



EUROPEAN
COMMISSION

Brussels, 14.9.2026
SWD(2026) 275 final

COMMISSION STAFF WORKING DOCUMENT

EU Missions 2026

Accompanying the document

**Report from the Commission to the European Parliament, the Council, the European
Economic and Social Committee and the Committee of the Regions**

On the mid-term assessment of the EU Missions' progress, achievements and impact

{COM(2026) 467 final}

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I. INTRODUCTION

The five EU Missions were launched in 2021 as a new initiative under Horizon Europe 2021-2027 ⁽¹⁾. They address pressing societal challenges – climate change, soil and waters health, and cancer – by going beyond traditional instruments and placing research and innovation (R&I) in a new role.

EU Missions go further than traditional project-based R&I approaches. Instead, they set clear, ambitious and time-bound objectives and mobilise coordinated action around them. Individual R&I projects remain at the core of the Missions ⁽²⁾, but are integrated into a systemic approach to achieve each Mission’s goals. This allows Missions to produce societal impact and long-term transformation in line with their objectives.

The five EU Missions aim to achieve the following objectives **by 2030**:

- Climate Adaptation: support at least 150 European regions, local authorities and communities to become climate resilient.
- Cancer: improve the lives of more than 3 million people through prevention, early detection, treatment and care for not only those affected by cancer, but also their families.
- Ocean and Waters: restore the health of our ocean and waters by protecting and restoring aquatic ecosystems, reducing pollution and making the blue economy carbon-neutral and circular.
- Cities: support at least 100 cities in achieving climate neutrality, while enabling replication across Europe.
- Soil: establish 100 Living Labs to lead the transition towards healthy soils.

Missions are expected to reach their goals and enable meaningful change by improving coordination between policy domains and governance levels, promoting the participation of citizens and stakeholders, attracting investments beyond Horizon Europe and producing R&I that can be shared, scaled up and have real-life applications.

This document presents the results of an assessment of EU Missions carried out in 2025 and 2026 ⁽³⁾, assessing the progress of the five EU Missions towards their objectives (section II) and assesses how the mission-oriented approach supports their ability to produce change (section III). This parallel perspective highlights the Missions’ accomplishment to date, as well as the ecosystems that Missions created to achieve their goals.

This exercise follows up on the European Commission’s commitment to “producing a further assessment report on the implementation of EU Missions” included in the 2023 Communication “EU Missions two years on: assessment of progress and way forward” ⁽⁴⁾.

⁽¹⁾ COM(2021) 609 final

⁽²⁾ As of 28 November 2025, EU Missions have a portfolio of 306 projects funded by Horizon Europe. For 2021-2027, the Missions’ budget is EUR 4 837.09 million. Their 2024-2027 budget makes up 11% of the total budget allocated to Pillar II of Horizon Europe.

⁽³⁾ Most of the data underpinning this assessment was collected in 2025. Precise cutoff dates for specific data sources are indicated throughout the text.

⁽⁴⁾ COM(2023) 457 final

It is being published at a critical moment in the EU Missions' lifecycle. Missions are at the midpoint of their implementation timeline and have transitioned from early portfolio formation to a phase in which solutions are deployed, replicated and scaled. Compared to 2023, evidence is now available to assess their achievements and early impact. In addition, there is sufficient time in the remaining part of the lifecycle to adjust the implementation of EU Missions where needed.

The assessment finds that all EU Missions made substantial progress towards their 2030 goals. All Missions – regardless of quantitative progress towards their respective objectives – produced high-value achievements that demonstrate their positive impact on society. These include hundreds of new innovative solutions for climate adaptation, National Cancer Mission Hubs that are helping integrate the Cancer Mission's actions into health systems, the launch of the core infrastructure of the European Digital Twin Ocean, the commitment by more than 100 cities to reduce their greenhouse gas emissions by 76%, and the development of methodologies to measure and monitor soil health.

Nevertheless, for Missions to continue delivering impact in the second half of their lifecycle, they will require more effective governance at the national level and, crucially, additional tools to support the scaling and uptake of solutions after the project phase.

Importantly, the document finds that Missions developed ecosystems that support the generation, demonstration and uptake of solutions for societal challenges. These ecosystems are not only means through which Missions can advance towards their objectives. They are achievements which can be leveraged and valorised within the policy domains to which Missions contribute, and that will support continued impact on societal challenges following the lifetime of the Missions.

II. THE PROGRESS OF THE FIVE EU MISSIONS

The following section provides an overview of the EU Missions' progress towards their 2030 goals, their current impact and main achievements.

A dedicated chapter covers each Mission, which the respective Mission Secretariat prepared based on data collected via their Mission's monitoring frameworks⁽⁵⁾. Each chapter consists of an introduction to the Mission which includes an overview of its objectives and brief description of its activities, an account of the Mission's advancement towards its goals based on a selected number of progress indicators, and final remarks drawing lessons learnt and conclusions. In addition, each chapter includes a dedicated intervention logic that contextualises the progress presented in the text and details the causal chain towards the impact produced by each Mission.

Each Mission drafted its chapter in an iterative process lasting around six months which included third-party review by a contractor and guidance from the European Commission's horizontal service in charge of coordinating the EU Missions. To improve coherence, each Mission developed its chapter based on a common template. However, minor discrepancies between the chapters remain – notably owing to the different ways in which Missions are organised.

1. ADAPTATION TO CLIMATE CHANGE

1.1. Introduction to the Mission

1.1.1. Adaptation Mission and objectives

Climate change is reshaping Europe at a speed and scale that no region can ignore. Heatwaves, water scarcity, wildfires, floods and coastal erosion are now part of daily life, disrupting communities, damaging economies, and stretching public services. Building climate resilience has therefore become essential for Europe's long-term competitiveness, security and social cohesion.

The EU Mission on Adaptation to Climate Change (Mission) is at the heart of the EU's response⁽⁶⁾. It pioneers a new way of working – where R&I, political commitment, and local action are brought together with a clear, shared purpose. The Mission supports regions, local authorities, and communities (RLACs) in protecting people, ecosystems, and economies from mounting climate risks.

Its political relevance has grown through the active steering of the Mission Manager (lead policy Director at the Commission's Climate department), the involvement of Commissioner for Climate, and exchanges with the European Parliament and the Council. The Committee of the Regions and the European Economic and Social Committee further help disseminate lessons and mobilise regional and local authorities across Europe.

Now at its midpoint, the Mission has moved from ambition to concrete delivery. It helps territories translate the EU Strategy on Adaptation to Climate Change (2021)⁽⁷⁾ into real-

⁽⁵⁾ The annex provides a detailed overview of the methodology underpinning each Mission's chapter.

⁽⁶⁾ SWD(2023) 338 final

⁽⁷⁾ COM(2021) 82 final

world action – providing guidance, technical support, and innovative tools that strengthen preparedness and reduce risks. By creating a direct interface between EU institutions and local actors, the Mission has sparked momentum, deepened commitment, and fostered a growing sense of shared purpose at a moment when Europe must urgently scale up efforts on resilience, adaptation, and nature-based solutions ⁽⁸⁾.

The Mission is more than a funding programme. It has become a catalyst for coordinated climate action. It bridges the long-standing gap between scientific knowledge and implementation by connecting R&I actors – who produce solutions – with policymakers – who can deploy them. This integrated approach accelerates adaptation and strengthens Europe’s collective capacity to confront climate risks.

At the core of the Mission is a clear overarching goal: **to support at least 150 European regions, local authorities and communities to become climate resilient by 2030** (see section 1.2). To achieve this, the Mission advances three interlinked objectives:

- I. **Prepare Europe for climate disruptions:** providing general support to RLACs to better understand, prepare for, and manage climate risks.
- II. **Accelerate transition to a resilient future:** supporting at least 150 RLACs to accelerate adaptation efforts and strengthen their capacity for implementation.
- III. **Build resilience:** demonstrating on-the-ground climate resilience solutions in at least 75 RLACs and prepare them for replication.

Together, these objectives reflect the Mission’s ambition: **to shift Europe from fragmented, incremental adaptation to a strategic, transformative resilience agenda.**

1.1.2. Adaptation Mission’s intervention logic

The Mission’s intervention logic (see figure 1) is designed to ensure that its core activities generate concrete outcomes that build resilience across Europe. It follows a truly mission-driven approach: mobilising and aligning actors at every level around the shared common objective, and a clear, time-bound pathway to climate resilience by 2030.

The four key elements that distinguish the Mission intervention logic are:

- **Political Engagement.** Political commitment is mobilised through the Mission Charter. By signing it, RLACs make a visible, public pledge to prioritise climate adaptation. This elevates resilience on political agendas, strengthens awareness of climate risks, and builds a strong European constituency committed to action.
- **Community of Practice.** The Community of Practice connects Charter Signatories, Mission projects, and key stakeholders into a shared arena for learning and collaboration. By fostering peer learning and collaboration, it strengthens awareness and operational capacity of RLACs to make progress.
- **Technical Assistance.** Tailored technical and financial support equips RLACs to assess climate risks, design adaptation strategies, and access funding. This structured support improves institutional capacity, accelerates the development of

⁽⁸⁾ Climate change is making each summer hotter, harsher, and more dangerous. This is why we have to radically step up our efforts into climate resilience and adaptation, and nature-based solutions. But we must also give ourselves the tools to respond”. [2025 State of the Union Address](#) by President von der Leyen on 10 September 2025.

adaptation plans, and ensures that efforts are grounded in local realities and strategically designed and actionable.

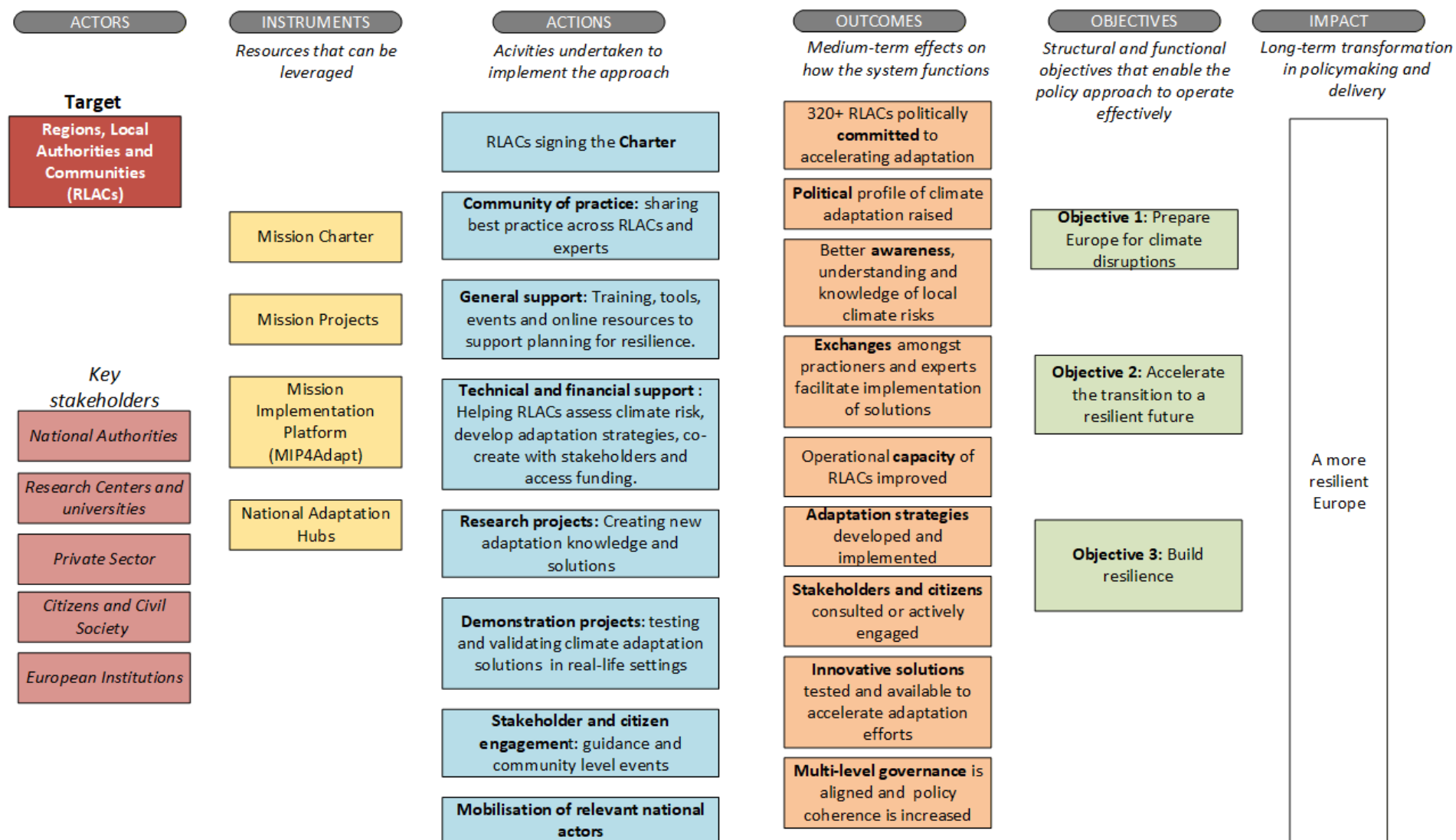
- **Demonstration.** Demonstration projects act as living laboratories where innovative adaptation measures are tested, refined, and validated in real-world conditions. They reduce implementation risks, provide evidence of effectiveness, foster stakeholder buy-in and support the scale-up of resilience practices across Europe.

These elements set the Mission apart from classical R&I initiatives. Nurturing political engagement, institutional capacity and support through technical assistance are instrumental to deliver on the Mission objectives. Demonstration projects move innovations into real-world practice, creating ready-to-scale models. Finally, the Community of Practice ties all the different activities together, into a coherent strategic framework.

The Mission is implemented through a diverse **portfolio of 64 Horizon Europe projects** (as of December 2025) addressing the full spectrum of adaptation challenges and representing an EU investment of EUR 596 million between 2021 and 2025. Projects include Research and Innovation Actions (RIAs) that advance scientific knowledge and methods, Innovation Actions (IAs) that test and demonstrate solutions in real-world settings, and Cascade Support Projects that provide financial and technical assistance to RLACs. To ensure coherence and maximise impact across this broad portfolio, the Mission Implementation Platform (**MIP4Adapt** ⁽⁹⁾) plays a central coordinating role. It provides bespoke technical assistance, facilitates access to tools and resources, and drives knowledge exchange through the Community of Practice. MIP4Adapt is the Mission's connective tissue, aligning efforts under a shared strategic framework and accelerating progress towards a climate-resilient Europe.

⁽⁹⁾ [Mission Implementation Platform \(MIP4Adapt\) - Portal of the EU Mission on Adaptation to Climate Change](#)

Figure 1. Intervention logic of the Adaptation Mission as a policy approach.



1.2. The progress of the Mission

The Mission engages regions and local authorities through a combination of political commitment, peer learning, tailored technical and financial assistance, and real-world demonstration projects. This engagement goes beyond participation figures: the Mission works directly with territories to strengthen governance structures, develop adaptation strategies and investment plans, improve climate-risk assessments, and implement concrete resilience solutions adapted to local needs and contexts.

Defining ‘climate resilience’ in precise, measurable terms remains an active area of research, to which the Mission is contributing ⁽¹⁰⁾. The Intergovernmental Panel on Climate Change emphasises that resilience is a dynamic process shaped by exposure, vulnerability, and adaptive capacity, making it challenging to capture through indicators or metrics ⁽¹¹⁾. For this reason, the Mission’s progress is assessed through a set of practical indicators that provide tangible insights into how regions and local authorities are strengthening climate preparedness and resilience.

This chapter presents four indicators aligned with the Mission’s intervention logic (see figure 1). They cover: (1) political commitment through the Mission Charter, (2) participation in and perceptions of the Community of Practice, (3) the provision and results of technical assistance, and (4) the demonstration of innovative adaptation solutions. These indicators offer a clearer basis for assessing progress than the Mission’s interlinked objectives and are complemented by concrete examples of how the participation in the Mission drives impact on the ground. Table 1 presents an overview of the indicators and progress made so far ⁽¹²⁾.

Table 1. Information on indicators used to demonstrate progress of the Mission on Adaptation to Climate Change.

Theme	Indicator	Objective measured by indicator	Baseline	Target (if any)	Progress value (as of December 2025)
1. Political engagement	1. Number of RLACs that signed the Adaptation Mission Charter.	(I) <i>Prepare Europe for climate disruptions</i> (II) <i>Accelerate transition to a resilient future</i>	0	150 RLACs	327 RLACs (more than 280 million inhabitants)

⁽¹⁰⁾ The Mission has dedicated nearly EUR 3 million to the project [UNDERPIN](#) (oUtcome iNDicators to mEasuRe Progress on climate resIlieNce).

⁽¹¹⁾ [FAQ 6: What is Climate Resilient Development and how do we pursue it? | Climate Change 2022: Impacts, Adaptation and Vulnerability](#)

⁽¹²⁾ The annex provides more information on the rationale for the selection of indicator and on the data collection.

2. Community of Practice	2a. Extent of participation in the EU Mission Adaptation Community of Practice	<i>(I) Prepare Europe for climate disruptions</i>	0	No specific target. Qualitative aim for engaged and diverse cohort of stakeholders	653 Participants
	2b. Perceptions of European RLACs of the extent to which knowledge transfer through involvement in the Community of Practice has accelerated their transformation to a climate resilient future	<i>(I) Prepare Europe for climate disruptions</i>	n/a	2.5 / 5 and progress over time [from 1 being ‘not at all’ to 5 being ‘substantially’]	3.32 / 5
3. Technical Assistance	3. Number of European RLACs provided with technical assistance and the progress made in climate adaptation planning.	<i>(II) Accelerate transition to a resilient future</i>	0	150 RLACs Progress against the relevant six steps of the Regional Adaptation Support Tool (RAST)	292 RLACs (including 131 completed)
4. Demonstration	4. Number of European RLACs where solutions for climate resilience are being demonstrated	<i>(III) Build resilience</i>	0	75	185 demonstrators 112 replicators

1.2.1. Political engagement

At the core of the Mission are the Charter Signatories. These are RLACs that, by signing the Mission Charter ⁽¹³⁾, have formally committed to accelerating their adaptation journey and work towards the objectives of the Mission. By December 2025, 327 RLACs from 30 countries have signed, covering some 40% of the EU territory ⁽¹⁴⁾ and representing more than 280 million inhabitants. Signatories include major regions such as Nouvelle-Aquitaine, whose population of 6.1 million makes up nearly 9% of metropolitan France, underscoring the Mission’s reach into territorially and politically significant areas. These figures represent more than a milestone; they reflect important political momentum at subnational level, anchoring climate adaptation as a shared European priority that matters to citizens.

The Charter serves as a clear entry point into the Mission for RLACs, signalling political commitment and raising the profile of climate adaptation locally. When backed by active participation in the Mission activities, this commitment is transformed from intent into action. It pairs political will with the Mission’s scientific and technical backbone through access to tailored technical support, a vibrant Community of Practice.

⁽¹³⁾ See [facsimile](#) of the Mission Charter.

⁽¹⁴⁾ See Factsheet ‘[EU Mission: Adaptation to Climate Change – Meet the Regions and Local Authorities](#)’ May 2025. There are Charter Signatories from 25 EU Member States and 5 Associated Countries.

The significance of the Charter therefore extends beyond a simple count of members. It represents a pioneering political constituency for adaptation in Europe, one that is increasingly aware of climate risks, empowered with tools and knowledge, and committed to embedding resilience into local governance. In doing so, it provides a foundation to catalyse systemic change and deliver on its ambition of a climate-resilient Europe by 2030. The Mission and its Charter have established a direct channel between the European Union, its Member States and the RLACs, facilitating multilevel dialogue, which had been lagging behind.

How political engagement of regions through the Mission drives impact

The Mission Charter has emerged as a powerful driver of political commitment, helping regions elevate climate adaptation on their agendas and embed it more strategically in governance structures. According to the European Regions Research and Innovation Network (ERRIN), both the Charter and the Mission have significantly elevated the importance of adaptation on the political agenda and fostered a more strategic approach to adaptation challenges ⁽¹⁵⁾.

In **Małopolska (PL)**, signing the Charter in 2022 marked a turning point. Mission participation helped **embed adaptation structurally in regional planning**. The region became the first in Poland to develop a dedicated Adaptation Action Plan (2023) and the Regional Adaptation Strategy (to be adopted soon) will be integrated into key regional strategic documents, including the Małopolska Development Strategy and the Environmental Protection Programme.

In **Normandy (FR)**, Mission Charter commitment and participation in the Mission have **expanded internal capacities** and **strengthened adaptation governance structures**. It has accelerated the development of a **multilevel coordination** between regional departments, local authorities and external partners. The **Mission's European visibility** has **reinforced the political legitimacy** of adaptation, making it harder for decision-makers to deprioritise it.

In **Southwest Finland (FI)**, Charter commitment and participation in Mission projects fostered **stronger stakeholder cooperation and improved regional adaptation capacity**. Mission meetings – both EU-wide and regional forum, such as the Baltic Sea Region meeting – serve as crucial platforms for **knowledge exchange and shared learning**.

In **Suceava, Iași and Roman (RO)**, Charter signatures and participation in Mission activities have **increased awareness of adaptation needs** among local authorities and universities. The Mission has helped initiate **early multistakeholder cooperation**. Although progress is still emerging, the Mission provides a clearer strategic framework for local actors, helping them understand the urgency of adaptation and define institutional responsibilities. This shared foundation is beginning to support more coordinated regional action.

These examples show that the Mission has played a decisive role in raising the political priority of climate adaptation, strengthening governance structures, and anchoring adaptation as a long-term regional policy objective.

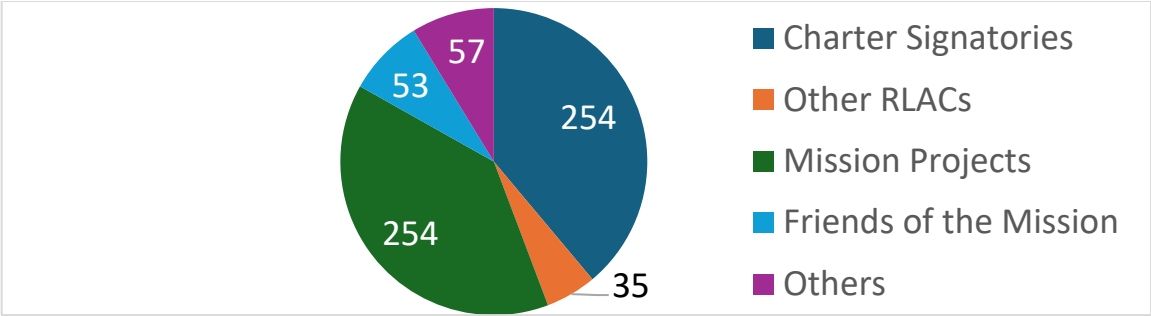
1.2.2. Community of Practice

A strong Community of Practice is at the heart of the Mission, serving as an arena where RLACs, Mission projects, and other stakeholders connect, exchange knowledge, and learn from one another. By 31 December 2025, the Community had expanded to 653 registered members, including 254 individuals from Charter signatories and 254 from Mission projects (see figure 2). RLAC involvement spans 29 European countries, and this extensive membership reflects the Mission's role as a hub for knowledge exchange and a trusted

⁽¹⁵⁾ See ERRIN paper series. [Towards the 10th Framework Programme – EU Missions](#).

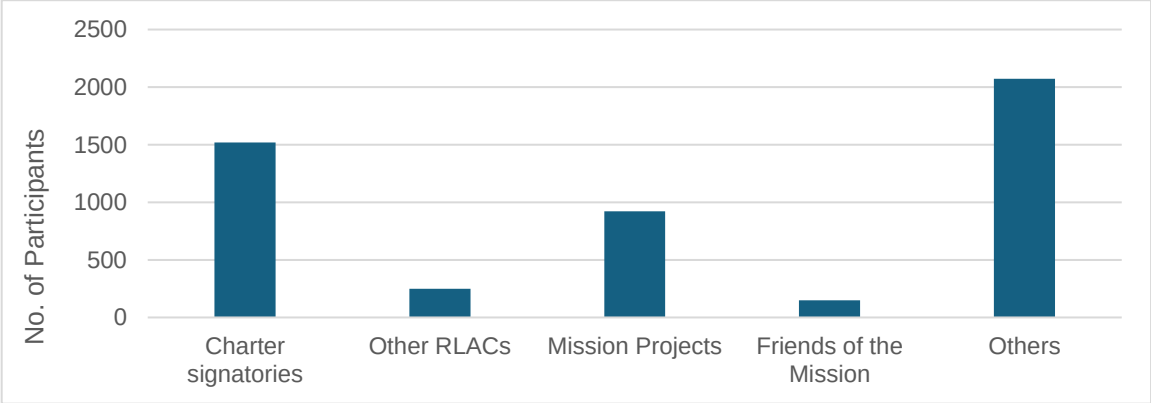
space for collaboration. The reach of the Mission community extends well past registration statistics – 85 Mission events were held between May 2023 and December 2025, attracting a total of 4 915 individuals. This includes more than 1 520 representatives from Charter signatories, 250 from other RLACs, 923 from Mission projects, and 2 072 participants from other stakeholder groups (see figure 3). These events, which are meant for those directly involved in resilience building at the local level, have provided important opportunities for networking, peer learning, and strengthening collaboration across the adaptation community.

Figure 2. Type of participants registered and granted access to the Mission Community’s online platform Futurium until December 2025 (n=653).



Note: Others’ refers to members of the Community who do not fall within any of the other categories. These include Member States representatives, Climate Pact Ambassadors, individuals from regional and national adaptation platforms, as well as representatives of the Mission and the European Commission.

Figure 3. Participation numbers to the Mission Community’s events between May 2023 and December 2025 (n=85 events).

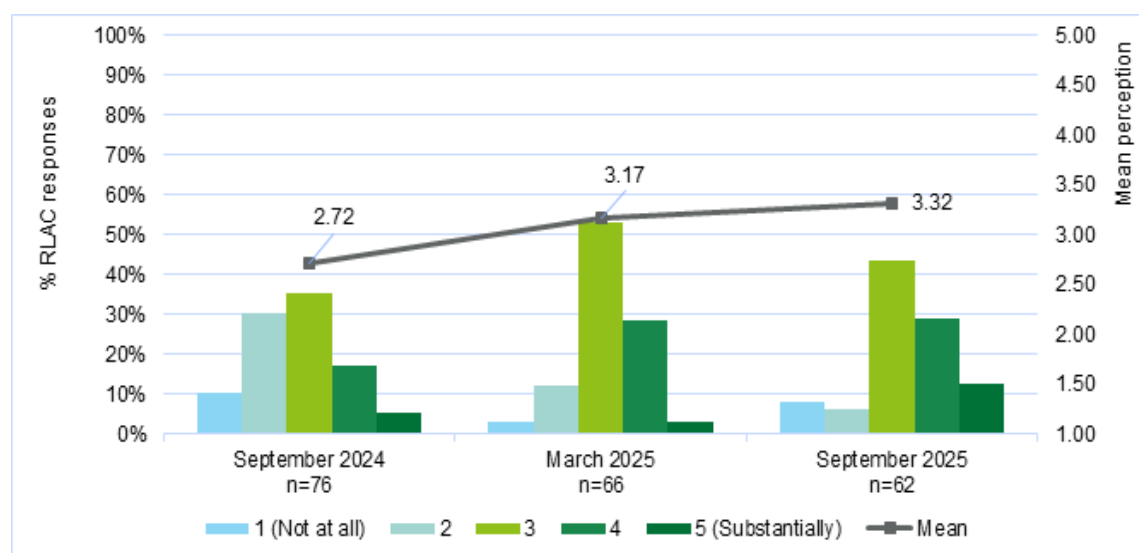


Importantly, RLACs increasingly perceive the Community of Practice as instrumental in advancing their adaptation efforts. Survey results ⁽¹⁶⁾ in September 2025 show that 86% of responding Charter Signatories considered the knowledge gain from involvement in the Mission Community to have meaningfully accelerated their transformation toward climate resilience, a notable rise from 58% one year earlier (score of 3 or more in see figure 4).

⁽¹⁶⁾ A survey is circulated every 6-month with the Signatories. For more details see the annex and Fifth barometer update https://mission-adaptation-portal.ec.europa.eu/document/download/0e9f7a61-a725-47a0-8f92-6487622f116f_en?filename=Mission%20monitoring%20-%20Fifth%20Barometer%20Update_Final_clean_111225.pdf

The average score also increased from 2.72 to 3.32 on a five-point scale, signalling growing recognition of its value. These trends demonstrate that the Community is not only growing in numbers but also strengthening the quality of its engagement – actively enabling knowledge transfer, mutual support and peer-learning, providing a solid foundation for accelerating Europe’s climate resilience.

Figure 4. Charter Signatories’ perceptions of the extent to which knowledge transfer through the Community of Practice has accelerated their RLAC’s transformation to a climate-resilient future (n=number of respondents).



Illustrative examples of the impact of the Community of Practice

The Mission’s Community of Practice – through the Peer Learning Programme and Thematic Working Groups – is strengthening individual projects while building a coherent community capable of shaping adaptation practice and policy across Europe.

