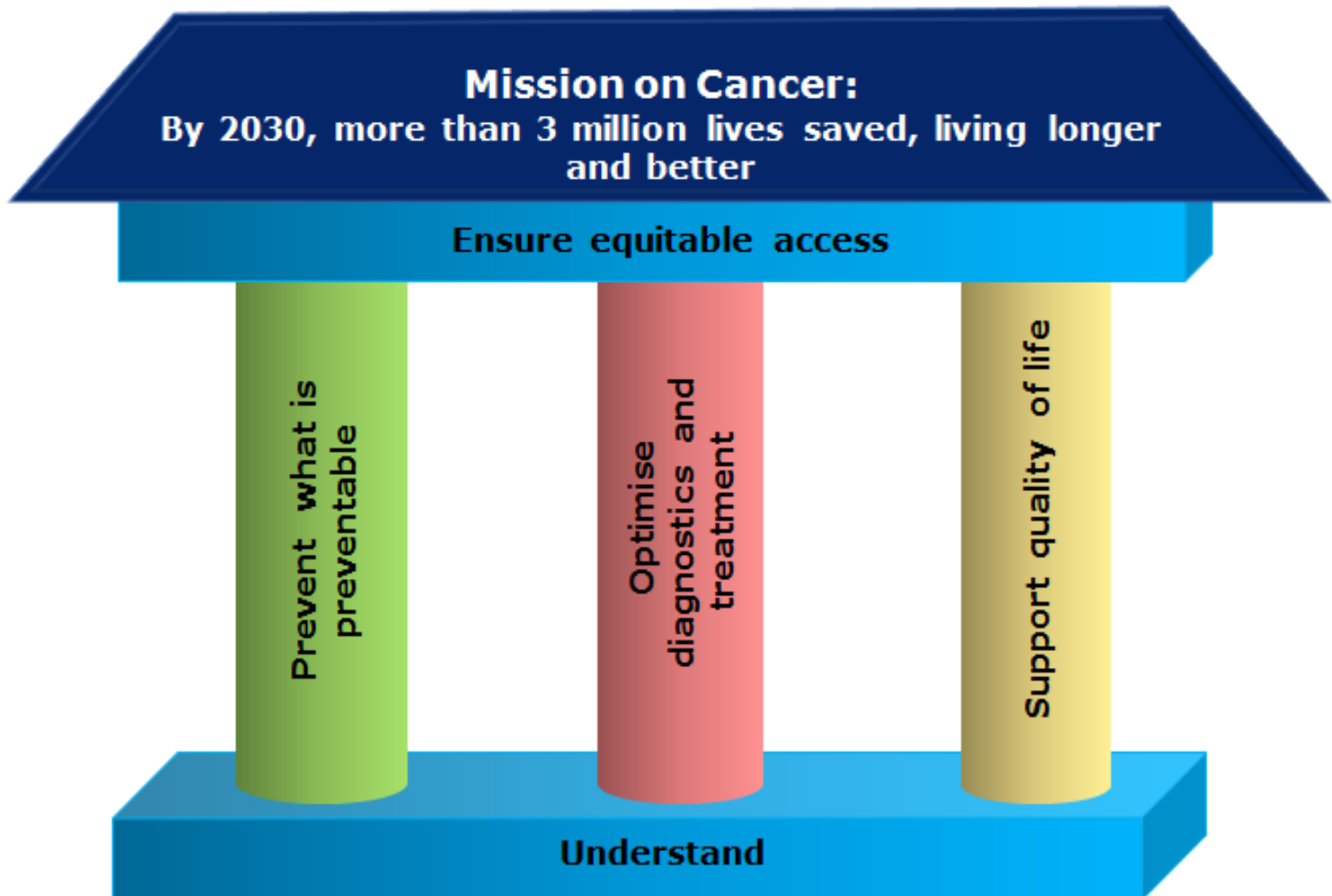


The goal

By 2030, more than 3 million lives saved, living longer and better, achieve a thorough understanding of cancer, prevent what is preventable, optimise diagnosis and treatment, support the quality of life of all people exposed to cancer, and ensure equitable access to the above across Europe.



Overview of the Mission: Intervention areas for action





Recommendations in every Intervention area

Understand cancer, its risk factors and impact

- Launch UNCAN.eu
- Develop an EU-wide research programme to identify poly-genic risk scores

Prevent what is preventable

- Support the development of prevention strategies within Member States and the EU
- Optimise existing screening programmes /new approaches for screening and early detection

Optimise diagnostics and treatment

- Advance and implement personalised medicine approaches
- Develop an EU-wide research programme on early diagnostics and minimally invasive treatment



Recommendations in every Intervention area

Support quality of life

- Develop an EU-wide research programme to improve the quality of life of cancer patients and survivors
- Create a European Cancer Patient Digital Centre

Ensure equitable access

- Achieve Cancer Health Equity in the EU across the continuum of the disease
- Set up a network of Comprehensive Cancer Infrastructures

Cross-cutting recommendations

- Cure more and cure better (childhood cancers and cancers in adolescents)
- Accelerate innovation and create Oncology-focused Living Labs to conquer cancer
- Transform cancer culture, communication and capacity building



From recommendations to specific actions

- ✓ The Recommendations form a coherent framework of proposed actions.
- ✓ They will be further developed in the remainder of 2020. They will be combined and specified in a proposal for specific actions, each with an ambitious and measurable objective, a tight but realistic timeframe, identified key performance indicators to measure progress towards its objective and identified actors.



