EN

Horizon Europe

Work Programme 2026-2027

12. Missions

DISCLAIMER

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HORIZON-MISS-2027-07-CLIMA-CIT-NEB-01: Urban nature: supporting restoration of
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Introduction

Introduction

EU Missions aim to address some of the greatest challenges facing our society. They set clear, measurable, and time-bound targets, to focus and integrate actions towards common goals. Rooted in research and innovation, missions aim to tackle societal challenges with systemic solutions, leading to societal transformations and social impact.

Horizon Europe identified five Mission Areas where challenges could be effectively addressed in a mission-based approach. Within these areas, the following five EU Missions were defined using the Mission criteria of the Horizon Europe legal base and formally launched through a Commission Communication in September 2021^1 together with implementation plans laying down their detailed objectives, specific interventions, investment strategy and performance indicators for each mission ²:

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•

Adaptation to Climate Change: support at least 150 European regions, local authorities and communities to become climate resilient by 2030;

Cancer: improving the lives of more than 3 million people by 2030 through prevention, cure and for those affected by cancer including their families, to live longer and better;

100 Climate-Neutral and Smart cities by 2030;

•

Restore our Ocean and Waters by 2030;

•

A Soil Deal for Europe: 100 living labs and lighthouses to lead the transition towards healthy soils by 2030.

The EU Missions contribute to key EU policy priorities such as the European Clean Industrial Deal, Europe's Beating Cancer Plan, NextGenerationEU, the EU Industrial Strategy and A Europe fit for the Digital Age, amongst others.

The five EU Missions focus on systemic societal transformation, requiring inclusivity, codesign, scaling up, deployment and societal involvement in generating solutions for major societal challenges driven by EU policy considerations. Since 2021, the five EU Missions work programme parts contain actions to support the full implementation of missions according to their implementation plans.

¹ COM(2021) 609 final

² Implementation Plans for the EU Missions - European Commission

The Missions Work Programme 2026-2027 part contains actions for all the five EU Missions, cross-cutting actions, as well as synergistic actions between the Missions and other Horizon Europe instruments. Furthermore, it contains actions aiming to address the challenges highlighted in the 2023 Commission Communication on the assessment of EU Missions ³.

Critical to the success of the missions will be the extent of wide engagement across the EU and Associated Countries and beyond, civil society and the private sector.

³ COM(2023) 457 final

Calls for proposals

Call - Supporting the implementation of the Adaptation to Climate Change Mission

HORIZON-MISS-2026-1

Overview of this call⁴

Proposals are invited against the following Destinations and topic(s):

Topics	Type of Action	Budgets (EUR million) 2026	Expected EU contribution per project (EUR million) ⁵	Indicative number of projects expected to be funded
Opening: 04 Deadline(s):				
Adaptation to Climate Change: Supporting the to Climate Change			ne EU Mission	Adaptation
HORIZON-MISS-2026-01-CLIMA-01: National Adaptation Hubs - Bringing together the national level with the engaged regional and local levels (multi-level governance)	CSA	10.00	Around 10.00	1
HORIZON-MISS-2026-01-CLIMA-02: Facilitating implementation of actionable solutions for climate adaptation of regions and local authorities	CSA	5.00	Around 5.00	1
HORIZON-MISS-2026-01-CLIMA-03: Standardising and supporting climate services for climate adaptation	RIA	9.19	Around 9.00	1
HORIZON-MISS-2026-01-CLIMA-04: Bridging the gap between disaster risk management and climate adaptation	CSA	5.00	Around 5.00	1

⁴ The Director-General responsible for the call may decide to open the call up to one month prior to or after the envisaged date(s) of opening.

The Director-General responsible may delay the deadline(s) by up to two months.

All deadlines are at 17.00.00 Brussels local time.

The budget amounts are subject to the availability of the appropriations provided for in the general budget of the Union for 2026 and 2027.

⁵ Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.

HORIZON-MISS-2026-01-CLIMA-05: Demonstrating solutions to protect and preserve cultural heritage from the impacts of climate change	ΙΑ	21.00	Around 7.00	3
HORIZON-MISS-2026-01-CLIMA-06: Improving climate resilience of navigable inland waterways, their surroundings and related water infrastructure	RIA	12.00	Around 6.00	2
HORIZON-MISS-2026-01-CLIMA-07: Demonstrating innovative financing of local adaptation actions with combination of public funding and private financing	IA	20.00	Around 20.00	1
Overall indicative budget		82.19		
General conditions relating to this call				
Admissibility conditions	The conditions are described in General Annex A.			
Eligibility conditions	The conditions are described in General Annex B.			
Financial and operational capacity and exclusion	The criteria are described in General Annex C.			
Award criteria	The criteria are described in General Annex D.			
Documents	The documents are described in General Annex E.			
Procedure	The procedure is described in General Annex F.			
Legal and financial set-up of the Grant Agreements	The rules are described in General Annex G.			

Call - Supporting the implementation of the Cancer Mission

HORIZON-MISS-2026-02

Overview of this call⁶

Topics	Type of Action	Budgets (EUR million) 2026	Expected EU contribution per project (EUR million) ⁷	Indicative number of projects expected to be funded
Opening: 10 Deadline(s):				
Cancer: Supporting the implementation of the	Cancer M	lission		
HORIZON-MISS-2026-02-CANCER-01: Virtual Human Twin (VHT) Models for Cancer Research	RIA	35.00	8.00 to 9.00	4
HORIZON-MISS-2026-02-CANCER-02: Microbiome for early cancer prediction before the onset of disease	RIA	15.00	Around 15.00	1
HORIZON-MISS-2026-02-CANCER-03: Pragmatic clinical trials to optimise immunotherapeutic interventions for patients with refractory cancers	RIA	22.20	6.00 to 9.00	3
HORIZON-MISS-2026-02-CANCER-04: Earlier and more precise palliative care	RIA	15.00	Around 5.00	3
HORIZON-MISS-2026-02-CANCER-05: Boosting mental health of young cancer survivors through the European Cancer Patient Digital Centre (ECPDC)	ΙΑ	7.00	Around 7.00	1
HORIZON-MISS-2026-02-CANCER-06: Development of a research capacity building programme on cancer with and for Ukraine	CSA	5.00	Around 5.00	1

Proposals are invited against the following Destinations and topic(s):

The Director-General responsible for the call may decide to open the call up to one month prior to or after the envisaged date(s) of opening.

All deadlines are at 17.00.00 Brussels local time.

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The Director-General responsible may delay the deadline(s) by up to two months.

The budget amounts are subject to the availability of the appropriations provided for in the general budget of the Union for 2026 and 2027.

⁷ Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.

HORIZON-MISS-2026-02-CANCER-07: Improve the Quality of Life of older cancer patients	RIA	27.00	5.00 to 6.00	5
Overall indicative budget		126.20		

General conditions relating to this call	
Admissibility conditions	The conditions are described in General Annex A.
Eligibility conditions	The conditions are described in General Annex B.
Financial and operational capacity and exclusion	The criteria are described in General Annex C.
Award criteria	The criteria are described in General Annex D.
Documents	The documents are described in General Annex E.
Procedure	The procedure is described in General Annex F.
Legal and financial set-up of the Grant Agreements	The rules are described in General Annex G.

Call - Supporting the implementation of the Restore our Ocean and Waters Mission

HORIZON-MISS-2026-03

Overview of this call⁸

Proposals are invited against the following Destinations and topic(s):

Topics	Type	Budgets	Expected	Indicative
	of	(EUR	EU	number
		× •	contribution	of

⁸ The Director-General responsible for the call may decide to open the call up to one month prior to or after the envisaged date(s) of opening.

The Director-General responsible may delay the deadline(s) by up to two months.

All deadlines are at 17.00.00 Brussels local time.

The budget amounts are subject to the availability of the appropriations provided for in the general budget of the Union for 2026 and 2027.

		2026	per project (EUR million) ⁹	projects expected to be funded
Opening: 04	4 Feb 202	26		
Deadline(s):	23 Sep 2	026		
Supporting the implementation of the Restore	our Ocea	n and Wate	ers Mission	
HORIZON-MISS-2026-03-OCEAN-01: Large-scale demonstration for mapping the distribution and condition of marine habitats to implement the Nature Restoration Regulation	IA	32.00	7.00 to 8.00	4
HORIZON-MISS-2026-03-OCEAN-02: Addressing aquatic pollution and biodiversity loss through nature positive solutions from source to sea	IA	32.00	7.00 to 8.00	4
HORIZON-MISS-2026-03-OCEAN-03: By fishers, for fishers: co-management of marine and freshwaters ecosystems and resources	IA	32.00	7.00 to 8.00	4
HORIZON-MISS-2026-03-OCEAN-04: Towards a European network of ocean technology testing sites	CSA	3.00	2.50 to 3.00	1
HORIZON-MISS-2026-03-OCEAN-05: Regional (sea-basins) components of the EU Digital Twin Ocean	ΙΑ	20.00	Around 5.00	4
Overall indicative budget		119.00		
General conditions relating to this call				
Admissibility conditions	The conditions are described in General Annex A.			
Eligibility conditions	The conditions are described in General Annex B.			
Financial and operational capacity and exclusion	The criteria are described in General Annex C.			eral Annex

Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.

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Award criteria	The criteria are described in General Annex D.
Documents	The documents are described in General Annex E.
Procedure	The procedure is described in General Annex F.
Legal and financial set-up of the Grant Agreements	The rules are described in General Annex G.

Call - Supporting the implementation of the Climate-Neutral and Smart Cities Mission

HORIZON-MISS-2026-04

Overview of this call¹⁰

Proposals are invited against the following Destinations and topic(s):

Topics	Type of Action	Budgets (EUR million) 2026	Expected EU contribution per project (EUR million) ¹¹	Indicative number of projects expected to be funded
Opening: 04 Feb 2026 Deadline(s): 08 Oct 2026				
100 Climate-Neutral and Smart Cities by 2030				
HORIZON-MISS-2026-04-CIT-01: Energy efficient urban and sub-urban public transport, complemented by shared mobility	ΙΑ	20.00	Around 10.00	2
HORIZON-MISS-2026-04-CIT-02: Transition to low-temperature heating solutions in multi-apartment buildings	IA	18.00	Around 6.00	3

The Director-General responsible for the call may decide to open the call up to one month prior to or after the envisaged date(s) of opening.
 The Director-General responsible may delay the deadline(s) by up to two months.
 All deadlines are at 17.00.00 Brussels local time.
 The budget amounts are subject to the availability of the appropriations provided for in the general budget of the Union for 2026 and 2027.

¹¹ Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.

EU Missions' Joint Calls				
HORIZON-MISS-2026-04-CIT-NEB-B4P- CCRI-03: Introducing circular economy models in the construction sector, from buildings to city scale	ΙΑ	47.50	Around 9.50	5
Overall indicative budget		85.50		

General conditions relating to this call The conditions are described in General Admissibility conditions Annex A. The conditions are described in General *Eligibility conditions* Annex B. The criteria are described in General Annex Financial and operational capacity and exclusion C. The criteria are described in General Annex Award criteria D. **Documents** The documents are described in General Annex E. The procedure is described in General Procedure Annex F. Legal and financial set-up of the Grant The rules are described in General Annex G. Agreements

Call - Supporting the implementation of the Soil Deal for Europe Mission

HORIZON-MISS-2026-05

Overview of this call¹²

Proposals are invited against the following Destinations and topic(s):

¹² The Director-General responsible for the call may decide to open the call up to one month prior to or after the envisaged date(s) of opening.

The Director-General responsible may delay the deadline(s) by up to two months.

All deadlines are at 17.00.00 Brussels local time.

The budget amounts are subject to the availability of the appropriations provided for in the general budget of the Union for 2026 and 2027.

MISS	ions			
Topics	Type of Action	Budgets (EUR million) 2026	Expected EU contribution per project (EUR million) ¹³	Indicative number of projects expected to be funded
Opening: 0- Deadline(s):				
A Soil Deal for Europe: Research and In implementation of Mission 'A Soil Deal for Eu		and other	r actions to s	support the
HORIZON-MISS-2026-05-SOIL-01: Monitoring soil health in practice: equipping stakeholders to sample, analyse, and interpret soil health indicators	CSA	5.00	Around 5.00	1
HORIZON-MISS-2026-05-SOIL-02: Antimicrobial resistance and antibiotic biosynthesis in soils: developing key understanding and counteractive strategies using a One-Health approach	RIA	13.00	Around 6.50	2
HORIZON-MISS-2026-05-SOIL-03: Enabling user-centred and open innovation initiatives to enhance soil health in Ukraine	CSA	4.50	Around 4.50	1
HORIZON-MISS-2026-05-SOIL-04: Leveraging long-term field experiments and other datasets to develop AI-ready decision support systems for sustainable soil management	IA	12.00	Around 6.00	2
Overall indicative budget		34.50		
General conditions relating to this call				
Admissibility conditions	The co	nditions a	re described	in General

Admissibility conditions	The conditions are described in General Annex A.
Eligibility conditions	The conditions are described in General Annex B.

¹³ Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.

Financial and operational capacity and exclusion	The criteria are described in General Annex C.
Award criteria	The criteria are described in General Annex D.
Documents	The documents are described in General Annex E.
Procedure	The procedure is described in General Annex F.
Legal and financial set-up of the Grant Agreements	The rules are described in General Annex G.

Call - Supporting the implementation of the Soil Deal for Europe Mission

HORIZON-MISS-2026-05-two-stage

Overview of this call¹⁴

Proposals are invited against the following Destinations and topic(s):

Topics	Type of Action	Budgets (EUR million)	Expected EU contribution	Indicative number of
		2026	per project (EUR million) ¹⁵	projects expected to be funded
Opening: 09 Dec 2025 Deadline(s): 14 Apr 2026 (First Stage), 15 Sep 2026 (Second Stage)				
A Soil Deal for Europe: Research and Innovation and other actions to support the implementation of Mission 'A Soil Deal for Europe'				
HORIZON-MISS-2026-05-SOIL-01-two- stage: Living labs to enhance soil health in Alpine and Atlantic biogeographical regions	RIA	24.00	Around 12.00	2

The Director-General responsible for the call may decide to open the call up to one month prior to or after the envisaged date(s) of opening.
 The Director-General responsible may delay the deadline(s) by up to two months.
 All deadlines are at 17.00.00 Brussels local time.

The budget amounts are subject to the availability of the appropriations provided for in the general budget of the Union for 2026 and 2027.

¹⁵ Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.

HORIZON-MISS-2026-05-SOIL-02-two- stage: Living labs to enhance soil health in managed forests and in natural/semi-natural lands	RIA	24.00	Around 12.00	2
Overall indicative budget		48.00		

General conditions relating to this call

Admissibility conditions	The conditions are described in General Annex A.
Eligibility conditions	The conditions are described in General Annex B.
Financial and operational capacity and exclusion	The criteria are described in General Annex C.
Award criteria	The criteria are described in General Annex D.
Documents	The documents are described in General Annex E.
Procedure	The procedure is described in General Annex F.
Legal and financial set-up of the Grant Agreements	The rules are described in General Annex G.

Call - Joint Call between the Soil Deal for Europe Mission and the Adaptation to Climate Change Mission

HORIZON-MISS-2026-06

Overview of this call¹⁶

Proposals are invited against the following Destinations and topic(s):

¹⁶ The Director-General responsible for the call may decide to open the call up to one month prior to or after the envisaged date(s) of opening.

The Director-General responsible may delay the deadline(s) by up to two months.

All deadlines are at 17.00.00 Brussels local time.

The budget amounts are subject to the availability of the appropriations provided for in the general budget of the Union for 2026 and 2027.

Topics	Type of Action	Budgets (EUR million) 2026	contr per j (H	cted EU ibution project EUR lion) ¹⁷	Indicative number of projects expected to be funded
	Opening: 04 Feb 2026				
	Deadline(s): 23 Sep	p 2026			
EU Missions' Joint Calls					
HORIZON-MISS-2026-06-CLIN demonstration of solutions to bu to extreme weather events an security	uild soil resilience	IA	20.00	Around 10.00	2
Overall indicative budget			20.00		

General conditions relating to this call	
Admissibility conditions	The conditions are described in General Annex A.
Eligibility conditions	The conditions are described in General Annex B.
Financial and operational capacity and exclusion	The criteria are described in General Annex C.
Award criteria	The criteria are described in General Annex D.
Documents	The documents are described in General Annex E.
Procedure	The procedure is described in General Annex F.
Legal and financial set-up of the Grant Agreements	The rules are described in General Annex G.

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Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.

Call - Supporting the implementation of the Adaptation to Climate Change Mission

HORIZON-MISS-2027-01

Overview of this call¹⁸

Proposals are invited against the following Destinations and topic(s):

Topics	Type of Action	Budgets (EUR million) 2027	Expected EU contribution per project (EUR million) ¹⁹	Indicative number of projects expected to be funded
Opening: 0	9 Feb 202	27		
Deadline(s):	21 Sep 20	027		
Adaptation to Climate Change: Supporting the implementation of the EU Mission Adaptation to Climate Change				
HORIZON-MISS-2027-01-CLIMA-01: Demonstrating transformative solutions to increase transborder climate resilience	ΙΑ	72.32	10.00 to 15.00	5
HORIZON-MISS-2027-01-CLIMA-02: Researching and applying the potential of Artificial Intelligence to foster climate resilience at the regional and local levels	RIA	12.00	Around 3.00	4
Overall indicative budget		84.32		
General conditions relating to this call				
Admissibility conditions	The conditions are described in General Annex A.			
Eligibility conditions	The conditions are described in General Annex B.			

The Director-General responsible for the call may decide to open the call up to one month prior to or after the envisaged date(s) of opening.
 The Director-General responsible may delay the deadline(s) by up to two months.
 All deadlines are at 17.00.00 Brussels local time.
 The budget amounts are subject to the availability of the appropriations provided for in the general budget

of the Union for 2026 and 2027.
 ¹⁹ Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.

Financial and operational capacity and exclusion	The criteria are described in General Annex C.
Award criteria	The criteria are described in General Annex D.
Documents	The documents are described in General Annex E.
Procedure	The procedure is described in General Annex F.
Legal and financial set-up of the Grant Agreements	The rules are described in General Annex G.

Call - Supporting the implementation of the Cancer Mission

HORIZON-MISS-2027-02

Overview of this call²⁰

Proposals are invited against the following Destinations and topic(s):

Topics	Type of Action	Budgets (EUR million)	Expected EU contribution	Indicative number of	
		2027	per project (EUR million) ²¹	projects expected to be	
	0.D. 200	25		funded	
Opening: 10 Dec 2025 Deadline(s): 21 Sep 2027					
	Cancer: Supporting the implementation of the Cancer Mission				
HORIZON-MISS-2027-02-CANCER-01: Leveraging functional genomics to reveal novel targets for cancer treatment	RIA	33.30	7.00 to 8.00	4	

The Director-General responsible for the call may decide to open the call up to one month prior to or after the envisaged date(s) of opening.
 The Director-General responsible may delay the deadline(s) by up to two months.
 All deadlines are at 17.00.00 Brussels local time.
 The budget amounts are subject to the availability of the appropriations provided for in the general budget of the Union for 2026 and 2027.

²¹ Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.

HORIZON-MISS-2027-02-CANCER-02:	IA	20.00	7.00 to	3		
Clinical research by Comprehensive Cancer Infrastructures for the benefit of patients with common cancers		20.00	10.00	د.		
HORIZON-MISS-2027-02-CANCER-03: Phase 1 including first-in-human clinical trials to test biomarker-guided medicines for patients with rare cancers or very rare cancer subtypes	RIA	25.00	7.00 to 9.00	3		
HORIZON-MISS-2027-02-CANCER-04: Improving equitable health outcomes for cancer patients through health-economics research, health systems research and outcomes research	RIA	10.00	5.00 to 7.00	3		
HORIZON-MISS-2027-02-CANCER-05: Pre-commercial procurement of affordable solutions for healthcare systems in the areas of cancer technologies, cancer medical devices, or cancer medicines	РСР	26.00	8.00 to 10.00	3		
HORIZON-MISS-2027-02-CANCER-06: Support a Young Cancer Survivor Quality of Life (QoL) research programme by cancer charities and funding agencies	CSA	3.00	Around 3.00	1		
Overall indicative budget		117.30				
General conditions relating to this call						
Admissibility conditions	The conditions are described in General Annex A.					
Eligibility conditions	The conditions are described in General Annex B.					
Financial and operational capacity and exclusion	The criteria are described in General Annex C.					
Award criteria	The cri D.	teria are de	escribed in Gen	eral Annex		
Documents	The documents are described in General					

Procedure	The procedure is described in General Annex F.
Legal and financial set-up of the Grant Agreements	The rules are described in General Annex G.

Call - Supporting the implementation of the Restore our Ocean and Waters Mission

HORIZON-MISS-2027-03

Overview of this call²²

Proposals are invited against the following Destinations and topic(s):

Topics	Type of Action	Budgets (EUR million) 2027	Expected EU contribution per project (EUR million) ²³	Indicative number of projects expected to be funded		
Opening: 0	Opening: 09 Feb 2027					
Deadline(s):	21 Sep 20	027				
Supporting the implementation of the Restore	our Ocea	n and Wate	ers Mission			
HORIZON-MISS-2027-03-OCEAN-01: Increasing riparian and coastal areas resilience to climate change, including in waterfront cities and islands.	ΙΑ	36.00	8.00 to 9.00	4		
HORIZON-MISS-2027-03-OCEAN-02: Circularity of seafood supply chain	IA	31.10	7.20 to 7.775	4		
HORIZON-MISS-2027-03-OCEAN-03: Green, circular and resilient harbours	IA	12.00	5.50 to 6.00	2		

The Director-General responsible for the call may decide to open the call up to one month prior to or after the envisaged date(s) of opening.
 The Director-General responsible may delay the deadline(s) by up to two months.
 All deadlines are at 17.00.00 Brussels local time.
 The budget amounts are subject to the availability of the appropriations provided for in the general budget of the Union for 2026 and 2027.

²³ Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.

HORIZON-MISS-2027-03-OCEAN-04: Towards community-driven business models: coastal and freshwaters sustainable tourism	IA	6.00	1.00 to 1.50	4
HORIZON-MISS-2027-03-OCEAN-05: Large-scale demonstration for blue forestation of European sea basins	ΙΑ	16.00	3.50 to 4.00	4
Overall indicative budget		101.10		

General conditions relating to this call	
Admissibility conditions	The conditions are described in General Annex A.
Eligibility conditions	The conditions are described in General Annex B.
Financial and operational capacity and exclusion	The criteria are described in General Annex C.
Award criteria	The criteria are described in General Annex D.
Documents	The documents are described in General Annex E.
Procedure	The procedure is described in General Annex F.
Legal and financial set-up of the Grant Agreements	The rules are described in General Annex G.

Call - Supporting the implementation of the Climate-Neutral and Smart Cities Mission

HORIZON-MISS-2027-04

Overview of this call²⁴

Proposals are invited against the following Destinations and topic(s):

²⁴ The Director-General responsible for the call may decide to open the call up to one month prior to or after the envisaged date(s) of opening.

The Director-General responsible may delay the deadline(s) by up to two months.

All deadlines are at 17.00.00 Brussels local time.

The budget amounts are subject to the availability of the appropriations provided for in the general budget of the Union for 2026 and 2027.

Topics	Type of Action	Budgets (EUR million) 2027	Expected EU contribution per project (EUR million) ²⁵	Indicative number of projects expected to be funded
Opening: 0 Deadline(s):				
100 Climate-Neutral and Smart Cities by 2030)			
HORIZON-MISS-2027-04-CIT-01: Innovative microgrids for improved energy system integration and efficiency in urban contexts	IA	20.00	Around 7.00	3
HORIZON-MISS-2027-04-CIT-02: Hydrogen cities	CSA	5.00	Around 5.00	1
HORIZON-MISS-2027-04-CIT-03: Inclusive and climate resilient multimodal passenger hubs enhancing modal shift towards sustainable transport and shared mobility	IA	18.00	Around 9.00	2
HORIZON-MISS-2027-04-CIT-CCRI-04: Advancing circular logistics solutions in cities	ΙΑ	22.50	Around 7.50	2
HORIZON-MISS-2027-04-CIT-05: Boosting the transformation towards climate- neutral cities, the net-zero economy and open strategic autonomy through Pre-Commercial Procurement (PCP)	РСР	26.82	7.00 to 12.00	3
Overall indicative budget		92.32		
General conditions relating to this call			r	
Admissibility conditions	The co Annex		re described	in General

²⁵ Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.

Eligibility conditions	The conditions are described in General Annex B.
Financial and operational capacity and exclusion	The criteria are described in General Annex C.
Award criteria	The criteria are described in General Annex D.
Documents	The documents are described in General Annex E.
Procedure	The procedure is described in General Annex F.
Legal and financial set-up of the Grant Agreements	The rules are described in General Annex G.

Call - Supporting the implementation of the Soil Deal for Europe Mission

HORIZON-MISS-2027-05

Overview of this call²⁶

Proposals are invited against the following Destinations and topic(s):

Topics	Туре	Budgets	Expected	Indicative
	of	(EUR	EU	number
	Action	million)	contribution	of
		2027	per project (EUR	projects expected
			million) ²⁷	to be funded
	0.5.1.000			Tunded

Opening: 09 Feb 2027

Deadline(s): 16 Sep 2027

A Soil Deal for Europe: Research and Innovation and other actions to support the implementation of Mission 'A Soil Deal for Europe'

The Director-General responsible for the call may decide to open the call up to one month prior to or after the envisaged date(s) of opening.
 The Director-General responsible may delay the deadline(s) by up to two months.
 All deadlines are at 17.00.00 Brussels local time.
 The budget amounts are subject to the availability of the appropriations provided for in the general budget

of the Union for 2026 and 2027.
 ²⁷ Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.

	1	.	-	1		
HORIZON-MISS-2027-05-SOIL-01: Participatory research on the health of communities in contact with polluted soils	RIA	11.00	Around 5.50	2		
HORIZON-MISS-2027-05-SOIL-02: Innovative biotechnologies to restore soil health and improve agricultural competitiveness and resilience	ΙΑ	12.80	Around 6.40	2		
HORIZON-MISS-2027-05-SOIL-03: Long- term drivers and consequences of soil degradation: learning from the past to improve future soil health	RIA	7.00	Around 7.00	1		
Overall indicative budget		30.80				
General conditions relating to this call						
Admissibility conditions	The conditions are described in General Annex A.					
Eligibility conditions	The conditions are described in General Annex B.					
Financial and operational capacity and exclusion Award criteria	The criteria are described in General Annex C. The criteria are described in General Annex D.					
Documents	The documents are described in General Annex E.					
Procedure	The procedure is described in General Annex F.					
Legal and financial set-up of the Grant Agreements	The rules are described in General Annex G.					

Call - Supporting the implementation of the Soil Deal for Europe Mission

HORIZON-MISS-2027-05-two-stage

Overview of this call²⁸

Topics	Type of Action	Budgets (EUR million) 2027	Expected EU contribution per project (EUR million) ²⁹	Indicative number of projects expected to be funded
Opening: 10				
Deadline(s): 16 Feb 2027 (First St	age), 14 S	Sep 2027 (S	Second Stage)	
A Soil Deal for Europe: Research and Innovation and other actions to support the implementation of Mission 'A Soil Deal for Europe'				
HORIZON-MISS-2027-05-SOIL-01-two- stage: Living labs to enhance soil health in Continental, Black Sea, Pannonian and Steppic biogeographical regions	RIA	24.00	Around 12.00	2
HORIZON-MISS-2027-05-SOIL-02-two- stage: Living Labs for co-creating solutions to reduce eutrophication from agriculture	RIA	24.00	Around 12.00	2
HORIZON-MISS-2027-05-SOIL-03-two- stage: Agroforestry for soil health at landscape level	ΙΑ	16.00	Around 8.00	2
Overall indicative budget		64.00		
General conditions relating to this call				
Admissibility conditions	The conditions are described in General Annex A.			
Eligibility conditions	The conditions are described in General			

Proposals are invited against the following Destinations and topic(s):

Annex B.

The Director-General responsible for the call may decide to open the call up to one month prior to or after the envisaged date(s) of opening.
 The Director-General responsible may delay the deadline(s) by up to two months.
 All deadlines are at 17.00.00 Brussels local time.
 The budget amounts are subject to the availability of the appropriations provided for in the general budget

of the Union for 2026 and 2027.

²⁹ Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.

Financial and operational capacity and exclusion	The criteria are described in General Annex C.
Award criteria	The criteria are described in General Annex D.
Documents	The documents are described in General Annex E.
Procedure	The procedure is described in General Annex F.
Legal and financial set-up of the Grant Agreements	The rules are described in General Annex G.

Call - Joint Call between the Soil Deal for Europe Mission and the Cancer Mission

HORIZON-MISS-2027-06

Overview of this call³⁰

Proposals are invited against the following Destinations and topic(s):

Topics	Type of Action	Budgets (EUR million)	Expected EU contribution	Indicative number of
		2027	per project (EUR million) ³¹	projects expected to be
				funded
Opening: 09 Dec 2025				
Deadline(s):	21 Sep 20	027		
EU Missions' Joint Calls				
HORIZON-MISS-2027-06-SOIL-CANCER: Living labs to monitor and mitigate carcinogenic substances in and originating	RIA	24.00	Around 12.00	2

The Director-General responsible for the call may decide to open the call up to one month prior to or after the envisaged date(s) of opening.
 The Director-General responsible may delay the deadline(s) by up to two months.
 All deadlines are at 17.00.00 Brussels local time.
 The budget amounts are subject to the availability of the appropriations provided for in the general budget of the Union for 2026 and 2027.

³¹ Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.

from soils: Evaluating their effects on human cancer risks		
Overall indicative budget	24.00	

General conditions relating to this call	
Admissibility conditions	The conditions are described in General Annex A.
Eligibility conditions	The conditions are described in General Annex B.
Financial and operational capacity and exclusion	The criteria are described in General Annex C.
Award criteria	The criteria are described in General Annex D.
Documents	The documents are described in General Annex E.
Procedure	The procedure is described in General Annex F.
Legal and financial set-up of the Grant Agreements	The rules are described in General Annex G.

Call - Joint Call between the Climate-Neutral and Smart Cities Mission and the Adaptation to Climate Change Mission

HORIZON-MISS-2027-07

Overview of this call³²

Proposals are invited against the following Destinations and topic(s):

Topics	Type	Budgets	Expected	Indicative
	of	(EUR	EU	number
		× .	contribution	of

³² The Director-General responsible for the call may decide to open the call up to one month prior to or after the envisaged date(s) of opening.

The Director-General responsible may delay the deadline(s) by up to two months.

All deadlines are at 17.00.00 Brussels local time.

The budget amounts are subject to the availability of the appropriations provided for in the general budget of the Union for 2026 and 2027.

		2027	per project (EUR million) ³³	projects expected to be funded
Opening: 0				
Deadline(s):	16 Sep 2	027		
EU Missions' Joint Calls	I			
HORIZON-MISS-2027-07-CLIMA-CIT- NEB-01: Urban nature: supporting restoration of urban ecosystems, along urban transport networks and in the built environment	ΙΑ	40.00	Around 10.00	4
HORIZON-MISS-2027-07-CLIMA-CIT- CCRI-02: Deploying innovative wastewater management, treatment and valorisation solutions in European cities and regions in the context of climate change	IA	28.50	Around 9.50	3
Overall indicative budget		68.50		
General conditions relating to this call				
Admissibility conditions	The conditions are described in General Annex A.			
Eligibility conditions	The conditions are described in General Annex B.			
Financial and operational capacity and exclusion	The criteria are described in General Annex C.			
Award criteria	The criteria are described in General Annex D.			
Documents	The documents are described in General Annex E.			
Procedure	The procedure is described in General Annex F.			

³³ Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.

Legal and financial set-up of the Grant	The rules are described in General Annex G.
Agreements	

EU Missions

Adaptation to Climate Change: Supporting the implementation of the EU Mission Adaptation to Climate Change

Political context

In February 2021, the European Commission adopted a <u>EU Strategy on Adaptation to</u> <u>Climate Change</u> that sets out how the EU can adapt to the unavoidable impacts of climate change and become climate resilient by 2050. Pushing further on the belief that we must adjust now to tomorrow's climate, the EU has launched, in the same year, the <u>EU Mission on</u> <u>Adaptation to Climate Change</u> to support at least 150 regions and local authorities to become climate-resilient by 2030.

Since the start of the Mission, the European Commission confirmed its strategic importance and the potential strength of its approach to accelerate the transformation to a climate-resilient Europe³⁴. It also acknowledged that the Mission can serve as a best practice for all interested parties, and that it will be further leveraged³⁵.

In March 2024, the <u>European Climate Risk Assessment (EUCRA)</u>, published by the European Environment Agency, has further stressed the need to ramp up adaptation efforts in Europe. The Commission Communication '<u>Managing climate risks</u>: protecting people and prosperity', also published in March 2024, sets out how the EU and its Member States can better anticipate, understand, and address growing climate risks. The urgency and importance of stepping up preparedness and adaptation is reflected in the <u>Political Guidelines for the European</u> <u>Commission 2024-2029</u> which call the European Commission to develop a European Climate Adaptation Plan (ECAP), scheduled for the second half of 2026.

In this context, the Mission appears to be the perfect vehicle to support pioneering efforts on climate adaptation at the regional and local levels and to develop and facilitate the take-up of ready-to-use knowledge and tools for climate action.

A regional approach

Regional and local authorities are the end-users of the Mission. By signing the Mission Charter, more than <u>325 regional and local authorities</u> have committed to working together to transition faster to a climate resilient Europe.

Some regional and local authorities in Europe are well prepared to climate change, others are striving for solutions to address their climate risks. The Mission aims to support as a priority less developed regional and local authorities that are more vulnerable to climate impacts and have low adaptive capacity. The Mission fosters, by the mean of the <u>Mission Implementation</u>

³⁴ see Commission <u>Communication on the EU Missions</u>, adopted in July 2023

³⁵ see <u>Commission Communication on Managing Climate Risks – protecting people and prosperity, adopted</u> in March 2024)

<u>Platform</u> and its <u>Community of Practice</u>, the sharing of experiences and lessons learnt from others, accompanying regions and local authorities in finding and possibly reapplying solutions adapted to their climatic situation and socio-economic context.

Regional and local authorities already engaged in the Mission activities (e.g. Charter Signatories, Community of Practice) have already proven their commitment and motivation to work towards the objectives of the Mission and, as such, they provide ideal sites where the testing and demonstration of innovative approaches could take place. However, the actions supported by these calls are open to all actors from EU Member States and Horizon Europe Associated Countries, in line with Horizon Europe rules of participation.

Research and innovation

Rooted in research and innovation, the Mission aims to align towards its concrete objectives all relevant actors and stakeholders to deliver tangible solutions and concrete impacts by 2030.

The R&I support is provided in different ways:

1. Further support European regional and local authorities to better understand, prepare for and manage climate risks and opportunities, especially in view the large need demonstrated in the early phase of the Mission;

2. Step up support towards at least 150 regional and local authorities to accelerate their transformation to a climate resilient future, supporting them in the co-creation of innovation pathways and the testing of solutions;

3. Demonstrate systemic transformations to climate resilience contributing to deliver at least 75 large-scale demonstrations of systemic transformations to climate resilience across European regional and local authorities.

To be successful, the Mission needs to mobilise all relevant actors -- research institutes, industry, investors, civil society and citizens -- to create real and lasting impact and to accelerate their transformation to a fair and climate-resilient society that leaves no-one behind. In the spirit of the Mission, all proposals should also adopt a participatory approach that fully considers the local dimension of climate change and entails collaboration and engagement with the local communities that are affected by climate impacts. Therefore, engagement of citizens should be embedded in the design and/or implementation of the Mission's solutions.

It should be noted that Social Sciences and Humanities (SSH) disciplines are at the heart of the Mission and therefore, many of the Mission topics require the effective contribution and inclusion of SSH disciplines and experts.

Strategic direction for 2026-2027

As laid out in its implementation plan, the Mission has evolved from the initial build-up phase, where all its different streams of actions have been put in motion, to full deployment.

With its calls for 2026 & 2027, the Adaptation Mission will (i) provide continuity by maintaining the support structure already in place, (ii) focus on synergies with other initiatives and other parts of Horizon Europe and (iii) lay the ground to scale up R&I results.

Implementing the focus on synergies, there are a series of actions that do not appear in this part of the work programme, but to which the Adaptation Mission has contributed financially.

The joint actions for 2026 are:

- Accelerator Challenge: Deep tech for Climate Adaptation. The Adaptation Mission supports an accelerator challenge together with the European Innovation Council with the aim to achieve common objectives and synergies in the field of climate adaptation. The Challenge is located in the Work Programme 2026 part of the European Innovation Council. (Adaptation Mission contribution of EUR 25 million to the European Innovation Council for a total budget to EUR 50 million).
- HORIZON-MISS-2026-06-CLIMA-SOIL: Joint demonstration of solutions to build soil resilience to extreme weather events and support food security. The Adaptation Mission supports this topic together with the Soil Mission. These innovation actions are located in the Joint Calls of the Mission of the Work Programme. (Adaptation Mission Contribution of EUR 10 million for a total budget to EUR 20 million).
- Financial contribution to the <u>Climate City Capital Hub</u>, listed under "Specific Grant Agreement to the FPA to reinforce the operations of the Climate-Neutral and Smart Cities Mission Platform" in the 2026 Work Programme Part of the Cities Mission. (Adaptation Mission Contribution of EUR 10 million to work on adaptation financing in support of the signatories of the Adaptation Mission).

The joint actions for 2027 are:

- HORIZON-HLTH-2027-01-ENVHLTH-MISSCLIMA-03: Tools and technologies to support health adaptation to climate change. The Adaptation Mission supports this topic together with Cluster 1. This pre-commercial procurement is located in the Cluster 1 part of the Work Programme (Adaptation Mission Contribution of EUR 10 million for a total budget to EUR 20 million).
- HORIZON-MISS-2027-07-CLIMA-CIT-NEB-01: Urban nature: supporting restoration of urban ecosystems, including along urban transport networks and in the built environment. The Adaptation Mission supports this topic together with the Cities Mission and the New European Bauhaus. These innovation actions are located in the Joint Calls of the Missions Work Programme. (Adaptation Mission Contribution of EUR 15 million for a total budget to EUR 40 million).
- HORIZON-MISS-2027-07-CLIMA-CIT-CCRI-02: Deploying innovative wastewater management, treatment and valorisation solutions in European cities and regions in the context of climate change. The Adaptation Mission supports this topic together with the Cities Mission and the Circular Cities and Regions Initiative (from

Cluster 6). These innovation actions are located in the Joint Calls of the Missions Work Programme. (Adaptation Mission Contribution of EUR 10 million for a total budget to EUR 28.5 million).

Proposals are invited against the following topic(s):

HORIZON-MISS-2026-01-CLIMA-01: National Adaptation Hubs - Bringing together the national level with the engaged regional and local levels (multi-level governance)

Call: Supporting the implementation of the Adaptation to Climate Change Mission			
Specific conditions			
<i>Expected EU</i> <i>contribution per</i> <i>project</i>	The Commission estimates that an EU contribution of around EUR 10.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.		
Indicative budget	The total indicative budget for the topic is EUR 10.00 million.		
Type of Action	Coordination and Support Actions		
Legal and financial set-up of the Grant Agreements	The rules are described in General Annex G. The following exceptions apply: Beneficiaries <u>may</u> provide direct financial support to third parties to allow for the establishment, animation and facilitation of National Adaptation Hubs. The support to third parties can only be provided in the form of grants, with a maximum of one grant per EU Member State or Associated Country. The maximum amount to be granted to each third party is EUR 200,000 ³⁶ .		

<u>Expected Outcome</u>: In support of the implementation of the Mission on Adaptation to climate change and of the upcoming European Climate Adaptation Plan, the successful project is expected to contribute to multi-level governance for climate adaptation by addressing <u>all</u> of the following outcomes:

• The relevant national governance for innovation and climate adaptation is further engaged and mobilised to contribute to the objectives of the Adaptation Mission and benefit from it. In turn, the Mission fosters multi-level governance, supporting Member States, regions and local authorities in their efforts to implement the European Climate Law's requirements on climate adaptation, and to further develop and update their adaptation plans.

³⁶ It is estimated that EUR 60,000 - the usual amount maximum amount that can be paid to a third party - is an insufficient amount to establish a National Adaptation Hub. Experience with the project from HORIZON-MISS-2024-CLIMA-01-02 shows that a maximum of EUR 200,000 is more appropriate to cover various costs required by the national hubs.

• Mission solutions are disseminated beyond the regions and local authorities actively involved in the Mission and peer learning opportunities (within and outside) the Mission are strengthened, to bridge the gap between the EU, the national and local levels.

<u>Scope</u>: Regional and local authorities are the target group of the proposed activities and as such they are not expected to participate directly in the consortium, but they should receive services from the project funded by this action.

The project is expected to last until the end of the Mission, i.e. end of 2030.

The project will be a follow-up to the project stemming from <u>HORIZON-MISS-2024-CLIMA-01-02</u>, and hence it should collaborate with such existing project to ensure a smooth transition from one project's implementation to the other, maintaining the continuity of Mission Adaptation's support for the national hubs. Moreover, the project should ensure lessons learnt from the project stemming from <u>HORIZON-MISS-2024-CLIMA-01-02</u> are duly taken into account.

Proposals should address two axes of action for which <u>all</u> the following aspects should be addressed:

1. National adaptation hubs

National adaptation hubs (one per EU country + at least a single horizontal facility for Associated Countries) are meant to be light, agile, and flexible, to be tailored to the national context. They consist in a sort of task force or working group composed of the relevant contact points from each level of governance relevant in the individual countries.

The hubs should:

- Continue and extend the "National adaptation hubs" established by the Adaptation Mission
- Build on the key community systems and enabling conditions identified in the <u>Mission</u> <u>Implementation Plan</u> to identify the priority areas of work of the "National adaptation hubs". These priority areas should reflect what is included in the National Strategies and/or Plans on Adaptation to Climate Change, while maintaining enough thematic flexibility over time to be able to integrate the priority themes addressed by the future European Climate Adaptation Plan.
- Feed relevant knowledge and contribute to national, regional and local authorities' efforts related to the adaptation objectives in the Climate Law with particular reference to the adoption and implementation of national adaptation strategies and plans.

Beneficiaries <u>may</u> provide direct financial support to third parties to allow for the establishment, animation and facilitation of National Adaptation Hubs. The support to third parties can only be provided in the form of grants, with a maximum of one grant per EU Member State or Associated Country. The maximum amount to be granted to each third party is EUR 200,000.

To implement the support to third parties, the consortium should include partners with relevant operational and financial experience and viability.

2. Grouping scheme

A structural grouping scheme should be put in place to bring together regions and local actors facing similar challenges, to facilitate the dissemination of knowledge within and beyond the regions and local authorities involved in the Adaptation Mission. To that end, the scheme should:

- Include groups or pairs from the <u>same</u> EU Member State (within each "national adaptation hub") as well as between <u>different</u> countries, helping consolidate the multi-level governance.
- Identify the right grouping and pairing participants from Mission-funded and Missionrelated activities to other regions in the EU, with particular attention to vulnerable regions.
- When relevant, group or pair less advanced regions with front-runners to feed the National level in view of policy innovation (see point on Climate Law requirements).
- Ensure close connections with the Mission's Community of Practice.

Links to the Mission and to other projects and initiatives

As a coordination and support action, collaboration with the Mission and other initiatives will be key to ensure the success of this action. In particular, close collaboration should be sought with <u>all</u> the following actors:

- Mission secretariat to ensure the relevance of the activities within the Mission
- The **Mission Implementation platform**³⁷- the project funded under this topic should closely cooperate with the Mission Implementation Platform and ensure synergies where relevant- with the exchanges taking place within the Adaptation Mission's Community of Practice. The collaboration should be formalized through a Memorandum of Understanding to be concluded as soon as possible after the projects' starting date.
- The project stemming from HORIZON- MISS-2026-01-CLIMA-02 to ensure synergies and coordinate the respective activities

The project is also expected to have regular exchanges of best practices with the other EU Missions³⁸, e.g. in the area of stakeholder and citizen engagement, long-term sustainability of Mission hubs, and building of synergies. Moreover, it will work closely with Horizon Europe

³⁷ Initially established by <u>MIP4Adapt</u> and extended under the contract CINEA/2025/OP/0014

³⁸ Including by contributing to relevant initiatives aiming at strengthening evidence-informed policymaking for mission-oriented innovation.

National Contact Points³⁹ to enhance their activities, such as raising awareness about Mission Adaptation funding activities through information events and communication tools.

The project funded under this topic is expected to closely cooperate with the different projects funded by the Adaptation Mission, in particular with the project stemming from HORIZON-MISS-2026-01-CLIMA-04.

Collaboration with other relevant existing initiatives is also encouraged.

Applicants should acknowledge these elements and already account for them in their proposal, making adequate provisions in terms of resources and budget to engage and collaborate with the Mission.

This action supports the follow-up to the July 2023 <u>Communication on the EU Missions</u> assessment.

HORIZON-MISS-2026-01-CLIMA-02: Facilitating implementation of actionable solutions for climate adaptation of regions and local authorities

Call: Supporting the implementation of the Adaptation to Climate Change Mission			
Specific conditions			
Expected EU contribution per project	The Commission estimates that an EU contribution of around EUR 5.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.		
Indicative budget	The total indicative budget for the topic is EUR 5.00 million.		
Type of Action	Coordination and Support Actions		
Legal and financial set-up of the Grant Agreements	The rules are described in General Annex G. The following exceptions apply: Eligible costs will take the form of a lump sum as defined in the Decision of 7 July 2021 authorising the use of lump sum contributions under the Horizon Europe Programme – the Framework Programme for Research and Innovation (2021-2027) – and in actions under the Research and Training Programme of the European Atomic Energy Community (2021-2025) ⁴⁰ .		

³⁹ Including by cooperating with the <u>NCP4Missions</u> project

⁴⁰ This <u>decision</u> is available on the Funding and Tenders Portal, in the reference documents section for Horizon Europe, under 'Simplified costs decisions' or through this link: <u>https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/ls-</u> <u>decision he en.pdf</u>

<u>Expected Outcome</u>: The successful proposal will contribute to the implementation of the EU Mission on Adaptation to Climate Change and the upcoming European Climate Adaptation Plan. Proposals are expected to contribute to **all of** the following outcomes:

- The wide range of solutions tested and deployed in the context of the Adaptation Mission and the good practices emerged in its Community of Practice are harvested, assessed, structured and systematised to support the implementation of the Mission.
- Regional and local authorities can access, in the local language, the latest and most actionable solutions for climate adaptation relevant to their (climatic) conditions.
- Adaptation solutions stemming from research and innovation are ready for replication and scale-up, contributing to the delivery of the Adaptation Mission and acceleration of adaptation efforts across Europe. Legacy of the knowledge created by the Mission is also ensured.
- Knowledge and understanding of the policy implications of adaptation solutions is increasingly utilised in the policy cycles at EU, national, and regional and local levels.

Scope:

Rationale

Grounded in research and Innovation, EU Missions aim to mobilise R&I actors to help tackle some of the most pressing societal issues. In this spirit, the Adaptation Mission has funded over 50 projects to test and develop solutions that help regions adapting to climate change. However, creating knowledge is not enough to trigger change at the pace required. It is essential that that the right knowledge reaches the decision-makers. Acting as a follow-up to <u>REGILIENCE+</u>, this topic aims to ensure that the actionable solutions developed in the context of the Mission (and beyond) are actively brought to the knowledge and made available to the regions and local authorities in Europe.

Target audience

Regional and local authorities, in particular the ones already involved in the Mission⁴¹, are the target group of the proposed activities and the customers of the in-depth knowledge provision of solutions. While they are not expected to participate in the consortium, they should receive tailor-made services from the project funded by this action, which should primarily use the Mission Implementation Platform's channels to feed them with new information products, also based on the needs expressed by them (e.g. see <u>Analysis of information provided by the signatories of the charter of the Mission Adaptation to Climate Change</u> when adhering to the Charter).

Activities of the project

⁴¹ For instance through the Mission Charter or in the Mission Projects

The proposals should address **all of** the following aspects:

- Systematically identify and harvest knowledge and solutions from relevant projects. While the priority should be given to solutions from projects funded by the Adaptation Mission, other relevant projects from Horizon Europe and other EU and national funding programmes should be considered.
- **Produce a detailed inventory of adaptation solutions**, in coordination with the Mission Implementation Platform, in which each solution is presented to enable regions and local authorities to easily implement/replicate them. The inventory should:
 - 1. Be structured in line with the <u>Mission Implementation Plan's</u> "key community systems and enabling conditions", in view of ensuring maximum coherence within the Mission.
 - Build on previous analyses or information already harvested by <u>Regilience+</u>, other projects such as, <u>NetworkNature+</u>, <u>RESIST's inventory</u> and other relevant projects/initiatives.
 - 3. Include key information to allow for replication (including but not limited to cost effectiveness, financing and potential barriers & enablers).
- These solutions should be **proactively promoted with the regions and local authorities** participating in the Adaptation Mission **to support replication and uptake of those solutions.** This should be done, amongst other things through **multilingual** approach. The proposals could also support the authorities in the development and implementation of such solutions in their regional and local contexts (i.e., know-how).
- The proposal should also feed the EU policy cycle by identifying good practices that merit particular attention by EU policymakers in view of strengthening policy innovation in coming cycles (feedback to policy task).
- The project is expected to last until the end of the Mission, i.e. end of 2030.

Links to the Mission and other projects and initiatives

As a coordination and support action, collaboration with the Mission and other initiatives will be key to ensure the success of this action. In particular, close collaboration should be sought with <u>all</u> the following actors:

- Mission secretariat to ensure the relevance of the activities within the Mission
- The **Mission Implementation platform** the project funded under this topic should support and closely cooperate with the Mission Implementation Platform, to avoid duplication and streamline the communication to regions and local authorities. The collaboration should be formalized through a Memorandum of Understanding to be concluded as soon as possible after the projects' starting date.

• The **National Hubs**⁴²- to enhance the dissemination of information and make sure that this dissemination is tailored to the national context.

Collaboration with other relevant existing platforms, projects and initiatives is also encouraged.

Applicants should acknowledge these elements and already account for them in their proposal, making adequate provisions in terms of resources and budget to engage and collaborate with the Mission.

HORIZON-MISS-2026-01-CLIMA-03: Standardising and supporting climate services for climate adaptation

Call: Supporting the implementation of the Adaptation to Climate Change Mission		
Specific conditions		
Expected EU contribution per project	The Commission estimates that an EU contribution of around EUR 9.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.	
Indicative budget	The total indicative budget for the topic is EUR 9.19 million.	
Type of Action	Research and Innovation Actions	
Eligibility conditions	The conditions are described in General Annex B. The following exceptions apply: International organisations with headquarters in a Member State or Associated Country/Non-Associated Third Country are exceptionally eligible for funding to ensure coherence and coordination with development and standardisation of climate services at the international level. If projects use satellite-based earth observation, positioning, navigation and/or related timing data and services, beneficiaries must make use of Copernicus and/or Galileo/EGNOS (other data and services may additionally be used).	
Legal and financial set-up of the Grant Agreements	The rules are described in General Annex G. The following exceptions apply: Eligible costs will take the form of a lump sum as defined in the Decision of 7 July 2021 authorising the use of lump sum contributions under the Horizon Europe Programme – the Framework Programme for Research and Innovation (2021-2027) – and in actions under the	

⁴² Set up by the projects stemming from HORIZON-2024-MISS-01-02 and extended by the topic HORIZON-MISS-2026-01-CLIMA-01

Research and Training Programme of the European Atomic Energy
Community (2021-2025) ⁴³ .

<u>Expected Outcome</u>: The successful proposal will support the implementation of the EU Mission on Adaptation to Climate Change and the upcoming European Climate Adaptation Plan. Projects are expected to contribute to <u>all</u> of the following outcomes:

- The methodology for identifying, selecting and consolidating global and regional reference climate data sets and scenarios is advanced and their consistent use across the EU in relation to climate adaptation is supported.
- Standardisation and quality of climate services across the EU are improved, and their uptake is enhanced.
- Climate services and best practices are used effectively to inform climate adaptation policies and decisions

Scope:

Rationale

As climate risks intensify, the demand for tailored and effective climate services is growing. However, despite their increasing adoption, the lack of sufficient regulation can compromise quality assurance and consistency of climate services, leading to poor decision-making, limited use in policy, and underdeveloped markets, ultimately resulting in maladaptation.

In its <u>Communication on Managing climate risk</u>, the European Commission announced its intention to ask <u>European Standardisation Organisations</u> to develop new standards on climate services and consider climate adaptation into European standards for the design of infrastructure with a lifespan exceeding 30 years.

This topic supports the Commission Communication and aims to enhance the uptake of trustworthy, user-centric and accessible climate services. Two key objectives are targeted to that effect: 1) consolidating and promoting the consistent use of quality-assured reference global and regional climate data sets and scenarios, and 2) standardizing and streamlining climate service practices to support informed decision-making and policy development for climate adaptation, considering regional and local specificities, as well as capacity-building needs.

In the context of this topic, standardization encompasses technical, procedural and performance standards⁴⁴.

⁴³ This <u>decision</u> is available on the Funding and Tenders Portal, in the reference documents section for Horizon Europe, under 'Simplified costs decisions' or through this link: <u>https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/ls-</u> <u>decision he en.pdf</u>

⁴⁴ See for instance the key messages on standardization by Climateurope2

1st objective : reference climate data sets and scenarios for standardised climate services

Proposals should contribute to processes standardising climate services through <u>reference</u> climate data sets and scenarios to be used in all EU member states and at various scales (continental, national, regional). Particular attention should be paid to the consistency and harmony of continent-wide solutions with developments at country level where appropriate.

The work should address **<u>all of</u>** the following aspects:

- Advance innovative and robust methodologies to identify, select, distil and consolidate consistent global and regional reference climate data sets and scenarios with their associated uncertainties to be clearly communicated. This should be done in close collaboration with end-users, to ensure their operational relevance and usability in adaptation decision-making across the EU. These references should be based on appropriate available observations, (re)-analyses and simulations from the main EU and/or international initiatives (e.g. CMIP, CORDEX, DestinE) using quantifiable and traceable approaches;
- The proposed solution should incorporate a mechanism for regular updates to the underlying climate scenarios, to ensure that selected climate projections remain aligned with the latest updates on emission scenarios and available scientific information;
- Incorporate the above methodologies and mechanisms into the standardization of climate services.

2^{nd} objective : standardizing and streamlining climate service for decision and policy making in adaptation

Working closely with European Standard Organisations (such as <u>CEN-CENELEC</u> and others), finance institutions (such as European Investment Bank), end-users and other relevant entities as appropriate, actions should address <u>all</u> of the following aspects:

- Support the standardization of climate services, with special consideration for compound and other complex climate risks across temporal (multi-year to multidecadal) and spatial scales (local to regional);
- Promote and demonstrate the use of pilot standardized climate services in key adaptationrelated areas, assessing and integrating quality-assured climate information into decisionmaking. This should be in line with the adaptation objectives of the Paris Agreement and could include for example:
 - o Climate finance proofing processes and tools to support regulated institutions to adhere to the EU Taxonomy Regulation adaptation objectives;
 - o Climate resilience of (public and private) investments in the built environment and critical infrastructure from design to delivery and exploitation;

o Other sectors (e.g. health, agriculture, energy, water management, insurance, natural environment) if properly justified.

Links to the Mission and to other projects and initiatives

Actions should build on knowledge from existing climate service research projects and explore synergies with ongoing initiatives funded by EU and national programmes (in particular Copernicus and Destination Earth).

Actions should include a mechanism and the resources to establish operational links and collaboration with the Mission Implementation Platform, and other relevant programmes. Projects funded under this topic will be expected to participate in the Mission Community of Practice and to share relevant knowledge to feed the work of the project stemming from HORIZON-MISS-2026-01-CLIMA-02.

Applicants should acknowledge these elements and already account for them in their proposal, making adequate provisions in terms of resources and budget to engage and collaborate with the Mission.

Call: Supporting the implementation of the Adaptation to Climate Change Mission			
Specific conditions			
Expected EU contribution per project	The Commission estimates that an EU contribution of around EUR 5.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.		
Indicative budget	The total indicative budget for the topic is EUR 5.00 million.		
Type of Action	Coordination and Support Actions		
Legal and financial set-up of the Grant Agreements	The rules are described in General Annex G. The following exceptions apply: Eligible costs will take the form of a lump sum as defined in the Decision of 7 July 2021 authorising the use of lump sum contributions under the Horizon Europe Programme – the Framework Programme for Research and Innovation (2021-2027) – and in actions under the Research and Training Programme of the European Atomic Energy Community (2021-2025) ⁴⁵ .		

HORIZON-MISS-2026-01-CLIMA-04: Bridging the gap between disaster risk management and climate adaptation

⁴⁵ This <u>decision</u> is available on the Funding and Tenders Portal, in the reference documents section for Horizon Europe, under 'Simplified costs decisions' or through this link: <u>https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/ls-</u> <u>decision he_en.pdf</u>

<u>Expected Outcome</u>: The successful proposal will contribute to the implementation of the EU Mission on Adaptation to Climate Change, the Preparedness Union Strategy and the upcoming European Climate Adaptation Plan, by facilitating the interaction between the actors of the Climate Adaptation and Disaster Risk Management at European, national and regional scales.

Proposals are expected to contribute to <u>all of</u> the following outcomes:

- The Climate Adaptation and Disaster Risk Management communities at European level are brought together to develop inter- and transdisciplinary methodological approaches, constructing and disseminating joint knowledge.
- The knowledge and understanding of the common aspects for Disaster Risk Management preparedness and climate change adaptation are enhanced, including the question of responsibility and accountability.
- The terminology and understanding of the risks and the possible solutions are aligned for Disaster Risk Management and Adaptation and hence local resilience to climate change is improved.

Scope:

Rationale

The goal of this action is to strengthen collaboration between the Climate Adaptation and Disaster Risk Management communities. This will enable the Mission and the Disaster Risk Management community to disseminate their innovative solutions in support of the implementation of the EU Preparedness Union Strategy and the upcoming European Climate Adaptation Plan.

This action is fully in line with the recommendation from the <u>Niinistö report</u> for "creating stronger structural links to bridge the gap between research, innovation and deployment".

Activities of the project

Project should address <u>all of</u> the following areas:

- Facilitate a common understanding of climate risks and possible solutions and improve the exchange of knowledge and cooperation.
- **Produce guidelines and recommendations** for regional and local authorities to define and implement integrated risks management policies that fully account for climate adaptation.
- Identify and harvest knowledge and solutions relevant for both communities, from related Horizon Europe projects, other EU funding programmes (e.g. <u>UCPM</u>, <u>Interreg</u>, <u>LIFE</u>) or legacy projects from Horizon 2020. Particular attention should be given to projects funded by Horizon Europe's calls of the Adaptation Mission (MISS-CLIMA) and

Cluster 3: Disaster-Resilient Society (CL3-DRS) and by UCPM's calls of Knowledge for Action in Prevention and Preparedness.

- **Implement a multi-governance approach** that will also help disseminate existing knowledge beyond the regions directly served by the Mission, via the National Adaptation Hubs⁴⁶. In this context, the proposal should map relevant stakeholders and identify the right grouping and pairing of participants to bring the knowledge they acquired by participating in an EU funded projects to other regions in the EU, with particular attention to the inclusion and needs of vulnerable regions.
- **Support and closely cooperate** with the ongoing Mission Implementation Platform⁴⁷ (in close contact with the Mission Secretariat), the Union Civil Protection Knowledge Network (and its Secretariat), as well as the Community for European Research and Innovation for Security (CERIS) and its Disaster Resilient Societies (DRS) platform to avoid duplications of activities. This includes relying on existing activities of the Commission's Disaster Risk Management Knowledge Centre, of MIP4Adapt and the project funded under HORIZON-MISS-2026-01-CLIMA-01 with a view to strengthen cooperation.
- Organize European Climate Change Adaptation Conferences (ECCA) in 2028 and 2030, in consultation with the European Commission.

HORIZON-MISS-2026-01-CLIMA-05: Demonstrating solutions to protect and preserve cultural heritage from the impacts of climate change

Call: Supporting the implementation of the Adaptation to Climate Change Mission			
Specific conditions			
Expected EU contribution per project	The Commission estimates that an EU contribution of around EUR 7.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.		
Indicative budget	The total indicative budget for the topic is EUR 21.00 million.		
Type of Action	Innovation Actions		
Eligibility conditions	The conditions are described in General Annex B. The following exceptions apply: The following additional eligibility criteria apply:		

⁴⁶ Established by <u>HORIZON-MISS-2024-CLIMA-01-02</u> and extended by HORIZON-MISS-2026-01-CLIMA-01

⁴⁷ Initially established by <u>MIP4Adapt</u> and extended under the contract CINEA/2025/OP/0014

Demonstration activities must take place in the territory of at least 3 different regional or local authorities that host cultural heritage, each
established in a different Member States or Associated Country.

<u>Expected Outcome</u>: In line with the <u>EU Adaptation Strategy</u> and the objectives of the EU Mission on Adaptation to Climate Change, successful proposals will support the preservation of cultural heritage (moveable, immoveable and natural with cultural significance) under a changing climate. Project results are expected to contribute to <u>all</u> the following outcomes:

- **Innovative solutions** for protecting and preserving cultural heritage from the impacts of climate change **have been demonstrated** and are made widely available for upscaling and deployment across the European Union and beyond.
- **Regional and local authorities** hosting cultural heritage are better prepared to preserve it under a changing climate.
- **Relevant stakeholders** heritage scientists and managers, climate scientists, regional and local policymakers, civil society and representatives from the tourism industry **have co-created** and put in place climate-resilient solutions. Citizens and local communities have also been engaged in the process.