Peer Learning Programme: Across two cycles, 30 RLACs participated in structured exchanges, expert sessions and joint exercises. Satisfaction was consistently high (around 4.6/5), underscoring the value of learning from peers facing similar adaptation challenges and helping regions move more effectively from planning to action. Participation in the peer learning programme has supported tangible action at regional level. For instance, **in Hauts-de-France (FR)** work on citizen engagement fed into the development of a regional citizen-engagement scheme, with a strong focus on youth awareness and involvement.

Thematic Working Groups: More than 300 representatives from Mission and other EU-funded projects now collaborate through the Thematic Working Groups. High satisfaction levels (84% would recommend; ~70% wish to continue their engagement) reflect the benefit of a shared space to compare approaches and develop common positions. Joint policy papers have proven especially influential, giving projects a stronger collective voice and greater policy relevance. All outputs are available on the EU Mission Adaptation Community site ([here](#)).

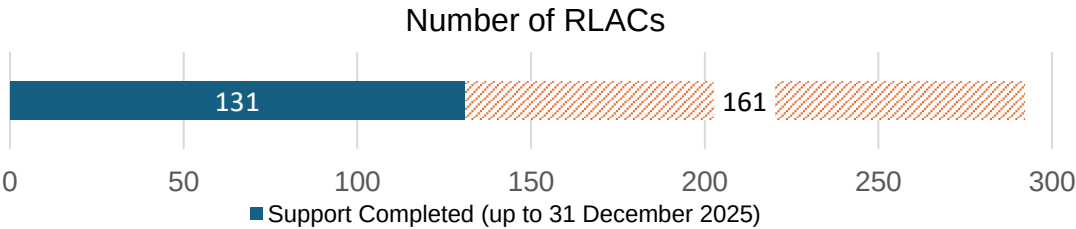
1.2.3. Technical assistance

Tailored technical assistance remains the Mission’s most direct way of helping RLACs accelerate their progress in climate adaptation. RLACs themselves perceive direct and hands-on support as “crucial” to develop robust adaptation plans and strategies ⁽¹⁷⁾.

⁽¹⁷⁾ See ERRIN paper series. [Towards the 10th Framework Programme – EU Missions](#)

By December 2025, the Mission had supported 292 RLACs: 131 had completed their support cycle and 161 RLACs were receiving ongoing technical and financial assistance (see figure 5). The scale of this engagement demonstrates that the Mission’s approach aligns closely with the needs of its target audience.

Figure 5. Total number of European RLACs provided with technical assistance in climate adaptation planning from the Mission (MIP4Adapt, CLIMAAX, P2R), as of 31 December 2025.

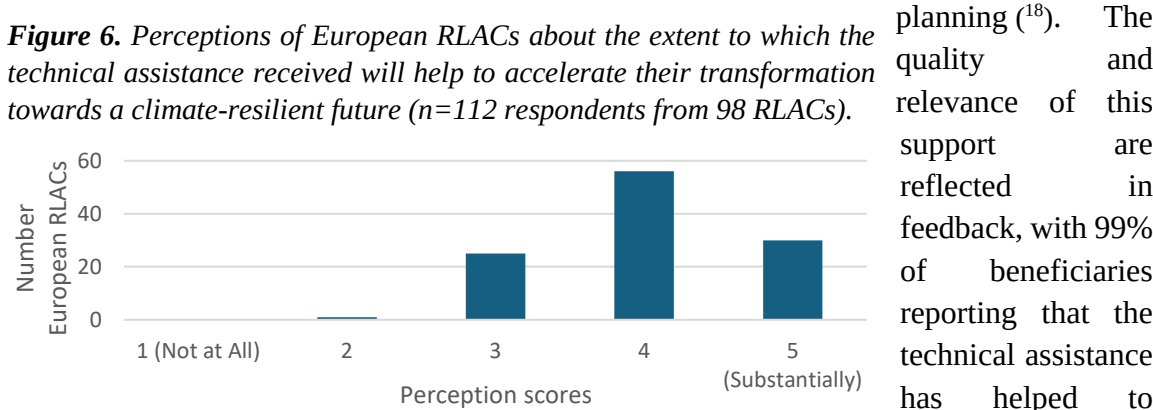


Recognising the diversity of local contexts, the Mission provides multiple forms of assistance – from advisory services delivered in local languages to comprehensive, longer-term financial and technical support.

Completed assistance

MIP4Adapt completed technical assistance to 152 Charter Signatories on adaptation planning ⁽¹⁸⁾. The

Figure 6. Perceptions of European RLACs about the extent to which the technical assistance received will help to accelerate their transformation towards a climate-resilient future (n=112 respondents from 98 RLACs).

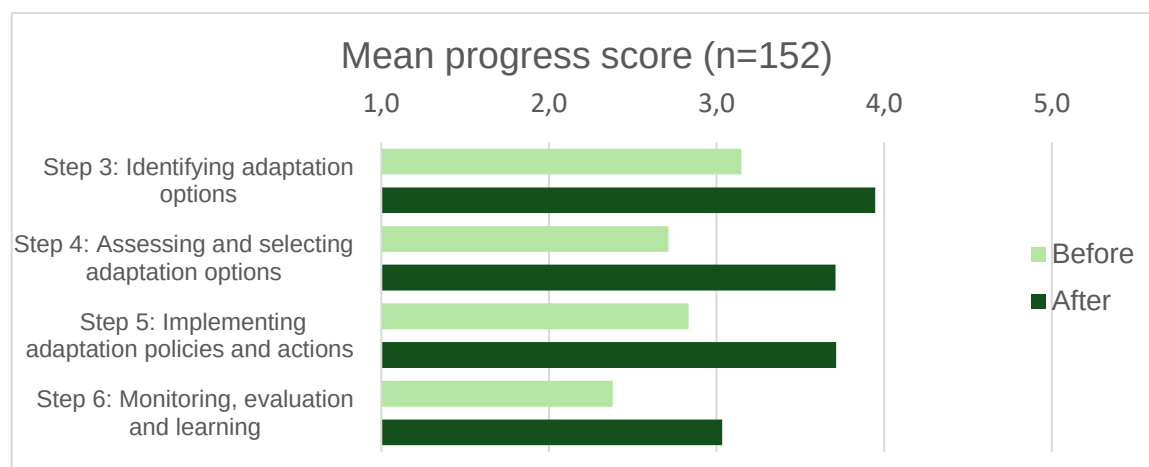


quality and relevance of this support are reflected in feedback, with 99% of beneficiaries reporting that the technical assistance has helped to accelerate transformation to a climate resilient future (score 3 or more in figure 6). This demonstrates how structured institutional capacity-building can rapidly enhance authorities’ ability to act. In addition to self-reported progress, evidence confirms that technical assistance is yielding concrete, measurable advances in adaptation planning. Using the Regional Adaptation Support Tool (RAST) as a benchmark, RLACs supported through MIP4Adapt show significant progress in identifying and assessing adaptation options, implementing strategies and plans, and developing monitoring frameworks (i.e.

⁽¹⁸⁾ The difference with the numbers in figure 5 are due to the fact that 21 RLACs had completed the MIP4Adaptation technical assistance but were also receiving ongoing technical assistance from CLIMAAX and/or P2R.

RAST Steps 3 – 6 ⁽¹⁹⁾, see figure 7). Further details are available in the Fifth Barometer Update ⁽²⁰⁾.

Figure 7. Progress of climate adaptation planning by European RLACs where MIP4Adapt’s technical assistance was completed by 31 December 2025 (n=152). Taken from Fourth Barometer Update.



Note: the scoring has the following meaning: 1=not started, with no understanding of need; 2=not started, with understanding of need, 3=ongoing, 4=completed, 5=completed to a high standard.

Ongoing assistance

The Mission continues to provide targeted financial and technical support through its two major Cascade Support Projects: Pathways2Resilience and CLIMAAX.

- [Pathways2Resilience](#) is supporting around 100 RLACs over an 18-month period to co-design climate resilience strategies, action plans and investment plans. Mid-term findings from the first 39 participants show early transformational effects, including strengthened institutional capacity, more systemic planning approaches, and improved cross-departmental collaboration.
- [CLIMAAX](#) is enabling 68 RLACs to conduct or update climate risk assessments, strengthening their analytical capacity and supporting evidence-based decision-making. Its 22-month support programme allows in-depth stakeholder engagement, and the CLIMAAX toolbox is increasingly used by national and local administrations.

Cascade Support Projects create accessible entry points for RLACs enabling easier access to European support. Newly recruited staff within those projects accelerate the uptake of tools, knowledge, and methodologies and ensure their integration into regional processes.

⁽¹⁹⁾ The Regional Adaptation Support Tool provides a six-step process for climate adaptation: (1) Preparing the ground, (2) Assessing climate risks and vulnerabilities, (3) Identifying adaptation options, (4) Assessing and selecting options, (5) Implementing actions, and (6) Monitoring, evaluation, and learning. Technical Assistance was provided to RLACs that had completed Step 2, i.e. had assessed their risks.

⁽²⁰⁾ https://mission-adaptation-portal.ec.europa.eu/document/download/0e9f7a61-a725-47a0-8f92-6487622f116f_en?filename=Mission%20monitoring%20-%20Fifth%20Barometer%20Update_Final_clean_111225.pdf

A further 120 RLACs will receive assistance through upcoming follow-up projects starting in 2026, putting the Mission on track to exceed its commitment to support at least 150 authorities.

Together, completed and ongoing technical assistance demonstrate the Mission's dual focus: reaching as many RLACs possible (with the available resources) while ensuring that the support delivered is deep, tailored and capable of driving real progress toward climate resilience.

How the Mission's technical assistance accelerates regional adaptation

To understand the impact of the Mission's technical assistance is having on RLACs, it is useful to take a closer look at individual RLAC experiences through a few cases.

MIP4Adapt: In **Andalucía** (ES), the co-development of a Practical Guide for Climate Adaptation Financing is helping municipalities, especially those with fewer resources, access and align funding opportunities, while complementary training has reinforced interdepartmental collaboration. In **Gothenburg** (SE), assistance enabled a systematic review of the city's adaptation strategy, the creation of an action plan guide for public departments and private companies, embedding adaptation more deeply in local governance. In **Figueira da Foz** (PT), support was catalytic for finalising the municipal Climate Action Plan and for structuring pilot projects such as urban microforests, while innovative activities like a climate-themed photo contest engaged schools and communities, creating intergenerational connections around resilience.

Pathways2Resilience: The region **Île-de-France** (FR) could shift from limited understanding of climate investment planning, absence of centralised resources for adaptation and challenges in connecting local initiatives to a coherent regional approach with a coordinated data observatory system, formalized partnerships, dedicated resources, and systematic data sharing accessible to all territorial actors.

CLIMAAX: Early results have already influenced policy and investment decisions, such as the planning of green space in **Košice** (SK) and the strengthening of risk plans supporting regional responses to extreme events in **Catalonia** (ES). Participation of **La Réunion** (FR) has strengthened the science-based approach to climate adaptation in this outermost region, enabling access to EU-level expertise in risk assessments and peer exchange.

Together, these examples show how tailored technical assistance is supporting the Mission's objective and enabling context-specific pathways to resilience.

1.2.4. Demonstration

The Mission is driving innovation by supporting on-the-ground demonstrations of adaptation solutions across Europe. By December 2025, **185 RLACs** across **41 Mission projects** were actively testing and implementing nearly 1 000 resilience measures ⁽²¹⁾. These demonstrations serve as living laboratories where innovative approaches are co-created, trialled, refined, and prepared for replication. Their collaborative nature is reflected in the diversity of participants: **38% research and higher education, 27% public entities, 19% private companies, and 16% others (e.g. NGOs and networks)**.

Knowledge transfer is embedded into the demonstrations: **112 RLACs** participate as *replicators*, ready to adopt the successful solutions. This structure amplifies the impact, favours scaling of the solutions and strengthens peer-to-peer learning across the Mission. While demonstrators and replicators are based in EU Member States and Associated Countries, some projects extend this approach beyond Europe by integrating an

⁽²¹⁾ On average, each demonstration projects tests 22 climate adaptation solutions.

international dimension. For example, Coast-Scape combines core demonstration pilots in Spain, Italy and Germany with replication pilots in Portugal, Spain and Romania, as well as transfer pilots in Morocco, Mozambique and Colombia, to support uptake in new contexts. Similarly, CARDIMED has established a resilience alliance that brings together additional communities, including partners from third countries.

Demonstrations span a broad range of themes – from water management, agriculture and forestry to critical infrastructure and health. Nature-based solutions play a particularly prominent role, as a cross-cutting approach offering multiple co-benefits. For instance, this includes demonstrations addressing urban greening and re-naturing, contributing to the New European Bauhaus and boosting social inclusion, equitability and liveability in cities. The wide geographical spread highlights the diversity of adaptation challenges and solutions across the continent (see figures 8 and 9). Mediterranean countries such as Spain, Italy, Greece, and Portugal currently host the highest number of demonstrations, reflecting both their acute vulnerability to climate impacts and their strong engagement in the Mission. Yet, demonstrations are also underway in northern, central, and eastern Europe, showing that the Mission is relevant across a broad range of climatic, socio-economic, and governance contexts.

Figure 8. Map of RLACs involved in cross-border demonstration projects of climate resilience associated with Mission Projects (categorised by year of Horizon Europe call).

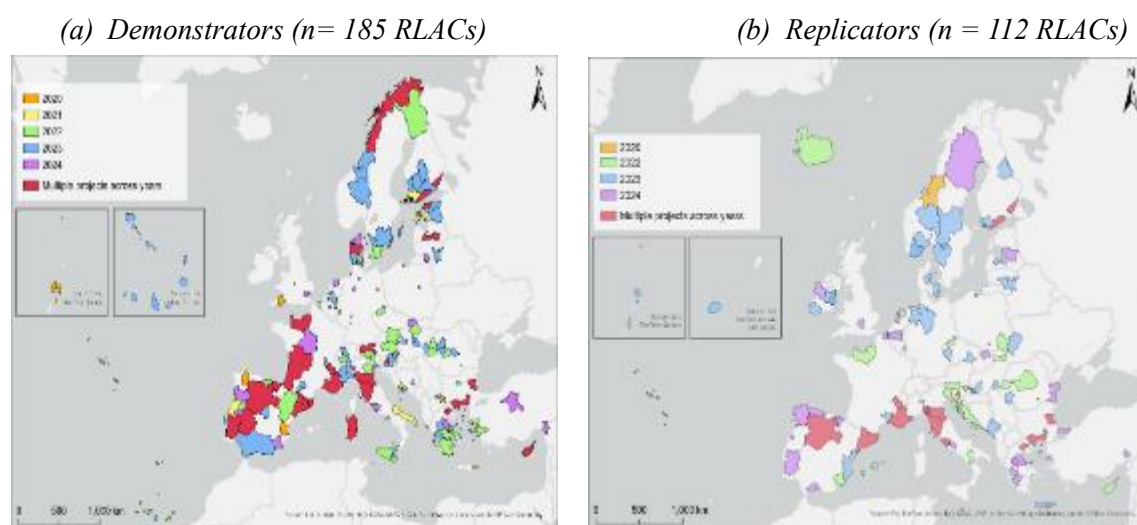
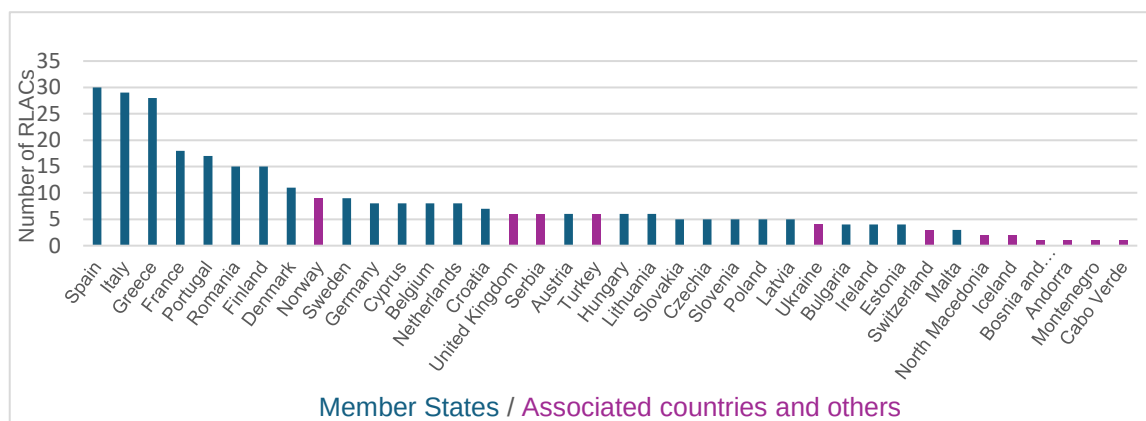


Figure 9. Number of different European RLACs involved in demonstration projects of climate resilience categorised by Members States/Associated Countries.



Through these efforts, the Mission is demonstrating very concretely what climate resilience looks like in practice: from restoring rivers and managing water scarcity to reducing heat stress in urban environments and strengthening cross-border collaboration. By embedding innovation in real-world contexts, the demonstrations provide a critical foundation for scaling up solutions, validating what works in practice, and showing how Europe’s regions and local authorities can translate adaptation plans into tangible action.

How demonstrator regions translate adaptation into action

The examples below show how Mission demonstration projects are delivering concrete adaptation on the ground. Captured in the Adaptation Stories ⁽²²⁾ series on the Mission Portal, they reflect strong demand from RLACs across Europe to test and implement real solutions – not just plans. Together, they show how demonstrators help regions move from strategy to implementation, piloting actions that are locally rooted, scientifically robust, and available for wider replication. They illustrate the Mission’s role in turning adaptation strategies into investments, governance innovation, and tangible resilience benefits for communities.

Centro region (PT) is highly exposed to **wildfires**. Through integrated landscape management, small landowners collaborate to reduce fuel loads, introduce fire-resistant species, and create more resilient forests. The approach delivers ecological gains while opening up new business opportunities in rural areas. [Full story [here](#) – from the project [RESIST](#)]

Fryslân (NL) is adapting its water systems and coastal areas to future climate risks by **restoring meanders and reinforcing** dikes with nature-based solutions. This enhances the resilience of the regional water systems against climate threats while providing ecological, recreational, and economic co-benefits. [Full story [here](#) – from the project [NBRACER](#)]

Figure 10. Coastline restoration, combining nature, coastal protection, flood risk reduction and improving biodiversity and in Fryslân (NL). Image Credit: 1DYK



⁽²²⁾ See the 100+ Adaptation Stories published on the Mission Portal: https://mission-adaptation-portal.ec.europa.eu/stories-0_en

Figure 11. Loading a drone with mineral fertilizer in Transylvania (RO). Image Credit: MountResilience.



Non-conventional water sources – such as rainwater harvesting, dry-stone terrace restoration, and small-scale aquifer recharge – help address chronic **water scarcity** in **Aegean islands (EL)**. These low-tech, nature-based measures reduce pressure on dwindling freshwater resources and support local agriculture, demonstrating how traditional landscape practices can underpin modern climate resilience. [Full story [here](#) – from the project [CARDIMED](#)]

In **Transylvania (RO)** 40 hectares of **degraded mountain grasslands** are

being restored using drones, soil amendments, and native seed mixes. Local farmers, researchers, and authorities work together to improve soil health, increase water retention, and boost biodiversity, reviving traditional mountain pastures and rural livelihoods. [Full story [here](#) – from the project [MountResilience](#)]

In **Sardinia (IT)**, the “Coastal Contract” approach brings together municipalities, regional authorities and civil society to jointly plan **coastal adaptation**, aligning ecosystem restoration, risk management and tourism strategies. This collaborative model strengthens accountability and enables long-term, area-wide action in regions exposed to **sea-level rise and storm surges**. [Full story [here](#) – from the project: [TransformAr](#)]

1.3. Conclusions

Climate change is no longer a distant threat, but a daily reality reshaping Europe’s communities, economies, and ecosystems. In this context, **climate preparedness is emerging as a defining priority for Europe’s prosperity, stability and global competitiveness**. As highlighted in the 2025 State of the Union address, the EU must strengthen its capacity to protect vulnerable regions, safeguard resources, and prepare for increasingly frequent and severe climate extremes. The Adaptation Mission has become a cornerstone of this collective effort.

Achievements and progress since the 2023 assessment

Since the 2023 assessment, the Mission has advanced along three main fronts: mobilisation of actors, strengthening of support structures and progress toward a more systemic and coherent adaptation ecosystem.

Mobilisation and participation

In just a few years, the Mission has mobilised one of the largest resilience coalitions ever assembled at EU level. More than **300 regional and local authorities** have pledged **political commitment** through the Mission Charter, and over **600 RLACs** are engaged in Mission activities – far exceeding the original target of 150. This confirms the 2023 finding that the Mission is a **timely, positive and promising initiative** ⁽²³⁾ – and demonstrates that momentum has continued to grow. Charter Signatories continue to rate the Mission highly

⁽²³⁾ European Commission (2023). *Study supporting the assessment of EU missions and the review of mission areas – Mission Adaptation to Climate Change assessment report*, <https://data.europa.eu/doi/10.2777/017040>

(4.1/5 in terms of relevance to their goals and needs ⁽²⁴⁾), and early evidence points to its genuine added value: deeper strategic thinking, stronger governance, and more coordinated adaptation planning.

Technical assistance and knowledge exchange

The Mission’s Community of Practice has evolved into a vibrant arena for knowledge exchange. **Almost 300 authorities** have received or are receiving tailored **technical and financial assistance**.

Real-world testing and innovation

Meanwhile, **185 demonstrators** across Europe are testing real-life adaptation solutions, helping ground the forthcoming EU Integrated Framework for Climate Resilience in the lived realities of local authorities and communities.

Financing and resource mobilisation

Initial indications also suggest that the Mission is helping RLACs mobilise resources well beyond Horizon Europe, including through dedicated financial advisory services. According to recent monitoring ⁽²⁵⁾, 81% of adaptation actions reported by Signatories are financed from local budgets. Synergies ⁽²⁶⁾ with LIFE projects alone represent almost **EUR 162 million of complementary** investment (see annex) and illustrate how authorities actively draw on other EU instruments to implement or scale adaptation strategies. These findings point to a positive trend that should strengthen as technical assistance and work on adaptation finance deepen local capacities. Synergies have increased elsewhere as well: the 2026-2027 Horizon Europe work programme dedicates **nearly EUR 160 million to joint calls** with other initiatives such as the Cities and Soil Missions, the New European Bauhaus, and the Circular Cities and Region initiative.

Breadth and depth

The breadth-depth dynamic identified in 2023 has now become one of the Mission’s defining strengths. Sustained demand from territories broadened participation well above the original target of 150 RLACs, demonstrating both the relevance of the Mission’s approach and its capacity to mobilise local and regional actors at scale. At the same time, maintaining depth remains essential. Targeted instruments – technical assistance, demonstrators, Adaptation Hubs – offer a “plug-and-play” pathway for territories ready to advance more quickly. Others can engage at their own pace while still benefiting from a shared European ecosystem of knowledge and support. In this way, the Mission preserves breadth while enabling depth where it is most actionable. It remains a **pilot initiative** by design: intended to demonstrate a scalable model with strong added value, complementing and enabling national and regional funding structures, not replacing them.

Multilevel governance

⁽²⁴⁾ See survey conducted in September 2024 <https://climate-adapt.eea.europa.eu/en/mission/news/news/charter-signatories-share-insights-on-the-missions-impact>

⁽²⁵⁾ EEA (2025) Mission Signatory Reporting Assessment https://climate-adapt.eea.europa.eu/en/mission/knowledge-and-data/signatory-reporting/mission_signatory_reporting_assessment.pdf/

⁽²⁶⁾ “Synergies” here is not to be confused with our definition of “synergies” in the pooling chapter (section III, chapter 3). Here, “synergies” is used in its general meaning of “combined action or operation”.

The launch of National Adaptation Hubs ⁽²⁷⁾ in 2025 marks a step-change in the Mission implementation and a strong signal for multilevel governance implementation. With one Hub in each Member State, the Mission is driving a systemic approach to adaptation – connecting EU, national and local levels, aligning strategies, and supporting the scale-up of Mission solutions across the different national territories.

Monitoring

Monitoring is maturing. Biannual Mission monitoring reports ⁽²⁸⁾ and annual signatory assessments of RLAC progress ⁽²⁹⁾ provide a clearer picture of the advancements, while new research efforts help address the longstanding challenge of appropriate indicators for measuring climate resilience ⁽³⁰⁾.

Private-sector engagement

Engagement with the **private sector** is also evolving, with breakthroughs expected through the 2025 call on incentives for private adaptation finance and the “Deep Tech for Climate Adaptation” accelerator challenge launched with the European Innovation Council.

Lessons learnt

As the Mission approaches its mid-point, several lessons are emerging:

- **European added value is clear.** Peer learning and cross-border collaboration accelerate adaptation, avoid duplication, and enable cost-efficient scaling of solutions.
- **Local capacity remains a bottleneck.** Tailored technical assistance is indispensable for driving a faster, smarter, and more systemic climate adaptation.
- **Co-creation drives ownership and impact.** Bringing together R&I actors, policymakers and other stakeholders is a unique strength of the Mission. It ensures that knowledge is translated into actionable, context-specific solutions.
- **Adaptation is local.** There is no one-size-fits all approach: climate impacts, governance systems, and local cultures vary widely across Europe. The Mission’s place-based, flexible approach is essential. Successful climate adaptation initiatives require striking the right balance between diversity (reflecting local realities) and harmonisation (ensuring coherence, efficiency and progress at the European level).

Looking forward

The evidence gathered through this assessment confirms that the Mission is delivering tangible progress while laying the foundations for longer-term systemic resilience. As climate risks intensify, no region can adapt alone. The Mission shows how Europe can act

⁽²⁷⁾ See project [AdaptationHubs](#), which will be extended in the 2026 call.

⁽²⁸⁾ See Mission Fifth Barometer updates https://mission-adaptation-portal.ec.europa.eu/document/download/0e9f7a61-a725-47a0-8f92-6487622f116f_en?filename=Mission%20monitoring%20-%20Fifth%20Barometer%20Update_Final_clean_111225.pdf

⁽²⁹⁾ EEA (2025) Mission Signatory Reporting Assessment https://climate-adapt.eea.europa.eu/en/mission/knowledge-and-data/signatory-reporting/mission_signatory_reporting_assessment.pdf/

⁽³⁰⁾ See [UNDERPIN](#) project: oUtcome iNDicators to mEasuRe Progress on climate resIlieNce

together – mobilising knowledge, innovation, financing and political leadership to strengthen resilience across all territories. As the Mission matures and its first projects conclude, its impact will become increasingly visible on the ground: better preparedness, stronger governance, and more communities capable of anticipating and withstanding climate shocks.

The experience generated through the Mission will directly inform the forthcoming **EU Integrated Framework for Climate Resilience** ⁽³¹⁾, grounding it in the realities, priorities and solutions emerging from Europe’s regions and local authorities. In doing so, it will help ensure that **climate preparedness becomes a defining strength of the European Union** – a cornerstone of its competitiveness, security and social cohesion in the decades ahead. In this way, the Mission is helping transform climate preparedness from an aspiration into a shared European capability.

2. CANCER

2.1. Introduction to the Mission

2.1.1. The EU Cancer Mission, its overall goal and selected specific objectives

Imagine a Europe in which cancer is better understood, well prevented, quickly diagnosed, effectively treated, and the affected have a high quality of life. Despite all the investments into cancer research so far, there is still much to be understood, 40% of all cancer cases are preventable, and the affected people suffer too much. With the EU Cancer Mission we move away from isolated research projects towards a more comprehensive Mission approach aiming to speed up the process from findings to implementation across the EU to achieve its objectives.

This move is urgently needed as cancer affects every individual, family, and community, causing far-reaching consequences that are not limited to the disease itself. Each year, millions of Europeans are diagnosed with cancer, leading to personal suffering, loss, and a significant emotional and financial burden on families and caregivers. Cancer also affects societies and economies, straining healthcare systems, reducing productivity, and increasing social inequalities across the EU. Every year the EU sees a EUR 200 billion economic toll.

As one of Europe’s leading causes of death, cancer is a major public health and societal challenge requiring a coordinated response. With 1.3 million lives lost and 2.8 million new diagnoses annually, cancer has a significant impact on the EU. Today, 5% of the EU population lives with or beyond cancer, making survivorship and quality of life an urgent priority. This need will grow as cancer diagnoses are projected to exceed 3.2 million by 2040 due to ageing, environmental and lifestyle risk factors, and unequal access to prevention, diagnosis and care.

In response, the EU Cancer Mission was launched in 2021, alongside the Europe’s Beating Cancer Plan. The Mission aims to improve the lives of over 3 million people by 2030

⁽³¹⁾ Announced as ‘European Climate Adaptation Plan’ in the 2024-2029 political guidelines. The framework is planned for Q4 of 2026

through better prevention, earlier detection, improved treatment, and strong support for patients and survivors.

The Mission is organised around four major objectives – understanding cancer, prevention and early detection, diagnosis and treatment, and improving quality of life. The outcomes of these objectives contribute together towards achieving the overall goal.