[HORIZON-MISS-2021-UNCAN-01-01](#)

Preparing UNCAN.eu, a European initiative to understand cancer

- › Deadline: 20 October 2021
- › Type of action: CSA
- › Budget: 3 mio/proposal | Duration: 3 y
- › Number of projects to be funded: 1



- › **Main target:** Contribution towards a blueprint for the establishment of UNCAN.eu.
- › **Proposals:** Representation of a variety of locations, many countries & reflecting the diversity in climatic risks in Europe



MISSION AREAS:

Soil health and food



Cancer



Adaptation to climate change, including societal transformation



Climate-neutral and smart cities



Healthy oceans, seas, coastal and inland waters



#HorizonEU



European
Commission



2. A Climate Resilient Europe



The Goal:

Prepare Europe for climate disruptions and accelerate the transformation to a climate resilient and just Europe by 2030



A Climate Resilient Europe: Vision and objectives





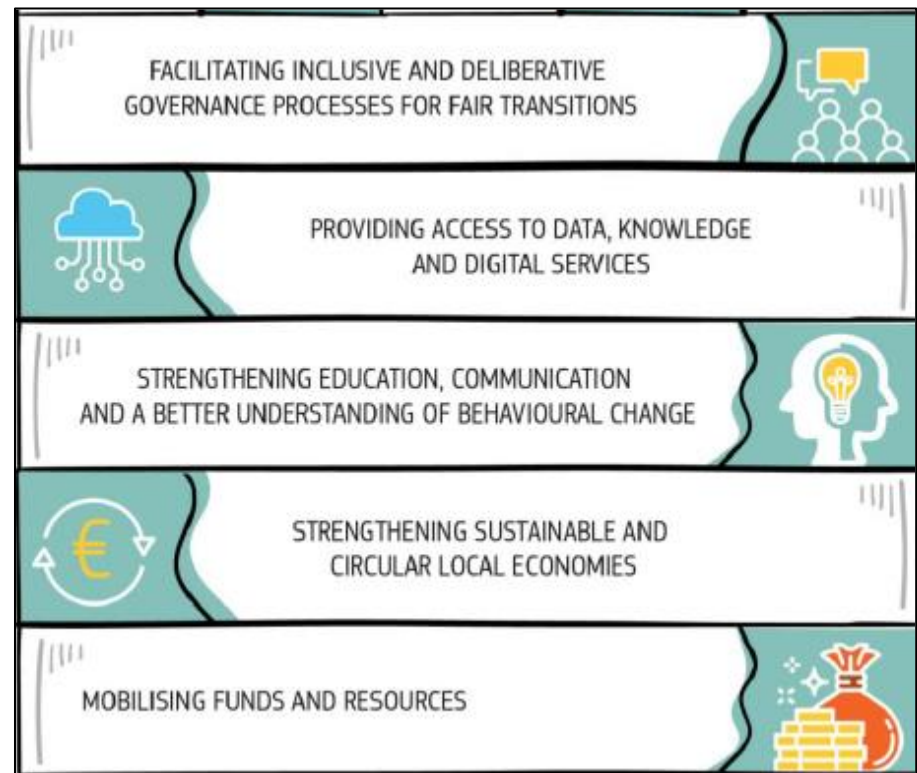
Vision and 2030 targets

- 1. Prepare Europe to deal with climate disruptions:** All local administrative units (LAU) and regions (NUTS) will have access to climate risk profiles and enhanced early warning systems for all relevant risks, will have adopted comprehensive climate risk management plans, and will have community infrastructure and services that are safe and operable and accessible under critical conditions
- 2. Accelerate the transformation to a climate resilient future: 200** European communities and regions will have developed their own transformative vision; co-created adaptation pathways; co-designed and tested actionable solutions; and created favourable conditions for societal transformations towards climate resilience.
- 3. Build deep resilience by scaling up actionable solutions triggering societal transformations: 100** deep demonstrations have scaled-up actionable solutions that have triggered societal transformation, building deep climate-resilience and creating value shared across borders.