Scope:

Rationale

As the impacts of climate change are becoming increasingly apparent, economic losses associated with it are also increasing. However, not all impacts can be quantified economically. This is the case of cultural heritage, which is particularly threatened by climate change but requires dedicated solutions due to its own specificities. Cultural heritage is a key priority for adaptation in the COP28 <u>UAE Framework for Global Climate Resilience</u> but has not been addressed by the Mission so far. This is why this action aims to identify and demonstrate solutions that protect and preserve cultural heritage from climate impacts. This topic focuses on tangible (movable and immovable) heritage, and natural heritage with cultural significance.

Innovative and effective solutions are needed to help cultural heritage managers and local communities to prepare the cultural heritage sites, structures, and artefacts against the climate impacts, in a way that safeguards their cultural and historical integrity and acknowledges the importance they hold for present and future generations.

Solutions sought

Proposals should identify, test and demonstrate innovative solutions to protect and preserve cultural heritage from the impacts of climate change and identify possible trade-offs and cobenefits.

The solutions may address different aspects of heritage protection and preservation such as, but not limited to, innovative environmental assessment methodologies, monitoring technologies

and systems, (green) conservation and restoration techniques⁴⁸, risk management and disaster prevention, etc. <u>All</u> of the following aspects should be considered:

- The solutions are expected to be co-designed by all the relevant stakeholders, including heritage managers, regions and local authorities hosting the cultural heritage, and to engage citizens.
- When relevant, nature-based solutions should be explored as a priority
- The solutions should consider the potential interactions and compound effects of different hazards.
- Careful consideration is necessary to avoid maladaptation.

Note that this topic requires the effective contribution of Social Sciences and Humanities (SSH) disciplines.

Demonstration sites and related activities

The Mission encourages collaborations between regional and local authorities facing similar challenges and considers this to be a very efficient approach to secure a large impact. Therefore, the demonstration activities of the proposals:

- Must take place in the territory of **at least 3 different regional or local authorities that host cultural heritage**, each established in a different Member States or Associated Country, with the involvement of these regional or local authorities and of relevant heritage managers (preferably participating in the consortium as a beneficiary or associated partner).
- Should already include at least **3 replicating regional or local authorities from 3 different Member States or Associated Countries**, interested in reapplying the lessons learnt (totally, partially or with the required adjustments) in their territories. For the replication, the consortium could include one or more partners that would provide support for the technical exchanges and the knowledge uptake in the replicating" regions or local authorities. Replicating regions are not necessarily expected to carry out on the ground activities already in the course of the project. However, replicating regions should at least prepare the theoretical framework for replicating the successful solutions and explore means to fund the implementation of those solutions.

Links to the Mission and to other projects and initiatives

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a green conservation approach is minimally harmful to the environment and humans. Aligning with the circular economy, green conservation is decarbonizing, zero-waste, accessible, and available. (GoGreen)

Proposals should build (when relevant) on existing knowledge and adaptation solutions developed by previous projects⁴⁹ and explore synergies with ongoing projects⁵⁰ from EU and national programmes, like the European Partnership for Resilient Cultural Heritage and the Joint Programming Initiative on Cultural Heritage and Global Change.

Synergies with other funding sources (EU and national) are encouraged to identify opportunities to scale up the solutions demonstrated and to foster their broad deployment across Europe through other programmes.

Proposals should include a mechanism and the resources to establish operational links and collaboration with the Mission Implementation Platform (including on monitoring). Projects funded under this topic will be expected to participate in the Mission Community of Practice and to share relevant knowledge to feed the work of the project stemming from HORIZON-MISS-2026-01-CLIMA-02. Proposals are encouraged to (dedicate resources to) link their monitoring to the framework developed by the project <u>UNDERPIN</u>.

Applicants should acknowledge these elements and already account for them in their proposal, making adequate provisions in terms of resources and budget to engage and collaborate with the Mission.

HORIZON-MISS-2026-01-CLIMA-06: Improving climate resilience of navigable inland waterways, their surroundings and related water infrastructure

Call: Supporting the implementation of the Adaptation to Climate Change Mission			
Specific conditions			
Expected EU contribution per project	The Commission estimates that an EU contribution of around EUR 6.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.		
Indicative budget	The total indicative budget for the topic is EUR 12.00 million.		
Type of Action	Research and Innovation Actions		
Legal and financial set-up of the Grant Agreements	The rules are described in General Annex G. The following exceptions apply: Eligible costs will take the form of a lump sum as defined in the Decision of 7 July 2021 authorising the use of lump sum contributions under the Horizon Europe Programme – the Framework Programme for Research and Innovation (2021-2027) – and in actions under the		

⁴⁹ Topics from Horizon Europe's cluster 2 that are particularly relevant include : <u>HORIZON-CL2-2021-HERITAGE-01-01</u>; <u>HORIZON-CL2-2022-HERITAGE-01-08</u>; <u>HORIZON-CL2-2023-HERITAGE-01-01</u>, as well as European Heritage Hub

⁵⁰ See for example, <u>EU's disaster risk management-related</u> capacity building projects

Research and Training Programme of the European Atomic Energy
Community (2021-2025) ⁵¹ .

<u>Expected Outcome</u>: Successful proposals will support the implementation of the EU Adaptation Strategy, the EU Mission on Adaptation to Climate Change, the Water Resilience Strategy, the EU Preparedness Strategy and the upcoming European Climate Adaptation Plan. Proposals are expected to contribute to <u>all of</u> the following outcomes:

- Navigable inland waterways, their surroundings and related infrastructure are managed in a more integrated and sustainable manner across Europe and become more climate-resilient
- Climate and environmental risks to water infrastructure (e.g. droughts, flooding, slow onset events, ecological degradation and cascading and compound events) are more effectively addressed in a systemic way. Safe, efficient and reliable navigability conditions are improved.
- Cost-efficient and environmentally friendly measures -- especially nature-based solutions -- are identified with the involvement of stakeholders. They improve climate resilience of inland waterways while supporting integrated co-benefit and avoiding competing water uses, including between countries and regions.

Scope:

Rationale

There are about 42,000 kilometres of navigable inland waterways in the EU, with a network spanning 25 Member States. In 2022, 122.1 billion tonne-kilometres were transported through inland waters, making up 5,1% of the total land freight transport volumes within the EU. Inland waterways are one of the most carbon efficient mode of transportation for freight and their role should be boosted, as highlighted in the <u>2021 Commission Communication</u> (NAIADES III).

While inland waterways, their surroundings and related infrastructure are at the heart of the green transition, they are also <u>threatened by climate change</u> and ecological degradation, which <u>can cause severe disruptions</u>. Adverse effects of climate change include slow-onset and seasonal changes in water availability and quality, increased flooding and prolonged periods of water scarcity and drought. The goal of this topic is to better understand and improve the climate resilience of navigable inland waterways and related interdependent systems.

Activities of the projects

Projects are expected to address <u>all of</u> the following aspects:

⁵¹ This <u>decision</u> is available on the Funding and Tenders Portal, in the reference documents section for Horizon Europe, under 'Simplified costs decisions' or through this link: <u>https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/ls-</u> <u>decision he_en.pdf</u>

- Address the lack of a common climate modelling framework for EU waterways and improve predictions and projections to optimise waterway management in the short to long term.
- Conduct a comprehensive climate risk assessment of the EU's navigable waterway from the Trans-European Transport network (TEN-T). This assessment should cover mobility, supply chain security, critical infrastructure, geographical and economic interdependencies and multifunctional water resilience.
- Estimate the investments that are required to adapt to climate change, as well as the costs of inaction.
- **Provide actionable information to guide effective climate adaptation solutions,** that maximise co-benefits (including for biodiversity) and ensure integrated management of inland navigable waterways.
- **Develop adaptation solutions** on various waterways. Nature-based solutions and solutions supporting nature restoration should be explored as a priority, in line with the Mission Implementation Plan.
- Enhance stakeholder collaboration mechanisms
- Work closely and coordinate with the other projects funded under this topic, to maximise synergies and avoid duplications.

Links to the Mission and to other projects and initiatives

Proposals should build (when relevant) on existing knowledge and adaptation solutions developed by previous projects⁵² and explore synergies with ongoing projects from EU and national programmes as well as the International River Commissions.

Proposals should include a mechanism and the resources to establish operational links and collaboration with the Mission Implementation Platform (including on monitoring), and other relevant knowledge platforms such as <u>PLATINA4Action</u>. Projects funded under this topic will be expected to participate in the Mission Community of Practice and to share relevant knowledge to feed the work of the project stemming from HORIZON-MISS-2026-01-CLIMA-02.

Applicants should acknowledge these elements and already account for them in their proposal, making adequate provisions in terms of resources and budget to engage and collaborate with the Mission.

⁵² Projects that are particularly relevant include those funded under <u>HORIZON-CL5-2021-D6-01-09</u>, HORIZON-CL5-2026-01-D6-10 or Transport Inland Waterway Portfolio of Connecting Europe Facility (CEF).

HORIZON-MISS-2026-01-CLIMA-07: Demonstrating innovative financing of local adaptation actions with combination of public funding and private financing

Call: Supporting the implementation of the Adaptation to Climate Change Mission		
Specific conditions		
<i>Expected EU contribution per project</i>	The Commission estimates that an EU contribution of around EUR 20.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.	
Indicative budget	The total indicative budget for the topic is EUR 20.00 million.	
Type of Action	Innovation Actions	
Legal and financial set-up of the Grant Agreements	The rules are described in General Annex G. The following exceptions apply: Beneficiaries <u>must</u> provide financial support to third parties. The support to third parties can only be provided in the form of grants. The maximum amount to be granted to each third party is EUR 800,000 ⁵³ to demonstrate deployment and test and demonstrate financing with public funding and private financing of local adaptation actions.	
Exceptional page limits to proposals/applications	The page limit of the application is 70 pages.	

<u>Expected Outcome</u>: In support to the implementation of the EU Adaptation Strategy, the EU Mission on Adaptation to Climate change, and in particular to the upcoming European Climate Adaptation Plan, project results should contribute to <u>all of</u> the following expected outcomes:

- New knowledge is generated on overcoming the practical barriers and finding solutions to enhance financing local adaptation actions from different sources of financing, and in particular via a combination of public grant funding and private bank loans, and specifically through demonstrating this with intermediated EIB adaptation lending.
- Local innovative adaptation actions linked to climate adaptation plans have been brought closer to implementation and have been accelerated thanks to their financing by the combination of private and public financing.

⁵³ Due to the need to demonstrate on the ground in real-life conditions, EUR 60,000 - the maximum amount that can usually be paid to a third party - is an insufficient amount for project promotors to demonstrate deployment of local adaptation actions based on innovation and the financing thereof with combination of public funding and private financing. It is considered that a maximum of EUR 800,000 is more appropriate as this is envisaged to mobilise additional financing to be able to finance local adaptation projects.

• National Promotional Banks/other banks are brought on board to actively finance local adaptation actions.

Scope:

Rationale

Financing of local adaptation actions, especially with private financing, is currently still not taking place sufficiently. Adaptation actions are often not generating revenues, although they produce financial and economic benefits. Local adaptation actions are typically smaller in size, resulting in high transaction costs and insufficient scale for bankability. These are barriers to mobilising private financing. In principle, the financing of adaptation actions can be enhanced by combining public grants with private financing, such as bank loans. However, in reality, more of this combining will need to take place. At the same time, the financial sector struggles with a lack of qualified project pipelines of adaptation actions to finance.

Demonstration and assessment in real-life conditions is still needed on the barriers and solutions to financing local adaptation actions, in particular on combining public and private sources of financing, and innovation work on the financing of local adaptation actions.

Financing is one of the <u>key enabling conditions of the Adaptation Mission</u>. This action should produce financing combinations of grants and loans that could be later used elsewhere and/or scaled up.

The role of National Promotional Banks (NPBs) and other banks for financing local adaptation is, for reasons of size of and closeness to the local action, important and should, in view of the enormous amounts of financing required for adaptation and climate resilience⁵⁴, grow in importance as quickly as possible.

The European Investment Bank

The European Investment Bank (EIB) as the EU Climate Bank is working jointly with the Commission on addressing the barriers to adaptation financing, through both its lending and advisory assistance, in line with the EIB Climate Adaptation Plan and the EIB Climate Bank Roadmap. The EIB supports the Adaptation Mission.

In this context, through multi-beneficiary intermediated loans with a Climate Action and Environmental Sustainability window, the EIB will make intermediated lending available to National Promotional Banks and other banks for climate adaptation projects.

To support this action, the EIB will, from its existing available resources, make available technical assistance/adaptation advisory support on the local adaptation actions for the National

⁵⁴ Estimated annual adaptation costs range from EUR 15bn to EUR 500bn for the EU. (0.1-0.4 percent of EU GDP) to 2030, with a median estimate around EUR 21 bn, World Bank Group, 2024. Climate Adaptation Costing in a Changing World. Economics for Disaster Prevention and Preparedness; and EIB, 2021. The EIB Climate Adaptation Plan. Supporting the EU Adaptation Strategy to build resilience to climate change

Promotional/other banks (under the InvestEU Advisory Hub's Green Gateway programme) and/or for the project promoters (under the ADAPT platform, subject to eligibility).

For the purpose of this action, the EIB will furthermore offer the selected project and consortium guidance and share knowledge and experience to support the successful implementation of the project.

This action with the EIB supports the follow-up to the <u>July 2023 Communication on EU</u> <u>Missions assessment</u>.

Activities of the project

Proposals should demonstrate innovative local adaptation actions and the financing thereof by combining public grants obtained via financial support to third parties (FSTP) with private financing, and increase the knowledge on the barriers to such financing and practical solutions to overcome these barriers.

The project will be required to address <u>all of the following</u>:

1. Provide FSTP in the form of grants to project promotors, to demonstrate innovative local adaptation actions in the EU and demonstrate their financing by combining public grant funding and loan financing via intermediated EIB adaptation loans, with scale up and replication potential.

At least 80% of the total amount of the EU requested contribution should be for financial support to third parties. The (first) cascade call should be launched in the first 12 months of the project. Proposals must describe how they intend to provide financial support to third parties, in accordance with the FSTP Annex provided with the application form. They should also specifically take account of provisions on 'financial support to third parties' set out in General Annex B and incorporate them into the proposal. While remaining as simple as possible, proposals should specifically consider elements within the FSTP scheme to address geographical balance and inclusivity/equity. The project retained for granting is expected to hold dedicated exchanges with CINEA and the Mission Secretariat during the preparation of the cascade funding call(s).

Local adaptation projects should have a size between EUR 500.000 and EUR 10 million.

2. Carry out innovation work on financing and assessing and drawing lessons from the financing of the above local adaptation actions from the different sources of financing, and in particular with combining grants and the bank loans. This covers at least the following:

- Capture and analyse the barriers encountered in the financing of the local adaptation actions, covering all sources of financing that are being combined to finance the local adaptation actions, including the combination of public funding and bank loans, and propose practical ways to overcome these.
- Analyse how the EU taxonomy is being applied.

- Collect lessons learnt.
- Provide examples of good practices, including through short case studies of successful projects, and recommendations, at least on successfully combining public and private financing, and on the appropriate proportion and conditions of public funding, and appropriate combination of grant/loan.
- Publish on this for the benefit of regional and local authorities within the Mission and beyond.

Proposals should demonstrate the experience in financing in the consortium.

The consortium is encouraged to consult / involve NPBs and other banks as stakeholders. The consortium is expected to work closely with the EIB.

The subgrantees (Third Parties receiving Financial Support)

The subgrant call should be open to any public or private entities, including SMEs.

The subgrantees should demonstrate innovative local adaptation actions and demonstrate their financing via combining public and private financing, in particular the combination of grants and bank loans.

To achieve the testing and demonstrating at small scale throughout the EU under this action, for the loan element, EIB intermediated lending will be used. Therefore, eligible third parties are project promoters that before applying for the subgrant should have received a written offer (subject to contract) from a National Promotional Bank/other bank of a loan to finance the adaptation project that is in line with Climate Action and Environmental Sustainability criteria under an EIB intermediated finance contract.

In this manner, the National Promotional Banks/other banks will have assessed that all the local adaptation projects meet the same EIB strict requirements for adaptation projects. (The EIB eligibility criteria include that the local adaptation actions should address specific climate risks identified as relevant by the regional or local authority and be in line with the relevant adaptation strategy or plan.)

The adaptation projects will, before applying for the subgrant, have been appraised by the National Promotional Bank/other bank and assessed as viable and that the objectives of the adaptation project will be achieved.

The National Promotional Banks and other banks will be able to facilitate access for project promoters to the combination of financing, and activate the origination and financing of local adaptation actions in the different Member States.

In line with the Mission Implementation Plan, for the local adaptation actions, Nature-Based Solutions should be explored as preferred options where feasible.

Links to the Mission and to other projects

Proposals should build when relevant on existing knowledge developed by previous projects and when relevant explore synergies with ongoing projects from EU and national programmes⁵⁵. Proposals should include a mechanism to establish operational links and collaboration with the Mission Implementation Platform (including on monitoring). The project funded under this topic will be expected to participate in the Mission Community of Practice and to share relevant knowledge for regional and local authorities through the Mission. Applicants should acknowledge these requests and already account for them in their proposal, making adequate provisions in terms of resources and budget to engage and collaborate with the Mission.

HORIZON-MISS-2027-01-CLIMA-01: Demonstrating transformative solutions to increase transborder climate resilience

Call: Supporting the implementation of the Adaptation to Climate Change Mission				
Specific condition	Specific conditions			
Expected EU contribution per project	The Commission estimates that an EU contribution of between EUR 10.00 and 15.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.			
Indicative budget	The total indicative budget for the topic is EUR 72.32 million.			
Type of Action	Innovation Actions			
<i>Eligibility</i> <i>conditions</i>	The conditions are described in General Annex B. The following exceptions apply: The following additional eligibility criteria apply: Demonstration activities must take place in at least 2 distinct transborder demonstration sites located in EU Member States or Associated Countries.			

<u>Expected Outcome</u>: In support to the implementation of the EU Adaptation Strategy, the EU Mission on Adaptation to Climate Change and the EU Preparedness Union Strategy and contributing to the upcoming European Climate Action Plan, project results are expected to improve adaptative capacities of European internal border regional and local authorities, allowing them to jointly address with their neighbours the pressing climate risks.

Projects results should contribute to <u>all</u> of the following outcomes:

• Climate resilience solutions for transborder risks have been developed and demonstrated.

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In particular, the projects selected under HORIZON-MISS-2024-CLIMA-01-06, and HORIZON-MISS-2025-01-CLIMA-05.

- Regional and local authorities from each side of country borders are better prepared to withstand jointly the impacts of climate change, including systemic risks and cascading effects.
- National, regional and local authorities are taking on shared responsibilities and are actively involved in the development and testing of innovative solutions to deal with transborder climate risks.

Scope:

Rationale

Transborder risks⁵⁶ and cooperation are crucial in the European Union, where 37.5% of the EU population lives in border areas, spanning 38 intra-EU borders that often involve both administrative and linguistic divides⁵⁷. While adaptation plans are usually prepared within a single territory (e.g. at national, regional or local levels), climate risks do not stop at the borders. For instance, around 70% of Europe's freshwater bodies are part of international river basins, making flooding and droughts typical transborder risks. Similarly, wildfires pose a significant transborder threat, as they can spread rapidly across national borders, affecting multiple countries simultaneously. The same applies to transborder coastal areas affected by sea level rise and coastal erosion.

To be truly resilient, European regional and local authorities therefore need to integrate their action with their neighbours and consider seriously the transborder dimension of climate risks.

Solutions sought

Proposals should develop, test and demonstrate approaches and innovative solutions relevant for transborder risks, leading to an increase of climate resilience in transborder regions.

Moreover, particular attention should be given to coordination between the national and regional governance aspects of the bordering regions. Services to better predict, monitor and report on transborder climate events should be explored as a first step.

Projects will be required to address <u>all of</u> the following:

- Address **at least one relevant transborder climate risk** (e.g. water scarcity, flooding, storms, wildfires, sea level rise) but are strongly encouraged to address risks systemically and to cover cascading and compound risks;
- Develop, and demonstrate a **common classification** of the climate risks and define what level of risks are acceptable across the national border.

⁵⁶ In this context, transborder risk is understood as risk spanning the border between two or more countries and affecting both or all areas.

⁵⁷ JRC 2024 <u>Cross-border and emerging risks in Europe</u>

- Develop and demonstrate **innovative integrated solutions** to make both sides of the border climate resilient. Those solutions should cover transborder **governance and/or socio-economic** aspects (but are not limited to that).
- For the successful implementation of the solutions and to ensure their sustainability beyond the duration of the project, the development and testing of the proposed solutions should be **embedded**, as much as possible in the adaptation planning of the regional or local authority participating in the project and/or in national plans.

Note that this topic requires the effective contribution of Social Sciences and Humanities (SSH) disciplines.

Demonstration sites and related activities

The Mission encourages collaborations between regional and local authorities facing similar challenges and considers this to be a very efficient approach to secure a large impact. Therefore, the demonstration activities of the proposals:

- Must take place in at **least two distinct transborder demonstration sites** located in EU Member States or Associated Countries. The demonstration areas must span adjacent regions on both sides of a national border, fostering cross-border collaboration. Regional or local authorities in these areas should actively participate in the project, ideally as beneficiaries or associated partners within the consortium.
- Should include at least 1 "replicating" site spanning adjacent regions on either side of a national border, located in Member States or Associated Countries, interested in reapplying the lessons learnt (totally, partially or with the required adjustments) in their territories. For the replication, the consortium could include one or more partners that would provide support for the technical exchanges and the knowledge uptake in the "replicating" regions or local authorities. Replicating regions are not necessarily expected to carry out on the ground activities already in the course of the project. However, replicating regions should at least prepare the theoretical framework for replicating the successful solutions and explore means to fund the implementation of those solutions.

Links to the Mission and to other projects and initiatives

Proposals should build (when relevant) on existing knowledge and adaptation solutions developed by previous projects and explore synergies with ongoing projects from EU and national programmes⁵⁸.

Synergies with other funding sources (EU and national) are encouraged to identify opportunities to scale up the solutions demonstrated and to foster their broad deployment across Europe through other programmes.

Proposals should include a mechanism and the resources to establish operational links and collaboration with the Mission Implementation Platform (including on monitoring). Projects

⁵⁸ Interreg is particularly relevant for this topic

funded under this topic will be expected to participate in the Mission Community of Practice and to share relevant knowledge to feed the work of the project stemming from HORIZON-MISS-2026-01-CLIMA-02.

All projects funded under this topic should work together as a cluster (under the umbrella of the Mission), coordinate their activities and align their outputs as much as possible to maximise their impact.

Proposals are encouraged to (dedicate resources to) 1) link their monitoring to the framework developed by the project <u>UNDERPIN</u>; 2) to rely on the (updated) <u>CLIMAAX framework</u> for their climate risk assessments.

Applicants should acknowledge these elements and already account for them in their proposal, making adequate provisions in terms of resources and budget to engage and collaborate with the Mission.

HORIZON-MISS-2027-01-CLIMA-02:	Researching	and	applying	the	potential	of
Artificial Intelligence to foster climate resilience at the regional and local levels						

Call: Supporting th	Call: Supporting the implementation of the Adaptation to Climate Change Mission Specific conditions	
Specific conditions		
Expected EU contribution per project	The Commission estimates that an EU contribution of around EUR 3.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.	
Indicative budget	The total indicative budget for the topic is EUR 12.00 million.	
Type of Action	Research and Innovation Actions	
Procedure	The procedure is described in General Annex F. The following exceptions apply: To ensure a balanced portfolio covering both objectives, grants will be awarded to proposals not only in order of ranking but at least also to one proposal that is the highest ranked within each objective, provided that the applications attain all thresholds. To this purpose, the objective addressed by the proposal should also be specified in the free keywords section of the proposal (e.g. 'objective 1' or 'objective 2').	
Legal and financial set-up of the Grant Agreements	The rules are described in General Annex G. The following exceptions apply: Eligible costs will take the form of a lump sum as defined in the Decision of 7 July 2021 authorising the use of lump sum contributions	

	under the Horizon Europe Programme – the Framework Programme
	for Research and Innovation (2021-2027) – and in actions under the
	Research and Training Programme of the European Atomic Energy
	Community (2021-2025) ⁵⁹ .

<u>Expected Outcome</u>: AI has the potential to support or facilitate virtually every aspect of regions' climate adaptation efforts. From risk assessment to climate forecasting, from infrastructure planning to resource management, and more. Contributing to the objectives of the <u>AI Continent</u> <u>Action Plan</u> and the EU Mission on Adaptation to Climate Change, projects are expected to contribute <u>one</u> of the following:

- AI is used to improve actionable climate adaptation knowledge for European regions and local authorities by integrating climate data into decision-making processes.
- Specific sectors in the selected regions become more resilient to climate change thanks to the use of AI to improve their processes or technologies, while simultaneously advancing their digital transformation.

Scope: Rationale

Over the past few years, a rapid and disruptive acceleration of progress in Artificial Intelligence has occurred, driven by significant advances in widespread data availability, computing power and machine learning⁶⁰. While the potential of Artificial Intelligence is being uncovered each day and its possibilities are expanding exponentially, such technological revolution can significantly accelerate Europe's efforts towards climate resilience and contribute to the objectives of the Adaptation Mission.

Considering the ever-changing nature of AI growth, proposals should demonstrate that they go beyond state of the art, they should identify a specific gap that can be addressed by an AI-powered tool, and explain why it would <u>improve existing</u> models, tools or applications or, alternatively, justify the need to develop entirely new solutions.

In particular, the proposal should address <u>one</u> of the following two objectives:

Objective 1: "AI for more accessible data"

AI can quickly process and identify patterns from big datasets that would otherwise be too complex. Proposals should explore how AI can be further integrated, including via AI techniques such as deep learning, to make data more accessible and understandable, to facilitate informed decision-making by regions and local authorities. Improvements should be tested with **at least 3 regional and local authorities** to ensure that they provide a concrete added value to

⁵⁹ This <u>decision</u> is available on the Funding and Tenders Portal, in the reference documents section for Horizon Europe, under 'Simplified costs decisions' or through this link: <u>https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/ls-</u> <u>decision he en.pdf</u>

⁶⁰ COM(2024) 28 final

end-users (i.e. decision-makers). Moreover, proposals are expected to apply such analysis to concretely improve data integrity and accessibility⁶¹.

Objective 2: "AI for sectoral adaptation"

Use and application of machine learning and AI tools to help regions and local authorities optimize their management of resources and improve adaptation technologies in key sector(s). Proposals should develop and test the tools in the territory of **at least 5 regional or local authorities**. The work should engage private sector actors with relevant expertise in the sector chosen (e.g. smart agriculture, construction and buildings sector, water management, waste management, transports, resilience of energy systems, etc.), to ensure that such AI-powered tools are designed for scalability and uptake.

Regardless of the objective addressed, all proposals should provide training and dissemination material for different target groups, including regions and local authorities, on how to best take advantage of the AI-powered improvements. Attention should be given to avoiding biases and ensuring that the data is representative of diverse populations, as well as taking into account possible limitations and potential misinformation when using generative AI tools.

To ensure a balanced portfolio covering both objectives, grants will be awarded to proposals not only in order of ranking but at least also to one proposal that is the highest ranked within each objective, provided that the applications attain all thresholds. To this purpose, the objective addressed by each proposal should also be specified in the free keywords section of the proposal (e.g. 'objective 1' or 'objective 2').

Links to the Mission and to other projects and initiatives

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Proposals should include a mechanism and the resources to establish operational links and collaboration with the Mission Implementation Platform (including on monitoring), and other relevant knowledge platforms. Projects funded under this topic will be expected to participate in the Mission Community of Practice and to share relevant knowledge to feed the work of the project stemming from HORIZON-MISS-2026-01-CLIMA-02.

Proposals are encouraged to (dedicate resources to) 1) link their monitoring to the framework developed by the project <u>UNDERPIN</u>; 2) to rely on the (updated) <u>CLIMAAX framework</u> for their climate risk assessments, where relevant.

Applicants should acknowledge these elements and already account for them in their proposal, making adequate provisions in terms of resources and budget to engage and collaborate with the Mission.

This could include, where relevant, the use or enhancement of Destination Earth (DestinE) data, tools and/or services, to be identified in the proposal.

Adaptation to Climate Change: Other Actions

1. Sustaining the efforts of the Mission Implementation Platform for the Adaptation to Climate Change Mission as service provider to contribute to the Mission goals by 2030

Under this public procurement, the following services are expected to be provided:

- Well-coordinated support to the daily operation and different activities of the Adaptation to Climate Change Mission, providing a quality service to the European Commission in the broad range of activities involved with the implementation of the Mission. This support could also be called upon, whenever relevant, to facilitate interactions with the Mission Board and the National Adaptation Hubs.
- Coordination, facilitation, proactive steering of the Mission Community of Practice, in all its articulations (such as virtual and physical events, thematic working groups etc.), proving engaging involvement and opportunities for exchanges for all climate resilience involved actors, in relation to the actions they are undertaking in the field of climate resilience building. Specific attention should be given to the two categories of: regional and local actors on one side and active participants in the Mission project portfolio on the other.
- Overall communication on the Mission (including under the steer of the European Commission), its results and main achievements on the ground, through the different relevant channels, including the Mission Portal, towards citizens broadly and towards specific target audiences, helping to identify and create synergies and add value to communication, dissemination and exploitation activities of individual projects of the Mission's portfolio, boosting their scientific, societal and economic impacts. Particular attention should be given to communication of all information (e.g. newsletter etc) in national languages as the language barrier remains an important barrier for regional and local stakeholders and citizens.
- Organisation of the annual Mission forum and eventual smaller regional events as the key get together moments for all the Mission stakeholders, catering for all related logistics and communication. In view of the growing portfolio of Mission Projects, attention should be given to creating synergies at events whenever possible, for examples by means of coorganisation or co-hosting.
- On the ground support to regions and local authorities participating in the Mission for the organisation of events in their territories involving citizens and stakeholders with the purpose to raise awareness to climate preparedness.
- Continuous and ad hoc monitoring of the Mission performance and delivery and assistance to the European Commission in relation to any Mission evaluation, by maintaining and improving the current monitoring framework, further refining monitoring tools and KPI for the Mission, producing timely reporting on progress.

Form of Funding: Procurement

Type of Action: Public procurement

Indicative timetable: Q2 of 2027

Indicative budget: EUR 10.00 million from the 2027 budget

Cancer: Supporting the implementation of the Cancer Mission

The goal of the EU Cancer Mission⁶² is: 'to improve the lives of more than 3 million people by 2030, through prevention, cure and for those affected by cancer including their families, to live longer and better'. The four EU Cancer Mission objectives are: Understand; Prevent what is preventable; Optimise diagnosis and treatment; Support quality of life. Its five transversal priorities are: ensure equitable access in all aforementioned areas, innovation, childhood cancer, personalised medicine and citizen engagement. The EU Cancer Mission will address all cancers including poorly-understood cancers⁶³ in men and women, cancers in children, adolescents and young adults (CAYA) as well as in older people, cancers in socio-economically vulnerable populations, living in either cities, rural or remote areas, across all EU Member States and Associated Countries.

The implementation plan specifies the goal and four main objectives as well as implementation details of the EU Cancer Mission⁶⁴.

The EU Cancer Mission is implemented using a health-in-all policies approach;⁶⁵ through infrastructure support; regional, social and citizen community development; through investments; support and commitments from public and private sources, including from EU Member States, Associated Countries and industry; through cooperation with third countries; and through synergies with other EU programmes including EU4HEALTH, EURATOM, Digital Europe (for example the Genomics Data Infrastructure⁶⁶ and the Cancer Image Europe initiative⁶⁷, Erasmus+, the EU Strategic Framework on Health and Safety at Work 2021-2027, and other initiatives related to health and cancer.

The EU Cancer Mission is closely aligned with the Europe's Beating Cancer Plan, contributing directly to its implementation such as several of its flagship actions.

The EU Cancer Mission will directly contribute to the EC priorities outlined in the political guidelines for 2024-2029, of supporting people, strengthening our societies and our social model by improving the lives of people at risk of cancer and the quality of life of cancer patients, for example through citizen engagement and empowerment, earlier and more precise therapies, and improvement of palliative care.

⁶² <u>https://research-and-innovation.ec.europa.eu/funding/funding-opportunities/funding-programmes-and-open-calls/horizon-europe/eu-missions-horizon-europe/eu-mission-cancer_en</u>

 ⁶³ Includes refractory cancers or cancer subtypes, at any stage of the disease, in any age group and part of society with a 5-year overall survival that is less than 50% from time of diagnosis
 ⁶⁴

<u>https://ec.europa.eu/info/sites/default/files/research_and_innovation/funding/documents/cancer</u> implementation_plan_for_publication_final_v2.pdf

 ⁶⁵ Health-in-All Policies is an approach to public policies across sectors that systematically takes into account the health implications of decisions, seeks synergies, and avoids harmful health impacts in order to improve population health and health equity. https://www.who.int/social_determinants/publications/health-policies-manual/key-messages-en.pdf
 ⁶⁶ https://gdi.onemilliongenomes.eu/

⁶⁷ https://cancerimage.eu/

It will also contribute to initiatives outlined in the Mission letter of Commissioner Zaharieva⁶⁸, such as the Strategy for European Life Sciences and boosting European Research Infrastructure.

It also relates to the European Green Deal, including the Zero Pollution Action Plan⁶⁹ and the Farm to Fork strategy⁷⁰. The mission proposes research, innovation and policy directions and objectives to identify effective strategies for the development and implementation of cancer prevention, including on environmental factors (e.g. exposure to carcinogens, air pollution, unhealthy diet, nutrition, and low physical activity).

Furthermore, it is in line with the industrial⁷¹ and digitalisation strategy⁷². The Mission proposes a further upscaling and digitalisation of services, innovation in diagnostics and interventions, and establishing living labs, contributing to the positive impact of efforts by industry and SMEs on the health of citizens. Envisaged opportunities are in the fields of cancer biomarkers, cloud computing and digital applications, and smart apps/sensors. The Mission also supports the integration of AI, machine learning and deep learning approaches to facilitate a better understanding of cancer, to improve prevention, screening and early detection, diagnosis and treatment, clinical decision-making, administration of combinational therapies, and clinical management of patients living with and after cancer.

In line with the EU Missions' Action Plan, the Work Programme will also seek to strengthen synergies with other initiatives within Horizon Europe – in particular, several partnerships, the European Innovation Council and EIT Health – as well as with other public and private third-party funding and investments including national cancer funders and charities.

Calls for proposals under this Mission should contribute to setting out a credible pathway for implementing the EU Cancer Mission, thereby contributing to mission objectives.

Successful proposals under this Mission should set out a credible pathway to contribute to improving cancer control, and more specifically to all of the following impacts:

- Improve understanding of cancer in the context of the environment, work, and lifestyle in the broadest possible sense;
- Enhance cross-policy cancer prevention, screening and early detection strategies;
- Optimise the diagnosis and treatment of cancer based on the principle of equitable access;
- Improve the quality of life of cancer patients, survivors and their families through widely analysing all key factors and needs that are related to the quality of life;

⁶⁸ <u>130e9159-8616-4c29-9f61-04592557cf4c_en</u>

⁶⁹ Particularly the Flagship 1 of the Zero Pollution Action Plan: "Reducing health inequalities through zero pollution"

⁷⁰ <u>https://ec.europa.eu/food/farm2fork_en</u>

⁷¹ <u>https://ec.europa.eu/info/strategy/priorities-2019-2024/europe-fit-digital-age/european-industrial-strategy_en</u>

⁷² https://ec.europa.eu/info/strategy/priorities-2019-2024/europe-fit-digital-age_en

• Accelerate the digital transformation of research, innovation and health systems.

In the call for proposals described below, the Commission envisages several actions⁷³:

WP2026-2027

For 2026 and 2027, on the EU Cancer Mission objective *Understanding*, the Commission envisages to support actions on virtual human twin models (VHTs) for advancing the knowledge and understanding of cancer onset and progression, as well as actions on functional genomics in cancer research to increase the understanding of the initiation and evolution of the disease.

On the EU Cancer Mission objective *Prevention and early detection*, the Commission envisages actions to support development of microbiome tools for cancer prevention.

On the EU Cancer Mission objective *Diagnosis and treatment*, the Commission will support clinical trials for rare cancers, actions improving health outcomes of cancer patients by targetting health economics, health systems and outcomes research and actions to support cheaper medicines, medical devices and technologies.

On the EU Cancer Mission objective *Quality of life*, the Commission envisages to support the quality of life of older patients with cancer and to support actions for earlier and more precise palliative care for cancer patients. Furthermore, an action to support young cancer survivors through fostering collaboration of national and regional funders and philanthropies is envisaged. Also, an innovation action to further develop the European Cancer Patient Digital Centre to include a specific module to boost mental health of young cancer patients and survivors, in line with the ambitions of the EU Comprehensive Approach to mental health.

Lastly, the Commission will support Ukraine's cancer research infrastructure through mutual learning initiatives and implementation of research activities, with emphasis on cancer in children, adolescents and young adults.

Proposals are invited against the following topic(s):

HORIZON-MISS-2026-02-CANCER-01: Virtual Human Twin (VHT) Models for Cancer Research

Call: Supporting the implementation of the Cancer Mission		
Specific conditions	specific conditions	
Expected EU contribution per project	The Commission estimates that an EU contribution of between EUR 8.00 and 9.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.	

⁷³ The listed areas for potential actions are tentative and non-binding

Indicative budget	The total indicative budget for the topic is EUR 35.00 million.
Type of Action	Research and Innovation Actions

Expected Outcome: Proposals under this topic should aim to deliver results that are directed and tailored towards and contribute to all of the following expected outcomes:

- Researchers of different disciplines use advanced multiscale Virtual Human Twins (VHTs) to expand the knowledge and understanding of cancer onset and progression
- Healthcare professionals and researchers have access to advanced VHT-based solutions that model cancer onset and progression over time contributing to improve personalised treatments
- Researchers, healthcare professionals, innovators and citizens have access to cancer VHTs through the UNCAN.eu and the advanced Virtual Human Twin platforms

<u>Scope</u>: Virtual human twins (VHTs) are digital representations and in-silico models of an individual's health and disease at different levels of the human anatomy (e.g. cells, tissues, organs or organ systems) for the prevention, prediction, screening, diagnosis and treatment of a disease, as well as the selection and personalisation of intervention options⁷⁴.

The proposed topic will contribute to the EU Cancer Mission objectives by improving the accuracy of dynamic and multiscale VHTs to better understand cancer onset and predict progression through time and by increasing their use and efficacy for developing better personalised oncology treatments. Of particular interest for this topic are cancers with limited treatment options or unclear biological mechanisms, refractory cancers, rare cancers, early-onset cancers, cancer types with low five-year survival rates, or paediatric and adolescent cancers⁷⁵.

Applicants should take advantage of technological advances in (generative) AI tools which open new opportunities to collect, combine and analyse large datasets of diverse types, including multi-omics patient data, tumour molecular profiles, immune profiles, medical images and real word data. Age sex and gender differences should be duly considered. When relevant, proposals should build on current approaches, standards, data repositories and use modelling assets including but not limited to those provided by the future Advanced VHT Platform⁷⁶, the European Open Science Cloud⁷⁷, the European 1M+ Genomes⁷⁸ and the European Cancer Imaging initiatives⁷⁹

⁷⁴ See the 'European Virtual Human Twin' Coordination and Support Action, EDITH, funded under the DIGITAL programme <u>https://www.edith-csa.eu/</u>

⁷⁵ Age at first diagnosis 0-19 years

⁷⁶ <u>https://digital-strategy.ec.europa.eu/en/funding/platform-advanced-virtual-human-twin-vht-models</u>

⁷⁷ https://research-and-innovation.ec.europa.eu/strategy/strategy-research-and-innovation/our-digitalfuture/open-science/european-open-science-cloud-eosc_en

⁷⁸ <u>European '1+ Million Genomes' Initiative | Shaping Europe's digital future</u>

⁷⁹ European Cancer Imaging Initiative | Shaping Europe's digital future

The applicants should address all of the following activities:

- To develop innovative, dynamic multiscale VHTs for advancing the mechanistic knowledge and understanding of cancer onset and progression and develop or improve innovative personalised treatments. VHTs should integrate (generative) AI tools for the analysis of large volumes of FAIR (Findable, Accessible, Interoperable, Reusable) multimodal data, increasing their predictive capability and, when appropriate, utilise IT solutions for model visualisation via Augmented Reality/Virtual Reality.
- To update and validate VHTs with longitudinal newly collected or existing FAIR patient data and generate evidence that VHT models can deliver clinically meaningful observations to improve treatment of the studied cancer type, demonstrating VHT accessibility and usability for clinical uptake. The use of data and services provided by ESFRI research infrastructures in the life science domain⁸⁰ should be considered when appropriate.
- To enrich and make available data and model assets in the UNCAN.eu research platform and in the Advanced VHT Platform following the principles of open science. Newly collected patient datasets must be described with metadata records in the EU dataset catalogue of the European Health Data Space.
- Collaboration among different scientific disciplines, including healthcare professionals throughout all stages of VHTs development is envisaged⁸¹.

Successful proposals will be asked to join the 'Understanding' project cluster of the EU Cancer Mission⁸² and should include a budget for networking, attendance at meetings and joint activities⁸³. The Commission will facilitate coordination of this activity. Collaboration is encouraged also with Horizon Europe projects supporting the VHT initiative⁸⁴, as appropriate.

Applicants envisaging to include clinical studies should provide details in the dedicated annex using the template provided in the submission system.

⁸⁰ https://lifescience-ri.eu/home.html

⁸¹ Proposals should include an appropriate mix of stakeholders from various disciplines and sectors, including but not limited to medical doctors, patient representatives, health-IT experts, researchers, AI-experts, solution providers, academia and research institutes, EU research infrastructures, and SMEs

⁸² In order to address the objectives of the Cancer Mission, participants will collaborate in project clusters to leverage EU-funding, increase networking across sectors and disciplines, and establish a portfolio of Cancer Mission R&I and policy actions

⁸³ Examples of those activities are organising joint workshops, establishing best practices, joint communication or citizen engagement activities with projects funded under other clusters and pillars of Horizon Europe, or other EU programmes, as appropriate. Proposals are not required to include details of these activities, as they will be defined during the grant agreement preparation and during the life of the project

⁸⁴ Including the projects funded under call HORIZON-HLTH-2023-TOOL-05-03, https://hadea.ec.europa.eu/calls-proposals/horizon-europe-health-calls-2023-destination-5-unlockingfull-potential-new-tools-technologies-and_en

HORIZON-MISS-2026-02-CANCER-02: Microbiome for early cancer prediction before the onset of disease

Call: Supporting the implementation of the Cancer Mission		
Specific conditions		
Expected EU contribution per project	The Commission estimates that an EU contribution of around EUR 15.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.	
Indicative budget	The total indicative budget for the topic is EUR 15.00 million.	
Type of Action	Research and Innovation Actions	

Expected Outcome: Proposals under this topic should aim to deliver results that are directed and tailored towards and contribute to all of the following expected outcomes:

- Healthy people and in particular people at risk will benefit from microbiome tests and programmes that can discover early on, and predict their transition to cancer **before** the onset of disease.
- People will have a better understanding of risks and will be enabled to address risks early by following treatments or adapting their lifestyles, including nutrition and other interventions.
- Physicians will be able to start cancer treatments earlier with a higher success rate.
- Policy makers and authorities will be enabled to develop and implement advanced and strategic programmes addressing cancer prevention.

<u>Scope</u>: This topic will contribute to the achievement of the EU Cancer Mission's objective to achieve better cancer prevention. The focus is on the development of validated microbiome tools, an assessment of predispositions, the comparison with other predictive tools and risk modelling approaches.

Cancer often develops over several years and progresses silently before symptoms appear. Some cancers are diagnosed at a very late stage, when the disease is nearly incurable. Early and sensitive biomarkers are beneficial for preventive strategies and the survival of patients especially when tests are minimally invasive and simple to perform. The human microbiome is correlated with this process of oncogenesis and tumour progression. The deterioration of the human microbiome towards dysbiosis should be monitored and used as an early predictive biomarker. The potential of the microbiome should be exploited to deliver important contributions to cancer prevention and early detection strategies especially for high-risk patients.

Prevention of cancer through early detection is most efficient in fighting cancer and saving lives. Large microbiome biobanks and registries exist at national and international levels to collect and store microbial samples with the intention to analyse and share microbiome data for research and healthcare. The One Million Microbiomes from Human Project has been launched by several countries to build the largest human microbiome high quality database and to provide advanced life science tools for future healthcare.

The intention is to accelerate the translation of microbiome knowledge to predict and prevent cancer earlier before the onset of disease through the development of personalised approaches and tools. The promise of these tools is evident because people could anticipate cancer while they would still have time to act before the onset of the disease. In case of certain types of cancer, earlier chemotherapy, surgery or transplantations could save lives or even cure patients in line with the goal of the EU Cancer Mission.

The tools should be based on the collection of a high number of longitudinal samples over several years, they should be validated and their prediction power compared with other minimally invasive (liquid biopsy) tests. To use the resources most efficiently, the tools should be supported by risk modelling approaches and AI technologies.

Proposals should address all of the following:

- Development of microbiome tools for earlier, better and personalised prediction and prevention of cancer before the onset of the disease; if possible 2 years before the onset of the disease. Proposals should deal with several types of cancer if possible.
- Assessments of predispositions, AI risk modelling approaches and organ/body simulations.
- Collaboration with large cohorts/registries from different communities, usage of existing microbiome and clinical data in combination with and generation of new data. These data could include other predictive signs such as sensations of fatigue, unusual pain, weight loss or other body changes.
- Citizen engagement could be included with data and sample collections as well as educational programmes.
- Comparison with other minimally invasive liquid biopsy and other tests concerning their predictive power, simplicity, cost-benefits and potential for commercialisation.
- Validation of the tests in an independent cohort. Development of guidelines that help to manage risk factors such as lifestyle or diet. The expertise from the International Cancer Microbiome Consortium could be beneficial for the reliability of the tests and guidelines to be developed. Age, sex and gender differences should be duly considered.

Successful proposals will be asked to join the 'Prevention and Early Detection' project cluster of the EU Cancer Mission⁸⁵ and should include a budget for networking, attendance at meetings and joint activities⁸⁶. The Commission will facilitate coordination of these activities.

HORIZON-MISS-2026-02-CANCER-03: Pragmatic clinical trials to optimise immunotherapeutic interventions for patients with refractory cancers

Call: Supporting the implementation of the Cancer Mission		
Specific conditions	Specific conditions	
Expected EU contribution per project	The Commission estimates that an EU contribution of between EUR 6.00 and 9.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.	
Indicative budget	The total indicative budget for the topic is EUR 22.20 million.	
Type of Action	Research and Innovation Actions	
Legal and financial set-up of the Grant Agreements	The rules are described in General Annex G. The following exceptions apply: Eligible costs will take the form of a lump sum as defined in the Decision of 7 July 2021 authorising the use of lump sum contributions under the Horizon Europe Programme – the Framework Programme for Research and Innovation (2021-2027) – and in actions under the Research and Training Programme of the European Atomic Energy Community (2021-2025) ⁸⁷ .	

Expected Outcome: Proposals under this topic should aim to deliver results that are directed and tailored towards and contribute to all of the following expected outcomes:

• Patients with refractory cancers and their caregivers will have access to optimised, tailored and affordable immunotherapeutic interventions that increase their quality of life, across European regions, EU Member States and Associated Countries;

⁸⁵ In order to address the objectives of the EU Cancer Mission, participants will collaborate in project clusters to leverage EU-funding, increase networking across sectors and disciplines, and establish a portfolio of EU Cancer Mission R&I and policy actions.

⁸⁶ examples of these activities are research or research capacity, organising joint workshops, establishing best practices, joint communication or citizen engagement activities with projects funded under other clusters and pillars of Horizon Europe, or other EU programmes, as appropriate. Proposals are not required to include details of these activities, as they will be defined during the grant agreement preparation and during the life of the project.

⁸⁷ This <u>decision</u> is available on the Funding and Tenders Portal, in the reference documents section for Horizon Europe, under 'Simplified costs decisions' or through this link: <u>https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/ls-</u> <u>decision he en.pdf</u>

- Healthcare professionals and academia will have access to clinical evidence, on effectiveness of immunotherapeutic interventions, to deploy evidence-based treatment interventions with improved patient selection that improve outcomes in real life i.e. in routine healthcare, for patients with refractory cancers who often present with co-morbidities;
- National healthcare providers, policymakers and authorities in European regions, EU Member States and Associated Countries will have the evidence to implement and reimburse optimised and affordable immunotherapeutic interventions in their healthcare systems, including in everyday medical practice.

<u>Scope</u>: While cancer research and innovation have generated novel treatment options, patients with refractory cancers across Europe need access to more effective, affordable and tailored cancer immunotherapeutic interventions which keep up with increasing demands in a complex and fragmented oncology healthcare landscape with spiralling healthcare costs.

Pragmatic clinical trials focus on choosing between care options. Pragmatic trials evaluate effectiveness of interventions in settings that more closely resemble routine, real-world settings, aiming to produce evidence directly applicable to clinical practice⁸⁸.

Proposals should address all the following:

- Conduct randomised or cluster-randomised academic investigator-initiated⁸⁹ pragmatic clinical trials that benefit patients with refractory cancers at any stage of the disease, for any cancer subtype, in any age group or part of society, to deliver effective, affordable and tailored immunotherapeutic interventions for implementation by healthcare systems at the level of local communities, European regions, EU Member States and Associated Countries.
- All data should be disaggregated by sex, gender, age and other relevant variables, such as by measures of socio-economic status or ethnicity. Translational research is limited to supporting biomarker-informed patient stratification and the conduct and analyses of the proposed clinical trial(s).
- The primary and secondary endpoints of the pragmatic clinical trials should target overall survival, patient-reported outcomes and quality of life issues considered important by and for cancer patients and their caregivers. Such endpoints should be defined together with patients and their caregivers through research that stimulates social innovation and supports end-user engagement using participative research models.

⁸⁸ Some examples: treatment versus active surveillance in patient management, combination of treatment interventions, determination of optimal dose and dose schedule, de-escalation of treatment intervention, comparative effectiveness of different treatment interventions.

⁸⁹ Clinical trials in which a health technology (e.g. a medicinal product, a medical device, an in-vitro diagnostic medical device, a surgical or other medical intervention) is tested in humans, independently from commercial interest and for public health benefits.

- The chosen treatment intervention(s) should be adapted to the particular needs of the target population and to the specificities of the provision of care at local, regional, or national level, duly reflecting the diversity across EU Member States and Associated Countries. Furthermore, affordability and accessibility should be taken into account.
- Applicants should include an appropriate mix of stakeholders from various disciplines, sectors⁹⁰ and regional as well as national health authorities, and provide details of the clinical study(ies) in the dedicated annex using the template provided in the submission system.

The successful proposals are expected to build on resources made available by the Knowledge Centre on Cancer (KCC)⁹¹ to foster EU alignment and coordination.

Successful proposals will be asked to join the 'Diagnosis and Treatment' cluster for the EU Cancer Mission⁹² and should include a budget for networking, attendance at meetings, and joint activities⁹³. The Commission will facilitate coordination of these activities.

Call: Supporting the implementation of the Cancer MissionSpecific conditionsExpected EU
contribution per
projectThe Commission estimates that an EU contribution of around EUR 5.00
million would allow these outcomes to be addressed appropriately.
Nonetheless, this does not preclude submission and selection of a
proposal requesting different amounts.Indicative budgetThe total indicative budget for the topic is EUR 15.00 million.Type of ActionResearch and Innovation Actions

HORIZON-MISS-2026-02-CANCER-04: Earlier and more precise palliative care

<u>Expected Outcome</u>: Proposals under this topic should aim to deliver results that are directed and tailored towards and contribute to all of the following expected outcomes:

⁹⁰ such as physicians, academia, patients and their caregivers, patient representatives, behavioural scientists, SMEs, insurance companies, charities and foundations, research organisations, civil society.

⁹¹ Hosted by the European Commission's Joint Research Centre (JRC). Especially through the 'European Guidelines and Quality Assurance Schemes for Breast, Colorectal and Cervical Cancer Screening and Diagnosis', and the 'European Cancer Information System (ECIS)' and the 'European Cancer Inequalities Registry (ECIR), see https://knowledge4policy.ec.europa.eu/cancer_en

⁹² To address the objectives of the EU Cancer Mission, participants will collaborate in project clusters to leverage EU-funding, increase networking across sectors and disciplines, and establish a portfolio of EU Cancer Mission R&I and policy actions.

⁹³ Examples of those activities are research or research capacity, organising joint workshops, establishing best practices, joint communication or citizen engagement activities with projects funded under other clusters and pillars of Horizon Europe, or other EU programmes, as appropriate. Proposals are not required to include details of these activities, as they will be defined during the grant agreement preparation and during the life of the project.

- Patients will benefit from better access to earlier, more person-centred palliative care models including digital remote tools and options for home-based care.
- Carers will benefit from real-time information tools and better communication.
- Clinicians will benefit from guidelines on optimal patient referral and care predictions.

<u>Scope</u>: This topic will contribute to the achievement of the EU Cancer Mission's objective to provide better quality of life for cancer patients, their families and carers. The focus is on the development of innovative models for earlier, more precise and better integrated palliative care.

According to an EU conference on innovative palliative care for people with cancer on 8 October 2024, palliative care has big potential but such interventions come much too late and are often imprecise. Palliative care is needed very early after cancer diagnosis with the best possible information on patient wishes and effective communication between all involved carers. Barriers include also the insufficient workforce allocation, insufficient retention and resilience of staff, incorrect transferals between care facilities, regional inequities and higher needs for home-based care. In order to improve the access to palliative care, innovative models for earlier, more precise and more patient-centred care should be developed. These models should be built on patients' needs and the consideration of all possible care options. They should use AI and digital remote tools to empower clinicians, and to deliver well-integrated care with optimal care predictions.

Proposals should address the following:

- Develop innovative models for earlier, more precise/personalised and integrated palliative care, including digital remote tools, to predict patients' care preferences, to assign clear roles of carers and to avoid obstacles such as insufficient or inequal access.
- Testing and validation of these models in real-world settings through implementation research and clinical trials. Age, sex and gender differences should be duly considered.
- Attention should be given to address staff training, roles and adherence of conditions.
- Usage of AI and digital remote tools (such as explanatory videos, messaging, etc.) to allow real-time communication and to predict care needs and resources.
- Adoption of guidelines for optimal referrals, efficient and sustainable workforce allocation and retention (access to & dissemination of the guidelines should be provided through the future European Cancer Patient Digital Centre).
- Collaboration with EU4Health projects to create synergies and to facilitate implementation.

Successful proposals will be asked to join the 'Quality of Life' project cluster of the EU Cancer Mission⁹⁴. and should include a budget for networking, attendance at meetings and joint activities⁹⁵. The Commission will facilitate coordination of these activities.

Applicants should provide details of the clinical studies in the dedicated annex using the template provided in the submission system.

HORIZON-MISS-2026-02-CANCER-05: Boosting mental health of young cancer survivors through the European Cancer Patient Digital Centre (ECPDC)

Call: Supporting the implementation of the Cancer Mission		
Specific conditions	Specific conditions	
Expected EU contribution per project	The Commission estimates that an EU contribution of around EUR 7.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.	
Indicative budget	The total indicative budget for the topic is EUR 7.00 million.	
Type of Action	Innovation Actions	

Expected Outcome: Proposals under this topic should aim to deliver results that are directed and tailored towards and contribute to the following expected outcomes:

- Through the European Cancer Patient Digital Centre (ECPDC), adolescent and young cancer patients and survivors as well as their caregivers have access to innovative tools and approaches to strengthen their mental health;
- Healthcare professionals have access to innovative tools to monitor and support the mental health of cancer patients and survivors as well as their caregivers
- Researchers and healthcare professionals have access and use reliable patient reported data to better understand the mental health needs of cancer patients and survivors and provide effective care.

<u>Scope</u>: As part of its citizens engagement activities, the EU Cancer Mission has launched a dialogue with young cancer survivors, to better understand the specific needs and challenges faced during and after treatment.

⁹⁴ In order to address the objectives of the EU Cancer Mission, participants will collaborate in project clusters to leverage EU-funding, increase networking across sectors and disciplines, and establish a portfolio of Cancer Mission R&I and policy actions

⁹⁵ examples of these activities are research or research capacity, organising joint workshops, establishing best practices, joint communication or citizen engagement activities with projects funded under other clusters and pillars of Horizon Europe, or other EU programmes, as appropriate. Proposals are not required to include details of these activities, as they will be defined during the grant agreement preparation and during the life of the project.

Mental health has been systematically highlighted as a major concern, stressing the importance of access to quality psychosocial support including through virtual, digital means along the different stages of the patient's journey, at diagnosis, during and after treatment.

The communication on a Comprehensive approach to mental health adopted by the European Commission on 7 June 2023⁹⁶ calls for the establishment of a platform to boost mental health of young cancer survivors.

In line with this ambition, the overall goal of this topic is to develop an online platform targeting, adolescents, and young adult (AYA) cancer patients and survivors (age 15-39, age of first diagnosis) to address specifically their mental health needs. In particular:

- The digital platform should be developed as a module to be fully integrated within the European Cancer Patient Digital Centre whose information portal is currently under development (project EU-CIP⁹⁷). Clear links with EU-CIP should therefore be established and solutions developed to link the two projects, including operational solutions and sustainability.
- The platform should include a mix of innovative personalized, evidence-based, and interactive features building on state-of-the-art research to address the needs of AYA patients and survivors⁹⁸.
- The innovative nature of proposed solutions should be clearly demonstrated.
- Multi-device compatibility (mobile, tablet, web) and multilingual support to reach diverse populations should be included.
- Specific needs and potential solutions should be discussed and developed in close cooperation with end-users.
- Similarly, the efficacy of the proposed features to support and boost mental health of young cancer patients, survivors and their caregivers should be demonstrated by testing and validating them by an appropriate number of end users, with different cancer types and belonging to the targeted age group.
- Solutions to identified challenges should be provided and implemented.

⁹⁶ cef45b6d-a871-44d5-9d62-3cecc47eda89 en

⁹⁷ <u>EUropean Cancer Information Portal | EU-CIP | Projekt | Fact Sheet | HORIZON | CORDIS | European Commission</u>

⁹⁸ Examples of services include (non-exhaustive list): Human-centric AI-powered chatbots for providing relevant information for Cancer Survivors, e.g. on coping with psychosocial issues. Mood and symptoms tracking with AI insights to detect patterns and suggest interventions. Interactive AI-powered self-help tools, such as mindfulness and relaxation exercises (guided meditation, breathing techniques) or goal setting and journaling tools for self-reflection and progress tracking. Peer-to-peer support groups with moderated forums or live chatrooms (community forum). Gamified challenges (e.g. wellness challenges, gratitude exercises) to encourage engagement. Safe social networking with privacy controls for survivors to connect. etc.

- Develop, test and integrate in the platform innovative tools for collection and analysis of mental health relevant Patient Reported Outcomes Measures (PROMs) and Patient Reported Experiences Measures (PREMs) Tools should be developed and validated in close cooperation with end-users including patients, survivors, healthcare professionals and researchers.
- Develop European Health Data Space (EHDS) aligned guidelines to report and deposit relevant patient reported data collected with the above tools.
- Projects should include an appropriate mix of stakeholders from various disciplines and sectors, including but not limited to physicians, psychologists, nurses, academia, patients and their caregivers, patient representatives, behavioural scientists, cancer survivorship scientists, AI-experts and solutions providers, SMEs, charities and funding agencies, and research organisations.
- Direct involvement of cancer patients and survivors, survivor representative organisations, caregivers is required, along with effective contribution of Social Science and Humanities (SSH) disciplines and the involvement of SSH experts, institutions as well as the inclusion of relevant SSH expertise, in order to produce meaningful and significant results, enhancing the impact of the proposed activities.
- Due consideration should be given to initiatives such as: EU-CAYAS-NET⁹⁹; ERN PaedCan¹⁰⁰, Pancare¹⁰¹ EUonQoL¹⁰², e-Quol¹⁰³ and other relevant initiatives, including projects funded under the EU Cancer Mission topic HORIZON-MISS-2024-CANCER-01-05: Improving the understanding and management of late-effects in adolescents and young adults (AYA) with cancer¹⁰⁴.

Successful proposals will be asked to join the 'Quality of life" cluster for the EU Cancer Mission¹⁰⁵ and should include a budget for networking, attendance at meetings, and joint activities¹⁰⁶. The Commission will facilitate coordination of these activities.

⁹⁹ <u>https://siope.eu/news/news-from-eu-cayas-net-Oct22/</u>

¹⁰⁰ https://paedcan.ern-net.eu/

¹⁰¹ anCare – Pan-European Network for Care of Survivors after Childhood and Adolescent Cancer

¹⁰² Quality of Life in Oncology (euonqol.eu)

¹⁰³ <u>https://equolproject.eu/</u>

^{104 &}lt;u>EU Funding & Tenders Portal</u>

¹⁰⁵ In order to address the objectives of the EU Cancer Mission, participants will collaborate in project clusters to leverage EU-funding, increase networking across sectors and disciplines, and establish a portfolio of Cancer Mission R&I and policy actions.

¹⁰⁶ Examples of these activities are research or research capacity, organising joint workshops, establishing best practices, joint communication or citizen engagement activities with projects funded under other clusters and pillars of Horizon Europe, or other EU programmes, as appropriate. Proposals are not required to include details of these activities, as they will be defined during the grant agreement preparation phase and during the life of the project

HORIZON-MISS-2026-02-CANCER-06: Development of a research capacity building programme on cancer with and for Ukraine

Call: Supporting the implementation of the Cancer Mission		
Specific conditions	Specific conditions	
Expected EU contribution per project	The Commission estimates that an EU contribution of around EUR 5.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.	
Indicative budget	The total indicative budget for the topic is EUR 5.00 million.	
Type of Action	Coordination and Support Actions	

<u>Expected Outcome</u>: This topic aims to develop a wide capacity building programme between EU Member States/Associated Countries and Ukrainian cancer centres, to support improvement or development of research & innovation-related capacities and integration with cancer care.