The EU Cancer Mission unites research and cancer control, policy, stakeholders, and citizens to prevent, diagnose, and treat cancer more effectively. It contributes to the advancement of scientific knowledge and helps translating it into societal progress through national implementation. Thus, this integrated approach leads to better prevention, earlier diagnosis, more precise treatments, and tailored support for survivors, improving outcomes and quality of life. It also contributes to reduction of inequalities and improved lives across Europe.

Hence, the EU Cancer Mission extends past research by connecting science with other policies, as well as national, regional and local needs, engaging with the public, citizens and practitioners directly, and promoting innovations that translate into real-world solutions. The Mission supports R&I across its four objectives, including a strong portfolio of clinical trials.

The EU Cancer Mission is **integrated into Europe’s Beating Cancer Plan (EBCP)**, the EU’s policy framework supporting Member States in the fight against cancer. The EBCP was adopted in 2021, and both initiatives were co-developed, sharing aligned objectives and a joint governance.

The Mission serves as the R&I engine of the EBCP, generating evidence, technologies, and solutions for prevention, screening and early detection, diagnosis, treatment, and quality of life. The EBCP helps implement these solutions across Member States. Key innovations include an EU-wide framework for prevention and equitable care and the EU Cancer Screening Scheme to expand early detection. Through its National Cancer Mission Hubs ⁽³²⁾ and citizen engagement activities, the Mission promotes national and regional uptake, equity, and peer learning. The **joint governance** ⁽³³⁾ of the Mission and the EBCP connects research, health and digital policies, ensuring close coordination between the Commission, Member States, and stakeholders. This is achieved through the Subgroup on Cancer under the Public Health Expert Group ⁽³⁴⁾ and the joint “*Beating Cancer Group*” on the Health Policy Platform ⁽³⁵⁾.

⁽³²⁾ [ECHO-S - Cancer Missions Hubs](#)

⁽³³⁾ Examples include: cancer prevention (e.g. health promotion and vaccination), cancer screening, personalised cancer medicine, rare cancers (e.g. childhood, adolescent and young adult cancers), public-private health partnership with industry, non-power health applications of ionising radiation such as medical radioisotopes and radiation protection, digital policies concerning data sharing and artificial intelligence, clinical research such as clinical trial infrastructure, treatment optimisation.

⁽³⁴⁾ [Expert Group on Public Health - Public Health - European Commission](#)

⁽³⁵⁾ [EU Health Policy Platform - EU Health Policy Platform](#)

The Mission's efforts have led to the **development of joint flagships**, such as the UNCAN.eu data platform or the European Cancer Patient Digital Centre (ECPDC ⁽³⁶⁾). These flagships build on and are integrated with broader policy frameworks, in particular the European Health Data Space (EHDS) ⁽³⁷⁾. By bringing together research, health and digital policies, these flagships will be scaled up to the first concrete demonstrators of how the EHDS will revolutionise data exchange, in cancer as well as other disease areas.

International collaboration is critical, particularly in tackling rare and hard-to-treat cancers, where the pooling of resources and expertise is indispensable. In recognition of this imperative, the Cancer Mission has also intensified engagement with key international partners that share its strategic objectives.

For instance, the **US Cancer Moonshot Initiative**, Europe's Beating Cancer Plan, the EU Cancer Mission, and the US National Cancer Plan share a similar ambition to enhance cancer prevention, early detection, and equitable care for all individuals affected by cancer. To facilitate knowledge exchange and explore potential joint initiatives, two thematic working groups have been established in 2024, focusing on ultra-rare paediatric cancers and lung cancer screening to foster a structured transatlantic dialogue on cancer. Under this initiative, two EU4Health projects are underway:

- Partner4VRT aims to strengthen international collaboration to improve patient outcomes through data-driven insights and innovative therapies. The pilot observational study focuses on two ultra-rare childhood cancers – pancreatoblastoma and adrenocortical carcinoma – to expand patient data availability for robust analysis.
- LAPIN seeks to address knowledge gaps among EU Member States regarding cumulative tobacco exposure, associated lung cancer risk, and potential screening eligibility.

Similarly, **Japan's cancer strategy** exhibits strong synergies with the EU's approach, presenting a compelling opportunity for collaboration. The EU Cancer Mission has initiated discussions with the Japan Agency for Medical Research and Development to explore avenues for deepening cooperation in cancer research.

On 26 June 2025, a joint event titled "Fighting Cancer: How the EU Cancer Mission and Japan's National Cancer Centre Address the Challenge" was co-hosted at the Osaka World Expo by the EU Cancer Mission and Japan's National Cancer Centre. The discussions centred on a shared priority: enhancing quality of life for individuals during and after cancer treatment, with a particular focus on adolescents and young adults. A follow-up event was held in Brussels on 2 March 2026.

In the 2026 Cancer Mission Work Programme, EUR 5 million has been allocated to support the development of a comprehensive capacity-building programme between EU Member States, Associated Countries and **Ukrainian cancer centres**. This initiative aims

⁽³⁶⁾ [An operational concept for a European Cancer Patient Digital Centre - Publications Office of the EU](#)

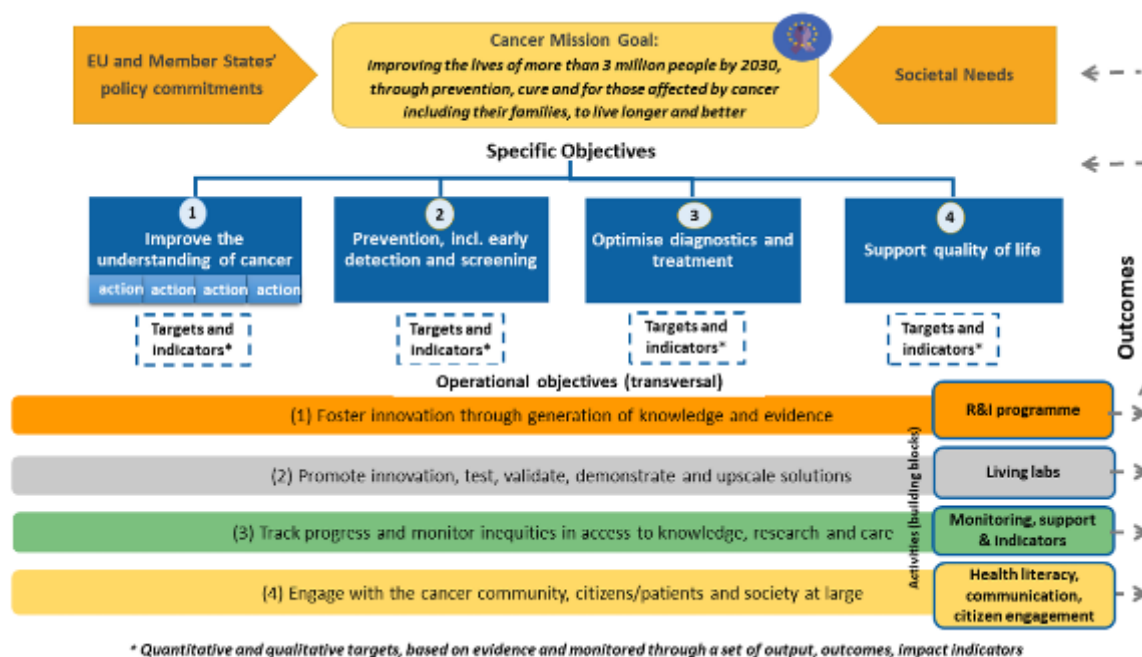
⁽³⁷⁾ [European Health Data Space \(EHDS\)](#)

to establish a research and innovation capacity-building framework while integrating it with cancer care delivery.

2.1.2. The EU Cancer Mission's intervention logic and activities

The EU Cancer Mission creates added value ⁽³⁸⁾ by **bringing together different sectors and disciplines** to find solutions for cancer control, both at the European and national levels. Its intervention logic is built on societal transformation, supported by a strong multi-stakeholder approach that actively involves citizens, patients, researchers, industry, philanthropy, policymakers, funders, health tech innovators, and healthcare professionals. This inclusive framework enables the development and integration of more effective, sustainable and citizen-centred innovation across the entire cancer pathway.

Figure 12. Intervention logic as outlined in the EU Cancer Mission Implementation Plan ⁽³⁹⁾.



The intervention logic of the EU Cancer Mission explains how its goal is achieved through four objectives, five transversal priorities, and a coordinated set of 19 scientific, policy, and societal actions.

- It links research activities, such as generating new knowledge, developing prevention tools, and improving diagnosis, treatment and quality-of-life solutions, to expected outputs and long-term impacts for citizens.
- It emphasises that progress relies not only on scientific advances but also on cross-sectoral and multidisciplinary collaboration, supported by shared resources, data and infrastructures.

⁽³⁸⁾ COM(2023) 457 final

⁽³⁹⁾ European Commission (2021). *Mission on Cancer: Implementation Plan*, Directorate-General for Research and Innovation, September 2021. https://research-and-innovation.ec.europa.eu/document/download/2e87e31f-37f7-4892-ab4f-2fad7ee1fcc3_en?filename=cancer_implementation_plan_final.pdf

- It also integrates societal transformation by involving patients, citizens, and stakeholders in communication, engagement and co-creation activities. Altogether, it shows how research projects and project clusters work together to produce measurable improvements in cancer outcomes across Europe, with particular attention to childhood cancer as a cross-cutting priority.

The Mission brings together research, innovation, public and individual health policy through four main areas of actions:

- **Research & Evidence Generation:** Building robust evidence base for new policy actions. This is essential to identify what works, for whom, and under which conditions, particularly in a disease as complex and heterogeneous as cancer. It enables policymakers to distinguish promising innovations from ineffective approaches and to prioritise interventions that deliver the greatest benefit for populations.
- **Policy & Implementation:** Collaborating with EU Member States and stakeholders to translate findings into practice. Coordination of this collaboration and early involvement of decision-makers ensure that research outcomes (such as risk-based or personalised cancer screening tools) can be implemented e.g. via national cancer plans, national screening programmes and patient pathways that define how a person moves through each stage of care: how screening is offered, how quickly diagnostic tests are performed, how treatment decisions are made by multidisciplinary teams, and how survivorship or palliative care is managed afterward. This is crucial in cancer, where timely uptake of research outcomes and innovation improve survival and quality of life. (see operational objective (4) in figure 12).
- **Public Engagement & Equity:** Engaging citizens, ensuring equitable access, and prioritising vulnerable groups, such as children, adolescents and young adults. Involving the public helps tailor prevention, screening, and care initiatives to real needs and improves trust in cancer-related innovation and policies, improving also their uptake. This involvement is essential in cancer because outcomes vary widely across socio-economic groups, age (e.g. children, elderly) and vulnerable populations often face barriers to timely diagnosis and treatment. (see operational objective (4) in figure 12).
- **Precision, Innovation and Infrastructure:** Supporting initiatives that provide personalised medicine, facilitated data sharing, new diagnostics, and tailored treatment and care options. Innovative cancer research depends on strong infrastructures that allow scientists and clinicians to exchange high-quality data and test innovations at scale. This is vital in cancer, as breakthroughs often rely on carefully selected patient cohorts sharing similar biomarkers (e.g. the expression of oestrogen receptor on breast cancer cells), advanced technologies, and rapid translation of discoveries into clinical practice (see operational objective (1, 2 and 3) in figure 12).

Concrete activities under the EU Cancer Mission include launching research projects targeting major cancer challenges, prioritising vulnerable groups, rare and hard to treat cancers, establishing National Cancer Mission Hubs for policy alignment, fostering project clusters under each of the four Mission objectives understanding, prevention and early detection, diagnosis and treatment, as well as quality of life.

2.1.3. EU Cancer Mission portfolio and its four objectives

The Mission has a growing portfolio of 62 R&I projects ⁽⁴⁰⁾, with a budget of EUR 480 million. A few examples are highlighted:

- **Understanding Cancer:** Projects such as GLIOMATCH ⁽⁴¹⁾ and THRIVE ⁽⁴²⁾ are advancing precision medicine by generating new molecular profiles, identifying tumour–host interaction pathways, and developing candidate biomarkers for personalised treatment strategies. DISCERN ⁽⁴³⁾ is delivering large-scale epidemiological datasets, computational models and validated risk-factor associations to uncover the health determinants driving poorly understood cancers.
- **Prevention and Early Detection:** Projects like ONCODIR ⁽⁴⁴⁾ and SUNRISE ⁽⁴⁵⁾ are developing innovative digital tools and strategies for cancer prevention, targeting both the general population and adolescents. These projects combine behavioural science, risk-assessment models and personalised recommendations to support healthier lifestyle choices. Their tools also help public authorities design more effective prevention campaigns and reach groups that are traditionally difficult to engage.
- **Optimising Diagnosis and Treatment:** Initiatives such as DEFINITIVE ⁽⁴⁶⁾ and liquid biopsy trials aim to personalise care and improve early cancer treatment through clinical testing. DEFINITIVE develops next-generation imaging and radiomics tools to help clinicians more precisely characterise tumours and tailor treatments to individual tumour biology. MONALISA ⁽⁴⁷⁾ is conducting a pragmatic clinical trial in children to demonstrate the efficacy of liquid biopsy for early detection of neuroblastoma relapse, improving survival chances while reducing the need for stressful diagnostic procedures.
- **Enhancing Quality of Life:** The EUonQoL ⁽⁴⁸⁾ project is creating a harmonised set of validated patient-reported outcome measures to help patients, clinicians and policymakers monitor survivors’ wellbeing across Europe. The smartCARE ⁽⁴⁹⁾ project developed a personalised digital survivorship passport that provides tailored follow-up plans, treatment histories, and self-management support. Five projects

⁽⁴⁰⁾ The 62 projects come from the first 4 years of the EU Cancer Mission (2021-2024). Taking into account 2025, the overall investment has reached EUR 605 million supporting 75 projects.

⁽⁴¹⁾ <https://cordis.europa.eu/project/id/101136670>

⁽⁴²⁾ <https://cordis.europa.eu/project/id/101136622>

⁽⁴³⁾ <https://cordis.europa.eu/project/id/101096888>

⁽⁴⁴⁾ <https://cordis.europa.eu/project/id/101104777>

⁽⁴⁵⁾ <https://cordis.europa.eu/project/id/101136829>

⁽⁴⁶⁾ <https://cordis.europa.eu/project/id/101136953>

⁽⁴⁷⁾ <https://cordis.europa.eu/project/id/101137028>

⁽⁴⁸⁾ <https://cordis.europa.eu/project/id/101096362>

⁽⁴⁹⁾ [SmartCARE - Public Health - European Commission](#)

with over 90 partners across Europe are advancing innovative tools to better understand and manage late effects of cancer treatment in young survivors.

- **Infrastructures for cancer:** (1) **UNCAN.eu** is building a federated European infrastructure for improving management, sharing and analysis of data. (2) The **Comprehensive Cancer Infrastructure (CCI)** flagship initiative builds a unified European network that integrates cancer care, research, training, and innovation to ensure high-quality, equitable access for patients across all Member States. By promoting capacity-building, a shared maturity model, and twinning between centres, it reduces disparities in outcomes and strengthens Europe's long-term leadership in delivering comprehensive, patient-centred cancer care and research. (3) The **European Cancer Patient Digital Centre (ECPDC)** is building a trusted, patient-centred digital platform providing reliable information, guidance on patient-reported outcomes and experiences (PROMs and PREMs), and a secure space for peer exchange, aligned with the European Health Data Space framework. By integrating multiple modules and leveraging existing initiatives, it aims to empower patients, enhance engagement in care and research, and support harmonised quality-of-life data collection across Europe.

In line with the Mission approach, projects are grouped into **thematic clusters** in order to foster collaboration, facilitate knowledge sharing, and strengthen synergies within cluster projects as well as with other projects and Mission actions.

As outlined in the Cancer Mission Work Programmes, project consortia engage in networking and joint activities with other funded projects to maximise coherence and European added value. To achieve this, projects are organised into thematic clusters that together build a strong, mission-driven portfolio supporting the Mission's objectives. These clusters align scientific efforts, create shared outputs, and feed evidence into policymaking, while increasing the visibility and uptake of EU-funded results. The Mission uses clusters to promote shared data management, coordinated policy feedback, and citizen engagement across all stages of cancer control.

Each project identifies areas for collaboration within its cluster and commits to cooperation on horizontal topics such as data management, communication, capacity building, and links with National Cancer Mission Hubs at national levels. Sub-cluster provide platforms for shared learning, joint engagement, and wider communication further enhancing collaboration.

Figure 13. Policy webinars and stakeholder dialogues facilitate the translation of research into actionable policy recommendations.



Policy webinars and stakeholder dialogues facilitate the translation of research into actionable policy recommendations and connect projects with policymakers, healthcare providers, patients, and industry. This continuous exchange ensures that scientific evidence informs cancer policy while stakeholder feedback shapes future research and implementation priorities.

For example, the “*Prevention and Early Detection – Screening*” subcluster brings together six EU-funded projects aligned with the Mission’s objective to reduce cancer incidence and detect cancers early. These projects collaborate to develop personalised prevention and risk-based screening tools (e.g. for breast, colorectal, lung, and haematological cancers), integrate behavioural sciences, digital methods, and real-world data, and engage citizens in co-creating solutions. The cluster aims to deliver scalable interventions, support policy updates across Member States, and bridge research to implementation, making prevention and screening more effective, inclusive, and equitable.

The “*Diagnosis & Treatment*” cluster advances cutting-edge diagnostics, personalised care, and therapeutic innovation to optimise outcomes for cancer patients across Europe. Its projects develop liquid biopsies, imaging biomarkers, and adaptive treatment algorithms, integrating them into clinical pathways for adult and paediatric cancers. By aligning efforts, the cluster promotes collaboration, shared infrastructure, and policy-relevant evidence to accelerate the adoption of innovative diagnostics and treatments at national and regional levels.

2.2. The progress of the Mission

The following section shares key milestones in the Mission’s expected impact towards its overall goal and four objectives.

It is essential to note that impact needs time to materialise, particularly in a complex field like cancer research. Most of the funded Mission projects to date are ongoing (since over 80% of the projects started in 2022 or later). Some of the projects have already delivered results and a pipeline of tangible results (such as scientific publications, new data

resources, prototypes, clinical evidence, or policy tools) is set up to emerge over the next few years.

As these outputs mature and are adopted by healthcare professionals, researchers and policymakers, they will gradually lead to measurable outcomes like improved prevention strategies, more precise diagnostics and better patient care. Only after this stage can broader societal and health impacts, including reduced cancer incidence or improved survival and quality of life, be reliably assessed. To track progress the Mission's monitoring system will follow a step-by-step approach, from early project outputs to long-term outcomes and impacts at population level.

2.2.1. Progress towards the EU Cancer Mission goal

The EU Cancer Mission's goal of "improving lives" broadly encompasses all four Mission objectives. It is not limited to access to effective therapies to include better understanding, prevention, early detection, quality of life, equity, and patient empowerment for those living with and beyond cancer. Improving lives means lowering cancer mortality and enhancing survival through more effective prevention (as up to 50% of cancers are preventable) and less invasive, more precise treatments that reduce side effects and speed up recovery. Early diagnosis also improves lives by detecting cancer sooner, improving outcomes, and reducing treatment burdens. The Mission ultimately strives to make high-quality cancer care and survivorship support more accessible, equitable, and responsive to people's needs across Europe.

Since its launch in September 2021, the EU Cancer Mission has made **significant progress**. It funded 62 projects, organised 44 stakeholder events with more than 4 000 participants, and held 9 citizen engagement events reaching over 16 000 citizens. It has also supported policy initiatives under the Europe's Beating Cancer Plan to advance cancer understanding, prevention, and control at both European and national levels. The estimation of the Mission's progress towards its goal is based on information retrieved from deliverables of these projects following a methodology described in detail in the annex.

Each project contributes to either of the four objectives of the Mission, namely (1) improve the understanding of cancer, (2) prevent what is preventable, (3) optimise diagnosis and treatment, (4) improve the quality of life. These four objectives converge to achieve the overall goal of the Mission.

The defined methodology enables to translate project expected outcomes in number of people whose lives will be improved. At this stage, the calculation is primarily based on the expected outcomes of projects and reflects several mitigating measures implemented to increase its robustness.

For example, to anticipate that not all solutions developed by projects will eventually reach full (clinical) implementation, a probability factor derived from extensive literature research has been included for each indicator ⁽⁵⁰⁾.

⁽⁵⁰⁾ See the methodology in the annex.

Based on the above, at this stage of implementation, we estimated that the EU Cancer Mission via its supported solutions will **potentially improve the lives of 2.3 million people**.

The methodology for this estimation is based on combining the target populations of all Mission projects individually with the probability of success and reach of each intervention. We have used conservative, evidence-based assumptions and adjusted for overlaps to produce a realistic projection of the Mission's overall impact.

This is a significant milestone and clear progress towards the goal. By 2030, when more projects will have been funded and delivered results, we expect to see a substantial and measurable impact, with a growing number of people benefiting directly from the Mission. Based on currently estimated progress, the EU Cancer Mission is well on track to reach and exceed its goal of improving the lives of more than 3 million people across Europe.

We will periodically reassess the number of people whose lives will be improved, replacing expected outcomes with concrete results, as they become available.

The *Prevention and Early detection* and *Quality of Life* projects are leading to a greater number of lives improved. The *Understanding* objective is likely to contribute to the long term, since it advances knowledge building and underpinning research (see the annex). These foundational insights will enable future breakthroughs in diagnostics, therapies, and personalised medicine, amplifying the Mission's overall impact over time. By linking short-term benefits for citizens with long-term scientific progress, the Mission ensures both immediate improvements in wellbeing and sustainable advances in cancer control.

2.2.2. First results delivered by the EU Cancer Mission project portfolio

With an EU contribution of EUR 480 million, the EU Cancer Mission has funded **62 new projects since 2021**, covering its four main objectives. Most projects have been funded under the “Diagnosis & Treatment” objective (n=20). This is followed by 16 projects under “Prevention & Early Detection”, 14 projects under “Understanding Cancer”, 9 projects under “Quality of Life” and 3 transversal Mission projects. Together, this portfolio reflects a balanced approach across the cancer continuum, from research and prevention to care and survivorship.

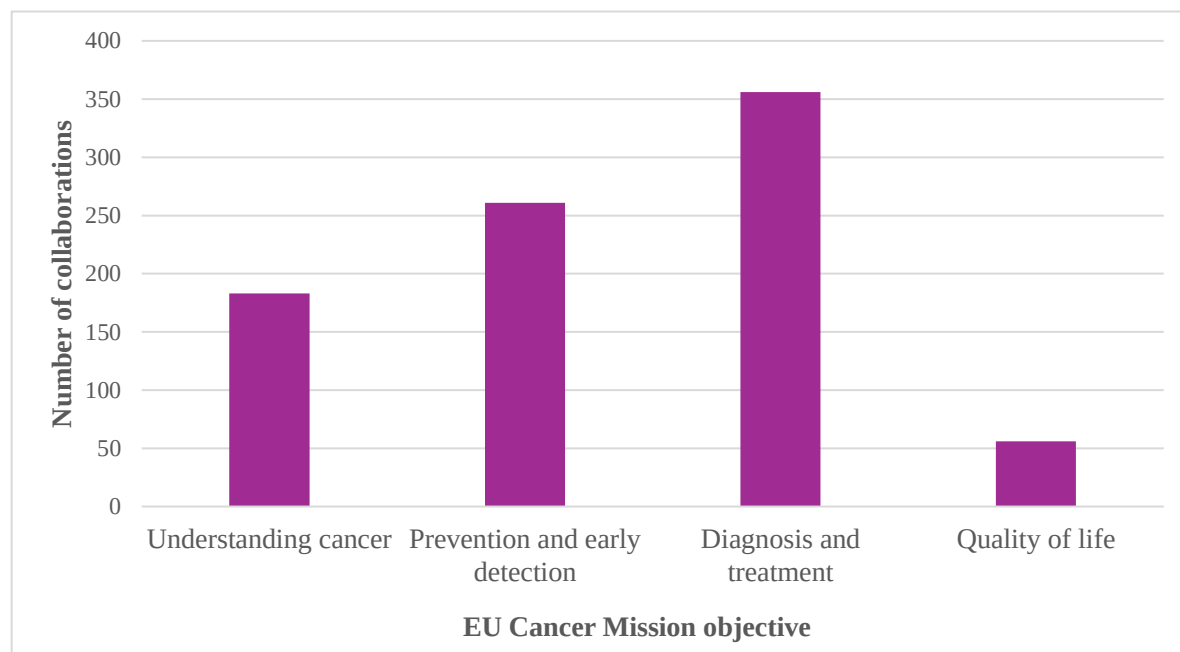
Within this portfolio, some initiatives are already delivering concrete structural results. 4.UNCAN.eu ⁽⁵¹⁾, the first completed coordination and support action, developed a strategic blueprint for a federated European network of cancer data nodes. This blueprint will be scaled up to help researchers and data holders to work seamlessly with data from multiple sources and domains. By linking research, health, and digital policies, this flagship provides a first concrete step toward demonstrating how the future European Health Data Space can revolutionise data exchange in cancer and other diseases.

The Mission's portfolio also functions as a powerful **driver of collaboration**. Through its projects, the Mission fosters cross-sectoral and multidisciplinary collaboration between project partner organisations. As shown in figure 14, it has established over 850 collaborations, with around 18 organisations per project on average. Collaboration is

⁽⁵¹⁾ <https://cordis.europa.eu/project/id/101069496>

particularly strong in projects creating new Mission Hubs, infrastructures, and integrated improvements to cancer care, research, and prevention, bringing together researchers, clinicians, policymakers, and citizens across Member States in a mission-oriented framework that moves past traditional funding and helps reduce fragmentation while maximising collective impact.

Figure 14. Number of project collaborations per Mission objective.



Mission projects unite a **wide range of organisations**, including universities, non-profits, research transfer offices, technology partners, public institutions, SMEs, large industries, and engagement groups. Although it is still early to fully assess the Mission's added value, the figures already demonstrate its strong ability to mobilise cross-sector collaboration in support of its objectives.

This collaborative model also enables the EU Cancer Mission to address complex, cross-cutting challenges that require coordinated action across disciplines and sectors. One such priority is childhood cancer: as a transversal focus, significant progress has been made to advance understanding and better address the **needs of children, adolescents, and young adults (CAYA) with cancer**.

Each year in Europe, around 35 000 children and 150 000 adolescents and young adults are diagnosed with cancer. Despite major progress pushing survival rates to around 80% cancer remains the leading cause of death in young people, claiming 6 000-8 000 lives annually.

Addressing CAYA cancer is a core priority of the EU Cancer Mission and EBCP. Between 2021-2024, around EUR 100 million (20% of total Mission funding) was dedicated to this age group.

This focus continues:

- The 2025 Mission Work Programme allocates EUR 25 million for innovative multi-country therapeutic trials for paediatric cancer.

- Over EUR 30 million will support research on environmental exposure and CAYA cancer risk.
- The Mission facilitates a Rare Cancer Forum in collaboration with the European Society for Paediatric Oncology (SIOP), launched in March 2026.
- Ongoing engagement with CAYA patients, survivors, and caregivers informing priorities, including a EUR 36 million topic on managing late effects of treatment.

The EU Cancer Mission has made major strides in addressing cancers in children, adolescents and young adults (CAYAs) with cancer, investing between 2021-2025 at least EUR 145 million across **21 groundbreaking projects**, nearly a third of its portfolio. From unravelling rare tumours (melanoma, glioma, liver cancers) to pioneering prevention (tackling obesity, digital health tools) and cutting-edge clinical trials (refractory neuroblastoma, leukaemia, brain and bone cancers), research is translating into real hope for young patients.

But progress does not stop at treatment. Six dedicated projects – including five on late effects – are reshaping **quality of life and survivorship care**, ensuring young survivors thrive beyond cancer.

The next steps are **amplifying youth voices**, deeper engagement with survivors and local communities to shape research and policy priorities, **accelerating clinical trials**, backing investigator-led studies for smarter, kinder treatments, and **prioritising mental health** through the European Cancer Patient Digital Centre.

Several projects funded by the EU Cancer Mission develop **living-lab approaches** as part of their methodology, especially for citizen engagement, co-creation, behaviour-change interventions, and quality-of-life research.

The project “4P-CAN”⁽⁵²⁾ supports the EU Cancer Mission by addressing societal, behavioural, economic, and structural barriers that hinder the uptake of effective cancer prevention, particularly in Eastern Europe. It strengthens population-level prevention by generating evidence on what works in real communities and how policies can better reach citizens with diverse needs. Its Living Labs in Romania and Bulgaria create a direct impact by bringing together citizens, policymakers and clinicians to co-design and test prevention strategies, ensuring policy solutions are feasible, relevant, and widely accepted.

The project “OncoScreen”⁽⁵³⁾ contributes to the Mission by developing scalable, citizen-centred innovations for colorectal cancer screening to improve early detection and reduce inequalities across Member States. First results include the successful validation of AI-supported risk stratification models and improved screening workflows tested in pilot settings, showing strong potential for broader European uptake. It provides policy-relevant evidence by integrating clinical, technological, and behavioural insights into screening pathways adaptable to different health systems. Its Virtual Living Lab brings together healthcare professionals, citizens, researchers, and industry to evaluate screening tools and processes, ensuring policy recommendations are grounded in real-world usability and public engagement.