The portfolio of the Mission

Areas of research and innovation for transformation





A Climate Resilient Europe - Timeline

Activities from 2021 until 2030

- ✓ Co-design and preparatory phase until 2023
 - Picking the partners of the mission
 - Establishing mission governance and support structures
 - Co-designing mission
- ✓ Co-implementation phase until 2030
 - Prepare Europe to deal with climate disruptions
 - Accelerate the transition to a climate resilient future
 - Build deep resilience
- ✓ Co-evaluation phase until 2030



[HORIZON-MISS-2021-CLIMA-01-01](#)

Better prepared regional and local authorities to adapt to climate change

- › Deadline: 14 September 2021
- › Type of action: CSA
- › Budget: 5 mio/proposal | Duration: 3 y
- › Number of projects to be funded: 1
- › Participation of the JRC
- › **Main target:** Services for regional and local authorities (user groups)
- › **Consortium:** Local & Regional authorities are not expected to be part of the consortium
- › Proposals: Representation of a variety of locations, many countries & reflecting the diversity in climatic risks in Europe





HORIZON-MISS-2021-CLIMA-01-01



Expected results for regional & local authorities

- › **Gear up preparations** for meeting current and future objectives for the requirements for climate adaptation and climate risk management
- › improve **understanding of climate risk** and improved access to relevant climate science, data and information from public and private sources and services
- › **Collective engagement** the co-creation and sharing of data, knowledge and solutions
- › regional and local authorities **adopt** an integrated approach
- › regional authorities and communities are equipped to **assess adaptation gaps** in a systematic and forward-looking manner



MISSION AREAS:

Soil health and food



Cancer



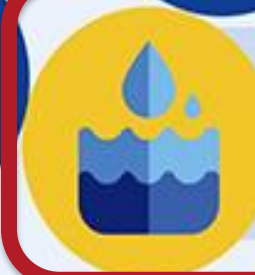
Adaptation to climate change, including societal transformation



Climate-neutral and smart cities



Healthy oceans, seas, coastal and inland waters



#HorizonEU



European
Commission



3. Mission Starfish 2030: Restore Our Ocean and Waters



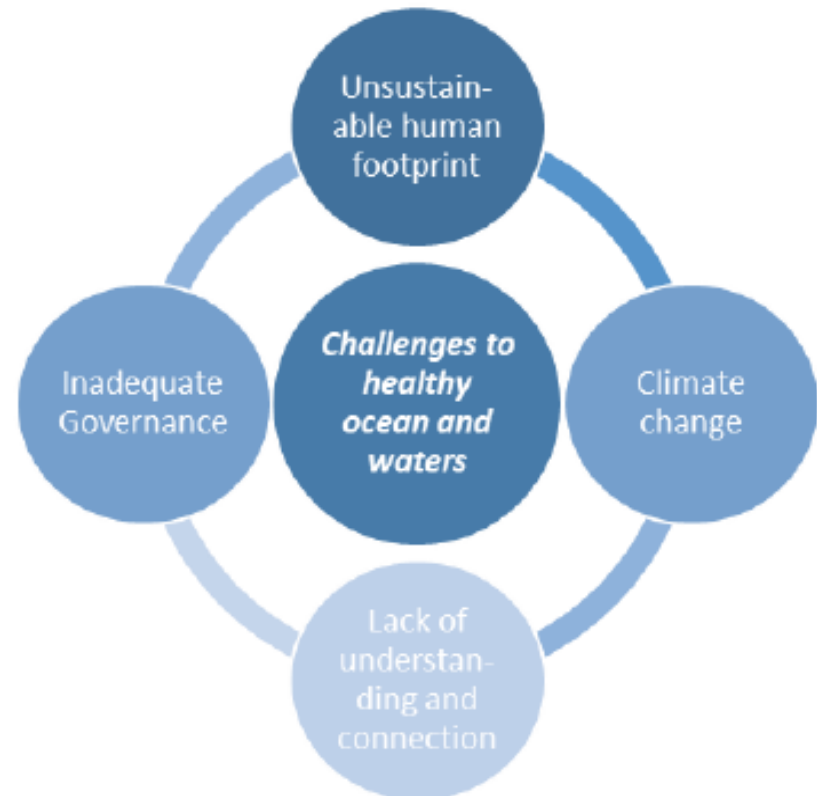
The Goal:

Know, restore and protect our ocean and waters by 2030, by reducing human pressures on marine and freshwater environments, restoring degraded ecosystems and sustainably harnessing the essential goods and services they provide.