To this end, proposals should aim at delivering results that are directed and tailored towards and contribute to all of the following expected outcomes:

- Researchers, clinicians and health care professionals will have access to improved research capacities, supporting better integration with care.
- Patients and citizens will have access to improved screening, diagnostics and treatments, while increasing their participation in clinical trials.

<u>Scope</u>: Ukraine has a very high cancer burden with more than 155,000 new diagnoses every year¹⁰⁷. The country has also one of the highest childhood cancer mortality rates globally¹⁰⁸. Disparities in access and quality of cancer care in Ukraine were high before Russia's unprovoked aggression and worsened because of the conflict, which has also led to increased cancer mortality and morbidity, due to discontinuation of treatments and shortage of medical supplies.

Proposals should address all of the following:

A research capacity-building programme should be set up between EU Member States/Associated Countries and Ukraine, in order to support Ukraine to develop or to further improve research & innovation-related capacities of future or existing Cancer Infrastructures.

The capacity building programme should include the following components:

• Development of a joint-research training programme, including distance-learning modules

¹⁰⁷ <u>04-ukraine-fact-sheet.pdf</u>

¹⁰⁸ <u>9789289057615-eng.pdf</u>

• Twinning research activities, including staff-exchange for the implementation of targeted research projects and access to cutting-edge services

The capacity building programme should cover at least the following areas;

- Enhanced involvement in quality scientific research, including development and implementation of clinical trials and other epidemiological studies and related training¹⁰⁹;
- Better integration of research and care to improve patient outcomes. Particular emphasis should be given to cancer in children, adolescents and young adults;
- Improvement of digital capacity to support primary and secondary use of patient data, including through improvement of data exchange capacities¹¹⁰ and cancer registries.

Gender-related aspects, with respect to representation in research and career pathways and any other relevant aspects, should be duly taken into account.

The research capacity-building programme should be tailored to the needs of the participating entities. This concerns in particular the required participants / stakeholder groups, duly reflecting health and research system specificities. The training module shall consist of balanced theoretical and practical parts, including simulations, case studies, group exercises, mutual learning exercises and on-site visits (when possible) to gather practical experience. Safety of participating staff/researchers should be prioritised.

Advantage should be taken to the extent possible of experience gained under current and previous initiatives such as CCI4EU¹¹¹, Jane¹¹², Jane 2¹¹³, Crane¹¹⁴, CanSERV¹¹⁵ and others. The relevant EU research infrastructures in the life science domain¹¹⁶ and other EU initiatives should be exploited for available research services, as appropriate.

HORIZON-MISS-2026-02-CANCER-07: Improve the Quality of Life of older cancer patients

Call: Supporting the implementation of the Cancer Mission

Specific conditions

¹⁰⁹ Topics to be covered include but are not limited to study design, process of trial approval, ethical aspects, recruitment, staffing and training requirements including digital skills, data management and data analysis, organisational aspects, regulatory requirements, clinical core facilities, patient participation and empowerment

¹¹⁰ *e.g.* interoperability of standards, data protection related aspects and others as appropriate

¹¹¹ CCI4EU

¹¹² Shaping the EU Networksof Expertise on cancer!

¹¹³ Home - Jane 2

III
 CraNE4Health European Network of Comprehensive Cancer Centres

¹¹⁵ <u>canSERV - Cutting Edge Cancer Research Services Across Europe</u>

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Expected EU contribution per project	The Commission estimates that an EU contribution of between EUR 5.00 and 6.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
Indicative budget	The total indicative budget for the topic is EUR 27.00 million.
Type of Action	Research and Innovation Actions
Legal and financial set-up of	The rules are described in General Annex G. The following exceptions apply:
the Grant Agreements	Eligible costs will take the form of a lump sum as defined in the Decision of 7 July 2021 authorising the use of lump sum contributions under the Horizon Europe Programme – the Framework Programme for Research and Innovation (2021-2027) – and in actions under the Research and Training Programme of the European Atomic Energy Community (2021-2025) ¹¹⁷ .

Expected Outcome: Proposals under this topic should aim to deliver results that are directed and tailored towards and contribute to the following expected outcomes:

- Improved understanding of care needs of older patients with cancer and approaches to address them;
- Older cancer patients gain access to innovative age-specific approaches and tools better tailored to their care needs;
- National healthcare providers, policymakers and authorities in European regions, EU Member States and Associated Countries have the evidence to implement tailored care for older cancer patients that have the potential to be implemented in routine treatment and follow-up care in their healthcare systems;
- Researchers, innovators, and professionals from different disciplines and sectors ensure accessibility and re-usability of relevant data, to support the future UNCAN.eu research data platform, which is currently in preparation.

<u>Scope</u>: This topic contributes to the EU Cancer Mission's objective to improve quality of life of cancer patients. The focus is on cancer patients aged 65 years and above.

Currently, older cancer patients represent the largest proportion of cancer patients especially in Europe, with more than two thirds of new cancer cases being diagnosed in patients above the

¹¹⁷ This <u>decision</u> is available on the Funding and Tenders Portal, in the reference documents section for Horizon Europe, under 'Simplified costs decisions' or through this link: <u>https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/ls-</u> <u>decision he en.pdf</u>

age of 65. Yet, there is still relatively little knowledge about their functional health and care needs during and after treatment.

Managing cancer in older patients is complex, due to the high heterogeneity in terms of their intrinsic health capacities, including mental health and cognitive capacities, comorbidities, frailty etc. as well as with regard to their performance activities including social interactions, work, mobility etc. Consequently, overall health care needs of older patients with cancer vary significantly.

Older cancer patients are consistently underrepresented in clinical research, with representation declining progressively with increasing age. This leads to a lack of knowledge regarding treatments, specific needs, and clinical endpoints. Older patients are also particularly vulnerable to treatment toxicities loss of muscle mass, and may experience a large variety of confounding comorbidities and symptoms, which strongly impact their quality of life during and after treatment.

As such, quality of life expectations should be systematically factored in the decision process to define the optimal approach to cancer management.

The overall goal of this topic is to advance the understanding of older cancer patients' care needs, and develop innovative, age-sensitive care approaches and tools to boost overall quality of life. In particular:

- Building on data from existing or newly established cohorts provide a thorough assessment of QoL needs and relevant dimensions in older patients, taking into account aspects such as social and health determinants, including sex, gender, age, comorbidities, intrinsic and functional health status, socio-economic status, living in rural or remote areas, education, access/reachability to disease management programs (due to travel distances and abilities) etc.
- Develop, test, implement and scale up innovative, holistic approaches and tools in reallife settings (e.g. through the implementation of pragmatic clinical trials or effectivenessimplementation hybrid designs) to optimize treatment and/or follow-up regimens for older patients, aiming to reduce comorbidities, impairments and frailty, while improving overall quality of life. The development of these approaches and tools should consider the potential gender-related differences in treatment outcomes and quality of life, such as the impact of hormonal changes, or caregiving responsibilities.
- Primary and secondary endpoints of the pragmatic clinical trial(s) should support patientreported outcomes and quality of life. Such endpoints should be defined together with patients and their caregivers through research that stimulates social innovation and supports end-user engagement using participative research models.
- Particular attention should be given to aspects such as pain management, cognitive and social support, mental health services etc. Additionally, rehabilitation tackling common concerns such as reduced mobility, osteoporosis, cardiovascular health, neurocognitive

changes, sleep disturbance, loss of independence, time and financial toxicity etc, essential for maintaining good quality of life, should also be addressed. Health literacy including digital literacy could also be considered. The specific needs of families and care givers managing older cancer patients should also be considered.

- Ultimately, provide scientific evidence to deliver affordable and accessible treatment and follow-up care adapted to the needs of older cancer patients and to the specificities of the provision of care at local, regional, or national level, duly reflecting the (cultural) diversity across EU Member States and Associated Countries.
- All datasets produced should be described with metadata records in the EU dataset catalogue of the European Health Data Space, while all tools and models should take advantage of current European research infrastructures, should follow the principles of open science and made available through the future UNCAN.eu platform.

The topic is designed to fill a gap in terms of evidence, knowledge, expertise, tools, data and resources in the management of older cancer patients. This should be achieved through multinational, cross-sectoral and multidisciplinary cooperation.

For that purpose, projects should include an appropriate mix of stakeholders from various disciplines and sectors, including but not limited to physicians, psychologists, nurses, academia, patients and their caregivers, patient representatives, behavioural scientists, SMEs, insurance companies, charities and foundations, research organisations, civil society, regional and national health authorities

In particular, direct involvement of cancer patients and survivors, survivor representative organisations, and caregivers is required, along with effective contribution of SSH disciplines and the involvement of SSH experts, institutions as well as the inclusion of relevant SSH expertise, in order to produce meaningful and significant results, enhancing the impact of the related research activities.

Successful proposals will be asked to join the 'Quality of life" cluster for the EU Cancer Mission¹¹⁸ and should include a budget for networking, attendance at meetings, and joint activities¹¹⁹. The Commission will facilitate coordination of these activities.

Applicants should provide details of the clinical studies in the dedicated annex using the template provided in the submission system.

¹¹⁸ In order to address the objectives of the EU Cancer Mission, participants will collaborate in project clusters to leverage EU-funding, increase networking across sectors and disciplines, and establish a portfolio of EU Cancer Mission R&I and policy actions.

¹¹⁹ Examples of these activities are research or research capacity, organising joint workshops, establishing best practices, joint communication or citizen engagement activities with projects funded under other clusters and pillars of Horizon Europe, or other EU programmes, as appropriate. Proposals are not required to include details of these activities, as they will be defined during the grant agreement preparation phase and during the life of the project

HORIZON-MISS-2027-02-CANCER-01: Leveraging functional genomics to reveal novel targets for cancer treatment

Call: Supporting the implementation of the Cancer Mission		
Specific condition	Specific conditions	
Expected EU contribution per project	The Commission estimates that an EU contribution of between EUR 7.00 and 8.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.	
Indicative budget	The total indicative budget for the topic is EUR 33.30 million.	
Type of Action	Research and Innovation Actions	
Evaluation and award procedure	The procedure is described in General Annex F. The following exceptions apply: to ensure a balanced portfolio covering children and adolescents, grants will be awarded not only in order of ranking but also to at least one highest ranked application that targets children and adolescents (age group 0-19 at first diagnosis), provided that the application attains all thresholds.	

Expected Outcome: Proposals under this topic should aim to deliver results that are directed and tailored towards and contribute to all of the following expected outcomes:

- Researchers and health professionals have an increased understanding on the functional effects of tumour heterogeneity during the initiation and evolution of the disease.
- Researchers, health professionals and innovators have access to improved knowledge and tools for the discovery and development of the next generation of genomically informed cancer treatments.
- Researchers, innovators, and professionals from different disciplines and sectors support and contribute to the UNCAN.eu research data platform by ensuring interoperability of data, access to new digital tools and models.

<u>Scope</u>: The proposed topic will contribute to the EU Cancer Mission objective of improving the understanding of cancer initiation and progression. Of particular interest for this topic are paediatric and adolescent cancers¹²⁰, cancers with limited treatment options, refractory cancers, rare cancers or cancer types with low five-year survival rates. Proposals may consider the design of exploratory mechanistic studies using longitudinal patient bio-samples, clinical proof-of-concept studies and/or observational and translational studies involving newly collected or existing data as appropriate. Applicants should take advantage of technological advances in

¹²⁰ Age at first diagnosis 0-19 years

functional genomics¹²¹ and structural biology approaches including but not limited to rapid gene sequencing, single-cell studies, spatial gene mapping, spatial transcriptomics, epigenetic analysis, liquid biopsies and functional precision oncology pipelines. The use of causal inference, computational modelling and/or artificial intelligence tools are encouraged for the collection, visualisation, analysis and management of big, complex, and heterogeneous data sets.

Applicants should address all of the following activities:

- To identify and validate new targets for innovative therapeutic approaches, by developing experimental models¹²² and technologies for assessing the functional effects of tumour temporal heterogeneity on disease initiation, progression and relapse.
- To document mechanisms of the interaction between the dynamic multi-omics characteristics of the tumour, its microenvironment and the patient during the initiation and progression of disease including eventual mechanisms of adaptive resistance to therapies, using clinical data, as appropriate¹²³. Sex and gender differences should be taken into account.
- To include state-of-the-art approaches, tools and models to combine and analyse FAIR (Findable, Accessible, Interoperable, Reusable) multimodal longitudinal patient data, making them available through the future UNCAN.eu research platform. All datasets produced should be described with metadata records in the EU dataset catalogue of the European Health Data Space. The involvement of current ESFRI research infrastructures offering life science resources¹²⁴ including biobanking options should be duly considered in the proposal workplan.

Collaboration among different scientific disciplines, including healthcare professionals is envisaged¹²⁵.

Advantage should be taken to the extent possible of data and experience gained under current large-scale initiatives such as: the European 1M+ Genomes¹²⁶ and the European Cancer Imaging initiative¹²⁷ and others as appropriate. Successful proposals are expected to establish appropriate collaborations with the project implementing the UNCAN.eu research platform¹²⁸.

¹²¹ The use of transcriptomics, proteomics, epigenomics, and metabolomics to understand gene function in a systems biology context

¹²² Any relevant preclinical or clinical model including but not limited to in silico, in vitro, in vivo or ex vivo models

¹²³ Applicants may build over existing clinically annotated patient cohorts and exploit current EU biobanks for sample access

¹²⁴ https://lifescience-ri.eu/home.html

¹²⁵ Proposals should include an appropriate mix of stakeholders from various disciplines and sectors, including but not limited to medical doctors, health-IT experts, researchers, AI-experts, solution providers, academia and research institutes, EU research infrastructures and SMEs

¹²⁶ European '1+ Million Genomes' Initiative | Shaping Europe's digital future

¹²⁷ <u>European Cancer Imaging Initiative | Shaping Europe's digital future</u>

¹²⁸ link to UNCAN-CONNECT to be inserted at later stage

Successful proposals will be asked to join the 'Understanding' project cluster of the Cancer Mission¹²⁹ and should include a budget for networking, attendance at meetings, and joint activities¹³⁰. The Commission will facilitate coordination of these activities.

Applicants envisaging to include clinical studies should provide details in the dedicated annex using the template provided in the submission system.

HORIZON-MISS-2027-02-CANCER-02: Clinical research by Comprehensive Cancer Infrastructures for the benefit of patients with common cancers

Call: Supporting the implementation of the Cancer Mission		
Specific condition	Specific conditions	
Expected EU contribution per project	The Commission estimates that an EU contribution of between EUR 7.00 and 10.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.	
Indicative budget	The total indicative budget for the topic is EUR 20.00 million.	
Type of Action	Innovation Actions	

<u>Expected Outcome</u>: Proposals under this topic should aim to deliver results that are directed and tailored towards, and contribute to all of the following expected outcomes:

- Patients afflicted by lung, bowel, breast or prostate cancer, will benefit from the outcomes of evidence-based, tailored, affordable and accessible treatment-centred clinical research programmes by **comprehensive cancer infrastructures**¹³¹.
- Researchers, physicians, civil society, charities, foundations, insurance companies, SMEs and innovators ¹³² will seize opportunities to respectively co-create, support or commercialise outcomes of evidence-based, tailored, affordable and accessible clinical research programmes for the treatment of patients afflicted by lung, bowel, breast or prostate cancer.

¹²⁹ In order to address the objectives of the Cancer Mission, participants will collaborate in project clusters to leverage EU-funding, increase networking across sectors and disciplines, and establish a portfolio of Cancer Mission R&I and policy actions

¹³⁰ Examples of those activities are organising joint workshops, establishing best practices, joint communication or citizen engagement activities with projects funded under other clusters and pillars of Horizon Europe, or other EU programmes, as appropriate. Proposals are not required to include details of these activities, as they will be defined during the grant agreement preparation and during the life of the project

¹³¹ National or regional infrastructures that provide resources and services to support, improve and integrate cancer care, research, training of care professionals and education for cancer patients, survivors and families/carers.

¹³² Innovators turn research results into new and better services and products, to remain competitive in a global marketplace and to improve the quality of life of Europe's citizens.

• National and regional healthcare providers, healthcare payers, policymakers and authorities in European regions, EU Member States and Associated Countries have the evidence to engage in establishing piloting, upscaling or implementing appropriate clinical research programmes for people afflicted by lung, bowel, breast or prostate cancer.

Scope: Applicants should address all of the following:

- Comprehensive cancer infrastructures across the EU Member States and Associated Countries come together to conduct clinical research on lung, bowel, breast or prostate cancer focusing on one of the following areas:
 - o Radiotherapy, surgery, chemotherapy;
 - o Therapeutic cancer vaccines for the treatment of cancer patients with early-stage disease or minimal residual disease (e.g. after debulking by surgery, chemotherapy, radiotherapy, or immunotherapy);
 - o Implementation of appropriate clinical practice guidelines for diagnosis and treatment in the European Widening countries¹³³.
- Comprehensive cancer infrastructures should extensively pilot and upscale treatment programmes in at least four different EU Member States or Associated Countries. One of the four targeted EU Member States should include one of the EU Widening Countries.
- Comprehensive cancer infrastructures should address and whenever feasible overcome limitations because of the national regional, or local healthcare context (e.g. unique challenges faced by small(er) EU Member States, due to a large rural population, cancer burden, socio-economic situation, or limited clinical research capacity¹³⁴) when designing and conducting clinical research programmes on lung, bowel, breast or prostate cancer;
- Identify additional resources through the European Research Development Fund (ERDF), the Technical Support Instrument¹³⁵, the Resilience and Recovery Facility (RRF), philanthropy, or the European Investment Bank Group (EIB¹³⁶, EIF¹³⁷);
- Clinical research programmes should be adapted to the needs of the target population and the specificities of healthcare provision at local, regional, or national level, duly reflecting the (cultural) diversity and available resources across EU Member States and Associated Countries;
- Data should be disaggregated by sex, gender, age and other relevant variables, such as by measures of socio-economic status or ethnicity;

¹³³ Bulgaria, Croatia, Cyprus, Czech Republic, Estonia, Greece, Hungary, Latvia, Lithuania, Malta, Poland, Portugal, Romania, Slovakia or Slovenia.

¹³⁴ research laboratories, diagnostics and clinical trial infrastructures

¹³⁵ <u>Technical Support Instrument (TSI)</u>, DG REFORM

¹³⁶ Homepage | European Investment Bank

¹³⁷ eif.org/index.htm

- All datasets produced should be described with metadata records in the EU dataset catalogue of the European Health Data Space, while all tools and models should take advantage of current European research infrastructures, should follow the principles of open science and made available through the future UNCAN.eu platform;
- Applicants should include an appropriate mix of stakeholders from various disciplines and sectors¹³⁸ and provide details of the clinical study(ies) in the dedicated annex using the template provided in the submission system.

Successful proposals will be asked to join the 'Diagnosis and treatment'' cluster¹³⁹ for the EU Cancer Mission and should include a budget for networking, attendance at meetings, and joint activities¹⁴⁰. The Commission will facilitate coordination of these activities.

The successful proposals are expected to build on resources made available by relevant ESFRI Research Infrastructures¹⁴¹, and the Knowledge Centre on Cancer (KCC) to foster EU alignment and coordination¹⁴².

HORIZON-MISS-2027-02-CANCER-03: Phase 1 including first-in-human clinical trials to test biomarker-guided medicines for patients with rare cancers or very rare cancer subtypes

Call: Supporting the implementation of the Cancer Mission		
Specific conditions	Specific conditions	
Expected EU contribution per project	The Commission estimates that an EU contribution of between EUR 7.00 and 9.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.	
Indicative budget	The total indicative budget for the topic is EUR 25.00 million.	
Type of Action	Research and Innovation Actions	

¹³⁸ such as physicians, academia, patients and their caregivers, patient representatives, behavioural scientists, SMEs, insurance companies, charities and foundations, research organisations, civil society.

¹³⁹ In order to address the objectives of the EU Cancer Mission, participants will collaborate in project clusters to leverage EU-funding, increase networking across sectors and disciplines, and establish a portfolio of EU Cancer Mission R&I and policy actions.

¹⁴⁰ Examples of those activities are research or research capacity, organising joint workshops, establishing best practices, joint communication or citizen engagement activities with projects funded under other clusters and pillars of Horizon Europe, or other EU programmes, as appropriate. Proposals are not required to include details of these activities, as they will be defined during the grant agreement preparation and during the life of the project.

¹⁴¹ Such as BBMRI, EATRIS, ELIXIR, ECRIN.

¹⁴² Hosted by the European Commission's Joint Research Centre (JRC). Especially through the 'European Guidelines and Quality Assurance Schemes for Breast, Colorectal and Cervical Cancer Screening and Diagnosis', and the 'European Cancer Information System (ECIS)' and the 'European Cancer Inequalities Registry (ECIR), see https://knowledge4policy.ec.europa.eu/cancer_en.

Legal and financial set-up of	The rules are described in General Annex G. The following exceptions apply:
the Grant Agreements	Eligible costs will take the form of a lump sum as defined in the Decision of 7 July 2021 authorising the use of lump sum contributions under the Horizon Europe Programme – the Framework Programme for Research and Innovation (2021-2027) – and in actions under the
	Research and Training Programme of the European Atomic Energy Community (2021-2025) 143 .

Expected Outcome: Proposals under this topic should aim to deliver results that are directed and tailored towards, and contribute to all of the following expected outcomes:

- Patients with rare or ultra-rare cancers have access to tailored, promising medicines or multi-modal treatment interventions via participation in subsequent clinical trials or national or regional compassionate use programmes by health authorities;
- Researchers, physicians, innovators¹⁴⁴, startup, spin-off and spin-out companies, SMEs, charities or foundations and other professionals from different disciplines and sectors have access to promising biomarker-guided medicines for further validation or commercialisation;
- National healthcare providers, policymakers and authorities in European regions, EU Member States and Associated Countries have early safety and efficacy evidence to support further testing of affordable biomarker-guided medicines that benefit patients with rare or ultra-rare cancers in their healthcare systems;

<u>Scope</u>: Patients with rare and ultra-rare¹⁴⁵ cancers across EU Member States and Associated Countries often present with advanced disease due to late diagnosis and have access to few treatment options. Hence, these patients typically have a lower 5-year overall survival than those with more common cancers and face challenges with timely access to a small number of appropriate phase 1 clinical trials despite good disease control rates¹⁴⁶ to validate treatment interventions targeting their disease and adapted to an increasingly precision oncology healthcare landscape.

Proposals should address all the following:

¹⁴³ This <u>decision</u> is available on the Funding and Tenders Portal, in the reference documents section for Horizon Europe, under 'Simplified costs decisions' or through this link: <u>https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/ls-</u> <u>decision_he_en.pdf</u>

¹⁴⁴ Innovators turn research results into new and better services and products, to remain competitive in a global marketplace and to improve the quality of life of Europe's citizens.

 $^{^{145}}$ ~24% of all cancers are rare. For definition and incidence of rare cancers see <u>ESMO</u> and <u>RARECARE</u>

¹⁴⁶ Profile and outcome of cancer patients enrolled in contemporary phase I trials - ScienceDirect

- When still relevant and required, finalise the preclinical validation of promising ¹⁴⁷ biomarker-guided drugs¹⁴⁸, for rare or very rare cancer indications through in vivo and/or ex vivo and/or in silico research models. Drug repurposing should be considered¹⁴⁹. Data should be disaggregated by tumour biology, sex, gender, age and other relevant variables, such as by measures of socio-economic status or ethnicity;
- Validate early safety and efficacy of innovative medicines as part of multi-modal treatment interventions in phase 1, including in first-in-human, multi-centre clinical trials, considering new trial designs¹⁵⁰, for and with patients with rare or ultra-rare cancers;
- The primary and secondary endpoints of the clinical trial(s) should support safety, efficacy and patient-reported outcomes. Such endpoints should be defined together with patients and their caregivers through research that stimulates social innovation and supports end-user engagement using participative research models.
- All datasets produced should be described with metadata records in the EU dataset catalogue of the European Health Data Space, while all tools and models should take advantage of current European research infrastructures, should follow the principles of open science and made available through the future UNCAN.eu platform;.
- Applicants should include proof of advice from regulators on the design of the clinical trial(s), include an appropriate mix of stakeholders from various disciplines, and regional as well as national health authorities, and provide details of the clinical study(ies) in the dedicated annex using the template provided in the submission system;

Successful proposals will be asked to join the 'Diagnosis and treatment" cluster for the EU Cancer Mission¹⁵¹ and should include a budget for networking, attendance at meetings, and joint activities¹⁵². The Commission will facilitate coordination of these activities.

The successful proposals are expected to build on resources made available by the Knowledge Centre on Cancer (KCC)¹⁵³ to foster EU alignment and coordination.

¹⁴⁷ for example promising efficacy, pharmacokinetics and pharmacodynamics data

¹⁴⁸ any relevant molecular target, biomarker, therapeutic strategy or technology

¹⁴⁹ Potential applicants may want to consider ongoing EU-funded efforts like REMEDI4ALL and/or REPO4EU.

¹⁵⁰ decentralised clinical trials, basket trials, umbrella trials, roll-over/extension trials, adaptative trials

¹⁵¹ in order to address the objectives of the EU Cancer Mission, participants will collaborate in project clusters to leverage EU-funding, increase networking across sectors and disciplines, and establish a portfolio of EU Cancer Mission R&I and policy actions.

¹⁵² Examples of those activities are research or research capacity, organising joint workshops, establishing best practices, joint communication or citizen engagement activities with projects funded under other clusters and pillars of Horizon Europe, or other EU programmes, as appropriate. Proposals are not required to include details of these activities, as they will be defined during the grant agreement preparation and during the life of the project.

¹⁵³ Hosted by the European Commission's Joint Research Centre (JRC). Especially through the 'European Guidelines and Quality Assurance Schemes for Breast, Colorectal and Cervical Cancer Screening and Diagnosis', and the 'European Cancer Information System (ECIS)' and the 'European Cancer Inequalities Registry (ECIR), see https://knowledge4policy.ec.europa.eu/cancer_en.

HORIZON-MISS-2027-02-CANCER-04: Improving equitable health outcomes for cancer patients through health-economics research, health systems research and outcomes research

Call: Supporting the implementation of the Cancer Mission		
Specific conditions	Specific conditions	
Expected EU contribution per project	The Commission estimates that an EU contribution of between EUR 5.00 and 7.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.	
Indicative budget	The total indicative budget for the topic is EUR 10.00 million.	
Type of Action	Research and Innovation Actions	

<u>Expected Outcome</u>: Proposals under this topic should aim to deliver results that are directed and tailored towards, and contribute to all of the following expected outcomes:

- People at risk of cancer and cancer patients benefit from access to more effective, national or regional, cancer control programmes across EU Member States and Associated Countries.
- Researchers, physicians, innovators¹⁵⁴, SMEs and other professionals from different disciplines and sectors have access to national, regional or local data on healthcare spending (such as expenditures, resources, organisation and type of healthcare interventions, medical prescriptions, drug sales, reimbursement data from health insurers, population-based cancer registries or other cancer-centred registry data, longitudinal epidemiology data) for research and commercial purposes.
- National or regional healthcare systems, healthcare providers, policymakers and authorities in European regions, EU Member States and Associated Countries have the evidence to improve equitable health outcomes of cancer patients by addressing costs, delivering value-driven cancer care and tackling organisational challenges of a rapidly-changinng dynamic cancer control¹⁵⁵ landscape.

Scope: Proposals should address all of the following:

• Establish, validate or further refine health-economics research, health systems research, epidemiological or outcomes research methods, models, or modelling to perform (comparative) cost-effectiveness and epidemiological analyses benefiting equitable health

¹⁵⁴ Innovators turn research results into new and better services and products, to remain competitive in a global marketplace and to improve the quality of life of Europe's citizens

¹⁵⁵ cancer control aims to reduce the incidence, morbidity and mortality of cancer and to improve the quality of life of cancer patients in a defined population, through the systematic implementation of evidencebased interventions for prevention, early detection, diagnosis, treatment, and palliative care

outcomes of people at risk of cancer as well as cancer patients living with and beyond their disease.

- Take into account socio-economic inequalities, socio-demographic, organisational or cultural trends, socio-cultural or behavioural change (for example in the case of primary prevention or precision medicine) by involving people at risk of cancer or cancer patients and their families through research that stimulates social innovation and supports end-user engagement using participative research models.
- Calculate cancer-control related healthcare expenditures¹⁵⁶ and its relation to value-based healthcare benefitting health outcomes of people at risk of cancer as well as cancer patients living with and beyond their disease, taking into account the needs of the target population and the specificities of healthcare provision at local, regional, or national level, duly reflecting the (cultural) diversity and available resources across EU Member States and Associated Countries.
- Improve **health outcomes** of people at risk of cancer or cancer patients and their families living with and beyond their disease, by demonstrating how to improve access to and the organisation of state-of-the-art, evidence-based, cost-effective cancer control programmes in dedicated cancer or medical centres, hospitals, at home or in community settings, taking into account the socio-cultural context, harms and benefits, overall survival or quality of life parameters.

The successful proposals are expected to build on resources made available by the Knowledge Centre on Cancer (KCC) to foster EU alignment and coordination¹⁵⁷.

Successful proposals will be asked to join the 'Understanding' project cluster of the EU Cancer Mission¹⁵⁸ and should include a budget for networking, attendance at meetings and joint activities¹⁵⁹. The Commission will facilitate coordination of these activities.

HORIZON-MISS-2027-02-CANCER-05: Pre-commercial procurement of affordable solutions for healthcare systems in the areas of cancer technologies, cancer medical devices, or cancer medicines

Call: Supporting the implementation of the Cancer Mission

¹⁵⁶ Healthcare expenditure statistics - overview - Statistics Explained - Eurostat

¹⁵⁷ Hosted by the European Commission's Joint Research Centre (JRC). Especially through the 'European Guidelines and Quality Assurance Schemes for Breast, Colorectal and Cervical Cancer Screening and Diagnosis', and the 'European Cancer Information System (ECIS)' and the 'European Cancer Inequalities Registry (ECIR), see https://knowledge4policy.ec.europa.eu/cancer_en.

¹⁵⁸ To address the objectives of the EU Cancer Mission, participants will collaborate in project clusters to leverage EU-funding, increase networking across sectors and disciplines, and establish a portfolio of EU Cancer Mission R&I and policy actions.

¹⁵⁹ Examples of those activities are organising joint workshops, establishing best practices, joint communication or citizen engagement activities with projects funded under other clusters and pillars of Horizon Europe, or other EU programmes, as appropriate. Proposals are not required to include details of these activities, as they will be defined during the grant agreement preparation and during the life of the project.

Specific conditions	
<i>Expected EU</i> <i>contribution per</i> <i>project</i>	The Commission estimates that an EU contribution of between EUR 8.00 and 10.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
Indicative budget	The total indicative budget for the topic is EUR 26.00 million.
Type of Action	Pre-commercial Procurement

<u>Expected Outcome</u>: Proposals under this topic should aim to deliver results that are directed and tailored towards, and contribute to all of the following expected outcomes: This action supports the follow-up to the <u>July 2023 Communication on EU Missions assessment</u>¹⁶⁰.

- Public procurers, possibly in cooperation with private ones, in the area of cancer-centred healthcare stimulate the competitive development of market-ready, affordable, innovative solutions.
- The chosen solutions take into consideration the needs of cancer patients living with and beyond cancer through research that supports end-user engagement using participative research models.
- Procurers create opportunities for the European health and technology industry actors (including start-ups, spin-offs, spin-outs, scale-ups, SMEs) to bring to the market affordable innovations that are cost-efficient, safe and have demonstrated improved health outcomes for cancer patients living with and beyond cancer.
- Procurers facilitate the commercialisation of innovative solutions for and with cancer patients by their successful suppliers through providing them with first customer references for the validation and first pilot deployment.
- Policymakers, healthcare providers and professionals, cancer patients and their carers each in their respective areas exchange and adopt good practices and the best treatment and technology solutions that the market can deliver through participative research.

<u>Scope</u>: Pre-commercial procurement (PCP) actions target consortia of procurers with similar needs that want to procure together the development of affordable, innovative solutions for healthcare systems in the areas of cancer technologies, cancer medical devices, or cancer medicines. ¹⁶¹.

¹⁶⁰ <u>EUR-Lex - 52023DC0457 - EN - EUR-Lex</u>

¹⁶¹ Pre-commercial procurement (PCP) actions target consortia of procurers with similar needs that want to procure together the development of affordable, innovative solutions for healthcare systems in the areas of cancer technologies, cancer medical devices, or cancer medicines. This topic does not provide direct funding to developers, industry or research organisations to perform R&D. They will be able to respond to the call for tenders launched by consortia of procurers funded under this call

Proposals should address all of the following:

- The focus should be on affordable solutions for healthcare systems in the areas of cancer technologies, cancer medical devices, or cancer medicines that benefit cancer patients. Within this topic, it is possible to foresee the transfer and adaptation of solutions and/or interventions from other sectors to healthcare systems. It is open both to proposals requiring improvements based on one specific solution or technology, as well as to proposals requiring end-to-end solutions that need combinations of different types of innovation.
- The requested innovative solutions for healthcare systems in the areas of affordable cancer technologies, cancer medical devices, or cancer medicines should be clinically validated, piloted or upscaled by the participating procurers in at least five different countries across the EU Member States and Associated Countries.
- Continuous dialogue between the demand and supply side is required for the success of pre-commercial procurement, therefore the effective involvement of end-users (e.g. academia, clinical teams, patients, local or regional medical services, hospitals, production facilities) must be considered in the proposal. To stimulate dialogue with the supply side, procurers are required to organise an open-market consultation before launching the procurement and to promote the call for tenders widely across Europe to potentially interested suppliers.
- Procurers should declare in the proposal their interest to purchase at least one solution resulting from the PCP in case the PCP delivers successful solutions and indicate whether they will (1) procure the solution(s) as part of the PCP or (2) in a separate follow-up procurement after the PCP. In the first case, procurers can implement the project as a fasttrack PCP (see general annex H) and foresee the budget to purchase at least one solution during the PCP. In the second case, the procurers must include in the proposal a deliverable that prepares the follow-up procurement to purchase successful solution(s) after the PCP.
- Activities covered should support national healthcare systems and mobilise technical assistance and/or capacity building to other procurers beyond the project to mainstream PCP implementation and to remove obstacles for introducing the innovative solutions for the benefit of cancer patients to be procured into the market.

HORIZON-MISS-2027-02-CANCER-06: Support a Young Cancer Survivor Quality of Life (QoL) research programme by cancer charities and funding agencies

Call: Supporting the implementation of the Cancer Mission	
Specific conditions	
Expected EU contribution per project	The Commission estimates that an EU contribution of around EUR 3.00 million would allow these outcomes to be addressed appropriately.

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	Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
Indicative budget	The total indicative budget for the topic is EUR 3.00 million.
Type of Action	Coordination and Support Actions

<u>Expected Outcome</u>: The successful proposal under this topic should aim to deliver results that are directed and tailored towards and contribute to all of the following expected outcomes: This action supports the follow-up to the <u>July 2023 Communication on EU Missions assessment</u>¹⁶².

- Together, a network of registered cancer charities and funding agencies support transnational research and innovation projects on quality of life of children (age range 0-14, age at time of first diagnosis), adolescents (age range 15-19, age at time of first diagnosis) and young adults (age range 20-39, age at time of first diagnosis, cancer patients and survivors using their own financial resources.
- Projects supported by the network of charities and funding agencies will boost quality of life and long-term outcomes for young cancer patients and survivors, including improved physical, emotional, and social well-being.
- Researchers, innovators, and professionals from different disciplines and sectors ensure accessibility and re-usability of relevant digital data, to support the future UNCAN.eu research data platform, which is currently in preparation.

<u>Scope</u>: Due to significant investments in research and innovation, cancer survival rates in Europe have soared, with more than 12 million survivors, including 500,000 childhood cancer survivors. However, survivors, their families, and caregivers continue to face numerous challenges. Young cancer survivors, in particular, frequently suffer from long-term effects of treatment, including mental health issues like depression and anxiety, chronic pain, fatigue, cardiovascular complications, organ and skin changes, and infertility, all of which severely impact their quality of life.

Proposals should address all of the following:

• Together, registered cancer charities and funding agencies across EU Member States and Associated Countries, organise, fund and implement at least two transnational calls for proposals, resulting in grants to third parties to conduct research and innovation projects targeting quality of life of children (age range 0-14, age at time of first diagnosis), adolescents (age range 15-19, age at time of first diagnosis) and young adults (age range 20-39, age at time of first diagnosis) cancer patients and survivors. Grants should be awarded, not only in order of ranking but also to ensure that all three age groups are addressed.

¹⁶² <u>EUR-Lex - 52023DC0457 - EN - EUR-Lex</u>

- Organise regular networking activities between partners, as well as with representatives of successful projects, patients and patient organisations, citizens and stakeholders across EU Member States and Associated Countries to support the implementation of the action;
- Organise outreach campaigns at local, regional and national levels to raise awareness among different groups (citizens, patients and survivors, research communities, local, regional and national authorities etc.) about research and innovation projects funded through the transnational calls, including disseminating and exploiting research results. Where relevant, liaising with the National Cancer Mission Hubs which are in development through the ECHoS¹⁶³project should be considered.

Projects to be financed by charities and funding agencies through transnational calls for proposals are expected to:

- Develop, test and scale up in real-life settings innovative, holistic approaches and tools (including digital tools), optimising cancer treatment and follow-up regimens to improve the quality of life of young cancer patients and survivors.
- The chosen intervention(s) should be adapted to the specificities of the provision of care at local, regional, or national level, duly reflecting the diversity across EU Member States and Associated Countries.
- Projects should clearly benefit local communities of patients and survivors.

Under this topic, the EU contribution will therefore aim to facilitate the coordination and networking between charities and funding agencies themselves as well as with relevant stakeholders across EU Member States and Associated Countries. The EU contribution will not co-fund projects.

This topic requires direct involvement of cancer patients and survivors, survivor representative organisations, caregivers, and the effective contribution of SSH disciplines and the involvement of SSH experts, institutions as well as the inclusion of relevant SSH expertise, in order to produce meaningful and significant results, enhancing the impact of the related research activities.

The use of participative research models, such as oncology-centred living labs or other approaches to deliver (social) innovation should be considered, prioritising involvement of local communities.

Due consideration should be given to EU-funded and other relevant initiatives such as: EU-CAYAS-NET¹⁶⁴; OACCUs¹⁶⁵; EUonQoL¹⁶⁶; e-Quol¹⁶⁷ as well as projects funded under the

¹⁶³ ttps://cancermissionhubs.eu/

¹⁶⁴ <u>https://siope.eu/news/news-from-eu-cayas-net-Oct22/</u>

¹⁶⁵ https://health.ec.europa.eu/non-communicable-diseases/cancer/europes-beating-cancer-plan-eu4health-financed-projects/projects/oaccus_en

¹⁶⁶ <u>Quality of Life in Oncology (euonqol.eu)</u>

¹⁶⁷ https://equolproject.eu/.

Cancer Mission call HORIZON-MISS-2024-CANCER-01-05: Improving the understanding and management of late-effects in adolescents and young adults (AYA) with cancer.¹⁶⁸.

Successful proposals will be asked to join the 'Quality of Life' cluster for the Cancer Mission¹⁶⁹ and should include a budget for networking, attendance at meetings, and potential joint activities.¹⁷⁰. The Commission will facilitate coordination of these activities.

Cancer: Other Actions

^{168 &}lt;u>EU Funding & Tenders Portal</u>

¹⁶⁹ In order to address the objectives of the Cancer Mission, participants will collaborate in project clusters to leverage EU-funding, increase networking across sectors and disciplines, and establish a portfolio of Cancer Mission R&I and policy actions.

¹⁷⁰ Examples of those activities are organising joint workshops, establishing best practices, joint communication or citizen engagement activities with projects funded under other clusters and pillars of Horizon Europe, or other EU programmes, as appropriate. Proposals are not required to include details of these activities, as they will be defined during the grant agreement preparation and during the life of the project

Supporting the implementation of the Restore our Ocean and Waters Mission

The Mission 'Restore our ocean and waters by 2030' provides a systemic approach to restore, protect and preserve the health of our ocean, seas and waters. The Mission is designed to deliver on the European Union's 2030 quantified and measurable targets for protecting and restoring ecosystems and biodiversity, for achieving zero pollution, and for decarbonising and reducing net greenhouse gas emissions from the blue economy towards climate-neutrality, within the EU's seas and waters.

The actions to be financed under this Work Programme support the implementation of the **European Ocean Pact**¹⁷¹ and the **European Water Resilience Strategy**¹⁷², as well as the **Nature Restoration Regulation**¹⁷³ and the **EU marine action plan**¹⁷⁴, contributing to the restoration of ocean and waters ecosystems for people, the climate and the planet.

The actions to be financed under this Work Programme will address the three specific objectives of the Mission and their related 2030 targets outlined in the implementation plan of the Mission "Restore our Ocean and waters by 2030" ¹⁷:

- **Protecting** 30% including 10% strictly protected of the EU's sea area **and restoring degraded marine ecosystems and biodiversity** and 25.000 km of free-flowing rivers (in line with EU Biodiversity Strategy 2030 and the Nature Restoration Regulation);
- **Preventing and eliminating pollution** at sea by reducing plastic litter by 50%, the release of microplastics into the environment by 30%, nutrient losses and use of chemical pesticides by 50% (in line with the EU Action Plan Towards Zero Pollution for Air, Water and Soil); and
- Making the blue economy climate-neutral and circular with net-zero maritime and aquaculture emissions (in line with the European Climate Law and the Sustainable Blue Economy Strategy).

They will also contribute to both cross-cutting enablers that support these objectives, by enhancing the digital ocean and water knowledge system, through the development of the Digital Twin Ocean (DTO)as well as broad public mobilisation and engagement in the co-design and co-delivery of the solutions.

The actions will contribute to transitions of the European Green Deal in an inclusive way, ensuring the uptake of innovative solutions and supporting their further replication and deployment. Activities proposed will provide **the necessary knowledge and solutions** for restoring seas, coasts and rivers across the EU and will specifically **support national, regional and local authorities** as well as local communities, especially those dependent on healthy seas,

¹⁷¹ COM(2025)281

¹⁷² COM(2025) 280

¹⁷³ Regulation (EU) 2024/1991

¹⁷⁴ COM(2023) 102 final

oceans and inland waters (e.g., coastal communities, islands, waterfront cities, coastal regions, river catchments, fishing and maritime stakeholders).

As mentioned in the Implementation Plan of the Mission [ref IP section 2.1.1], in the second 'deployment and upscaling' phase (2026-2030), the solutions already developed and piloted to deliver on the Mission and Green Deal objectives will be further replicated and scaled up. This will enable broad participation in the Mission across the EU. These scale-up actions will bring new innovations (either developed in the first phase of the Mission or outside) to the local contexts and adapt solutions so they can be replicated in new areas.

The Mission Work Programme 2026-27 will also contribute to accelerate the innovation cycle of ocean and water technologies and leverage investments from other EU programmes (including ERDF, EMFAF, LIFE, EIB e.g. through BlueInvest and a second edition of Blue Champions), national and sub-national programmes and philanthropy. Synergies will be sought also with the new EIT Knowledge and Innovation Community on Water, Marine and Maritime Sectors and Ecosystems¹⁷⁵, to be launched at the end of 2025.

The regional and local deployment of the Mission, its demonstration sites and the Associated Regions scheme as well as further co-operation and synergies with regional and local authorities will be key to reach the 2030 goals.

The Mission supports many Sustainable Development Goals (SDGs), in particular SDG 14 - Life below water and SDG 6 - Clean water and sanitation, as well as to SDG13 - Climate action.

The Mission also contributes to the UN Decade of Ocean Science for Sustainable Development by fostering research and cooperation across European sea basins, including the EU Outermost Regions and beyond, and mobilise scientists, as well as citizens for a sustainable and healthy ocean, seas and waters.

Proposals are invited against the following topic(s):

HORIZON-MISS-2026-03-OCEAN-01: Large-scale demonstration for mapping the distribution and condition of marine habitats to implement the Nature Restoration Regulation

Call: Supporting the implementation of the Restore our Ocean and Waters Mission Specific conditions		
Indicative budget	The total indicative budget for the topic is EUR 32.00 million.	

^{175 &}lt;u>EIT Water | EIT</u>

Type of Action	Innovation Actions
Eligibility conditions	The conditions are described in General Annex B. The following exceptions apply:
	If projects use satellite-based earth observation, positioning, navigation and/or related timing data and services, beneficiaries must make use of Copernicus and/or Galileo/EGNOS (other data and services may additionally be used).
	All international organisations are exceptionally eligible for funding.
Procedure	The procedure is described in General Annex F. The following exceptions apply:
	To ensure a balanced portfolio covering the 4 different Mission basins ¹⁷⁶ (1. Atlantic and Arctic sea basin, 2. Mediterranean Sea basin, 3. Baltic and North Sea basin, 4. Danube River basin, including Black Sea), grants will be awarded to applications not only in order of ranking but at least also to one proposal that is the highest ranked within each sea basin, provided that the applications attain all thresholds.
Legal and financial set-up of the Grant Agreements	The rules are described in General Annex G. The following exceptions apply:
	Beneficiaries may provide financial support to third parties. The support to Third Parties can only be provided in the form of grants. The Financial Support to Third Parties may only be awarded to local and/or regional authorities (established as public bodies by public law and governed by public law) located in Member States/AssociatedCountries, which are not already involved in a demonstration site of the same project. The maximum amount to be granted to each Third Party is EUR 100,000, aiming at showcasing the effectiveness of solutions demonstrated by a project and develop a replication plan for their uptake in an 'associated region' ¹⁷⁷ . A recipient may only benefit from this Financial Support to Third Parties once within the entire duration of the project.
	Beneficiaries will be subject to the following additional obligations regarding open science practices: if projects collect in-situ data and marine observation, beneficiaries must make them openly available through the European Marine Observation and Data network (EMODnet), based on the FAIR (Findable, Accessible, Interoperable, Reusable) principles.

¹⁷⁶ For the purposes of Mission Ocean and waters, Member States/Associated Countries, are considered to be part of a given sea/river basin if they have a coast/riverbank on the relevant sea/river or contain river basins flowing into the relevant sea

Regional or local authorities established as public bodies by national law and governed by public law.

<u>Expected Outcome</u>: This topic aims at directly engaging and supporting relevant public authorities with mapping at scale the conditions of marine habitats needed for implementing the Nature Restoration Regulation and for achieving one or several objectives of the Mission Restore our Ocean and Waters¹⁷⁸. The direct involvement of relevant authorities and stakeholders in the consortium is strongly encouraged.

Project results are expected to contribute to all the following expected outcomes:

- Member States have the capacity and access to tried and tested solutions to complete the mapping of the distribution and condition of coastal and marine habitats listed in Annex II of the Nature Restoration Regulation¹⁷⁹ (NRR) in the waters under their jurisdiction, which is needed to fulfil the obligations under Article 5 of the NRR within the deadlines, and obligations under the Marine Strategy Framework Directive (MSFD) and the Birds and Habitats Directive (BHD);
- Substantial areas of habitats have been mapped and their condition assessed. Priority should be given to Groups 1-6 of Annex II, followed by Group 7 of Annex II ¹⁸⁰, in line with applicable deadlines;

Member States have the capacity to determine priority areas for restoring marine habitats, and to prepare, update and implement their national restoration plans under the NRR, also contributing to the implementation of marine strategies under the MSFD and obligations under the BHD.

<u>Scope</u>: In line with the objectives and targets of the EU biodiversity strategy for 2030, the Nature Restoration Regulation targets (in particular those set for 2030), the Birds and Habitats Directives, the Marine Strategy Framework Directive and the Kunming-Montreal Global Biodiversity Framework (GBF) and relevant national strategies contributing to these objectives, proposals should:

- Leverage and integrate the best available operational knowledge, technologies and tools, including those delivered by projects from Horizon 2020 and Horizon Europe, to meet the EU Biodiversity strategy goals and targets and facilitate the preparation of national restoration plans by addressing the gaps in monitoring and mapping capabilities for marine habitats in the 22 coastal Member States;
- Test and demonstrate in situ the best methods and tools for large-scale cost-effective and comprehensive mapping and monitoring of EUNIS marine habitats covered by the NRR, giving priority to Groups 1-6 in Annex II of the NRR, followed by Group 7 of Annex II.

¹⁷⁸ Mission Ocean and Waters Implementation Plan: <u>Implementation Plans for the EU Missions - European</u> <u>Commission</u>

¹⁷⁹ Regulation (EU) 2024/1991 of the European Parliament and of the Council of 24 June 2024 on nature restoration and amending Regulation (EU) 2022/869 (Text with EEA relevance) : <u>Regulation - EU - 2024/1991 - EN - EUR-Lex</u>

¹⁸⁰ The list below includes the marine habitat types referred to in Article 5(1) and (2), as well as seven groups of those habitat types, namely 1) seagrass beds, 2) macroalgal forests, 3) shellfish beds, 4) maerl beds, 5) sponge, coral and coralligenous beds, 6) vents and seeps and 7) soft sediments (not deeper than 1 000 metres of depth)

The areas actually mapped should correspond to the needs and requirements of the NRR and corresponding targets. The project should consider regional specificities and build on the methods developed under the MSFD and BHD, relevant Commission's guidance documents and the work ongoing under the LIFE MAPPER project¹⁸¹;

- Implement demonstration activities in at least 4 large areas in one of the Mission basinscale lighthouses, which and demonstrate the scalability and replicability of the tools and methods. The demonstration areas should fill gaps in the geographical coverage of mapping marine habitats, assessing and monitoring their condition, taking into consideration the need to address regional specificities. Demonstration activities should strongly and directly involve relevant authorities;
- Develop, together with relevant national authorities and organisations responsible for marine environmental protection in the EU marine regions, a blueprint for the further upscaling and deployment of demonstrated approaches. The blueprint should aim at enhancing the capacity of Member States and Associated countries to complete the mapping, long-term observation and monitoring systems of marine habitats and ensuring that the mapping and restoration measures are continuously evaluated and adapted, based on updated, high-quality ecological data;
- Contribute to data collection and data sharing through the European Marine Observation and Data Network (EMODnet) and to support the Digital Twin Ocean.

Each proposal should address only one basin-scale Mission "lighthouse", which should be explicitly stated in the proposal, i.e.: 1. Atlantic and Arctic Sea basin or 2. Mediterranean Sea basin or 3. Baltic and North Sea basin or 4. Danube River basin including the Black Sea. Activities should be tailored to address regional/sea basin specificities. The basin-scale Mission "lighthouses" include the river basins flowing into the respective sea basins.

Projects are expected to build on the best available actionable knowledge, methods and innovations notably from the results of national and EU-funded projects. Where relevant, projects should build on and link with the ongoing work on marine habitat assessments under regional sea conventions. Applicants are encouraged to make use of relevant EU digital infrastructures, such as the EU Digital Twin Ocean, Copernicus and EMODnet.

Projects are expected to show a significant replication potential across the EU by directly involving relevant authorities and stakeholders, by promoting collaborations between relevant authorities and other stakeholders facing similar challenges, and by identifying further stakeholders that could replicate the proposed solutions and approaches.

Competent authorities and other stakeholders participating in the project are encouraged to pool and enhance synergies¹⁸² with other sources of national, regional and European (e.g. structural,

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cohesion funds such as ERDF, or LIFE) funding for implementing and deploying innovative solutions.

Projects are expected to work with and engage at least 4 'associated regions' (represented by local/regional authorities/public bodies) to show the effectiveness of solutions to increase resilience and develop a replication plan for its uptake in an 'associated region' and build capacity at local level. Beneficiaries may therefore provide Financial Support to Third Parties (see the Specific Conditions table for this topic). Projects should (1) ensure that the 'associated regions' are not already involved in project's demonstration sites, (2) proactively reach out to the 'associated regions' to enable them to follow closely the project's activities, (3) continuously share their outcomes and knowledge with those 'associated regions' and (4) provide associated regions with technical assistance to build capacity and to implement in their territory the approaches developed by the project.

HORIZON-MISS-2026-03-OCEAN-02: Addressing aquatic pollution and biodiversity loss through nature positive solutions from source to sea

Can. Supporting	the implementation of the Restore our Ocean and waters mission	
Specific conditions		
Expected EU contribution per project	The Commission estimates that an EU contribution of between EUR 7.00 and 8.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.	
Indicative budget	The total indicative budget for the topic is EUR 32.00 million.	
Type of Action	Innovation Actions	
Eligibility conditions	The conditions are described in General Annex B. The following exceptions apply:	
	If projects use satellite-based earth observation, positioning, navigation and/or related timing data and services, beneficiaries must make use of Copernicus and/or Galileo/EGNOS (other data and services may additionally be used).	
Procedure	The procedure is described in General Annex F. The following exceptions apply:	
	To ensure a balanced portfolio covering the 4 different Mission basins ¹⁸³ (1. Atlantic and Arctic sea basin, 2. Mediterranean Sea basin, 3. Baltic and North Sea basin, 4. Danube River basin, including Black Sea), grants will be awarded to applications not only in order of ranking but	

Call: Supporting the implementation of the Restore our Ocean and Waters Mission

¹⁸³ For the purposes of Mission Ocean and waters, Member States/Associated Countries, are considered to be part of a given sea/river basin if they have a coast/riverbank on the relevant sea/river or contain river basins flowing into the relevant sea

	at least also to one proposal that is the highest ranked within each sea basin, provided that the applications attain all thresholds.
Legal and financial set-up of the Grant Agreements	The rules are described in General Annex G. The following exceptions apply: Beneficiaries may provide financial support to third parties. The support to Third Parties can only be provided in the form of grants. The Financial Support to Third Parties may only be awarded to local and/or regional authorities (established as public bodies by public law and governed by public law) located in Member States/AssociatedCountries, which are not already involved in a demonstration site of the same project. The maximum amount to be granted to each Third Party is EUR 100,000, aiming at showcasing the effectiveness of solutions demonstrated by a project and develop a replication plan for their uptake in an 'associated region' ¹⁸⁴ . A recipient may only benefit from this Financial Support to Third Parties once within the entire duration of the project.
	Beneficiaries will be subject to the following additional obligations regarding open science practices: if projects collect in-situ data and marine observation, beneficiaries must make them openly available through the European Marine Observation and Data network (EMODnet), based on the FAIR (Findable, Accessible, Interoperable, Reusable) principles.

<u>Expected Outcome</u>: This topic aims at directly engaging and supporting public authorities and other relevant stakeholders (e.g. socio-economic actors such as farmers, landowners, aquaculture producers, tourist operators, fishers, businesses, water management authorities) in addressing aquatic pollution and biodiversity loss, thereby demonstrating and accelerating the transitions needed for achieving one or several objectives of the Mission "Restore our Ocean and Waters". The direct involvement of relevant authorities and stakeholders in the consortium is strongly encouraged.

Project results are expected to contribute to all the following expected outcomes:

- Member States and Associated Countries are provided with cost-effective solutions to reach the targets of the Water Framework and the Marine Strategy Framework directives, the Urban Wastewater Treatment Directive, and the EU strategy for sustainable chemicals and enabled to take action to implement the targets of the EU biodiversity, climate adaptation and water resilience strategies for 2030 and the EU zero pollution action plan;
- National, regional and local authorities and other relevant stakeholders have access to and are supported in deploying cost-effective, adaptative and nature-positive solutions to remediate and reduce pollution from nutrients, chemicals, plastics and microplastic in

¹⁸⁴ Regional or local authorities established as public bodies by national law and governed by public law.

from source to sea, while protecting and restoring the capacity of ecosystems to provide services and adapt to climate change impacts;

• Measurable, quantifiable, verifiable and ambitious progress towards reaching one or several interlinked objectives and targets of the Mission "Restore our Ocean and Waters by 2030", as set out in the Mission Implementation Plan¹⁸⁵ through implementing effective and well-managed place-based and people-centred actions;

Public and private investment is encouraged and mobilised to implement nature-positive solutions for addressing pollution in the ocean and waters.

<u>Scope</u>: Pollution of freshwater and marine environments from nutrients, chemicals and plastics including microplastics poses proven risks to human and environmental health. As the latest assessments of the Marine Strategy Framework Directive and Water Framework Directive have shown, large parts of Europe's groundwater bodies, rivers, lakes, coastal, transitional and marine waters have not reached good ecological or good environmental status and often exceed regulatory threshold levels set to avoid potential risk to human health and the environment. In addition, land and sea uses changes as well as increasing climate change impacts are cumulative drivers of biodiversity erosion and of ecosystems services in the continuum from watershed to coastal and marine ecosystems.

Nature-positive approaches and solutions are particularly promising to address both aquatic pollution and biodiversity loss, such as nature-based solutions (NbS)¹⁸⁶, including protection and restoration measures, hybrid NbS, bioremediation (with plants, bivalve or other organisms), regenerative practices and methods (e.g.: via shellfish and algae farming), agro-ecological measures, management measures across biomes including for mobile and migratory species, technologies or other relevant innovation.

Proposals should address all of the following:

- Based on a sound understanding of the main pollution sources and the connectivity between watersheds, coastal and marine ecosystems, identify, assess and make available to stakeholders the most regionally relevant and effective nature-positive solutions and combinations thereof to address pollution and biodiversity loss, considering their relevance under future climate and biodiversity scenarios;
- Test and upscale systemic and innovative combinations of nature-positive approaches, solutions and new technologies to reduce nutrient, chemical, plastic including microplastic

See section 1.2. of the Mission Ocean and Waters Implementation Plan: <u>https://research-and-innovation.ec.europa.eu/system/files/2021-</u>09/ocean and waters implementation plan for publication.pdf

¹⁸⁶ "Solutions that are inspired and supported by nature, which are cost-effective, simultaneously provide environmental, social and economic benefits and help build resilience. Such solutions bring more, and more diverse, nature and natural features and processes into cities, landscapes and seascapes, through locally adapted, resource-efficient and systemic interventions." <u>Nature-based solutions - European</u> <u>Commission</u>

pollution, considering together functionally connected freshwater, coastal and marine ecosystems;

- Conduct demonstration activities in at least 4 sites from source to sea covering the most relevant social-ecological systems in one of the Mission basin-scale lighthouses, with direct and strong involvement of public bodies and other relevant socio-economic stakeholders to ensure their support for implementing, maintaining and financing nature-positive solutions in their territories. The scale and range of the site(s) for demonstration activities should be ecologically relevant and impactful for achieving the Mission 2030 objectives;
- Monitor pollution levels in each demonstration site to assess the impact and contribution of the activities towards the Mission objectives and targets, including removal rates, retention capacities, ecosystem responses and modelling techniques, to ensure monitoring of the activities and inform adaptive management. Projects should design monitoring strategies that extend beyond the project duration, contributing to long-term datasets crucial for assessing cumulative impacts, ecosystem recovery trajectories and informing future interventions. The monitoring should make use of, adapt or exploit relevant sensing and modelling tools, EU digital infrastructures, such as the EU Digital Twin Ocean, Copernicus and EMODnet;
- Quantify and forecast the ecosystem services provided by implementing nature-positive solutions (e.g. pollution reduction, ecosystems services restored) and the resulting societal goods and benefits;
- Assess the economic viability, potential for scale-up, and societal acceptance of integrated approaches for the management of connected ecosystems from source to sea and promote the development of new business models for the implementing these approaches.

Each proposal should address only one basin / Mission "lighthouse", which should be explicitly stated in the proposal, i.e.: 1. Atlantic and Arctic sea basin or 2. Mediterranean Sea basin or 3. Baltic and North Sea basin or 4. Danube River basin including the Black Sea. Activities should be tailored to address regional/sea basin specificities. The basins / Mission "lighthouses" include the river basins flowing into the respective sea basins.

Projects should build on the best available actionable knowledge, methods and innovations notably from the results of previous national and EU projects.

Competent authorities and other stakeholders participating in the project are encouraged to pool and enhance synergies¹⁸⁷ with other sources of funding (e.g. structural, cohesion funds such as ERDF, or LIFE) for implementing and deploying innovative solutions.

Projects are expected to show a significant replication potential by directly involving relevant authorities and stakeholders, by promoting collaborations between relevant authorities and other stakeholders facing similar challenges, and by identifying further stakeholders that could

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replicate the proposed solutions and approaches. Actions plans and roadmaps needed for the replication and up-scale of the solutions should be drawn up by the end of the projects.

Projects are expected to work with and engage at least 4 'associated regions' (represented by local/regional authorities/public bodies) to show the effectiveness of solutions to increase resilience and develop a replication plan for its uptake in an 'associated region' and build capacity at local level. Beneficiaries may therefore provide Financial Support to Third Parties (see the Specific Conditions table for this topic). Projects should (1) ensure that the 'associated regions' are not already involved in this project's demonstration sites, (2) proactively reach out to the 'associated regions' to enable them to follow closely the project's activities, (3) continuously share their outcomes and knowledge with those 'associated regions' and (4) provide them with technical assistance to build capacity and to implement in their territory the approach they developed.

HORIZON-MISS-2026-03-OCEAN-03: By fishers, for fishers: co-management of marine and freshwaters ecosystems and resources

Call: Supporting the implementation of the Restore our Ocean and Waters Mission		
Specific conditions		
<i>Expected EU</i> <i>contribution per</i> <i>project</i>	The Commission estimates that an EU contribution of between EUR 7.00 and 8.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.	
Indicative budget	The total indicative budget for the topic is EUR 32.00 million.	
Type of Action	Innovation Actions	
Eligibility conditions	The conditions are described in General Annex B. The following exceptions apply: If projects use satellite-based earth observation, positioning, navigation and/or related timing data and services, beneficiaries must make use of Copernicus and/or Galileo/EGNOS (other data and services may additionally be used). The following additional eligibility criteria apply: in addition to the standard eligibility conditions, the consortium must carry out demonstration activities in at least 5 sites in 3 different Member States or Associated Countries of the basin addressed by the proposal (i.e.: 1. Atlantic and Arctic basin or 2. Mediterranean Sea basin or 3. Baltic and North Sea basin or 4. Danube River basin, including Black Sea), and include, as beneficiaries, legal entities established in these respective countries.	