⁽⁵²⁾ <https://cordis.europa.eu/project/id/101104432>

⁽⁵³⁾ <https://cordis.europa.eu/project/id/101097036>

The project “PREDI-LYNCH” ⁽⁵⁴⁾ is developing an early cancer prediction tool for people with Lynch syndrome (LS), a hereditary condition that greatly increases cancer risk. It creates validated, non-invasive liquid biopsy tests using urine or blood samples that combine biomarkers with advanced analytics to detect LS-associated cancers (colorectal, endometrial, urothelial) at very early stages. Initial results show promising accuracy of selected biomarker panels and predictive models in identifying early tumour signals, proving feasibility for clinical surveillance. These innovations enable personalised, risk-based monitoring, reducing invasive procedures and allowing earlier intervention and better outcomes for high-risk individuals.

The EU Cancer Mission has created incentives for **investments outside the EU budget** with Member States and organisations, such as:

- **Philanthropy:** launching of the FORCE ⁽⁵⁵⁾ coordination and support action, which brings together a network of cancer charities to support clinical trials on refractory and rare cancers (Mission WP 2024).
- **National and regional cancer funders:** expanding the TRANSCAN ⁽⁵⁶⁾ research funders network to support the EU Cancer Mission and EBCP through translational research consortia, bringing together leading and young cancer scientists (Mission WP 2025).
- **European Investment Bank:** providing financial advisory services to support the development of a network of European Comprehensive Cancer Centres strengthening research capacity of comprehensive cancer infrastructures in seven widening countries ⁽⁵⁷⁾.

2.2.3. Expected outputs from EU Cancer Mission projects

Outputs from EU Cancer Mission projects are expected to be varied and aligned with the outcomes of each of the four objectives. While most projects will deliver publications, others will develop new biomarkers, diagnostic tools, or screening programmes for specific sub-groups. This section reports on Mission outcomes based on projects developing new tools, programmes, methods, and actions within scope.

Between 2021 and 2024, the 62 projects funded by the Mission are expected to produce the following outcomes:

- 40 new tools (see concrete examples below) including:
 - 10 new prevention and early detection tools,
 - 11 novel diagnostic and prognostic tests and methods.
- 10 new scientific outputs for population-based cancer screening programmes.
- 23 multi-country clinical trials to develop new prevention, diagnostic, and treatment interventions, such as primary prevention programmes targeting schools, devices, and medicines.

⁽⁵⁴⁾ <https://cordis.europa.eu/project/id/101213916>

⁽⁵⁵⁾ <https://cordis.europa.eu/project/id/101215179>

⁽⁵⁶⁾ <https://cordis.europa.eu/project/id/964264>

⁽⁵⁷⁾ Bulgaria, Croatia, Cyprus, Greece, Malta, Romania, Slovakia

- 321 scientific publications, with 24 projects reporting at least one publication ⁽⁵⁸⁾.

Concrete examples of tools produced by projects and their outputs are listed below.

A personalised digital prevention platform to help individuals at risk of cancer is being developed by the “iBeCHANGE” ⁽⁵⁹⁾ project. The platform uses AI-driven lifestyle profiling and behavioural data to empower individuals at risk of cancer, such as those who smoke, drink excessively, eat poorly, are inactive, or experience chronic stress. The tool integrates adaptive interventions like personalised messages, nudges, and coaching tailored to key lifestyle factors. It aims to deliver scalable, evidence-based prevention strategies that healthcare systems and policymakers can use to change population habits and reduce cancer incidence. Large-scale policy deployment could significantly cut new cancer cases, lowering treatment costs, reducing hospitalisations, and improving overall wellbeing.

The **European Cancer Patient Digital Centre** is a flagship initiative of the EU Cancer Mission and Europe’s Beating Cancer Plan. Its creation is supported by the “EU-CIP” ⁽⁶⁰⁾ project (European Cancer Information Portal) The project builds a pan-European digital tool and content library to improve access to cancer information, empower patients, and raise policy awareness. The platform will have modular central and local nodes in ten Member States and will be developed in collaboration with patient organisations to ensure usability and equity. By integrating with the Knowledge Centre on Cancer and the European Cancer Information System, EU-CIP will provide a single-entry point for trusted, multilingual cancer information. This bridges information gaps, supports national decision-making, and enables cross-border data exchange for better coordination in cancer control.

An extended-reality (XR) digital tool for rehabilitation and self-management in adolescents and young adults is being developed by the project “TRANSCEND-XR” ⁽⁶¹⁾. The project has conducted user-centred workshops, created prototype XR modules for physical and psychosocial recovery, and launched a multicentre study in several Member States. The scalable, immersive tool helps young survivors regain strength, cognitive function, and wellbeing while reducing long-term effects like fatigue, pain, and anxiety. Through engaging, personalised rehabilitation, it supports a smoother return to education, work, and social life, aiding full reintegration after treatment.

2.2.4. Joint achievements of Europe’s Beating Cancer Plan and EU Cancer Mission

The Cancer Mission’s **joint governance** actively involves Member States through both the Sub-group on Cancer under the Public Health Expert Group (PHEG) and the SPC Cancer Mission Working Group, ensuring strong coordination across research, health, and social policies and coherent implementation at EU and national levels. In close alignment with Europe’s Beating Cancer Plan (EBCP), this joint governance has enabled structured

⁽⁵⁸⁾ Publications Office, CORDIS - EU research projects under HORIZON Europe (2021-2027), Publications Office, 2022. As of 26 August 2025: <https://doi.org/10.2906/112117098108/20>.

⁽⁵⁹⁾ <https://cordis.europa.eu/project/id/101136840>

⁽⁶⁰⁾ <https://cordis.europa.eu/project/id/101073878>

⁽⁶¹⁾ <https://cordis.europa.eu/project/id/101214413>

dialogue with Member States to shape evidence-based EU policy actions and support their coordinated implementation through aligned funding instruments.

One example of their joint achievements is the revision of the Council recommendation on cancer screening in 2022, 20 years after its first adoption ⁽⁶²⁾, based on the latest scientific evidence provided by the RTD Scientific Advice Mechanism (SAM) ⁽⁶³⁾.

As a follow-up, the Mission supports 15 R&I projects that test innovative prevention programmes, promote behavioural change, use participative implementation research with all age groups, and scale up screening and early detection technologies (TRL 5-7). These projects complement EBCP's actions to support Member States in implementing the Council recommendation on screening.

In 2023, the EU Cancer Mission launched a **long-term dialogue with young cancer survivors** to better understand their needs during and after treatment and co-create initiatives to address them, including issues such as discrimination in access to financial services faced by cancer survivors. This dialogue led to the development of a research topic in Mission Work Programme 2024 on late effects of cancer treatments and a study on AYA cancer care in Europe under EU4Health WP 2024. This ongoing engagement of young survivors also raises awareness of their needs among stakeholders and Member States.

Thanks to the dialogue with young cancer survivors, they were able to contribute to the design of the European Cancer Patient Digital Centre, a platform that will provide patients and survivors with reliable information throughout their cancer journey. The Mission Work Programme 2024 supports the development of the information portal, which is the first building block of this platform ⁽⁶⁴⁾. Through this programme, the EU will deliver a user-tested digital resource that empowers patients, enhances health literacy, and lays the foundation for future modules on peer exchange and patient-reported outcomes, strengthening engagement across Europe.

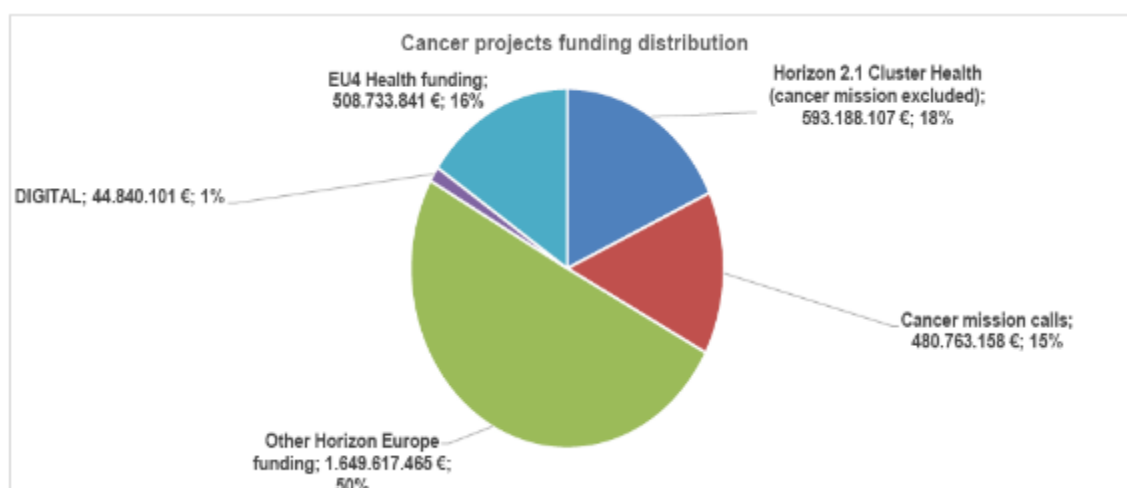
In addition to its investments of EUR 480 million to innovative projects, the Mission achieved **synergies with other EU programmes**, notably Horizon Europe (Health Cluster, Partnerships, EIT Health, EIC), other EU programmes (EU4Health, Digital Europe, Euratom) and policy initiatives (Europe's Beating Cancer Plan, SAMIRA Action Plan, Knowledge Centre on Cancer). This approach has led to a **cumulative investment of EUR 3.3 billion in cancer research and innovation** under Horizon Europe, EU4Health, and Digital Europe in 2025 (Figure 15). By working together and combining resources, the EU can make a significant impact in the fight against cancer and improve the lives of patients and survivors.

⁽⁶²⁾ [Council updates its recommendation to screen for cancer](#)

⁽⁶³⁾ [Scientific Advice Mechanism](#)

⁽⁶⁴⁾ The above referred project EU-CIP was funded within this call

Figure 15. Overview of the EU-funded cancer project portfolio across Horizon Europe (2021-2024), EU4Health (2021-2024) and Digital Europe (2021-2024).



2.2.5. Bringing solutions to local, regional and national communities

Citizen engagement is central to the EU Cancer Mission, recognising that tackling cancer requires a collective effort and shared responsibility. While health policy remains a national competence, the Mission provides a European framework that connects citizens, stakeholders, and policymakers across Member States. By actively involving patients, communities, and regional actors, the Mission ensures that R&I meet real needs and improve lives. Building strong national and regional capacities is key to turning EU initiatives into local action, fostering ownership, trust, and sustainability, and ultimately turning European collaboration into tangible health benefits for citizens.

To raise awareness about innovation and prevention, the Mission organised a **bus roadshow** in 2024 that visited Poland, Lithuania, and Romania. The campaign brought interactive information directly to citizens, attracting over 16 000 visitors and reaching 11 million people. The Mission partnered with 66 stakeholders, including ministries, cancer institutes, and patient organisations to showcase prevention tools such as screening guides, lifestyle assessments, and digital health solutions from Mission projects, showing how science supports healthier choices. This outreach created a new way to connect research with everyday life, fostering trust, awareness, and collaboration across Europe.

Figure 16. Overview of the EU Cancer Mission roadshow.



The EU Cancer Mission supports 23 multi-country clinical trials, including 16 pragmatic trials, to deliver affordable, personalised diagnostics, therapies, and care interventions. These trials are already providing access to new treatments for over 3 000 patients with common and rare cancers. The Mission's integrated approach, which aligns research, healthcare providers, and policymakers under shared goals, makes it possible to coordinate these clinical efforts. Unlike traditional funding, the Mission framework fosters collaboration, data sharing, and joint implementation, accelerating progress from research to patient benefit across Europe.

The “CCI4EU” project contributes to the EBCP and EU Cancer Mission flagship of creating a **European network of Comprehensive Cancer Centres**. It strengthens the research capacity of Comprehensive Cancer Infrastructures (CCIs) integrating care, research, education, and innovation at regional and national levels. The project defines a CCI maturity model, maps infrastructures across Europe, and delivers capacity-building programmes for less developed regions. Its goal is for 90% of eligible patients in Europe to access CCIs by 2030, reducing inequalities, and improving outcomes. Significant progress has been made, including the completion of the first mapping of cancer centres, the maturity model, and targeted capacity-building to close gaps in cancer care.

The **National Cancer Mission Hubs**, established through the ECHoS project (2023–2026), play a key role in implementing the EU Cancer Mission at national, regional, and local levels. All Member States have joined ECHoS to build a pan-European network that replicates the integrated approach linking cancer research and health policy at the national level. In this way, the Mission is driving government action on national cancer plans and support for cancer survivors. Poland launched the first Hub in May 2025, followed by Malta, Greece, the Netherlands, Bulgaria, Italy, Sweden, Spain, Israel, Finland, and Croatia. Overall, 19 countries will have established a National Cancer Mission Hub by the end of 2026.

Figure 17. Launch of the Polish Cancer Mission Hub.



In parallel, several countries have increased their investments in cancer research and healthcare, with contributions from EU budget, including the **Recovery and Resilience Fund (RRF)** ⁽⁶⁵⁾ and national budgets. For example:

- The Czech Republic has invested into the development of a Cancer Prevention Centre and Infrastructure for Innovative and Supportive Care at Masaryk Memorial Cancer Institute.
- Croatia has purchased equipment for prevention, diagnosis, and treatment of cancer.
- Greece has invested into breast cancer prevention.
- Malta has invested in a cutting-edge cancer treatment and diagnosis facility at Sir Anthony Mamo Oncology Centre.
- Slovakia is developing diagnostic tests for the detection of gastric and colorectal cancer.
- Belgium has invested in nuclear medicine radioisotopes for cancer treatment..
- Latvia has invested in introducing new methodological management and guidelines in the field of oncology.

2.3. Conclusions

With the EU Cancer Mission, we aim to shift from traditional isolated research projects towards a more comprehensive mission approach, aiming to speed up the process from findings to implementation across the EU, including the joint deployment of research outcomes into national cancer plans, screening programmes, and patient pathways, ensuring real-world impact.

This novel approach allowed the Mission to make considerable progress towards its goal of improving the lives of 3 million people by 2030 through research, innovation, and coordinated policy action. Since 2021, it has funded 62 projects with EUR 480 million, resulting in 23 multi-country clinical trials, 40 new tools for prevention, detection, and treatment, and over 850 collaborations across research, healthcare, and policy. Early

⁽⁶⁵⁾ [Projects - European Commission](#)

monitoring indicates that the Mission is on track to improve 2.3 million lives by 2030, with notable results in prevention, early detection, and quality of life.

Such achievements could only be realised through the Mission's integrated, challenge-driven approach, which unites stakeholders from across sectors and Member States under a single, outcome-oriented framework.

Citizen engagement and outreach activities remain crucially important for awareness and trust-building, in combination with the core added value of the EU Cancer Mission that lies in its capacity to accelerate high-impact cancer research and innovation across Europe. The Mission's primary contribution is the generation of new scientific knowledge, clinical evidence, advanced diagnostics, personalised therapies, digital tools, and scalable healthcare solutions. Through its integrated portfolio of multi-country clinical trials, transnational research projects, and shared infrastructures, the Mission strengthens Europe's scientific excellence and its ability to translate discoveries into clinical and societal impact. Continued emphasis on research, implementation, and deployment will be essential to achieve long-term improvements in cancer outcomes and European competitiveness.

The Mission's **deployment potential lies in its flagship initiatives**, such as UNCAN.eu, the Comprehensive Cancer Infrastructures (CCI4EU), and the European Cancer Patient Digital Centre. All are currently offering some of the envisioned services, which have delivered tangible results and are ready to be scaled up for integration into health systems. Through the National Cancer Mission Hubs, these results are being adapted and implemented progressively at regional and national levels, bridging EU innovation and citizens' daily lives. In the coming years more of the envisioned services will be added on a rolling basis. Once these are in place, they will need to be scaled up as well to achieve the Mission's goal until 2030 and continuously reach more people. The initiatives will be the living legacy of the Mission.

Overall, the Mission is building a **European model for equitable cancer control**, demonstrating that when science, policy, and society work together, innovation can reach people faster and more fairly. Continued investment and commitment after 2030 are essential to realising the Mission's transformative potential and turning today's progress into lasting health impact for Europeans.

The EU Cancer Mission is being implemented through a wide range of projects, engagement activities, events, and interdisciplinary policy initiatives across Europe. Its delivery is complex, as it must operate across different sectors, scientific domains, and national health systems, while simultaneously addressing citizens' needs. The joint governance and co-development of actions between the EU Cancer Mission and Europe's Beating Cancer Plan (EBCP) have been crucial for aligning R&I with national and EU-level health policies.

In the future, the services provided by the three flagships should be scaled up with investments to reach even more people:

The **National Cancer Mission Hubs** are designed to continue beyond 2030. They allow countries to tailor cancer strategies to national needs while staying connected at EU level, using a scalable model that supports long-term sustainability, including through

stakeholder and private funding. The Hubs should sustain policy coordination and ensure that Mission results are implemented locally and regionally. Scaling up their activities will strengthen collaboration, spread best practices, and preserve a pan-European network that promotes equity, knowledge sharing, and innovation in the years ahead.

The **UNCAN.eu platform** should continue beyond 2030 as it provides a unique European infrastructure for the management, sharing and analysis of cancer data, which is essential for scientific discovery and precision medicine. By linking research, health, and digital policies, UNCAN.eu demonstrates how the European Health Data Space can revolutionise cancer data use and interoperability across Member States. Building on its early achievements, UNCAN.eu should be scaled up to expand participation, enhance integration, and strengthen collaboration. Continued access to harmonised data will drive innovation and accelerate breakthroughs in cancer prevention, diagnosis, and treatment. By 2035, UNCAN.eu aims to become a fully integrated network, delivering tangible benefits for patients.

The **European Cancer Patient Digital Centre (ECPDC)** should serve as an empowering platform for patients, aligned with the European Health Data Space framework. It will provide reliable information, guidance on patient-centred instruments, and a secure space for peer exchange. The ECPDC should be scaled up by 2035 to integrate new modules and expand its reach across Member States. Sustainable funding will be needed to maintain and grow this trusted, multilingual resource, which will strengthen patient engagement and support research through harmonised quality-of-life data.

The **Comprehensive Cancer Infrastructure** initiative should continue beyond 2030 to strengthen Europe's capacity for high-quality, integrated cancer care, research, and innovation. Through its maturity model and capacity-building, it reduces disparities and ensures broad patient access to top-level infrastructures. The next phase should expand participation, deepen collaboration, and harmonise standards across Europe. Sustaining this initiative will secure lasting cooperation, accelerate clinical translation, and maintain Europe's leadership in equitable cancer care beyond the Mission's timeframe.

The EU Cancer Mission's biggest potential and value come from giving visibility and delivering resources to combat cancer, enhance collaboration and outreach. Collaboration improves the tools and solutions, and outreach increases the number of lives improved. This is achieved through policy events and activities with Council presidencies and national actors, aligning national and European priorities, showcasing progress, and mobilising Member States for joint action. These events will reinforce political commitment and promote the uptake of Mission results into future EU and national cancer policies. The Mission's investments in research, innovation, and implementation have contributed to accelerating progress in diagnostics, personalised therapies, and digital tools, improving patient outcomes. Strengthening prevention campaigns, National Cancer Mission Hubs and policymaker engagement will ensure science translates into equitable health policies more rapidly.

Beyond combating cancer, the approach and the tools developed during the Mission also serve as a blueprint for tackling cardiovascular disease, thereby significantly reducing the cost of future endeavours.

We conclude that most of the envisaged Mission activities are well underway. Through collaboration and outreach we optimised for the best possible impact and will continue to do so. All current offerings provide benefits to people. Until 2030 more offerings will be added, and all offerings will be scaled up. By 2030 the matured flagships will have improved the lives of 3 million people. In the years following 2030, more people can be reached with possible additional funding.

3. RESTORE OUR OCEAN AND WATERS BY 2030

3.1. Introduction to the Mission

3.1.1. What is the Mission, overall goal and selected specific objectives

The Mission Restore our Ocean and Waters by 2030 aims to foster a sustainable marine and freshwater environment by aligning its goals with the objectives of the European Green Deal, and more specifically with EU strategies on ecosystem protection and restoration, pollution reduction, and sustainable economic practices.

The Mission Implementation Plan ⁽⁶⁶⁾ provides a set of interlinked specific objectives and targets to be achieved by 2030:

Figure 18. The Mission's specific objectives and targets.



The Implementation Plan also foresees two enablers for the achievement of the above-mentioned objectives, namely: (a) **a Digital Ocean and Water Knowledge System**, which integrates data, models and AI to enhance monitoring, forecasting and planning capacities; and (b) broad **public mobilisation and engagement** to connect citizens, communities and stakeholders with ocean and water stewardship.

The implementation plan foresees **two phases** for the implementation of the Mission:

- In the first '**development and piloting phase**' (2021-2025), the Mission rolled out four 'Lighthouses' in major European sea and river basins, as the Mission sites that

⁽⁶⁶⁾ Available at: https://research-and-innovation.ec.europa.eu/document/download/d6162cbd-6d09-48fd-b5b4-d7d2be69972c_en?filename=ocean_and_waters_implementation_plan_final.pdf

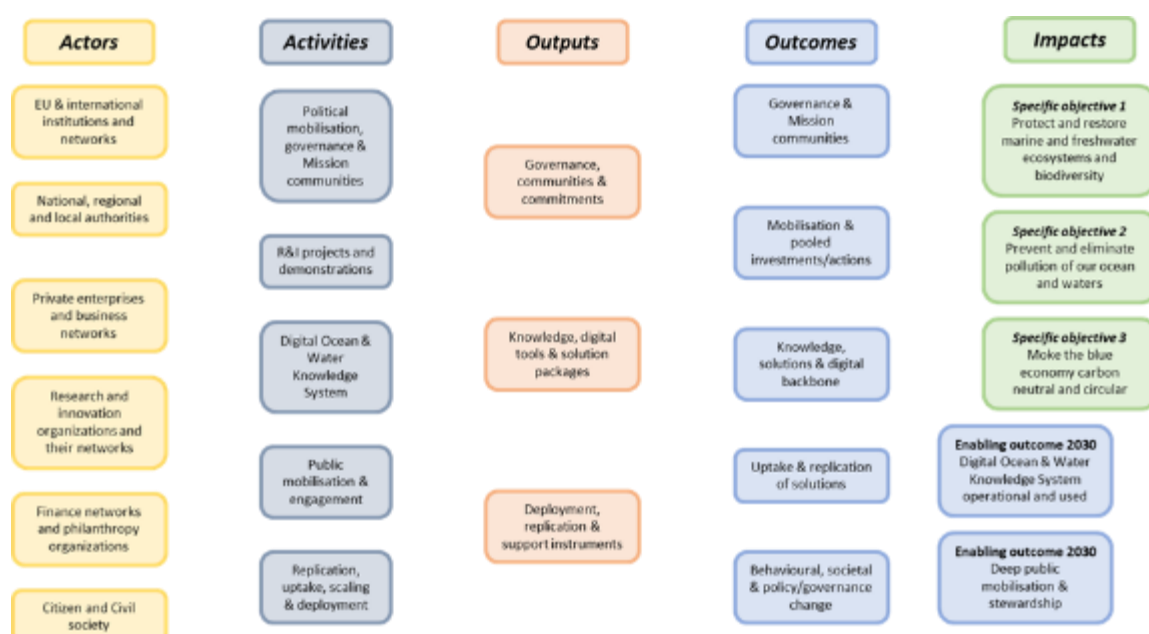
are acting as hubs and platforms for the development, demonstration and deployment of transformative innovations of all forms to reach the three specific Mission objectives and their targets. In the first phase, each Lighthouse focused on one specific objective.

- In the second ‘**deployment and upscaling**’ phase (2026-2030), solutions as those piloted in the first phase will be further developed and, at the same time, replicated and scaled up. In the second phase, all Lighthouses address all three specific Mission objectives.

3.1.2. Brief description of the Mission’s intervention logic and activities

The Mission Ocean and Waters is implemented through an intervention logic (see figure below) that links five strands of activity to outputs, intermediate outcomes and, ultimately, progress towards the three specific objectives and the two Mission enablers.

Figure 19. The Mission's intervention logic.



Political mobilisation, governance and Mission communities provide the institutional backbone. This strand includes establishing and running the four Basin Lighthouses and their Mission Arenas, National Mission Hubs, the Mission Charter, and the EU Blue Parks community, the Waterfront Cities/Regions/Islands coalition and the Digital Ocean Forum. These activities generate outputs in the form of governance structures, communities and political commitments, including Charter Actions with associated investments. Together, these outputs underpin outcomes related to strengthened multilevel governance and Mission communities, large-scale mobilisation and pooling of investments and actions, and early behavioural and policy change among key institutional actors.

R&I projects and demonstrations for the three objectives provided the Mission's knowledge and solution base. Projects under the Horizon Europe work programme work on ecosystem restoration, pollution prevention and elimination, as well as a sustainable, carbon-neutral and circular blue economy, undertaking research, development, co-

creation and pilots in real environments. They generate knowledge, digital tools and solution packages including evidence, models, and indicators, monitoring tools, piloted solutions, operational protocols and early business models. Such outputs generate outcomes related to sound knowledge and solutions, improved decision support, and preconditions for uptake and replication.

The Digital Ocean and Water Knowledge System develops the European Digital Twin Ocean as a public service, integrating major data sources and creating user-facing applications. This produces shared digital infrastructure, curated datasets, models and tools that make knowledge accessible and usable. This, in turn, reinforces outcomes related to a strong digital backbone for planning, monitoring and decision-making across the three objectives.

Public mobilisation and engagement dedicated projects and cross-cutting actions test and scale engagement formats such as citizen science, campaigns, blue education, living labs, youth challenges and art-science collaborations. They generate governance and community outputs and engagement toolkits that strengthen societal coalitions, increase awareness and participation, and promote behavioural and cultural change that support more sustainable practices.

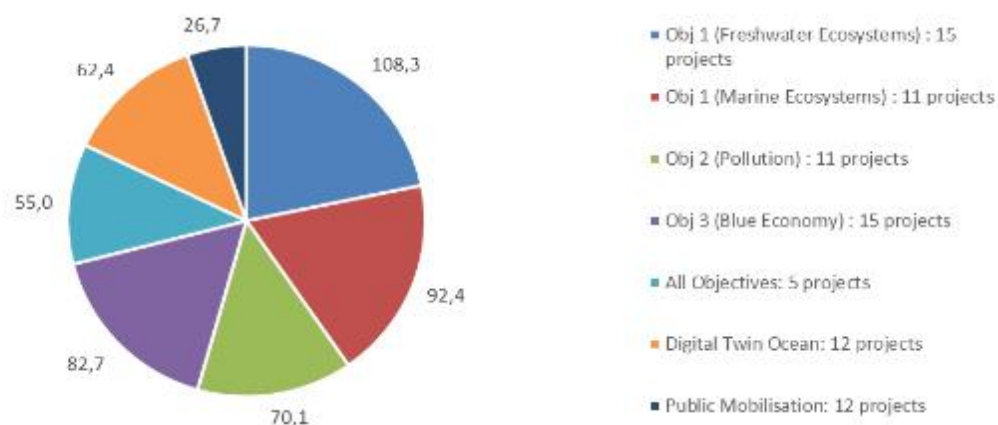
Finally, **replication, uptake, scaling and deployment** translate the Mission's foundations into implementation on the ground. Associated Regions schemes, technical assistance and support services, investment-readiness and financial advisory (e.g. EU Blue Champions), alignment of funds through Cooperation Working Arrangements, and the Mission service portal create deployment, replication and support instruments. They drive the mobilisation of investments, the deployment and replication of solutions in Basins and Associated Regions, and the strengthening of institutional implementation capacity.

As a result, across the five groups of activities, the outputs collectively drive a coherent set of **outcomes** which contribute to the Mission's **impacts by 2030**: restored and better-protected marine and freshwater ecosystems and biodiversity, reduced pollution from key sources, a more sustainable, carbon-neutral and circular blue economy, a fully operational Digital Twin Ocean system supporting decisions at multiple scales and sustained public mobilisation and engagement for the protection of the ocean and waters.

3.1.3. Description of the Mission portfolio and its state of play

By November 2025, 81 projects are up and running under Horizon Europe Work Programmes 2021-2024, with a total EU contribution of EUR 497.6 million. These projects are testing and demonstrating innovative approaches and solutions to address the Mission objectives and enablers:

Figure 20. EU contribution to Mission-funded projects under Horizon Europe (2021-2024) (EUR million).



An analysis ⁽⁶⁷⁾ of 12 EU funding programmes has identified a wider portfolio of 1 236 projects, adding up to EUR 4.97 billion, which contribute to the objectives/enablers, or to the Green Deal-relevant targets of the Mission.