Main challenges to healthy ocean and waters

- Unsustainable human footprint
- Climate Change
- Lack of understanding, connection and investment
- Inadequate governance





Mission Starfish 2030: Restore Our Ocean and Waters

Five overarching objectives for 2030:





Mission Starfish 2030: Restore Our Ocean and Waters

17 ambitious, concrete and measurable targets for 2030:

Filling the knowledge and emotional gap

- Each European is a citizen of our ocean and waters
- Marine and freshwater observation is streamlined and accessible to all via a digital twin of the ocean and all waters

Regenerating marine and water ecosystems

- 30 percent of EU waters are highly to fully protected
- Active regeneration of 20 percent of degraded habitats
- Renaturalise rivers and waters
- End overfishing

Zero pollution

- Zero plastic litter generation
- Eutrophication of European seas and waters is halted
- Zero spill
- Underwater noise is regulated and reduced



Mission Starfish 2030: Restore Our Ocean and Waters

17 ambitious, concrete and measurable targets for 2030:

Decarbonising our waters, ocean, and seas and waters

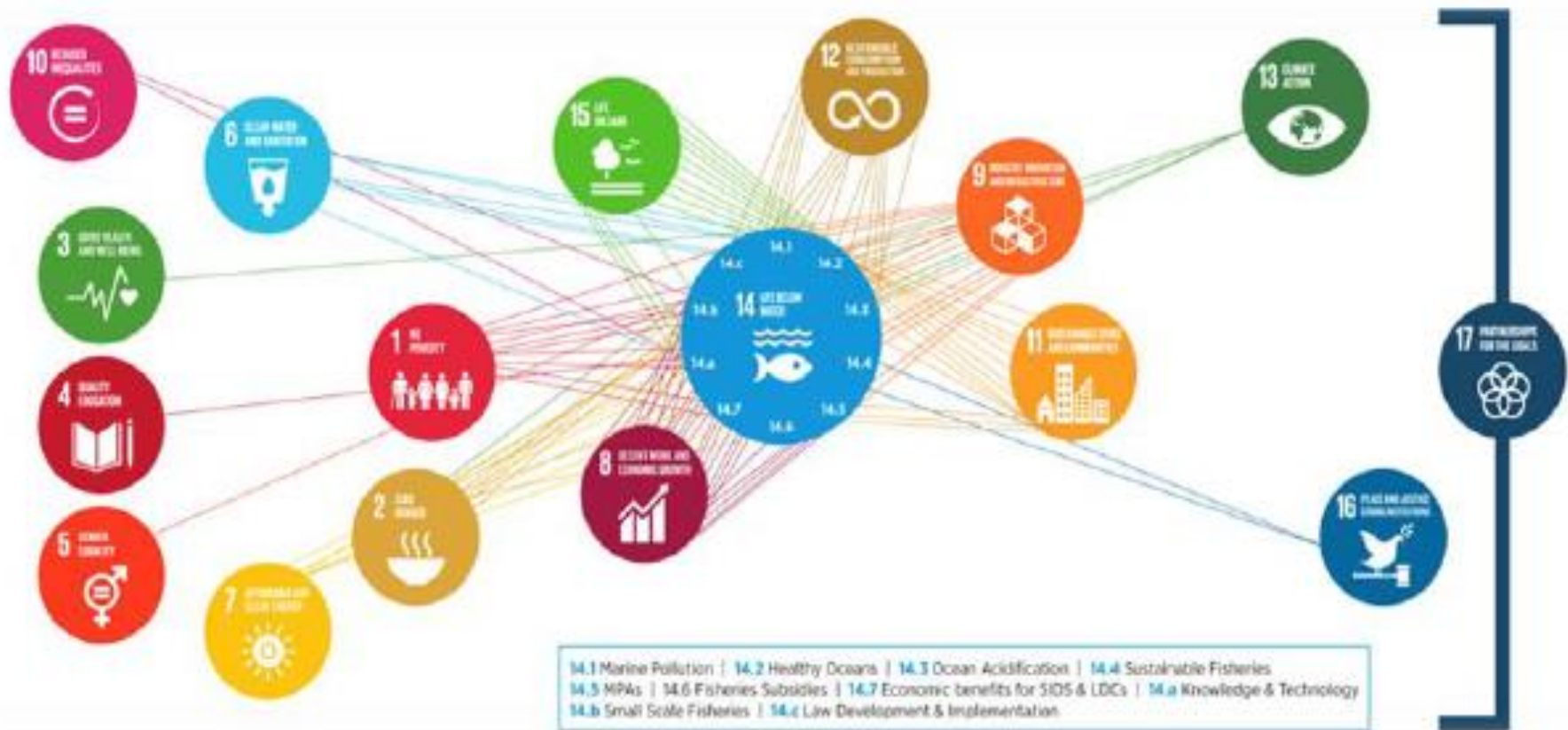
- Climate-neutral waterborne transport
- Support the energy transition through renewable, low-impact ocean energy
- Zero-carbon aquaculture
- A thriving blue biotech
- Climate-neutral blue tourism

Revamping governance

- An integrated and participatory EU system of ocean and water governance
- EU leadership for effective global ocean governance



UN Sustainable Development Goals in Mission Starfish 2030





HORIZON-MISS-2021-OCEAN-01-01

Preparation for deployment of lighthouse demonstrators and solution scale ups and cross-cutting citizen and stakeholder involvement