Call: Supporting the implementation of the Restore our Ocean and Waters Mission

Technology Readiness Level	Activities are expected to achieve TRL 6-8 by the end of the project – see General Annex B.
Procedure	The procedure is described in General Annex F. The following exceptions apply:
	To ensure a balanced portfolio covering the 4 different Mission basins ¹⁸⁸ (1. Atlantic and Arctic sea basin, 2. Mediterranean Sea basin, 3. Baltic and North Sea basin, 4. Danube River basin, including Black Sea), grants will be awarded to applications not only in order of ranking but at least also to one proposal that is the highest ranked within each sea basin, provided that the applications attain all thresholds.
Legal and financial set-up of the Grant Agreements	The rules are described in General Annex G. The following exceptions apply: Beneficiaries will be subject to the following additional obligations regarding open science practices: if projects collect in-situ data and marine observation, beneficiaries must make them openly available through the European Marine Observation and Data network (EMODnet), based on the FAIR (Findable, Accessible, Interoperable, Reusable) principles.

Expected Outcome:

Project results are expected to contribute to all of the following outcomes:

- Measurable improvements in the status of critical marine and/or freshwaters habitats and species through active and passive conservation and restoration measures;
- Increased sustainability of fishing practices and tools and enhanced implementation of eco-system-based approaches as outlined in the Common Fisheries Policy (CFP);
- Measurable socio-economic benefits for local communities, skill development and job creation;
- Enhanced governance in the co-management of ecosystems and resources at local and basin level and overall strengthened Mission governance framework;
- Improved cross-border coordination in fish movement data collection and exchange.

<u>Scope</u>: The Communication of the Commission on "A vision for agriculture and food sectors -Shaping together an attractive EU farming and food sector for future generations"¹⁸⁹ highlights the strategic importance of fisheries for the Union and the role fishers play, *as custodians of*

¹⁸⁸ For the purposes of Mission Ocean and waters, Member States/Associated Countries, are considered to be part of a given sea/river basin if they have a coast/riverbank on the relevant sea/river or contain river basins flowing into the relevant sea

¹⁸⁹ COM(2025) 75 final

nature, for the protection and resilience of our ocean, waters, and biodiversity. Equally important are the objectives and actions set out in the EU Action Plan: Protecting and restoring marine ecosystems for sustainable and resilient fisheries¹⁹⁰.

Proposals under this topic are expected to show how activities and results will contribute to achieve both Mission objective 1 - Protect and restore marine and freshwater ecosystems and biodiversity, and Mission objective 3 - Sustainable, carbon-neutral and circular blue economy.

The goal is to further develop adaptive co-management approaches to reconcile fisheries with the environment sustainability, ensuring the long-term viability of both marine and/or freshwater ecosystems and local livelihoods. This approach promotes a harmonious relationship between fishers and coastal communities, fostering a more sustainable and inclusive management of marine resources. Co-management approaches should incorporate long-term participatory ecological monitoring, engaging fishers directly in data collection and contributing to a continuous assessment of ecosystem health and fisheries sustainability.

Proposals should address all following issues:

- focus on empowering fishers, including small-scale and recreational fishers, towards a transition to sustainable fisheries by engaging and involving them in co-management of the marine and freshwaters ecosystems and resources, in particular in protected areas and reserves where fishing is allowed;
- show active involvement of fishers since the start of the project;
- test and demonstrate on the ground sustainable and inclusive science-based approaches and solutions for the co-management of marine and freshwaters resources.

Active engagement of fishers in habitat protection and restoration could include e.g.: regenerative practices; ecosystem management approaches; measures for prevention and control of invasive species; fish stock recovery plans; sustainable low-impact fishing operations, technologies and tools; multipurpose use of marine space as well as citizen science actions to raise fishers' awareness and involve them in all steps from data collection to their assessment and use.

Each proposal should identify explicitly the basin being addressed, i.e.: 1. Atlantic and Arctic sea basin or 2. Mediterranean Sea basin or 3. Baltic and North Sea basin or 4. Danube River basin, including Black Sea. Only one basin per proposal should be addressed.

The effectiveness and efficiency of the measures proposed must be demonstrated in at least 5 demonstration sites in three different Member States or Associated Countries per basin.

The active involvement of fishers in the testing/demonstration activities is crucial to tailor the solutions to specific conditions and to ensure that their knowledge, needs and expectations are taken in due account.

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Training and communication activities addressing fishers and relevant stakeholders, including local/regional authorities, should be also included to build capacity and promote sustainable developments and business opportunities at local level, including in relation to impact of climate change on resource availability. The involvement of Social Science and Humanities (SSH) experts might be useful for these activities. Proposals should also consider the gender dimension in the implementation of the activities.

In addition, projects should ensure that fishers adopt ethical and sustainable practices and methods that prioritise animal welfare and prevent unnecessary harm to marine and freshwater species.

Activities are expected to contribute to data collection and data sharing through the European Marine Observation and Data Network (EMODnet) and to support the Digital Twin Ocean.

Continuous monitoring and assessment of the activities implemented by the projects should be ensured to measure ecological and socio-economic impacts (e.g.: on employment, working conditions, income, well-being) and the contribution of the activities to achieve the Mission objectives and targets.

Projects are expected to show a significant replication potential by identifying a range of relevant stakeholders that could replicate the proposed solutions and approaches. Actions plans and roadmaps needed for the replication and up-scale of the solutions should be drawn up by the end of the projects.

Governance issues should be addressed in order to ensure effective implementation of the activities and foster multi-level governance across national, regional and local level and to facilitate exchanges and replication between different actors.

HORIZON-MISS-2026-03-OCEAN-04:	Towards	a	European	network	of	ocean
technology testing sites						

Call: Supporting the implementation of the Restore our Ocean and Waters Mission		
Specific conditions		
Expected EU contribution per project	The Commission estimates that an EU contribution of between EUR 2.50 and 3.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.	
Indicative budget	The total indicative budget for the topic is EUR 3.00 million.	
Type of Action	Coordination and Support Actions	
Eligibility conditions	The conditions are described in General Annex B. The following exceptions apply:	

If projects use satellite-based earth observation, positioning, navigation
and/or related timing data and services, beneficiaries must make use of
Copernicus and/or Galileo/EGNOS (other data and services may
additionally be used).

Expected Outcome:

Project results are expected to contribute to all of the following outcomes:

- Harmonized approaches and processes across sites to ensure consistent and simplified access, taking into consideration the sensitivity of marine ecosystems in and around the sites;
- Accelerated innovation cycles for ocean technologies, shortened time-to-market and reduced costs and risks associated with offshore trials;
- Availability of cost-efficient at physical testing sites and expertise reducing the need for specialised in-house equipment and competencies;
- Enhanced ocean technologies ecosystem in support of European leadership in the global market;
- Provision of cost-efficient access to testing sites and expertise, reducing the need for specialised in-house equipment and competencies.

<u>Scope</u>: The development and deployment of innovative ocean technologies for a wide range of applications are paving the way for more sustainable use of marine resources, for effective ocean monitoring and observation, for enhancing security and safety of offshore operations and infrastructures, for advancing offshore industries.

Access to dedicated offshore sites for testing and validating these technologies in real-world marine environments can be cumbersome. There is a need to accelerate the innovation cycles of these technologies and support companies in the transition from laboratory to market-ready solutions. This topic is closely linked with the Technology Infrastructure initiatives under Horizon Europe Cluster 4 – Digital, Industry and Space¹⁹¹ and contributes to its overall objective of allowing companies to derisk their R&D&I investments before market introduction and to have ideas and concepts tested and validated in real conditions for faster uptake at commercial scale, while enhancing knowledge and skills, in line with the recommendations of the Commission Expert Group on Technology Infrastructures¹⁹². ...

¹⁹¹ Technology Infrastructures are described in European Commission Staff Working Document (SWD 2019/158) as 'facilities, equipment, capabilities and support services required to develop, test and upscale technology to advance from validation in a laboratory up to higher Technology Readiness Levels prior to competitive market entry. They can have public, semi-public or private status

¹⁹² Towards a European policy for technology infrastructures - Publications Office of the EU; User needs for technology infrastructures - Publications Office of the EU

Proposals should originate from European operators of testing sites for ocean technologies. The aim is to establish or expand existing well-connected networks of physical sites centred in various geographical locations, complemented by digital twin -based sites, offering diverse marine environmental conditions across Europe for testing ocean technology prototypes and demonstrators, and supporting the testing process with unique competences and know-how, in line with certification requirements and in a way that sensitive technological developments and Intellectual Property Rights (IPRs) are preserved.

The physical testing sites can be complemented by digital twin representations making use of the EU digital twin of the ocean (DTO) public infrastructure. This digital twin-based testing sites are highly effective for testing and validating ocean technologies as they provide a virtual replica of real-world marine environments and then enable accurate simulations and assessments of how technologies will perform in actual conditions, providing a controlled, risk-free environment for testing and validation.

Projects are expected to improve the integration and structure of the European landscape of ocean testing sites, including digital twin-based sites, by involving relevant actors to cover a broad range of sites for various ocean technologies and application areas, including ocean observation and monitoring.

All following issues should be addressed:

- Identification and mapping of testing sites, taking into consideration the sensitivity of marine ecosystems in and around the sites, with involvement of relevant actors and related services, including digital twin-based testing sites if relevant;
- Analysis of user needs and identification of existing gaps in ocean testing sites (physical and digital) and in the provision of services, including certification services, simulation, prototyping support, environmental monitoring and environmental impact assessment related services, as well as obstacles hampering access and use by the industry;
- Set up of an integrated and coordinated European network of testing sites, addressing, in a harmonised and simplified way, issues such as: alignment of access policy and conditions, regulatory framework and governance models, service delivery models, data security issues, protection of trade secrets and IPRs, outreach measures towards new users, SMEs and start-ups in particular; support to training and skills development;
- Measures to support collaboration between academic and research institutions, including European Research Infrastructure ¹⁹³, industry players, regulators and investors to accelerate the innovation cycles of marine technologies as well as coordination between geographically dispersed sites;

¹⁹³ shttps://research-and-innovation.ec.europa.eu/funding/funding-opportunities/funding-programmes-andopen-calls/horizon-europe/research-infrastructures_en

• Identification of joint investment opportunities to enhance the capacity and the portfolio of services of testing sites (e.g.: potential technological upgrades; access to new sites; provision of new services; etc.) and ensure long-term sustainability.

Proposals are encouraged to link to and build on existing or emerging testing sites with a track record in delivering at sea demonstration/testing services in the fields of ocean technologies as well as to relevant European Research Infrastructures. Proposals are encouraged to support the inclusion of testing sites in less-developed coastal regions and, when relevant, in EU Outermost regions.

HORIZON-MISS-2026-03-OCEAN-05: Regional (sea-basins) components of the EU Digital Twin Ocean

Call: Supporting the implementation of the Restore our Ocean and Waters Mission		
Specific conditions		
Expected EU contribution per project	The Commission estimates that an EU contribution of around EUR 5.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.	
Indicative budget	The total indicative budget for the topic is EUR 20.00 million.	
Type of Action	Innovation Actions	
Eligibility conditions	The conditions are described in General Annex B. The following exceptions apply: If projects use satellite-based earth observation, positioning, navigation and/or related timing data and services, beneficiaries must make use of Copernicus and/or Galileo/EGNOS (other data and services may additionally be used). All international organisations are exceptionally eligible for funding.	
Procedure	The procedure is described in General Annex F. The following exceptions apply: To ensure a balanced portfolio covering the 4 different Mission basins ¹⁹⁴ (1. Atlantic and Arctic sea basin, 2. Mediterranean Sea basin, 3. Baltic and North Sea basin, 4. Danube River basin, including Black Sea), grants will be awarded to applications not only in order of ranking but at least also to one proposal that is the highest ranked within each sea basin, provided that the applications attain all thresholds.	

¹⁹⁴ For the purposes of Mission Ocean and waters, Member States/Associated Countries, are considered to be part of a given sea/river basin if they have a coast/riverbank on the relevant sea/river or contain river basins flowing into the relevant sea

Legal and financial set-up of	The rules are described in General Annex G. The following exceptions apply:
the Grant Agreements	Beneficiaries will be subject to the following additional obligations regarding open science practices: if projects collect in-situ data and marine observation, beneficiaries must make them openly available through the European Marine Observation and Data network (EMODnet), based on the FAIR (Findable, Accessible, Interoperable, Reusable) principles.

Expected Outcome: Project results are expected to contribute to all of the following expected outcomes:

- Additional regional and local assets (data, models, digital twins) are made available on the DTO core infrastructure, EDITO;
- New digital twin applications, emphasising on regional and local conditions and addressing regional considerations, including stakeholders needs, availability of data, etc.;
- Enhanced digital twin regional capabilities, creating in the EU DTO core infrastructure, EDITO, the conditions to directly support policy implementation and Blue Economy applications which build on the regional characteristics of the sea-basin;
- Development of regional what-if-scenarios library, including confidence thresholds and related analysis, quantifying the necessary conditions to increase confidence levels, etc.;
- Support to monitoring and sustainable management of regional seas with new tailor-made services for regional seas.

<u>Scope</u>: Proposals should establish regional components within the EDITO core infrastructure of the EU Digital Twin of the Ocean (EU DTO). These regional components should foster the development of local digital twins' applications: customized digital tools designed to address the unique priorities of specific local stakeholder communities.

For each sea-basin (one project per lighthouse), the objective is to:

• identify, aggregate and integrate existing regional data (through EMODnet), tools, modelling and local digital twin assets that are not yet widely public (including inland waters assets that are relevant for the land-sea connections¹⁹⁵) and take the necessary action to make them available through EDITO, following all necessary interoperability and standardisation protocols. Under-represented data types (biologging, acoustic telemetry, etc.) are of particular interest;

¹⁹⁵ For instances assets identified in the IDEATION CSA and funded under "HORIZON-MISS-2023-OCEAN-01-09 towards the integration of inland waters into the Digital Twin Ocean". https://cordis.europa.eu/project/id/101157371

- Develop regional digital twin services (tailored applications and services that address region-specific challenges, including for instance small islands challenges, coastal resilience, biodiversity conservation, pollution, and climate adaptation, fisheries and aquaculture and other sectors of the blue economy). These services should target both policy relevant questions and questions related to the development of a regional sustainable and competitive Blue Economy. To support predictive capacities, regional digital twin developments should in particular look for the integration of long-term ecological and biodiversity monitoring datasets, ensuring that modelling and scenarios are grounded in empirical, time-series observations;
- Foster regional stakeholder engagement (regional authorities, regional sea conventions, industry partners, and local communities) to bring in existing assets (databases, local or regional models) co-design and validate digital twin applications for effective policy-making and operational decision support;
- Improve intensive adoption of innovative algorithms of Artificial Intelligence and big data management;
- Through the aforementioned engagement, and via co-creation processes, develop a range of what-if-scenarios, assess their confidence levels and identify actions towards the improvement of said confidence.

HORIZON-MISS-2027-03-OCEAN-01: Increasing riparian and coastal areas resilience to climate change, including in waterfront cities and islands.

Call: Supporting the implementation of the Restore our Ocean and Waters Mission			
Specific condition	Specific conditions		
Expected EU contribution per project	The Commission estimates that an EU contribution of between EUR 8.00 and 9.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.		
Indicative budget	The total indicative budget for the topic is EUR 36.00 million.		
Type of Action	Innovation Actions		
Eligibility conditions	The conditions are described in General Annex B. The following exceptions apply:		
	If projects use satellite-based earth observation, positioning, navigation and/or related timing data and services, beneficiaries must make use of Copernicus and/or Galileo/EGNOS (other data and services may additionally be used).		

Technology Readiness Level	Activities are expected to achieve TRL 6-8 by the end of the project – see General Annex B.
Procedure	The procedure is described in General Annex F. The following exceptions apply:
	To ensure a balanced portfolio covering the 4 different Mission basins ¹⁹⁶ (1. Atlantic and Arctic sea basin, 2. Mediterranean Sea basin, 3. Baltic and North Sea basin, 4. Danube River basin, including Black Sea), grants will be awarded to applications not only in order of ranking but at least also to one proposal that is the highest ranked within each sea basin, provided that the applications attain all thresholds.
Legal and financial set-up of the Grant Agreements	The rules are described in General Annex G. The following exceptions apply:
	Beneficiaries may provide financial support to third parties. The support to Third Parties can only be provided in the form of grants. The Financial Support to Third Parties may only be awarded to local and/orregional authorities (established as public bodies by public law and governed by public law) located in Member States/AssociatedCountries, which are not already involved in a demonstration site of the same project. The maximum amount to be granted to each Third Party is EUR 100,000, aiming at showcasing the effectiveness of solutions demonstrated by a project and develop a replication plan for its uptake in an 'associated region' ¹⁹⁷ . A recipient may only benefit from this Financial Support to Third Parties once within the entire duration of the project.
	Beneficiaries will be subject to the following additional obligations regarding open science practices: if projects collect in-situ data and marine observations, beneficiaries must make them openly available through the European Marine Observation and Data network (EMODnet), based on the FAIR (Findable, Accessible, Interoperable, Reusable) principles.

<u>Expected Outcome</u>: This topic aims at directly engaging with and supporting riparian and coastal areas, waterfront cities and islands and their communities in demonstrating and accelerating the transitions needed for achieving one or several objectives of the Mission "Restore our Ocean and Waters". The participation of relevant public bodies managing those areas and their communities as partners of the consortium is strongly encouraged.

Project results are expected to contribute to all the following outcomes:

¹⁹⁶ For the purposes of Mission Ocean and waters, Member States/Associated Countries, are considered to be part of a given sea/river basin if they have a coast/riverbank on the relevant sea/river or contain river basins flowing into the relevant sea

¹⁹⁷ Regional or local authorities established as public bodies by national law and governed by public law.

- Enhanced ecological functions of riparian and coastal areas including in waterfront cities and islands (e.g.: water quality improvement, pollution remediation, erosion control, morpho-dynamics and sediment transport, biodiversity conservation);
- Reduced vulnerability to climate change related risks (e.g.: lowering flood risks by increasing their natural buffer capacity; adapting to sea level rises and extreme events, and enhancing drought resilience by increasing groundwater recharge functions, carbon sequestration, harmful algal blooms, etc.);
- Increased socio-economic benefits deriving from protecting and restoring riparian and coastal areas and from the remediation of pollution, as wel as for recreational and touristic activities;
- Stakeholders and local competent authorities managing riparian and coastal areas, including in waterfront cities and islands (not limited only to those who are partners in the consortium), are engaged to implement and upscale innovative solutions that contribute to increasing resilience to climate change and water-related risks, including by strengthening synergies with their own programmes and resources and encouraging public and private investment.

<u>Scope</u>: Riparian and coastal areasplay a critical role in local climate regulation and serve as the buffer regions between land and waterways, providing a wide array of important ecosystem services such as acting as natural barriers against storm surges, flooding, and erosion, filtering pollutants from the water, regulating floods, and increasing soil health. sequestering carbon. Islands, which offer invaluable natural resources that support people, cultures and livelihoods, are particularly vulnerable to climate change.¹⁹⁸

The proposal should build (when relevant) on previously developed or existing solutions by other projects, funded by EU and national programmes, in particular the European Union Framework programmes for Research and Innovation ¹⁹⁹, the co-funded Partnership Water Security for the Planet (Water4All)²⁰⁰ as well as ERDF, INTERREG and LIFE programmes. Proposals are also encouraged to consider -- where relevant -- the services offered by European research infrastructures²⁰¹. The proposals should take in consideration the projects to be funded under HORIZON-MISS-2025-01-CLIMA-03: Demonstrating solutions to help hotspots in coastal regions to adapt to climate change.

Each proposal should address only one basin/Mission 'lighthouse', which should be explicitly stated in the proposal, i.e.: 1. Atlantic and Arctic sea basin or 2. Mediterranean Sea basin or 3. Baltic and North Sea basin or 4. Danube River basin (including its delta and the Black Sea). Activities should be tailored to address regional/sea basin specificities, with strong and

¹⁹⁸ Final version of the text will include a definition of areas covered, including links to Copernicus Land Service layers. It will include also transitional waters.

¹⁹⁹ e.g. FP7 REFRESH

²⁰⁰ https://www.water4all-partnership.eu/

²⁰¹ The catalogue of European Strategy Forum on Research Infrastructures (ESFRI) research infrastructures portfolio can be browsed from ESFRI website <u>https://ri-portfolio.esfri.eu/</u>

meaningful involvement of public administrations, including relevant island public authorities. The basins / Mission "lighthouses" include the river basins flowing into the respective sea basins.

Proposals should:

- Test and demonstrate effective solutions in riparian and coastal areas including in waterfront cities and islands to achieve the Mission's objectives and targets and to address resilience of communities living in those areas to relevant climate change impacts. Proposals are encouraged to have an emphasis on nature-based solutions, land-sea interactions, transboundary actions and the regeneration of the blue economy;
- Show a significant replication potential by identifying areas and locations where the proposed solutions could be replicable. An action plan and roadmap needed for the replication and scale up of the solutions for improving resilience to climate change of islands and riparian and coastal areas are expected to be drawn up by the end of the project;
- Monitor the impacts and effectiveness of demonstration activities at a local scale. The project should link with the activities carried out under the Digital Twin Ocean, in particular those addressing coastal and freshwaters, and support data and knowledge sharing through the Ocean and Water Knowledge System, as well as benefiting from it to foster cross-region, pan-European approaches. Monitoring should cover the societal acceptance of the proposed measures; Monitoring effort should be aligned with long-term ecological and biodiversity observation programmes to ensure the resilience of islands and riparian and coastal areas tracked and understood over decadal timescales.
- Work in a meaningful and very close way with and empower public authorities to accelerate the implementation of innovative solutions and encourage the active participation of citizens (e.g. through living labs);
- Provide recommendations and guidance to align the improvement of resilience to climate change of riparian and coastal areas including in waterfront cities and islands regarding new policy measures and green infrastructure projects and to strengthen cooperation across relevant sectors (water, navigation, fisheries, hydropower and energy, etc.);
- Facilitate synergies²⁰² with other R&I-relevant EU, national or regional programmes, and facilitate the leveraging of funding (e.g. structural or cohesion funds such as ERDF, or LIFE) through meaningful engagement with regional/local/city authorities, and the private sector where relevant;
- Projects should carry out at least 6 demonstration activities in different types of riparian and coastal areas, including in waterfront cities and islands, to prove in real conditions the operational feasibility and economic viability of innovative solutions to enhance resilience of riparian and coastal areas to climate change. The consortium must carry out

²⁰² See Commission Notice on synergies between Horizon Europe and ERDF programmes C(2022) 4747 final

demonstration activities in at least 3 different countries of the basin addressed by the proposal.

Regional and Local authorities, as well as inland water management bodies, are encouraged to be partners in the consortium to ensure that effective solutions are tailored to the context of each island and riparian and coastal area.

Projects are expected to work with and engage at least 5 'associated regions' (represented by local/regional authorities/public bodies) to show the effectiveness of solutions to increase resilience and develop a replication plan for its uptake in an 'associated region' and build capacity at local level. Beneficiaries may therefore provide Financial Support to Third Parties (see the Specific Conditions table for this topic). Projects should (1) ensure that the 'associated regions' are not already involved in project's demonstration sites, (2) proactively reach out to the 'associated regions' to enable them to follow closely the project's activities, (3) continuously share their outcomes and knowledge with those 'associated regions' and (4) provide them with technical assistance to build capacity and to implement in their territory the approach the project developed.

Proposals should collaborate with the Coordination and Support Action (CSA) for the relevant Mission 'lighthouse'[[Information on the Mission Lighthouse CSAs is available at https://projects.research-and-innovation.ec.europa.eu/en/funding-

opportunities/funding-programmes-and-open-calls/horizon-europe/eu-missions-horizon-

europe/restore-our-ocean-and-waters/mission-lighthouses and the Mission Implementation Platform²⁰³, including to track progress toward Mission objectives. Collaboration with the Water Oriented Living Labs promoted by the Water4All partnership is welcomed where appropriate.

Cooperation with the EU Outermost Regions²⁰⁴ is encouraged, given these regions' natural assets.

Call: Supporting the implementation of the Restore our Ocean and Waters Mission		
Specific conditions		
Expected EU contribution per project	The Commission estimates that an EU contribution of between EUR 7.20 and 7.775 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.	
Indicative budget	The total indicative budget for the topic is EUR 31.10 million.	

HORIZON-MISS-2027-03-OCEAN-02: Circularity of seafood supply chain

^{203 &}lt;u>https://projects.research-and-innovation.ec.europa.eu/en/funding/funding-opportunities/funding-programmes-and-open-calls/horizon-europe/eu-missions-horizon-europe/restore-our-ocean-and-waters/mission-ocean-and-waters-service-portal</u>

²⁰⁴ https://ec.europa.eu/regional_policy/policy/themes/outermost-regions_en

Type of Action	Innovation Actions
Technology Readiness Level	Activities are expected to achieve TRL 6-8 by the end of the project – see General Annex B.
Procedure	The procedure is described in General Annex F. The following exceptions apply: To ensure a balanced portfolio covering the 4 different Mission basins ²⁰⁵ (1. Atlantic and Arctic sea basin, 2. Mediterranean Sea basin, 3. Baltic and North Sea basin, 4. Danube River basin, including Black Sea), grants will be awarded to applications not only in order of ranking but at least also to one proposal that is the highest ranked within each sea basin, provided that the applications attain all thresholds.
Legal and financial set-up of the Grant Agreements	The rules are described in General Annex G. The following exceptions apply: Beneficiaries will be subject to the following additional obligations regarding open science practices: if projects collect in-situ data and marine observations, beneficiaries must make them openly available through the European Marine Observation and Data network (EMODnet), based on the FAIR (Findable, Accessible, Interoperable, Reusable) principles.

Expected Outcome: Project results are expected to contribute to all of the following expected outcomes:

- Measurable improvements in the competitiveness and increased environmental sustainability of the EU's fisheries and aquaculture sectors by integrating circular economy principles;
- Minimized and better managed waste products derived from fisheries and aquaculture sectors as well as improved reutilization and reduction of by-products;
- Reduced existing barriers preventing the implementation and development of circular principles in seafood chains, such as the cost of advanced processing technologies, regulatory hurdles, lack of collaboration across the different seafood supply chain actors or limited market demand and acceptance;
- Measurable socio-economic benefits for local stakeholders and communities involved in the seafood processing chain.

²⁰⁵ For the purposes of Mission Ocean and waters, Member States/Associated Countries, are considered to be part of a given sea/river basin if they have a coast/riverbank on the relevant sea/river or contain river basins flowing into the relevant sea

<u>Scope</u>: Proposals under this topic are expected to show how activities and results will contribute to achieve Mission objective 2 - prevent and eliminate pollution of marine and freshwaters and Mission objective 3 – Sustainable, carbon-neutral and circular blue economy.

The goal is to improve the competitiveness of the European seafood industry along the value chain while ensuring optimal resource use and minimising environmental impacts by applying circular economy principles to the aquaculture and fisheries sectors.

In this topic, seafood covers marine or freshwater edible organisms, including seaweeds and algae.

Projects under this topic are relevant to the Circular Economy Action Plan, the EU Bioeconomy Strategy, the EU Algae Initiative, the EU Action Plan Towards Zero Pollution, the European Ocean Pact and the Mission objective of making the blue economy sustainable.

The circular approach in seafood supply chain can be applied by the reduction and better management of waste products and/or by improving the valorisation of fisheries and aquaculture by-products which can be used as input for other industries. The aquaculture sector can also explore more circular practices as following the example of the Integral Multi-tropic Aquaculture (IMTA). Another example is the use of innovative organic feed from fisheries bycatch, agriculture products or low-trophic species, as alternatives to traditional fish meal and fish oil, which will reduce dependency on wild fish stocks.

Proposals under this topic should test and demonstrate the technical feasibility, the economic viability and the effectiveness of innovative solutions that improve the circularity and sustainability seafood chain of aquaculture and/or fisheries sectors. These circular solutions should also provide socio-economic benefits to the local communities and stakeholders across the seafood value chain by creating jobs and business opportunities, and enhance skills at local level.

Proposals should address at least one of the following issues:

- Innovative and efficient methods and techniques for extracting high-value compounds and valorising seafood by-products from discards of unavoidable unwanted catches or waste products (e.g.: fish sludge, fish manure, trimmings, viscera, shells, seaweed and algal residues, etc.). These high-value extracted compounds can be used for different applications, such as animal feed, or as inputs for other industries like, for instance, food products, fertilisers, nutraceuticals, cosmetics, biotech industries, bioplastics and biobased packaging. Applications in the field of alternative energy sources or pharmaceuticals are excluded under this topic.
- Innovative organic feed ingredients, as alternatives to fish meal and fish oil, with the potential to support good growth and Feed Conversion Ratio (FCR) taking into account single species nutritional needs, enabling sustainable future organic aquaculture development in Europe.

The effectiveness, feasibility and efficiency of the proposed solutions should be demonstrated in real conditions through, at least, three use cases per project.

The monitoring and quantifying of waste products from aquaculture and fisheries are also relevant to improve the circularity of those sectors. Therefore, projects under this topic should also implement digital tools and predictive models able to monitor pollution and to improve waste management from aquaculture and fisheries activities that can measure the effectiveness of the implemented circular solutions.

Each proposal should address only one basin / Mission "lighthouse", which should be explicitly stated in the proposal, i.e.: 1. Atlantic and Arctic sea basin or 2. Mediterranean Sea basin or 3. Baltic and North Sea basin or 4. Danube River basin (including the Black Sea). Activities should be tailored to address regional/sea basin specificities.

Proposals should foster cross-sectoral cooperation by involving all relevant stakeholders across the seafood supply chain including producers, processing industries, technology providers and researchers in the co-creation of innovative solutions to increase the competitiveness and sustainability of the seafood industry and generate socio-economic benefits at local level. Proposals should take measures for an early involvement of relevant stakeholders in the project. The proposed solutions should also show the potential for further scaling up and replication.

In addition, activities and proposed solutions should be implemented in a way that respect and benefit ecosystems health and biodiversity and that ensure and prioritize the health and welfare of animals. The innovative solutions should respect principles and objectives of the Regulation (EU) 2018/848 of the European Parliament and of the Council of 30 May 2018 on organic production and labelling of organic products and repealing Council Regulation (EC) No 834/2007 EU organic aquaculture regulation²⁰⁶.

Projects should consider the results of relevant projects implemented under EMFAF, Horizon 2020 and Horizon Europe and cooperate and exchange as appropriate with them. Projects are also expected to cooperate and exchange with projects funded under the topic HORIZON-CL6-2027-01-CIRCBIO-11: "Increasing the circularity of bio-based sector: upcycling and recycling for higher value and environmental benefits" as well as with activities under the Circular Biobased Europe (CBE) Joint Undertaking²⁰⁷ and the Sustainable Blue Economy partnership ²⁰⁸. Proposals are encouraged to consider, when relevant, the services offered by European Research Infrastructures as well as relevant Research Infrastructure projects in the field of fisheries and aquaculture such as AQUASERV.²⁰⁹

²⁰⁶ <u>Regulation - 2018/848 - EN - EUR-Lex</u>

²⁰⁷ https://www.cbe.europa.eu/projects

²⁰⁸ <u>https://www.bluepartnership.eu/projects</u>

²⁰⁹ The catalogue of European Strategy Forum on Research Infrastructures (ESFRI) research infrastructures portfolio can be browsed from ESFRI website https://ri-portfolio.esfri.eu/; AQUASERV – research infrastructure services for sustainable aquaculture, fisheries and the blue economy <u>https://www.aquaserv-ri.eu/</u>

HORIZON-MISS-2027-03-OCEAN-03: Green, circular and resilient harbours

Call: Supporting the implementation of the Restore our Ocean and Waters Mission		
Specific conditions		
Expected EU contribution per project	The Commission estimates that an EU contribution of between EUR 5.50 and 6.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.	
Indicative budget	The total indicative budget for the topic is EUR 12.00 million.	
Type of Action	Innovation Actions	
Technology Readiness Level	Activities are expected to achieve TRL 6-8 by the end of the project – see General Annex B.	
Legal and financial set-up of the Grant Agreements	The rules are described in General Annex G. The following exceptions apply: Beneficiaries may provide financial support to third parties. The support to Third Parties can only be provided in the form of grants. The Financial Support to Third Parties may only be awarded to local and/orregional authorities (established as public bodies by public law and governed by public law) located in Member States/AssociatedCountries, which are not already involved in a demonstration site of the same project. The maximum amount to be granted to each Third Party is EUR 100,000, aiming at showcasing the effectiveness of solutions demonstrated by a project and develop a replication plan for its uptake in an 'associated region' ²¹⁰ . A recipient may only benefit from this Financial Support to Third Parties once within the entire duration of the project.	

<u>Expected Outcome</u>: This topic aims at directly engaging and supporting harbour/ports and their communities in demonstrating and accelerating the transitions needed for achieving one or several objectives of the Mission "Restore our Ocean and Waters". The participation of relevant public bodies managing port authorities and their communities as partners of the consortium is strongly encouraged.

Project results are expected to contribute to all of the following expected outcomes:

• Measurable, quantifiable, verifiable and ambitious progress towards reaching one or several interlinked objectives and targets of the Mission "Restore our Ocean and Waters"

²¹⁰

Regional or local authorities established as public bodies by national law and governed by public law.

by 2030", as set out in the Mission Implementation Plan²¹¹ through implementation of effective and well-managed place-based and people-centred actions;

- Involvement and increased readiness port cities and authorities for testing, deploying and • upscaling systemic innovative solutions for restoring ecosystems and preventing their degradation, including by monitoring invasive species brought through maritime traffic or facilitating ecosystem connectivity;
- Increased number of port cities and authorities taking concrete measures to protect and restore marine and freshwater ecosystems and biodiversity, prevent and eliminate pollution of our ocean, seas and waters, and make the blue economy carbon-neutral and circular:
- Increased resilience of port/cities/authorities and their related communities to extreme climate events; sea-level rise and other environmental challenges (floods, droughts, sealevel rise, etc.) through in particular the reduction of pollution and improved environmental management in harbour areas;
- Enhanced knowledge sharing across and within ports and their related communities, facilitating scalable and sustainable practices.

Scope: The goal of this topic is to accelerate the implementation of innovative solutions to achieve Mission objectives and targets in ports in line with existing legislation like the Industrial Emissions Directive²¹², the Water Framework Directive²¹³, the Marine Strategy Framework Directive²¹⁴, the Waste Framework Directive²¹⁵, the Maritime Spatial Planning Directive²¹⁶ Nature Restoration Regulation (NRR)²¹⁷, the upcoming EU Port Strategy, Industrial Maritime Strategy and the ²¹⁸ OBJ.

Proposals under this topic should test, deploy, and upscale systemic innovative solutions to improve sustainability and resilience in ports to reduce pollution and environmental degradation, reverse biodiversity loss, and improve natural resource management in port areas. This covers both coastal and inland cities and areas with a port regardless of their activities (e.g.

COM/2025/281 final

C(2022) 4747 final

²¹¹ See section 1.2. of the Mission Ocean and Waters Implementation Plan: https://research-andinnovation.ec.europa.eu/system/files/2021-

^{09/}ocean and waters implementation plan for publication.pdf

²¹² Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions (integrated pollution prevention and control)

²¹³ Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy

²¹⁴ Directive 2008/56/EC of the European Parliament and of the Council of 17 June 2008 establishing a framework for community action in the field of marine environmental policy (Marine Strategy Framework Directive)

²¹⁵ Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives

²¹⁶ Directive 2014/89/EU of the European Parliament and of the Council of 23 July 2014 establishing a framework for maritime spatial planning

²¹⁷ Regulation (EU) 2024/1991 of the European Parliament and of the Council of 24 June 2024 on nature restoration and amending Regulation (EU) 2022/869 218

fishing, commercial, marinas, recreational) and size. The proposals should encourage cooperation within and between ports across Europe using existing activities in some ports as pilots/leaders and engaging other ports in a development and learning process (e.g. using formats like summer schools and twinning, living labs concept).

For each project, demonstration activities are expected to take place in at least 4 ports, 1 in each of the four sea and river basins: 1. Atlantic and Arctic Sea basin, 2. Mediterranean Sea basin, 3. Baltic and North Sea basin, 4. Danube River basin, including Black Sea, with strong and meaningful involvement of public administrations and port managing authorities. The basins / Mission "lighthouses" include the river basins flowing into the respective sea basins.

The project should:

- Support the testing, deployment, and upscaling of innovative solutions to restore harbour/ports ecosystems, mitigate pollution by addressing one or several of the specific Mission objectives and targets and monitor the effectiveness of the proposed solutions;
- Bring together harbours, local stakeholders, relevant authorities, scientific and industry partners to drive collaborative action towards the development of specific local Implementation Strategies such as transitioning to renewable energy, alternative fuels or circular economy initiatives, biodiversity restoration and nature based solutions, or adaptation measures to address sea-level rise, extreme weather events, and other climate-related risks;
- Facilitate knowledge-sharing initiatives and partnerships within and between ports to leverage best practices and lessons learned by demonstrating their transferability and scalability potential;
- Provide targeted assistance and capacity-building programmes to help smaller size ports to overcome barriers and adopt sustainable practices; This could include for example developing comprehensive waste management systems to recycle and reduce port-generated waste and involving local communities in sustainability initiatives or the deployment of nature-based solutions such as vegetated buffers to protect port infrastructure from coastal risks and enhance biodiversity;
- Facilitate synergies with other R&I-relevant EU, national or regional programmes and leverage of funds through interactions with regional/local authorities and where relevant with the private sector and investors to accelerate the innovation cycles of marine technologies.

Projects are expected to work with and engage at least 4 'associated regions' (represented by local/regional port authorities/public bodies) to show the effectiveness of solutions to increase resilience and develop a replication plan for its uptake in an 'associated region' and build capacity at local level. Beneficiaries may therefore provide Financial Support to Third Parties (see the Specific Conditions table for this topic). Projects should (1) ensure that the 'associated regions' are not already involved in project's demonstration sites, (2) proactively reach out to

the 'associated regions' to enable them to follow closely the project's activities, (3) continuously share their outcomes and knowledge with those 'associated regions' and (4) provide them with technical assistance to build capacity and to implement in their territory the approach they developed.

Projects should build on the best available actionable knowledge, methods and innovations notably from the results of previous national and EU projects.

Competent authorities and other stakeholders participating in the project are encouraged to pool and enhance synergies²¹⁹ with other sources of funding (e.g. structural, cohesion funds such as ERDF, or LIFE) for implementing and deploying innovative solutions.

HORIZON-MISS-2027-03-OCEAN-04: Towards community-driven business models: coastal and freshwaters sustainable tourism

Call: Supporting the implementation of the Restore our Ocean and Waters Mission		
Specific conditions		
Expected EU contribution per project	The Commission estimates that an EU contribution of between EUR 1.00 and 1.50 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.	
Indicative budget	The total indicative budget for the topic is EUR 6.00 million.	
Type of Action	Innovation Actions	
Procedure	The procedure is described in General Annex F. The following exceptions apply:	
	To ensure a balanced portfolio covering the 4 different Mission basins ²²⁰ (1. Atlantic and Arctic sea basin, 2. Mediterranean Sea basin, 3. Baltic and North Sea basin, 4. Danube River basin, including Black Sea), grants will be awarded to applications not only in order of ranking but at least also to one proposal that is the highest ranked within each sea basin, provided that the applications attain all thresholds.	
Legal and financial set-up of	The rules are described in General Annex G. The following exceptions apply:	
the Grant Agreements	Beneficiaries will be subject to the following additional obligations regarding open science practices: if projects collect in-situ data and marine observations, beneficiaries must make them openly available	

²¹⁹ COM/2025/281 final

C(2022) 4747 final

²²⁰ For the purposes of Mission Ocean and waters, Member States/Associated Countries, are considered to be part of a given sea/river basin if they have a coast/riverbank on the relevant sea/river or contain river basins flowing into the relevant sea

	through	the	European	Marine	Observation	and	Data	network
	(EMODr	net), l	based on the	e FAIR (1	Findable, Acce	essible	e, Inter	operable,
	Reusable) prii	nciples.					

Expected Outcome: Project results are expected to contribute to all of the following expected outcomes:

- Innovative business models for the development of entrepreneurship and successful local community-driven marine, coastal and freshwater sustainable tourism initiatives;
- Scalable and economically viable initiatives with the potential to be replicated across multiple sea basins;
- Enhanced capacity-building and increased engagement of the coastal/river/lake communities and the private sector;
- Job creation and skills development;
- Improved marine, coastal and freshwater habitats, biodiversity and enhanced conservation capacity;
- Increased awareness and behavioural change of tourists and coastal communities towards the conservation of marine and freshwater ecosystems.

<u>Scope</u>: The community-driven approach under this topic puts strong emphasis on engaging coastal, riparian and/or lakeside communities as well as relevant actors to build, in a sustainable way, local businesses that will support livelihood opportunities and stimulate investments, and will contribute to preserve and protect marine, coastal and freshwater habitats.

Activities under this topic will contribute to the achievement of the Mission "Public mobilisation and engagement" actions by fostering community involvement, awareness and citizen participation to amplify impact, accelerating the uptake of community-led initiatives, anticipating and planning future investments for sustainable tourism. These activities should consider the specific needs and challenges of diverse individuals and groups in local communities, including vulnerable groups, with a focus on promoting gender equality and addressing the intersectionalities of gender, poverty, and social exclusion.

Focus of the activities will be on testing on the ground the feasibility and socio-economic viability of site-specific initiatives providing opportunities to couple business-based activities with the protection and restoration of marine and freshwaters ecosystems, in ways that produce benefits for both the environment and local communities. In addition, proposals are encouraged to explore synergies with the New European Bauhaus Initiative in the design and/or implementation of activities under this topic.

Each proposal should address only one basin / Mission "lighthouse", which should be explicitly stated in the proposal, i.e.: 1. Atlantic and Arctic sea basin or 2. Mediterranean Sea basin or 3. Baltic and North Sea basin or 4. Danube River basin (including the Black Sea). Activities

should be tailored to address regional/sea basin specificities. The basins / Mission "lighthouses" include the river basins flowing into the respective sea basins.

All following aspects should be addressed:

- Demonstration of community-driven tourism business models in at least 3 European coastal and freshwater areas in different Member States/Associated Countries, implementing diverse initiatives to engage and involve tourists_and/or users of the sea (e.g.: citizen science initiatives; clean up initiatives; regenerative practices, comanagement of protected areas, etc.);
- Promotion of sustainable practices to minimise negative pressures of tourism on marine and freshwater environments (e.g.: pollution, eco-friendly products, waste reduction) and to protect habitats and biodiversity;
- Capacity building, training and skill development actions addressing both local communities to enhance their entrepreneurship, and tourists, to promote behavioural changes;
- Governance structure to ensure the effective involvement of all relevant stakeholders and the long-term financial sustainability of the initiatives;
- Exploration of possible financial instruments for the upscale of the initiatives, including reinvestments of profits, crowdfunding, or philanthropic sources.

HORIZON-MISS-2027-03-OCEAN-05: Large-scale demonstration for blue forestation of European sea basins

Call: Supporting the implementation of the Restore our Ocean and Waters Mission						
Specific conditions						
Expected EU contribution per project	The Commission estimates that an EU contribution of between EUR 3.50 and 4.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.					
Indicative budget	The total indicative budget for the topic is EUR 16.00 million.					
Type of Action	Innovation Actions					
Eligibility conditions	The conditions are described in General Annex B. The following exceptions apply:					
	If projects use satellite-based earth observation, positioning, navigation and/or related timing data and services, beneficiaries must make use of Copernicus and/or Galileo/EGNOS (other data and services may additionally be used).					

	All international organisations are exceptionally eligible for funding.
Procedure	The procedure is described in General Annex F. The following exceptions apply:
	To ensure a balanced portfolio covering the 4 different Mission basins ²²¹ (1. Atlantic and Arctic sea basin, 2. Mediterranean Sea basin, 3. Baltic and North Sea basin, 4. Danube River basin, including Black Sea), grants will be awarded to applications not only in order of ranking but at least also to one proposal that is the highest ranked within each sea basin, provided that the applications attain all thresholds.
Legal and financial set-up of the Grant Agreements	The rules are described in General Annex G. The following exceptions apply: Beneficiaries will be subject to the following additional obligations regarding open science practices: if projects collect in-situ data and marine observations, beneficiaries must make them openly available through the European Marine Observation and Data network (EMODnet), based on the FAIR (Findable, Accessible, Interoperable, Reusable) principles.

Expected Outcome: Project results are expected to contribute to all of the following expected outcomes:

- Increased area and improved condition of marine vegetated habitats within EU waters through effective on-site restoration activities to help deliver the objectives under the Nature Restoration Regulation;
- Enhanced capacity of blue carbon ecosystems for carbon sequestration, supporting EU climate mitigation goals;
- Enhanced capacity of marine vegetated habitats/blue carbon ecosystems for supporting biodiversity and fisheries;
- Established financing and incentive mechanisms that support sustainable blue forestation projects;
- Raised public awareness and improved community participation in blue forestation activities, ensuring long-term involvement.

This action aligns with key EU policies and initiatives, including:

²²¹ For the purposes of Mission Ocean and waters, Member States/Associated Countries, are considered to be part of a given sea/river basin if they have a coast/riverbank on the relevant sea/river or contain river basins flowing into the relevant sea

- European Green Deal: Focuses on making the EU's economy sustainable through initiatives directed at marine ecosystem protection;
- EU Biodiversity Strategy for 2030: Aims to restore marine and coastal habitats, acknowledging their role in carbon capture;
- EU Nature Restoration Regulation: Aims to restore EU ecosystems, including marine ecosystems, furthering blue carbon strategies;
- EU Strategy on Adaptation to Climate Change: Emphasises natural carbon sinks' protection, including coastal ecosystems.;
- EU Global Gateway strategy: Sustainable and trusted connections to tackle the most pressing global challenges, from fighting climate change, to improving health systems, and boosting competitiveness and security of global supply chains;
- Common fisheries policy (CFP): Supports sustainable fisheries management, benefitting marine biodiversity and blue carbon habitats;
- Marine Strategy Framework Directive: Seeks Good Environmental Status of marine waters, indirectly supporting blue forestation;
- Birds and Habitats Directives: Aim to achieve favourable conservation status of habitat types and species, including through effective management of the Natura 2000 network and of the national marine protected area system.

The action also resonates with global frameworks such as the Paris Agreement, Convention on Biological Diversity Kunming Montreal Global Biodiversity Framework, and the UN Sustainable Development Goals, particularly SDG 14, focusing on ocean conservation.

<u>Scope</u>: This topic seeks innovative multidisciplinary projects that will advance large-scale demonstration for blue forestation efforts, by focusing on the assessment of ecological interactions, restoration of degraded ecosystems, conservation, and sustainable management within the European sea basins. Projects are required to develop collaborations with EU Member States and associated countries national and regional agencies and authorities and policy makers, engaging local communities, researchers and NGOs. The direct involvement of relevant authorities and stakeholders in the consortium is strongly encouraged.

Proposals should target the development and implementation of comprehensive strategies that integrate blue carbon ecosystems into broader climate action and marine biodiversity frameworks, in particular in the implementation of the national restoration plans under the Nature Restoration Regulation (NRR). Proposals are expected to show how their activities and results will help achieve the Mission's objectives, in line with the timeframe of the Mission phases, i.e.: by 2025 for the 'development and piloting' phase and 2030 for the 'deployment and upscaling phase'.

Each proposal should address only one basin / Mission "lighthouse", which should be explicitly stated in the proposal, i.e.: 1. Atlantic and Arctic sea basin or 2. Mediterranean Sea basin or 3. Baltic and North Sea basin or 4. Danube River basin (including the Black Sea). Activities should be tailored to address regional/sea basin specificities. The basins / Mission "lighthouses" include the river basins flowing into the respective sea basins.

Proposals should address all of the following:

- Restoration activities: Initiatives aiming to restore ecologically relevant, degraded marine and coastal habitats and species, through improving the condition of vegetated habitats and their re-establishment, in accordance with the requirements of the EU Nature Restoration Regulation. Projects should rely on active restoration (e.g. replanting, reestablishment of habitats, prevention of sargassum coastal invasion) or passive restoration (e.g. removal of environmental pressures), as necessary and specified in the national restoration plans to achieve the relevant targets of the NRR.
- Conservation Efforts: Enhancing the protection of blue carbon habitats by supporting authorities to establish and effectively manage marine protected areas (MPAs)/ EU Blue Parks, implementing the necessary regulatory measures to enable their effective restoration and prevent their degradation.
- Innovative Financing Mechanisms: Exploring public-private partnerships and development of carbon and nature credit systems to fund blue forestation measures.
- Research and Monitoring: Assess the cumulative impact of stressors (including invasive lien Species and climate change) on the condition of habitats and species and inform the design of necessary protection and restoration measures and. Develop technologies and multi-sensor platforms for the monitoring of habitat conditions and ecosystem health, of the restoration success and of the impacts on ecosystems and the services they provide, including carbon sequestration potential. Projects should also ensure the continuity of ecological monitoring beyond project duration, embedding effective restoration efforts into long-term observation networks.
- Community Engagement and Education: Initiatives and actions that promote local community involvement and awareness through educational programs and stakeholders' engagement to ensure upscaling and replication.

Projects should build on the best available actionable knowledge, methods and innovations notably from the results of previous national and EU projects. Projects should involve or align with organizations that provide cross-national and regional scientific coordination and advice on fisheries and ecosystem-based management, to support participatory monitoring, data harmonization and sustainable and inclusive co-management practices across sea basins.

Competent authorities and other stakeholders participating in the project are encouraged to pool and enhance synergies²²² with other sources of funding (e.g. structural, cohesion funds such as ERDF, or LIFE) for implementing and deploying innovative solutions.

Restore our Ocean and Waters by 2030: Other Actions

1. Mission Implementation Support Platform - 2nd phase

Public procurement for the Mission implementation support platform, which will build on and consolidate the platform setup in the first phase. It will continue to provide a one-stop-shop to assist with the overall Mission implementation in the deployment phase, including knowledge, science to policy advice, financial advice and technical assistance, assisting with capacity building, support to outreach, scale up and dissemination of information, knowledge and innovations at all levels. The Mission Implementation Support Platform will in particular provide access to knowledge to all citizens, as well as engage and support relevant authorities and stakeholders that will implement the Mission.

The Mission Implementation Support Platform will support and integrate communication and dissemination activities for the Mission overall incl. Citizen engagement, in cooperation and coordination with the Mission lighthouses. The platform will be expected to further support and consolidate existing services such as the Mission charter, the online service portal and social media, support to the Mission Forum and other Mission Ocean and Waters events, the European Blue Parks community as well as provide targeted services to relevant stakeholders and Mission communities to assist with the deployment at scale of innovative solutions for the restoration of the ocean and waters.

Form of Funding: Procurement

Type of Action: Public procurement

Indicative budget: EUR 1.80 million from the 2026 budget

2. Communication and events

The objective is to implement Mission Ocean and Waters communication and engagement actions incl. events that will give visibility to the achievement of the Mission and its activities, bring together key stakeholders and Mission partners, including Member States, regions, authorities, research bodies and academia, civil society and organisations and promote the Mission activities and projects among key Mission partners, stakeholders and citizens. The action will also studies on the implementation and progress of the Mission Ocean and Waters towards its 2030 targets.

The action is expected to lead to:

²²² C(2022) 4747 final

- Increased knowledge and awareness of the Mission, its progress and activities among Member States, regions and communities and key Mission partners and the general public;
- Increased support and acceleration of the implementation of Mission activities, incl. in the Mission lighthouses;
- Provide cooperation and networking opportunities among key Mission partners, Member States authorities, regions and communities for the implementation of the Mission;
- Support ocean and water literacy, citizen science and public and stakeholder mobilisation and engagement with regard to Mission activities.

Form of Funding: Procurement

Type of Action: Public procurement

Indicative budget: EUR 0.20 million from the 2026 budget

3. EIB - Second round of Blue Champions

The EU Blue Champions Advisory scheme promotes and supports promising ocean innovation and identifies market failures and gaps in forward-looking ocean technologies for different applications across blue economy sectors.

The Blue Champion scheme aims to accelerate the development of innovative ocean-related technologies and to support projects aimed at scaling from demonstration to operation/commercialisation.

This second edition takes stock of the work carried out under the Blue Champions Pilot Advisory Programme launched in 2023-2024, which showed that there is still a gap to be addressed in finance for scale-up companies, notably on projects requiring big funding tickets and having some development risks, associated with market uptake.

Through the scheme free advisory support to improve the companies' business plans and ready them for potential funding from the European Investment Bank's venture debt instrument or from other investors is provided, together with a thorough overview of the funding landscape for investments in innovative applications in the Blue Economy and the challenges faced by scale ups, including access to finance, regulatory hurdles and market barriers. This new initiative will benefit from the findings of a forthcoming Market Report, exploring further market gaps by sectors and financial solutions for ocean-related technologies, some of which relating to the latest advancements in deep-tech sectors (e.g.: AI, space, robotics, etc.) for different applications.

The use of an indirectly managed action on the basis that the beneficiary, the EIB InvestEU Advisory Hub, is uniquely placed to deliver this wide range of financing advisory services, which will be of high added value to deliver the missions' objectives, has proven capacity to make the required expertise available, building on the track record developed under the joint EC-EIB InvestEU Advisory Hub.

This action supports the follow up to the July 2023 Communication on EU Missions assessment.²²³

Legal entities:

EIB InvestEU Advisory Hub, , 98-100, boulevard Konrad Adenauer L-2950 Luxembourg

Form of Funding: Indirectly managed actions

Type of Action: Indirectly managed action

Indicative timetable: First or second quarter 2026

Indicative budget: EUR 6.00 million from the 2026 budget

4. Technical Assistance

The specific objective of this contract is to organize and manage the identification and selection process, from targeted communities of regional, local and other competent authorities, which are managing programmes and activities related to the Mission objectives and provide services to them.

The services provided consist of technical assistance and support for the preparation of transition agendas for their planned projects, programmes or initiatives that will support the achievement of the objectives of the Mission Ocean and Waters. These services should ultimately facilitate synergies with regional/local authorities to facilitate and speed up the achievement of the Mission's objectives at local level, with the involvement of local communities and possible leverage of funds

The Technical assistance should address the needs of the Mission communities of actors in the particular basin and may include support and advice needed for the preparation of business plans, feasibility studies, impact assessments, and needs assessment, as well as long-term sustainability planning to help the competent authorities develop sustainable financing strategies to ensure longevity of the efforts to achieve healthy oceans, seas and waters.

The technical assistance should support the preparation of transition agendas intended as a strategic roadmap towards reaching all objectives and targets of the Mission 'Restore our ocean and waters by 2030', with a particular focus on the objectives that are most relevant to the specific local context and communities. These agendas would serve as a basis for further planning of follow-up activities by the authorities involved, particularly actions to meet the Mission Ocean and Waters objectives/targets, to be subsequently implemented with the financial support of various funds (e.g., EU structural funds/national/regional funds).

Overall, these services should accelerate the achievement of the Mission's objectives, including through facilitated synergies and access to EU, national, regional programmes and funds, in interaction with managing authorities (e.g. ERDF, EMFAF, LIFE, Interreg, RRF, S3, etc).

²²³ COM(2023) 457 final and SWD(2023) 260 final

Form of Funding: Procurement

Type of Action: Public procurement

Indicative budget: EUR 4.00 million from the 2027 budget

5. Ocean Observation Platform - Maintenance and adaptation

Ocean observation is currently undertaken independently for different purposes including fisheries management, safe navigation, coastal protection, environmental impact assessment and research.

In order to avoid duplication, identify gaps and reduce administrative burden, a digital platform is being developed (public procurement under Mission Ocean and Waters work programme 2025), which collects and disseminates observation campaign plans prepared by the responsible public bodies following common standards.

In this new phase, the effort will concentrate on maintenance and adaptation of the platform to the stakeholder community needs, including provision of reports required by national, EU and international requirements in order to extend the principle of "report once use many times".

In addition, the procurement will include support for Member States and the broader stakeholder community both for providing and using information on observation campaign plans in a systematic way in order to identify gaps, improve coordination, uniformity and synergies in ocean observation at national, regional, EU and international levels. The maintenance and updating of the register of best practices in ocean observation will also be part of the work.

The work will contribute to establish a structured reliable data provision to the European Marine Observation and Data network (EMODnet) and therefore to the European Digital Twin Ocean as well as underpinning a competitive and sustainable blue economy.

Form of Funding: Procurement

Type of Action: Public procurement

Indicative timetable: 2028 Q2

Indicative budget: EUR 2.00 million from the 2027 budget

6. EU Public Infrastructure for the European Digital Twin Ocean, phase 3

This grant will be awarded without a call for proposals according to Article 195(f) of the Financial Regulation and Article 20 of the Horizon Europe Framework Programme and Rules for Participation. The general conditions, including admissibility conditions, eligibility conditions, award criteria, evaluation and award procedure, legal and financial set-up for grants, financial and operational capacity and exclusion, and procedure are provided in parts A to G of the General Annexes.

Two of the identified legal entities, namely Mercator Ocean International (MOI), implementing the Copernicus Marine Service and the Flanders Marine Institute (VLIZ), representing the implementing entities of EMODnet have been identified for the first and second phases of the EU-DTO, because of the high level of technical expertise needed and because they are implementing the two infrastructures on which the EU DTO is being built on. The same consideration applies for the third phase, which is the continuation of the EDITO-Infra action. In this 3rd phase, a third identified beneficiary, CNR, is added with the task of developing and establishing the EOSC marine node within EDITO, leveraging their experience in multiple relevant actions.

Project results are expected to contribute to all of the following expected outcomes:

- The EU DTO core infrastructure in fully operational state, including a library of numerous verified (quality labelled) tools and applications, several interfaces to support users with different level of technical capacity, customer service to support development needs, restricted access space for proprietary developments, methodological frameworks to facilitate interoperability of applications, analytical tutorial and guideline documents, resources and space for users, cloud computing and HPC computing services and more;
- A thriving community continuously contributing to the co-development and co-design of the EU DTO.

<u>Scope</u>: The operational EU DTO is a deliverable of the Ocean Pact, under the framework of the Marine Knowledge agenda.²²⁴ The third phase of development of the EU DTO should further expand the work undertaken in phase 2: innovate, scale-up and consolidate the infrastructure and services to be provided by EDITO (the public core infrastructure of the EU DTO), which should become operational from 2030. In particular, the 3rd phase should:

- develop tailored services for users, including applications allowing quick replicability of applications in other geographical areas and/or applications;
- develop its inland waters component, starting with the land-sea interaction needs (in particular relying on the outcomes of the IDEATION and AQUAINFRA projects);
- Processes to ensure regular data updating;
- support and/or co-develop sector specific digital twin applications;
- scale-up cloud and HPC services to support more users with more complex tasks;
- Improve intensive adoption of innovative algorithms of Artificial Intelligence and big data management;
- tackle cybersecurity, and develop container security for sensitive data and applications;

²²⁴ COM/2025/281 final

- pre-operationalise services in development (establish, consolidate and validate automated operational pipelines);
- develop and pre-operationalise quality evaluation processes and mechanisms to prevent obsolescence of applications and tools and provide a variety of quality labelled applications, covering essential considerations related to marine management, including climate change, pollution, fisheries management, Marine Spatial planning, biodiversity management and more;
- develop EDITO as the marine node of the European Open Science Cloud, integrating the cloud infrastructure and methodological developments developed through the work already developed by actors in the field;
- pursue interoperability, complementarity and interfaces with other Digital Twin Initiatives, in particular with Destination Earth;
- continue contributing (and leading) global interoperability efforts;
- ensure strong stakeholders' engagement (eg through Digital Ocean Forum) and continued co-creation and codesign through established processes;
- deliver a business model for the operational phase of the EU DTO, quantifying and justifying resources for the public component of the service, developing an attractive business proposal for the private development plans.

Legal and financial set-up of the grant agreement:

The rules are described in General Annex G. The following exceptions apply: subcontracting is not restricted to a limited part of the action. Beneficiaries may provide financial support to third parties can only be provided in the form of grants. As financial support provided by the participants to third parties is one of the primary activities of this action in order to be able to achieve its objectives, the 60 000 EUR threshold provided for in Article 204 (a) of the Financial Regulation No 2018/1046 does not apply. The maximum amount to be granted to each third party is EUR 500 000. This maximum amount is justified by the high level of technical expertise and efforts required for the development and/or integration of DTO usecases applications in the EU DTO public core infrastructure. A minimum of 50% of the grant should be externalised for the development of DTO applications, either through subcontracting or financial support to third parties.

The general conditions, including admissibility conditions, eligibility conditions, award criteria, evaluation and award procedure, legal and financial set-up for grants, financial and operational capacity and exclusion, and procedure are provided in parts A to G of the General Annexes.