3.2. The progress of the Mission

3.2.1. Introduction

The July 2023 Communication “EU Missions two years on: assessment of progress and way forward” ⁽⁶⁸⁾ considered that the Mission was helping to overcome the current fragmented governance, and to support the implementation of key EU policies and legislation related to the seas and freshwater ecosystems and related activities. The assessment underlined the role of the Charter to increase political support, take concrete measures and leverage additional funding and resources, and concluded that the Mission could become a catalyst for synergies and complementarities between EU, national and sub-national funding programmes. When this assessment was conducted, the governance structures of the Mission Ocean and Waters were already created, but the first projects were just starting and not delivering results yet. The Communication concluded that *“the assessment suggests that the Missions are overall progressing in line with their implementation plans and appear to be on track to achieve their 2030 targets”*.

Since then, substantial progress has been made in the delivery of the Implementation Plan and the monitoring framework of the outputs, outcomes and impacts of Mission activities.

3.2.2. From activities to outcomes: key achievements 2021-2025

3.2.2.1. Research and innovation projects and demonstration sites.

Under **Objective 1**, 25 Innovation Action projects have developed more than 50 solutions and are operating 165 local demonstration sites. These sites serve as testbeds for restoration methods and management approaches, generating both ecological data and operational know-how for implementing restoration at scale. Together, they provide a diverse set of

⁽⁶⁷⁾ https://dashboard.tech.ec.europa.eu/qs_digit_dashboard_mt/public/sense/app/23f6708b-bad6-4147-889a-7a2205964cd0/sheet/9758dd27-b8ac-43f3-8336-8120db0ae19a/state/analysis

⁽⁶⁸⁾ COM(2023) 457 final

tested solutions and practices that can be adopted and adapted by other regions and stakeholders.

Projects addressing **marine ecosystems** combine new ecological knowledge creation (e.g. improved hydrodynamic models of reefs, improved knowledge about the functioning of marine ecosystems within specific geographic regions and their links with human activities, or better monitoring tools) and pilots for the restoration in different marine ecosystems. Nature Based Solutions (NBS), such as habitat restoration (coral and oyster reefs, kelp beds) or green infrastructure are tested in 4 projects ⁽⁶⁹⁾, mostly in the Atlantic-Arctic Sea Basin. These projects expand the Mission's solution base and provide concrete demonstrations that can later be replicated in other sites.

The Mission, with 6 funded projects ⁽⁷⁰⁾, has created the **EU Blue Parks community**, bringing together European networks, national and regional authorities and agencies, projects and initiatives in the EU to identify challenges, share tools, solutions and good practices, and promote innovative approaches. The Mission helped gain momentum and increase the rate at which marine protected areas are designated and properly managed. It also developed and demonstrated novel practices for optimal selection, designation, and effective management of protected areas, including strict protection. In this way, governance and communities are directly linked to practical support for implementation.

Projects addressing **freshwater** were launched both in the Danube River basin and from a cross-basins perspective. In the Danube Basin, 4 projects ⁽⁷¹⁾ address the restoration of fresh and transitional water ecosystems, 2 projects ⁽⁷²⁾ focus on protection and restoration of migratory fish habitats and 3 projects ⁽⁷³⁾ on the management of Sediments. In addition, 4 cross-basins projects ⁽⁷⁴⁾ are developing innovative solution for the protection and restoration of European natural lakes. A joint project ⁽⁷⁵⁾ together with Missions Climate Adaptation and Soil focuses on increasing landscape water retention capacity at regional scale. Key knowledge outputs include new tools for modelling flows and water quality, citizen-science mapping platforms, and sediment contamination assessment methods. Nature-based solutions are also very present in most projects, testing them for different contexts of water management and ecosystem restoration and protection.

⁽⁶⁹⁾ <https://a-aagora.eu/>; <https://climarest.eu/>; <https://bioprotect-project.eu/> and <https://pharosproject.eu/>

⁽⁷⁰⁾ <https://www.blue4all.eu/>; <https://oceanicitizen.eu/>; <https://effective-euproject.eu/>; <https://protectbaltic.eu/>; <https://submariner-network.eu/blue-connect/> and <https://seamphoni.eu/np4/home>

⁽⁷¹⁾ <https://dalia-danube.eu/>; <https://www.danube4allproject.eu/>; <https://dawetrest.eu/> and <https://restore4life.eu/>

⁽⁷²⁾ <https://danubelifelines.eu> and SWIM (<https://cordis.europa.eu/project/id/101215230>)

⁽⁷³⁾ <https://danserproject.eu/>; <https://innosed.eu/> and <https://sundanseproject.eu/>

⁽⁷⁴⁾ <https://eurolakes.eu/>; <https://ferroproject.eu/>; <https://futurelakes.eu/> and <https://procleanlakes.eu/>

⁽⁷⁵⁾ <https://spongeworks.eu/>

Under **Objective 2**, 10 IAs were launched to tackle marine pollution, especially in the Mediterranean basin. 6 projects ⁽⁷⁶⁾ address litter and microplastics pollution, including from fishing gears, 2 projects ⁽⁷⁷⁾ focus on chemical pollution, and 2 joint projects ⁽⁷⁸⁾ with the Mission Soil address nutrient pollution in the landscape-river-sea system. Projects are further developing innovative solutions such as AI-enabled drones, underwater robots, biodegradable nets, and electrochemical sensors. Citizen engagement is central, with partnerships in fisheries and agribusiness, and tools like mobile apps for beach cleanup.

Finally, under Mission **Objective 3**, 14 IAs were launched to support the transformation of the blue economy, focusing on areas not covered by other initiatives such as the Waterborne Technology Platform or the Sustainable Blue Economy Partnership. In the Baltic and the North Sea basins, projects have developed innovative solutions for lowering the impact of marine aquaculture and the multi-purpose use of marine space ⁽⁷⁹⁾, for bringing sustainable algae-based products and solutions to the market ⁽⁸⁰⁾, for community-driven business models of regenerative ocean farming ⁽⁸¹⁾ and for green and energy-efficient small-scale fishing fleets ⁽⁸²⁾. Other projects already cover all EU basins, focusing on innovative nature-inclusive concepts to reconcile offshore renewables with ocean protection ⁽⁸³⁾ or on reducing the environmental impacts of fisheries ⁽⁸⁴⁾. Key outputs include breakthrough prototypes and business models, AI and digital tools supporting decision-making and paving the way for commercial scalability and cost-efficiency of innovation in these sectors. Co-creation and stakeholder involvement also enhance deployment potential.

⁽⁷⁶⁾ <https://remedies-for-ocean.eu/>; <https://seaclear-project.eu/>; <https://inspire-europe.org/>; <https://nettagplus.eu/>; <https://seaclear-project.eu/> and <https://upstream-project.eu/>

⁽⁷⁷⁾ <https://imermaid.eu/> and <https://rhemediation.eu/>

⁽⁷⁸⁾ <https://www.path4med.eu/> and <https://www.seacure-project.eu/>

⁽⁷⁹⁾ <https://olamur.eu/> and <https://ultfarms.eu/>

⁽⁸⁰⁾ <https://algaeprobanos.eu/> and <https://www.locality-algae.eu/>

⁽⁸¹⁾ <https://www.c-faarer.eu/> and <https://coolblueproject.eu/>

⁽⁸²⁾ <https://h2-seas.eu/>; <https://www.refest-project.eu/> and <https://seaglow.eu/>

⁽⁸³⁾ <https://nid4ocean.eu/> and <https://sunbioproject.eu/>

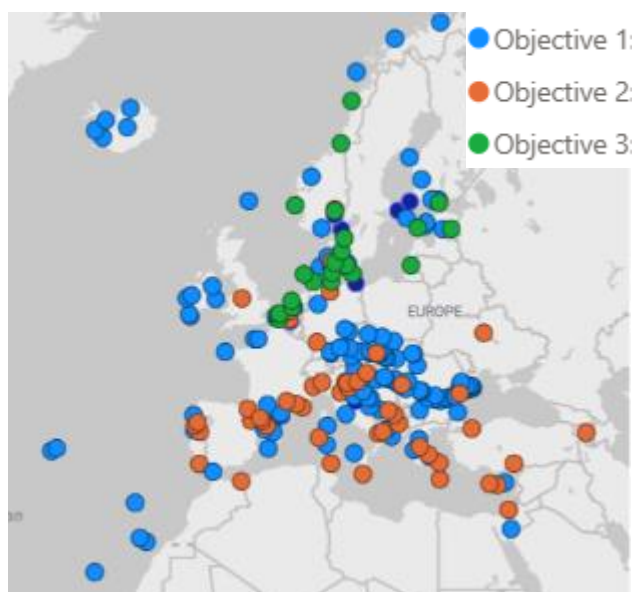
⁽⁸⁴⁾ <https://eco-catch.eu/>; <https://marineguardian.eu/> and SEA4FUTURE (<https://cordis.europa.eu/project/id/101212647>)

The production of **121 Mission solutions** ⁽⁸⁵⁾ registered in the Mission Portal database signals that the Mission is already generating a broad range of tangible outputs – including nature-based restoration methods, monitoring tools, pollution-reduction technologies and blue-economy prototypes – that can be taken up by authorities, operators and communities.

The **349 local demonstration sites** put in place in the above-mentioned IAs highlight a wide territorial footprint for testing and demonstration, with solutions being tried in varied ecological and socio-economic contexts. This provides a strong empirical basis for understanding what

works, under which conditions, and how approaches can be adapted to different basins, regions and communities. At the same time, they act as real-world showrooms, where potential up-takers – such as regional and local authorities, utilities, port and water operators or businesses – can see solutions in operation, assess their performance and risks, and build confidence to replicate or scale them up in their own territories.

Figure 21. Localisation of the Demonstration Sites.



Note: two demonstration sites are located in Svalbard and in Brazil and not reproduced in the map.

How the Mission is demonstrating solutions to address the main drivers of ocean and water degradation

Marine restoration: [CLIMAREST](#) has developed and implemented practical restoration tools such as nature-based coastal protection barriers to counter permafrost-related erosion in Svalbard, seagrass restoration and transplantation in Ireland, large-scale native oyster reef restoration with shellfish farmers in the Bay of Quiberon in France, lobster-restocking and soft-bottom ecosystem restoration in Galicia, and brown algae and rocky habitat restoration in Madeira, with replication sites established in Sweden, Greece, Germany, Croatia and Cyprus.

Freshwater restoration: [DALIA](#) demonstrated integrated solutions for restoring river connectivity, improving water quality and strengthening climate resilience across the Danube River Basin. Key solutions include real-time water-quality and biodiversity monitoring systems, sediment and habitat restoration methods, fish migration and connectivity measures, and basin-scale decision-support tools enabling coordinated management across borders. Danube Basin authorities are preparing replication actions. Notably, river basin and water authorities in Hungary, Austria and Romania are engaging with DALIA toolkits and monitoring approaches to support implementation of Water Framework Directive.

Pollution: [SeaClear](#) has developed a robotic system for underwater litter collection from the seabed and the water column. The system consists of a total of up to eight unmanned vessels, combining cutting-edge artificial intelligence developed by academic experts with the proven robotic capabilities of industry partners to identify, collect, and manage marine trash efficiently. SeaClear2.0 has already run live field

⁽⁸⁵⁾ 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-solutions-library?f%5B0%5D=mission_funded_projects%3A1

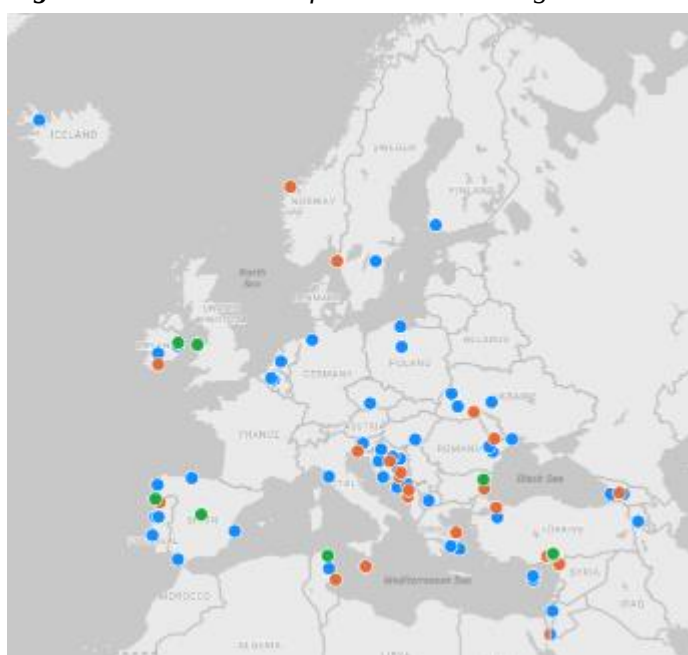
demonstrations in Europe's third busiest seaport (Hamburg, DE), in major tourist sites (Venice, IT & Marseille, FR) and in a region with intensive mariculture activity (Bistrina bay, HR).

Blue Economy: [ULTFARMS](#) has demonstrated that the combination of low-trophic aquaculture within offshore wind farms across the North and Baltic Seas (Belwind (BE), Borssele (NL), Anholt & Samsø Denmark (DK), and FINO2 & 3 (DE)) is feasible and commercially viable. Beyond the multi-use of marine space, the solutions demonstrate further benefits for nutrient reduction, biodiversity benefits and scalable benefits for large offshore deployment, and the methodologies for offshore wind and aquaculture co-location are already being replicated in 5 regions in Europe and Morocco. These illustrative examples showcase the coordinated portfolio of tried and tested, scalable and evidence-based solutions for restoring ocean and freshwater, addressing the main drivers of the degradation while boosting the blue economy sector.

3.2.2.2. Replication, uptake and deployment of solutions

Replication and deployment activities aim to transform solutions developed by projects into wider outcomes by supporting their adoption in new regions and contexts. In most Mission projects, cascading funding allow **Associated Regions** outside the initial demonstration sites to build capacity to implement the innovative solutions developed in the projects. By December 2025, 86 Associated Regions have been selected for funding, and calls are ongoing for additional 54 regions. This indicator is an early but important signal that solutions and support provided through

Figure 22. Localisation of the Associated Regions.



Note: An associated region is localized in New Zealand and not reproduced in the map.

Mission projects and instruments are starting to move beyond the original consortia into a broader set of territories. This marks the beginning of the transition from project-level experimentation to more systematic deployment and scaling.

Dedicated **support and technical assistance** is also provided to support the Mission communities, notably through 4 projects ⁽⁸⁶⁾ that were launched in 2025 to support the deployment of Community-led actions and transition agenda across the 4 Basin Lighthouses. Other Mission Service Contracts support encompasses feasibility studies, technical assistance, transition agendas, pilot actions, networking, knowledge exchange and support services. By December 2025, **159 European regional and local authorities** are involved as beneficiaries in the grants, or as recipients of technical assistance.

⁽⁸⁶⁾ <https://blueactionbanos.eu/>;
<https://tascrestoredmed.eu/>

<https://blueactionaa.eu/>;

<https://sos2learndbs.eu/>

and

The pilot scheme ‘**EU Blue Champions**’⁽⁸⁷⁾ was launched end-2023, in collaboration with the European Investment Bank (EIB) and supported by the BlueInvest platform, which provides financial advisory to 20 projects to grow their business. Some of the winners might also qualify for EIB venture debt.

The **Mission Ocean and Waters service portal**⁽⁸⁸⁾ provides a comprehensive one-stop-shop for stakeholders, offering essential tools, contacts, knowledge, matchmaking, financing, and support for the successful execution of the Mission.

How the Mission is enabling the replication, uptake and deployment of solutions

Associated Regions: Under the [DaWetRest](#) project, Associated Regions are replicating and deploying solutions for the restorations of wetlands and floodplains across the Danube and Black Sea and also in southern Spain, enabling mutual learning, promoting seamless knowledge transfer and reinforcing the EUs dedication to sustainable development. For instance, the Municipality of Danilovgrad in central Montenegro is implementing floodplain restoration actions through the ZetRest initiative; the Municipality of Poti in Georgia, is developing a restoration roadmap for the Paliastomi Lake and Kaparcha Connectivity; the Municipality of Samandağ in Türkiye, advancing renaturalisation actions in the Lower Orontes/Asi River area; and the Andalusia region in Spain, working on coastal blue-carbon habitat restoration best practices.

Technical Assistance: 34 beneficiaries across 17 countries have received technical assistance to islands, ports, and fisheries communities, helping them develop and scale innovative solutions aligned with the Mission’s objectives, with a strong focus on ecosystem restoration and blue economy innovation. This includes the island community of Chalki (EL) to assess the feasibility of renewable energy for electric ferries, including funding strategies and technical reports. The project has since then attracted interest from national energy transition programmes, demonstrating how Mission support can leverage additional investments for sustainable island mobility.

Blue Champions: A total of [20 technology companies](#) have received advisory support from the EIB to grow their business. Some of the winners might also qualify for EIB venture debt, a type of loan designed specifically for early-stage, high-growth companies. **WSENSE** (IT) is a deep-tech company recognised as an EU Blue Champion receiving ongoing scale-up advisory support. A spin-off from Sapienza University of Rome, WSENSEe has pioneered the Internet of Underwater Things (IoUT), delivering the first patented, cable-less mesh networks that allow multi-vendor underwater sensors, robots, and buoys to communicate wirelessly. The scale-up has raised over €25 million in total funding.

These examples highlight how the Mission’s funding mechanisms are starting to accelerate project maturity, de-risking investments, attract private capital, and propel innovations toward market readiness, enabling replication and scaling of solutions across Europe.

3.2.2.3. Political mobilisation governance, communities for protection and restoration

The Mission established four regional **Basin Lighthouses**⁽⁸⁹⁾ for the Atlantic-Arctic, Danube (including the Black-Sea), Mediterranean Sea, Baltic and North Sea. These are hubs and platforms for cooperation at basin level with Member States, regions and other stakeholders that support the development and deployment of solutions. The Lighthouses

⁽⁸⁷⁾ [EU Blue Champions unveiled: 20 companies will receive advisory support to grow their business](#)

⁽⁸⁸⁾ [Mission Ocean and Waters service portal | Research and Innovation](#)

⁽⁸⁹⁾ <https://bluemissionaa.eu/>; <https://ecodalli.eu/>; <https://bluemissionmed.eu/> and <https://bluemissionbanos.eu/>

are driving the implementation of the Mission at basin level, co-creating roadmaps for transformation through regional Mission arenas and setting up innovation ecosystems.

- Under Objective 1, regarding Marine Ecosystems, the Basin Lighthouse CSA “BLUEMISSIONAA” mapped thousands of initiatives and connected over 14 000 stakeholders in the **Atlantic-Arctic** area, building an ocean restoration innovation ecosystem to take root, replicate, and scale, and developing ⁽⁹⁰⁾ the digital platform [WaveLinks](#), cataloguing 5 900 projects and 346 innovative solutions and services, making the Readiness Levels Index visible to researchers, investors, and change-makers, and turning isolated efforts into a shared movement towards a healthier and restored ocean. Regarding freshwater ecosystems, the Basin Lighthouse ECODALLI aimed at centralising governance structures through innovative solutions for ecological restoration, protection, and preservation of the **Danube basin**, fostering a stronger innovation ecosystem via a well-connected Living Lab system and a digital portal linked to the Mission Implementation Platform.
- Under Objective 2, the Basin Lighthouse CSA “BLUEMISSIONMED” established in the **Mediterranean Sea** a Mission infrastructure based on 7 national and regional Mission Hubs, Living Labs, community platforms and enabling services, to connect policy priorities, territorial needs, innovation ecosystems and societal actors, and support the deployment of innovative solutions across diverse Mediterranean contexts.
- Under Objective 3, the Basin Lighthouse CSA “BLUE MISSION BANOS” completed four full innovation cycles between 2023 and 2025 across the **Baltic/North Sea** area. These cycles encompassed the entire basin, from Norway and Sweden to the Baltics, Poland, Germany, Denmark, the Netherlands, and northern France, engaging 500 organisations of regional and local stakeholders in a structured process. The cycles translated Mission challenges into actionable agendas and locally anchored solutions, promoted knowledge sharing, solution development, and scaling of impact.

In addition, the CSA CO-WATERS ⁽⁹¹⁾ recently started the work to foster involvement of waterfront cities, regions and islands in the Mission Ocean and Waters.

3.2.2.4. Digital Ocean and Water Knowledge System

The Digital Ocean and Water Knowledge System, including the emerging European Digital Twin Ocean, underpins all Mission objectives by integrating diverse data streams and modelling capabilities relevant to marine and freshwater ecosystems and blue economy sectors. By connecting data from Copernicus, EMODnet, national monitoring systems and Mission projects, it improves monitoring, forecasting and assessment of ecosystem status, pressures and the effects of protection and restoration measures. The core infrastructure of the **European Digital Twin Ocean**, EDITO ⁽⁹²⁾, conceived as a public

⁽⁹⁰⁾ With BlueMissionBANOS and Prep4Blue (<https://prep4blue.eu/>)

⁽⁹¹⁾ <https://www.co-waters.eu/>

⁽⁹²⁾ Supported by the 3 projects <https://edito-infra.eu/>; <https://edito-modellab.eu/> and <https://www.edito.eu/>

service and a public good, was unveiled at the United Nations Ocean Conference (June 2025, Nice) and is accessible to all. It allows exploring and exploiting data and tools in time and space, for instance to predict and assess the impact of climate scenarios and human activities, to inform decisions on different topics. It also allows users to contribute to the EU DTO with their own data and models. Other 8 Mission-funded projects contribute to the integration of biodiversity monitoring data⁽⁹³⁾, of socio-ecological models⁽⁹⁴⁾ and inland waters⁽⁹⁵⁾ into the Digital Twin Ocean. All these activities will interact with and contribute to the Ocean Observation Initiative, **OceanEye**⁽⁹⁶⁾, a core delivery mechanism of the European Ocean Pact, to position the European Union as the world's leading provider of ocean intelligence.

3.2.2.5. Public mobilisation and engagement

Public mobilisation and engagement activities reinforce Mission action under all objectives by involving citizens and stakeholders directly in marine and water restoration solutions. 12 Mission projects experiment with an extremely large set of approaches to increase citizens' awareness and engagement. This ranges from citizen science actions⁽⁹⁷⁾ to blue education⁽⁹⁸⁾, responsible seafood consumption⁽⁹⁹⁾ or co-design of a long-term vision⁽¹⁰⁰⁾. Projects also cover art-science collaborations⁽¹⁰¹⁾, to transcend purely technical discourse and mobilise deeper behavioural and societal change.

These activities create communities and networks around specific places and issues, encourage behavioural change, and give local actors practical tools and methods to participate in monitoring and management. By linking citizens, schools, NGOs, authorities and experts, public mobilisation activities increase the social and political space for marine and water restoration, complementing the more technical and institutional pillars described above.

Another essential element of public and stakeholder mobilisation and engagement is the Mission Charter⁽¹⁰²⁾. By December 2025, **1 017 Mission Charter Actions** (and their associated **EUR 8 billion** in planned investments - which also include EU funded projects) demonstrate a high level of stakeholder engagement and financial mobilisation around the Mission's objectives. These Actions, undertaken by public authorities, businesses, research

⁽⁹³⁾ <https://digi4eco.eu/>; <https://dto-bioflow.eu/> and <https://ednaquaplan.com/>

⁽⁹⁴⁾ <https://ecotwinproject.eu/>; <https://seadito.eu/>; <https://seadots-project.eu/> and <https://www.surimi-project.eu/>

⁽⁹⁵⁾ <https://ideation-euproject.eu/>

⁽⁹⁶⁾ COM(2026) 268 final

⁽⁹⁷⁾ <https://cs-mach1.eu/>; <https://www.plastic-pirates.eu/en> and <https://otters-eu.aua.am/>

⁽⁹⁸⁾ <https://blue-lights.eu/>; <https://probleu.school/> and <https://shoreproject.eu/>

⁽⁹⁹⁾ <https://www.mrgoodfish.com/>; <https://www.verifish.info/>

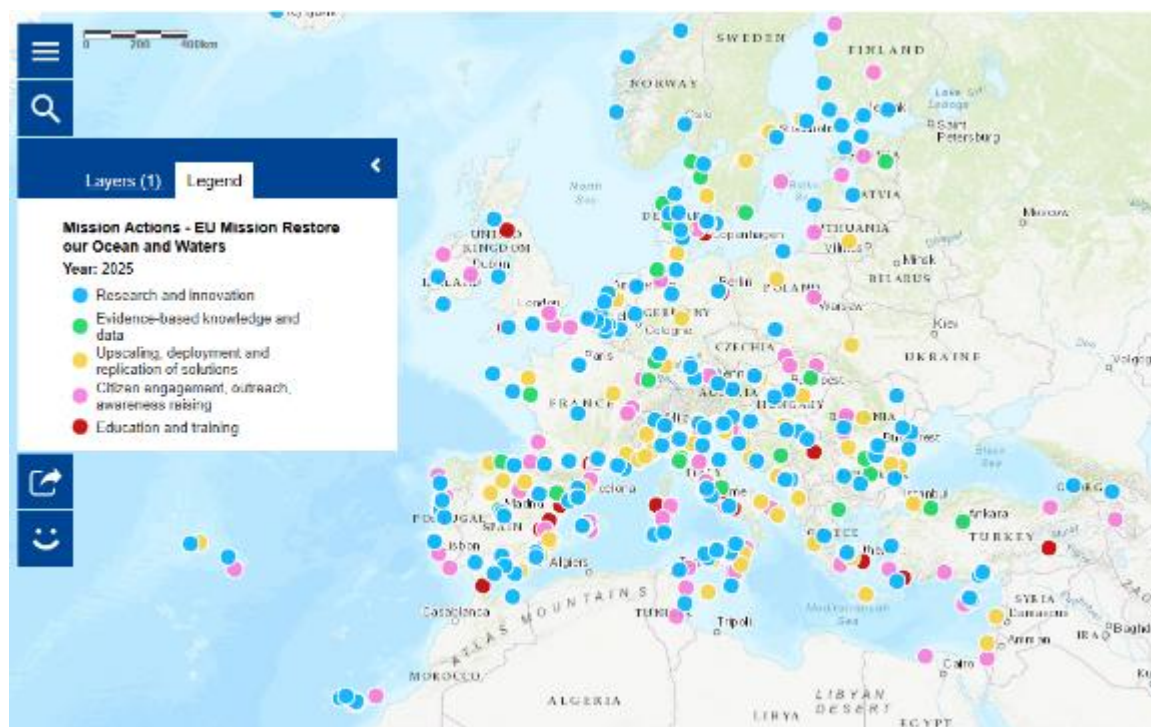
⁽¹⁰⁰⁾ <https://cordis.europa.eu/project/id/101213933>

⁽¹⁰¹⁾ <https://www.flowhorizon.eu/>; <https://crowdusg.net/partart4ow/> and <https://submariner-network.eu/tidal-arts/>

⁽¹⁰²⁾ https://maritime-forum.ec.europa.eu/theme/research/mission-ocean-and-waters_en

organisations and civil society actors, create additional pathways for implementing and scaling Mission-related solutions.

Figure 23. Mission Charter Actions.



The Mission Ocean and Waters has benefited from **strong international engagement**, reflecting the connected nature of the world’s ocean. The sea and river basin Lighthouses include and work closely with riparian third countries. The Horizon Europe funded projects include participants from 47 countries including non-EU ones, bordering the Arctic, Atlantic, Indian and Pacific Ocean. 42 of the demo-sites where solutions are being tested and around half of the Associated Regions where solutions are being replicated are in countries beyond the EU-27. Moreover, partners from 179 countries spanning the entire globe have submitted pledges to the Mission Charter.

How the Mission is mobilising Member States, regions, local authorities and other stakeholders through the Mission Charter

National Authority: Italy pledged its [Marine Ecosystem Restoration \(MER\)](#) EUR 400 million programme. Funded under the National Recovery and Resilience Plan (NRRP), it combines active restoration (e.g. replanting seagrass meadows, oyster beds, and coral forests across 11 sites) with passive protection (removing ghost nets in 15 locations and establishing 18 new eco-mooring fields in Marine Protected Areas) measures. Cutting-edge mapping technologies (LIDAR, AUVs, ROVs) will be used to survey 70+ deep-sea habitats, while a new oceanographic research vessel – equipped with hybrid propulsion and silent-class technology – will increase the Mediterranean ocean monitoring.

Regional Authority: the **County Administrative Board of Norrbotten (SE)** is rewilding 100 km of streams and 103 hectares of river habitats degraded by a century of timber floating and industrial modification under the [Torne River International Watershed \(TRIWA\)](#) LIFE project. The TRIWA LIFE project restores river ecosystems by reintroducing boulders, deepening pools, and removing artificial barriers to revive natural water flows and spawning habitats, while strategically placing trees and reopening side channels to enhance biodiversity, sediment control, and fish shelter. This cross-border effort not only boosts biodiversity but also rebuilds resilient fish populations, supporting local fisheries and Indigenous Sámi communities that depend on these species.