- › Deadline: 14 September 2021
- › Type of action: CSA
- › Budget: 5 mio/proposal
- › Number of projects to be funded: 1
- › Participation of the JRC

› **Main target**

- improved capacity to identify areas and solutions for effective '**lighthouse demonstrators**'
- timely deployment and **de-risking of scale ups**





HORIZON-MISS-2021-OCEAN-01-01

Scope and actions

- › Develop, test and pilot methodologies for selection of **sustainable lighthouses**
- › Discover and identify **novel solutions and innovations needed to address the societal challenges** at the core of the mission and demonstrating through a network of '**lighthouse**' demonstrators
- › Coordinate with national mission hubs
- › Develop and pilot a concept for an EU-wide network of citizens/stakeholder assemblies
- › Map and facilitate synergies in the context of the initiatives (INNOVATION FUND, ERAMUS+, Digital Europe Programme, SPACE Programme)



MISSION AREAS:

Soil health and food



Cancer



Adaptation to climate change, including societal transformation



Climate-neutral and smart cities



Healthy oceans, seas, coastal and inland waters



#HorizonEU



European
Commission



4. Climate-neutral and smart cities



The Goal:

Support, promote and showcase **100 European cities** in their systemic transformation towards climate neutrality by 2030 and make these cities into experimentation and innovation hubs for all cities, thus leading on the European Green Deal and on Europe's efforts to become climate neutral by 2050.



100 climate-neutral cities by 2030

Objectives

- Build a multi-level and co-creative process formalised in a **Climate City Contract** that, adjusted for each city
- Promote citizens to become agents of change through bottom-up initiatives
- Help cities access the financial means to achieve the Mission through Horizon Europe, the European Structural and Investment Funds, etc.
- Foster a just transition, via the implementation of the Agenda 2030 and its Sustainable Development Goals, to improve citizens' health and wellbeing
- Bring many co-benefits e.g. improved air quality, job creation, healthier lifestyles, stimulating the positive effects of new sustainable mobility concepts



100 climate-neutral cities by 2030

Objectives

- Identify European, national, regional and local policy gaps as well as R&I priorities to contribute to the goals of the European Green Deal
- Support the development of drivers of transition under five key enablers: innovation, governance, funding, urban planning, digitalisation
- Create synergies with and between existing European climate initiatives and stakeholders such as the Covenant of Mayors, the EIT and its relevant KICs
- Align with other missions and initiatives that support the Green Deal to ensure complementarity
- Collaborate on innovation with the European business to enhance the competitiveness of European industry in the global markets



100 climate-neutral cities by 2030

The Climate City Contract

To address the challenge of climate neutrality and help better deliver EU policies, the Mission proposes **a multi-level co-creation process** through the introduction of a **Climate City Contract**. The purpose is to:

- a) express the ambition and commitment of all involved parties to the Mission objectives;
- b) identify the policy and implementation gaps as a basis for a strategy for transition;
- c) coordinate stakeholders and empower citizens in the city around a common climate goal;
- d) coordinate the national/regional and EU authorities to deliver the necessary legal, governance and financial framework conditions to support each city;
- e) create a one-stop-shop for multi-level negotiations to facilitate city action for transition.