Legal entities:

Vlaams Instituut voor de Zee, Wandelaarkaai 7, 8400 Oostende, Belgium

Consiglio Nazionale delle Ricerche (CNR), Piazzale Aldo Moro, 7 - 00185 Roma, Italia

MERCATOR OCEAN, 2 Avenue de l'Aérodrome de Montaudran, 31 400 Toulouse, France

Form of Funding: Grants not subject to calls for proposals

<u>Type of Action</u>: Grant awarded without call for proposals according to Financial Regulation Article 195 (f)

The general conditions, including admissibility conditions, eligibility conditions, award criteria, evaluation and award procedure, legal and financial set-up for grants, financial and operational capacity and exclusion, and procedure are provided in parts A to G of the General Annexes

Indicative timetable: Q4 2027

Indicative budget: EUR 20.00 million from the 2027 budget

100 Climate-Neutral and Smart Cities by 2030

The Work Programme 2026-27 of the Climate-Neutral and Smart Cities Mission, in line with the <u>Implementation Plan of the Cities Mission</u>, supports the implementation of the Mission by providing strong and direct support to cities committed to climate neutrality, enabling them to implement their climate action plans and achieve climate neutrality by 2030. The cities benefitting from these actions will act as experimentation and innovation hubs for other European cities aiming to become climate-neutral by 2050.

Cities' green and digital transformation with the aim of climate neutrality is associated with important co-benefits and urban qualities such as reduced air and noise pollution, more sustainable mobility, improved health and well-being, reduced urban environmental footprints, enhanced urban greening, more efficient use of energy and infrastructures, as well as improved waste and water management. It also improves policy coherence across sectors and stimulates participatory and inclusive decision-making.

The Cities Mission specifically addresses the following main European Commission policy priorities:

(1) A new plan for Europe's sustainable prosperity and competitiveness; (2) Supporting people, strengthening our societies and our social model; (3) Sustaining our quality of life - Food security, water and nature. In addition to a significant contribution to the objective of the European Green Deal to make Europe climate-neutral by 2050, the supported actions through the Cities Mission Work Programme will also complement initiatives such as the EU Digital Strategy, Green Deal Industrial Plan, Net-Zero Industry Act, Clean Industrial Deal, Smart and Sustainable Mobility Strategy, New EU Urban Mobility Framework, European Declaration on Cycling, Decarbonise Corporate Fleets Communication, Energy Efficiency Directive, renewed Sustainable Finance Strategy, Renovation Wave, Energy Performance of Buildings Directive, Circular Economy Action Plan, European Affordable Housing Plan, Biodiversity Strategy for 2030, Zero Pollution Action Plan, Nature Restoration Law, and European Water Resilience Strategy. Further political priorities and synergies addressed by the Cities Mission include the UN Agenda 2030, New Leipzig Charter, and the Urban Agenda for the EU.

The topics of the Work Programme 2026-27 reflect the cross-cutting nature of the Cities Mission. Several topics have been designed as joint activities with other parts of the Horizon Europe programme, including partnerships, other Missions and the New European Bauhaus Facility. The envisaged actions will aim at:

- Energy efficient urban and sub-urban public transport, complemented by shared mobility;
- Transition to low-temperature heating solutions in multiapartment buildings;
- Introducing circular economy models in the construction sector from buildings to city scale: Joint action with the New European Bauhaus Facility, the Circular Cities and Regions Initiative and the Built4People Partnership;

- Innovative microgrids for improved energy system integration and efficiency in urban contexts;
- Hydrogen Cities: Consecutive call with the Clean Hydrogen Joint Undertaking;
- Inclusive and climate resilient multimodal passenger hubs enhancing modal shift towards sustainable transport and shared mobility;
- Advancing circular logistics solutions in cities: Joint action with the Circular Cities and Regions Initiative;
- Innovative procurement for reducing greenhouse gas emissions;
- Urban nature: supporting restoration of urban ecosystems, along urban transport networks and in the built environment: Joint action with the Mission on Climate Adaptation and the New European Bauhaus Facility;
- Deploying innovative wastewater management, treatment and valorisation solutions in European cities and regions in the context of climate change: Joint action with the Mission on Climate Adaptation and the Circular Cities and Regions Initiative.

Under Other Actions, this Work Programme addresses:

- Strengthening of the operational capacity of the Mission Platform established through a Framework Partnership Agreement (HORIZON-MISS-2021-CIT-02-03);
- Support for financial advisory services to be provided to help cities implement their investment strategy for becoming climate-neutral;
- Support to the Urban Transitions Mission of Mission Innovation.

These actions were informed by the <u>Youth Dialogue</u> with Commissioner Zaharieva on '<u>the</u> <u>future of our cities</u>', a feedback opportunity involving city representatives and other co-design activities.

Proposals should demonstrate, as appropriate to their scope and size, how they internalise the principles of the Cities Mission, notably: (1) contribute to an overarching strategy aiming at climate neutrality for cities, (2) a holistic and cross-sectoral approach to climate neutrality, and (3) diversity in terms of geographical location and size of cities.

Applicants are encouraged to show how their proposals take into account and build upon existing programmes and/or the results of previous R&I projects. Where applicable, they should consider the services offered by the EU-funded European Research Infrastructures²²⁵; these services range from data sets in human behaviour to modelling or experimental techniques.

Strong synergies contributing to the implementation of the objectives of the Cities Mission is expected also from other relevant Horizon Europe partnerships such as the Driving Urban

²²⁵ ri-portfolio.esfri.eu/ri-portfolio/table/

Transitions to a Sustainable Future (DUT). Topics under the Cities Mission Work Programme are also relevant for the Cancer Mission, in particular when addressing co-benefits generated by achieving climate neutrality such as reduced pollution, improved health and wellbeing, increased active mobility contributing then to cancer prevention. Similarly, actions funded under the Cancer Mission focusing on behavioural change can contribute to the objectives of the Cities Mission especially when targeting actions at urban level. In addition, synergies are expected with the <u>Regional Innovation Valleys</u>, which, in line with the <u>New European Innovation Agenda</u>, bring together less and more innovative regions with a view to addressing the most burning challenges facing the EU, namely reducing the reliance on fossil fuels, increasing global food security, mastering the digital transformation (including cybersecurity), improving healthcare and achieving circularity. Moreover, strong synergies exist with the <u>LIFE</u> <u>Programme</u>, a main EU funding instrument for environmental and climate action plans, particularly through its Climate Change Mitigation and Adaptation sub-programme, which aligns closely with the Cities Mission's objectives by supporting innovative efforts to reduce greenhouse gas emissions, enhance urban resilience, and promote climate change awareness.

Proposals should set out a credible pathway to contributing to the Climate-Neutral and Smart Cities Mission, and more specifically to one or several of the following impacts:

- Increased capacity among European cities, with particular attention to those selected under the Cities Mission, to implement their Climate City Contracts (CCCs) and to achieve climate neutrality.
- Cities are taking action to increase energy and resource efficiency, promote circular economy, encourage urban regeneration and resilience, and they accelerate the uptake of innovative systemic solutions and clean tech in key areas (e.g., energy, mobility, construction, industry, spatial planning, environment, digitisation, and data handling).
- Cities are engaging and involving their citizens in the solutions, technologies developed, and actions taken to become climate neutral, in order to guarantee acceptance, adherence and adoption, as well as give particular attention to people in vulnerable situations.
- Cities are increasingly using data and digital technologies (such as data platforms, IoT, AI and local digital twins for predictive scenarios) for better decision-making and to drive efficiencies in delivering services and reducing emissions through open standards and shared technical specifications.
- Cities embrace innovative and inclusive cross-sectorial collaborative governance models, facilitating multi-level and multi-stakeholder engagement in decision-making and joint planning, as well as the CCC implementation in collaboration with citizens and local stakeholders.
- The CCCs identify and pool the demands of the cities in the Cities Mission across sectors, providing scalability and predictability for industry and investors, thus strengthening the competitiveness of European industry and SMEs.

Proposals are invited against the following topic(s):

HORIZON-MISS-2026-04-CIT-01: Energy efficient urban and sub-urban public transport, complemented by shared mobility

Call: Supporting the implementation of the Climate-Neutral and Smart Cities Mission				
Specific conditions				
<i>Expected EU</i> <i>contribution per</i> <i>project</i>	The Commission estimates that an EU contribution of around EUR 10.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.			
Indicative budget	The total indicative budget for the topic is EUR 20.00 million.			
Type of Action	Innovation Actions			
Eligibility conditions	The conditions are described in General Annex B. The following exceptions apply: The following additional eligibility criteria apply: At least three lead cities, represented by a local authority or by an entity with an explicit consent from the local authority, from different Member States or Associated Countries along with at least three follower cities, must participate ensuring a good geographical balance. Follower cities can be from the same Member State or Associated Country as the lead cities. At least one of the three lead cities must be one of the 112 cities selected for the EU Mission on Climate-Neutral and Smart Cities ²²⁶ .			
Technology Readiness Level	Activities are expected to achieve TRL 7-8 by the end of the project – see General Annex B.			
Legal and financial set-up of the Grant Agreements	The rules are described in General Annex G. The following exceptions apply: Grants awarded under this topic will be linked to the following action(s): HORIZON-MISS-2021-CIT-02-03			

²²⁶ The EU Mission on Climate-Neutral and Smart Cities aims to deliver 100 climate-neutral and smart cities by 2030 and ensure that these cities act as experimentation and innovation hubs to enable all European cities to follow suit by 2050. On 28 April 2022, the Commission announced the 100 EU cities that will participate in the Mission. In addition, 12 cities have been selected from countries associated or expected to be associated the Horizon Europe programme.

Collaboration with the Cities Mission Platform ²²⁷ is essential and
projects must ensure that appropriate provisions for activities and
resources aimed at enforcing this collaboration are included in the work
plan of the proposal. The collaboration with the Cities Mission
Platform must be formalized through a Memorandum of
Understanding or a collaboration agreement to be concluded as soon as
possible after the project starting date.

<u>Expected Outcome</u>: This topic aims at supporting activities that are enabling or contributing to the Climate-Neutral and Smart Cities Mission by accelerating the transition towards climate neutrality in cities. To this end, project results are expected to contribute to all of the following expected outcomes:

- Cities involved in this action advance in achieving their climate neutrality targets, reducing greenhouse gas and air pollutant emissions by improving energy efficiency in urban and sub-urban public transport systems, complemented by urban mobility service car fleets taxis, ride-hailing, car sharing and other active and shared mobility services.
- Comprehensive inventory and assessment of existing instruments and measures to foster electrification and attractiveness of urban and sub-urban public transport systems, urban mobility service car fleets and shared mobility, accompanied by targeted guidance for responsible authorities, operators and providers through integration of measures to improve energy efficiency in public transport and new shared mobility services.
- Upscaling of innovative and sustainable integrated mobility solutions, identifying gaps and shortcomings in existing systems and exchanging of best practices in the pilot sites involved in the action leading to a state-of-the-art of electrification and attractiveness of urban and suburban public transport with complementary urban mobility service car fleets and other active and shared mobility solutions.
- Enhanced **assessment tools** to quantify the direct benefits and associated co-benefits of decarbonised urban mobility service car fleets and of new shared mobility solutions complementary to public transport (including evaluation of impacts on modal shift, increased intermodal mobility and diverse user needs), the trade-off analysis between different solution and the recommendation of the most suitable implementation strategies, thereby helping to attract public investments.

Further **progress towards achieving the targets set by relevant EU strategies and policies** such as the Zero Pollution Action Plan²²⁸, the Sustainable and Smart Mobility Strategy²²⁹, the

Set up by Horizon 2020 project NetZeroCities - Accelerating cities' transition to net zero emissions by 2030, Grant Agreement n. 101036519, and scaled up through topic HORIZON-MISS-2021-CIT-02-03: Framework Partnership Agreement (FPA) for the Climate-Neutral and Smart Cities Mission Platform.

²²⁸ COM(2021) 400 final

²²⁹ COM(2020) 789 final

<u>new EU Urban Mobility Framework</u>²³⁰, the <u>Decarbonise Corporate Fleets Communication</u>²³¹ and the <u>Energy Efficiency Directive</u>²³².

<u>Scope</u>: Public transport is firmly at the centre of sustainable urban mobility policies at EU level and across Member States, in complementarity with active mobility and shared mobility services. However more needs to be done to make sure that **urban and suburban public passenger transport**, including **coaches**, and **urban mobility service car fleets** are **energy efficient** and **attractive**.

In addition, an optimal integration of public transport with other/new shared mobility services can increase its uptake by offering services that are complementary, offering coherent solutions allowing interconnection between mass transit and "last-mile" solutions. **Designing urban and sub-urban systems** that are **energy-efficient and attractive and are tailored** for complementary mobility options requires different thinking: e.g. new approaches to integrated urban planning; changes to or upgrades of infrastructure and redistribution of public space; better use of data and technology solutions to enable effective multimodality, including leveraging AI solutions; targeted local policies to promote and integrate different mobility options, to increase connectivity especially in peri-urban, rural, and underserved areas throughout the city, extending beyond the city centre.

The objective of this topic is to explore and test solutions to **increase energy-efficiency and attractiveness of urban and sub-urban public transport, urban mobility service car fleets,** and **other active and shared mobility solutions,** in the pilot sites involved in the proposals, including by facilitating **exchange of experiences and good practices and fostering learning at European level**. The work should lead to an updated and comprehensive overview of the **state of the art of the electrification of urban and sub-urban public transport systems**, and **urban mobility service car fleets and shared mobility solutions,** including an assessment of gaps and shortcomings in existing systems.

The topic invites proposals from consortia including at least three cities from different Member States or Associated Countries along with at least three follower cities, ensuring a good geographical balance. Follower cities can be from the same Member State or Associated Country as the lead cities. At least one of the three lead cities must be one of the 112 cities selected for the EU Mission on Climate-neutral and Smart Cities. The consortium should bring together academia, responsible local authorities, public transport operators, urban mobility service car fleet providers, shared mobility service providers, and other relevant stakeholders. The goal is to collaboratively test and **implement a mix** of technological and non-technological innovations, along with policy-based measures, to **enhance the energy efficiency and appeal** of urban and suburban public transport in complementarity with urban mobility service car fleets and shared mobility solutions. An assessment of the overall ecological footprint of the

²³⁰ COM(2021)811

²³¹ COM(2025) 96 final

²³² DIRECTIVE (EU) 2023/1791 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 13 September 2023 on energy efficiency and amending Regulation (EU) 2023/955

tested solutions should also be carried out, taking into account the whole value chain and possible rebound effects.

From the lessons learnt through the testing of solutions, **recommendations and guidance on optimal integration of energy efficient urban and suburban public transport** with **urban mobility service car fleets**, active and shared mobility solutions should be **provided for local authorities and public transport operators**. Recommendations and measures could cover e.g. newly-emerging technologies and soft measures such as marketing, real time information and awareness raising campaigns and co-creation of user-oriented solutions– with particular regard to the specific needs of diverse user groups. Proposals could test the establishment of new operating and business models. Proposals may also include take-up and replication actions, research activities, as well as tools to support local planning and policy making. To facilitate replication, upscaling and up-taking of the generated outcomes and to foster capacity building/upskilling of public authorities, local actors and communities, actions should engage in outreach, communication, dissemination and training activities.

This topic requires the effective contribution of SSH disciplines and the involvement of SSH experts, institutions as well as the inclusion of relevant SSH expertise, in order to produce meaningful and significant effects enhancing the societal impact of the related research activities.

Collaboration with the Cities Mission Platform is essential and should take place through the CIVITAS initiative²³³. Proposals should ensure that appropriate provisions for activities and resources aimed at enforcing clustering activities and cooperation with the Cities Mission Platform and the CIVITAS initiative are included in the work-plan²³⁴. Proposals should plan for an active collaboration amongst the projects selected under this topic - for dissemination, evaluation and coordination - facilitated by and within the CIVITAS initiative.

Call: Supporting the implementation of the Climate-Neutral and Smart Cities Mission	
Specific conditions	
Expected EU contribution per project	The Commission estimates that an EU contribution of around EUR 6.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
Indicative budget	The total indicative budget for the topic is EUR 18.00 million.
Type of Action	Innovation Actions

HORIZON-MISS-2026-04-CIT-02: Transition to low-temperature heating solutions in multi-apartment buildings

^{233 &}lt;u>https://civitas.eu/</u>

²³⁴ The CIVITAS initiative should establish, through a collaboration agreement set up together with the Cities Mission Platform, clear links with the Mission portfolio for synergies and complementarities.

Eligibility conditions	The conditions are described in General Annex B. The following exceptions apply:
	The following additional eligibility criteria apply:
	At least two cities, represented by a local authority or by an entity with an explicit consent from the local authority, each from a different Member State or Associated Country, must participate as beneficiaries. At least one of the two cities must be one of the 112 cities selected for the EU Mission on Climate-Neutral and Smart Cities ²³⁵ .
Technology Readiness Level	Activities are expected to achieve TRL 7-8 by the end of the project – see General Annex B.
Procedure	The procedure is described in General Annex F. The following exceptions apply:
	To ensure a balanced portfolio covering both district heating and building-level heating solutions, grants will be awarded to proposals not only in order of ranking, but also to at least one highest-ranked proposal in each category of heating solution, provided all thresholds are met. This balanced portfolio is also achieved if one proposal addressing both categories is funded.
Legal and financial set-up of	The rules are described in General Annex G. The following exceptions apply:
the Grant Agreements	Grants awarded under this topic will be linked to the following action(s):
	HORIZON-MISS-2021-CIT-02-03
	Collaboration with the Cities Mission Platform ²³⁶ is essential and projects must ensure that appropriate provisions for activities and resources aimed at enforcing this collaboration are included in the work plan of the proposal. The collaboration with the Cities Mission Platform must be formalized through a Memorandum of Understanding to be concluded as soon as possible after the project starting date.
	Eligible costs will take the form of a lump sum as defined in the Decision of 7 July 2021 authorising the use of lump sum contributions

²³⁵ The EU Mission on Climate-Neutral and Smart Cities aims to deliver 100 climate-neutral and smart cities by 2030 and ensure that these cities act as experimentation and innovation hubs to enable all European cities to follow suit by 2050. On 28 April 2022, the Commission announced the 100 EU cities that will participate in the Mission. In addition, 12 cities have been selected from countries associated or expected to be associated the Horizon Europe programme.

²³⁶ Set up by Horizon 2020 project NetZeroCities - Accelerating cities' transition to net zero emissions by 2030, Grant Agreement n. 101036519, and scaled up through topic HORIZON-MISS-2021-CIT-02-03: Framework Partnership Agreement (FPA) for the Climate-Neutral and Smart Cities Mission Platform.

under the Horizon Europe Programme - the Framework Programme
for Research and Innovation (2021-2027) – and in actions under the
Research and Training Programme of the European Atomic Energy
Community (2021-2025) ²³⁷ .

Expected Outcome: The projects are expected to deliver on one of or combination of the following topic outcomes:

- Faster transition of district heating systems towards low-temperature operations
- Faster transition of building heating systems towards low-temperature operations
- Increased use of renewable energy and/or waste heat.

<u>Scope</u>: Low-temperature district heating systems in urban areas offer higher potential for integration of renewable energy sources and waste heat, but their deployment is slowed down because the existing stock of inefficient buildings has been designed for high-temperature heat delivery systems. The topic supports the creation of the conditions necessary for the conversion of existing supply solutions – district heating, as well as individual heating ones – into low-temperature alternatives, along with reducing and optimising the heat load of buildings.

Efficient district heating systems are expected to meet increasingly stringent criteria in terms of the use of renewable energy, waste heat and/or co-generation in line with Article 26(1) of the Directive (EU) 2023/1791. To help district heating operators meet those criteria, there is a need to demonstrate solutions that support the **transition to low-temperature district heating systems** operating at supply temperatures at below 70°C.

There is currently a limited choice of established non-fossil fuel heating and hot water systems to replace fossil-fuel based heating systems in multi-apartment buildings. There is a need to demonstrate systems based on **heat pumps solutions** to replace both central and individual fossil fuel boilers in existing residential multi-apartment buildings.

Proposals are expected to address at least **two** of the following:

- Demonstrate system design and technical solutions at district and building level, to enable the integration of various heat supply sources (particularly renewable energy sources and waste heat), and to facilitate the transition to low-temperature district heating systems. Furthermore, refine digital tools for the control and monitoring of district heating systems as well as digital tools to support decision-making both at the initial planning stages and for the standardized replication of solutions.
- Demonstrate building-level heating solutions for hot water and low-temperature heating with maximum heating supply temperatures up to 50°C and fulfilling water safety

²³⁷ This <u>decision</u> is available on the Funding and Tenders Portal, in the reference documents section for Horizon Europe, under 'Simplified costs decisions' or through this link: <u>https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/ls-</u> <u>decision he_en.pdf</u>

regulations in at least four residential multi-apartment buildings of at least 1000 m2 each. The solutions should be transferrable and standardised.

- Demonstrate building-level heating solutions for hot water and heating needs in at least four residential multi-apartment buildings of at least 1000 m2 each that use either on-site renewable energy sources or an ambient or geothermal loop shared with other buildings / facilities, or a connection to district heating systems for the heat supply.
- At a building, district or city level, demonstrate approaches, including business models, for connecting buildings via district heating networks and ambient or geothermal loops to reduce the overall energy demand, to facilitate the deployment of low-temperature district heating systems and to improve heating systems' flexibility via the integration of heat storage, including in heat networks, by or with the inclusion of energy communities.
- Ensure the participation of local energy communities to assess their socio-economic benefits for the local community and heating system operators.

Projects are expected to demonstrate the proposed solutions in two different climate zones, at building, district and/or city level, and to assess the environmental, social and economic benefits of the proposed solutions for the local community and heating system operators while accounting for the regional economic and regulatory aspects. The system design must include advanced controls to allow exploiting the energy flexibility of individual heating systems in a collective way. Projects must present a concise state-of-the-art of existing relevant solutions, knowledge and tools from EU funded projects.

Projects are expected to contribute to the implementation of Climate City Contracts and/or Sustainable Energy Action Plans, Sustainable Energy and Climate Action Plans. Collaboration with the Cities Mission Platform is essential. The collaboration with the Cities Mission Platform must be formalized through a Memorandum of Understanding to be concluded as soon as possible after the project starting date. Under the guidance of the Cities Mission Platform, the selected projects will engage in clustering activities with other relevant projects supported under the Cities Mission to promote synergies and complementarities. Proposals should ensure that appropriate provisions for activities and resources aimed at enforcing clustering activities and cooperation with the Cities Mission Platform are included in the work-plan.

HORIZON-MISS-2027-04-CIT-01: Innovative microgrids for improved energy system integration and efficiency in urban contexts

Call: Supporting the implementation of the Climate-Neutral and Smart Cities Mission	
Specific conditions	
Expected EU contribution per project	The Commission estimates that an EU contribution of around EUR 7.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.

Indicative budget	The total indicative budget for the topic is EUR 20.00 million.
Type of Action	Innovation Actions
Eligibility conditions	The conditions are described in General Annex B. The following exceptions apply: The following additional eligibility criteria apply: At least three cities, represented by a local authority or by an entity with an explicit consent from the local authority, each from a different Member State or Associated Country, must participate as beneficiaries. At least one of the three cities must be one of the 112 cities selected for the EU Mission on Climate-Neutral and Smart Cities ²³⁸ .
Technology Readiness Level	Activities are expected to achieve TRL 7-8 by the end of the project – see General Annex B.
Legal and financial set-up of the Grant Agreements	The rules are described in General Annex G. The following exceptions apply: Grants awarded under this topic will be linked to the following action(s): HORIZON-MISS-2021-CIT-02-03
	Collaboration with the Cities Mission Platform ²³⁹ is essential and projects must ensure that appropriate provisions for activities and resources aimed at enforcing this collaboration are included in the work plan of the proposal. The collaboration with the Cities Mission Platform must be formalized through a Memorandum of Understanding to be concluded as soon as possible after the project starting date.
	Eligible costs will take the form of a lump sum as defined in the Decision of 7 July 2021 authorising the use of lump sum contributions under the Horizon Europe Programme – the Framework Programme for Research and Innovation (2021-2027) – and in actions under the

²³⁸ The EU Mission on Climate-Neutral and Smart Cities aims to deliver 100 climate-neutral and smart cities by 2030 and ensure that these cities act as experimentation and innovation hubs to enable all European cities to follow suit by 2050. On 28 April 2022, the Commission announced the 100 EU cities that will participate in the Mission. In addition, 12 cities have been selected from countries associated or expected to be associated the Horizon Europe programme.

²³⁹ Set up by Horizon 2020 project NetZeroCities - Accelerating cities' transition to net zero emissions by 2030, Grant Agreement n. 101036519, and scaled up through topic HORIZON-MISS-2021-CIT-02-03: Framework Partnership Agreement (FPA) for the Climate-Neutral and Smart Cities Mission Platform.

	Research and Training Programme of the European Atomic Energy	
	Community (2021-2025) ²⁴⁰ .	

Expected Outcome: Projects are expected to contribute to all the following outcomes:

- Improved awareness of the potential of Low Voltage Direct Current (LVDC) microgrids to support the goals of the European Green Deal and the Clean Industrial Deal, including as defined under the SET Plan²⁴¹ and the Solar Strategy²⁴².
- Increased acceptance of LVDC microgrids in Europe, with significant and measurable contributions to human and building safety (notably with respect to DC faults), energy and resource efficiency, integration of renewables & storage and demand response, peak power shaving, resilience, and (where applicable) established proof of concept on how LVDC microgrids can enable energy communities²⁴³ to share energy assets and increase self-consumption of local renewables sources.
- Increased uptake in European cities, facilitated by technical guidelines for installation of LVDC microgrids and recommendations on regulatory alignment to European, national, regional and local authorities, as well as power distribution operators.
- Increased number of regulatory options and standards supporting EU industry leadership in the supply of LVDC solutions, in line with the Competitiveness Compass guidelines for fostering innovation and growth.

<u>Scope</u>: Most electric appliances in buildings are based on Direct Current (DC): PV panels, stationary and e-vehicle batteries, LED lighting, IT equipment, heat pumps and other appliances. Their connection to a LVDC microgrid inside the building would significantly improve energy and materials efficiency (replacing AC/DC converters by simpler DC/DC converters) and optimise local electrical and/or thermal energy storage and self-consumption of local renewables, contribute to (AC) grids stability through demand response and ancillary services (incl. reactive power support), and increase resilience by enabling islanded operation. The required power capacity of the connection of the LVDC microgrid to the AC (Alternating

²⁴⁰ This <u>decision</u> is available on the Funding and Tenders Portal, in the reference documents section for Horizon Europe, under 'Simplified costs decisions' or through this link: <u>https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/lsdecision he_en.pdf</u>

²⁴¹ SET Plan LVDC Implementation Plan (europa.eu)

²⁴² COM(2022) 221 final, p14, The European Commission communication on the EU Solar Energy Strategy recognises that increasing the use of DC technologies could be beneficial to the electricity system: as renewable power from solar is produced in Direct Current (DC), conversion to Alternating Current (AC) to feed into the grid and then converting back to DC, e.g. to store energy, leads to energy losses; such conversion losses are currently growing because more devices and system, such as batteries, heat-pumps, data centres, electric vehicles or appliances, operate in DC.

²⁴³ Energy communities – defined under the Renewable Energy Directive and the Electricity Market Directive, and further supported by the upcoming Citizens Energy Package are identified as a vehicle to empower citizens, small businesses and local authorities to produce, manage and consumer their own energy.

Current) distribution grid via a central AC/DC converter would be significantly lower than a traditional AC installation, thereby reducing pressure on city grid.

The LVDC microgrid could also be implemented at small neighbourhood level (e.g. a street), possibly in parallel to an existing AC grid, enabling more efficient and easier sharing of common energy assets and self-consumption in an energy community.

In order to reach this goal, proposals are expected to address all of the following aspects:

- Develop innovative, safe and sustainable LVDC microgrids design methods and tools, ensuring notably grid monitoring, control and safe handling of DC faults at affordable cost; develop methodologies and assess the life-cycle costs/benefits of LVDC microgrids (compared to traditional AC installations), for the application itself and the overall energy system (including the impacts on the AC distribution grid, for example, due to the injection of harmonics, or contribution to grid stability through ancillary services and demand response over the current and next day), from technical, environmental, economic and social aspects (notably on vulnerable consumers energy bill).
- Demonstrate in real life an LVDC microgrid, connecting all electrical applications in at least one residential, office or commercial building, or in one neighbourhood. The proposal must already include a review of the local regulatory framework(s) and grid codes and a demonstration that the real-life implementation(s) of the LVDC microgrid will be possible in the local context(s) (possibly through pre-agreed regulatory relaxation or 'innovation sandbox').
- Beyond the real demonstration(s), the installation of LVDC microgrid must be demonstrated virtually in other types of buildings, including at least one building under renovation, in the environment of different cities and countries, including at least one vulnerable urban area if possible, by numerical simulation using digital twins²⁴⁴, with the objective of assessing the regulatory feasibility and life-cycle costs/benefits (detailed in the first bullet) in these different environments. The total number of real and virtual demonstrations must be at least 3.
- Identify regulatory barriers at European, national and distribution system operator levels, and make suggestions to resolve them.
- Contribute to standardization (CEN-CENELEC, IEC), notably contributing use cases.
- Develop LVDC solutions awareness, education and training materials (respectively for public authorities and general public, for students, for urban planners, project developers and installers), in collaboration with local academia and research partners.

^{244 &}lt;u>https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/horizon-miss-2023-cit-01-02</u>

• Disseminate project results, engage all relevant stakeholders along the value chain, including residents, users, industry, and researchers, from the planning phase; organise at least one open workshop coupled with site visits.

This topic requires contributions from social sciences and humanities (SSH) disciplines and the involvement of SSH experts and institutions. Their contributions should enhance the societal relevance and impact of proposed activities from planning to implementation and especially related to the last two bullets.

The projects under this topic shall be open to cooperate with each other on relevant tasks such as joint workshops and dissemination events and joint policy briefs and contribution to standardisation process, to maximise the collective impact.

Proposals should build on previous projects, notably Horizon Europe project <u>Shift2DC</u>, as well as <u>HYPERRIDE</u>, <u>TIGON</u>, <u>HYNET</u> and <u>THEUS</u>. Collaboration with the Cities Mission Platform is essential. The collaboration with the Cities Mission Platform must be formalized through a Memorandum of Understanding to be concluded as soon as possible after the project starting date. Under the guidance of the Cities Mission Platform, the selected projects will engage in clustering activities with other relevant projects supported under the Cities Mission, such as the ones on PED digital twins, to promote synergies and complementarities. Proposals should ensure that appropriate provisions for activities and resources aimed at enforcing clustering activities and cooperation with the Cities Mission Platform are included in the work-plan.

Call: Supporting the implementation of the Climate-Neutral and Smart Cities Mission		
Specific conditions	Specific conditions	
Expected EU contribution per project	The Commission estimates that an EU contribution of around EUR 5.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.	
Indicative budget Type of Action	The total indicative budget for the topic is EUR 5.00 million. Coordination and Support Actions	
Legal and financial set-up of the Grant Agreements	The rules are described in General Annex G. The following exceptions apply: Grants awarded under this topic will be linked to the following action(s): HORIZON-MISS-2021-CIT-02-03	

HORIZON-MISS-2027-04-CIT-02: Hydrogen cities

Collaboration with the Cities Mission Platform ²⁴⁵ is essential and projects must ensure that appropriate provisions for activities and resources aimed at enforcing this collaboration are included in the work plan of the proposal. The collaboration with the Cities Mission Platform must be formalized through a Memorandum of Understanding to be concluded as soon as possible after the project starting date.
Eligible costs will take the form of a lump sum as defined in the Decision of 7 July 2021 authorising the use of lump sum contributions under the Horizon Europe Programme – the Framework Programme for Research and Innovation (2021-2027) – and in actions under the Research and Training Programme of the European Atomic Energy Community (2021-2025) ²⁴⁶ .

<u>Expected Outcome</u>: A growing number of cities across Europe is developing hydrogen strategies, either for mobility applications or for decarbonising their local and peri-urban industries and hard-to-abate sectors. By acting as experimentation and innovation hubs, these cities can be testbeds for the energy transition, balancing decarbonisation with competitiveness and social cohesion.

Project results are expected to contribute to the following expected outcomes:

- Investments in and deployment of hydrogen applications and infrastructure for hardto-abate sectors in and around cities to mitigate local air pollution and lead to economic growth and jobs, bringing urban environments at the forefront of sustainability and innovation.
- Communities of practice to foster the interaction between stakeholders from cities, ports, industry, local and regional government, as well as researchers and citizens.
- Enhanced synergies between the Climate-Neutral and Smart Cities Mission and the Horizon Europe Clean Hydrogen Partnership.

<u>Scope</u>: The selected project is expected to establish 'twinning' of Hydrogen Valleys (in particular those that have elements relevant for cities or ports) with cities that are interested to decarbonise their local and peri-urban hard-to-abate sectors using hydrogen. Focus should be on hard-to-abate and/or hard-to-electrify sectors, such as industrial uses, heavy-duty and long-

Set up by Horizon 2020 project NetZeroCities - Accelerating cities' transition to net zero emissions by 2030, Grant Agreement n. 101036519, and scaled up through topic HORIZON-MISS-2021-CIT-02-03: Framework Partnership Agreement (FPA) for the Climate-Neutral and Smart Cities Mission Platform.

²⁴⁶ This <u>decision</u> is available on the Funding and Tenders Portal, in the reference documents section for Horizon Europe, under 'Simplified costs decisions' or through this link: <u>https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/ls-decision he_en.pdf</u>

distance transport, aviation, maritime uses, or any combination thereof. The use of hydrogen for heating purposes is out of scope.

Twinning will help cities to access the best available expertise and tools that can enable them to identify and implement decarbonisation strategies based on renewable hydrogen. To foster cooperation between cities and Member States, it is encouraged that there is a geographical balance between the participating authorities to foster learning from different projects and approaches.

This twinning should be based on mentor-mentee pairings; these could also target enlargement countries, such as the Western Balkans, Ukraine, and Moldova.

The project is expected to:

- Organise a selection procedure (for example in the form of public calls for expression of interest) to identify the most promising twinning pairs that will be selected to develop collaborative activities;
- Develop and implement for each twinning pair a tailor-made set of collaborative activities;
- Deliver for each twinned city a detailed roadmap outlining the future steps to integrate renewable hydrogen in their industrial decarbonisation;
- Facilitate the interaction between participating cities to address shared challenges and solutions;

Collaborative activities can address for example:

- Feasibility assessments (including technology choices, sources of renewable hydrogen, business cases, regulatory issues and stakeholder engagement);
- Designing a detailed implementation plan (including funding strategy, permitting, infrastructure requirements, supply chain integration);
- Environmental and socio-economic impact assessment;
- Sharing best practices and lessons learned;
- Education and training.

At least one of the cities selected for twinning is expected to be one of the 112 cities selected for the EU Mission on Climate-Neutral and Smart Cities²⁴⁷. The project is expected to enhance the synergies between the Horizon Europe Clean Hydrogen Partnership and the EU Mission on Climate-Neutral and Smart Cities by making optimal use of the information available through

²⁴⁷ The EU Mission on Climate-Neutral and Smart Cities aims to deliver 100 climate-neutral and smart cities by 2030 and ensure that these cities act as experimentation and innovation hubs to enable all European cities to follow suit by 2050. On 28 April 2022, the Commission announced the 100 EU cities that will participate in the Mission. In addition, 12 cities have been selected from countries associated or expected to be associated the Horizon Europe programme.

the Hydrogen Valley Platform²⁴⁸ and the Cities Mission Platform²⁴⁹. Under the guidance of the Cities Mission Platform, the selected project will engage in clustering activities with other relevant projects supported under the Cities Mission to promote synergies and complementarities. Proposals should ensure that appropriate provisions for activities and resources aimed at enforcing these synergies as well as clustering activities are included in the work-plan.

This action supports the follow-up to the July 2023 Communication on EU Missions assessment²⁵⁰.

HORIZON-MISS-2027-04-CIT-03: Inclusive and climate resilient multimodal passenger hubs enhancing modal shift towards sustainable transport and shared mobility

Call: Supporting the implementation of the Climate-Neutral and Smart Cities Mission		
Specific conditions	Specific conditions	
Expected EU contribution per project	The Commission estimates that an EU contribution of around EUR 9.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.	
Indicative budget	The total indicative budget for the topic is EUR 18.00 million.	
Type of Action	Innovation Actions	
Eligibility conditions	The conditions are described in General Annex B. The following exceptions apply: The following additional eligibility criteria apply: At least three cities, represented by a local authority or by an entity with an explicit consent from the local authority, each from a different Member State or Associated Country, must participate as beneficiaries. At least one of the three cities must be one of the 112 cities selected for the EU Mission on Climate-Neutral and Smart Cities ²⁵¹ and one of them as urban node on the TEN-T network ²⁵² .	

^{248 &}lt;u>Mission Innovation Hydrogen Valley Platform</u>

²⁴⁹ NetZeroCities

²⁵⁰ COM(2023) 457 final and SWD(2023) 260 final

²⁵¹ The EU Mission on Climate-Neutral and Smart Cities aims to deliver 100 climate-neutral and smart cities by 2030 and ensure that these cities act as experimentation and innovation hubs to enable all European cities to follow suit by 2050. On 28 April 2022, the Commission announced the 100 EU cities that will participate in the Mission. In addition, 12 cities have been selected from countries associated or expected to be associated the Horizon Europe programme.

²⁵² https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32024R1679

Technology Readiness Level	Activities and pilot demonstrations of technological nature of the proposed solutions in operational environment are expected to be at minimum TRL 8 by the end of the project – see General Annex B.
Legal and financial set-up of the Grant Agreements	The rules are described in General Annex G. The following exceptions apply: Grants awarded under this topic will be linked to the following action(s): HORIZON-MISS-2021-CIT-02-03 Collaboration with the Cities Mission Platform ²⁵³ is essential and projects must ensure that appropriate provisions for activities and resources aimed at enforcing this collaboration are included in the work plan of the proposal. The collaboration with the Cities Mission Platform must be formalized through a Memorandum of Understanding or a collaboration agreement to be concluded as soon as possible after the project starting date.
	Eligible costs will take the form of a lump sum as defined in the Decision of 7 July 2021 authorising the use of lump sum contributions under the Horizon Europe Programme – the Framework Programme for Research and Innovation (2021-2027) – and in actions under the Research and Training Programme of the European Atomic Energy Community (2021-2025) ²⁵⁴ .

Expected Outcome: Project results are expected to contribute to all the following outcomes:

- Contribute to the objectives of the Climate-Neutral and Smart Cities Mission by accelerating the transition towards climate neutrality targets in cities and **reducing greenhouse gas and air pollutants emissions from transport** due to the improved operation of the multimodal hubs.
- Reducing road congestion and improved air quality, by increasing shift towards sustainable and active modes of transport for city and intercity trips.
- Contribute to the objectives of the TEN-T Regulation by enhancing the **climate resilience of multimodal passenger hub infrastructures and services in response** to both the long-term effects of climate change and extreme weather events

²⁵³ Set up by Horizon 2020 project NetZeroCities - Accelerating cities' transition to net zero emissions by 2030, Grant Agreement n. 101036519, and scaled up through topic HORIZON-MISS-2021-CIT-02-03: Framework Partnership Agreement (FPA) for the Climate-Neutral and Smart Cities Mission Platform.

²⁵⁴ This <u>decision</u> is available on the Funding and Tenders Portal, in the reference documents section for Horizon Europe, under 'Simplified costs decisions' or through this link: <u>https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/ls-</u> <u>decision he_en.pdf</u>

- Increased **inclusivity**, **accessibility and improved experience** for all passengers at multimodal hubs, by proposing mobility solutions that respond to the needs of transports users, irrespective of their age, gender, economic or social status, including equal access for persons with reduced mobility/disabilities.
- **Provide guidance and best practices** for national/regional/local authorities and urban transport authorities to improve the integration of walking, cycling, shared mobility and micro-mobility at and around in multimodal-hubs, and for identifying and deploying relevant monitoring and security measures related to climate impact on operations.

<u>Scope</u>: This topic focuses on the climate resilience of major multimodal passenger hubs' infrastructures and services within and between cities as well as peri-urban and rural areas. At least three demonstrators per project are required. As defined in the revised TEN-T regulation²⁵⁵, 'multimodal passenger hub' means a connection point between at least two transport modes for passengers, where travel information, access to public transport and transfers between modes are ensured, such as park-and-ride stations, and which acts as an interface within and between urban nodes and between urban nodes and longer-distance transport networks.

Projects will complement the implementation of the above requirement for TEN-T urban nodes by demonstrating concrete solutions for improving the climate resilience of multimodal passenger hubs.

Transport is responsible of a significant share of pollution and greenhouse gas emission in cities. In addition, transport infrastructures and their operation can be affected by severe disruptions and deterioration caused by extreme events (storms, heavy rains, floodings, heat waves, etc.) or prolonged climate stresses (water scarcity, changing groundwater levels, drought, extreme temperatures, sea level rise and accelerated coastal erosion in coastal cities, etc.). Preparing passenger transport systems resilience and the adaptation capacity is crucial to ensure continuity of the transport service and safety of passengers. The recently published "Support study on the climate adaptation and cross-border investment needs to realise the TEN-T network" should be considered²⁵⁶.

Proposals should address all the following points:

- Develop and test innovative solutions that increase the number of within-hub flows and access/egress trips by public transport, active, shared and micromobility modes to/from the selected major multi-modal hubs considering improved connectivity, fleet rebalancing operations, etc.;
- Identify current and future local climate-related vulnerabilities of the selected multimodal passenger transport infrastructures and services, and determine the potential safety issues

²⁵⁵ https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32024R1679

²⁵⁶ https://op.europa.eu/en/publication-detail/-/publication/26731a63-b904-11ef-91ed-01aa75ed71a1/language-en

and economic and social losses caused by climate change extreme events or longer-term climate stresses that may lead to interrupted or low-quality service;

- Develop and test innovative solutions for climate-resilient multimodal passenger hubs and related transport services for protecting existing infrastructures and/or for building/managing new critical infrastructure capable of mitigating the potential climate change risks, as well as for maintaining services continuity and efficiency of operations. In this context:
 - o Develop nature-based solutions for increasing multimodal passenger hub's infrastructures resilience demonstrating the respective environmental, social, and economic benefits.
 - o Integrate digital monitoring and advanced yet practical digital and/or AI-based methods for assessing, preventing and managing adverse climate impacts that may affect the multimodal hub operation.
- Develop and test solutions to ensure or improve the inclusivity and accessibility of multimodal passenger hubs, accounting for both within-hub flows and access/egress trips, considering that climate change may particularly affect most vulnerable and marginalised populations²⁵⁷;
- Establish co-designing process and engaging with the relevant stakeholders to ensure the successful uptake of the proposed and tested solutions, incl. and economic model, contributing to climate neutrality, climate adaptation and enhanced governance of the multi-modal passenger hubs.

Proposals should include activities promoting the New European Bauhaus principles (sustainability, aesthetics, and inclusion) among national, regional, and local authorities, citizens, and stakeholders through dedicated local initiatives (e.g. events, contests, citizens' dialogues, living labs).

Proposals should be implemented within the framework of a Sustainable Urban Mobility Plan (SUMP) or equivalent plan of the participating cities.

Collaboration with the Cities Mission Platform is essential and should take place through the CIVITAS initiative²⁵⁸. Proposals should ensure that appropriate provisions for activities and resources aimed at enforcing clustering activities and cooperation with the Cities Mission Platform and the CIVITAS initiative are included in the work-plan²⁵⁹. Proposals should plan for an active collaboration amongst the projects selected under this topic - for dissemination, evaluation and coordination - facilitated by and within the CIVITAS initiative.

²⁵⁷ IPCC 2023

²⁵⁸ <u>https://civitas.eu/</u>

²⁵⁹ The CIVITAS initiative should establish, through a collaboration agreement set up together with the Cities Mission Platform, clear links with the Mission portfolio for synergies and complementarities.

This topic requires the effective contribution of social sciences and humanities (SSH) disciplines and the involvement of SSH experts, institutions as well as the inclusion of relevant SSH expertise, in order to produce meaningful and significant effects enhancing the societal impact of the related research activities.

HORIZON-MISS-2027-04-CIT-CCRI-04: Advancing circular logistics solutions in cities

Call: Supporting the implementation of the Climate-Neutral and Smart Cities Mission		
Specific conditions	Specific conditions	
Expected EU contribution per project	The Commission estimates that an EU contribution of around EUR 7.50 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.	
Indicative budget	The total indicative budget for the topic is EUR 22.50 million.	
Type of Action	Innovation Actions	
Eligibility conditions	The conditions are described in General Annex B. The following exceptions apply:	
	The following additional eligibility criteria apply:	
	At least three cities, represented by a local authority or by an entity with an explicit consent from the local authority, each from a different Member State or Associated Country, must participate as beneficiaries. At least one of the three cities must be one of the 112 cities selected for the EU Mission on Climate-Neutral and Smart Cities ²⁶⁰ .	
Technology Readiness Level	Activities are expected to achieve TRL 7-8 by the end of the project – see General Annex B.	
Legal and financial set-up of	The rules are described in General Annex G. The following exceptions apply:	
the Grant Agreements	Grants awarded under this topic will be linked to the following action(s):	
	HORIZON-MISS-2021-CIT-02-03	

²⁶⁰ The EU Mission on Climate-Neutral and Smart Cities aims to deliver 100 climate-neutral and smart cities by 2030 and ensure that these cities act as experimentation and innovation hubs to enable all European cities to follow suit by 2050. On 28 April 2022, the Commission announced the 100 EU cities that will participate in the Mission. In addition, 12 cities have been selected from countries associated or expected to be associated the Horizon Europe programme.

Collaboration with the Cities Mission Platform ²⁶¹ is essential and projects must ensure that appropriate provisions for activities and resources aimed at enforcing this collaboration are included in the work plan of the proposal. The collaboration with the Cities Mission Platform must be formalized through a Memorandum of Understanding or a collaboration agreement to be concluded as soon as possible after the project starting date.
Eligible costs will take the form of a lump sum as defined in the Decision of 7 July 2021 authorising the use of lump sum contributions under the Horizon Europe Programme – the Framework Programme for Research and Innovation (2021-2027) – and in actions under the Research and Training Programme of the European Atomic Energy Community (2021-2025) 262 .

Expected Outcome: Projects are expected to contribute to all the following outcomes:

- Accelerated transition towards circular economy in the freight transport sector and throughout the urban logistics value chain, contributing to the objectives of the Climateneutral and Smart Cities Mission and the EU Circular Cities and Regions Initiative (CCRI);
- Increased adoption by logistics operators of new and tested circular systemic logistics solutions, including modular loading units and reusable transport packaging systems tailored for urban delivery settings;
- Improved integration of reverse logistics into urban logistics models to enable higher reuse and recycling rates;
- Optimised resource utilisation in urban logistics through innovative circular economy approaches, leading to significant reductions in material consumption and carbon footprint;
- Enhanced cooperation among urban stakeholders, including local authorities, logistics providers, retailers, and consumers, fostering circular business models and enhancing consumer acceptance.

<u>Scope</u>: The rapid growth of e-commerce and urban logistics has led to an increase in packaging waste, inefficiencies in freight transport, and rising environmental impacts. Current urban logistics systems often rely on disposable packaging and fragmented transport operations,

²⁶¹ Set up by Horizon 2020 project NetZeroCities - Accelerating cities' transition to net zero emissions by 2030, Grant Agreement n. 101036519, and scaled up through topic *HORIZON-MISS-2021-CIT-02-03:* Framework Partnership Agreement (FPA) for the Climate-Neutral and Smart Cities Mission Platform.

²⁶² This <u>decision</u> is available on the Funding and Tenders Portal, in the reference documents section for Horizon Europe, under 'Simplified costs decisions' or through this link: <u>https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/ls-</u> <u>decision he_en.pdf</u>

resulting in significant material waste, resource inefficiency and carbon emissions. Addressing these challenges requires innovative circular economy approaches, promoting systemic, innovative, circular and scalable solutions for reducing waste generation, in line with the revised EU Packaging Waste Regulation (PPWR)²⁶³, and improving resource efficiency in business-to-business and business-to-consumer logistics.

Building on previously funded projects' outcomes and leveraging potential complementarities with existing regional circularity hubs and other initiatives (e.g. the CCRI ²⁶⁴ and its related projects ²⁶⁵, as well as the Driving Urban Transition Partnership (DUT²⁶⁶), proposals should address <u>all</u> the following actions:

- Design and develop solutions for innovative, modular, reusable, and recyclable packaging and loading units. The proposed solutions should reduce single-use packaging in urban freight transport and demonstrate the benefits of their use in urban logistics processes, while considering the impact of packaging waste regulations on logistics and delivery models in urban areas.
- Develop and test digital tools and systems for tracking and optimising the use of the loading units as well as for secure and efficient stowage, transport, and handling, by integrating technologies such as Internet of Things, edge computing, Artificial Intelligence and data-driven collaboration platforms (e.g. data spaces), considering technological sovereignty and energy-efficiency.
- Engage urban and local stakeholders, including local authorities, logistics operators, retailers and citizens, in co-designing innovative solutions to implement reusable and recyclable packaging and use parcel lockers and micro-hubs (pick-up points) for returning new items and collecting used items (for the purpose of repair, reuse, remanufacture, repurpose or recycling), thus promoting the transition to circular urban logistics in various product value chains.
- Demonstrate the proposed solutions in real-world pilots in at least two different urban environments, each pilot covering two different types of goods or more (e.g. textile apparel, consumer electronics), in cooperation with logistics service providers, cities, and e-commerce value chain actors. Pilots should also consider reverse logistics systems, and innovative return and reuse schemes.
- Explore and evaluate environmental, social, and economic (e.g. need for new business models and incentive schemes) impacts of circular economy approaches and specifically the potential of reverse logistics systems to enable circular flows of materials, reduce emissions, and support reuse schemes.

- 265 CCRI Projects (e.g. Rewrap: Challenging the Dominance of Single-Use Plastic Wraps | DEFINITE-CCRI)
- ²⁶⁶ <u>The DUT Partnership</u>

²⁶³ <u>Regulation - EU - 2025/40 - EN - EUR-Lex</u>

²⁶⁴ Circular Cities and Regions Initiative

- In a co-creation process with local authorities, propose policy recommendations and guidelines to support cities in designing enabling regulatory frameworks and market incentives aligned with local circular economy goals and in integrating circular economy principles into urban logistics related policies, plans²⁶⁷ and regulations.
- Provide policy recommendations to facilitate the adoption of modular loading units and the integration of sustainable logistics measures into broader urban circular economy strategies across European cities and regions.

Collaboration with the Cities Mission Platform – through the CIVITAS initiative²⁶⁸ – and the CCRI is essential. Proposals should include appropriate provisions for activities and resources to support clustering activities and cooperation with the Cities Mission Platform, the CCRI, and the CIVITAS initiative²⁶⁹. Proposals should also plan for an active collaboration amongst the projects selected under this topic - for dissemination, evaluation and coordination - facilitated by and within the above mentioned initiatives. Moreover, proposals are expected to ensure that their dissemination and exploitation strategies feature dedicated actions for promoting their results and lessons learned across the Cities Mission Platform, CIVITAS and CCRI websites.

HORIZON-MISS-2027-04-CIT-05: Boosting the transformation towards climate-neutral cities, the net-zero economy and open strategic autonomy through Pre-Commercial Procurement (PCP)

Call: Supporting the implementation of the Climate-Neutral and Smart Cities Mission		
Specific conditions		
Expected EU contribution per project	The Commission estimates that an EU contribution of between EUR 7.00 and 12.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.	
Indicative budget	The total indicative budget for the topic is EUR 26.82 million.	
Type of Action	Pre-commercial Procurement	
Eligibility conditions	The conditions are described in General Annex B. The following exceptions apply: The specific conditions for actions with PCP/PPI procurements in section H of the General Annexes apply to grants funded under this topic.	

²⁶⁷ E.g. within the <u>Sustainable urban mobility planning</u>

²⁶⁸ <u>https://civitas.eu/</u>

²⁶⁹ The CIVITAS initiative should establish, through a collaboration agreement set up together with the Cities Mission Platform, clear links with the Mission portfolio for synergies and complementarities.

Legal and financial set-up of the Grant Agreements	The rules are described in General Annex G. The following exceptions apply:
	Grants awarded under this topic will be linked to the following action(s):
	HORIZON-MISS-2021-CIT-02-03
	Collaboration with the Cities Mission Platform ²⁷⁰ is essential and projects must ensure that appropriate provisions for activities and resources aimed at enforcing this collaboration are included in the work plan of the proposal. The collaboration with the Cities Mission Platform must be formalized through a Memorandum of Understanding to be concluded as soon as possible after the project starting date.
	The Cities Mission Platform should in particular support cities with the preparatory work for the PCP and facilitate the upscaling as well as the replicability of the solutions that will be developed through the PCP ²⁷¹ .
	The beneficiaries may provide financial support to third parties to provide financial incentives to final end-users to adopt the solutions. The support to third parties can only be provided in the form of grants. The maximum amount to be granted to each third party is EUR 200 000. This amount is justified since the FSTP actions need to allow procurers to provide financial incentives to final end-users to adopt the solutions; therefore, the amount needs to be sufficient to support the deployment and maximise the impact of the project outcomes. Projects funded under this topic, which target the higher end of the budget range, should demonstrate a greater degree of ambition in terms of
	innovation level and/or deployment scope. PCP/PPI procurement costs are eligible.

Expected Outcome: Projects are expected to contribute to the following outcomes:

• Public procurers stimulate from demand side the competitive development of market ready innovative solutions to reduce greenhouse gas and air pollutants emissions that can contribute to the transition of local communities towards climate neutrality, whilst strengthening EU open strategic autonomy;

²⁷⁰ Conceived through the Horizon 2020 project NetZeroCities - Accelerating cities' transition to net zero emissions by 2030, Grant Agreement n. 101036519, and scaled up through the topic *HORIZON-MISS-2021-CIT-02-03: Framework Partnership Agreement (FPA) for the Climate-Neutral and Smart Cities Mission Platform.*

²⁷¹ Resources for this are foreseen under the *Specific Grant Agreements to the* Framework Partnership Agreement (*FPA*) for the Climate-Neutral and Smart Cities Mission Platform.

- Public procurers leverage PCP to bring to the market innovative solutions in sectors relevant for climate change mitigation (such as energy efficiency in buildings, production and use of renewable energy, sustainable and smart mobility, digitalisation etc.) and implement those innovative solutions in the participant cities to reduce greenhouse gas and air pollutants emissions;
- Public procurers drive innovation and increase resilience in the supply chain by opening up opportunities for innovative companies established in the European Union's Member States and Horizon Europe Associated Countries, in particular SMEs and Startups, to access the public procurement market and scale up their business;
- Increased opportunities for wide market uptake and economies of scale for the supply side through increased demand for innovative solutions to reduce greenhouse gas and air pollutants emissions at the local level, wide publication of results and where relevant contribution to standardisation, regulation or certification;
- Present the expected greenhouse gas emission reduction in the participating cities by 2030 and 2050, in comparison to a baseline established at the beginning of the project.

<u>Scope</u>: By closing the gap between supply and demand in a way that reinforces EU open strategic autonomy, PCPs can make a key contribution to enhancing the European Union's economy and competitiveness²⁷². In order to master the green and digital transition and make our cities climate-neutral and liveable places, European public procurers need to lead by example by procuring more solutions to reduce greenhouse gas and air pollutants emissions. This topic therefore focuses on forward looking procurement of R&D to bring to the market new solutions to reduce greenhouse gas and air pollutants emissions that can increase Europe's resilience and preparedness to tackle the climate challenge.

Although a PCP action was already included under the Work Programme 2025 (HORIZON-MISS-2026-04-CIT-PCP-01), there is still a need for demand-driven innovation in this area. This topic supports public procurers, specifically local authorities, to collectively implement PCPs to drive innovation from the demand side and open up wider commercialisation opportunities for companies in Europe to take or maintain international leadership in new markets for net-zero technologies that can deliver solutions to reduce greenhouse gas and air pollutants emissions. The aim is to leverage PCP to encourage the development and to provide a first customer reference for the piloting, installation and validation of breakthrough

²⁷² General Annex H to the work programme provides for specific conditions for PCP such as place of performance and commercialisation conditions that can require the majority of the procured R&D activities and later commercialisation/production of developed solutions to take place in the European Union's Member States and Associated Countries, as well as the possibility to limit the participation to the PCP procurement to economic operators that are established in the European Union's Member States and Associated Countries if there are sufficient economic operators in these territories that can develop the requested solutions. These conditions apply to this topic.

innovations. Actions shall be implemented in compliance with the objectives and the sustainable and resilience public procurement obligations under the Net Zero Industry Act²⁷³.

PCP actions target consortia of procurers with similar needs that want to procure together. This topic does not provide direct funding to developers, industry or research organisations to perform R&D. They will be able to respond to the call for tenders launched by consortia of procurers funded under this call. Specific guidance on PCP actions and minimum eligibility requirements can be found in General Annexes H of the Horizon Europe work programme.

Continuous dialogue between demand and supply side is required for the success of PCPs, therefore the effective involvement of end users (e.g. cities teams that would need to adopt climate mitigation solutions, regional structures cooperating with cities on climate mitigation, citizens etc.) needs to be considered in the proposal. Furthermore, to stimulate dialogue with the supply side, public procurers are required to organise an open market consultation before launching the procurement and to promote the call for tenders widely across Europe to potentially interested suppliers.

Proposals should demonstrate sustainability of the action beyond the life of the project. They should demonstrate how the project is anchored in a clear strategy to provide climate-neutral cities and enhance the economy in a sustainable way through stronger early adoption of innovative solutions to reduce greenhouse gas and air pollutants emissions. Activities covered should include cooperation with policy makers to reinforce the national policy frameworks and mobilise substantial additional national budgets for PCP and innovation procurement in general beyond the scope of the project.

Involvement of procurement decision makers is needed to ensure that end solution(s) are adopted by local public buyers, increasing the societal impact of the related research activities. Therefore, procurers should declare in the proposal their interest to pursue deployment of solutions resulting from the PCP in case the PCP delivers successful solutions and indicate whether they will (1) procure successful solution(s) as part of the PCP, (2) launch a separate follow-up procurement after the PCP to buy such type of solutions, (3) adopt successful solutions without the need to procure them (e.g. in case of open source solutions), (4) foresee financial or regulatory incentives for others to adopt successful solutions (e.g. in case the final end-users of the solutions are not the procurers but for example citizens). In these four cases, the procurers can implement the project as a fast-track PCP (see general annex H). In the first case, the procurers must foresee the budget in the proposal to purchase at least one solution during the PCP. In the second case, the procurers should include in the proposal a deliverable that prepares the follow-up procurement to purchase such type of solution(s) after the PCP. In the first and third case, the procurers must foresee sufficient time during the project to deploy and validate that the solutions function well after installation. In the fourth case, the procurers can use financial support to third parties to provide financial incentives to final end-users to adopt the solutions, with a maximum budget of EUR 200 000. Projects funded under this topic,

²⁷³ Regulation (EU) 2024/1735 of the European Parliament and of the Council of 13 June 2024 on establishing a framework of measures for strengthening Europe's net-zero technology manufacturing ecosystem and amending Regulation (EU) 2018/1724 Text with EEA relevance.

which target the higher end of the budget range, should demonstrate a greater degree of ambition in terms of innovation level and/or deployment scope. The selection of the third parties to be supported under the grant will be based on an external review by independent experts of the proposed work.

Projects funded under this topic should include at least three cities of the 112 selected ones for the EU Mission on Climate-Neutral and Smart Cities²⁷⁴, and the lead procurer from the buyers group should be one of these 112 cities. In addition to the buyers' group that will implement the PCP, projects are encouraged to actively cooperate with an additional group of follower cities in the preparation and follow up of the procurement, including possibly also in the testing of solutions, to smoothen faster uptake of solutions to the wider followers group. Collaboration amongst the projects financed under this topic and with the 'Climate-Neutral Smart cities' Mission Platform is essential to the increase impact and coherence of the action. Appropriate provisions for activities and resources aimed at enforcing this collaboration should be included in the work plan of the proposal. The Mission Platform will support cities with the preparatory work for the PCP. The Mission Platform will also support the upscaling and replicability of the developed solutions, and the monitoring of the impact of the projects using a common methodology and clearly established indicators. The collaboration with the Mission Platform must be formalised through a Memorandum of Understanding to be concluded as soon as possible after the project starting date. To ensure that the new solutions are appropriately identified, the projects should plan for liaising with the different other Horizon funded projects, partnerships and initiatives that promote innovation in the different domains (such as CCAM Partnership, 2ZERO Partnership, and Built4People Partnership, Circular Cities and Regions, and CIVITAS) to avoid overlaps or contradictory conclusions.

This action supports the follow-up to the July 2023 Communication on EU Missions assessment²⁷⁵.

²⁷⁴ The EU Mission on Climate-Neutral and Smart Cities aims to deliver 100 climate-neutral and smart cities by 2030 and ensure that these cities act as experimentation and innovation hubs to enable all European cities to follow suit by 2050. On 28 April 2022, the Commission announced the 100 EU cities that will participate in the Mission. In addition, 12 cities have been selected from countries associated or expected to be associated the Horizon Europe programme.

²⁷⁵ COM(2023) 457 final and SWD(2023) 260 final

100 Climate-Neutral and Smart Cities by 2030: Other Actions

1. Specific Grant Agreement to the FPA to reinforce the operations of the Climate-Neutral and Smart Cities Mission Platform

Within the Framework Partnership Agreement (FPA) awarded under topic *HORIZON-MISS-2021-CIT-02-03: FPA for the Climate-Neutral and Smart Cities Mission Platform*, the selected consortia will be invited to submit a proposal for a Research and Innovation Action that will contribute to the implementation of the last three years of the action plan defined in the above FPA.