Port Authority: the [Port of Vigo](#) (ES) is transforming concrete breakwaters and seawalls into biodiversity-rich "green infrastructure". Using bio-enhancing concrete, textured surfaces, and science-based designs, the project boosts marine life colonisation, improving water quality, fish stocks, and noise reduction (up to 50%) while acting as a carbon sink. Beyond ecology, the living structures enhance durability by leveraging benthic communities to reduce erosion and maintenance costs. This scalable model demonstrates how industrial ports can reconcile economic activity with ecosystem restoration, setting a new standard for sustainable coastal development.

Civil society: [Plastic Cup](#) (HU) has evolved from a river cleanup initiative into a basin-wide movement, combining direct action, education, and systemic prevention. Since its launch, it has removed over 300 tonnes of litter from the Danube and recycled 200 tonnes, while engaging thousands of volunteers in cross-border cleanups. But its most transformative impact lies upstream: In Ukraine's Latorica and Uzh rivers, Plastic Cup partnered with local activists and waste firms to intercept over 700 tonnes of household waste before it reached the Danube. By installing collection points, organising community cleanups, and advocating for better waste policies, the project tackles plastic pollution at its source.

These initiatives showcase how the Mission successfully mobilises governments, scientists, businesses, local communities and civil society to deliver scalable, nature-positive solutions across ecosystems.

3.2.3. Progress towards the 2030 targets

The above-described developments demonstrate that, by 2025, the Mission has put in place the key building blocks to advance the EU's 2030 biodiversity, zero-pollution, and climate-neutral blue economy goals.

First, the Mission developed a diversified **portfolio of innovative solutions** and tested them in a wide range of ecological and socio-economic contexts. This means that, for many typical restoration, pollution or blue economy challenges, there are now concrete, documented solution packages that can be deployed by authorities and practitioners.

Second, the Mission has created a **network of demonstration sites and pilots** where these solutions are applied under real-world conditions. These sites are beginning to deliver tangible improvements under Mission 2030 targets, and generate practical lessons on implementation, costs, benefits and enabling conditions. They form the base of a growing marine and freshwater restoration ⁽¹⁰³⁾ practice across basins.

Third, replication instruments and financial advisory services are beginning to turn this foundation into a **wider wave of restoration investments and projects** outside the initial Mission portfolio.

Fourth, the Mission has established **communities, governance structures and technical assistance mechanisms** that make it easier for authorities and stakeholders to design and implement restoration measures.

Finally, digital and engagement enablers have strengthened both the **knowledge base** and the **societal foundation** for restoration. Digital twins and integrated information systems provide better evidence and tools for planning and monitoring, while citizen science, youth engagement and education initiatives are building awareness, skills and long-term stewardship.

⁽¹⁰³⁾ In the wide acceptance of "restoration", i.e. under the three Mission objectives.

To provide a concise view of progress, a small set of **four headline indicators** is used that cut across all three specific objectives. They track the pathway from core outputs (solutions and demonstration sites), through early outcomes (replication in Associated Regions), to mobilisation (Mission Charter Actions). These indicators have a **2021 baseline of zero** and are monitored through the Mission Monitoring Dashboard. However, **no target** for these indicators was included in the 2021 implementation plan, that was focusing on specific objectives.

Indicator	Goal or Specific Objective measured	Baseline 2021	Target (2030)	Progress value (by December 2025)
1. Number of Mission Ocean & Waters solutions produced	Measures progress in the production of solutions in all three SOs	0	n/a	121 solutions
2. Number of local demonstration sites	Measures the territorial footprint of testing and demonstration activities contributing to all three SOs	0	n/a	349 local demonstration sites
3. Number of Associated Regions replicating Mission solutions	Direct outcome indicator capturing the transition from project-level outputs and support (solutions, technical assistance, cascading grants) to real-world uptake contributing to all three SOs	0	n/a	86 unique Associated Regions with active replication of Mission solutions.
4. Number of Mission Charter Actions	Measures stakeholder mobilisation supporting all three SOs	0	n/a	1 017 Mission Charter Actions registered in the Mission Charter database

Taken together, these indicators show that **the Mission has, by late 2025, built a momentum on solutions, territorial reach, replication and mobilisation**. In combination, as also pointed out by the first Mission Monitoring Assessment from the European Environment Agency ⁽¹⁰⁴⁾, these milestones mean that the Mission is already contributing to the designation and more effective management of marine protected areas, to the restoration and/or depollution of marine and freshwater ecosystems, and to the fostering of a climate neutral and circular Blue Economy. Full restoration can take longer than the 2021–2030 timeframe for many interventions, but the Mission has accelerated learning, coordination and capacity-building, and has created a pipeline of restoration actions and investments that is expected to continue delivering benefits well after 2030.

3.3. Conclusions

The Mission Ocean and Waters has completed its first phase, which set up the structures for delivery, political engagement and stakeholder mobilisation, testing and demonstrating solutions, and piloting different innovative approaches. The **second deployment phase** will focus on consolidating and institutionalising the various

⁽¹⁰⁴⁾ <https://water.europa.eu/marine/europe-seas/eu-mission-restore-our-oceans-and-water>

instruments and services that have been set up to ensure the Mission reaches its 2030 targets. During that phase, the focus of the Mission and the intensification of efforts until 2030 will consist of working along four main areas.

Political anchoring of the Mission

The Mission has put a strong emphasis on mobilisation and community-building in its first phase. This has resulted in a network of actors, investments, and commitments that can be mobilised to deliver on the EU policy objectives. It has notably generated a stakeholder mobilisation process that contributed to the inclusion in the political agenda of the new Commission of key ocean and water policy initiatives, the **European Ocean Pact** ⁽¹⁰⁵⁾ and **European Water Resilience Strategy** ⁽¹⁰⁶⁾, which follow a systemic “*source-to-sea approach*” to the restoration of the ‘hydrosphere’ put forward by the Mission. The implementation of these initiatives will build on and take forward some of the activities launched by the Mission and can support the next stages of their implementation beyond R&I.

The Ocean Pact and the Water Resilience Strategy announced several actions that explicitly build on the achievements and initiatives of the Mission and will contribute to the achievement of the shared targets of the Mission and the two initiatives, notably with the planned **Ocean and Water R&I Strategy** and with the **Ocean Observation Initiative**. These initiatives should help shape and structure the future programming of ocean and water R&I in the next MFF, including in the next HE, as well as deployment under the European Competitiveness Fund (ECF), and the National and Regional Partnership Plans (NRPPs).

These initiatives will leverage and continue successful assets and aspects of the Mission Ocean and Waters, notably:

- **Basin Lighthouses:** The Mission helped consolidate the basin-level approach and ensure cooperation at sea and river basin level gathering maritime, environment policies and R&I cooperation. Through the upcoming “**Ocean Act**”, Member States will also be encouraged to move from a national approach to a sea basin level approach, building i.e. on the Mission basin Lighthouses.
- **European Digital Twin Ocean:** Will be fully operational by 2030, not just as a European programme, but as a public service for citizens and a global asset. Through the Ocean Observation Initiative, the EU is building a robust, integrated, and multidisciplinary European Marine Knowledge value chain – transforming data into action, and science into solutions for all.
- **EU Blue Parks Network:** The EU Blue Parks community brings together European networks, national and regional authorities and agencies, projects and initiatives in the EU to identify challenges, share tools, solutions and good practices, and promote innovative approaches for designation and management of Marine Protected Areas, including strict protection.

⁽¹⁰⁵⁾ COM(2025) 281 final

⁽¹⁰⁶⁾ COM(2025) 280 final

- **Blue Champions:** Developed together with the EIB, this scheme helps accelerate the development of innovative ocean-related technologies and support projects aimed at scaling from demonstration to operation.

Supporting deployment and scale-up, including investments and funding

Establishing a clear ‘funding pipeline’ across the innovation cycle, between different programmes and funding streams is a priority for the Mission, in line with the EU Start-up and Scale-up strategy, the Ocean Pact and WRS and the proposals for the next MFF.

The Mission has developed a portfolio of solutions and piloted a range of **support instruments**. The upcoming phase has to structure this support more coherently (including through links with Start-up and Scale-up Strategy initiatives, the BlueInvest, and Blue Champions scheme), closely monitor and assess its impacts. The final objective will be that national, regional and local authorities and relevant stakeholders have access to the relevant information and guidance/assistance to support them in deploying these solutions in their territories. In addition, authorities and stakeholders need access to a coherent funding framework that actively supports implementation. This means not only aligning EU, national, regional, and private investment sources, but also strengthening the ability to access, combine, and leverage these instruments effectively. The goal is to create a fit-for-purpose, self-sustaining, and dynamic investment ecosystem that accelerates delivery and maximises impact.

The deployment itself will need to be covered by other EU programmes and other public and private sources, as the current Horizon Europe 2028-2034 proposal foresees continued funding for the Missions until 2030 but will not fund the deployment and scaling-up.

Strengthening the governance

To strengthen connections at **national level**, the Mission will aim to systematically connect policy owners responsible for Ocean and Water policies. It will ensure that national authorities responsible for planning decisions on the ocean and waters are made aware of the innovative solutions developed by the Mission and can thus support their deployment including through future Multiannual Financial Framework (MFF) programmes, such as the European Competitiveness Fund (ECF) and National and Regional Partnership Plans (NRPP). It will also allow the policy owners to be more directly involved in the steering of future Mission activities, which to date only happens as formal interactions with Member States and Associated Countries in the Horizon Europe Strategic Programme Committee Working Group.

The Mission will also focus on deepening and consolidating the **basin-level approach**. Until now, cooperation at sea and river basin level is largely split between maritime policy (sea basin and macro-regional strategies), environment policy (regional sea conventions and river commissions) and R&I cooperation (e.g. sea basin alliances, partnerships and SRIAs, including international science diplomacy efforts). The new CSAs to be launched in 2026 under the Horizon Europe Work Programme 2025 will further consolidate the Lighthouses, gear them towards supporting the deployment of solutions⁽¹⁰⁷⁾ and

⁽¹⁰⁷⁾ Horizon Europe Mission WP25 includes a EUR14.2 million action to fund coordination and support actions for each of the four Mission Basin Lighthouse, which will cover all Mission objectives.

strengthen the delivery of the sea basin level approach, as envisaged by the European Ocean Pact.

Completing the monitoring system

The current Mission monitoring system is still focused on activities and outputs (projects, demo site, etc.) and does not systematically capture the concrete impacts of demonstrations and pilots (e.g. tons of plastics removed or prevented, ecosystem surfaces restored, etc.). Progressing on the assessment of impacts, as well as on costs and benefits of solutions, will help convince investors about the added value of innovative solutions.

Work is ongoing with the Lighthouse CSAs and Mission projects to integrate the PESTEL analytical framework and Theory of Change, to define Mission Outcome KPIs capturing both internal progress and external enabling conditions, and to develop a consistent approach to assess how the Mission activities described above 1) accelerate the achievement of Mission objectives and targets; 2) ensure leveraging of resources and investments and 3) increase readiness at local level to deploy innovative solutions at scale.

This will feed into the above-mentioned monitoring of the Mission's impacts undertaken by the European Environment Agency (EEA) through a set of indicators to quantify the impact of Mission projects and activities towards its 2030 targets, in line with related EU policies and their monitoring frameworks at EU level.

4. 100 CLIMATE-NEUTRAL AND SMART CITIES BY 2030

4.1. Introduction to the Mission

The EU Mission 100 Climate-Neutral and Smart Cities by 2030 supports 112 cities across EU and Associated Countries (AC) in achieving climate neutrality by 2030, acting as innovation and investment hubs for broader EU decarbonisation by 2050, in line with the European Green Deal. Shifting from traditional R&I approaches, the Mission applies a systemic, mission-oriented approach that directly addresses urban emissions – accounting for over 70% of the global CO₂ emissions ⁽¹⁰⁸⁾ – through integrated action across mobility, buildings, energy, waste, circular economy, and digital infrastructure. It combines a portfolio-based investment planning, large-scale pilots and demonstrators, and tailored capacity building to help cities move from isolated projects to coherent transition pathways that can be replicated across Europe. President von der Leyen reaffirmed this role at the 2025 Covenant of Mayors ceremony, emphasising that the Cities Mission is central to transforming European cities into hubs of innovation and to testing, advancing and scaling solutions that deliver real benefits for citizens and society ⁽¹⁰⁹⁾.

⁽¹⁰⁸⁾ <https://www.c40knowledgehub.org/s/article/Past-the-peak-Accelerating-climate-action-in-C40-cities?>

This global figure includes emissions beyond cities (e.g. emissions physically taking place well outside a city but “triggered” by the cities). The estimate for EU-27 using the Eurostat definition of cities (i.e. more than 50,000 inhabitants) would be 36% of greenhouse gases (GHG) coming directly from cities.

⁽¹⁰⁹⁾ Speech by President von der Leyen at the EU Covenant of Mayors Ceremony 2025. Brussels, 16 October 2025.

The Mission has two general objectives ⁽¹¹⁰⁾:

- (1) Deliver at least 100 climate-neutral cities by 2030.
- (2) Ensure that these cities also act as experimentation and innovation hubs for others to follow, to enable all European cities to become climate-neutral by 2050.

Those can be broken down into eight specific objectives ⁽¹¹¹⁾:

- (1) Develop city-focused Climate City Contracts (CCC) including investment plans for innovative and climate neutral solutions.
- (2) Support Research & Innovation pilots and demonstrators to scale-up and replicate solutions.
- (3) Develop synergies with existing Commission initiatives.
- (4) Provide cities with access to EU-wide skills and expertise and help them connect in international networks to accelerate climate action.
- (5) Support the delivery of GHG emissions reductions in Mission cities as outlined in their CCCs.
- (6) Establish robust monitoring and learning mechanisms.
- (7) Help cities develop innovative governance to overcome a silo approach and ensure buy-in and commitment at all levels.
- (8) Mobilise investment funding to achieve climate neutrality through the Investment Plans.

The central mechanism for cities seeking to become climate-neutral by 2030, as part of the Cities Mission, is the development of a Climate City Contract (CCC), a holistic plan composed of three key components: a political commitment, a Climate Neutrality Action Plan (CNAP), and an Investment Plan (IP). The CNAP defines the decarbonisation pathway through an inventory of greenhouse gas (GHG) emissions, quantified targets, an emission gap analysis and a portfolio of actions. The IP identifies the financial needs, instruments and funding strategies to implement these actions. The CCCs are co-created with local stakeholders and, where possible, aligned with national and regional frameworks.

The Cities with credible CCCs receive the Mission Label – an EU endorsement designed to acknowledge the city’s work and improve access to finance and policy support for implementation. The process is central to achieve the main objective of the Mission because it embeds a shift from fragmented project support to coherent, mission-driven investment strategies. The relevance of Climate City Contracts is also recognised in the recent EU Agenda for Cities ⁽¹¹²⁾, which identifies them as an example of integrated urban development frameworks that can support cities and facilitate access to flexible financing

⁽¹¹⁰⁾ European Commission (2021). *European Missions – Implementation Plan: 100 Climate-Neutral and Smart Cities by 2030*. Publications Office of the European Union. https://research-and-innovation.ec.europa.eu/system/files/2021-09/cities_mission_implementation_plan.pdf

⁽¹¹¹⁾ The Cities Mission’s framework of specific objectives was refined from the seven originally included in the implementation plan to the eight in the current framework to strengthen clarity and accountability.

⁽¹¹²⁾ COM (2025) 739 final

through the EU Cities Platform, encouraging their broader uptake and scaling. Also, the CCCs provide the analytical foundation for evaluating the Mission's expected impact.

Horizon Europe has allocated over EUR 600 million ⁽¹¹³⁾ to support the Cities Mission from 2021 to 2025. This includes the creation of the Mission Platform ⁽¹¹⁴⁾, managed by the NetZeroCities consortium, which offers guidance, capacity-building, access to technical and financial resources, as well as a pilot and twinning programme to test and replicate systemic innovation. As part of the Mission Platform, the Climate City Capital Hub – operational since June 2024 – offers tailored financial advisory and supports investment structuring, including the use of guarantees and blended finance.

The bulk of the budget coming from the Horizon Europe Cities Mission work programme is employed to constitute a coherent R&I projects portfolio, which currently includes around 40 collaborative R&I projects ⁽¹¹⁵⁾ organised across five thematic clusters:

- Mobility and transport: this cluster currently includes projects focused on inclusive, safe and sustainable urban mobility, mobility management and behavioural change, public transport systems, smart and shared zero-emission transport solutions, and active mobility. Projects support the redesign of streets and public spaces, promote modal shift towards walking, cycling and public transport, and develop integrated mobility services for climate-neutral cities. Examples include [ELABORATOR](#) on sustainable urban mobility living labs, [REALLOCATE](#) on climate-friendly active transport, [UPPER](#) on strengthening public transport systems, and [MOBILITIES FOR EU](#) on shared and zero-emission mobility solutions.
- Built environment and energy systems: this cluster includes projects focused on Positive Clean Energy Districts (PCEDs), and digital twin applications for energy and urban district planning. The projects aim to accelerate scalable and replicable district-level energy transitions. Examples include [ASCEND](#) and [EXPEDITE](#).
- Urban planning and management: this cluster includes projects focusing on AI-enabled urban planning, digital twins, peri-urban integration, urban logistics, and rethinking urban public space management. The projects support integrated planning approaches and data-driven governance for climate-neutral cities. Examples include [TWIN4CITIES](#), [DYNACITY](#), [ALTHEA](#), [NEXTLOGIC](#), and [CLIMABOROUGH](#).
- Circular economy and green industry: this cluster includes projects addressing circularity in industrial systems, resilient infrastructure, and cross-sectoral approaches linking cities, industry, and climate mitigation strategies. Examples include [CIRCUIT](#) and [SYSTEMICO](#).
- Nature and environment: this cluster includes projects focused on urban greening, renaturing, climate resilience, and zero-pollution strategies. The projects develop nature-based solutions, participatory regeneration approaches, and integrated

⁽¹¹³⁾ This figure is an approximate sum of the annual contributions in the Horizon Europe work programmes to the Climate-neutral and Smart Cities Mission.

⁽¹¹⁴⁾ <http://netzerocities.eu/>

⁽¹¹⁵⁾ As of 28 February 2026.

actions on air quality and noise reduction. Examples include [Commit2Green](#), [GreenInCities](#), and [HARMONIE](#).

These projects involve 83 Mission cities – some of them in multiple consortia – and complement the activities of the Mission Platform by generating new knowledge, accelerating innovation and providing tested solutions that cities can integrate into their transition pathways. Additionally, two dedicated projects have been launched to support Ukrainian cities in aligning their reconstruction with climate neutrality pathways, ensuring that the Mission’s benefits contribute to resilience in crisis contexts.

Several of the projects in the Cities Mission portfolio are the result of synergies created with other parts of the Horizon Europe programme, including partnerships, EU Missions and other initiatives. In particular, the Cities Mission works closely with the Mission on Adaptation to Climate Change, including through joint Horizon Europe on urban greening, ecosystem restoration and climate resilience. Cooperation also extends to the Climate City Capital Hub, where the Adaptation Mission contributes EUR 12 million to support the development of financial solutions for climate-resilient urban investments. Additional joint actions connect the Cities Mission with the Cancer Mission on active mobility and health co-benefits, and with initiatives and partnerships such as the New European Bauhaus Facility⁽¹¹⁶⁾, the Circular Cities and Regions Initiative⁽¹¹⁷⁾, the Built4People partnership⁽¹¹⁸⁾, the 2Zero partnership⁽¹¹⁹⁾, the Connected Cooperative and Automated Mobility partnership⁽¹²⁰⁾, the Zero Emission Waterborne Transport partnership⁽¹²¹⁾, and the Clean Hydrogen Joint Undertaking⁽¹²²⁾, linking urban climate action with circular economy, sustainable mobility, and hydrogen deployment in cities.

The Cities Mission has also developed a strong international dimension. Twelve non-EU cities from the EEA, Western Balkans, UK, Türkiye and Israel, are part of the Mission cohort, complemented by a further 12 Ukrainian cities associated through the SUN4Ukraine Partnership programme and in collaboration with the U_CAN project. In parallel, the Mission has contributed to shaping global action on urban climate neutrality, notably through the launch in 2021 of the Urban Transitions Mission (UTM)⁽¹²³⁾, a complementary international initiative that engages a growing cohort of over 130 cities in 50 countries across world regions, including 12 EU Mission cities. Building on European experience, the UTM supports the global scaling of net-zero urban solutions while fostering knowledge exchange and partnerships that also benefit European cities. It is co-led by the European Commission, the Global Covenant of Mayors for Climate and Energy,

⁽¹¹⁶⁾ https://new-european-bauhaus.europa.eu/funding/new-european-bauhaus-facility_en

⁽¹¹⁷⁾ <https://circular-cities-and-regions.ec.europa.eu/>

⁽¹¹⁸⁾ <https://built4people.eu/>

⁽¹¹⁹⁾ <https://www.2zeroemission.eu/>

⁽¹²⁰⁾ <https://www.ccam.eu/>

⁽¹²¹⁾ <https://www.waterborne.eu/partnership/partnership>

⁽¹²²⁾ https://european-union.europa.eu/institutions-law-budget/institutions-and-bodies/search-all-eu-institutions-and-bodies/clean-hydrogen-joint-undertaking_en

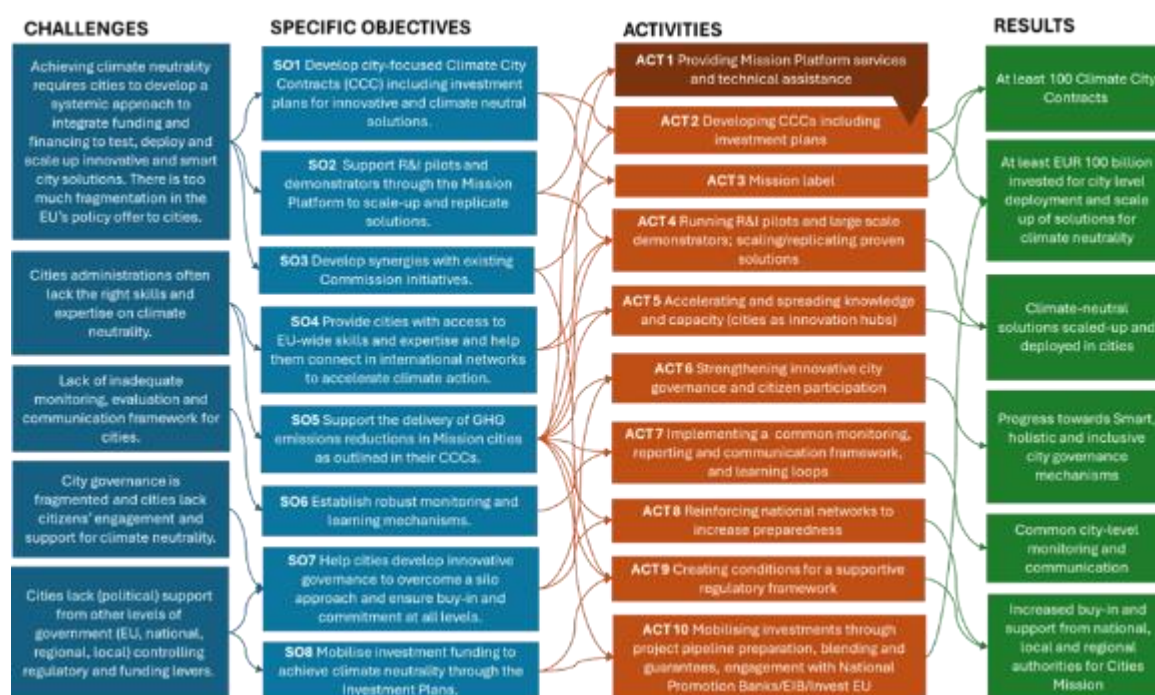
⁽¹²³⁾ <https://urbantransitionsmission.org/>

and JPI Urban Europe. Together, the EU Climate-Neutral and Smart Cities Mission and the global Urban Transitions Mission form a coherent ecosystem that reinforces the role of cities as key drivers of climate action, innovation and systemic change. Through the Climate City Capital Hub and partners such as the European Investment Bank and the European Bank for Reconstruction and Development, the Mission also strengthens access to investment expertise with relevance beyond the EU core market. Building on these foundations, the Mission could further support cooperation with enlargement, neighbourhood and other partner countries by sharing practical solutions on urban mobility, buildings renovation, clean energy, circular economy and citizen engagement, thereby reinforcing Europe's influence in sustainable urban transformation.

The Mission is entering the delivery-oriented phase, following a first phase focused on mobilisation, commitment-building and the development of CCCs. This current phase is characterised by the implementation of CCCs, preparation of investment pipelines, and deployment of projects. This assessment evaluates whether Mission actions in the first phase have created the enabling conditions – integrated, systems-based approaches, governance capacity, financing, technical assistance, knowledge transfer – needed for these outcomes to scale.

The Mission intervention logic is summarised in the image below.

Figure 24. Intervention logic for the Climate Neutral and Smart Cities Mission.



4.2. The progress of the Mission

Overall progress toward climate-neutral cities by 2030

While reaching full climate neutrality by 2030 remains ambitious, Mission Cities are clearly moving in that direction at a pace and scale that would not have been possible without the Mission. CCCs have provided structured pathways for implementation, helping cities refine baselines, strengthen inventories and prepare investment pipelines.

This progress is reflected in two central achievements:

- 107 cities have formally committed to climate neutrality through a reviewed CCC and have received the Mission Label.
- These cities collectively expect to reduce around 199.68 MtCO₂e by 2030 ⁽¹²⁴⁾, a mitigation potential equal to approximately 6.6% of EU-27 emissions in 2024, signalling that Mission Cities can make a material contribution to Europe's decarbonisation.

Together, these developments illustrate how the Mission is driving cities toward its overarching objectives and positioning them as innovation and investment hubs for Europe's wider transition.

Indicator	Goal or SO measured by the indicator	Baseline	Target (if any)	Progress value (as of data cut-off date)
Number of CCCs submitted by the Cities and Mission Labels awarded by the Mission Manager	Develop city-focused CCC including investment plans for innovative and climate neutral solutions.	0 in 2022	At least 100 CCCs submitted by Cities and awarded with the Mission Label by 2025	106 CCCs from 107 cities ⁽¹²⁵⁾ as of 28 February 2026
Expected MtCO ₂ e to be reduced by Mission Cities through their CNAPs as set out in their CCCs, based on emissions reductions.	Support the delivery of GHG emissions reductions in Mission cities as outlined in their CCCs.	Recent emissions baseline (2015-2023)	Climate neutrality ⁽¹²⁶⁾ by 2030 as set out in Cities Mission's CCCs	199.68 MtCO ₂ e equal to a 76% reduction from aggregate recent baselines. (Based on 107 Labelled cities)

107 cities have committed to climate neutrality by 2030

As of 28 May 2026, 107 out of 112 Mission cities, from 33 countries, have submitted CCCs to climate neutrality, and received the Mission Label. These cities represent a diverse urban sample in terms of size, geography and baseline emissions. This exceeds the Mission's

⁽¹²⁴⁾ Todeschi, V., Ulpiani, G., Veters, N., Galioto, C., Banja, M. et al., Climate-neutral and Smart Cities Mission: 2025 assessment - Monitoring the overall progress and impact of the Cities Mission, European Commission, Ispra, 2026, JRC146414

⁽¹²⁵⁾ Eindhoven and Helmond submitted a joint CCC.

⁽¹²⁶⁾ In the Cities Mission, climate neutrality by 2030 is defined as achieving a net-zero balance across five sectors (stationary energy, transport, waste, Industrial Processes and Product Use -IPPU, Agriculture, Forestry, and Other Land Use -AFOLU) covering Scope 1 and 2 emissions and Scope 3 waste-related emissions, for seven greenhouse gases. Residual emissions are expected to stay below roughly 20% of a recent baseline, not as a fixed target but as an orientation to maximise reductions at source. For more information, please refer to the annex.

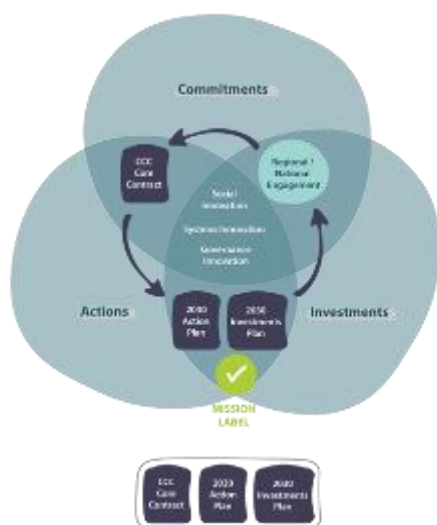
original target of having at least 100 CCCs submitted by the cities and positively reviewed by 2025.

This achievement is crucial, because, through CCCs, the Mission turns ambition into actionable plans. They combine action plans and investment plans that generate structured project pipelines. CCCs enable cities to engage with the EU, national and regional authorities, with investors and with their citizens to deliver on their ambitious climate neutrality objective. CCCs also create added value by fostering collaboration across different parts of city administrations, breaking down silos and ensuring that climate action is embedded across policy areas. Finally, CCCs encourage systems-based approaches, linking governance, finance, implementation, citizen engagement, and social innovation in an integrated framework that strengthens the legitimacy and effectiveness of urban transitions.

Figure 25. Cities Mission Label ceremony, Vilnius, May 2025.