100 climate-neutral cities by 2030

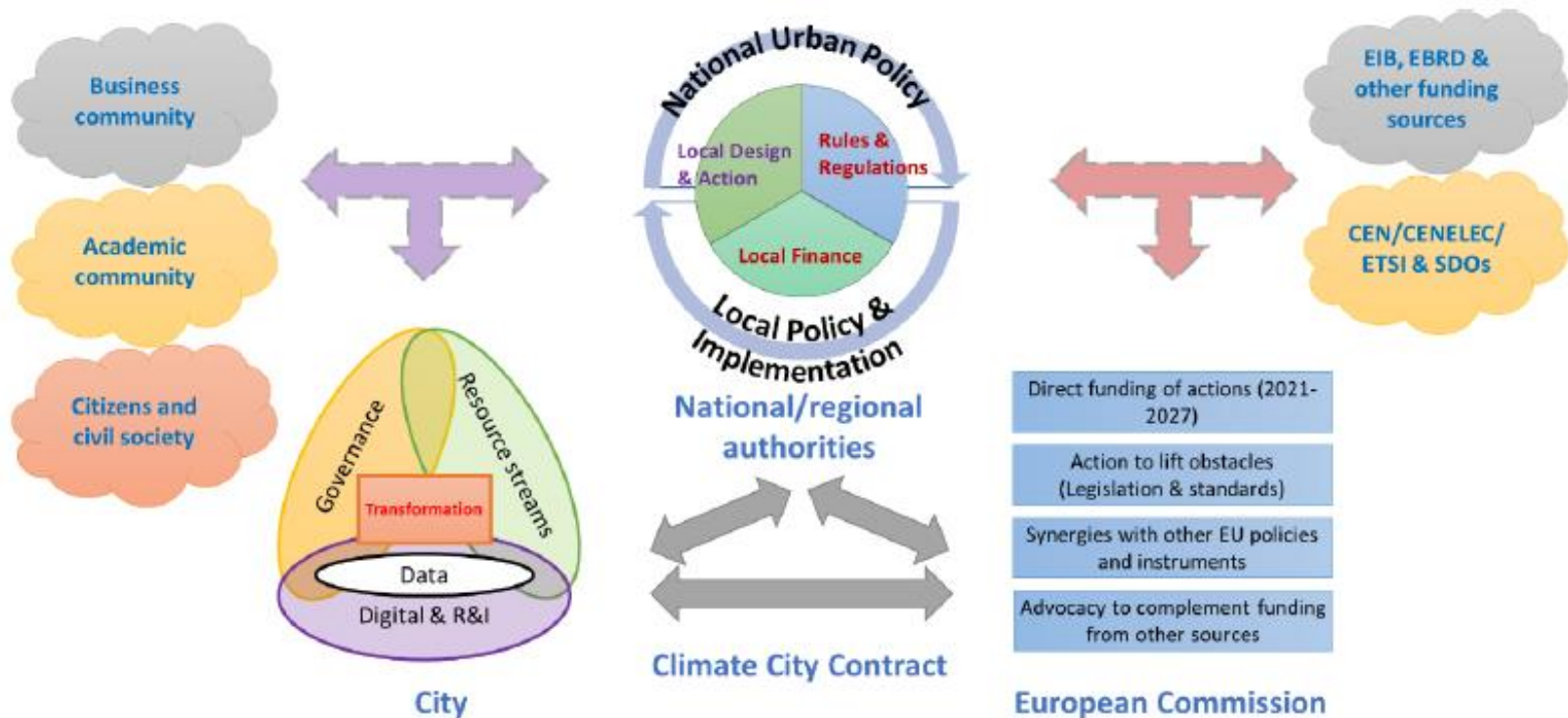
The Partnerships under the Climate City Contract

The Climate City Contract will be a politically binding document that covers all the elements of the mission. Since multi-level governance is an indispensable ingredient for the mission's success, the Contract will be signed ideally by:

- the city/metropolitan government
- the European Commission
- the respective national or regional authorities



100 climate-neutral cities by 2030- Overview





Open and Forthcoming Topics

- [HORIZON-MISS-2021-CIT-01-01:](#) Supporting the transition towards climate neutrality within cities
- [HORIZON-MISS-2021-CIT-01-02:](#)
Collaborative local governance models to accelerate the emblematic transformation of urban environment and contribute to the New European Bauhaus initiative and the objectives of the European Green Deal



HORIZON-MISS-2021-CIT-01-01 & 01-02

Details

- › Deadline: 14 September 2021
- › Type of action: CSA
- › Budget: 2 mio/proposal
- › Duration: 3 y
- › Number of projects to be funded: 1 +1
- › Results aim at supporting local authorities' capacity building through dedicated activities such as: trainings, webinars and peer-exchange
- › FAQ:
https://ec.europa.eu/info/sites/default/files/research_and_innovation/funding/documents/ec_rtd_mission-area-climate-neutral-smart-cities-faq.pdf





HORIZON-MISS-2021-CIT-01-01

Supporting national, regional and local authorities across Europe to prepare for the transition towards climate neutrality within cities

Action plan

- › Set-up of dedicated national support networks for supporting cities in their transition towards climate neutrality (multi-stakeholders platforms)
- › Disseminate knowledge produced under JRC dedicated action & European Green Deal: LC-GD-1-2-2020
- › Identify country-specific challenges, best-practices and opportunities
 - Regulatory, financing, urban morphology
 - Governance structures (citizens' & stakeholders' roles in decision-making processes, existing living labs)



HORIZON-MISS-2021-CIT-01-02: Collaborative local governance...contribute to the European Bauhaus Initiative and the European Green Deal

Renovation of urban spaces combining sustainability, accessibility and aesthetics in a human-centred way

- › Develop innovative & collaborative models of local governance to engage with citizens and stakeholders
- › Support local authorities & citizens' to identify emblematic projects to transform the sustainability, inclusivity and aesthetics of public landscapes
- › Support cities in engaging with e.g. schools, universities, culture and arts professionals and institutions, citizens and civil society to harvest the needs & expectations
- › Promoting New European Bauhaus principles among national, regional and local authorities, citizens and stakeholders through dedicated local initiatives

Renovation Wave for Europe  European Bauhaus Initiative



Προκήρυξη 2021

Call - Supporting the transition towards climate neutrality within cities

- **HORIZON-MISS-2021-CIT-01-01:** Supporting national, regional and local authorities across Europe to prepare for the transition towards climate neutrality within cities
- **HORIZON-MISS-2021-CIT-01-02:** Collaborative local governance models to accelerate the emblematic transformation of urban environment and contribute to the New European Bauhaus initiative and the objectives of the European Green Deal (FORTHCOMING)



MISSION AREAS:

Soil health and food



Adaptation to climate change, including societal transformation



Climate-neutral and smart cities



Healthy oceans, seas, coastal and inland waters



Cancer



#HorizonEU



European
Commission



Caring for soil is caring for life



The Goal:

Ensure 75% of soils are healthy by 2030 for food, people, nature and climate



Caring for soil is caring for life

Objectives and targets by 2030

Reduce land degradation, including desertification and salinization

- 50% of degraded land is restored moving beyond land degradation neutrality.