Expected Outcome: Project results are expected to contribute to all the following expected outcomes:

- Reinforce services aimed at supporting the implementation and iteration of the Climate City Contracts (CCCs) of the cities selected to participate in the Mission through the Call for Expression of Interest.
- Provide basic services targeted at cities falling under the second objective of the Mission, which is to ensure that Mission cities act as experimentation and innovation hubs to enable all European cities to become climate-neutral by 2050.
- Support cities in the implementation of their investment plans through tailored advice and assistance offered by the Climate City Capital Hub, the City Finance Specialists, as well as the City Expert Support Facility:
 - o Supporting cities in finding financing solutions for mitigation projects
 - o Supporting cities in finding financing solutions for adaptation projects²⁷⁶.
- Assist cities with **innovative and strategic procurement**, including joint procurement with other cities, bridging with EU mechanisms and collaborating with national platforms on procurement, for example through regulatory sandboxes:
 - o Establish links with the two pre-commercial procurement calls launched under the Cities Mission (HORIZON-MISS-2026-04-PCP-CIT-01 & HORIZON-MISS-2027-04-CIT-05), and gather and disseminate key insights and best practices from these initiatives, including strategies for scaling up solutions and addressing regulatory barriers at local, national and EU levels.
- Provide regular and coherent **monitoring and reporting** on the implementation of the CCCs in line with the existing Monitoring Evaluation and Learning framework of the Mission and in operation through the Mission Platform. As a part of the process, Mission

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This activity builds on synergies between the Adaptation and Cities Missions. For this purpose, the Adaptation Mission is financially contributing EUR 10.00 million to the *Climate City Capital Hub*.

cities should assess their progress towards achieving climate neutrality as they iteratively update their CCCs.

- Expand and regularly update the **open-source services of the online platform**, accessible to all cities.
- Provide support to the activities of the CapaCITIES 2.0 network of national mission platforms, in particular through (a) identifying and aggregating evolving needs from Mission and Mission-minded cities²⁷⁷, in particular those that are part of national Cities Mission networks, as problem owners facing policy and innovation barriers, (b) pinpointing best practices from the local level, including on regulatory sandboxes, that can serve to promote and shape national approaches in support of urban climate action, (c) based on insights from CCC commitments, pinpointing opportunities to diversify and widen the mission stakeholder ecosystem at national level, (d) coordinating on actions to strengthen multi-level governance and learnings and (e) complementing and strengthening the impact of CapaCITIES 2.0 annual and country events, advisory services and resourcing for local partners. Where applicable, the regional dimension should also be considered. In addition, insights and results from the work done with cities by the NetZeroCities City Advisors, City Finance Specialists, City Expert Support Facility and Climate City Capital Hub should be fed into CapaCITIES 2.0 activities aimed at mobilising national finance ecosystems and designing innovative financial instruments for mission implementation.
- Foster **mutual learning and exchange of good practice** through diverse, comprehensive knowledge exchange activities, which can include peer-to-peer learning exchanges and indepth content support sessions for cities engaged in similar activities. The Mission Platform should develop targeted learning approaches in direct response to cities' needs, including national networks and platforms, delivering learning opportunities to the Mission cities as well as Mission-minded cities. This should take into account the seasonal schools and initiatives such as EU Skills Academies under the Union of Skills.
- Provide analyses and briefs to the European Commission, including ad hoc requests.
- Establish cooperation and regular exchange with the R&I projects that are and will be funded under the Climate-Neutral and Smart Cities Mission Work Programme in order to identify complementarities, avoid potential overlaps and ensure synergies where relevant, to the benefit of the participating cities. This collaboration should be formalised through a Memorandum of Understanding with the relevant projects and initiatives.
- Provide support to the **completeness check of potential CCC** submissions by Missionminded cities.

²⁷⁷ Mission-minded cities: This term refers to cities that have set a target to achieve climate neutrality by 2050 or earlier but are not part of the 112 cities participating in the Cities Mission.

- Carry out **reviews of CCC iterations** submitted by Mission cities and report findings and recommendations to the Commission.
- Ensure delivery of the 2030 climate neutrality objectives and provide for longer-term **sustainability of the developed tools and the portal** beyond the grant, and help ensuring the path towards climate neutrality by 2050 for Mission-minded cities.
- Foster collaboration between cities and (local) industry to engage relevant actors in climate neutrality efforts, building on the work of the Intelligent Cities Challenge (ICC).
- Expand synergies with other initiatives such as the Covenant of Mayors and the Green City Accord.
- Ensure appropriate continuation and reinforcement in a Cities Mission context of the services and support offered by the **Smart Cities Marketplace**, especially catering for small and mid-sized cities as well as Mission-minded cities:
 - **Reinforcing the interaction with energy policy**, incl. the upcoming Citizens Energy Package and local heating and cooling plans;
 - Complementing the activities of the Climate City Capital Hub, in particular by providing long-term support to a group of selected small and mid-sized (Mission-minded) cities and guiding them through the process from development of a bankable project to closing the financing deal;
 - o Reinforcing project development by supporting the transition from the prefinancing to the financing stage;
 - o Identifying possibilities of scaling-up of solutions and investments;
 - Ensuring a seamless integration with other services provided by the Mission Platform at front side, whilst addressing different target groups with tailored approaches at the backend;
 - o Expanding the pool of engaged investors and the recently established pool of solution providers;
 - o Developing non-city developers' role, e.g. **local solution providers as project leads** or facilitators;
 - Position the Smart Cities Marketplace as part of the Knowledge Repository of the Mission Platform portal, promoting it as a repository of good practices.

Expected Impact: Proposals should set out a credible pathway to contributing to:

• Supporting the implementation of the Climate-Neutral and Smart Cities Mission.

• Accelerating the transition of cities towards climate neutrality, including small and midsized ones under the Cities Mission's second objective.

<u>Scope</u>: This action aims at ensuring the Mission Platform's continued full operational capacity addressing and developing the actions needed to implement the relevant building blocks of the Framework Partnership Agreement (FPA) for the Climate-Neutral and Smart Cities Mission Platform while considering the lessons learned and the new priorities that emerged from the past years of its implementation.

The Mission Platform will assist the 112 cities which were selected in April 2022 ²⁷⁸ under a Call for Expression of Interest launched in November 2021 that resulted in 377 applications from cities in all 27 EU Member States and from nine associated countries. These 112 cities respond to the first objective of the Mission to deliver at least 100 climate-neutral and smart European cities by 2030.

Cities that are not yet able to commit to the Mission's 2030 timeline but are willing to commit to accelerate their transition towards climate neutrality by 2050 at the latest, will also receive basic support from the Mission Platform. These cities respond to the second objective of the Mission to put all European cities in a position to become climate-neutral by 2050.

The Mission Platform should build on existing actions, including relevant ones developed through Horizon 2020 and Horizon Europe projects. It should collaborate closely with ongoing initiatives that have developed knowledge and expertise, in particular with the Covenant of Mayors and their methodologies and processes co-developed with the JRC, and the Covenant Community Group of City Practitioners.

The Mission Platform should also make appropriate arrangements, either among partners or via sub-contracting, to assure continuity of the services and support provided by the Smart Cities Marketplace, producing synergies in particular with the activities of the Climate City Capital Hub, the City Expert Support Facility and the City Finance Specialists.

Other assets of the Smart Cities and Communities context, including Energy Communities and Living-in.eu, the data space for smart communities, and the Common Services Platform, should be factored in. This should be done with regard to engaging public, private, and civil society stakeholders in supporting project financing and implementation, as well as promoting shared standards and technical specifications to facilitate data exchange and ensure interoperability of solutions. Synergies should be ensured with the European Urban Initiative of the Cohesion Policy, the Urban Agenda for the EU, and actions funded under the Digital Europe Programme.

The Mission Platform will coordinate with the European Commission to ensure that the advice and support provided to cities remain aligned to the latest policies and initiatives and make full use of available tools and services provided or supported by the Commission.

https://ec.europa.eu/commission/presscorner/detail/en/IP_22_2591

In addition, the Mission Platform will draw in national-level support and expertise through close cooperation with the national platforms and networks of the Cities Mission, established under the calls HORIZON-MISS-2021-CIT-01-01 and HORIZON-MISS-2024-CIT-02-01.

The general conditions, including admissibility conditions, eligibility conditions, award criteria, evaluation and award procedure, legal and financial set-up for grants, financial and operational capacity and exclusion, and procedure are provided in parts A to G of the General Annexes.

This action supports the follow-up to the July 2023 Communication on EU Missions assessment²⁷⁹.

Specific conditions:

The evaluation committee will be partially composed by representatives of EU institutions.

This action allows for the provision of financial support to third parties in line with the conditions set out in General Annex B – Eligibility of the Horizon Europe Work Programme. The activity "Ensure appropriate continuation and reinforcement – in a Cities Mission context – of the services and support offered by the **Smart Cities Marketplace**", requires a launch of an open call for proposals. For this purpose, beneficiaries may provide financial support to third parties. The support to third parties can only be provided in the form of grants. The maximum total amount to be granted is EUR 5.00 million to ensure the deployment and impact of the outcomes. Without the increased funding, it would be overly difficult for the Smart Cities Marketplace to scale up its activities, reach more cities, and provide comprehensive support for project development, financing, and implementation. Therefore, the indicated amount is justified to achieve a higher impact and contribute more effectively to the Cities Mission objectives. The selection of the third parties to be supported under the grant will be based on a review of the proposed work by external independent experts.

Form of Funding: Grants not subject to calls for proposals

<u>Type of Action</u>: Specific grant agreement awarded without call for proposals in relation to a Framework Partnership Agreement

Indicative timetable: Second quarter 2026

<u>Indicative budget</u>: EUR 60.00 million from the 2026 budget (including EUR 10.00 million Adaptation Mission contribution to the Climate City Capital Hub)

2. Financial advisory services and technical assistance to Mission cities

This action aims at supporting the provision of financial advisory services and technical assistance to the 112 cities selected as part of the Climate-Neutral and Smart Cities Mission through its Call for Expression of Interest with the objective to develop and subsequently implement their investment strategy for becoming climate-neutral. Through a top-up of existing activities and advisory structures such as the European Local Energy Assistance (ELENA),

²⁷⁹ COM(2023) 457 final and SWD(2023) 260 final

Mission cities will receive targeted support including e.g. technical studies, energy audits, business plans and financial advisory, legal advice, tendering procedure preparation, project bundling, project management.

The action will be implemented through the existing advisory agreement with the EIB Group for the implementation of the InvestEU Advisory Hub.

This action supports the follow-up to the July 2023 Communication on EU Missions assessment²⁸⁰.

Legal entities:

EIB, 98-100, boulevard Konrad Adenauer L-2950 Luxembourg

Form of Funding: Indirectly managed actions

<u>Type of Action</u>: Indirectly managed action

Indicative timetable: First quarter 2026

Indicative budget: EUR 18.14 million from the 2026 budget

3. Dissemination and information activities

Communication activities such as meetings, conferences, out-reach communication events/papers/materials and publications should support dissemination of knowledge and information to relevant stakeholders.

Form of Funding: Procurement

Type of Action: Public procurement

Indicative timetable: Second quarter 2026

Indicative budget: EUR 0.05 million from the 2026 budget

4. Support to the implementation of the Urban Transitions Mission of Mission Innovation

The Urban Transitions Mission²⁸¹ is an initiative co-led by the Commission, as member of Mission Innovation on behalf of the European Union, the Global Covenant of Mayors and the Joint Programming Initiative Urban Europe (the transnational R&I funding network behind the co-funded Horizon Europe Partnership DUT). It aims at working with a cohort of up to 300 cities worldwide to demonstrate by 2030 integrated pathways towards holistic, people-centred urban transitions built around clean energy and innovative net-zero carbon solutions. Activities will include the promotion of capacity building, deep demonstrators and enhanced R&D investment that take into account different forms of innovation and challenge-based typologies of different urban environments. Activities will also include the rollout and management of an

²⁸⁰ COM(2023) 457 final and SWD(2023) 260 final

²⁸¹ https://urbantransitionsmission.org/

online portal that will facilitate knowledge exchange, provide guidance on how to access climate funding and finance, and connect with solutions form research and the private sector.

This grant will be awarded without a call for proposals to the legal entity identified below as the Global Covenant of Mayors. On account of its technical competence, its high degree of specialisation and for its role as co-lead of the Urban Transitions Mission, the Global Covenant of Mayors will continue to provide the services of the Mission Director²⁸², responsible for the coordination of mission activities, the involvement of Mission Innovation members and partners including through facilitating communication activities, meetings and exchange of experience, the organisation of the annual innovation summit and the engagement of stakeholders towards the successful implementation of the mission statement.

Specific conditions

Legal and financial set-up of the Grant Agreements: The rules are described in General Annex G. The following exceptions apply:

• Eligible costs will take the form of a lump sum as defined in the Decision of 7 July 2021 authorising the use of lump sum contributions under the Horizon Europe Programme – the Framework Programme for Research and Innovation (2021-2027) – and in actions under the Research and Training Programme of the European Atomic Energy Community (2021-2025)²⁸³.

Legal entities:

Global Covenant of Mayors as part of the Foreningen C40 Cities Climate Leadership Denmark, Rådhusstræde 6, 2., 1466 København K, Denmark

Form of Funding: Grants not subject to calls for proposals

<u>Type of Action</u>: Grant awarded without call for proposals according to Financial Regulation Article 195 (f)

The general conditions, including admissibility conditions, eligibility conditions, award criteria, evaluation and award procedure, legal and financial set-up for grants, financial and operational capacity and exclusion, and procedure are provided in parts A to G of the General Annexes

Indicative timetable: First quarter 2026

Indicative budget: EUR 1.00 million from the 2026 budget

²⁸² Currently supported through Grant Agreement n. 101102296 MI UTM - A grant to support the Mission Director and the Annual Innovation Summit of the Urban Transitions Mission under Mission Innovation.

 ²⁸³ This <u>decision</u> is available on the Funding and Tenders Portal, in the reference documents section for Horizon Europe, under 'Simplified costs decisions' or through this link: <u>https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/ls-decision he_en.pdf</u>

5. Financial advisory services and technical assistance to Mission cities

This action aims at supporting the provision of financial advisory services and technical assistance to the 112 cities selected as part of the Climate-Neutral and Smart Cities Mission through its Call for Expression of Interest with the objective to develop and subsequently implement their investment strategy for becoming climate-neutral. Through a top-up of existing activities and advisory structures such as the European Local Energy Assistance (ELENA), Mission cities will receive targeted support including e.g. technical studies, energy audits, business plans and financial advisory, legal advice, tendering procedure preparation, project bundling, project management.

The action will be implemented through the existing advisory agreement with the EIB Group for the implementation of the InvestEU Advisory Hub.

This action supports the follow-up to the July 2023 Communication on EU Missions assessment²⁸⁴.

Legal entities:

EIB, 98-100, boulevard Konrad Adenauer L-2950 Luxembourg

Form of Funding: Indirectly managed actions

Type of Action: Indirectly managed action

Indicative timetable: First quarter 2027

Indicative budget: EUR 19.00 million from the 2027 budget

6. Scientific and technical services to the Climate-Neutral and Smart Cities Mission

The Joint Research Centre (JRC) has provided scientific and technical support to the preparatory and early implementation phases of the Climate-Neutral and Smart Cities Mission, hereafter referred to as the Cities Mission. The purpose of this action is to maintain continued scientific and technical support throughout the implementation phase of the Mission aiming at achieving climate neutrality in the cities participating in the Cities Mission by 2030 and in all other EU cities by 2050, in line with the European Green Deal objectives. The activities will provide extended data, methodologies and analysis for accelerating the transition towards climate neutrality throughout European cities while also assessing the progress and overall impact of the Cities Mission. This activity will be implemented in close coordination with the Commission's Mission Team and the Mission Owners' Group as well as in collaboration, where relevant, with the Mission Platform.

Type of Action: Provision of technical/scientific services by the Joint Research Centre

Indicative timetable: First quarter 2027

²⁸⁴ COM(2023) 457 final and SWD(2023) 260 final

Indicative budget: EUR 0.50 million from the 2027 budget

A Soil Deal for Europe: Research and Innovation and other actions to support the implementation of Mission 'A Soil Deal for Europe'

As part of the vision to achieve healthy soils by 2050, outlined in the <u>EU Soil Strategy for 2030</u>, the European Commission made a <u>proposal for a Directive on Soil Monitoring and</u> <u>Resilience²⁸⁵</u>, with the <u>Mission 'A Soil Deal for Europe'</u> (Mission Soil) as a key instrument for implementation. Moreover, the <u>Vision for Agriculture and Food</u>²⁸⁶ recognises the Mission and its main target of establishing 100 living labs and lighthouses as an unprecedented resource to support farmers to improve their soils in a challenging geopolitical and environmental context.

The Work Programme 2026–2027 builds on past results and introduces specific actions to strengthen its impact, stimulate greater innovation, achieve more advanced solutions for soil health and increased uptake. The Mission aims to:

- accelerate the development, deployment and adoption of cutting-edge technologies and practices to restore and protect soil health
- support scaling up innovative solutions for broader and more systemic impact
- foster collaboration between research institutions, land managers, industry, and other stakeholders, and with other EU initiatives, to drive innovation and knowledge transfer
- strengthen the Mission's business dimension by supporting the deployment of economically viable models and sustainable value chains on the ground
- explore the interlinkages between human and soil health, helping to fill key knowledge and policy gaps and contributing to a more integrated One Health approach.

Applicants should align their proposals with one or more of the key strategic orientations and long term expected impacts of the <u>Strategic Plan of Horizon Europe</u> and the EU Mission's goal of delivering concrete solutions to identified challenges by 2030, specifically contributing to the <u>Mission's objectives</u>.

To further diversify the Mission portfolio, projects are encouraged to build synergies with other initiatives and programmes—at EU, national, and international levels—ensuring coherence and mutual reinforcement of efforts for agriculture, human and soil health, and the European economy. In that context, the Mission supports an accelerator challenge together with the European Innovation Council with the aim to achieve common objectives and synergies in the field of biotechnologies for soil health. For this purpose, the Mission will contribute EUR 12 million to the European Innovation Council bringing the total budget for the accelerator challenge to EUR 50 million.

Successful proposals should prioritise collaboration, data sharing, and synergies with ongoing Mission projects such as <u>SoilWise</u> and with the <u>Mission Soil Platform</u>. Projects are

²⁸⁵ Political agreement on the Directive was reached between co-legislators in April 2025

²⁸⁶ <u>Vision for agriculture and food.pdf</u>

also encouraged to liaise with the Mission Secretariat and contribute to the <u>European Soil</u> <u>Observatory</u> (EUSO), hosted by the Commission's Joint Research Centre (JRC).

To ensure effective EU-wide communication in all areas related to the Common Agricultural Policy (CAP) specific results and knowledge (in particular regarding agriculture, forestry and rural development) produced under the Mission Soil must be summarised in an appropriate number of **'practice abstracts' in the common EIP-AGRI format**. Where applicable, involvement of interactive innovation groups, such as EIP-AGRI Operational Groups, is highly recommended. For areas outside the remit of the EU CAP Network and CAP specific objectives, other similar solutions for dissemination and engagement with innovation groups at the EU level should be sought.

Specific requirements for multi-actor projects:

The multi-actor approach, which is a form of responsible research and innovation, is designed to enhance the reliability, relevance, and societal impact of research results of relevant projects. A multi-actor project ensures the genuine and

sufficient involvement of a targeted and diverse range of stakeholders, such as for example but not limited to researchers, farmers, foresters and representatives of their professional associations, advisors, land managers and owners, spatial planners, food and bioeconomy businesses, consumer associations, local communities, educators, cultural and creative industries, citizens, civil society organizations including NGOs, and government representatives. The selection of key stakeholders depends on the project's objectives. Sufficient engagement of end-users throughout the entire project lifecycle—from inception and planning through to implementation, dissemination, and potential exploitation of results promoting co-creation between scientific and practical expertise. This approach contributes to accelerating the acceptance and adoption of new ideas, solutions, and innovations.

Proposals submitted for topics requiring application of the multi-actor approach should describe:

- how the proposed objectives and planned activities specifically address the needs, problems, challenges and opportunities of the (end-)users;
- how the proposed approaches, particularly the composition of the consortium reflect a balanced choice of relevant key actors with complementary expertise (scientific, practical, etc.) ensure the delivery of results ready for practice;
- how existing practices and tacit knowledge will be included. This should be illustrated in the proposals with a sufficient number of high-quality knowledge exchange activities indicating the precise and active roles of the different non-scientific actors in the work. The cross-fertilisation of skills, competencies and ideas between actors should generate innovative findings and solutions that are more likely to be applied on a broad scale;
- how the multi-actor engagement process will be facilitated by making use of the most appropriate methods and expertise;

- how practical and ready to use knowledge, approaches, tools or products, that are easily understandable and freely accessible, will be developed;
- how results and outputs ready for practice will feed into the existing dissemination channels most consulted by (end-)users across countries and regions.

Proposals are invited against the following topic(s):

HORIZON-MISS-2026-05-SOIL-01: Monitoring soil health in practice: equipping stakeholders to sample, analyse, and interpret soil health indicators

Call: Supporting the implementation of the Soil Deal for Europe Mission		
Specific conditions		
<i>Expected EU</i> <i>contribution per</i> <i>project</i>	The Commission estimates that an EU contribution of around EUR 5.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.	
Indicative budget	The total indicative budget for the topic is EUR 5.00 million.	
Type of Action	Coordination and Support Actions	
Legal and financial set-up of the Grant Agreements	The rules are described in General Annex G. The following exceptions apply: Eligible costs will take the form of a lump sum as defined in the Decision of 7 July 2021 authorising the use of lump sum contributions under the Horizon Europe Programme – the Framework Programme for Research and Innovation (2021-2027) – and in actions under the Research and Training Programme of the European Atomic Energy Community (2021-2025) ²⁸⁷ .	

<u>Expected Outcome</u>: Activities under this topic will support the objectives of the <u>Mission Soil</u> and contribute to meeting the targets of the <u>EU Soil Strategy for 2030</u> and the implementation of the <u>Soil Monitoring and Resilience Directive</u>. Furthermore, these activities should advance improvement of soil management and environmental performance outlined in the <u>Vision for Agriculture and Food</u> and the Common Agricultural Policy.

Project results are expected to contribute to <u>all</u> the following expected outcomes:

• enhanced reliability and accessibility of soil health data by and for laboratories, land managers, advisors and policymakers;

²⁸⁷ This <u>decision</u> is available on the Funding and Tenders Portal, in the reference documents section for Horizon Europe, under 'Simplified costs decisions' or through this link: <u>https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/lsdecision he_en.pdf</u>

- improved understanding by land managers, other relevant practitioners and policymakers of the conditions, limitations and uncertainties of soil data and outputs and tools (e.g. datasets, indicators, descriptors, methodologies, pedo-transfer functions) developed by Mission Soil projects and initiatives (among others);
- increased **collaboration and interaction** among stakeholders, including end-users, around soil heath data issues;
- support the development of standards, norms and reference frameworks as well as national and international guidelines of soil sampling and monitoring and promote best practices.

<u>Scope</u>: Soil health assessments will be key in the EU, especially with initiatives like the upcoming Soil Monitoring and Resilience Directive. Assessments will provide critical data to support adaptive management practices that optimise soil health enhancing competitiveness and resilience.

Soil analyses are subject to variabilities arising from sampling methods, handling and transport of soil samples, variations in laboratory equipment and calibration, lack of standardised testing methods, human error, and the natural variability of soil properties. Moreover, farmers and land managers usually lack a comprehensive understanding of soil health indicators. This undermines their ability to accurately interpret soil analysis results and implement effective interventions, like adjusting fertilisation practices or crop rotation strategies. Limited training in proper sampling techniques and the use of modern diagnostic tools further hinders their ability to make informed decisions and manage soil health effectively. To address these gaps, it is essential to implement rigorous protocols and training for laboratory personnel, as well as enhance farmers' and land managers' decision-making capabilities.

Reliable soil data is also crucial as it underpins models predicting future soil health scenarios, supports the formulation of evidence-based policies and enhances decision-making processes for sustainable land management.

Proposals should:

- organise networking and capacity-building activities to equip stakeholders, mainly land managers, laboratory personnel and advisors, with practical tools and skills to improve soil data quality and soil data interpretation;
- compile and promote (standardised) methods and protocols for soil sampling (timing, depth, tools, representativeness, uncertainties), soil analysis (equipment, calibrations, inter-comparisons, uncertainties), and for the design of soil health monitoring programmes;
- facilitate and promote the integration of soil data, datasets and databases from different sources and methods allowing for the combination of results from direct sampling, proximal and remote sensing and other state-of-the-art methodologies;

- identify and promote existing (and, if missing, develop) practical tools (such as guides or apps) on soil analysis and monitoring: indicators, sampling and analysis methods, data management and analysis, interpretation of results, etc., based on solid scientific expertise with emphasis on new methods and technologies;
- conduct activities, such as case studies or piloting collaborative platforms to explore opportunities and limitations of soil data sharing (privacy, fragmentation, lack of standardisation and reference framework, IPRs, interoperability, restricted access policies);
- actively interact or collaborate with relevant standardisation bodies establishing communication and cooperation to ensure that the standards being developed or applied meet the needs of stakeholders and align with existing regulations.

The resources and opportunities offered by the project must be accessible to stakeholders even if they are not involved in the project as partners, contributing to address existing imbalances in soil analysis and data availability across the EU.

Proposals are expected to build on existing knowledge (e.g. data from national soil health monitoring, LUCAS) and solutions developed and tested at national scale or in the frame of other Horizon projects including those funded under the Mission Soil. Proposals should therefore include dedicated tasks and appropriate resources for collaboration with relevant projects and initiatives²⁸⁸ and engage in relevant Mission Soil clustering activities.

Proposals should demonstrate a route towards open access, longevity, sustainability and interoperability of knowledge and outputs through close collaboration with the <u>European Union</u> <u>Soil Observatory</u> (EUSO) and the project <u>SoilWise</u>. In particular, proposals should ensure that relevant data, maps and information can potentially be available publicly through the EUSO. Concrete efforts should be made to ensure that the data produced in the context of the funded project is FAIR (Findable, Accessible, Interoperable and Re-usable).

HORIZON-MISS-2026-05-SOIL-02: Antimicrobial resistance and antibiotic biosynthesis in soils: developing key understanding and counteractive strategies using a One-Health approach

Call: Supporting the implementation of the Soil Deal for Europe Mission

Specific conditions

Expected EU contribution per project The Commission estimates that an EU contribution of around EUR 6.50 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.

²⁸⁸ Such as projects working on soil indicators like <u>MRV4SOC</u>, <u>BENCHMARKS</u>, those working with farmers and citizens such as <u>Echo Horizon - EchoSoil</u>, while also considering integrated platforms such as <u>TUdi Homepage</u>.

Indicative budget	The total indicative budget for the topic is EUR 13.00 million.
Type of Action	Research and Innovation Actions
Legal and financial set-up of the Grant Agreements	The rules are described in General Annex G. The following exceptions apply: Eligible costs will take the form of a lump sum as defined in the Decision of 7 July 2021 authorising the use of lump sum contributions under the Horizon Europe Programme – the Framework Programme for Research and Innovation (2021-2027) – and in actions under the Research and Training Programme of the European Atomic Energy Community (2021-2025) ²⁸⁹ .

<u>Expected Outcome</u>: Activities under this topic will help progress towards the objectives and targets of the <u>Mission Soil</u> and of the <u>EU Soil Strategy for 2030</u>, the <u>Zero Pollution Action Plan</u>, the <u>European One Health Action Plan against antimicrobial resistance</u> as well as the Sustainable Development Goals²⁹⁰.

Project results are expected to contribute to <u>all</u> the following expected outcomes:

- policymakers, land managers and other relevant stakeholders have an enhanced understanding of antimicrobial resistance development in soils, the key drivers and pathways of soil's contribution to human and animal exposure to antimicrobial resistant genes and organisms, as well as antibiotic biosynthesis in soils;
- policymakers and land managers have increased access and capacity to implement evidence-based strategies aimed at reducing the risk of antimicrobial resistance development in soils and minimising the exposure of humans and animals to antimicrobial resistant genes and organisms;
- policymakers and other relevant stakeholders benefit from improved access to enriched databases of antibiotics-related genes and antibiotic alternatives from soil microorganisms;
- citizens are more aware of the importance of soil and soil biodiversity for human, animal and environmental health as well as on their potential as a source of molecules of interest for pharmaceutical purposes.

<u>Scope</u>: Soil biodiversity plays a major role in human, animal and ecosystem health. Soil microorganisms (bacteria and fungi) have been crucial in the discovery of antibiotics used in human and veterinary medicine. However, soils can also be a hotspot for antimicrobial

²⁸⁹ This <u>decision</u> is available on the Funding and Tenders Portal, in the reference documents section for Horizon Europe, under 'Simplified costs decisions' or through this link: <u>https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/ls-</u> <u>decision he en.pdf</u>

²⁹⁰ In particular SDG 3- Good health and well-being, and SDG 15 – Life on Land.

resistance development and can play a key role in the transfer of antimicrobial resistance genes between organisms and environmental compartments. Antibiotic use is expected to increase globally due to the rising demand for food-producing animals, which may further exacerbate the development of antimicrobial resistance in soils. According to the World Health Organization, antimicrobial resistance is one of the greatest threats to public health²⁹¹. The driving forces for antimicrobial resistance development in soils are however understudied, as well as the role of soils in the exposure of humans and animals to antimicrobial resistance determinants. Moreover, our knowledge of antibiotics-related genes is currently limited, making it challenging to identify new compounds of interest. To better understand and combat antimicrobial resistance development in soils, a One-Health approach is needed.

Proposals should:

- explore the source and dynamics of antimicrobial resistance development and the mechanisms for antibiotic biosynthesis in soils across all relevant land use types. The role of land use, land management practices and other environmental and anthropogenic driving factors should be identified and taken into account;
- analyse the role of soils in the transfer of antimicrobial resistance genes among organisms and environmental compartments and in the exposure of humans and animals to antimicrobial resistance genes and organisms;
- expand databases of antibiotics-related genes and antibiotic alternatives from soil microorganisms;
- develop concrete guidelines for policymakers and land managers to: i) better address the exposure of humans and animals to antimicrobial resistant genes and organisms; and, ii) facilitate the discovery of new molecules of pharmaceutical interest;
- carry out communication and awareness raising activities targeted to citizens on the importance of soil and soil biodiversity for human, animal and environmental health as well as on their potential as a source of molecules of interest for pharmaceutical purposes.

In carrying out the activities, consortia should work in an interdisciplinary way bringing together life sciences, environmental sciences, health sciences and veterinary sciences.

Proposals are expected to collaborate with the projects funded under HORIZON-HLTH-2024-DISEASE-09-01: European Partnership: One Health Anti-Microbial Resistance. Proposals should also demonstrate a route towards open access, longevity, sustainability and interoperability of knowledge and outputs through close collaboration with the <u>EU Soil</u> <u>Observatory</u> and the <u>SoilWise</u> project. Proposals should therefore include dedicated tasks and appropriate resources for collaboration with relevant projects and initiatives and engage in relevant Mission Soil clustering activities.

²⁹¹ <u>https://www.who.int/news-room/fact-sheets/detail/antimicrobial-resistance</u>

HORIZON-MISS-2026-05-SOIL-03: Enabling user-centred and open innovation initiatives to enhance soil health in Ukraine

Call: Supporting the implementation of the Soil Deal for Europe Mission		
Specific conditions	Specific conditions	
<i>Expected EU</i> <i>contribution per</i> <i>project</i>	The Commission estimates that an EU contribution of around EUR 4.50 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.	
Indicative budget	The total indicative budget for the topic is EUR 4.50 million.	
Type of Action	Coordination and Support Actions	
Legal and financial set-up of the Grant Agreements	The rules are described in General Annex G. The following exceptions apply: Eligible costs will take the form of a lump sum as defined in the Decision of 7 July 2021 authorising the use of lump sum contributions under the Horizon Europe Programme – the Framework Programme for Research and Innovation (2021-2027) – and in actions under the Research and Training Programme of the European Atomic Energy Community (2021-2025) ²⁹² .	

<u>Expected Outcome</u>: Activities should align with the international goals of the European Green Deal, specifically contribute to the <u>EU soil strategy for 2030</u>, the <u>EU Biodiversity Strategy for 2030</u>, the <u>Zero Pollution Action Plan</u>, and the proposal for a Soil Monitoring and Resilience Directive. In broader terms, the activities will also support <u>EU's efforts towards Ukraine's long-term reconstruction</u>, focusing on reducing soil pollution and facilitating restoration, in line with the Ukraine Plan.

Project results are expected to contribute to <u>all</u> the following expected outcomes:

- strengthened regional R&I ecosystems and enhanced capacities for participatory, interdisciplinary and transdisciplinary R&I approaches, allowing for effective cooperation between research, practice and policy to tackle soil health challenges in Ukraine arising from military actions and other indirect pressures;
- increased uptake and application of soil related and practice-oriented knowledge by farmers, land managers, foresters, local authorities and other relevant stakeholders for improved soil health and related ecosystem services;

²⁹² This <u>decision</u> is available on the Funding and Tenders Portal, in the reference documents section for Horizon Europe, under 'Simplified costs decisions' or through this link: <u>https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/ls-</u> <u>decision he en.pdf</u>

• deepened awareness among policymakers of local needs and constraints regarding soil health, sustainable management practices and innovative technologies to address soil degradation, including those arising from military actions, supports effective and tailored policy design.

<u>Scope</u>: In Ukraine, soils are exposed to degradation due to nutrient mismanagement, acidification, erosion, compaction, salinisation, and contamination, with the war further contributing to devastation by releasing toxic elements, causing long-term damage to both ecosystems and human health²⁹³ During military activities, soils are among the most heavily affected components of the environment, undergoing mechanical, chemical, and physical degradation²⁹⁴ The war has also disrupted research and innovation activities, which further hinder the country's ability to address soil degradation issues. Particularly, as before the war, the innovation landscape in Ukraine was already in a need for more supportive political, regulatory and legislative frameworks, and more developed and improved innovation²⁹⁵.

Proposals should:

- map and identify relevant stakeholders (e.g. researchers, innovators, farmers, foresters, land managers, spatial planners, local authorities, citizens, civil society organisations, policymakers) and existing relevant EU initiatives, projects, and knowledge and innovation systems (e.g. thematic networks, AKIS, participatory, interdisciplinary and transdisciplinary R&I approaches) in Ukraine;
- identify and analyse R&I ecosystem challenges, potential gaps in knowledge, skills and competences needed for user-centred, place-based transdisciplinary R&I ecosystems, in particular for those dealing with soil degradation and soil health issues arising from the impact of military actions²⁹⁶ and explore potential synergies, collaborations and exchange of experiences and good practices with identified initiatives, projects and knowledge innovation systems;
- based on the mapping and analysis, provide a skills development and knowledge transfer strategy focusing on skills and knowledge for two main areas: enhancing the ability of stakeholders to engage in, and contribute to participatory, interdisciplinary and transdisciplinary R&I approaches, and transferring soil-related knowledge, in particular generated under the Mission 'A Soil Deal for Europe';
- support relevant actors with capacity building and knowledge transfer activities following the defined strategy, through for example twining, trainings, workshops, networking activities, conferences, field trips and events;
- create regional knowledge hubs that serve as platforms for networking, collaboration and further exchange of soil related knowledge and practices, as well as skills, for

²⁹³ JRC Publications Repository - Status of Environment and Climate in Ukraine

²⁹⁴ https://www.mdpi.com/2073-445X/13/10/1614

²⁹⁵ <u>Technology transfer in Ukraine 2019-2020 - Publications Office of the EU</u>

²⁹⁶ Soil Degradation and Contamination Due to Armed Conflict in Ukraine

participatory, interdisciplinary and transdisciplinary R&I approaches, while, ensuring synergies and making effective use of other existing similar initiatives in Ukraine;

• provide recommendations on sustainable management practices and innovative technologies to relevant stakeholders, including policymakers, to improve soil health. This should consider all relevant degradation processes, including those resulting from military actions, as well as the impact(s) of climate change and the need for resilient farming systems.

All activities should take place in areas without ongoing or active military actions to ensure the safety of all participants.

The project is strongly encouraged to collaborate with relevant Horizon Europe projects including those funded under the Mission Soil, the Mission Soil Living Labs, the Living Lab Support Structure <u>SOILL</u>, and the project that will be funded under the call 'HORIZON-CL6-2026-01-ZEROPOLLUTION-02: Bioremediation of Ukraine's ecosystems contaminated by conflicts', in order to create strong synergies from the start of the projects.

HORIZON-MISS-2026-05-SOIL-04: Leveraging long-term field experiments and other
datasets to develop AI-ready decision support systems for sustainable soil management

Call: Supporting the implementation of the Soil Deal for Europe Mission	
Specific conditions	
Expected EU contribution per project	The Commission estimates that an EU contribution of around EUR 6.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
Indicative budget	The total indicative budget for the topic is EUR 12.00 million.
Type of Action	Innovation Actions
Legal and financial set-up of the Grant Agreements	The rules are described in General Annex G. The following exceptions apply: Eligible costs will take the form of a lump sum as defined in the Decision of 7 July 2021 authorising the use of lump sum contributions under the Horizon Europe Programme – the Framework Programme for Research and Innovation (2021-2027) – and in actions under the Research and Training Programme of the European Atomic Energy Community (2021-2025) ²⁹⁷ .

²⁹⁷ This <u>decision</u> is available on the Funding and Tenders Portal, in the reference documents section for Horizon Europe, under 'Simplified costs decisions' or through this link: <u>https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/ls-</u> <u>decision he en.pdf</u>

Eligibility and	Proposals must apply the multi-actor approach. See definition of the	
admissibility	multi-actor approach in the introduction to this work programme part.	
conditions		

<u>Expected Outcome</u>: Activities under this topic will help progress towards the objectives and targets of the the <u>Mission Soil</u> and the <u>EU Soil Strategy for 2030</u>. Activities should also contribute to the implementation of the Soil Monitoring and Resilience Directive after its adoption.

- enhanced adoption of impactful sustainable soil management solutions and strategies supported by AI-powered decision support systems by land managers;
- harmonised, standard, robust, interoperable and accessible methods, protocols and logical architecture for long-term field experiments (LTEs) data collection and integration (including with other datasets) are in place;
- scientists, policymakers, and land managers gain enhanced access to comprehensive, highquality soil data, enabling better research, informed decision-making, and effective land management practices.

<u>Scope</u>: Long-term field experiments (LTEs) can be defined as "agricultural experiments for monitoring soil and crop properties under changing climate conditions and different management with a minimum duration of 20 years"^{298,299}. LTEs are typically owned or managed by public research institutions.

Long-term field experiments provide valuable information on soil health and sustainable soil management practices and can be considered critical infrastructure for agricultural research. However, LTEs present some limitations or needs to maximize their impact.

- There is a need for standardized methods in collecting and reporting soil data to ensure consistency and comparability across different studies and regions.
- Opportunities exist to integrate soil data from long-term field experiments with other data sources (including the Mission Soil projects results, but not only) to provide a more comprehensive understanding of soil health dynamics and trend, as well as response to policies and management strategies.
- Enhancing the accessibility and interoperability of soil data across platforms and sources can facilitate collaborative research and accelerate advancements in soil health management.

²⁹⁸ Bonares Series 2023 <u>1</u> 7ss0-zm41 V1.1.pdf

²⁹⁹ SOIL - Long-term field experiments in Germany: classification and spatial representation

• More high-resolution temporal and spatial data are needed to capture short-term soil dynamics and site-specific variations that can influence broader interpretations of soil health trends.

On the other hand, independent advisory services on soil health for land managers often face challenges such as limited access to comprehensive data, variability in expertise, and the inability to provide tailored recommendations specific to diverse local conditions. These services may struggle with integrating complex and dynamic factors that influence soil health, leading to generic advice that may not effectively address specific needs. There is an opportunity in utilizing cutting-edge technologies such as machine learning and artificial intelligence (AI) to analyse vast, complex soil data sets, extract meaningful patterns, and develop predictive models that can enhance the quality of advice provided, improving decision-making, and fostering more effective, sustainable soil management practices.

Proposed activities should:

- design and implement standardised protocols and procedures for harmonised soil data collection, ensuring consistency and comparability, from different LTEs and regions across the EU and Horizon Europe Associated Countries;
- develop robust frameworks for integrating LTFE data with other relevant soil health datasets, including outputs from Mission Soil projects, to create comprehensive soil health databases;
- develop open-access and user-friendly interoperable systems and platforms to improve data sharing and accessibility, allowing researchers, advisors, land managers and other stakeholders to easily access and utilize comprehensive soil health information;
- build a network of at least 50 LTEs covering most representative pedo-climatic regions in the EU and Associated Countries involving at least 7 owning institutions, to test and validate the developed infrastructure;
- promote the use of the developed infrastructure for widespread collection and integration of as many as possible soil-health relevant databases (LTEs and others) by, for example, developing intuitive interfaces and user-friendly platforms, partnering with relevant organizations managing LTEs and/or generating datasets, demonstration projects, feedback and improvement loops or training and support services;
- develop AI-driven tools to analyze integrated datasets (including publicly available such as CORDIS, SoilWise project or public repositories like Zenodo), extracting meaningful patterns, and generating predictive models that inform soil health dynamics and management strategies;
- examine potentially correlated explanatory covariates and their relative contribution to the outcome to facilitate spatial downscaling and forecasting in data poor regions and areas by using pre-trained deep learning models;

- develop and train open-source and/or modular AI components, providing comprehensive documentation and tutorials, and establish and nurture open-source communities by, for example, hosting hackathons, workshops, or online platforms to encourage the development, sharing, and integration of the developed modular AI components into commercial applications for land managers and advisors, with a focus on small-scale producers;
- mine large data from publicly available databases (e.g. CORDIS, SoilWise or public repositories like Zenodo) to pre-train deep learning models and artificial intelligence mobile apps that will facilitate real-time soil status assessments.

The project(s) must implement the multi-actor approach and ensure an adequate involvement of the primary production sector and all relevant actors (landowners, farmers, scientists, advisors, local/regional/national public authorities) throughout the different stages of project development and implementation. Beneficiaries may provide financial support to third parties (FSTP) to incentivise and support third-party developers to create or improve innovative AIpowered applications that deliver tailored advice to farmers and advisors, enhancing soil management practices and benefiting small-scale producers.

Proposals should build on the work done by the <u>SoilWise</u> project and collaborate with the EU Soil Observatory.

Proposals should include a dedicated task and appropriate resources to collaborate with other Mission Soil relevant projects developing soil information systems, in particular project African Union Soil Observatory (AUSO), and other projects that are being funded by other entities in the EU, Horizon Europe Associated Countries and in Africa, including philanthropic organisations. Participation of African organizations is encouraged.

HORIZON-MISS-2026-05-SOIL-01-two-stage: Living labs to enhance soil health in Alpine and Atlantic biogeographical regions

Call: Supporting the implementation of the Soil Deal for Europe Mission		
Specific conditions	Specific conditions	
Expected EU contribution per project	The Commission estimates that an EU contribution of around EUR 12.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.	
Indicative budget	The total indicative budget for the topic is EUR 24.00 million.	
Type of Action	Research and Innovation Actions	
Award criteria	The criteria are described in General Annex D. The following exceptions apply:	

	The overall threshold for the second stage evaluation will be 12, with a minimum threshold of 4 for the 'Excellence' criterion.
Procedure	The procedure is described in General Annex F. The following exceptions apply: Proposals must focus on one of the two designated biogeographical regions: Alpine or Atlantic, i.e., the majority of the living labs of each proposal must be located in one of these two biogeographical regions. Proposals must clearly indicate which biogeographical region they focus on. To ensure that both biogeographical regions are covered, grants will be awarded to applications not only in order of ranking but also to at least one project focusing on each of the mentioned biogeographical regions, provided that proposals attain all thresholds. * <u>Biogeographical regions in Europe</u> according to the European Environmental Agency.
Legal and financial set-up of the Grant Agreements	The rules are described in General Annex G. The following exceptions apply: Beneficiaries may provide financial support to third parties to facilitate active involvement of smaller actors (e.g. land managers and owners such as farmers, SMEs or civil societies) in one or more of the living labs of the project. The support to third parties can only be provided in the form of grants (further to calls or, if duly justified, without a call for proposals). The maximum amount to be granted to each third party is EUR 60 000.
Eligibility and admissibility conditions	Proposals must apply the multi-actor approach. See definition of the multi-actor approach in the introduction to this work programme part.

Expected Outcome: Activities under this topic respond directly to the goal of the Mission Soil to set up 100 living labs and lighthouses to lead the transition to healthy soils by 2030. They support the specific objectives of the Mission Soil³⁰⁰ (). Activities should also contribute to the Common Agricultural Policy and to meeting the European Green Deal ambitions and targets and more specifically those of the <u>EU Biodiversity Strategy for 2030</u>, the <u>EU Soil Strategy for 2030</u> and the proposal for a Soil Monitoring and Resilience Directive, the Zero Pollution Action Plan, the Communication on Boosting Biotechnology and Biomanufacturing in the EU, as well as to Sustainable Development Goals³⁰¹.

Project results are expected to contribute to <u>all</u> the following expected outcomes:

³⁰⁰ See the <u>Mission implementation plan</u>

³⁰¹ In particular SDG 3- Good health and well-being, and SDG 15 – Life on Land.

- enhanced capacities for participatory, interdisciplinary and transdisciplinary R&I to cocreate and co-implement economically viable soil health solutions.
- improved soil health monitoring and increased availability of high quality, standardised soil data at local and regional level;
- increased availability of practice-oriented knowledge for land managers and land users, leading to better adoption of effective soil health solutions in diverse contexts;
- policy makers are more aware of local needs regarding soil health, including the factors that influence it, and can use this knowledge to design and implement more effective policies to enhance soil health, while considering the economic sustainability of solutions.

<u>Scope</u>: The Mission Soil proposes the deployment of living labs as a novel approach to research and innovation in soil health³⁰². Living labs have the potential to facilitate a green transition by involving multiple actors in real-life sites within a local/regional setting to co-create soil health solutions and achieve large-scale impacts on soil health and soil governance. Projects funded under this topic should deploy a number of living labs to expand and complement the network of soil health living labs initiated in previous Mission Soil topics to gradually establish 100 living labs and lighthouses to lead the transition towards healthy soils by 2030³⁰³.

Soil health living labs are long-term collaborations between multiple actors to address common soil health challenges in real-life sites at local or regional level³⁰⁴ (10 to 20 sites in each living lab). Living labs can address soil health challenges in or across different land uses (agricultural, (peri-)urban, (post)-industrial, forest and (semi-)natural). Depending on the level at which each living lab operates and the specific context (e.g. land use covered, or soil health challenge addressed), applicants can exceptionally propose living labs with fewer sites. Individual sites can be farms, forest holdings, urban green areas³⁰⁵, industrial areas, etc. Sites that are exemplary in their performance in terms of soil health improvement and serve as places for demonstration of solutions, training and communication are lighthouses. Lighthouse sites can be part of a living lab or be situated outside a living lab. Projects funded under this topic are expected to kick-start a participatory process or build on existing ones. If building on existing processes, the new proposed living labs should complement the existing network of Mission Soil Living Labs and deliver unique results. While on average, projects run for around four years, the duration of the projects under this topic should accommodate longer timescales required to establish participatory processes and/or for soil processes to take place.

Actors working on common shared soil health challenge(s) within and across the living labs of the same project, will be able to compare results, exchange good practices, validate

³⁰² Implementation Plans for the EU Missions - European Commission

³⁰³ Catalogue 2024 - Mission Soil Living Labs and Lighthouses Mission Soil Platform

³⁰⁴ In this topic, it is recommended to define the living labs location using the NUTS2 division (<u>Eurostat</u> <u>Statistical Atlas</u>).

³⁰⁵ By urban green areas, we refer to green spaces in cities such as parks, gardens, green roofs or walls, green corridors, squares, recreational areas, etc.

methodologies, replicate actions and solutions and benefit from cross-fertilisation, thereby accelerating the transition towards the shared objective of improving soil health.

Proposals should:

- support the establishment of four to five living labs either in the Alpine or in the Atlantic biogeographical region ³⁰⁶. Proposals must clearly indicate which of these two biogeographical regions they focus on and must establish the majority of the living labs within the chosen biogeographical region. Living labs under each proposal should work together on common soil health challenge(s) relevant to the selected biogeographical region. The living labs must be located in at least three different Member States and/or Associated Countries. Proposals should explain the rationale and mechanism for cooperation within and across the living labs and how the work undertaken will contribute to one or more of the Mission's specific objectives³⁰⁷. Proposals with <u>all</u> living labs focusing on soil heath on forests or natural/semi-natural land types are excluded from this topic as a dedicated topic is opened in this work programme (HORIZON-MISS-2026-05-SOIL-02-two-stage: Living labs to enhance soil health in managed forests and in natural/semi-natural lands);
- establish an interdisciplinary, participatory and multi-actor approach in the living labs to co-design, co-develop, and co-implement locally adapted solutions (practices, tools, strategies, etc.) for the common soil health challenge(s) taking into account relevant soil health drivers and pressures³⁰⁸. Proposed solutions should be adapted to the different environmental, socio-economic and cultural contexts in which the living labs are operating;
- establish for each living lab a baseline of the soil conditions to allow for an accurate coassessment of the changes in the different sites over time. Monitor improvements on soil health and ecosystem associated services. The set of soil health indicators/descriptors presented in the proposal for a <u>Directive on Soil Monitoring and Resilience</u> should be used as a basis; proposals may complement with additional indicators tailored to the addressed soil health challenge(s), pedoclimatic conditions, land use, and other local/regional factors;
- assess and demonstrate the technical, social, economic, cultural and environmental viability of the proposed solutions, as well as their potential scalability and transferability to diverse contexts;

³⁰⁶ <u>Biogeographical regions in Europe</u> according to the European Environmental Agency.

³⁰⁷ Mission Soil specific objectives: reduce land degradation relating to desertification; conserve and increase soil organic carbon stocks, no net soil sealing and increase the reuse of urban soils; reduce soil pollution and enhance restoration; prevent erosion; improve soil structure to enhance habitat quality for soil biota and crops; reduce the EU global footprint on soils; increase soil literacy in society.

³⁰⁸ See <u>Soil Needs and Drivers of Change Across Europe and Land Use Types - Booklet</u> from PREPSOIL project

- identify high performing sites that may be converted into lighthouses, either at proposal stage or later lighthouses;
- propose strategies (e.g., financial, organisational) to ensure the long-term sustainability of the established living labs beyond the Horizon Europe funding. Strategies should include the identification of possible business models and actions involving a mix of public or private funding schemes, financial instruments, cooperation with local authorities, engagement of social economy entities, social enterprises, business communities, SMEs, as well as attracting investors and entrepreneurs.

In line with the nature of living labs, projects must adopt the multi-actor approach. The actors involved in each living lab may vary, based on its unique characteristics and may include, among others, researchers, landowners or land managers, industry representatives (e.g., SMEs), public administrators and civil society representatives (e.g., consumers, local residents, environmental NGOs, youth organisations). Care should be taken to describe the capabilities, roles and resources of the different actors involved in the living labs. An effective contribution from social sciences, humanities and the arts (SSHA) is expected to foster social innovation, knowledge transfer and socio-cultural and behavioural change.

To encourage and facilitate the involvement of different types of actors in the living labs, applicants are reminded of the different types of participation possible under Horizon Europe. This includes not only beneficiaries (or their affiliated entities) but also associated partners, third parties giving in-kind contributions, subcontractors, and recipients of financial support to third parties. Financial support to third parties (FSTP), which facilitates active involvement of small actors (e.g. land managers and landowners such as farmers, SMEs or civil society) in a project's living labs, can be provided through calls, or, if duly justified, without a call for proposals. The type of activities that could be funded are for example, those related to site management or implementation or monitoring of soil health solutions including hourly rates for collection of data, sampling or participating in events, knowledge exchange, capacity building or demonstration and awareness initiatives equipment; equipment; and/or compensation for loss of production. Applicants are advised to consult the standard conditions set out in Annex B of the General Annexes, including those that apply to FSTP.

Dedicated tasks and appropriate resources should be envisaged to collaborate with <u>SOILL</u>, the structure created to support soil health living labs and lighthouses with a wide range of actions that include dedicated capacity building, knowledge exchange, promotion, dissemination, networking opportunities and regular monitoring activities of living labs performance. The details of the collaboration will be further defined during the grant agreement preparation phase.

Proposals are expected to build on existing knowledge (e.g. data from national soil health monitoring, LUCAS) and solutions developed and tested at national scale, or within other Horizon projects, including those funded under the Mission Soil. Proposals should therefore include dedicated tasks and appropriate resources for collaboration with relevant projects and initiatives, as well as participation in relevant Mission Soil clustering activities. Proposals are also encouraged to consider, where relevant, the data, expertise and services offered by

European research infrastructures (<u>ESFRI</u>), and to cooperate with the Horizon Europe Partnerships on <u>Agroecology</u> and on <u>Sustainable Food Systems</u> and/or relevant local and active networks, such as the EIP-AGRI operational groups, to promote the involvement of key local stakeholders.

Proposals should demonstrate a route towards open access, longevity, sustainability and interoperability of knowledge and outputs through close collaboration with the <u>European Union</u> <u>Soil Observatory</u> (EUSO) and the project <u>SoilWise</u>. In particular, proposals should ensure that relevant data, maps and information can potentially be available publicly through the EUSO. Concrete efforts should be made to ensure that the data produced in the context of the funded project is FAIR (Findable, Accessible, Interoperable and Re-usable).

To ensure that both biogeographical regions are covered (Atlantic and Alpine), grants will be awarded to applications not only in order of ranking but also to at least one project focusing on each of these two biogeographical regions, provided that proposals attain all thresholds.

HORIZON-MISS-2026-05-SOIL-02-two-stage: Living labs to enhance soil health in managed forests and in natural/semi-natural lands

Call: Supporting the implementation of the Soil Deal for Europe Mission	
Specific conditions	
Expected EU contribution per project	The Commission estimates that an EU contribution of around EUR 12.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
Indicative budget	The total indicative budget for the topic is EUR 24.00 million.
Type of Action	Research and Innovation Actions
Award criteria	The criteria are described in General Annex D. The following exceptions apply: The overall threshold for the second stage evaluation will be 12, with a minimum threshold of 4 for the 'Excellence' criterion.
Procedure	The procedure is described in General Annex F. The following exceptions apply: Proposals must focus on one of the two designated land types: forests (managed forests) or natural/semi-natural, i.e., <u>all</u> living labs of each proposal must be located in one of these two land types. Proposals must clearly indicate which land type they focus on. To ensure that both managed forests and natural/semi-natural land types are covered, grants will be awarded to applications not only in order of ranking but

	also to at least one project focusing on each of the mentioned land types, provided that proposals attain all thresholds. * according to the CORINE land cover classification (CLC) at <u>Home</u> :: Corine Land Cover classes
Legal and financial set-up of the Grant Agreements	The rules are described in General Annex G. The following exceptions apply: Beneficiaries may provide financial support to third parties to facilitate active involvement of smaller actors (e.g. land managers and owners such as farmers, SMEs or civil societies) in one or more of the living labs of the project. The support to third parties can only be provided in the form of grants (further to calls or, if duly justified, without a call for proposals). The maximum amount to be granted to each third party is EUR 60 000.
Eligibility and admissibility conditions	Proposals must apply the multi-actor approach. See definition of the multi-actor approach in the introduction to this work programme part.

<u>Expected Outcome</u>: Activities under this topic respond directly to the goal of the <u>Mission Soil</u> to set up 100 living labs and lighthouses to lead the transition to healthy soils by 2030 and support the specific objectives of the Mission Soil.

Activities should also contribute to the Common Agricultural Policy, and to meeting the European Green Deal ambitions and targets and more specifically those of the <u>EU Biodiversity</u> <u>Strategy for 2030</u>, the <u>EU soil strategy for 2030</u> and the <u>proposal for a Soil Monitoring and</u> <u>Resilience Directive</u>, the <u>Zero Pollution Action Plan</u>, the EU Forest Strategy, as well as to the Sustainable Development Goals³⁰⁹.

Project results are expected to contribute to <u>all</u> the following expected outcomes:

- enhanced capacities for participatory, interdisciplinary and transdisciplinary R&I to cocreate, and co-implement economically viable soil health solutions tailored to managed forests or natural/semi-natural lands;
- improved soil health monitoring and increased availability of high quality, standardized soil data at local and regional levels;
- increased availability of practice-oriented knowledge for land managers and land users, leading to better adoption of effective soil health solutions in diverse contexts;

³⁰⁹

In particular SDG 3- Good health and well-being, and SDG 15 - Life on Land.

• policymakers are more informed about local needs regarding soil health, including its drivers, and can use this knowledge to design and implement more effective policies that enhance soil health, while considering the economic sustainability of solutions.

<u>Scope</u>: Forests soils play a fundamental role in global environmental protection, by supporting rich biodiversity, preventing soil erosion, regulating floodings, and mitigating climate change by sequestering carbon from the atmosphere³¹⁰. In Europe, forests cover nearly 40% of the total land area, with over 90% classified as managed forests, where human activities such as timber production, habitat management, recreation, etc. take place³¹¹. Maintaining and enhancing soil functions in managed forests is essential for ensuring both their productivity and long-term resilience. In this context, developing a sustainable forest bioeconomy is strategically important for Europe's green transition.

The remaining 5–10% of Europe's forested land consists of unmanaged or natural forests, such as those within national parks or nature reserves. Monitoring the state of soil health in these natural forests lands as well as in any other natural areas³¹² across Europe, is essential for their conservation as, despite the minimal or absence of human intervention, they remain vulnerable to degradation processes originating from surrounding managed lands and diffuse pollution. Early detection of such risks is critical to allow for prevention and remediation.

The Mission Soil proposes the deployment of living labs as a novel approach to research and innovation in soil health³¹³. Living labs have the potential to facilitate a green transition by involving multiple actors in real-life sites within a local/regional setting to co-create soil health solutions and achieve large-scale impacts on soil health and soil governance.

Projects funded under this topic should deploy a number of living labs to expand and complement the network of soil health living labs initiated in previous Mission Soil topics to gradually establish 100 living labs and lighthouses to lead the transition towards healthy soils by 2030³¹⁴.

Soil health living labs are long-term collaborations between multiple actors to address common soil health challenges in real-life sites at local or regional level³¹⁵ (10 to 20 sites in each living lab). Depending on the level at which each living lab operates and the specific context (e.g. land use covered, or soil health challenge addressed), applicants can exceptionally propose living labs with fewer sites. Living labs under this topic can address soil health challenges in or across two land uses: managed forest or natural/semi-natural lands. Individual sites can be park plots, nature reserves parcels, protected areas, etc., where work is carried out and monitored under real-life conditions. Sites that are exemplary in their performance in terms of soil health improvement and serve as places for demonstration of solutions, training and communication

^{310 &}lt;u>Soil benefits - HoliSoils</u>

³¹¹ Home Forest Europe - FOREST EUROPE

³¹² Directive - 92/43 - EN - Habitats Directive - EUR-Lex

³¹³ Implementation Plans for the EU Missions - European Commission

³¹⁴ Catalogue 2024 - Mission Soil Living Labs and Lighthouses Mission Soil Platform

³¹⁵ In this topic, it is recommended to define the living labs location using the NUTS2 division (<u>Eurostat</u> <u>Statistical Atlas</u>).

are lighthouses. Lighthouse sites can be part of a living lab or be situated outside a living lab. Projects funded under this topic are expected to kick-start a participatory process or build on existing ones. If building on existing processes, the new proposed living labs should complement the existing network of Mission Soil Living Labs and deliver unique results. While on average projects run for around four years, the duration of the projects should accommodate longer timescales required to establish participatory processes and/or for soil processes to take place.

Actors working on common soil health challenge(s) of the selected land use within and across the living labs of the same project, will be able to compare results, exchange good practices, validate methodologies, replicate actions and solutions and benefit from cross-fertilisation, thereby accelerating the transition towards the shared objective of improving soil health.

Proposals should:

- support the establishment of four to five living labs to work together on shared soil health challenge(s) affecting either managed forests or natural/semi-natural types³¹⁶. Proposals must clearly indicate which of one of these two land types they focus on. Living labs under each proposal should work on common soil health challenge(s) relevant to the selected land type. The living labs must be located in at least three different Member States and/or Associated Countries. Proposals should explain the rationale and mechanism for cooperation within and across the living labs and how the work undertaken will contribute to one or more of the Mission's specific objectives¹⁵;
- establish an interdisciplinary, participatory and multi-actor approach in the living labs to co-design, co-develop, and co-implement locally adapted solutions (practices, tools, strategies, etc.) for the common soil health challenge(s) on managed forests or natural/semi-natural soils, taking into account relevant soil health drivers and pressures³¹⁷. Proposed solutions should be adapted to the different environmental, socio-economic and cultural contexts in which the living labs are operating;
- establish for each living lab a baseline of the soil conditions to allow for an accurate coassessment of the changes in the different sites over time. Monitor improvements on soil health and related ecosystem services. The set of soil health indicators/descriptors presented in the proposal for a <u>Directive on Soil Monitoring and Resilience</u> should be used as a basis. Proposals may complement with additional indicators tailored to the addressed soil health challenge(s), pedoclimatic conditions, and other local/regional factors within the chosen land use;

³¹⁶ An ecosystem with most of its processes and biodiversity intact, though altered by human activity in strength or abundance relative to the natural state (IPBES)

³¹⁷ See <u>Soil Needs and Drivers of Change Across Europe and Land Use Types - Booklet</u> from PREPSOIL project

- assess and demonstrate their technical, social, economic, cultural and environmental viability of the proposed solutions, as well as their potential scalability and transferability to diverse contexts;
- identify high performing sites that may be converted into lighthouses, either at proposal stage or later, during the project implementation. Engage with SOILL³¹⁸ project to assess the growth and development of these lighthouses and to support the establishment of a labelling process that could formally recognize these exemplary sites as lighthouses;
- propose strategies (e.g., financial, organisational) to ensure the long-term sustainability of the established living labs beyond the Horizon Europe funding. Strategies should include the identification of possible business models and actions involving a mix of public or private funding schemes, financial instruments, cooperation with local authorities, engagement of social economy entities, social enterprises, business communities, SMEs, as well as attracting investors and entrepreneurs.