Figure 26. Cities Mission Climate City Contract.



A major added value of the Mission has been to trigger the establishment and systematise the updating of emissions inventories, the refining of sector coverage, and the improvement of transparency thanks to the CCC process. Concrete examples include Sofia, which built a 2022 inventory based on its 2018 Covenant of Mayors dataset and shared raw inputs for traceability; Pecs, which compiled a 2021 inventory and derived a 2030 Business As Usual (BAU) scenario; Kranj, which added waste and Agriculture, Forestry, and Other Land Use (AFOLU) to its inventory; and Bucharest (District 2), which assembled a 2016 baseline and set out a workflow to add further scopes.

Finally, Differdange developed its first inventory from scratch as part of the CCC process, with due diligence.

These refinements reflect the Mission's role as driver of methodological alignment, establishing a shared foundation across a highly diverse cohort of cities. Crucially, CCCs are not a one-off reporting exercise, but living plans: cities are already refining them as they move into implementation, ensuring a feedback loop between planning, action, and monitoring that will reinforce further this trajectory.

Five cities are still preparing their CCC. However, all are receiving tailored support to address their specific challenges, whether in terms of governance, data or capacity gaps.

Stakeholder mobilisation has also become a defining feature of CCC development, reinforcing their role as shared transition frameworks. Across Mission labelled cities, more than 3 000 ⁽¹²⁷⁾ stakeholders, including businesses, utilities, universities, NGOs, and cultural institutions, have committed to supporting local climate-neutrality pathways. While engagement levels vary, several cities have mobilised exceptionally broad coalitions: Porto 226 stakeholders, and Oslo 139, and cities like Valencia, Malmö and Tampere show particularly strong business involvement. Others, such as Izmir and Valladolid, stand out for their mobilisation of civil society ⁽¹²⁸⁾. Importantly, over one third of all stakeholders come from the private sector, underscoring their central role in a transition where 90% of the investment needs to come from non-municipal actors. In Vitoria-Gasteiz, for instance, major companies such as Mercedes-Benz, Michelin and PepsiCo have pledged substantial decarbonisation investments. These examples demonstrate how CCCs are helping cities build coalitions for delivery, aligning local actors behind shared objectives and strengthening the governance foundations needed for implementation.

Cities project 199.68 MtCO₂e in emissions reductions by 2030, a material contribution to Europe's decarbonisation ⁽¹²⁹⁾

For the 107 Mission Cities with CCCs submitted and labelled by 28 May 2026, recent baseline emissions ⁽¹³⁰⁾ amount to approximately 262.82 MtCO₂e. The actualised reductions ⁽¹³¹⁾ that Mission cities expect to deliver by 2030 correspond to 199.68 MtCO₂e, equal to a 76% reduction from their aggregate recent baselines. This is a substantial contribution, representing around 6.6% of all EU-27 greenhouse gas emissions in 2024 ⁽¹³²⁾, roughly equivalent to the combined annual emissions of Austria, Romania and Slovakia ⁽¹³³⁾. The corresponding residual emissions amount to 62.89 MtCO₂e (24%).

Figure 27 shows the aggregate recent baseline emissions of the 107 Mission Cities, the recalculated reduction potential by 2030, and the residual emissions, presented separately for all Mission Cities (EU+AC), EU cities only, and AC cities only ⁽¹³⁴⁾.

⁽¹²⁷⁾ Based on the analysis of 95 CCCs.

⁽¹²⁸⁾ [NetZeroCities – CCC Highlights – A diverse ecosystem of supporters](#)

⁽¹²⁹⁾ Todeschi, V., Ulpiani, G., Veters, N., Galioto, C., Banja, M. et al., Climate-neutral and Smart Cities Mission: 2025 assessment - Monitoring the overall progress and impact of the Cities Mission, European Commission, Ispra, 2026, JRC146414

⁽¹³⁰⁾ The most recent GHG emissions inventory data available for a city, which is used as a reference point to measure progress towards reducing emissions.

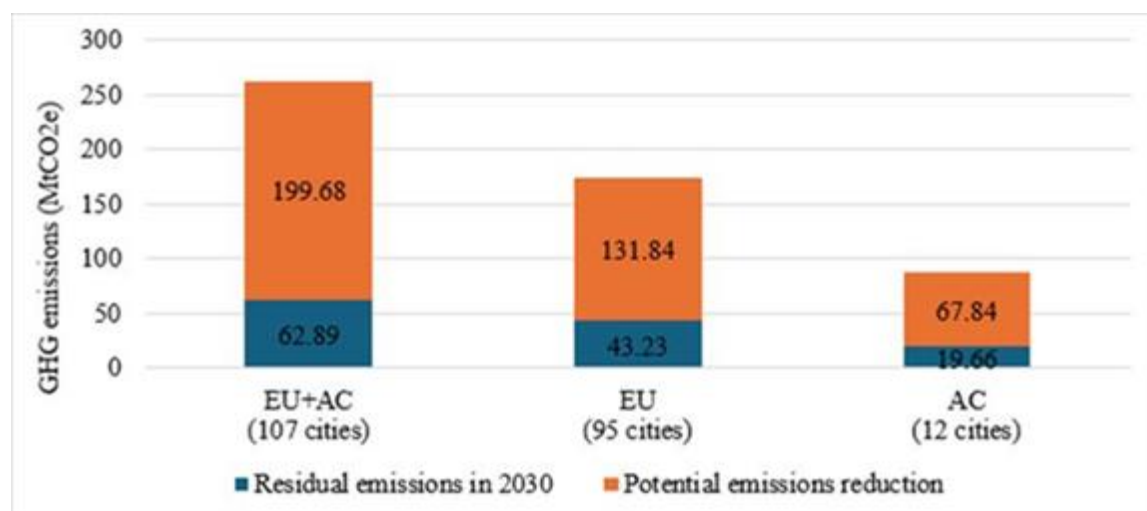
⁽¹³¹⁾ The values expressed in this chapter result from an actualisation process. Please consult the methodological annex for full details.

⁽¹³²⁾ <https://climate-energy.eea.europa.eu/topics/climate-change-mitigation/greenhouse-gas-emissions-inventory/intro> - data consulted on 6 July 2026

⁽¹³³⁾ The combined annual emissions of Austria, Romania and Slovakia in 2024 are 196.145.9198.0 MtCO₂e.

⁽¹³⁴⁾ The high reduction potential of the AC group is largely driven by Istanbul, whose baseline emissions exceed 50 MtCO₂e due to its very large population and economic scale.

Figure 27. Mission impact based on recalculated emissions reduction ⁽¹³⁵⁾



These values are projections based on the CCCs that cities have only recently finalised. Given that measures are only beginning to be implemented, presenting actual reduction figures at this stage would be misleading. Instead, these projections offer a realistic snapshot of ambition and establish the starting point for monitoring real reductions over the coming years.

The analysis shows that Mission Cities have set ambitious 2030 reduction targets and are strongly aligned with the Mission’s climate neutrality objectives, with cities demonstrating how innovative, integrated portfolios underpin high-ambition targets ⁽¹³⁶⁾. Kalamata (94.2%) combines an ambitious target with a coherent cross-sector action portfolio and strong delivery levers (digital, monitoring, citizen participation). Münster (85.4%) shows high ambition with an integrated approach that connects climate action to budgeting and finance, while ensuring fairness and broad citizen participation across all measures. Oslo (93.3%) links an annual Climate Budget to a public Climate Barometer and complements this with a thorough residual-emissions strategy (including Carbon Capture and Storage – CCS – at Klemetsrud) and targeted action in hard-to-abate sectors.

Cities begin from varying starting points, leading to variation in how they define climate targets and inventories. In sectoral coverage, all cities include energy and transport, while almost all also cover waste. Many others further extend to Industrial Processes and Product Use (IPPU), and Agriculture, Forestry, and Other Land Use (AFOLU). A few also went above and beyond what was required to include non-waste Scope 3 categories ⁽¹³⁷⁾, such as supply chains or out-of-boundary transport. Baseline choices also differ including older reference years or business-as-usual projections. Some cities are still clarifying how to separate reductions from existing strategies versus new CNAP actions. Others are tackling

⁽¹³⁵⁾ Todeschi, V., Ulpiani, G., Vetter, N., Galioto, C., Banja, M. et al., Climate-neutral and Smart Cities Mission: 2025 assessment - Monitoring the overall progress and impact of the Cities Mission, European Commission, Ispra, 2026, JRC146414

⁽¹³⁶⁾ Targets are recalculated based on the actualisation method applied to emissions reductions. See the methodological annex for further information.

⁽¹³⁷⁾ In addition to the GHG emissions that arise directly from within a city and those associated with energy used within the city, there are also a variety of emissions that occur outside a city’s boundary, yet related to its activity and consumption. These emission types are collectively referred to as ‘Scope 3’.

hard-to-abate emissions; for instance, Oslo targets emissions from incineration plants, waterborne navigation, heavy vehicles, private cars, and construction sites. These differences reflect the breadth of approaches across the Mission, that the CCC process has made comparable, creating a common framework while respecting local contexts.

Overall, the Mission is catalysing progress: helping cities refine methodologies, align practices, and strengthen credibility, not despite their differences, but precisely by structuring them into a comparable, collective trajectory. The direction of travel is toward more realistic, traceable, and comparable targets. As implementation advances, this shared foundation will support the shift from projected results to measurable reductions.

4.3. Progress towards the Mission's other objectives: scaling and replication, capacity building, investment, and monitoring

Cities are piloting innovations and identifying scalable and replicable solutions

Cities are natural innovation testbeds, and they are piloting innovations and developing a growing portfolio of solutions ready for scaling and replication. Since 2022, 99 Mission Cities and four Mission-minded cities ⁽¹³⁸⁾ have engaged in 68 pilots across three cohorts of the Pilot Cities Programme ⁽¹³⁹⁾, complemented by 26 projects in 48 cities through the Enabling City Transformation programme, the evolution of the Pilot Cities Programme. Together, these pilots have mobilised 101 Mission Cities, creating the Mission's largest testing ground for systemic solutions across energy decarbonisation, sustainable mobility, the built environment, and governance. These pilots enable cities to experiment with innovative approaches, evaluate impact, and prepare for scaling and replication.

A key driver of replication has been the Twinning Learning Programme, which pairs Pilot Cities with Twin Cities in a structured, mission-wide peer-learning framework. Today, 181 cities are engaged, making it the largest peer-learning initiative under the Cities Mission.

	Pilot Cities Programme (PCP)	Enabling City Transformation Programme (ECTP)	Total of PCP and ECTP	Twinning programme
Selected projects	68	26	94	68
Selected cities	103	48	105	181*
Countries	32	19	32	34
Mission Cities	99	48	101	100
Mission Minded Cities	4	/	4	75

* The figure reflects the inclusion of 6 cities that served in more than one capacity (pilot and twin) across different cohorts

⁽¹³⁸⁾ Mission-minded cities are cities within the EU or Horizon Associate Countries that share the ambition of becoming climate-neutral and smart but are not part of the initial cohort of 112 Mission Cities selected for the EU's climate-neutral and smart cities mission.

⁽¹³⁹⁾ A two-year programme where selected European cities test and implement innovative and systemic solutions to rapid decarbonisation across urban systems <https://netzerocities.eu/pilot-cities-programme/>

Twinning enables cities to follow, adapt and replicate solutions developed by pilot cities, while sharing their own good practices to support mutual learning. Cities have already advanced replication plans in areas such as renewable energy communities, neighbourhood climate managers, and data-driven investment models, demonstrating tangible and scalable pathways for transferring knowledge across the cohort.

Example – Cologne (Germany): Replicating Spanish one-stop-shop models for neighbourhood energy renovation



Source: NetZeroCities – Twinning Replication Booklet

As part of the Twinning Learning Programme, Cologne is developing a mobile Neighbourhood Energy Office inspired by Spanish pilot activities under URBANNEW. The replication practice focuses on the energy rehabilitation of private buildings. Cologne is transforming its existing “Treffpunkt Solar” advisory centre into a mobile One-Stop-Shop that will tour neighbourhoods over a two-year pilot phase. The mobile office brings tailored guidance directly to citizens,

tenants and homeowners, addressing building renovation and heating transition, including heat pumps, insulation, photovoltaic systems and window replacement ⁽¹⁴⁰⁾.

Example – Penteli (Greece): Replicating Bristol’s net zero investment model for Nature-Based Solutions

Penteli is adapting Bristol’s Net Zero Investment Co-Innovation Lab to design new financing mechanisms for reforestation and sustainable land use following severe wildfires. Building on its strong commitment to climate resilience, Penteli is exploring additional innovative financing models alongside traditional public-private partnerships and energy community schemes. In particular, the municipality is assessing how municipal land could be ringfenced or leveraged as an asset to support investment in nature-based solutions. Options under consideration include the creation of a dedicated reforestation or climate fund, the establishment of a municipal development company under Greek law, and the development of a carbon credit scheme to finance mountainside restoration. Inspired by Bristol’s experience in mobilising private investors through structured market engagement, Penteli aims to create a locally adapted Net Zero Investment Co-Innovation Lab that can generate financially viable models for climate-resilient land use ⁽¹⁴¹⁾.



Source: NetZeroCities – Twinning Replication Booklet

Taken together, these developments show that the Mission is not only supporting experimentation but actively fostering a portfolio of innovative solutions while creating the conditions for scaling and replication across Europe ⁽¹⁴²⁾. Pilots generate the practical insights needed for cities to advance towards climate neutrality, while twinning ensures that solutions tested in one context can be adopted, adapted and multiplied in others.

The Mission is strengthening the policy, governance and funding environment needed for cities to deliver their Climate City Contracts

⁽¹⁴⁰⁾ [NetZeroCities - Twinning Replication Booklet](#)

⁽¹⁴¹⁾ [NetZeroCities - Twinning Replication Booklet](#)

⁽¹⁴²⁾ A first overview of the wide range of innovative solutions being tested, scaled and replicated by Mission Cities is available through the NetZeroCities case studies collection: <https://netzerocities.eu/case-studies/>

The Cities Mission has fostered synergies and alignment with EU policy and funding frameworks, has established a structured investment support architecture, and strengthened national governance structures, creating a more coherent enabling environment for the implementation of CCCs.

EU policy alignment

Between 2020 and 2025, the Mission has helped create new opportunities for cities across a wide range of EU strategies, action plans, and legislative acts ⁽¹⁴³⁾. These include, among others, the Sustainable and Smart Mobility Strategy (2020), the Zero Pollution Action Plan (2021), REPowerEU (2022), the Energy Performance of Buildings Directive (2024), the TEN-T Regulation (2024), the European Declaration on Cycling (2024), the State of the Energy Union (2024), the European Affordable Housing Plan (2025), the EU Ports Strategy (2026). Such references are a strong signal of political relevance: they show that the Mission is not operating in isolation and EU institutions increasingly channel EU funding and technical assistance towards measures pioneered by Mission Cities.

Moving forward, the recent Policy Agenda for Cities (2025) takes the support for the transformative work of Mission cities to the next level as part of a broader effort to upgrade and streamline the landscape of EU initiatives for cities. It explicitly recognises integrated urban strategies such as Climate City Contracts as key frameworks to structure urban investment and planning, encouraging their wider use to facilitate access to financing and support the implementation of climate neutrality pathways.

The Mission, together with the Climate Adaptation Mission, has also gained recognition across EU institutions: the Council, European Parliament and Committee of the Regions have repeatedly highlighted its contribution to EU climate and urban policy, affirming its strategic role in delivering mitigation and adaptation objectives.

EU funding alignment and support

This embedding in EU policy also translates into funding and support. At least 8 EU programmes and instruments explicitly reference the Mission, among them Horizon Europe, CEF-Transport, LIFE, European Urban Initiative (EUI), Digital Europe and the European Innovation Council (EIC) - where the Mission is cited directly in calls, award criteria, or guidance. For example, all CEF-Transport calls since 2022 include Mission participation as an award criterion, and successive LIFE Climate Action calls (2022–2025) encourage applicants to demonstrate synergies with Mission objectives.

⁽¹⁴³⁾ Sustainable & Smart Mobility Strategy (COM(2020) 789); Zero Pollution Action Plan (COM(2021) 400); European Missions (COM(2021) 609); New EU Urban Mobility Framework (COM(2021) 811); REPowerEU Plan (COM(2022) 230); EU Save Energy (COM(2022) 240); Digitalising the Energy System – Action Plan (COM(2022) 552); EU Missions two years on (COM(2023) 457); Revision of the SET Plan (COM(2023) 634); Energy Performance of Buildings Directive (EU) 2024/1275; European Declaration on Cycling C/2024/237; TEN-T Regulation (EU) 2024/1679; Mission Charter / Label Report (COM(2024) 231) ; State of the Energy Union 2024 (COM(2024) 404); Report: Implementation EUI 22-24 (COM/2025/41 final); An EU Agenda for Cities: Driving Growth and Prosperity (COM(2025) 739) (; EU Port Strategy (COM(2026) 112); Environment Council – “EU Missions as a tool for local climate action (Dec 2023 and Dec 2024); Committee of the Regions CDR-1474-2024 (Opinion C/2025/280).

In addition, cities draw on a broader set of relevant EU instruments, such as CEF-Energy (EUR 5.84 billion 2021–2027), CEF-Digital (EUR 2.1 billion 2021–2027) and the Social Climate Fund (EUR 65 billion 2026–2032), that provide essential co-financing pathways for infrastructure, skills, digitalisation and social measures relevant to their Climate City Contracts.

Cohesion Policy represents a major funding channel for urban climate investment. The Mission does not modify Cohesion Policy allocations. However, Climate City Contracts provide a structured strategic framework that can inform programming choices, project pipelines and territorial investment strategies. In this sense, the Mission contributes indirectly by improving coherence between city-level neutrality plans and cohesion policy programmes.

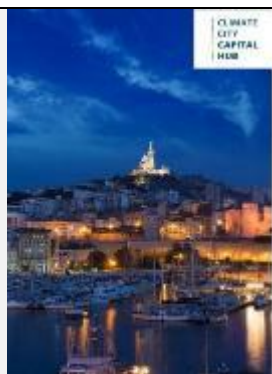
A structured investment support architecture

Recognising that access to funding is often constrained by limited investment readiness rather than funding scarcity alone, the Mission has established a structured investment support architecture. The Mission has created, in synergy with the Climate Adaptation Mission, a dedicated financial architecture – the Climate City Capital Hub – within the Mission Platform to strengthen cities’ investment readiness and translate their Action and Investment Plans into financeable projects. The Hub builds financial structuring capacity and enables mobilisation of investment through blended arrangements combining public, private and philanthropic capital, applied for the first time at scale within the Mission context. The Hub does not operate financial instruments and does not replace existing advisory or lending actors. Rather, it strengthens coherence across a fragmented investment landscape. Through its assignments, it progressively develops and codifies replicable investment approaches – for example in district heating, building renovation and clean mobility – with the objective of reducing transaction costs and supporting scale across the Mission. This institutional mechanism lays the groundwork for pipeline development and future investment mobilisation.

In addition, the EIB supports Mission cities through two complementary channels. The advisory services, and ELENA grants, focus on project preparation, including pipeline development, pre-feasibility analysis, and assessment of risks and financing options to make projects investment-ready. The advisory support complements – but is distinct from – the Capital Hub’s coordination role.

Next to that, the EIB has set aside a dedicated EUR 2 billion lending envelope available to Mission cities. This represents a significant source of investment aligned with the Mission’s objectives and complements Mission-established instruments such as the Climate City Capital Hub, which strengthens financial structuring capacity and enables blended financing models that can help unlock EIB lending as well as additional public, private and philanthropic capital.

Examples of support delivered by the Capital Hub and EIB to Mission cities.
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The **Capital Hub** enabled Marseille to finance its climate strategy through its first green and social bond by designing a Sustainable Financing Framework aligned with international market standards. It defined which climate and social projects could be financed, established transparent governance and reporting rules, and guided the independent review process, resulting in a strong Second Party Opinion from Moody's and a high Sustainability Quality Score (SQS 2), confirming the credibility of the approach. In addition to transaction itself, the assignment created a tested and reusable model for other Mission Cities with borrowing capacity to access capital markets, demonstrating how the Capital Hub converts climate plans into bankable, market-ready investment.

Source: Capital Hub

Under its advisory mandate supporting the Climate-Neutral and Smart Cities Mission, the **European Investment Bank** signed agreements with six Greek cities – Athens, Thessaloniki, Ioannina, Kalamata, Kozani and Trikala – to help them prepare investment programmes and strengthen project pipelines aligned with their climate and smart city objectives. EIB Advisory experts work with each municipality to structure and prioritise multi-sector investments in sustainable mobility, energy efficiency, renewable energy, nature-based solutions, circular economy and smart infrastructure, reinforcing local capacity to implement bankable projects. This tailored support directly underpins the Mission's objective of enabling cities to move from strategy to delivery of climate-neutral and climate-responsive urban development.



Source: European Investment Bank

Strengthened national governance and multilevel coordination

At national level, the Cities Mission has strengthened the administrative, financial, and policy capacity of Mission Cities through national platforms and targeted support via the Mission Platform. In addition to Mission Cities, national platforms have also significantly extended the Mission's reach and impact by mobilising and supporting additional cities to adopt Mission-aligned climate-neutrality objectives and approaches. By mid-2025, ten operational national platforms were active across Member States such as Austria, Denmark, Finland, Portugal, Romania, Spain, and Sweden, with 9 more close to set-up and 8 under preparation. This represents a rapid expansion since 2023, when new structures such as Greece's CLIMANET, Romania's M100, and Portugal's Cidades pelo Clima were launched, and existing platforms significantly enlarged their reach (e.g. Austria grew from 10 to 47 cities, Sweden from 23 to 48). Through these platforms, the Mission approach is increasingly being adopted beyond the original cohort, helping to create a broader community of cities working towards climate neutrality using similar methodologies and governance models. These platforms have enabled multilevel governance models that directly link local commitments to national strategies, and help unlock funding, technical expertise, and stakeholder engagement.

Example – Romania: Scaling the Cities Mission through the national M100 platform

Romania launched the M100 Mission Mirror Hub in 2023 to extend the Cities Mission approach at national level. Led by five ministries and the National Authority for Research, the platform mobilised ten Romanian Mission minded cities to develop Climate City Contracts with a 2035 horizon, recognised through a national Mission Label in 2025. Together with the three Romanian cities participating in the EU Cities Mission, these cities benefit from capacity building, peer learning and expert support coordinated under the M100 Academy and M100 Ecosystem. The initiative combines national, European

and bilateral funding and aims to mobilise around EUR 1 billion in investments by 2035 across sectors such as energy, mobility, buildings and industry.

Example – Austria: scaling the Cities Mission through a national public–public partnership model

Austria's Climate-Neutral City Mission (*Klimaneutrale Stadt*) introduced an innovative public–public partnership (ÖÖK) model in 2023 to support cities in implementing climate neutrality strategies. The Ministry for Innovation, Mobility and Infrastructure (BMIMI) together with the Climate and Energy Fund established formal cooperation agreements with 10 pioneer cities, each receiving EUR 2 million in dedicated R&I funding to strengthen local capacity and launch city-level innovation projects.

The initiative subsequently expanded as additional cities joined to develop climate neutrality roadmaps, reaching 47 participating cities, representing around 41% of Austria's population. In total, national programmes have provided around EUR 519 million in funding for projects relevant to the Austrian Climate-Neutral City Mission between 2022 and 2024, supporting innovation in areas such as energy systems, mobility and urban regeneration.



Source: SIR Anna Pirato

Activities within the pioneer cities have already contributed to measurable progress, including 4.8 MtCO₂ emissions reductions in Austria since 2023, alongside large-scale deployment of renewable energy, district heating, heat pumps and neighbourhood-level climate neutrality projects.

Example – Italy: National programme supporting Climate City Contracts implementation



Source: MASE

Italy has launched a national programme to support the nine Italian cities participating in the EU Cities Mission, allocating EUR 11.8 million through the Ministry of Environment and Energy Security (MASE). The funding supports the implementation of actions linked to the cities' Climate City Contracts in areas such as sustainable mobility, energy systems and building renovation. By aligning national funding with the Climate City Contracts, the programme strengthens coordination between local, national and EU levels and helps cities move from planning to implementation. It also reinforces national governance for the Mission and creates a framework that could be extended to additional cities pursuing climate neutrality.

Taken together, the alignment across EU policies and programmes, combined with strengthened national platforms, illustrate how the Mission is building the multilevel structures and the cross-sector collaboration, aligning regulatory, strategic and financial tools needed for cities to implement their CCCs. This ecosystem of support, spanning from the EU to the national level, creates the conditions for cities to accelerate their transitions and deliver systemic, long-term climate action.

The Mission is shaping a coherent investment demand and making the business case for climate-neutral cities

Analysis of the Investment Plans, conducted by Bankers without Boundaries (BwB), from 28 Mission Cities, supported by the NetZeroCities Economic Model, indicates that full implementation of the measures identified across the Mission cohort would require around EUR 307 billion in capital investment for all 100 EU-located Mission Cities to meet the 2030 climate-neutrality target. Modelled projections show that this investment could generate approximately EUR 308 billion in direct operational savings by 2030, mainly through more efficient buildings, cleaner transport systems and reduced energy consumption. When wider co-benefits such as improved air quality, better health and reduced noise are included, the total economic value rises to about EUR 394 billion.

Overall, this implies a net positive economic impact of roughly EUR 87 billion. These figures represent *ex ante* estimates of potential value.

The development of the Investment Plans has also made visible, for the first time, the aggregated demand emerging across Mission Cities. Instead of isolated local plans, the combined investment intentions reveal a coherent pipeline covering building renovation, zero-emission mobility, district heating, renewable energy and digital systems. By making this demand visible at scale, the Mission is helping create new markets for climate-neutral urban solutions. This, in turn, strengthens the conditions for innovation, industrial growth and enhanced European competitiveness in strategic sectors. In this sense, the Mission not only guides cities on their climate-neutral pathways but also supports a wider market-shaping dynamic that will be essential for accelerating progress in the years ahead.

The Mission is equipping cities with the capacities and tools to deliver their climate neutrality pathways.

A core objective of the Mission is to build the skills, knowledge and support structures that cities need to plan and deliver their transition to climate neutrality. Strong progress is evident across all dimensions of the Mission Platform's offering, from knowledge resources, to learning programmes, to tailored advisory services.

The Mission Platform's knowledge portal has become a central entry point for city practitioners across Europe. It hosts 1 077 resources ⁽¹⁴⁴⁾ (including documents, factsheets, case studies, videos, Climate City Contracts, and guidance materials), which have collectively attracted 820 346 total views, and 550 926 unique views. This high level of engagement highlights the demand for practical knowledge to support systemic transitions. To date, 1 960 city officers, 690 representatives from public authorities, representing 471 cities, as well as 3 690 local partners are active users of the portal.

Cities are not only accessing resources, but also making extensive use of the Platform's tools and learning opportunities. 67 cities use the NetZeroPlanner ⁽¹⁴⁵⁾ tool to model scenarios and prioritise investments. 70 cities have joined six seasonal schools ⁽¹⁴⁶⁾, and 180 cities are engaged in the Twinning Learning Programme ⁽¹⁴⁷⁾. In addition, Best Practices sessions ⁽¹⁴⁸⁾ have brought together 12 cities as presenters and 19 cities as

⁽¹⁴⁴⁾ Data extracted from the NetZeroCities Mission Platform knowledge portal, as of 15 October 2025.

⁽¹⁴⁵⁾ A planning and simulation tool developed under NetZeroCities that allows cities to model climate mitigation scenarios, prioritise investments, and track progress towards climate neutrality. Available at: <https://netzerocities.app/netzeroplanner>

⁽¹⁴⁶⁾ The Seasonal Schools are part of an extensive Capability Building Programme for Mission offering both online and offline learning opportunities. These in-person events are tailored to guide cities in their pursuit of climate neutrality, facilitating the robust support for the development and implementation phase of CCCs.

⁽¹⁴⁷⁾ A 12 to 20-month initiative designed for knowledge sharing and the transfer of good practices between selected Twin Cities and the cities that joined the Pilot Cities Programme. <https://netzerocities.eu/twinning-learning-programme/>

⁽¹⁴⁸⁾ Meetings where Mission Cities showcase on-the-ground experiences and innovations (e.g. citizen engagement, urban mobility, energy renovation), enabling participants to compare approaches, ask questions, and reflect collectively on shared challenges and learnings.

participants, while Policy Labs ⁽¹⁴⁹⁾ and National Workshops ⁽¹⁵⁰⁾ have involved 46 cities increasing exposure to replicable approaches and shared challenges.

Direct support is ensured through 18 dedicated City Advisors, 13 City Finance Specialists and structured City Support Groups, which provide hands-on guidance on governance, finance and technical issues. In 2025 alone, they delivered more than 420 one-to-one advisory sessions, while cities have submitted over 120 implementation support requests in the first half of the year. The City Expert Support Facility has launched 39 procurements to help cities design investment projects, integrate resilience, and prepare funding applications.