Conserve and increase soil organic carbon stocks

- current carbon concentration losses on cultivated land are reversed to an increase by 0.1-0.4% per year
- the area of managed peatlands losing carbon is reduced by 30-50%.

No net soil sealing and increase the re-use of urban soils for urban development

- switch from 2.4% to no net soil sealing
- the current rate of soil re-use is increased from current 13% to 50% to help meet the EU target of no net land take by 2050.



Caring for soil is caring for life

Objectives and targets by 2030

Reduce soil pollution and enhance restoration

- at least 25% area of EU farmland under organic agriculture
- a further 5-25% of land with reduced risk from eutrophication, pesticides, anti-microbials and other agrochemicals and contaminants
- a doubling of the rate of restoration of polluted sites

Prevent erosion

- stop erosion on 30-50% of land with unsustainable erosion rates

Improve soil structure to enhance habitat quality for soil biota and crops

- soils with high-density subsoils are reduced by 30 to 50%



Caring for soil is caring for life

Objectives and targets by 2030

Reduce soil pollution and enhance restoration

- at least 25% area of EU farmland under organic agriculture
- a further 5-25% of land with reduced risk from eutrophication, pesticides, anti-microbials and other agrochemicals and contaminants
- a doubling of the rate of restoration of polluted sites

Prevent erosion

- stop erosion on 30-50% of land with unsustainable erosion rates

Improve soil structure to enhance habitat quality for soil biota and crops

- soils with high-density subsoils are reduced by 30 to 50%



Caring for soil is caring for life

Objectives and targets by 2030

Reduce the EU global footprint on soils

- the impact of EU's food, timber and biomass imports on land degradation are reduced by 20-40 %.

Increase soil literacy in society across Member States

- soil health is firmly embedded in schools and educational curricula
- uptake of soil health training by land managers and advisors is increased
- understanding of impact of consumer choices on soil health is increased

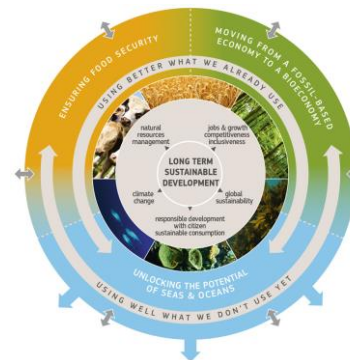
» Caring for soil is caring for life: SDGs and EU policies

The mission's support to strategic EU targets

- ✓ The mission will be a main tool to advance in reaching the **SDGs**.
- ✓ The mission will be key for implementing the **European Green Deal**.

Other EU policies and strategies:

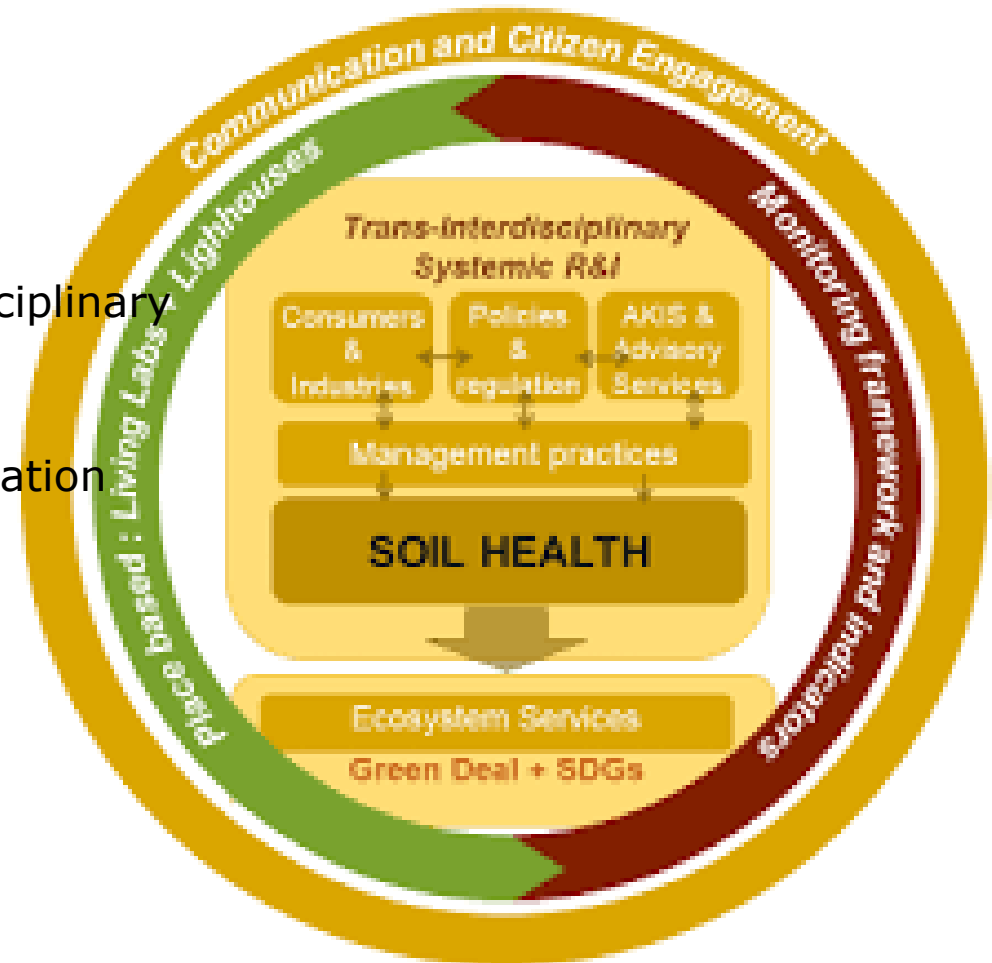
- ✓ Farm to Fork Strategy
- ✓ EU Biodiversity Strategy for 2030
- ✓ Circular Economy Action Plan
- ✓ Sustainable Urban Mobility Plans
- ✓ Bioeconomy Strategy
- ✓ Zero Pollution Action Plan
- ✓ Soil Thematic Strategy



» Caring for soil is caring for life

The mission's building blocks are based on

- co-creation and sharing
- soil monitoring programme
- cross-scale, inter and transdisciplinary R&I programme
- training, education, communication and citizen engagement





HORIZON-MISS-2021-SOIL-01-01

Preparing the ground for healthy soils: building capacities for engagement, outreach and knowledge



- › Deadline: 20 October 2021
- › Type of action: CSA
- › Budget: 3 mio/proposal | Duration: 3 y
- › Number of projects to be funded: 1
- › Participation/synergies with the JRC and its “EU Soil Observatory”
- › Participation from contrasting regions in each Member State and Associated Country
- › Impact on “Soil literacy” (awareness and societal appreciation of the vital functions of soils) across land managers and agricultural practices



HORIZON-MISS-2021-SOIL-01-01

Objectives

- › Identify **in close cooperation** with regional **authorities, stakeholders** and communities existing “soil needs” (e.g. status, main problems and priority areas for improvement)
- › Develop **tools to support networking and knowledge exchange** of communities working at regional/local level on soil health and create **Communities of Practice** (CoP)
- › Improve the knowledge base required to assess progress in monitoring soils
- › Connect **existing on-line resources** on soil information to provide a single point for access to this information (a one-stop shop for soil literacy)
- › Promote and reward on-going or **recent examples of soil education and social innovation** in the area of soil health



Κανόνες Συμμετοχής



Admissibility

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.



Κανόνες Συμμετοχής



Eligibility

No third countries unless the topic states otherwise

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)



Missions for 2030

Cancer: Mission Possible

<https://op.europa.eu/en/publication-detail/-/publication/b389aad3-fd56-11ea-b44f-01aa75ed71a1>

A climate resilient Europe

<https://op.europa.eu/en/publication-detail/-/publication/2bac8dae-fc85-11ea-b44f-01aa75ed71a1>

Mission Starfish 2030: Restore our Ocean and Waters

<https://op.europa.eu/en/publication-detail/-/publication/672ddc53-fc85-11ea-b44f-01aa75ed71a1>

100 climate-neutral cities by 2030 - by and for the citizens

<https://op.europa.eu/en/publication-detail/-/publication/bc7e46c2-fed6-11ea-b44f-01aa75ed71a1>

Caring for Soil is Caring for Life

<https://op.europa.eu/en/publication-detail/-/publication/4ebd2586-fc85-11ea-b44f-01aa75ed71a1>



Χρήσιμοι σύνδεσμοι

- › Horizon Europe: https://ec.europa.eu/info/horizon-europe_en
- › R&I Missions (incl. reports): https://ec.europa.eu/info/horizon-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-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/eit-innovation-communities>
- › European Open Science Cloud: <https://eosc-portal.eu/>




Σας ευχαριστώ για την
προσοχή σας!

Κατερίνα Παπαδούλη

Funding@uoa.gr

Website: www.praxinetwork.gr

e-mail: praxi@praxinetwork.gr

   praxinetwork