In line with the nature of living labs, projects must adopt the multi-actor approach. The actors involved in each living lab may vary, based on its unique characteristics and may include, among others, researchers, landowners or land managers, foresters, industry representatives (e.g., SMEs), public administrators and civil society representatives (e.g., consumers, residents, environmental NGOs, youth or other community organisations). Care should be taken to describe the capabilities, roles and resources of the different actors involved in the living labs. An effective contribution of social sciences and humanities and the arts (SSHA) is expected to foster social innovation, knowledge transfer and socio-cultural and behavioural change.

To encourage and facilitate the involvement of different types of actors in the living labs, applicants are reminded of the different types of participation possible under Horizon Europe. This includes not only beneficiaries (or their affiliated entities) but also associated partners, third parties giving in-kind contributions, subcontractors, and recipients of financial support to third parties. Financial support to third parties (FSTP) to facilitate active involvement of small actors (e.g. land managers and landowners such as farmers, foresters, SMEs or civil society) in the living labs of a project, can be provided through calls, or, if duly justified, without a call for proposals. The type of activities that could be funded are for example, those related to site management or implementation or monitoring of soil health solutions including hourly rates for collection of data, sampling or participating in events, knowledge exchange, capacity building or demonstration and awareness initiatives equipment; equipment; and/or compensation for loss of production. Applicants are advised to consult the standard conditions set out in Annex B of the General Annexes including those that apply to FSTP.

Dedicated tasks and appropriate resources should be envisaged to collaborate with <u>SOILL</u>, the structure created to support soil health living labs and lighthouses with a wide range of actions that include dedicated capacity building, knowledge exchange, promotion, dissemination, networking opportunities, regular monitoring activities_on living labs performance and

³¹⁸ www.soill2030.eu/about-us

lighthouses growth assessment. The details of the collaboration will be further defined during the grant agreement preparation phase.

Proposals are expected to build on existing knowledge (e.g. data from national soil health monitoring, LUCAS) and solutions developed and tested at national scale or in the frame of other Horizon projects including those funded under the Mission Soil. Proposals should therefore include dedicated tasks, appropriate resources and a plan on how they will collaborate with relevant projects and initiatives carrying out relevant activities under other initiatives in Horizon Europe, including those funded under the topic HORIZON-CL6-2025-02-FARM2FORK-06: Improving grassland management in European livestock farming systems and topic HORIZON-CL6-2025-01-BIODIV-01-two-stage: Living labs co-creating innovative solutions for forests and freshwater ecosystems restoration. Proposals are also encouraged to engage in relevant Mission Soil clustering activities and to cooperate with the Horizon Europe Partnerships on Forests and/or relevant networks active at local level, such as the EIP-AGRI operational groups to promote the involvement of key local stakeholders. Lastly, proposals should consider, where relevant, the data, expertise and services offered by European research infrastructures (ESFRI).

Proposals should demonstrate a route towards open access, longevity, sustainability and interoperability of knowledge and outputs through close collaboration with the <u>European Union</u> <u>Soil Observatory</u> (EUSO) and the project <u>SoilWise</u>. In particular, proposals should ensure that relevant data, maps and information can potentially be available publicly through the EUSO. Concrete efforts should be made to ensure that the data produced in the context of the funded project is FAIR (Findable, Accessible, Interoperable and Re-usable).

To ensure that both land types are covered (managed forests and natural/semi-natural), grants will be awarded to applications not only in order of ranking but also to at least one project focusing on each of these two land types, provided that proposals attain all thresholds.

Call: Supporting the implementation of the Soil Deal for Europe Mission		
Specific conditions	Specific conditions	
Expected EU contribution per project	The Commission estimates that an EU contribution of around EUR 5.50 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.	
Indicative budget	The total indicative budget for the topic is EUR 11.00 million.	
Type of Action	Research and Innovation Actions	
Legal and financial set-up of	The rules are described in General Annex G. The following exceptions apply:	

HORIZON-MISS-2027-05-SOIL-01: Participatory research on the health of communities in contact with polluted soils

the Grant	Eligible costs will take the form of a lump sum as defined in the
Agreements	Decision of 7 July 2021 authorising the use of lump sum contributions
	under the Horizon Europe Programme - the Framework Programme
	for Research and Innovation (2021-2027) - and in actions under the
	Research and Training Programme of the European Atomic Energy
	Community (2021-2025) ³¹⁹ .

<u>Expected Outcome</u>: Activities under this topic will help progress towards the objectives and targets of the <u>Mission Soil</u> and should contribute to meeting the relevant targets of the <u>EU Soil</u> <u>Strategy for 2030</u> and the Zero Pollution Action Plan, as well as to the Sustainable Development Goals³²⁰.

Project results are expected to contribute to <u>all</u> the following expected outcomes:

- improved citizen awareness on the connection between soil pollution and human health and how to manage, adapt to, and mitigate risks;
- increased public access to FAIR³²¹ data and knowledge on soil pollution and the emergence of human diseases and other health outcomes;
- policymakers enforce the implementation of long-term, sustainable solutions that enhance soil health, restore the environment, and protect public health.

<u>Scope</u>: Across the European Union, an estimated 2.8 million land sites are potentially contaminated. Exposure to soil pollution poses serious health risks and is estimated to contribute to around 500,000 premature deaths worldwide each year³²². People can be exposed directly, through skin contact or inhalation of dust from polluted soils, or indirectly, by consuming contaminated food or drinking water.

Despite numerous studies clearly demonstrating the harmful effects of soil pollution on human health³²³, public awareness of the risks associated with contaminated sites remains limited, as does the due diligence of polluting entities, and the response of public authorities.

³¹⁹ This <u>decision</u> is available on the Funding and Tenders Portal, in the reference documents section for Horizon Europe, under 'Simplified costs decisions' or through this link: <u>https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/ls-</u> decision he en.pdf

³²⁰ In particular SDG 3- Good health and well-being, SDG 13 – Climate action, and SDG 15 – Life on Land

³²¹ Findable, Accessible, Interoperable and Reusable.

³²² Landrigan et al. (2018). The *Lancet* Commission on pollution and health, <u>The Lancet</u> Volume 391, Issue 10119, 3–9 February 2018, Pages 462-512.

³²³ https://www.eea.europa.eu/publications/zero-pollution/health/soil-pollution. <u>Soil pollution and health — European Environment Agency</u>

Community-based participatory research³²⁴, which directly involves populations living and/or working in polluted or potentially³²⁵ polluted sites, will help, to identify and map human diseases and health outcomes driven by soil pollution, and increase public awareness of the environmental and health the risks related to soil pollution.

Proposals should:

- implement community-based participatory research activities to engage with populations living or working in close contact with polluted (or potentially polluted³²⁶) sites to identify and map human diseases and other health outcomes and their incidence in these areas;
- consider and explore direct (e.g., skin contact with soils) and indirect (e.g., consumption of contaminated food, psychological impact of living near contaminated sites) soil-related drivers of human disease and ill-health as relevant;
- engage private entities with industrial operations in polluted sites and which work with potential pollutants (including substances of concern), involving them as stakeholders in the research to jointly devise mitigation and remediation strategies and demonstrate corporate responsibility;
- propose locally relevant interventions that foster community resilience against soil pollution, encourage polluters due diligence, and deliver recommendations to policymakers at relevant level of governance to regulate decontamination, promote reuse of land when possible, and protect public health.

Proposals should prioritise the conditions with significant unmet medical need and the populations most vulnerable to the detrimental effects of soil pollution. Proposed approaches should incorporate both qualitative and quantitative research and leverage lived experiences data where possible.

This topic requires an interdisciplinary approach involving experts on land and soil contamination, epidemiology and in social-science and humanities (SSH) disciplines in particular sociology and anthropology.

Proposals should include dedicated tasks and appropriate resources for coordination measures and joint activities with other relevant Horizon Europe projects (e.g. the sister projects funded under this topic, the projects resulting from the topic HORIZON-MISS-2027-06-SOIL-CANCER: *Living labs to monitor and mitigate carcinogenic substances in and originating from*

³²⁴ This excludes the sampling of polluted soil by non-experts. The population involved in the research activities should never be exposed to additional risks caused by soil pollution. The participation of the population already exposed to soil pollution is meant through interviews/questionnaires/focus groups or other social science methodologies.

³²⁵ Potentially polluted sites refer to areas of land where there is a high probability or it is strongly believed that the soil is contaminated with harmful substances, but it has not yet been fully confirmed or assessed.

³²⁶ If a proposal decides to work on potentially polluted sites, or sites at risk of pollution or sites which communities suspect to be polluted, appropriate tests that demonstrate that sites are polluted should be done by experts in soil contamination.

soils: Evaluating their effects on human cancer risks) and initiatives funded under the Mission Soil, including engagement with the relevant cluster activities.

Proposals should demonstrate a route towards open access, longevity, sustainability and interoperability of knowledge and outputs through close collaboration with the <u>European Union</u> <u>Soil Observatory</u> and <u>SoilWise</u>. Concrete efforts should prioritise making data from funded projects FAIR (Findable, Accessible, Interoperable, and Reusable). This includes exploring 'FAIR-by-design' workflows for data generation.

HORIZON-MISS-2027-05-SOIL-02: Innovative biotechnologies to restore soil health and improve agricultural competitiveness and resilience

Call: Supporting th	e implementation of the Soil Deal for Europe Mission	
Specific conditions	Specific conditions	
Expected EU contribution per project	The Commission estimates that an EU contribution of around EUR 6.40 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.	
Indicative budget	The total indicative budget for the topic is EUR 12.80 million.	
Type of Action	Innovation Actions	
Technology Readiness Level	Activities are expected to achieve TRL [5-6] by the end of the project – see General Annex B.	
Legal and financial set-up of the Grant Agreements	The rules are described in General Annex G. The following exceptions apply: Eligible costs will take the form of a lump sum as defined in the Decision of 7 July 2021 authorising the use of lump sum contributions under the Horizon Europe Programme – the Framework Programme for Research and Innovation (2021-2027) – and in actions under the Research and Training Programme of the European Atomic Energy Community (2021-2025) ³²⁷ .	
Eligibility and admissibility conditions	Proposals must apply the multi-actor approach. See definition of the multi-actor approach in the introduction to this work programme part.	

Expected Outcome: Activities under this topic will advance the objectives and targets of the Mission Soil and should contribute to achieving the targets of the EU Soil Strategy for 2030,

³²⁷ This <u>decision</u> is available on the Funding and Tenders Portal, in the reference documents section for Horizon Europe, under 'Simplified costs decisions' or through this link: <u>https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/ls-</u> <u>decision he_en.pdf</u>

the <u>EU Biodiversity Strategy for 2030</u>, the <u>Zero Pollution Action Plan</u>, the proposal for a Soil <u>Monitoring and Resilience Directive</u>, the upcoming Life Science Strategy, the <u>Communication</u> on <u>Boosting Biotechnology and Biomanufacturing in the EU</u>, while also contributing to the objectives on improving soil management and environmental performance of the <u>Vision for Agriculture and Food</u>.

Project results are expected to contribute to <u>all</u> the following expected outcomes:

- to advance, validate and bring up to market readiness level innovative, scalable, sustainable and cost-effective biotechnologies, particularly those leveraging soil microbiome, which enhance crop quality and productivity, while remediate soil pollution and improve soil health;
- validated, market ready biotechnological solutions for soil remediation and soil health improvement are made available to relevant stakeholders, to enable reduced dependency on synthetic chemicals, increased crop resilience and agricultural productivity.

<u>Scope</u>: Europe faces increasing challenges due to soil degradation, loss of biodiversity, and the expanding impacts of climate change. Addressing these issues is essential to ensure food security and sustainable land use. The integration of biotechnology can play a transformative role in this regard in the varied environmental conditions and land-use types found across Europe. In addition biotechnology solutions that improve soil health (such as novel bio-based fertilizers or microbial inoculants) can significantly enhance crop productivity by restoring essential nutrients and microbial balance in the soil. Finally, biotechnology solutions can provide innovative methods to decontaminate and rehabilitate degraded soils and lands, thus boosting the ecological and economic value of underutilized areas.

Proposals should:

- develop, identify, upscale, pilot and validate biotechnology solutions, particularly leveraging the soil microbiome (such as novel bio-based fertilizers or microbial inoculants but not only) which remediate, restore and improve soil health across diverse pedoclimatic and cropping conditions;
- address the following issues: bioremediation of contaminated soils (i.e. by heavy metals, pharmaceuticals, PFAS); increasing soil organic carbon stocks, improving soil structure to enhance soil biodiversity, water retention and nutrient availability; overall, this should lead to enhanced crop quality and productivity, enabled higher and more sustainable biomass production;
- ensure that developed solutions are scalable, sustainable, cost-effective and integrate circular economy principles to boost resource efficiency and support sustainable soil management practices;
- assess the economic, environmental and social impact of developed biotechnological solutions; analyse their socio-economic feasibility (including cost-benefit, adoption barriers, and market potential) and validate their scalability and market readiness through

stakeholder collaboration (e.g. SMEs, farmers, industry); address challenges related to environmental stability and sustainability of the developed solutions and the adaptability to varying environmental conditions;

• design integrated market-readiness pathways for the developed biotechnology solutions, to accelerate their safe, effective, and socially accepted deployment. The pathways should ensure regulatory compliance including risk assessment considerations, stakeholder engagement strategies, market acceptance analysis and policy foresight.

Proposals must implement the 'multi-actor approach' and ensure adequate involvement of all relevant actors of the value chain, such as academia, research-technology organizations, small-medium enterprises (including start-ups), investors, product developers, intellectual property and legal advisors, manufacturing and distribution partners, as well as end-users, like farmers and practitioners.

Proposals should include a dedicated task, appropriate resources and a plan on how they will collaborate with other project funded under this topic and other relevant topics. They should participate in joint activities, workshops, focus groups or social labs, as well as organise common communication and dissemination activities and show potential for upscaling and cross-fertilisation. Applicants should plan the necessary budget to cover these activities.

Call: Supporting the implementation of the Soil Deal for Europe Mission Specific conditions	
Indicative budget	The total indicative budget for the topic is EUR 7.00 million.
Type of Action	Research and Innovation Actions
Legal and financial set-up of the Grant Agreements	The rules are described in General Annex G. The following exceptions apply: Eligible costs will take the form of a lump sum as defined in the Decision of 7 July 2021 authorising the use of lump sum contributions under the Horizon Europe Programme – the Framework Programme for Research and Innovation (2021-2027) – and in actions under the

HORIZON-MISS-2027-05-SOIL-03: Long-term drivers and consequences of soil degradation: learning from the past to improve future soil health

Research and Training Programme of the European Atomic Energy
Community (2021-2025) ³²⁸ .

<u>Expected Outcome</u>: Activities under this topic will help progress towards the objectives and targets of the <u>Mission Soil</u> and the <u>EU Soil Strategy for 2030</u>. Moreover, activities should also contribute to meeting the ambitions of the Sustainable Development Goals³²⁹.

Project results are expected to contribute to <u>all</u> the following expected outcomes:

- policymakers and other relevant stakeholders have improved access to knowledge and quantitative data on changes in soil degradation over the past centuries to millennia across different pedo-climatic regions, alongside projections for future soil health trends under different scenarios;
- policymakers, land managers and other relevant stakeholders have an advanced understanding of the long-term drivers (and the similarities and differences with short-term drivers) and long-term consequences of soil degradation processes including their role in the climate and biodiversity systems and in the water and nutrient cycles, both in the past and in the future;
- policymakers and other relevant stakeholders have an expanded comprehension of the social and cultural factors driving historical soil degradation and societal perceptions of soil degradation and soil health, as well as an enhanced understanding of the long-term socio-economic consequences of soil degradation processes, e.g. in terms of EU's agricultural competitiveness, both in the past and in the future;
- citizens are more aware of the societal impacts of soil degradation and the lengthy recovery process, to foster an accelerated acceptance of sustainable soil management practices.

<u>Scope</u>: Since the beginning of agriculture, human activities worldwide have contributed to soil degradation, including soil erosion, soil compaction and loss of soil organic carbon among others. This caused problems to farmers and landowners, as well as to society in general. However, our knowledge of changes in soil health over the past centuries to millennia is limited, and available datasets span only the past two or three decades. This knowledge gap hinders a thorough understanding of the long-term drivers and consequences of soil degradation, of improved future projections of soil health under different scenarios of climate and land management changes, of the long-term effects of soil management practices, as well as of how human behaviour can change to adopt measures to increase soil health. This is especially relevant in the context of future climate change.

³²⁸ This <u>decision</u> is available on the Funding and Tenders Portal, in the reference documents section for Horizon Europe, under 'Simplified costs decisions' or through this link: <u>https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/ls-</u> <u>decision he en.pdf</u>

³²⁹ In particular SDG 13 – Climate action, and SDG 15 – Life on Land.

Proposals should:

- study past soil degradation processes and their socio-economic, cultural and natural drivers and consequences across different pedo-climatic regions, based on multiple lines of evidence coming from, for instance, historical documents, historical records, archaeological data, sediment archives, buried fossil soils and archived soil and plant samples;
- apply, validate and advance the development of methodologies to study past soil health, using techniques such as ancient eDNA analysis, pollen, spores, environmental radionuclides and other proxy indicators, and implement a multi-scalar approach to integrate these data at the scale of pedo-climatic regions;
- utilise numerical models and digital tools to reconstruct past soil degradation patterns and predict future trends and develop trajectories for sustainable soil management;
- encourage citizen and stakeholder involvement through active participation in the data collection and data analysis with citizen science initiatives, as well as carry out communication and awareness raising activities on the long-term changes of soil health and the societal impact of soil degradation.

In carrying out the activities, consortia should work in an interdisciplinary way bringing disciplines, expertise and approaches from the soil sciences, environmental sciences and social sciences and humanities (including history, archaeology, sociology and social geography).

Due to the scope of this topic, international cooperation is strongly encouraged, in particular with China under the EU-China Food, Agriculture and Biosolutions (FAB) flagship initiative.

Proposals are expected to collaborate with and build on the results of the projects funded under HORIZON-MISS-2025-05-SOIL-02: Social, economic and cultural drivers, and costs of land degradation. Proposals should also demonstrate a route towards open access, longevity, sustainability and interoperability of knowledge and outputs through close collaboration with the <u>EU Soil Observatory</u> and the <u>SoilWise</u> project.

HORIZON-MISS-2027-05-SOIL-01-two-stage: Living labs to enhance soil health in Continental, Black Sea, Pannonian and Steppic biogeographical regions

Call: Supporting the implementation of the Soil Deal for Europe Mission		
Specific conditions		
Expected EU contribution per project	The Commission estimates that an EU contribution of around EUR 12.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.	
Indicative budget	The total indicative budget for the topic is EUR 24.00 million.	

Type of Action	Research and Innovation Actions
Award criteria	The criteria are described in General Annex D. The following exceptions apply:
	The overall threshold for the second stage evaluation will be 12, with a minimum threshold of 4 for the 'Excellence' criterion'.
Procedure	The procedure is described in General Annex F. The following exceptions apply: Proposals must focus either on the Continental biogeographical region
	or on one or more of the following three biogeographical region: Black Sea, Pannonian and Steppic. This means that the majority of the living labs of each proposal must be located either within the Continental biogeographical region or within one or more of the three biogeographical regions (Black Sea, Pannonian and Steppic). Proposals must clearly indicate their focus. Grants will be awarded to applications not only in order of ranking but also to at least one project focusing on the Continental biogeographical region and to one project focusing on one or more of the three biogeographical regions (Black Sea, Pannonian and Steppic), provided that proposals attain all thresholds.
	* <u>Biogeographical regions in Europe</u> according to the European Environmental Agency.
Legal and financial set-up of	The rules are described in General Annex G. The following exceptions apply:
the Grant Agreements	Beneficiaries may provide financial support to third parties to facilitate active involvement of smaller actors (e.g. land managers and owners such as farmers, SMEs or civil societies) in one or more of the living labs of the project. The support to third parties can only be provided in the form of grants (further to calls or, if duly justified, without a call for proposals). The maximum amount to be granted to each third party is EUR 60 000.
Eligibility and admissibility conditions	Proposals must apply the multi-actor approach. See definition of the multi-actor approach in the introduction to this work programme part.

Expected Outcome: Activities under this topic respond directly to the goal of the Mission Soilto set up 100 living labs and lighthouses to lead the transition to healthy soils by 2030 and support its specific objectives³³⁰.

³³⁰ See the <u>Mission implementation plan</u>

Activities should also contribute to the Common Agricultural Policy and to meeting the European Green Deal ambitions and targets and more specifically those of the <u>EU Biodiversity</u> <u>Strategy for 2030</u>, the <u>EU Soil Strategy for 2030</u> and the proposal for a Soil Monitoring and <u>Resilience Directive</u>, the <u>Zero Pollution Action Plan</u>, the <u>Communication on Boosting</u> <u>Biotechnology and Biomanufacturing in the EU</u>, as well as to the Sustainable Development Goals³³¹.

Project results are expected to contribute to <u>all</u> the following expected outcomes:

- enhanced capacities for participatory, interdisciplinary and transdisciplinary R&I to cocreate, and co-implement economically viable soil health solutions;
- improved soil health monitoring and increased availability of high quality, standardised soil data at local and regional levels;
- increased availability of practice-oriented knowledge for land managers and land users, leading to better adoption of effective soil health solutions in diverse contexts;
- policy makers are more aware of local needs regarding soil health including its drivers and can use this knowledge to design and implement more effective policies to enhance soil health, which take into account the economic sustainability of solutions.

<u>Scope</u>: The Mission Soil proposes the deployment of living labs as a novel approach to research and innovation in soil health³³². Living labs have the potential to facilitate a green transition by involving multiple actors in real-life sites within a local/regional setting to co-create soil health solutions and achieve large-scale impacts on soil health and soil governance. Projects funded under this topic should deploy a number of living labs to expand and complement the network of soil health living labs initiated in previous Mission Soil topics to gradually establish 100 living labs and lighthouses to lead the transition towards healthy soils by 2030³³³.

Soil health living labs are long-term collaborations between multiple actors to address common soil health challenges in real-life sites at local or regional level³³⁴ (10 to 20 sites in each living lab). Living labs can address soil health challenges in or across different land uses (agricultural, (peri-)urban, (post)-industrial, forest and (semi-)natural). Depending on the level at which each living lab operates and the specific context (e.g. land use covered, or soil health challenge addressed), applicants can exceptionally propose living labs with fewer sites. Individual sites can be farms, forest holdings, urban green³³⁵ areas, industrial areas, etc. Sites that are exemplary in their performance in terms of soil health improvement and serve as places for demonstration of solutions, training and communication are lighthouses. Lighthouse sites can be part of a living lab or be situated outside a living lab. Projects funded under this topic are expected to

³³¹ In particular SDG 3- Good health and well-being, and SDG 15 – Life on Land.

³³² See Implementation Plans for the EU Missions - European Commission

³³³ See Catalogue 2024 - Mission Soil Living Labs and Lighthouses Mission Soil Platform

³³⁴ In this topic, it is recommended to define the living labs location using the NUTS2 division (Eurostat Statistical Atlas).

³³⁵ By urban green areas, we refer to green spaces in cities such as parks, gardens, green roofs or walls, green corridors, squares, recreational areas, etc.

kick-start the participatory process or build on existing ones. If building on existing processes, the new proposed living labs should complement the existing network of Mission Soil Living Labs and deliver unique results. While on average, projects run for around four years, the duration of the projects under this topic should accommodate longer timescales required to establish participatory processes and/or for soils processes to take place.

Actors working on common shared soil health challenge(s) within and across the living labs of the same project, will be able to compare results, exchange good practices, validate methodologies, replicate actions and solutions and benefit from cross-fertilisation, thereby accelerating the transition towards the shared objective of improving soil health.

Proposals should:

- support the establishment of four to five living labs either in the Continental biogeographical region or in one or more of the following three biogeographical regions: Black Sea, Pannonian and Steppic³³⁶. Proposals must clearly indicate their focus and should establish the majority of the living labs within the chosen focus biogeographical region or region(s). Living labs under each proposal should work together on common soil health challenge(s) relevant to the selected biogeographical region or region(s). The living labs should be located in at least three different Member States and/or Associated Countries. Proposals should explain the rationale and mechanism for cooperation within and across the living labs and how the work undertaken will contribute to one or more of the Mission's specific objectives³³⁷. Proposals with <u>all</u> living labs working on soil management practices to decrease eutrophication within a specific river catchment area, are excluded from this topic as a dedicated topic is opened in this work programme (HORIZON-MISS-2027-05-SOIL-02-two-stage: Living Labs for co-creating solutions to reduce eutrophication from agriculture);
- establish an interdisciplinary, participatory and multi-actor approach in the living labs to co-design, co-develop, and co-implement locally adapted solutions (practices, tools, strategies, etc.) for the common soil health challenge(s) taking into account relevant soil health drivers and pressures³³⁸. Proposed solutions should be adapted to the different environmental, socio-economic and cultural contexts in which the living labs are operating;
- establish, for each living lab, a baseline of the soil conditions to allow for an accurate coassessment of the changes in the different sites over time. Monitor improvements on soil health and associated ecosystem services. The set of soil health indicators/descriptors presented in the proposal for a <u>Directive on Soil Monitoring and Resilience</u> should be used

³³⁶ <u>Biogeographical regions in Europe</u> according to the European Environmental Agency

³³⁷ Mission Soil specific objectives: reduce land degradation relating to desertification; conserve and increase soil organic carbon stocks, no net soil sealing and increase the reuse of urban soils; reduce soil pollution and enhance restoration; prevent erosion; improve soil structure to enhance habitat quality for soil biota and crops; reduce the EU global footprint on soils; increase soil literacy in society.

³³⁸ See <u>Soil Needs and Drivers of Change Across Europe and Land Use Types - Booklet</u> from PREPSOIL project

as a basis; proposals may complement with additional indicators tailored to the addressed soil health challenge(s), pedoclimatic conditions, land use, and other local/regional factors;

- assess and demonstrate the technical, social, economic, cultural and environmental viability of the proposed solutions, as well as their potential scalability and transferability to diverse contexts;
- identify high performing sites that may be converted into lighthouses, either at proposal stage or later. Engage with <u>SOILL</u> to assess the growth and development of these lighthouses and to support the establishment of a labelling process that could formally recognize these exemplary sites as lighthouses;
- propose strategies (e.g., financial, organisational) to ensure the long-term sustainability of the established living labs beyond the Horizon Europe funding. Strategies should include the identification of possible business models and actions involving a mix of public or private funding schemes, financial instruments, cooperation with local authorities, engagement of social economy entities, social enterprises, business communities, SMEs, as well as attracting investors and entrepreneurs.

In line with the nature of living labs, projects must adopt the multi-actor approach. The actors involved in each living lab may vary, based on its unique characteristics and may include, among others, researchers, landowners or land managers, industry representatives (e.g., SMEs), public administrators and civil society representatives (e.g., consumers, local residents, environmental NGOs, youth organisations). Care should be taken to describe the capabilities, roles and resources of the different actors involved in the living labs. An effective contribution of social sciences and humanities and the arts (SSHA) is expected to foster social innovation, knowledge transfer and socio-cultural and behavioural change.

To encourage and facilitate the involvement of different types of actors in the living labs, applicants are reminded of the different types of participation possible under Horizon Europe. This includes not only beneficiaries (or their affiliated entities) but also associated partners, third parties giving in-kind contributions, subcontractors, and recipients of financial support to third parties. Financial support to third parties (FSTP) to facilitate active involvement of small actors (e.g. land managers and landowners such as farmers, SMEs or civil society) in one or more of the living labs of a project, can be provided through calls, or, if duly justified, without a call for proposals. The type of activities that could be funded are for example, those related to site management or implementation or monitoring of soil health solutions including hourly rates for collection of data, sampling or participating in events, knowledge exchange, capacity building or demonstration and awareness initiatives equipment; equipment; and/or compensation for loss of production. Applicants are advised to consult the standard conditions set out in Annex B of the General Annexes including those that apply to FSTP.

Dedicated tasks and appropriate resources should be envisaged to collaborate with <u>SOILL</u>, the structure created to support soil health living labs and lighthouses with a wide range of actions that include dedicated capacity building, knowledge exchange, promotion, dissemination,

networking opportunities and regular monitoring activities_on living labs performance. The details of the collaboration will be further defined during the grant agreement preparation phase.

Proposals are expected to build on existing knowledge (e.g. data from national soil health monitoring, LUCAS) and solutions developed and tested at national scale or in the frame of other Horizon projects including those funded under the Mission 'A Soil Deal for Europe'. Proposals should therefore include dedicated tasks and appropriate resources for collaboration with relevant projects and initiatives and engage in relevant Mission Soil clustering activities. Proposals are also encouraged to consider, where relevant, the data, expertise and services offered by European research infrastructures (ESFRI) and to cooperate with the Horizon Europe Partnerships on Agroecology and on Sustainable Food Systems and/or relevant networks active at local level, such as the EIP-AGRI operational groups to promote the involvement of key local stakeholders.

Proposals should demonstrate a route towards open access, longevity, sustainability and interoperability of knowledge and outputs through close collaboration with the European Union Soil Observatory (EUSO) and the project <u>SoilWise</u>. In particular, proposals should ensure that relevant data, maps and information can potentially be available publicly through the EUSO. Concrete efforts should be made to ensure that the data produced in the context of the funded project is FAIR (Findable, Accessible, Interoperable and Re-usable).

Grants will be awarded to applications not only in order of ranking but also to at least one project focusing on the Continental biogeographical region and to one project focusing on one or more of the three biogeographical regions (Black Sea, Pannonian and Steppic), provided that proposals attain all thresholds.

Call: Supporting the implementation of the Soil Deal for Europe Mission	
Specific conditions	
Expected EU contribution per project	The Commission estimates that an EU contribution of around EUR 12.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
Indicative budget	The total indicative budget for the topic is EUR 24.00 million.
Type of Action	Research and Innovation Actions
Award criteria	The criteria are described in General Annex D. The following exceptions apply:
	The overall threshold for the second stage evaluation will be 12, with a minimum threshold of 4 for the 'Excellence' criterion'.

HORIZON-MISS-2027-05-SOIL-02-two-stage: Living Labs for co-creating solutions to reduce eutrophication from agriculture

Legal and financial set-up of the Grant	The rules are described in General Annex G. The following exceptions apply:
Agreements	Beneficiaries may provide financial support to third parties to facilitate active involvement of smaller actors (e.g. land managers and owners such as farmers, SMEs or civil societies) in one or more of the living labs of the project. The support to third parties can only be provided in the form of grants (further to calls or, if duly justified, without a call for proposals). The maximum amount to be granted to each third party is EUR 60 000.
Eligibility and admissibility conditions	Proposals must apply the multi-actor approach. See definition of the multi-actor approach in the introduction to this work programme part.

<u>Expected Outcome</u>: Activities under this topic respond directly to the goal of the <u>Mission Soil</u> to set up 100 living labs and lighthouses to lead the transition to healthy soils by 2030 and support the objectives and targets of the Mission Soil³³⁹. Activities should also contribute to the Common Agricultural Policy, and to meeting the European Green Deal ambitions and targets and more specifically those of the <u>EU Biodiversity Strategy for 2030</u>, the <u>EU soil strategy for 2030</u> and the proposal for a Soil Monitoring and Resilience Directive, as well as the <u>EU Water Framework Directive</u>, the Water Resilience Strategy, the <u>Nitrates Directive</u>, the <u>Zero Pollution</u> Action Plan, the <u>Communication on Boosting Biotechnology and Biomanufacturing in the EU</u>, as well as to the Sustainable Development Goals³⁴⁰.

Project results are expected to contribute to <u>all</u> the following expected outcomes:

- enhanced capacities for participatory, interdisciplinary and transdisciplinary R&I to cocreate, and co-implement economically viable soil health solutions to reduce eutrophication from agriculture and improve water quality;
- improved soil health monitoring and increased availability of high quality, standardised soil data at local and regional levels;
- increased availability of practice-oriented knowledge and tools for land managers and land users, leading to better adoption of effective soil health solutions to reduce eutrophication in diverse contexts;
- policy makers are more aware of risks associated with eutrophication and local needs regarding soil health, including its drivers, and can use this knowledge to design and implement more effective policies to reduce eutrophication and enhancing soil health while considering the economic sustainability of solutions.

³³⁹ See the <u>Mission implementation plan</u>

³⁴⁰ In particular SDG 3- Good health and well-being, and SDG 15 – Life on Land

<u>Scope</u>: Eutrophication is a critical environmental issue that primarily affects water bodies but is largely driven by nutrient dynamics in soils together with diffuse source contributions. Eutrophication leads to algal blooms, hypoxia, and biodiversity loss, which in turn disrupt the entire food chains threatening both food availability and safety, as well as other ecosystems functions and the services they provide (e.g. drinking water, recreation). Soil management practices, particularly in agricultural soils, can lead to an excessive accumulation of nutrients in soils, predominantly nitrogen (N) and phosphorus (P), and runoff or leaching into water bodies. Thus, soil management represents an important strategy to mitigate eutrophication³⁴¹. Moreover, degraded soils with low water retention and limited nutrient cycling capacity, exacerbate eutrophication. Therefore, the restoration of soil health offers a critical opportunity for nutrient interception and reduction of downstream aquatic impacts.

The Mission Soil proposes the deployment of living labs as a novel approach to research and innovation in soil health³⁴². Living labs have the potential to facilitate a green transition by involving multiple actors in real-life sites within a local/regional setting to co-create soil health solutions and achieve large-scale impacts on soil health and soil governance. Projects funded under this topic should deploy a number of living labs to expand and complement the network of soil health living labs initiated in previous Mission Soil topics to gradually establish 100 living labs and lighthouses to lead the transition towards healthy soils by 2030³⁴³.

Soil health living labs are long-term collaborations between multiple actors to address common soil health challenges in real-life sites at local or regional level³⁴⁴ (10 to 20 sites in each living lab). Depending on the level at which each living lab operates and the specific context (e.g. land use covered, or soil health challenge addressed), applicants can exceptionally propose living labs with fewer sites. Living labs can address soil health challenges in or across different land uses (agricultural, forest and (semi-)natural). Individual sites can be farms, forest holdings, (semi)natural areas etc., where work is carried out and monitored under real-life conditions. In the case of eutrophication, the selection of sites should be conducted to ensure a comprehensive representation of the different drivers that contribute to the eutrophication process in a small river catchment, and where solutions can be co-developed and co-implemented. Sites should be located in nitrate vulnerable zones³⁴⁵ as designated by the EU countries or regional authorities in reporting period 7 (or more recent) or a clear rationale of the eutrophication challenge based on national, regional or local data should justify the location in other areas. Sites that are exemplary in their performance in terms of soil health improvement and serve as places for demonstration of solutions, training and communication are lighthouses. Lighthouse sites can be part of a living lab or be situated outside a living lab. Projects funded under this topic are expected to kick-start a participatory process or build on existing processes. If building on

³⁴¹ <u>A Global Perspective on Integrated Strategies to Manage Soil Phosphorus Status for Eutrophication Control without Limiting Land Productivity - Withers - 2019 - Journal of Environmental Quality - Wiley Online Library</u>

³⁴² Implementation Plans for the EU Missions - European Commission

³⁴³ Catalogue 2024 - Mission Soil Living Labs and Lighthouses Mission Soil Platform

In this topic, it is recommended to define the living labs location using the NUTS2 division (Eurostat Statistical Atlas).

³⁴⁵ Nitrates Directive - Vulnerable Zones Reporting

existing processes, the new proposed living labs should complement the existing network of Mission Soil Living Labs and deliver unique results.

While on average, projects run for around four years, the duration of the projects under this topic should accommodate longer timescales required to establish participatory processes and/or for soils processes to take place.

Actors working on common shared soil health challenge(s) within and across the living labs of the same project, will be able to compare results, exchange good practices, validate methodologies, replicate actions and solutions and benefit from cross-fertilisation, thereby accelerating the transition towards the shared objective of improving soil health and reducing eutrophication.

Proposals should:

- support the establishment of four to five living labs to work together on soil health aspects that could affect eutrophication in nearby freshwater bodies. The living labs must be located in at least three different Member States and/or Associated Countries and each living lab should focus on a specific small river catchment, clearly identifying up- and downstream eutrophication challenges. Proposals should explain the rationale and mechanism for cooperation within and across the living labs while explaining how the work undertaken will contribute to one or more of the Mission's specific objectives³⁴⁶;
- establish an interdisciplinary, participatory and multi-actor approach in the living labs to co-design, co-develop, and co-implement locally adapted solutions (practices, tools, and strategies) to reduce eutrophication. Proposed solutions should be adapted to the different environmental, socio-economic and cultural contexts within the river catchment area in which the living labs are operating and take into account the current and future impact of climate change on nutrient exports during floods and droughts;
- establish for each living lab a baseline of the soil and nearby water body conditions to allow for an accurate co-assessment of the changes in the different sites over time. Monitoring improvements in soil health, ecosystem and associated services, and reductions in eutrophication level. The set of soil health indicators/descriptors presented in the proposal for a <u>Directive on Soil Monitoring and Resilience</u> should be used as a basis; proposals may complement with additional indicators tailored to eutrophication as well as to the specific pedoclimatic conditions, land use, and other local/regional factors;
- assess and demonstrate the technical, social, economic, cultural and environmental viability of the proposed solutions, as well as their potential scalability and transferability to diverse contexts, including the insights of SSHA;

³⁴⁶ Mission Soil specific objectives: reduce land degradation relating to desertification; conserve and increase soil organic carbon stocks, no net soil sealing and increase the reuse of urban soils; reduce soil pollution and enhance restoration; prevent erosion; improve soil structure to enhance habitat quality for soil biota and crops; reduce the EU global footprint on soils; increase soil literacy in society.

- identify high-performing sites that may be converted into lighthouses, either at proposal stage or later during project implementation. Engage with the SOILL³⁴⁷ to assess the growth and development of these lighthouses and to support the establishment of a labelling process that could formally recognize these exemplary sites as lighthouses;
- propose strategies (e.g., financial, organisational) to ensure the long-term sustainability of the established living labs beyond Horizon Europe funding. Strategies should include the identification of possible business models and actions involving a mix of public or private funding schemes, financial instruments, cooperation with local authorities, engagement of social economy entities, social enterprises, business communities, SMEs, as well as attracting investors and entrepreneurs.

In line with the nature of living labs, projects must adopt the multi-actor approach. The actors involved in each living lab may vary, based on its unique characteristics and may include, among others, researchers, landowners or land managers, industry representatives (e.g., SMEs), public administrators and civil society representatives (e.g., consumers, local residents, environmental NGOs, youth organisations). Care should be taken to describe the capabilities, roles and resources of the different actors involved in the living labs. An effective contribution of social sciences and humanities and the arts (SSHA) is expected to foster social innovation, knowledge transfer, socio-cultural and behavioural change, considering the legal/institutional/political framework at local, regional and national level, if relevant.

To encourage and facilitate the involvement of different types of actors in the living labs, applicants are reminded of the different types of participation possible under Horizon Europe. This includes not only beneficiaries (or their affiliated entities) but also associated partners, third parties giving in-kind contributions, subcontractors, and recipients of financial support to third parties. Financial support to third parties (FSTP) to facilitate active involvement of small actors (e.g. land managers and landowners such as farmers, SMEs or civil society) in the living labs of a project, can be provided through calls or, if duly justified, without a call for proposals. The type of activities that could be funded are for example, those related to site management or implementation or monitoring of soil health solutions including hourly rates for collection of data, sampling or participating in events, knowledge exchange, capacity building or demonstration and awareness initiatives equipment; equipment; and/or compensation for loss of production. Applicants are advised to consult the standard conditions set out in Annex B of the General Annexes including those that apply to FSTP.

Dedicated tasks and appropriate resources should be envisaged to collaborate with <u>SOILL</u>, the structure created to support soil health living labs and lighthouses with a wide range of actions that include dedicated capacity building, knowledge exchange, promotion, dissemination, networking opportunities and regular monitoring activities_on living labs performance. The details of the collaboration will be further defined during the grant agreement preparation phase.

Proposals are expected to build on existing knowledge (e.g. data from national soil health monitoring, LUCAS) and solutions developed and tested at national scale or in the frame of

³⁴⁷ See <u>www.soill2030.eu/about-us</u>

other Horizon projects including those funded under the Mission Soil. Proposals should therefore include dedicated tasks and appropriate resources for collaboration with relevant projects and initiatives and engage in relevant Mission Soil clustering activities. Proposals are also encouraged to consider, where relevant, the data, expertise and services offered by European research infrastructures (ESFRI) and to cooperate with the Horizon Europe Partnerships on Agroecology and on Sustainable Food Systems and/or relevant networks active at local level, such as the EIP-AGRI operational groups to promote the involvement of key local stakeholders.

Proposals should demonstrate a route towards open access, longevity, sustainability and interoperability of knowledge and outputs through close collaboration with the <u>European Union</u> <u>Soil Observatory</u> (EUSO) and the project <u>SoilWise</u>. In particular, proposals should ensure that relevant data, maps and information can potentially be available publicly through the EUSO. Concrete efforts should be made to ensure that the data produced in the context of the funded project is FAIR (Findable, Accessible, Interoperable and Re-usable).

HORIZON-MISS-2027-05-SOIL-03-two-stage: Agroforestry for soil health at landscape level

Call: Supporting the implementation of the Soil Deal for Europe Mission	
Specific conditions	
Expected EU contribution per project	The Commission estimates that an EU contribution of around EUR 8.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
Indicative budget	The total indicative budget for the topic is EUR 16.00 million.
Type of Action	Innovation Actions
Legal and financial set-up of the Grant Agreements	The rules are described in General Annex G. The following exceptions apply: Beneficiaries may provide financial support to third parties to encourage and facilitate the involvement of different types of small actors, that can be provided through calls or, if duly justified, without a call for proposals. The maximum amount to be granted to each third party is EUR 60 000. Eligible costs will take the form of a lump sum as defined in the Decision of 7 July 2021 authorising the use of lump sum contributions
	under the Horizon Europe Programme – the Framework Programme for Research and Innovation (2021-2027) – and in actions under the

	Research and Training Programme of the European Atomic Energy Community (2021-2025) ³⁴⁸ .
Eligibility and admissibility conditions	Proposals must apply the multi-actor approach. See definition of the multi-actor approach in the introduction to this work programme part.

<u>Expected Outcome</u>: Activities should support the objectives and targets of the <u>Mission Soil</u> and of the common agricultural policy (CAP), the European Green Deal ambitions and targets and more specifically those of the EU Biodiversity Strategy for 2030, the <u>EU Soil Strategy for 2030</u>, the <u>EU Climate action</u>, the EU's <u>Action Plan on the Development of Organic Production</u> and the <u>proposal for a Soil Monitoring and Resilience Directive</u>. Activities should thereby contribute to meeting the objectives on improving soil management, environmental performance and competitiveness of the <u>Vision for Agriculture and Food</u>.

Project results are expected to contribute to <u>all</u> the following expected outcomes:

- increased **adoption of agroforestry at landscape level** in the EU and Associated Countries;
- enhanced access and uptake of agroecological solutions and practical tools that boost soil health in agroforestry by farmers, foresters, advisors and food chain operators;
- **business models for agroforestry and soil health** that integrate all actors along the value chain, including agritech companies, the food industry, retailers and consumers- are tested and validated;
- the **benefits of agroforestry** for environmental (particularly soil), social, and economic sustainability, along with the obstacles to its adoption and the mechanisms to overcome them, are more comprehensively understood and effectively disseminated.

<u>Scope</u>: Agroecology practices and agroforestry (a land management practice that integrates trees and shrubs into agricultural landscapes³⁴⁹) are known to improve soil health, conserve water, and provide economic and environmental benefits while promoting highly diverse landscape features, which provide ecosystem services and support farmland biodiversity³⁵⁰. The restoration of degraded landscapes using agroforestry can increase the resilience of communities to shocks, including drought and food shortages, and help mitigate climate change. Agroecology and agroforestry also improve farm profitability for farmers, combining economic benefits with environmental sustainability, in line with the Vision for Agriculture and Food.

³⁴⁸ This <u>decision</u> is available on the Funding and Tenders Portal, in the reference documents section for Horizon Europe, under 'Simplified costs decisions' or through this link: <u>https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/ls-</u> <u>decision_he_en.pdf</u>

³⁴⁹ Agroforestry | Forest Information System of Europe

³⁵⁰ Agroforestry for landscape restoration

However, its adoption in the EU remains limited largely due to farmers' lack of expertise and financial concerns. Initial costs for establishing agroforestry systems can be high, and financial returns may take longer to realize compared to traditional agricultural practices. Existing business models and traditional farm financing is often not tailored to long-term, diversified systems.

A landscape approach can significantly aid in overcoming the barriers to agroforestry adoption in the EU and Associated Countries by promoting integrated and sustainable land management practices across larger areas.

Proposals should focus on landscape-scale implementation of agroforestry practices aiming at scaling up sustainable soil management practices in agroforestry systems across entire value chains and territorial contexts. Proposals should apply participatory, interdisciplinary and transdisciplinary approaches, involving actors along the value chain, thereby maximizing ecological and socio-economic impact.

While normally projects run for four years, the duration of the projects should accommodate longer timescales required by agroforestry and for soils processes to take place.

Proposals should:

- using an **interdisciplinary**, **participatory and multi-actor approach**, co-design, codevelop, and pilot locally adapted agroforestry farming systems with a landscape approach that demonstrate an enhancement in soil health in a variety of relevant pedo-climatic areas across the EU and Associated Countries;
- assess and monitor the impacts of agroforestry practices on soil health. For this, establish a baseline of the soil conditions in the areas where the project will be operating to allow for an accurate monitoring of changes in soil health over time and after the project ends under different agroforestry management practices. Activities should allow for a comparison of the impacts of conventional and organic farming;
- assess and demonstrate the technical, social, economic, cultural and environmental **viability** of the proposed agroforestry systems, as well as their potential **scalability** and transferability to diverse contexts;
- involve public and private actors to mobilise finance, including blended, and develop and test long-term, sustainable **business models**, that facilitate the transition to scalable agroforestry systems;
- produce **recommendations on how policy and the macro-economic framework** could support practically feasible implementation pathways and value chain networks for large scale agroforestry deployment;
- provide capacity building and training opportunities for all actors along the value chain—including farmers, advisors, businesses, consumers and policymakers—focused on practical skills and awareness of soil health improvement, efficient

agroforestry management, supportive business models, and incentives to accelerate the transition.

Proposals must implement the **multi-actor approach** to ensure that knowledge and needs from various sectors are brought together. The actors involved should include farmers, forest users, researchers, landowners or land managers – both from the farm and forestry sectors, industry (e.g., SMEs), public administrations (both in charge of farming and of forestry matters), representatives of civil society (e.g., consumers, environmental NGOs).

To encourage and facilitate the involvement of different types of small actors, applicants may use financial support to third parties (FSTP), that can be provided through calls or, if duly justified, without a call for proposals. Applicants are advised to consult the standard conditions set out in Annex B of the General Annexes including those that apply to FSTP.

Proposals should fill R&I gaps, demonstrating value added and complementarity with past/ongoing EU-funded R&I projects, including Mission Soil living labs. Proposals must include dedicated tasks and appropriate resources to coordinate with relevant ongoing and upcoming projects funded by the Horizon Europe Partnership 'Agroecology. Proposals must include coordination and cooperation mechanisms and activities, with the aim of exploiting synergies and complementarities that result in greater impact on soil health and accelerated adoption of agroforestry in the EU and Associated Countries.

Capitalize, where appropriate, on the existence of relevant living labs set up under other EU-funded actions such as the Agroecology Partnership, to scale up practices beyond the farm to the landscape level. Proposals should demonstrate a route towards open access, longevity, sustainability and interoperability of knowledge and outputs through close collaboration with the European Union Soil Observatory (EUSO) and the project SoilWise. In particular, proposals should ensure that relevant data, maps and information can potentially be available publicly through the EUSO. Concrete efforts should be made to ensure that the data produced in the context of the funded project is FAIR (Findable, Accessible, Interoperable and Re-usable).

This topic should involve the effective contribution of social sciences and humanities disciplines.

A Soil Deal for Europe: Other Actions

1. Improving soil health and resilience in UNESCO designated sites

Expected impact: global soil health and resilience to climate change is improved.

Expected outcomes:

• soil health and soil resilience to climate change are improved in UNESCO designated sites through innovative and sustainable soil management practices;

- new knowledge and FAIR³⁵¹ data on soil health are generated, shared and made available, in particular in and among UNESCO designated sites;
- national soil policies supporting sustainable land management practices are strengthened;
- general awareness on the importance of soil health and resilience, as well as soil literacy are increased.

<u>Scope</u>: This indirectly managed action contributes to the implementation of the Mission 'A Soil Deal for Europe', by strengthening its international dimension, as well as to the achievement of the United Nations Sustainable Development Goals (SDGs), in particular SDG 15 – life on land, SDG 2 – zero hunger, and SDG 13 – climate action.

Considering its unique and powerful role in promoting sustainable development through science, education, culture, and knowledge sharing across the world, its recently launched *Soil Initiative: Soil Sentinel Sites for land degradation, climate and biodiversity action,* as well as its activities under the Man and the Biosphere (MAB) Programme aimed at improving human livelihoods and safeguarding natural and managed ecosystems, which include soils, the United Nations Educational, Scientific and Cultural Organization (UNESCO) is the designated beneficiary of this indirectly managed action.

The aim of this indirectly managed action is to improve global soil health and resilience through research, monitoring and capacity building in UNESCO designated sites.

UNESCO should:

- pilot, monitor and evaluate innovative and sustainable land management initiatives aimed at improving soil health and resilience in at least ten UNESCO designated-sites, while contributing to foster sustainable agriculture, biodiversity, and climate mitigation and adaptation;
- generate new knowledge and FAIR data on soils, soil health and soil biodiversity. Information should be shared among UNESCO networks and made accessible to the general public, including the European Union Soil Observatory (EUSO);
- create a multi-stakeholder expert group to engage the necessary expertise and mobilise relevant organisations to contribute to the achievement of the expected outcomes;
- engage with a representative number of UNESCO Member States (at least one for each global region) to strengthen national policies for the protection and restoration of soil health;
- provide policy advise, guidelines and capacity building activities to encourage policymakers across the world to adopt policies aimed at supporting sustainable land management practices;

³⁵¹ Findable, Accessible, Interoperable and Reusable.

- organise training, peer-to-peer learning, and capacity building activities to share knowledge and sustainable land management practices among UNESCO site leaders and communities;
- develop and monitor the effectiveness of awareness-raising campaigns and educational materials on the importance of soil, encouraging actions for the protection and restoration of soil health and resilience.

UNESCO should collaborate with the Mission Soil Secretariat. It should also consider dedicated activities and appropriate resources for coordination and joint measures with relevant Horizon Europe projects and initiatives funded under the Mission "A Soil Deal for Europe", including engagement in relevant clustering processes.

UNESCO should demonstrate a route towards open access, longevity, sustainability and interoperability of knowledge and outputs through close collaboration with the <u>European Union</u> <u>Soil Observatory</u> and <u>SoilWise</u>.

Legal entities:

United Nations Educational, Scientific and Cultural Organization (UNESCO), 7 place Fontenoy 75007 Paris, France

Form of Funding: Indirectly managed actions

Type of Action: Indirectly managed action

Indicative budget: EUR 2.82 million from the 2026 budget

2. Technical and scientific support for the development of an EU soil monitoring framework

Scientific and technical services by the Joint Research Centre

Technical and scientific support for the implementation of Mission Soil

The JRC will:

- support the Mission Soil Secretariat in co-ordinating and achieving the outputs and outcomes of the Mission Implementation Plan, in particular the building block "Monitoring and indicators";
- continuously update the EUSO Soil Degradation Dashboard, incorporating data coming from Mission Soil projects and other sources, and monitor, assess and report the evolution of soil health in the EU over time;
- building on the EUSO Dashboard, develop a tool to assess progress against the Mission's specific objectives;
- support the Mission Soil Secretariat in working with the Mission Soil Platform;

- integrate Mission Soil project outputs (data, knowledge) in the <u>EU Soil Observatory</u> (EUSO) and in the Mission Soil Platform as relevant, and support feedback to policy;
- provide technical expertise and operational capacity to support the Mission Secretariat's exchanges with Member States, Associated Countries, other policymakers, the scientific community and other stakeholders;
- provide methodological support and technical guidance for the Living Labs' implementation, in particular for monitoring and reporting on soil health.

Type of Action: Provision of technical/scientific services by the Joint Research Centre

Indicative timetable: from 3rd quarter of 2026 to 2030 (four years)

Indicative budget: EUR 2.00 million from the 2026 budget

3. Advancing agri-food system transformation through innovative soil health solutions: ensuring synergies between the Mission Soil and the EIT Food³⁵²

The proposed action will pilot a collaboration between the Mission 'A Soil Deal for Europe' (Mission Soil) and the EIT Food. EU Missions are expected to increase efforts to mobilise a broader portfolio of instruments, building synergies with other parts of Horizon Europe. Mission Soil and EIT Food share a strong commitment to sustainability and soil health, engaging a wide range of stakeholders—researchers, farmers, businesses, and public authorities—to co-create solutions and foster innovation. While they are aligned in purpose, they deploy different tools to reach their goals: Mission Soil operates primarily through large, collaborative research and innovation projects, whereas EIT Food supports market-driven innovation via accelerators, entrepreneurship programmes, and education tools that empower startups and businesses to deliver scalable, consumer-oriented solutions.

This action aims to accelerate Europe's transition towards sustainable agriculture and facilitate market access for soil health startups and is expected to harness the strengths of both approaches, Mission Soil and EIT Food.

Expected impact:

- Accelerated progress toward competitive, sustainable, resilient agriculture and healthy soils in the EU and Associated Countries.
- Synergies and complementarities between the Mission Soil and the EIT Food result in higher impact across the EU's and Associated Countries' agri-food sector.

Expected Outcomes:

³⁵² Grant to identified beneficiary

- Tools, mechanisms and support for de-risking the transition towards sustainable soil management involving all the actors of the value chain are further developed, tested and accessible for farmers and other operators, including retailers and consumers.
- Enhanced support and opportunities for innovators developing cutting-edge methods, tools and solutions for soil health across diverse value chains to test, validate, demonstrate and commercialise their innovations across all food value chain.
- Farmers and landowners have access to a comprehensive set of innovations and support to sustainably manage their land, enhancing their competitiveness and resilience while reducing their dependence on external inputs and chemicals.
- Synergies and complementarities between the Mission Soil and the EIT Food projects and communities are actively explored and leveraged, thereby amplifying the overall impact.

Scope:

EIT Food should:

- Building on the EIT Food's Impact Funding Framework and the EIT Food Regenerative Agriculture Portfolio, launch a call/s for proposal focusing on the development and testing of tools and frameworks that support and monitor the transition to sustainable soil management. This includes not only improving soil health but also de-risking the transition for farmers through mechanisms such as carbon farming, cost-reduction strategies, market-based incentives (certification, labels, premiums), MRV methodologies and transparency mechanisms to evaluate impact on soil health, digital technologies, biotechnology and circular economy innovations, etc.
- Organise entrepreneurship programmes, drawing on the EIT Food Seedbed Incubator, Accelerator Networks, RisingFoodStars, and Prize-Based Challenges, centred on improving soil health. This initiative would invite startups, researchers, and entrepreneurs to develop and scale practical solutions to enhance soil quality and support sustainable land management.
- Promote and disseminate the actions in relevant key events and EIT Food's and Mission Soil's communications channels, including newsletters, social media, and partner spotlights.
- Participation in expert panels, demo days, or EU-level events to showcase validated solutions and policy align.
- EIT Food should collaborate with the Mission Soil Secretariat and the Mission Soil Platform. It should also consider dedicated activities and appropriate resources for coordination and joint measures with relevant Horizon Europe projects and initiatives funded under the Mission, including engagement in relevant clustering processes.

Award criteria: The criteria are described in General Annex D.

<u>Procedure:</u> The evaluation committee will be composed fully by representatives of EU institutions.

Legal and financial set-up of the Grant Agreements:

Eligible costs will take the form of a lump sum as defined in the Decision of 7 July 2021 authorising the use of lump sum contributions under the Horizon Europe Programme – the Framework Programme for Research and Innovation (2021-2027) – and in actions under the Research and Training Programme of the European Atomic Energy Community (2021-2025)232.

The funding rate will be 50%.

This action supports the follow-up to the July 2023 Communication on EU Missions assessment.

Legal entities:

EIT Food, Ubicenter, Philipssite 5, 3001 Leuven, Belgium

Form of Funding: Grants not subject to calls for proposals

<u>Type of Action</u>: Grant to identified beneficiary according to Financial Regulation Article 195(e) - Programme co-fund action

The general conditions, including admissibility conditions, eligibility conditions, award criteria, evaluation and award procedure, legal and financial set-up for grants, financial and operational capacity and exclusion, and procedure are provided in parts A to G of the General Annexes

Indicative timetable: Q4 2026

Indicative budget: EUR 6.00 million from the 2026 budget

4. Specific Grant Agreement for a Living Lab Support Structure

Specific Grant Agreement for a Living Lab Support Structure

Within the Framework Partnership Agreement (FPA) awarded under topic HORIZON-MISS-2022-SOIL-01-08: Framework Partnership Agreement (FPA) for a living lab network support structure, the selected consortium is invited to submit a proposal for a Specific Grant Agreement (SGA). This SGA will cover the last three years of the FPA (2028-2030). One single proposal should be submitted. **The evaluation committee will be composed fully by representatives of EU institutions.**

The support structure under this SGA should continue to implement the action plan presented under the FPA while building on the needs and gaps identified by the first two SGAs (SOILL-Startup and SOILL-Stepup), and the European Commission.

Proposed activities should:

- Give continuity to the activities of the first two SGAs in terms of tailored support to Mission Soil funded living labs and lighthouses (LL & LH), in the form of advice in their day-to-day operations (including on technical, networking and communication aspects), capacity building, training, knowledge sharing and monitoring. The SGA should also provide selected services to other LL & LH working on soil health issues, created by other projects within or outside the Mission Soil or by other programmes. Finally, the SGA should expand its activities to support emerging soil health initiatives (including existing on the ground experiments), showing potential to develop into mature LL & LH.
- Facilitate the exchange of knowledge, data, findings and experiences within and across • LL & LH (with a focus on, but not limited to, those funded under the Mission Soil) and with key stakeholders and other projects, where co-design, testing and evaluation of innovative soil management practices and technologies, as well as capacity building, will take place. To this end, the SGA should continue identifying common areas of interest between funded LL & LH - particularly those operating in the same biogeographical regions - to engage them in concrete actions that create synergies and capitalise on the wealth of existing experiences and resources. Activities should result in the creation of working groups, in the production of learning material and tools addressing specific technical themes (e.g. particular soil challenges or land uses) as well as transversal aspects (e.g. data management, monitoring, use of digital tools, integration of social sciences and humanities (SSH) in research and innovation). The participation in or collaboration with other working groups or project clusters should be foreseen. In addition to enhancing operational capacities of living lab partners, the exchange of experiences should serve to promote a wider dialogue between the various living labs on their contribution to the Mission's objectives and to discuss possibilities for scaling up activities beyond the living lab areas.
- Support the Mission Soil LL & LH projects in establishing a route towards open access, longevity, sustainability and interoperability of knowledge and outputs through close collaboration with the <u>European Union Soil Observatory</u> (EUSO) and the project <u>SoilWise</u>. The SGA should contribute to the continuous flow of high-quality information on local soil health conditions to support Member States in implementing the future Soil Monitoring Law. Likewise, the SGA will help identify and disseminate sustainable soil management practices and solutions created, tested and demonstrated in LL & LH, so that these are widely known and can be accessed by potential users beyond the living lab areas. The SGA should also flag opportunities for the living labs to make use of data and services available from European Research Infrastructures federated under the European Open Science Cloud (EOSC) or from relevant Data Spaces, as indicated in the Soil Mission implementation plan.
- Help Mission Soil LL & LH in developing strategies to sustain their activities beyond the lifetime of each project. This will include assisting living lab partners in the development of financial plans and long-term management plans, as well as strengthening connections with local business communities, in particular SMEs, investors and other commercial stakeholders as well as social economy entities and social enterprises. To this end, the

SGA should also assist Mission Soil LL to explore new public or private funding schemes and financial instruments, involving, where relevant, finance providers such as financial institutions and investors.

- Apply the harmonized LL monitoring & evaluation framework developed by SOILL-Startup for the monitoring of the Mission Soil LL progress and for targeting capacity building needs depending on their level of development. Identify, using the monitoring & evaluation framework those European initiatives that are aligned to the Mission Soil objectives & criteria and that can be labelled as 'European Soil LL'.
- Support Mission Soil LLs in the identification and/or the setting up of LHs as well as in the networking among them during and beyond Horizon Europe funding. Help LHs to enhance their ability to demonstrate and disseminate practice-oriented knowledge and tools, including on business models, harvested from the Mission Soil projects. Assist LHs in their transition assessing growth and development against a defined criteria and employ a labelling process to formally recognize these exemplary sites as lighthouses. Ensure a greater impact of LHs activities by outreaching to relevant stakeholders outside the LL or the Mission Soil projects by organizing trainings for farmers, foresters or policymakers, when justified. Engage with the network of operational groups (OGs) under the EU CAP network to maximize the synergy between them (e.g. encouraging OGs to leverage results showcased in lighthouses or encouraging lighthouses to involve OGs in their activities). Foster collaboration among LHs as well as with businesses, and public institutions for obtaining further funding opportunities and contribute to the long-term sustainability of the lighthouses beyond the Horizon Europe.
- Continue monitoring and assessing the performance of the LL & LH in a systematic way and report the main trends, achievements, experiences and challenges encountered when working within a living lab approach. The periodicity of the quantitative reporting should be agreed with the Mission Secretariat. A detailed qualitative evaluation of the progress of the funded living lab projects should be reported in a yearly basis. These reports should bring together and complement the information arising from monitoring activities performed by each of the funded living lab projects on their proposed solutions to identified soil health challenges. Close cooperation with the MSP regarding reporting and monitoring requirements of the Mission Soil is essential.
- Maintain and further develop the SOILL Hub initiated by SOILL-Startup and other tools and services for information, dissemination, exchange of experiences and outreach, integrating and further developing existing information and resources. Through the provision of a collaborative space for LL & LH partners, the web-portal should support the establishment of a dynamic and inclusive community of practice.
- Maintain and further develop an interactive map of Soil health LL & LH clearly distinguishing those LL & LH funded under dedicated topics of the Mission Soil (Mission Soil LL & LH); other soil health LL & LH created under other projects or other programmes that align to the Mission Soil criteria (European Soil LL & LH); and

emerging and growing soil health initiatives (including existing on the ground experiments) showing potential to develop in mature LL & LH.

- Produce regular newsflashes and an electronic newsletter to support the evolving community of practice of LL. Communication and outreach should benefit LL & LH operating as part of the Mission Soil or outside, as well as a wide range of stakeholders and the wider public.
- Offer training activities and capacity building for soil managers, landowners, advisors and relevant authorities on sustainable soil management practices, as well as activities to support soil education and citizen engagement, in line with and in support of the objectives of the future Soil Monitoring Law.

Specific Conditions:

The general conditions, including admissibility conditions, eligibility conditions, award criteria, evaluation and award procedure, legal and financial set-up for grants, financial and operational capacity and exclusion, and procedure are provided in parts A to G of the <u>General Annexes</u>.

This action will be implemented through a Coordination and Support Action (CSA). Legal entities established in non-associated third countries may exceptionally participate in this coordination and support action.

Form of Funding: Grants not subject to calls for proposals

<u>Type of Action</u>: Specific grant agreement awarded without call for proposals in relation to a Framework Partnership Agreement

Indicative budget: EUR 6.65 million from the 2027 budget

EU Missions' Joint Calls

Proposals are invited against the following topic(s):

HORIZON-MISS-2026-04-CIT-NEB-B4P-CCRI-03: Introducing circular economy models in the construction sector, from buildings to city scale

Call: Supporting the implementation of the Climate-Neutral and Smart Cities Mission		
Specific conditions		
Expected EU contribution per project	The Commission estimates that an EU contribution of around EUR 9.50 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.	
Indicative budget	The total indicative budget for the topic is EUR 47.50 million.	
Type of Action	Innovation Actions	
Eligibility conditions	The conditions are described in General Annex B. The following exceptions apply: The following additional eligibility criteria apply: At least three cities, represented by a local authority or by an entity with an explicit consent from the local authority, each from a different Member State or Associated Country, must participate as beneficiaries. At least one of the three cities must be one of the 112 cities selected for the EU Mission on Climate-neutral and Smart Cities ³⁵³ .	
Technology Readiness Level	Activities are expected to achieve TRL 7-8 by the end of the project – see General Annex B.	
Legal and financial set-up of the Grant Agreements	The rules are described in General Annex G. The following exceptions apply: Grants awarded under this topic will be linked to the following action(s): HORIZON-MISS-2021-CIT-02-03	

³⁵³ The EU Mission on Climate-Neutral and Smart Cities aims to deliver 100 climate-Neutral and smart cities by 2030 and ensure that these cities act as experimentation and innovation hubs to enable all European cities to follow suit by 2050. On 28 April 2022, the Commission announced the 100 EU cities that will participate in the Mission. In addition, 12 cities have been selected from countries associated or expected to be associated the Horizon Europe programme.

Collaboration with the Cities Mission Platform ³⁵⁴ is essential and projects must ensure that appropriate provisions for activities and resources aimed at enforcing this collaboration are included in the work plan of the proposal. The collaboration with the Cities Mission Platform must be formalized through a Memorandum of Understanding to be concluded as soon as possible after the project starting date.
Eligible costs will take the form of a lump sum as defined in the Decision of 7 July 2021 authorising the use of lump sum contributions under the Horizon Europe Programme – the Framework Programme for Research and Innovation (2021-2027) – and in actions under the Research and Training Programme of the European Atomic Energy Community (2021-2025) ³⁵⁵ .

Expected Outcome: Project results are expected to contribute to all of the following expected outcomes:

- Measurable increase in the number of tools and solutions at district or city level that are supporting the application of circular economy models by public and private stakeholders active in the construction sector;
- Measurable reduction of material use and an increase of reuse and recycling in the construction sector as a result of the introduction of new and replicable business models;
- Measurable reduction in the energy and other resources use and the whole life-cycle GHG emissions of buildings ³⁵⁶ and building stock (residential and non-residential) by introducing circular economy activities at building, district and city level.

<u>Scope</u>: Applying circularity principles in the construction sector at building, district and city level can reduce the whole life-cycle GHG emissions and support more efficient resource use of the building stock, and help deliver climate-neutral, smart and circular cities, and a more sustainable built environment. To achieve this, there is a need for tools, solutions and associated business models with market potential that facilitate the adoption of inclusive circular construction economy models, as well as a more efficient use of buildings, ultimately reducing the need to extract raw materials.

Proposals are expected to address all of the following:

³⁵⁴ Set up by Horizon 2020 project NetZeroCities - Accelerating cities' transition to net zero emissions by 2030, Grant Agreement n. 101036519, and scaled up through topic *HORIZON-MISS-2021-CIT-02-03: Framework Partnership Agreement (FPA) for the Climate-Neutral and Smart Cities Mission Platform.*

³⁵⁵ This <u>decision</u> is available on the Funding and Tenders Portal, in the reference documents section for Horizon Europe, under 'Simplified costs decisions' or through this link: <u>https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/ls-</u> <u>decision_he_en.pdf</u>

³⁵⁶ See Article 2(24) of Directive (EU) 2024/1275

- Develop and demonstrate tools and solutions at district or city level to support the introduction of circularity principles in the construction sector, and quantify their impacts (for example: urban mining; reuse and recycling of construction products and materials and other resources, use of secondary biobased materials; building's innovative and adaptive design, renovation, and repurposing of buildings in line with waste prevention and circular economy principles).
- Develop and demonstrate solutions for the diagnosis and performance characterisation of used construction products and demolition waste, in terms of their condition and potential reuse, and to create inventories of reclaimed products and materials, as well as appropriate business models including marketplace tools with components and material banks.
- Develop and demonstrate whole life-cycle GHG emissions inventories of buildings to support decision-making and public actions in line with the Energy Performance of Buildings Directive (EPBD) recast.
- Contribute to reducing regulatory barriers and developing standards, where relevant.
- Ensure the integration of different value chains, active involvement of all relevant construction sector stakeholders, policy-makers and the people impacted by the solutions developed, including SMEs, building owners, local authorities and civil society.
- Demonstrate the proposed tools and solutions in at least three cities, each from a different Member State or Associated Country, including with a view to showcase potential for large scale cross-border re-use of construction materials and products. The cities must participate as beneficiaries. At least one of the three cities must be one of the 112 cities participating in the EU Mission on Climate-Neutral and Smart Cities.

Given its focus on circularity, this topic contributes to the implementation of the Cities Mission, the New European Bauhaus (NEB), the European Partnership on 'People-centric Sustainable Built Environment' (B4P), and the EU Circular Cities and Regions Initiative (CCRI).

Projects are encouraged to engage in clustering activities with other relevant Horizon Europe projects that share a common theme and address similar issues, and/or are connected to the aforementioned initiatives. This approach aims to promote synergies and complementarities. To this end, proposals should include a dedicated task, allocate appropriate resources, and develop a plan for collaboration with relevant projects, partners, and initiatives. Moreover, proposals are expected to ensure that their dissemination and exploitation strategies feature dedicated (and possibly joint) actions for promoting their results and lessons learned on relevant platforms, such as the Cities Mission Platform, the NEB hub for results and impact, B4P³⁵⁷ and CCRI³⁵⁸ websites, and through related channels. Such activities will facilitate knowledge exchange, encourage the replication and uptake of solutions, and maximise impact.

³⁵⁷ <u>https://built4people.eu/b4pic_network/</u>

³⁵⁸ https://circular-cities-and-regions.ec.europa.eu/ccri-projects

This action supports the follow-up to the July 2023 Communication on EU Missions assessment³⁵⁹.

HORIZON-MISS-2026-06-CLIMA-SOIL: Joint demonstration of solutions to build soil resilience to extreme weather events and support food security

Call: Joint Call between the Soil Deal for Europe Mission and the Adaptation to Climate Change Mission		
Specific conditions		
Expected EU contribution per project	The Commission estimates that an EU contribution of around EUR 10.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.	
Indicative budget	The total indicative budget for the topic is EUR 20.00 million.	
Type of Action	Innovation Actions	
Technology Readiness Level	Activities are expected to achieve TRL 6-8 by the end of the project – see General Annex B. Activities may start at any TRL.	
Eligibility and admissibility conditions	Proposals must apply the multi-actor approach. See definition of the multi-actor approach in the introduction of the Mission Soil work programme part. Demonstrations must take place in the territory of at least 3 different regional or local authorities, each established in a different Member State or Associated Country.	
	State of Associated Country.	

<u>Expected Outcome</u>: Activities under this topic will support the <u>EU Vision for Agriculture and</u> <u>Food</u>, the <u>EU Soil Strategy for 2030</u>, including the implementation of the Soil Monitoring and Resilience Directive, the EU Adaptation Strategy, the Water Resilience Strategy, and the forthcoming European Climate Adaptation Plan.

Project results are expected to contribute to <u>all</u> the following expected outcomes:

- enhanced monitoring of soils at subnational level (e.g. regions and municipalities) leading to an overall improved soil resilience against extreme weather events, particularly in terms of soils' capacity to withstand and recover from floods, droughts, heatwaves and broader temperature fluctuations;
- tailored soil management practices and solutions that improve soil health are adopted, promoting sustainable land management, enhancing food system resilience, including

³⁵⁹ COM(2023) 457 final and SWD(2023) 260 final

food security³⁶⁰, and strengthening the overall resilience of agricultural systems to current and future climate extreme events.

<u>Scope</u>: Developing and scaling practical solutions to enhance soils' resilience to extreme weather events is crucial for climate change adaptation. As extreme weather events like droughts, heavy rainfall and flooding, heatwaves and other temperature anomalies (e.g. unseasonal frosts) become more frequent, widespread and severe, they pose significant threats to soil health, agricultural productivity, and food security at large. This is due to, *inter alia*, soil erosion, nutrient leaching, increased salinisation, loss of soil organic carbon, reduction or loss of microbial activity, waterlogging and oxygen depletion, depending on the type of extreme weather event considered. Strengthening soils' resilience at farm and landscape levels, considering also the context, e.g., in terms of governance (rules and institutions), is vital to cope with these challenges. Creating a framework that suits different pedoclimatic conditions and regions should help ensure that the best approaches are put in place to maintain food security and promote sustainable farming practices, and that overall landscape resilience to these events is enhanced.

Proposals should:

- develop, test and demonstrate a range of solutions, including agroecology and naturebased solutions, that improve soils' resilience to extreme weather events, while applying a systems-thinking approach and addressing interactions across farm, landscape, and governance levels. Describe how such solutions would support food security³⁶¹, for example by preserving soil productivity and reducing yield volatility caused by extreme weather events, thereby ensuring more stable, affordable, safe and nutritious food supply;
- develop and deploy an integrated transdisciplinary framework to facilitate replication and scale-up of the above solutions. Enhanced involvement of relevant public authorities and stakeholders (including to integrate local knowledge) at different management levels, from farm to landscape levels, and exploring innovative and scalable business models that support resilience of food systems and food security also in the long term;
- develop a replicable methodology to assess the impact of extreme weather conditions on soil ecosystem services, including water retention and quality, across different regions. The framework should be designed with, and for the uptake of local authorities, stakeholders, and land managers to assess and manage the impacts on soil services in the area;
- disseminate good practices to key stakeholders and practitioners to support informed decision-making and adaptive land management.

³⁶⁰ Food security exists when all people, at all times, have physical and economic access to sufficient safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life (FAO, 1996)

³⁶¹ Food security exists when all people, at all times, have physical and economic access to sufficient safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life (FAO, 1996)

Demonstration sites and related activities

The Soil and Adaptation Missions encourage collaborations between regional and local authorities facing similar challenges and considers this to be a very efficient approach to secure a large impact. Therefore, the demonstration activities of the proposals:

- must take place in the territory of **at least 3 different regional or local authorities**, each established in a different Member States or Associated Country;
- should already identify at least **3 "replicating" regional or local authorities from 3 different Member States or Associated Countries**, interested in reapplying the lessons learnt (totally, partially or with the required adjustments) in their territories. For the replication, the consortium could include one or more partners that would provide support for the technical exchanges and the knowledge uptake in the "replicating" regions or local authorities. Replicating regions are not necessarily expected to carry out on the ground activities already in the course of the project. However, replicating regions should at least prepare the theoretical framework for replicating the successful solutions, and explore means to fund the implementation of those solutions.

Links to the Missions and to other projects and initiatives

Proposals should include a mechanism and the resources to establish operational links and collaboration with the Mission Adaptation's Implementation Platform (including on monitoring). Projects funded under this topic will be expected to participate in the Adaptation Mission Community of Practice.

Applicants should acknowledge these requests and already account for them in their proposal, making adequate provisions in terms of resources and budget to engage and collaborate with the Missions.

Proposals should build (when relevant) upon existing and emerging knowledge³⁶² and solutions designed and developed from previous projects and from initiatives³⁶³ addressing the nexus between climate change adaptation, soil and food, funded by EU and national programmes, in particular the European Union Framework programmes for Research and Innovation (such as Horizon 2020 and Horizon Europe under their different pillars and clusters), and the LIFE programme.

Projects must apply the multi-actor approach to ensure the reliability, relevance, and societal impact of their outcomes by involving a diverse range of stakeholders throughout the entire

³⁶² Such as from projects funded under HORIZON-MISS-2025-05-SOIL-03: Increasing environmental resilience through a better knowledge and management of the soil-water nexus, HORIZON-MISS-2023-CLIMA-01-01: Testing and demonstrating transformative solutions increasing climate resilience of the agriculture and/or forestry sector, HORIZON-MISS-2023-CLIMA-OCEAN-SOIL-01: Joint demonstration of an integrated approach to increasing landscape water retention capacity at regional scale, and other relevant projects funded under Cluster 5 and Mission Adaptation.

³⁶³ Such as, when published, the upcoming Guidance on Climate Resilient Landscape by the European Commission.

project lifecycle, promoting co-creation and facilitating the acceptance and adoption of innovative solutions³⁶⁴.

Proposals should also demonstrate a route towards open access, longevity, sustainability and interoperability of knowledge and outputs through close collaboration with the <u>EU Soil</u> <u>Observatory</u> and the <u>SoilWise</u> project.

HORIZON-MISS-2027-07-CLIMA-CIT-NEB-01: Urban nature: supporting restoration of urban ecosystems, along urban transport networks and in the built environment

Call: Joint Call between the Climate-Neutral and Smart Cities Mission and the Adaptation to Climate Change Mission		
Specific conditions		
<i>Expected EU</i> <i>contribution per</i> <i>project</i>	The Commission estimates that an EU contribution of around EUR 10.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.	
<i>Indicative budget</i> The total indicative budget for the topic is EUR 40.00 mi		
Type of Action	Innovation Actions	
Eligibility conditions	The conditions are described in General Annex B. The following exceptions apply: The following additional eligibility criteria apply: Entities from at least four cities, each from a different Member State or Associated Country, must participate as beneficiaries. At least one of the four cities must be one of the 112 cities selected for the EU Mission on Climate-neutral and Smart Cities ³⁶⁵ and at least one must be a	
Technicker	signatory to the Adaptation Mission Charter ³⁶⁶ .	
Technology Readiness Level	Activities are expected to achieve TRL 7-8 by the end of the project – see General Annex B.	
Legal and financial set-up of	The rules are described in General Annex G. The following exceptions apply:	

³⁶⁴ See the introduction of the Mission Soil work programme part

³⁶⁵ The EU Mission on Climate-Neutral and Smart Cities aims to deliver 100 climate-neutral and smart cities by 2030 and ensure that these cities act as experimentation and innovation hubs to enable all European cities to follow suit by 2050. On 28 April 2022, the Commission announced the 100 EU cities that will participate in the Mission. In addition, 12 cities have been selected from countries associated or expected to be associated the Horizon Europe programme.

³⁶⁶ See the list of Charter Signatories https://climate-adapt.eea.europa.eu/en/mission/the-mission/regionsand-local-authorities

the Grant Agreements	Grants awarded under this topic will be linked to the following action(s):	
	*	

Expected Outcome: Projects are expected to contribute to all of the following outcomes:

- Development of approaches, tools and methods, on how and where to restore, increase and maintain urban green space and tree canopy cover to achieve the greatest positive impacts - on climate mitigation, adaptation and resilience, biodiversity, soil, air and water quality, quality of life, and human health.
- Uptake and deployment of solutions to map, restore, increase and maintain urban green space and tree canopy cover, via pilot sites in lead cities, including along urban transport networks³⁶⁹.
- Monitoring, evaluation and assessment of the environmental, economic, social and health impacts of the solutions deployed in pilot sites, including co-benefits.
- Dissemination of results to follower cities and relevant target groups in other countries and cities.

<u>Scope</u>: To address the expected outcomes, individual projects will be required to address all the following aspects, with at least three in each pilot site:

- Develop and test approaches, tools and methods to understand how different patterns of urban green space and tree canopy cover impact on local temperature regulation / heat island effect, biodiversity, water scarcity, stormwater and landslide management, local air quality; and how changing / increasing the distribution / quantity / quality / connectivity of urban green space and tree canopy cover could help build more resilient and biodiverse urban ecosystems.
- Identify obstacles and barriers limiting the development of urban green spaces and tree planting / maintenance, including governance aspects, interface issues between green

³⁶⁷ Conceived through the Horizon 2020 project NetZeroCities - Accelerating cities' transition to net zero emissions by 2030, Grant Agreement n. 101036519, and scaled up through the topic HORIZON-MISS-2021-CIT-02-03: Framework Partnership Agreement (FPA) for the Climate-Neutral and Smart Cities Mission Platform.

³⁶⁸ Initially established by <u>MIP4Adapt</u> and extended under the contract CINEA/2025/OP/0014

³⁶⁹ Urban transport networks can include streets, roads, car parks, public transport systems, pavements, waterways and other non-motorized transport infrastructure.

structures and underground infrastructure (underground pipes, etc.) and overall root growth and survival, water scarcity and the shortage of supplies of native tree seedlings. Develop innovative solutions that address such barriers and ensure the sustainability of urban green spaces and trees.

- Develop innovative measures and practices to increase urban green space and tree canopy cover, with consideration of what types of trees or other plants are best suited to enhancing local biodiversity, prioritizing native species, supporting climate mitigation and adaptation, improving human health and quality of life while ensuring connectivity to avoid isolated or fragmented solutions.
- Explore multifunctional solutions, addressing infrastructure and urban planning that can bring co-benefits on aspects such as managing stormwater, enhancing biodiversity, providing recreational spaces, sheltering from extreme weather, reducing inequitable access to nature, improving air quality, reducing noise.

All projects are required to

- deploy innovative measures and practices to increase urban green spaces and/or tree canopy cover in at least two pilot sites in two *lead* cities, including at least one pilot site along an urban transport network or in the built environment.
- involve local communities, including disadvantaged groups, and local stakeholders, including public and private land and property owners, in the design and development of these measures and practices
- monitor, evaluate and assess the environmental, economic, social and health impacts of the measures taken in the pilot sites³⁷⁰.
- outline plans for ensuring the sustainability and legacy of the efforts beyond the project's duration.

Each project funded under this topic must involve entities³⁷¹ from at least four cities, each from a different Member State or Associated Country. At least one of the four cities must be one of the 112 cities selected for the EU Mission on Climate-neutral and Smart Cities³⁷² and at least one must be a signatory to the Adaptation Mission Charter³⁷³. Pilot sites should be created in at least two *lead* cities, and structured engagement should take place with at least two *follower*

³⁷⁰ Environmental impacts should include at least: air-water-soil quality, ambient temperature, biodiversity, noise. Economic impacts should include at least: energy costs, maintenance costs, impact on local businesses, job creation. Social impacts should include at least citizen perception, impacts on disadvantaged groups, public health, personal safety.

³⁷¹ For example competent authorities for environment, transport, planning or housing.

³⁷² The EU Mission on Climate-Neutral and Smart Cities aims to deliver 100 climate-neutral and smart cities by 2030 and ensure that these cities act as experimentation and innovation hubs to enable all European cities to follow suit by 2050. On 28 April 2022, the Commission announced the 100 EU cities that will participate in the Mission. In addition, 12 cities have been selected from countries associated or expected to be associated the Horizon Europe programme.

³⁷³ See the list of Charter Signatories https://climate-adapt.eea.europa.eu/en/mission/the-mission/regionsand-local-authorities

cities to share best practices. Proposals should review, build on and connect to other relevant projects funded by Horizon Europe, Horizon 2020 and LIFE, to avoid overlaps or contradicting conclusions³⁷⁴.

To increase impact and coherence, proposals should include a mechanism and the resources to establish operational links and collaboration/coordination with the 'Climate-Neutral Smart cities' Mission platform, the Adaptation Mission Implementation Platform³⁷⁵ and the 'New European Bauhaus hub for results and impact'. Collaboration with these Platforms is essential, and projects must ensure that appropriate provisions for activities and resources aimed at enforcing this collaboration are included in the work plan of the proposal.

The selected projects will engage in clustering activities with other relevant projects supported under the Climate-Neutral and Smart Cities and Climate Adaption Missions as well as the New European Bauhaus Facility to promote synergies and complementarities. Synergies should also be explored and, as appropriate, pursued with other relevant initiatives, such as the Green City Accord, European Green Capital / Leaf Awards, LIFE projects, European Urban Initiative and the Covenant of Mayors.

This action supports the follow-up to the July 2023 Communication on EU Missions assessment³⁷⁶. It also supports the implementation of the Nature Restoration Regulation.

HORIZON-MISS-2027-07-CLIMA-CIT-CCRI-02: Deploying innovative wastewater management, treatment and valorisation solutions in European cities and regions in the context of climate change

Call: Joint Call between the Climate-Neutral and Smart Cities Mission and the Adaptation to Climate Change Mission		
Specific conditions		
Expected EU contribution per project	The Commission estimates that an EU contribution of around EUR 9.50 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.	
Indicative budget	The total indicative budget for the topic is EUR 28.50 million.	
Type of Action	Innovation Actions	
Eligibility conditions	The conditions are described in General Annex B. The following exceptions apply:	

³⁷⁴ Including *inter alia* projects under the call HORIZON-MISS-2023-CLIMA-CITIES-01-01 <u>Urban</u> greening and re-naturing for urban regeneration, resilience and climate neutrality, and LIFE VEG-GAP on urban vegetation, heat island effect and biogenic ozone precursors LIFE18-PRE-IT-003)) and LIFE SIRIUS (LIFE 3.0 - LIFE21-GIE-EL-LIFE-SIRIUS/101074365.

³⁷⁵ Initially established by <u>MIP4Adapt</u> and extended under the contract CINEA/2025/OP/0014

³⁷⁶ COM(2023) 457 final and SWD(2023) 260 final

The following additional eligibility criteria apply: Entities from at least four cities or regions, each from a different Member State or Associated Country, must participate as beneficiaries. At least one entity in each project must be from one of the 112 cities selected for the EU Mission on Climate-neutral and Smart Cities ³⁷⁷ and at least one must be from a signatory to the Adaptation Mission Charter ³⁷⁸ .
Activities are expected to achieve TRL 7-8 by the end of the project – see General Annex B.
The rules are described in General Annex G. The following exceptions apply: Grants awarded under this topic will be linked to the following action(s):
Collaboration with the Cities Mission Platform ³⁷⁹ and the Mission Adaptation's Platform ³⁸⁰ is essential and projects must ensure that appropriate provisions for activities and resources aimed at enforcing this collaboration are included in the work plan of the proposal. The collaboration with the Mission Platform must be formalized through a Memorandum of Understanding to be concluded as soon as possible after the project starting date.

Expected Outcome: Projects are expected to contribute to all of the following outcomes:

- Cities and regions are equipped with innovative practices for urban wastewater management, adapted to climate change, taking into account: energy efficiency, energy and secondary raw material recovery and water reuse, including opportunities for renewable energy generation and secondary resource production, implemented at city and regional level.
- Treatment infrastructures and management solutions are deployed and upscaled for water, storm water and wastewater in cities and regions, with positive effects on climate

³⁷⁷ The EU Mission on Climate-Neutral and Smart Cities aims to deliver 100 climate-neutral and smart cities by 2030 and ensure that these cities act as experimentation and innovation hubs to enable all European cities to follow suit by 2050. On 28 April 2022, the Commission announced the 100 EU cities that will participate in the Mission. In addition, 12 cities have been selected from countries associated or expected to be associated the Horizon Europe programme.

³⁷⁸ See the list of Charter Signatories https://climate-adapt.eea.europa.eu/en/mission/the-mission/regionsand-local-authoritie

³⁷⁹ Conceived through the Horizon 2020 project NetZeroCities - Accelerating cities' transition to net zero emissions by 2030, Grant Agreement n. 101036519, and scaled up through the topic *HORIZON-MISS-2021-CIT-02-03: Framework Partnership Agreement (FPA) for the Climate-Neutral and Smart Cities Mission Platform.*

³⁸⁰ Initially established by <u>MIP4Adapt</u> and extended under the contract CINEA/2025/OP/0014

adaptation, biodiversity, air and water pollution reduction, resource valorisation and energy efficiency.

- Knowledge is disseminated about innovative practices, governance and business models for integrated (waste)water management, in the context of climate change among relevant stakeholder groups to facilitate effective replication and upscaling.
- Actionable insights are developed to support European cities and regions in addressing the main administrative, governance and financing barriers for rain- and waste-water management, recovery of resources (secondary raw materials, water and energy) and their (market) valorisation.

<u>Scope</u>: This topic supports the implementation of the <u>EU Mission Climate-Neutral Smart Cities</u>, <u>EU Mission on Adaptation to Climate Change</u> as well as the EU <u>Circular Cities and Regions</u> <u>Initiative</u> (CCRI). It aims to support the water sector in European cities and regions in accelerating their climate neutral, climate resilient and circular transition.

The recast EU Urban Wastewater Treatment Directive³⁸¹ introduces new requirements on energy neutrality at national level for urban wastewater treatment plants treating population equivalents of over 10,000 (UWWTPs). It also requires management plans for stormwater overflows, and consideration of circular economy measures to stimulate the reuse of nitrogen, phosphorus and water.

Investment in wastewater infrastructure is very costly and often focuses on wastewater collection and treatment. To optimise this investment, it is important to explore holistic and integrated approaches taking into account extreme weather events and combining land use to better manage rain run-off, wastewater characteristics to optimise recovery of resources (secondary raw materials, water and energy), and knowledge of the sewer network to avoid pollution events linked to stormwater overflows and contamination of recovered products. Adding a regional dimension could also pool resources between smaller wastewater utilities.

To address these needs, proposals will be required to develop integrated approaches to address at least three of the following aspects:

- Demonstrate nature-based solutions e.g. vegetated ditches, treatment wetlands and storage ponds designed to support biodiversity and favour infiltration and where possible to harvest rainwater for reuse at city and regional level, while addressing the effects of climate change.
- Implement sustainable urban drainage principles and green-blue storm water management solutions to avoid and reduce pollution from rain and storm water, including during extreme weather events.

³⁸¹ Directive (EU) 2024/3019 of the European Parliament and of the Council of 27 November 2024 concerning urban wastewater treatment (recast)

- Implement energy efficiency and recovery measures and technologies from sewers and/or one or multiple UWWTPs by pooling resources; this can include renewable energy from solar energy production, waste heat recovery or biogas production from sludge.
- Explore the pooling of resources at regional level to rationalise investment in resource recovery technologies and address the associated regulatory barriers through local end-of-waste criteria.

All projects should:

- incorporate solutions for the reuse of (waste)water, addressing the increased pressures on the availability of water resources.
- conceptualise, implement and test possible combinations of urban wastewater treatment, valorisation and reuse processes in selected European cities and regions (referred to as "demonstrators").
- identify the enabling conditions, e.g. legislative, regulatory, policy, governance, financing, that support the deployment of these tested solutions in other European cities and regions (the "replicators").
- develop actionable insights that European cities and regions can use to overcome barriers to wastewater reuse and valorisation, and allow further replication and upscaling.

Each project funded under this topic must involve entities from at least four cities or regions, each from a different Member State or Associated Country, with on-the-ground testing in at least two *demonstrator* cities/regions, and engagement with at least two *replicator* cities/regions to identify enabling conditions for wider deployment. In the participating cities or regions the local water management organisation should be part of the consortium. At least one entity in each project must be from one of the 112 cities selected for the EU Mission on Climate-neutral and Smart Cities³⁸² and at least one must be from a signatory to the Adaptation Mission Charter ³⁸³.

Projects are encouraged to engage in clustering activities with other relevant Horizon Europe projects that share a common theme and address similar issues, and/or are connected to the Climate Neutral and Smart Cities and Climate Adaptation Missions as well as the CCRI. To this end, proposals should include a dedicated task, allocate appropriate resources, and develop a plan for collaboration with relevant projects, partners, and initiatives. Moreover, proposals are expected to ensure that their dissemination and exploitation strategies feature dedicated (and possibly joint) actions for promoting their results and lessons learned on relevant platforms,

³⁸² The EU Mission on Climate-Neutral and Smart Cities aims to deliver 100 climate-neutral and smart cities by 2030 and ensure that these cities act as experimentation and innovation hubs to enable all European cities to follow suit by 2050. On 28 April 2022, the Commission announced the 100 EU cities that will participate in the Mission. In addition, 12 cities have been selected from countries associated or expected to be associated the Horizon Europe programme.

³⁸³ See the list of Charter Signatories https://climate-adapt.eea.europa.eu/en/mission/the-mission/regionsand-local-authorities

such as the Cities Mission Platform, the Mission on Adaptation Platform³⁸⁴ and CCRI website, and through related channels. Such activities will facilitate knowledge exchange, encourage the replication and uptake of solutions, and maximise impact. Synergies should be explored and, as appropriate, pursued with other relevant initiatives, such as the Green City Accord, European Urban Initiative, Hubs4Circularity, the Covenant of Mayors Europe and the New European Bauhaus.

Proposals should ensure due consideration of the requirements of the Urban Wastewater Treatment Directive, of work performed or underway in other relevant Horizon Europe funded projects, including under the Water4All co-funded partnership, and take account of the European Water Resilience Strategy.

This action supports the follow-up to the July 2023 Communication on EU Missions assessment³⁸⁵.

HORIZON-MISS-2027-06-SOIL-CANCER: Living labs to monitor and mitigate carcinogenic substances in and originating from soils: Evaluating their effects on human cancer risks

Call: Joint Call between the Soil Deal for Europe Mission and the Cancer Mission		
Specific conditions		
Expected EU contribution per project	The Commission estimates that an EU contribution of around EUR 12.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.	
Indicative budget	The total indicative budget for the topic is EUR 24.00 million.	
Type of Action	Research and Innovation Actions	
Legal and financial set-up of the Grant Agreements	The rules are described in General Annex G. The following exceptions apply: Beneficiaries may provide financial support to third parties to facilitate active involvement of smaller actors (e.g. land managers and owners such as farmers, SMEs or civil society) in one or more of the living labs of the project. The support to third parties can only be provided in the form of grants (further to calls or, if duly justified, without a call for proposals). The maximum amount to be granted to each third party is EUR 60 000.	

³⁸⁴ Initially established by <u>MIP4Adapt</u> and extended under the contract CINEA/2025/OP/0014

³⁸⁵ COM(2023) 457 final and SWD(2023) 260 final

Eligibility and	Proposals must apply the multi-actor approach. See definition of the				
admissibility	multi-actor approach in the introduction of the Mission Soil work				
conditions	programme part.				

Expected Outcome: Activities under this topic will directly progress towards the goal of the Mission Soil to set up 100 living labs and lighthouses to lead the transition to healthy soils by 2030. Activities will also contribute to the goal of the Cancer Mission, i.e.: 'to improve the lives of more than 3 million people by 2030, through prevention, cure and for those affected by cancer including their families, to live longer and better'. Activities should also contribute to meeting the European Green Deal ambitions and targets and more specifically those of the <u>EU</u> Biodiversity Strategy for 2030, the <u>EU Soil Strategy for 2030</u>, the <u>Proposal for a Soil Monitoring and Resilience Directive</u>, the Zero Pollution Action Plan, the <u>Europe's Beating Cancer Plan</u>, the <u>One Health approach</u>, theEuropean Health Data Space, as well as to the Sustainable Development Goals³⁸⁶.

Project results are expected to contribute to <u>all</u> the following expected outcomes:

- increased capacities for participatory, interdisciplinary and transdisciplinary research and innovation to co-create, and co-implement economically viable soil health solutions tailored to soils contaminated or at risk of contamination by carcinogenic substances;
- enhanced understanding of the environmental pathways through which these substances affect humans and the food chain, and the links (drivers and processes) between carcinogenic substances³⁸⁷ in soil and cancer incidence, mortality and prevalence in humans

<u>Scope</u>: Environmental and occupational cancer risks are estimated to contribute to over 10% of the total cancer burden in Europe, with soil pollution by carcinogenic substances, such as PFAS and heavy metals like arsenic and cadmium, posing significant concerns for human and environmental health ³⁸⁸. However, the complex relationships between land management practices, soil parent material, soil properties, and presence of carcinogenic substances remain largely unknown. Moreover, significant knowledge gaps exist regarding the bioaccumulation and transfer processes of soil pollutants into the food chain, water, and air, the pathways of human exposure and the impact of such exposure on cancer incidence, mortality and prevalence.

Projects under this topic are intended to expand and complement the network of Mission Soil living labs and lighthouses initiated with projects funded under Work Programmes 2023, 2024 and 2025 of the Mission Soil, with the aim of gradually establishing 100 living labs and lighthouses to lead the transition towards healthy soils by 2030.

The Mission Soil proposes a novel approach to research and innovation in the area of soil health, including the implementation of living labs. Living labs have the potential to facilitate a green

³⁸⁶ In particular SDG 3- Good health and well-being, and SDG 15 – Life on Land.

³⁸⁷ Such as PFAS, heavy metals, and pesticides.

Beating cancer — the role of Europe's environment — European Environment Agency

and fair transition by involving multiple actors in real-life sites within a local/regional setting to co-create soil health solutions and achieve large-scale impacts on soil health and soil governance.

Living labs are long-term collaborations between multiple actors to address common soil health challenges in real-life sites at local or regional level (10 to 20 sites in each living lab). Living labs can address soil health challenges in or across different land uses (agricultural, (peri-)urban, (post)-industrial, forest and (semi-)natural). Depending on the level at which each living lab operates and the specific context (e.g. land use covered or soil health challenge addressed), applicants can exceptionally propose living labs with fewer sites. Individual sites can be farms, forest holdings, urban green areas, industrial areas, etc. Sites that are exemplary in their performance in terms of soil health improvement and serve as places for demonstration of solutions, training and communication are lighthouses. Lighthouse sites can be part of a living lab or be situated outside a living lab. Projects funded under this topic are expected to kick-start the participatory process. If building on existing processes, the new proposed living labs should complement the existing network of Mission Soil Living Labs and deliver unique project results. While on average projects run for around four years, the duration of the projects under this topic should accommodate longer timescales required to establish participatory processes and/or for soils processes to take place.

Actors working on common shared soil health challenges within and across the living labs of the same project, will be able to compare results, exchange good practices, validate methodologies, replicate actions and solutions and benefit from cross-fertilisation, thereby accelerating the transition towards the shared objective of improving soil health.

Proposals should:

- support the establishment of four to five research-and-innovation-centred living labs to work together across different land uses to: 1) deliver research-based remediation solutions for soil contamination by carcinogenic substances; 2) investigate link between carcinogenic substances³⁸⁹ in soil and transfer of pollutants from soil to humans (e.g. via air, water, or the food chain), and long-term impact on cancer incidence, mortality and prevalence in humans. Proposed solutions should be adapted to the different environmental, socio-economic and cultural contexts in which the living labs are operating. Living labs should be located in at least three different Member States and/or Associated Countries. Special attention should be given to their regions with the greatest need (hotspots of carcinogenic substances³⁹⁰). Proposals should explain the rationale and mechanism for cooperation within and across the living labs.
- establish an interdisciplinary, participatory and multi-actor approach in the living labs to co-implement locally adapted solutions to isolate, immobilise, reduce and/or eliminate carcinogenic substances to and from soils, and to monitor how these solutions affect the

³⁸⁹ Such as PFAS, heavy metals, and pesticides.

³⁹⁰ PFAS contamination and soil remediation (Signal) | European zero pollution dashboards

pathways of carcinogenic substances in soils within the soil-water-air nexus and its mobility and uptake in the food chain;

- establish for each living lab a baseline of the soil conditions (both naturally occurring and exogenous contaminants) to allow an accurate monitoring of soil health improvements over time and across the different sites of the living lab, as well as the impact of research-based remediation solutions on pathways of soil carcinogenic substances within the soil-water-air nexus and its mobility and uptake in the food chain. The set of soil health indicators/descriptors presented in the proposal for a <u>Directive on Soil Monitoring and Resilience</u> should be used as a basis; proposals may complement with additional indicators tailored to the addressed soil health challenge(s), pedoclimatic conditions, land use, and other local/regional factors;
- analyse bioavailable fractions of contaminants, their potential bioaccumulation in crops; identify most critical exposure pathways of carcinogenic substances in soils within the soil-water-air nexus and its mobility and uptake in the food chain; analyse its correlation with the incidence and prevalence of cancer in humans across the different sites of the living labs using biomonitoring of contaminants (individually and in combination) in humans ³⁹¹, combine this research with modeling and desk research, integrating environmental pollution data with health outcome data, for example using data from HBM4EU, from regional or national cancer registries and in collaboration with local health authorities, research institutions, and community organizations;
- demonstrate the technical, social, economic, cultural and environmental viability of the proposed solutions, as well as their potential scalability and transferability to diverse contexts;
- identify high performing sites that may be converted into lighthouses. Engage with the <u>SOILL</u> project to assess the growth and development of these lighthouses and to support the establishment of a labelling process that could formally recognize these exemplary sites as lighthouses;
- propose strategies (e.g., financial, organisational) to ensure the long-term sustainability of the established living labs beyond Horizon Europe funding. Strategies should include business models and actions involving a mix of public or private funding schemes, financial instruments, cooperation with local authorities, engagement of social economy entities, social enterprises, business communities, SMEs, or attracting investors and entrepreneurs.

In line with the nature of living labs, projects must adopt the multi-actor approach. The actors involved in each living lab may vary based on its unique characteristics, and may include, among others, researchers, landowners or land managers, industry representatives (e.g. SMEs), public administrators and civil society (e.g. consumers, local residents, environmental NGOs,

³⁹¹ Researchers must ensure that participants are fully aware of the purpose, risks, and benefits of the study and obtain their consent before proceeding.

youth organisations). Care should be taken to describe the capabilities, roles and resources of the different actors involved in the living labs. An effective contribution of social sciences and humanities (SSH) is expected to foster social innovation, knowledge transfer and socio-cultural and behavioural change.

To encourage and facilitate the involvement of different types of actors in the living labs, applicants are reminded of the different types of participation possible in a project under Horizon Europe. This includes not only beneficiaries (or their affiliated entities) but also associated partners, third parties giving in-kind contributions, subcontractors and recipients of financial support to third parties³⁹². Financial support to third parties (FSTP) to facilitate active involvement of small actors (e.g. land managers, landowners, SMEs or civil society) in one or more of the living labs of a project, can be provided through calls, or, if duly justified, without a call for proposals. Eligible activities that could be funded include those related to site management, implementation, or monitoring of soil health solutions, such as hourly rates for data collection, sampling, or participation in events, knowledge exchange, capacity building, or demonstration and awareness initiatives, as well as equipment and compensation for loss of production. Applicants are advised to consult the standard conditions set out in Annex B of the General Annexes, including those that apply to FSTP.

Dedicated tasks and appropriate resources should be envisioned to collaborate with <u>SOILL</u>, the structure created to support soil health living labs and lighthouses which offers significant capacity building opportunities for the living labs actors. Applicants can benefit from the services of <u>SOILL</u> already during the proposal preparation stage.

Applicants should take into consideration the work done under relevant related EU projects, including on endocrine disruptors and health (EURION and ENKORE), micro- and nanoplastics and health (CUSP), PFAS (PROMISCES, SCENARIOS and ZeroPM), soil contamination (ARAGORN and other relevant Mission Soil projects) and the Partnership for the Assessment of Risks from Chemicals (PARC). Work done by the JRC Cancer Knowledge Centre should also be considered.

Dedicated tasks and appropriate resources should be envisioned to collaborate with the <u>EU Soil</u> <u>Observatory</u> (EUSO) and other relevant Mission Soil projects. In particular, proposals should ensure that relevant data, maps and information can potentially be available publicly through the EUSO maps and information can potentially be available publicly through the EUSO and the Cancer Data Space. Concrete efforts should be made to ensure that the data produced in the context of the funded project is FAIR (Findable, Accessible, Interoperable and Re-usable).

³⁹² To explore the full range of options including what type of costs and activities are eligible to be funded under Horizon Europe, applicants should refer to the AGA – Annotated Model Grant Agreement https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/common/guidance/aga_en.pdf

Cross-cutting activities

EU Missions are designed to tackle some of the most pressing societal challenges in Europe through coordinated action at various governance levels.

To enhance the effectiveness and impact of the Missions, cross-cutting activities are essential. These activities not only foster synergies across different Mission areas but also embed EU Missions into local research and innovation (R&I) plans and activities.

Through initiatives like the Mission Integration Award and the Mission Engagement Award, the European Commission seeks to incentivise and reward innovative and coordinated efforts by national and local authorities. These awards promote the integration of EU Missions into existing programmes, the valorisation of knowledge, and the involvement of citizens.

By incentivising the development of comprehensive plans and recognising past achievements, these awards aim to stimulate multi-level collaboration, inspire best practices, and encourage national states and regions to establish robust structures for implementing the Missions across Europe.

Prizes

1. Mission Integration Award

Expected outcomes:

- Reward the coordination of actions at national and regional level to embed the EU Missions in local R&I plans and activities
- Reward the planification of co-funding actions at national and regional level to embed the EU Missions in local R&I plans and activities
- Bridge research and innovation actions with thematic policy activities in the areas addressed by the EU Missions

EU Missions aim to tackle complex societal challenges through coordinated action across EU, national, regional and local levels. Engagement at national and regional levels is therefore essential for the success of EU Missions, as it ensures alignment with local priorities and needs, mobilises key actors, and supports the deployment of solutions on the ground. Such strong multi-level cooperation enables the more effective implementation, greater impact, and lasting change that EU Missions call for.

The Mission Integration Award calls on national and local authorities to devise and deploy new activities to implement EU Missions. The contestants are invited to submit their plans to support one or several of the following areas:

• Integrate further the EU Missions in programmes at national and local level.

- Bridging between research and innovation activities and other thematic policies, activities and frameworks beyond R&I
- Coordinate national or regional level activities supporting EU Missions
- Deploying solutions on the ground for the achievement of EU Missions' objectives
- Engage citizens on the thematics covered by EU Missions

The award is organised as an open contest for proposals, and MS/ACs and local authorities can propose plans that either address a single Missions, several Missions, or all five of them. This is to ensure that creative proposals can be submitted without prejudice to the specificities of each local context.

Due to the scale of the proposed plans, MS/ACs and regional authorities are encouraged to propose solutions to adequately finance their plans beyond the amount that would be awarded in the context of the prize. Securing additional funding beyond the award amount will be viewed as a strength in the evaluation process, reflecting the plan's ambition and implementation potential.

Four types of awards will be open to submission, based on the different sets of entities and priorities:

- 1. Ecosystems for MS/ACs: authorities are invited to submit plans for activities aiming at fostering synergies between the R&I authorities and other ministries and agencies focused on the five topics addressed by the EU Missions.
- 2. Anchoring for MS/ACs: authorities are invited to submit plans for activities to embed EU Missions in the context of other national initiatives.
- 3. Knowledge valorisation for regions: authorities are invited to submit plans for activities to exploit and deploy innovative solutions in their local context.
- 4. Citizen engagement for regions: authorities are invited to submit plans for activities engaging citizens in the context of EU Missions activities at local level.

Each prize will consist in a cash contribution to the winning MS/AC or regional authority to implement the proposed plan. The following amounts would be distributed:

- 1. Ecosystems MS/ACs: three prices of EUR 500 000
- 2. Anchoring MS/ACs: three prices of EUR 500 000
- 3. Knowledge valorisation regions: three prices of EUR 500 000
- 4. Citizen engagement regions: three prices of EUR 500 000

Essential Award Criteria:

Eligible applications will be evaluated by a Jury consisting of a group of independent experts. The prize will be awarded, after closure of the contest, to the contestants who, in the eyes of the jury, presented the plans that best tackle:

- Novelty: the initiative proposes a set of actions that have not been performed yet nationally/locally in the context of the EU Missions
- Impact: the initiative demonstrates a compelling pathway to impact and added value at national/regional level across the areas indicated in the specific categories
- Co-funding: additional funding was secured to enable a more ambitious and scalable initiative

It is essential that plans submitted under the framework of this topic do not overlap with existing activities, programmes, and structures currently functioning at the EU, national, and regional level.

Eligibility criteria:

The contestants must be:

- national ministries or agencies based in a member state of the European Union, or a country associated to Horizon Europe for the "Ecosystems" and "Anchoring" categories
- regional authorities under the Nomenclature of Territorial Units for Statistics (NUTS) level 2 for the "Knowledge valorisation" and "Citizen engagement" categories.

To ensure fairness, broad recognition, and the equitable distribution of awards, the following limitations shall apply to the allocation of prizes within this competition:

- An individual or entity that has been selected as the recipient of a prize in one category shall be deemed ineligible to receive a prize in any other category within the same competition cycle. This restriction is intended to prevent the concentration of awards and to recognize the efforts of a diverse range of participants.
- More specifically, a participant whose plan has been rewarded in the scope of the Mission Integration Award — which is intended to stimulate innovation and encourage the development of novel approaches or solutions — shall not be eligible to receive a Mission Engagement Award for the same plan, as the prize is designed to honour outstanding achievement or excellence in implementation or impact prior to the establishment of the Mission Integration Award

This exclusion shall be applied strictly. In instances where a participant may be under consideration for multiple categories, the awarding body shall exercise discretion to determine the most appropriate category in which to confer the prize, taking into account the nature of the achievement, the merit of the submission, and the overall distribution of recognition among competitors.

This action supports the follow up to the July 2023 Communication* on EU Missions assessment.* Commission Communication: EU Missions two years on: assessment of progress COM(2023) https://eur-lex.europa.eu/legaland way forward 457 final (link content/EN/TXT/?uri=CELEX%3A52023DC0457&gid=1693304388860) and Commission Staff Working Document: COMMISSION STAFF WORKING DOCUMENT EU Missions two years on: An assessment of progress in shaping the future we want and reporting on the review of Mission Areas and areas for institutionalised partnerships based on Articles 185 and 187 https://eur-lex.europa.eu/legal-TFEU SWD(2023) 260 final (link content/EN/TXT/?uri=CELEX%3A52023SC0260)

Form of Funding: Prizes

Type of Action: Inducement Prize

Indicative timetable: Q3 2026

Indicative budget: EUR 6.00 million from the 2026 budget

2. Mission Engagement Award

Expected outcomes:

- Reward engagement and innovative approaches towards and uptake of the EU Missions at the national and regional level
- Showcase best practices and inspire local authorities for the interaction between the EU Missions and the national and regional level

EU Missions aim to tackle complex societal challenges through coordinated action across EU, national, regional and local levels. Engagement at national and regional levels is therefore essential for the success of EU Missions, as it ensures alignment with local priorities and needs, mobilises key actors, and supports the deployment of solutions on the ground. Such strong multi-level cooperation enables the more effective implementation, greater impact, and lasting change that EU Missions call for.

The Mission Engagement Award wants to celebrate those national and local authorities that have gone to great efforts to support the goals of the EU Missions, translating them into actions at the national or regional level. The contestants are invited to submit past initiatives aimed at supporting one or several of the following areas:

- Integrate further the EU Missions in programmes at national and local level.
- Bridging between research and innovation activities and other thematic policies, activities and frameworks beyond R&I
- Coordinate national or regional level activities supporting EU Missions
- Deploying solutions on the ground for the achievement of EU Missions' objectives

• Engage citizens on the thematics covered by EU Missions

The award is organised as an open contest for proposals, and MS/ACs and local authorities are encouraged to submit past/ongoing activities that either address a single Missions, several Missions, or all five of them. This is to ensure that all proposals can be submitted without prejudice to the specificities of each local context.

Four types of awards will be open to submission, based on the different sets of entities and priorities:

- 1. Ecosystems for MS/ACs: authorities are invited to submit past/ongoing activities aiming at fostering synergies between the R&I authorities and other ministries and agencies focused on the five topics addressed by the EU Missions.
- 2. Anchoring for MS/ACs: authorities are invited to submit past/ongoing activities to embed EU Missions in the context of other national initiatives.
- 3. Knowledge valorisation for regions: authorities are invited to submit past/ongoing activities to exploit and deploy innovative solutions in their local context.
- 4. Citizen engagement for regions: authorities are invited to submit past/ongoing activities engaging citizens in the context of EU Missions activities at local level.

Each prize will consist in a cash contribution to the winning MS/AC or regional authority to implement the proposed plan. The following amounts would be distributed:

- 1. Ecosystems MS/ACs: two prizes of EUR 500 000
- 2. Anchoring MS/ACs: two prizes of EUR 500 000
- 3. Knowledge valorisation regions: two prizes of EUR 500 000
- 4. Citizen engagement regions: two prizes of EUR 500 000

Essential Award Criteria:

Eligible applications will be evaluated by a Jury consisting of a group of independent experts. The prize will be awarded, after closure of the contest, to the contestants who, in the eyes of the jury, presented the activities that best tackled:

- Novelty: the initiative proposes a set of actions that have not been performed yet nationally/locally before the launch of EU Missions
- Impact: the activity demonstrated direct impact at national/regional level across the areas indicated in the specific categories
- Co-financing: the activity benefitted from additional funding from actors different than the implementing authority

• Implementation: the responsible authority established an efficient and effective framework for the implementation of the activity

Eligibility criteria:

The contestants must be:

- national ministries or agencies based in a member state of the European Union, or a country associated to Horizon Europe for the "Ecosystems" and "Anchoring" categories
- regional authorities under the Nomenclature of Territorial Units for Statistics (NUTS) level 2 for the "Knowledge valorisation" and "Citizen engagement" categories.

To ensure fairness, broad recognition, and the equitable distribution of awards, the following limitations shall apply to the allocation of prizes within this competition:

- An individual or entity that has been selected as the recipient of a prize in one category shall be deemed ineligible to receive a prize in any other category within the same competition cycle. This restriction is intended to prevent the concentration of awards and to recognize the efforts of a diverse range of participants.
- More specifically, a participant whose plan has been rewarded in the scope of the Mission Integration Award — which is intended to stimulate innovation and encourage the development of novel approaches or solutions — shall not be eligible to receive a Mission Engagement Award for the same plan, as the prize is designed to honour outstanding achievement or excellence in implementation or impact prior to the establishment of the Mission Integration Award

This exclusion shall be applied strictly. In instances where a participant may be under consideration for multiple categories, the awarding body shall exercise discretion to determine the most appropriate category in which to confer the prize, taking into account the nature of the achievement, the merit of the submission, and the overall distribution of recognition among competitors.

This action supports the follow up to the July 2023 Communication* on EU Missions assessment. * Commission Communication: EU Missions two years on: assessment of progress (link https://eur-lex.europa.eu/legaland wav forward COM(2023) 457 final content/EN/TXT/?uri=CELEX%3A52023DC0457&gid=1693304388860) and Commission Staff Working Document: COMMISSION STAFF WORKING DOCUMENT EU Missions two years on: An assessment of progress in shaping the future we want and reporting on the review of Mission Areas and areas for institutionalised partnerships based on Articles 185 and 187 TFEU 260 final (link https://eur-lex.europa.eu/legal-SWD(2023) content/EN/TXT/?uri=CELEX%3A52023SC0260)

Form of Funding: Prizes

Type of Action: Recognition Prize

Indicative timetable: Q3 2027

Indicative budget: EUR 4.00 million from the 2027 budget

Public Procurements

1. Strengthening EU Missions as a policy instrument

This action complements the provision from WP25 (see HORIZON-MISS-2025-PP-02). The objective of this action is to ensure the follow up to the July 2023 Communication on EU Missions assessment. Additionally, it focuses on raising awareness and enhancing engagement among citizens and stakeholders in the EU Missions.

Action may include:

- Developing series of communication and dissemination activities to inform citizens and stakeholders on the activities of the EU Missions.
- Organising interactive in person and online events to engage citizens in the development of Missions' initiatives in the Member States and Associated countries.

Form of Funding: Procurement

Type of Action: Public procurement

Indicative budget: EUR 4.00 million from the 2026 budget

Other Budget Implementation Instruments

1. Commission expert groups: Mission Boards

The Mission Boards experts provide advice, which supports the work of the European Commission in the implementation phase of EU Missions for Horizon Europe.

The experts included in the Mission Boards are required to provide advice based on deep knowledge on fields corresponding to the implementation of mission oriented programmes corresponding to those of the missions, including knowledge in business, economic, cultural, social and environmental programmes, research and innovation and expertise in cross-sector/cross-border collaboration, governance, citizen engagement etc., as well as country and regional interests. It includes advice on achieving synergies between Horizon Europe missions and other EU programmes and policy areas, and with similar style missions at the national level, taking into account the international research and innovation field.

The advisory role of the Mission Boards is very closely managed in support of the dialogue with the Member States and countries associated to Horizon Europe, and prevent conflict of interest and respect confidentiality notably when pertaining to the Horizon Europe work programme and on evaluation aspects.

The Mission Boards provide high-level advice to the Commission of such a nature that without their input the implementation of missions would not achieve the desired large scale and breadth of impact. In light of this, and as highly qualified, specialised, independent experts, it is justified that the members of the Mission Boards are remunerated for the services they offer pursuant Article 21 of the Commission's horizontal rules on expert groups ('the horizontal rules')³⁹³.

A special allowance of EUR 450/day will be paid to the Mission Board experts appointed in their personal capacity who act independently and in the public interest. This amount is considered to be proportionate to the specific tasks to be assigned to the experts, including the number of meetings to be attended and possible preparatory work³⁹⁴.

Form of Funding: Other budget implementation instruments

Type of Action: Expert contract action

Indicative timetable: Q2 2026

Indicative budget: EUR 1.50 million from the 2026 budget

2. Use of individual experts: Mission Board Chairs

The Mission Boards Chairs (one Chair per Mission Board) have been appointed by the Director-General of DG RTD in agreement with other relevant Commission services, in order to maintain a degree of continuity with the previous Mission Boards. They are required to provide advice based on deep knowledge on fields corresponding to the implementation of mission oriented programmes corresponding to those of the missions above, including knowledge in business, economic, cultural, social and environmental programmes, research and innovation and expertise in cross-sector/cross-border collaboration, governance, citizen engagement etc., as well as country and regional interests. It includes advice on achieving synergies between Horizon Europe missions and other EU programmes and policy areas, and with similar style missions at the national level, taking into account the international research and innovation field.

The Chairs support and coordinate the work of the Mission Boards. The Chairs are also in charge of steering the work of the Mission Board according to its specific mandate. The Mission Board Chairs do not have a decision-making or executive role.

The advisory role of the Chairs is very closely managed in support of the dialogue with the Member States and countries associated to Horizon Europe, and to respect conflict of interest and confidentiality notably when pertaining to the Horizon Europe work programme and on evaluation aspects.

 $^{^{393}}$ C(2016) 3301

³⁹⁴ C(2016) 3301

The Mission Boards Chairs provide high-level advice to the Commission of such a nature that without their input the implementation of missions would not achieve the desired large scale and breadth of impact.

A special allowance of EUR 450/day will be paid to the experts appointed in their personal capacity who act independently and in the public interest.

Form of Funding: Other budget implementation instruments

Type of Action: Expert contract action

Indicative timetable: Q3 2026

Indicative budget: EUR 0.12 million from the 2026 budget

3. Commission expert groups: Mission Boards

The Mission Boards experts provide advice, which supports the work of the European Commission in the implementation phase of EU Missions for Horizon Europe.

The experts included in the Mission Boards are required to provide advice based on deep knowledge on fields corresponding to the implementation of mission oriented programmes corresponding to those of the missions, including knowledge in business, economic, cultural, social and environmental programmes, research and innovation and expertise in cross-sector/cross-border collaboration, governance, citizen engagement etc., as well as country and regional interests. It includes advice on achieving synergies between Horizon Europe missions and other EU programmes and policy areas, and with similar style missions at the national level, taking into account the international research and innovation field.

The advisory role of the Mission Boards is very closely managed in support of the dialogue with the Member States and countries associated to Horizon Europe, and prevent conflict of interest and respect confidentiality notably when pertaining to the Horizon Europe work programme and on evaluation aspects.

The Mission Boards provide high-level advice to the Commission of such a nature that without their input the implementation of missions would not achieve the desired large scale and breadth of impact. In light of this, and as highly qualified, specialised, independent experts, it is justified that the members of the Mission Boards are remunerated for the services they offer pursuant Article 21 of the Commission's horizontal rules on expert groups ('the horizontal rules')³⁹⁵.

A special allowance of EUR 450/day will be paid to the Mission Board experts appointed in their personal capacity who act independently and in the public interest. This amount is considered to be proportionate to the specific tasks to be assigned to the experts, including the number of meetings to be attended and possible preparatory work³⁹⁶.

³⁹⁵ C(2016) 3301

³⁹⁶ C(2016) 3301

Form of Funding: Other budget implementation instruments

Type of Action: Expert contract action

Indicative timetable: Q2 2027

Indicative budget: EUR 1.50 million from the 2027 budget

4. Use of individual experts: Mission Board Chairs

The Mission Boards Chairs (one Chair per Mission Board) have been appointed by the Director-General of DG RTD in agreement with other relevant Commission services, in order to maintain a degree of continuity with the previous Mission Boards. They are required to provide advice based on deep knowledge on fields corresponding to the implementation of mission oriented programmes corresponding to those of the missions above, including knowledge in business, economic, cultural, social and environmental programmes, research and innovation and expertise in cross-sector/cross-border collaboration, governance, citizen engagement etc., as well as country and regional interests. It includes advice on achieving synergies between Horizon Europe missions and other EU programmes and policy areas, and with similar style missions at the national level, taking into account the international research and innovation field.

The Chairs support and coordinate the work of the Mission Boards. The Chairs are also in charge of steering the work of the Mission Board according to its specific mandate. The Mission Board Chairs do not have a decision-making or executive role.

The advisory role of the Chairs is very closely managed in support of the dialogue with the Member States and countries associated to Horizon Europe, and to respect conflict of interest and confidentiality notably when pertaining to the Horizon Europe work programme and on evaluation aspects.

The Mission Boards Chairs provide high-level advice to the Commission of such a nature that without their input the implementation of missions would not achieve the desired large scale and breadth of impact.

A special allowance of EUR 450/day will be paid to the experts appointed in their personal capacity who act independently and in the public interest.

Form of Funding: Other budget implementation instruments

Type of Action: Expert contract action

Indicative timetable: Q3 2027

Indicative budget: EUR 0.12 million from the 2027 budget

Budget^{397 398}

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	2026 Budget (EUR million)	2027 Budget (EUR million)
Calls		
HORIZON-MISS-2026-1	82.19	
HORIZON-MISS-2026-02	126.20	
HORIZON-MISS-2026-03	119.00	
HORIZON-MISS-2026-04	85.50	
HORIZON-MISS-2026-05	34.50	
HORIZON-MISS-2026-05-two-stage	48.00	
HORIZON-MISS-2026-06	20.00	
HORIZON-MISS-2027-01		84.32
HORIZON-MISS-2027-02		117.30
HORIZON-MISS-2027-03		101.10
HORIZON-MISS-2027-04		92.32
HORIZON-MISS-2027-05		30.80
HORIZON-MISS-2027-05-two-stage		64.00
HORIZON-MISS-2027-06		24.00
HORIZON-MISS-2027-07		68.50
Other actions		

The budget figures given in this table are rounded to two decimal places.

The budget amounts are subject to the availability of the appropriations provided for in the general budget of the Union for 2026 and 2027.

³⁹⁸ The contribution from each Cluster to the Missions work programme part for the year 2026 is the following: EUR 126.70 million for Cluster 1, EUR 16.07 million for Cluster 2, EUR 9.51 million for Cluster 3, EUR 97.68 million for Cluster 4, EUR 232.59 million for Cluster 5 and EUR 148.38 million for Cluster 6.

The contribution from each Cluster to the Missions work programme part for the year 2027 is the following: EUR 124.60 million for Cluster 1, EUR 22.78 million for Cluster 2, EUR 11.51 million for Cluster 3, EUR 97.51 million for Cluster 4, EUR 234.97 million for Cluster 5 and EUR 147.27 million for Cluster 6.

Public procurement	6.05	16.00
Indirectly managed action	26.96	19.00
Grant awarded without a call for proposals according to Financial Regulation Article 195	1.00	20.00
Specific grant agreement	60.00	6.65
Provision of technical/scientific services by the Joint Research Centre	2.00	0.50
Grant to identified beneficiary according to Financial Regulation Article 195(e)	6.00	
Prize	6.00	4.00
Expert contract action	1.62	1.62
Estimated total budget	625.01	650.12