This combined architecture of knowledge, tools and tailored support has played a decisive role in enabling all 112 Mission Cities to advance their Climate City Contracts, including the 107 cities that have already received the Mission Label. Altogether, these developments show that the Mission Platform has become a central hub for knowledge exchange and expert support, enabling cities to access the skills, experience, and networks they need to implement their Climate City Contracts and sustain progress toward climate neutrality.

The Mission is establishing a coherent monitoring system to track progress and guide implementation

By October 2025, the Mission has put in place a coherent and transparent monitoring system that helps cities track their transition and adjust their implementation pathways over time. At its core is a Comprehensive Indicator Framework ⁽¹⁵¹⁾, which supports cities in tracking both direct impacts, such as GHG reductions, and wider co-benefits, such as economic, social, governance dimensions. All 107 Mission Cities that have received the Mission Label have developed CCCs with GHG baselines, targets, and measures that should be updated at least every two years. This iterative process embeds monitoring into implementation and fosters reflexive learning as cities refine their plans.

At the aggregate level, the NetZeroCities Barometer and Dashboard ⁽¹⁵²⁾ bring together data from the CCCs, the reporting platforms CDP-ICLEI Track ⁽¹⁵³⁾ and MyCovenant ⁽¹⁵⁴⁾, and public datasets to provide a coherent, EU-wide picture of ambition and progress. To reduce reporting duplication and administrative burden, the Mission Platform has established agreements with both CDP-ICLEI and MyCovenant platforms to streamline data flows and ensure consistency across systems. The Barometer and Dashboard make it possible to assess city trajectories in a comparable way, while preserving the specificities of local contexts.

⁽¹⁴⁹⁾ Mission-oriented forums where Mission Cities present policy challenges and co-develop recommendations with peers and experts to inform EU decision-making.

⁽¹⁵⁰⁾ In-country peer-learning events bringing together cities, national/regional authorities, and stakeholders to strengthen collaboration and build enabling support structures for climate neutrality.

⁽¹⁵¹⁾ <https://netzerocities.app/resource-4120>

⁽¹⁵²⁾ <https://netzerocities.app/barometer>

⁽¹⁵³⁾ <https://www.cdp.net/en/disclose/why-disclose#cities>

⁽¹⁵⁴⁾ <https://mycovenant.eumayors.eu/site/landing>

With the Indicator Framework now fully operational and used, Mission Cities benefit from a shared language and methodology for tracking progress. This harmonised approach strengthens credibility, supports learning across cities, and creates a transparent monitoring architecture that not only tracks emissions but also captures governance innovation and systemic transformation. Importantly, the Barometer has also become a key communication tool, offering policymakers, investors, and citizens a clear snapshot of progress and reinforcing accountability of the Mission as a whole.

While the Barometer and Dashboard have already begun to inform reporting, their full potential will unfold as cities enter deeper implementation. As more data becomes available over time, these tools will increasingly support future assessments by providing a richer evidence base for understanding progress, challenges and impacts across Mission Cities.

4.4. Conclusions

By 2026, the Cities Mission has made substantial progress toward its 2030 objectives, establishing the foundations required for cities to advance from preparation to delivery. The Mission has exceeded its central milestone, with 107 cities submitting a Climate City Contract and receiving the Mission Label. These Contracts provide quantified emissions baselines and targets, detailed action portfolios and investment plans, and governance commitments that collectively shift cities from fragmented initiatives to coherent transition pathways. Across these 107 cities, projected reductions amount to 199.68 MtCO₂e by 2030, corresponding to a 76% decrease from aggregate recent baselines and representing approximately 6.6% of all EU-27 emissions in 2023. These figures reflect ambition and offer the first comprehensive picture of the mitigation potential of Europe's leading cities while setting the baseline for future annual monitoring.

The CCC process has strengthened cities' analytical and governance capacities, enabling more robust inventories, expanded sectoral coverage, and improved transparency. It has also mobilised more than 3 000 stakeholders, including major businesses, utilities, civil society organisations, and research institutions, underscoring the Mission's ability to align local actors behind shared climate-neutrality objectives. This coalition building is central to delivery, since the majority of investment and implementation lies beyond municipal control.

Strong progress has also been made in supporting innovation, scaling and replication, in line with the Mission's objective of enabling cities to act as experimentation hubs for others to follow. Through the Pilot Cities and Enabling City Transformation Programmes, 101 Mission Cities are currently testing systemic solutions across energy, the built environment, mobility, digitalisation and governance. The Twinning Learning Programme now connects 181 cities, forming the Mission's largest peer-learning network and accelerating the transfer of solutions outside the initial pilot sites. Together, these activities have produced a growing portfolio of tested approaches that, once replicated at scale, can support wider European urban transition efforts.

The Mission has further strengthened the policy, governance and funding environment needed for implementation. It is now referenced in major EU strategies, action plans and legislative acts and EU programmes, a sign of increasing institutional recognition and

alignment. National platforms have expanded rapidly, with ten fully operational and a further seventeen at various stages of development, helping cities with aligned national regulatory frameworks and co-financing opportunities. These developments illustrate how the Mission is contributing to the emergence of multilevel governance structures that support Mission cities in implementing their CCCs. By extending Mission methods and support to additional cities, national platforms also contribute directly to the second objective of the Mission. This enables additional cities to follow climate-neutrality towards 2050.

In addition, the Mission has provided, for the first time, a consolidated view of the investment demand associated with climate-neutral urban transitions. Analysis of 28 Investment Plans indicates that Mission Cities will require around EUR 307 billion in capital investment to meet their 2030 targets. Modelled projections suggest that these investments could generate EUR 308 billion in direct operational savings by 2030 and EUR 394 billion when wider co-benefits are included, demonstrating a positive economic case for climate-neutrality. Making this investment demand visible also contributes to shaping future markets for climate-friendly urban solutions and clarifies where financial structuring and advisory support are needed.

Capacity building has been another area of strong advancement. The Mission Platform's knowledge portal now hosts more than 1 000 resources dedicated to more than 470 cities, with thousands of practitioners engaged. Cities are making extensive use of analytical tools, learning programmes, and tailored advisory support, including more than 420 one-to-one advisory sessions delivered in 2025. This ecosystem of support has played a decisive role in enabling all 112 Mission Cities to progress in their CCC development or refinement and to prepare for implementation.

Finally, the Mission has established a coherent monitoring system that supports both local and aggregate tracking. The Comprehensive Indicator Framework provides a harmonised methodology for assessing GHG reductions and co-benefits, according to which labelled cities have committed to updating their CCCs at least every two years. The NetZeroCities Barometer and Dashboard now integrate data from CCCs and major reporting platforms, creating a unified, EU-wide view of the trajectory of Mission Cities. This monitoring architecture improves comparability, reduces administrative burden and supports transparency to policymakers, investors and citizens.

In sum, the Mission has mobilised cities at scale, established consistent methodologies, strengthened governance capacity, clarified investment needs, and built mechanisms for innovation, learning and monitoring. These developments constitute the essential groundwork for the transition from planning to delivery. At the same time, several challenges will determine the success of the Mission's second phase. Key priorities include accelerating investment mobilisation by helping cities bundle projects into bankable portfolios and strengthening access to EU and national programmes and innovative financing solutions, deepening national anchoring across all Member States to ensure that national platforms provide consistent regulatory alignment and co-financing, strengthening scaling and replication mechanisms so that the work done so far translates into widespread uptake – in line with the Mission's 2050 objective, enhancing monitoring to move from projected to actual emissions reductions, and providing targeted support to cities where

tailored assistance can accelerate progress, especially in governance capacity, investment readiness and cross-departmental coordination.

The Mission has therefore generated the essential enabling conditions for climate-neutral cities by 2030, yet achieving this ambition will depend on the ability to accelerate implementation, secure investment at scale, and ensure that solutions tested in the first phase expand rapidly across the full cohort. This is also central to the Mission’s second objective: enabling labelled cities to act as innovation and experimentation hubs for all European cities on the path to climate neutrality by 2050. The direction of travel is clear, and the second phase of the Mission will be decisive in converting structured plans and projected outcomes into measurable, system-level transformation.

5. A SOIL DEAL FOR EUROPE

5.1. Introduction to the Mission

The Mission A Soil Deal for Europe (Mission Soil) aims to lead the **transition towards healthy soils** across Europe by 2030. Its flagship objective is to establish a network of **100 Living Labs**. As a first contribution, the Mission Soil estimated that 60-70% of soils in the EU were unhealthy, due to one or several forms of soil degradation, such as erosion, loss of organic carbon, excess nutrients (nitrogen and phosphorus), pollution, compaction, etc. ⁽¹⁵⁵⁾.

The Mission is pursuing eight **specific objectives** that address these drivers of degradation but also consider the EU’s global “soil footprint” while improving “soil literacy” in our society ⁽¹⁵⁶⁾.

These objectives are translated into 4 building blocks (operational objectives): 1) research and innovation, 2) Living Labs and Lighthouses, 3) soil monitoring, and 4) soil literacy and citizen engagement in all land uses.

Figure 28. The Mission Soil’s four operational objectives (building blocks) and eight specific objectives.



⁽¹⁵⁵⁾ [Caring for soil is caring for life](#), Report of the Mission Board for soil health and food, September 2020.

⁽¹⁵⁶⁾ European Commission (2021). Mission Soil Implementation Plan. https://mission-soil-platform.ec.europa.eu/sites/default/files/2023-07/soil_mission_implementation_plan_final_for_publication.pdf

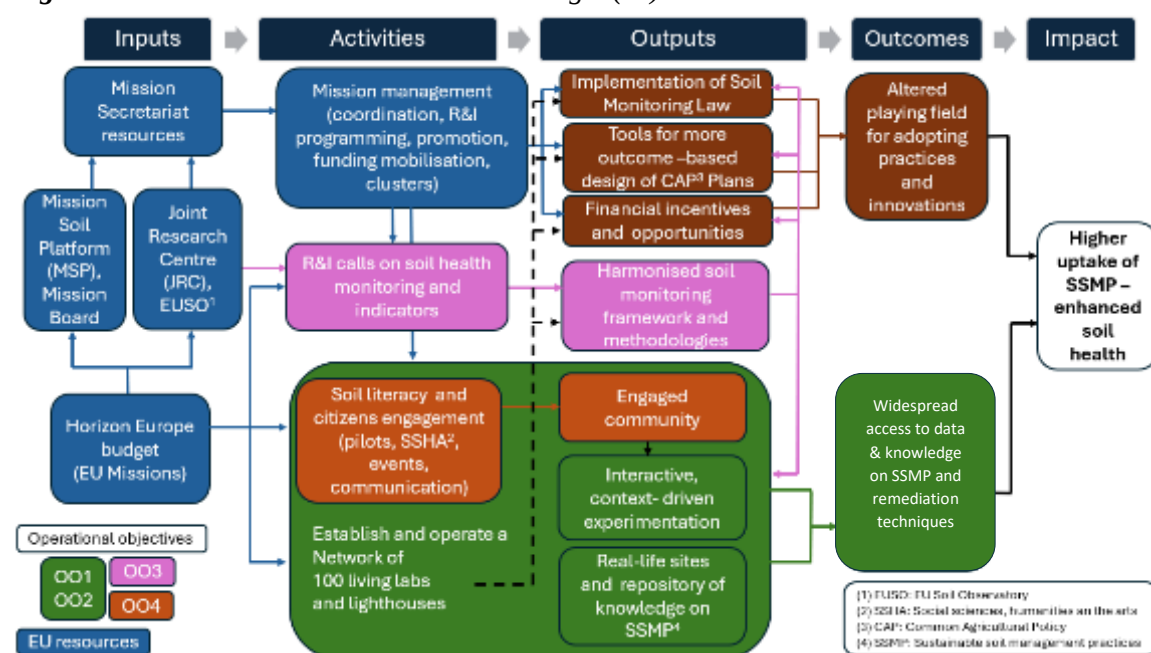


The Mission is establishing a **continent-wide network of Living Labs** as novel instruments for place-based, user-driven innovation for healthier soils, covering all land uses and major soil types (biogeographical regions, see section 5.5.2.2). Living Labs are further complemented by specific sites that have shown their potential for improving soil health, functioning as “Lighthouses” for demonstration and dissemination of innovative approaches.

The Living Labs and Lighthouses support the overall Mission’s objective of leading the transition towards healthy soils. Activities related to other operational objectives, for example, the cross-scale, inter- and transdisciplinary R&I programme ⁽¹⁵⁷⁾ feed into the Living Labs so they can engage with local actors to test innovative solutions on real sites (more than 1 000 expected, see section 5.5.2.2), adapt solutions to the local context and boost upscale of innovations. For this reason, the first Living Labs call was launched in 2023 and the first Living Labs started to work in 2024, once the projects expanding the ‘knowledge base’ were in place, the capacities for soil health monitoring strengthened and the soil community was more aware, engaged and mobilised ⁽¹⁵⁸⁾.

Figure 29 presents a summarised version of the overall Mission’s intervention logic:

Figure 29. Overall Mission Soil intervention logic ⁽¹⁵⁹⁾.



⁽¹⁵⁷⁾ [Social sciences, humanities, and the arts in the EU Mission “A Soil Deal for Europe”](#)

⁽¹⁵⁸⁾ For example, the Mission Soil Manifesto and the first annual event were launched in 2023 (see section 5.2.4). The success rate of the Mission Soil calls has evolved from 42.3% in 2021 to 10.3% in 2024, showing the increasing interest, awareness and preparation within the soil community.

⁽¹⁵⁹⁾ Elaborated from Janssen, M.J. (2025). Missions at the interface of innovation and transition policy - Teaching materials. Mission-oriented Innovation Policy Observatory, Utrecht University, The Netherlands.

The ambitious Mission's programme for R&I, with more than 60 Horizon Europe-funded projects (September 2025), aims to increase knowledge and improve soil-management practices across all EU Member States and 15 Associated Countries. Calls for project proposals have been designed to eventually address all eight specific objectives and to maximise **synergies**, between Mission projects as well as with other relevant R&I and policy initiatives (see Section 5.5.2.1).

Table 2. Soil degradation indicators developed for the Mission specific objectives.

Groups of soil degradation processes	Indicator	Threshold	Reference	Link to Mission Soil Objectives (see Fig 1)	Link to Mission Soil Indicators (see Fig 1)
Soil erosion	Water erosion	Erosion rate > 2 tonnes ha ⁻¹ yr ⁻¹	Panagos et al., 2020	1, 5 and 6	Soil structure and absence of soil sealing and erosion
	Wind erosion	Erosion rate > 2 tonnes ha ⁻¹ yr ⁻¹	Borrelli et al., 2017		
	Tillage erosion	Erosion rate > 2 tonnes ha ⁻¹ yr ⁻¹	Borrelli et al., 2023		
	Harvest erosion	Erosion rate > 2 tonnes ha ⁻¹ yr ⁻¹	Panagos et al., 2019		
	Post fire recovery	Recovery rate < 1	Vieira et al., 2023		
Soil pollution	Copper excess	Cu concentration > 100 mg kg ⁻¹	Ballabio et al., 2018	1 and 4	Presence of soil pollutants, excess nutrients and salts
	Mercury excess	Hg concentration > 0.5 mg kg ⁻¹	Ballabio et al., 2021		
	Zinc excess	Zn concentration > 100 mg kg ⁻¹	Van Eynde et al., 2023		
	Cadmium excess	Cd concentration > 1 mg kg ⁻¹	Ballabio et al., 2024		
	Arsenic excess	P(X > 45 mg kg ⁻¹) > 5%	Fendrich et al., 2024		
Soil nutrients	Nitrogen surplus	Agricultural areas where N surplus > 50 kg ha ⁻¹ yr ⁻¹	Grizzetti et al., 2022; Lugato et al., 2018	1	Soil nutrients and acidity; Presence of soil pollutants, excess nutrients and salts
	Phosphorus deficiency	P deficiency < 20 mg kg ⁻¹	Ballabio et al., 2019		
	Phosphorus excess	P excess > 50 mg kg ⁻¹	Ballabio et al., 2019		
Loss of SOC	Distance to max SOC level	Distance to max SOC level > 60%	De Rosa et al., 2024	1 and 2	Soil organic carbon stock
Loss of soil bio-diversity	Potential threat to biological functions	≥ Moderately-High level of risk	Orgiazzi et al., 2016	1 and 6	Soil biodiversity
Soil compaction	Packing density	Packing density ≥ 1.75 g cm ⁻³	Panagos et al., 2024b	1 and 6	Soil structure and absence of soil sealing and erosion
Salinization	Secondary salinization risk	Areas in Mediterranean region where >30% is equipped for irrigation	Siebert et al., 2013	1 and 4	Presence of soil pollutants, excess nutrients and salts
Loss of organic soils	Peatland degradation risk	Peatlands under hotspots of cropland	UNEP, 2022	1 and 2	Soil organic carbon stock
Soil sealing	Built-up areas	No threshold applied (all built-up areas)	Copernicus, 2018	3	Soil structure and absence of soil sealing and erosion

Source: JRC analysis

The Mission places soil literacy and citizen engagement (operational objective 4) at the core of its approach, recognising that healthy soils require informed and active participation from society. The Mission raises awareness and understanding of soil functions, threats and benefits through education, communication and participatory activities, empowering citizens, farmers and communities to take action. This engagement complements the other three building blocks. Together, these elements reinforce each other, ensuring science-based, inclusive and measurable progress towards healthy soils by 2030. Through individual R&I projects and through dedicated support for the EU Soil Observatory (EUSO, run by the Joint Research Centre), the Mission is making progress towards more harmonised and complete **monitoring** of key soil-health parameters. While comparable baseline data were missing for many indicators when the Mission was launched, these gaps are gradually being closed, enabling the measurement of trends in soil-health development for an increasing number of parameters; examples are presented in Section 5.5.2.3. Table 2 summarises progress against the eight Mission specific objectives.

5.2. The progress of the Mission

The Mission Soil's progress is reported in this section against its four operational objectives, as defined in the Implementation Plan:

1. Build capacities and the **knowledge base** for soil stewardship;
2. Co-create and upscale **place-based innovations** to improve soil health in all places;
3. Develop an integrated EU **soil monitoring** system and track progress towards soil health;

4. Engage with the soil user community and society at large.

5.2.1. Build capacities and knowledge base for soil stewardship (operational objective 1)

Mission's operational objective 1 (Mission Implementation Plan, MIP) is to build capacities and the knowledge base for soil stewardship.

This objective addresses the need to close knowledge gaps related to the eight Mission specific objectives, and to improve access to this knowledge for potential users.

Figure 30. Intervention logic in relation to operational objective 1.

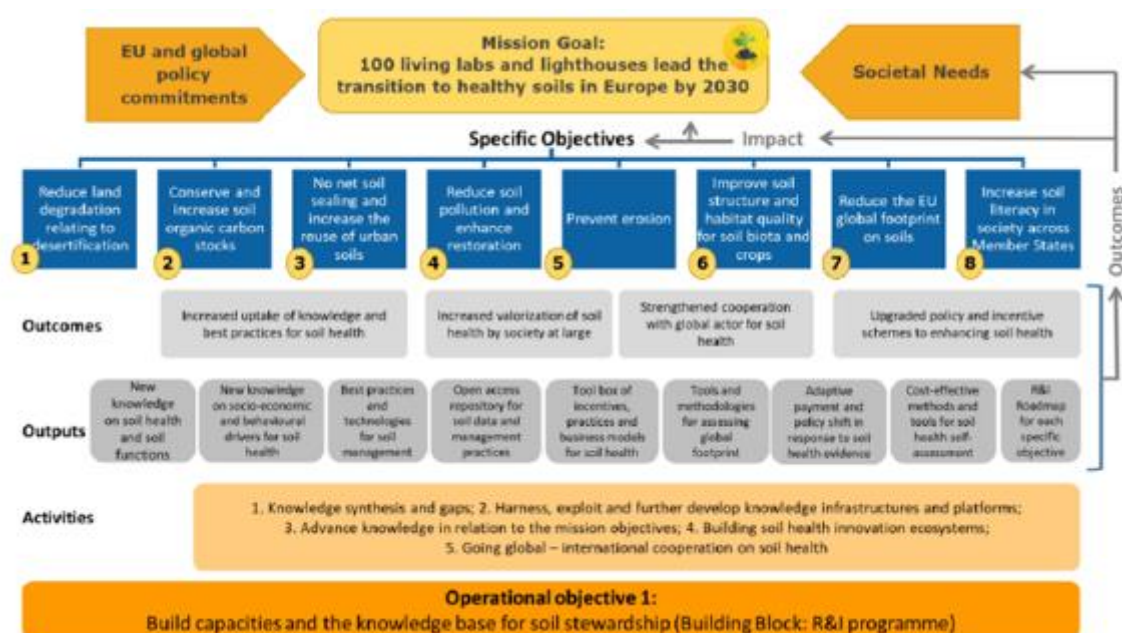
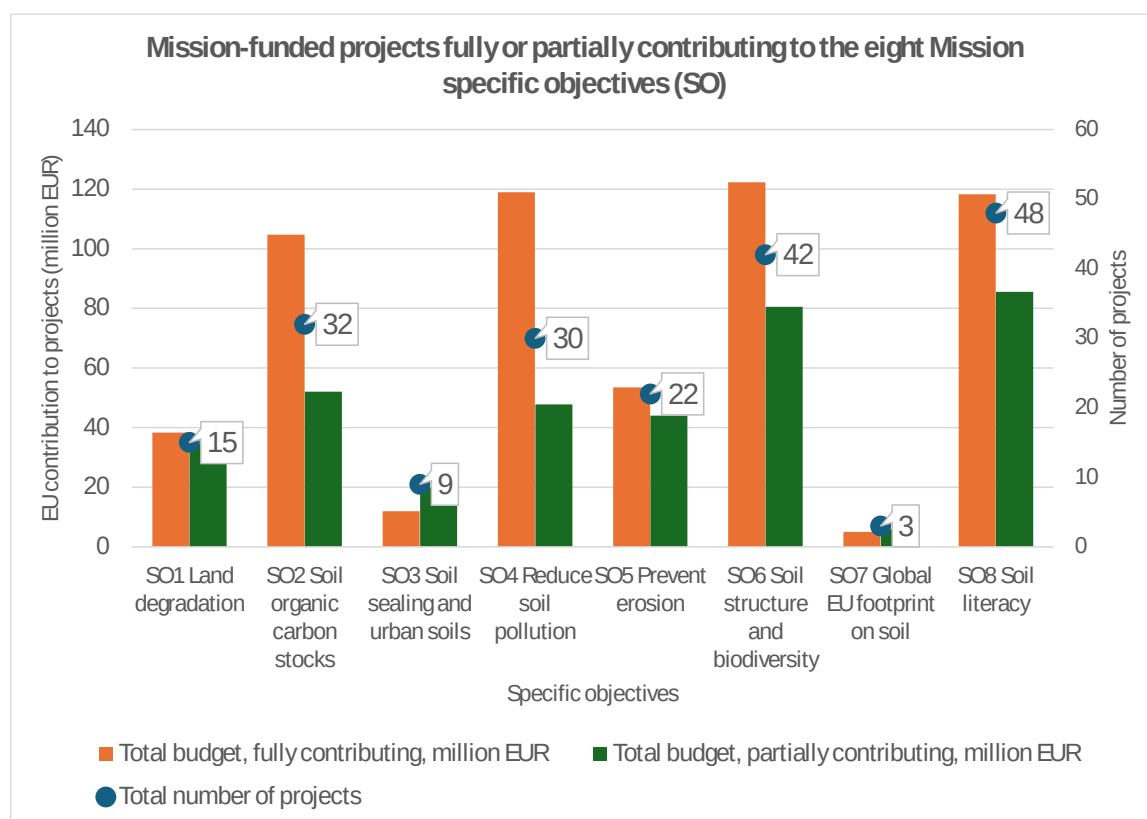


Figure 31 shows progress by Mission projects in addressing knowledge gaps organised by the Mission's specific objectives. All 8 specific objectives are well covered by the on-going projects. Some objectives are supported by many projects, such as 'soil literacy', others as 'global footprint' by much less. It is due to programming choices following the implementation logic and policy needs and due to the bottom-up spirit of Living Labs implementation. The Mission's implementation is continuously monitored and gaps identified in the Mission Implementation Plan continuously re-assessed by the Mission Secretariat with the support of the [SOLO](#) project, the Mission Board and the Joint Research Centre. The SOLO project identifies remaining knowledge gaps, drivers, bottlenecks, and novel R&I approaches to be considered in the updated Mission Soil roadmap that will be available in 2026.

Figure 31. Contribution to the eight Mission Soil specific objectives by Mission-funded projects.



The graph shows how Mission projects have already addressed almost all the specific objectives, and particularly those related to “innovation hotspots” in the Mission Implementation Plan. These are areas of strategic importance for the Mission, such as carbon farming (SO2), soil pollution and restoration (SO4) or soil biodiversity (SO6). Some objectives (in particular SO3 ‘soil sealing and urban soils’ and SO7 ‘reduce the EU global footprint on soils’) are addressed in ongoing and future calls (for example, SO7 ⁽¹⁶⁰⁾).

The first Mission projects started in July 2022, and so far, three out of 63 have been completed (considering also that 2 of the 3 had strong preparatory focus ⁽¹⁶¹⁾). Consequently, it is challenging to measure knowledge production via outputs, such as publications, as numbers remain limited at this stage. This section therefore reports expected and achieved values of selected **output** indicators. Expected values are drawn from grant agreements for 29 Mission Soil-funded projects running up to August 2029 (around half of the 63 running projects). Achieved values are based on continuous Horizon Europe reporting for 43 projects, as of 30 June 2025.

⁽¹⁶⁰⁾ Mission Soil call topic [HORIZON-MISS-2025-05-SOIL-05: EU global footprint on soils](#)

⁽¹⁶¹⁾ [PREPSOIL](#): Preparing for the ‘Soil Deal for Europe’ Mission; [NATI00NS](#): National engagement activities to support the launch of the Mission ‘A Soil Deal for Europe’ 100 Living Labs and Lighthouses

A standard indicator of research activity is the number of **peer-reviewed scientific publications generated** by projects. Based on the currently available information, more than 300 publications (302 identified so far) are expected by 2029. By June 2025, 108 peer-reviewed publications have been reported, including journal articles, monographs, conference proceedings, and preprints (18 out of the 43 projects), including publications in high-impact journals produced from Mission Soil projects ⁽¹⁶²⁾.

To contextualise these figures, the Horizon Dashboard provides useful comparative parameters, such as publications per project and **publications per EUR 10 million grant**. These can be benchmarked against each other and compared with those from other similar parts of the Programme:

Table 3. Publication by Mission soil projects compared to Horizon Europe Cluster 6 ⁽¹⁶³⁾.

Indicator	Value for the Mission Soil	Reference	Value
Publications per EUR 10 million by projects with grant agreement signed in 2022 ⁽¹⁶⁴⁾	3.5	Cluster 6	2.8
Number of publications per project	2.0	Cluster 6	1.8

These indicators show that, in terms of scientific output and knowledge, Mission projects are successful also in comparison to other parts of Horizon Europe (for example, Cluster 6).

In addition, a comparative analysis between soil-related projects funded under Horizon 2020 identified by the JRC ⁽¹⁶⁵⁾, Mission Soil-funded projects and Mission Soil Living Labs shows that, while maintaining the level of scientific output, the Mission has been more able to involve non-research beneficiaries, such as NGOs, associations, public organisations, regional and local authorities, citizens, businesses or land managers ⁽¹⁶⁶⁾ (figure 32), improving diversity and stakeholders involvement.

⁽¹⁶²⁾ <https://www.nature.com/articles/s41893-025-01628-3>;
<https://agupubs.onlinelibrary.wiley.com/doi/10.1029/2025RG000883>

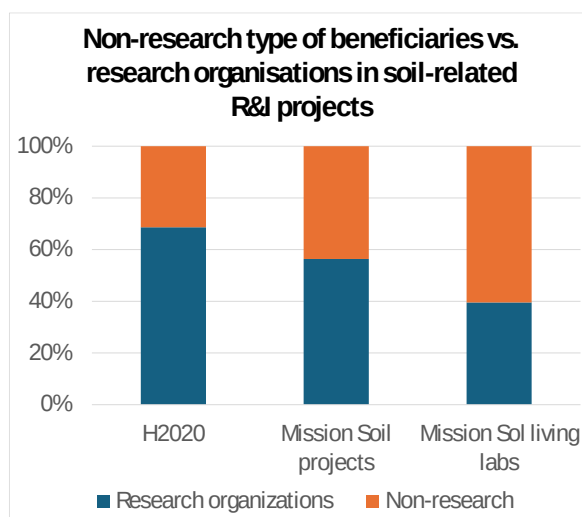
⁽¹⁶³⁾ [Food, Bioeconomy, Natural Resources, Agriculture and Environment](#)

⁽¹⁶⁴⁾ Only projects with grant agreements signed in 2022 have produced publications.

⁽¹⁶⁵⁾ Arias Navarro, C., Panagos, P., Jones, A., Amaral, M.J., Schneegans, A., Van Liedekerke, M., Wojda, P. and Montanarella, L., Forty years of soil research funded by the European Commission: Trends and future. A systematic review of research projects, EUROPEAN JOURNAL OF SOIL SCIENCE, ISSN 1351-0754, 74 (5), 2023, p. e13423, JRC132377.

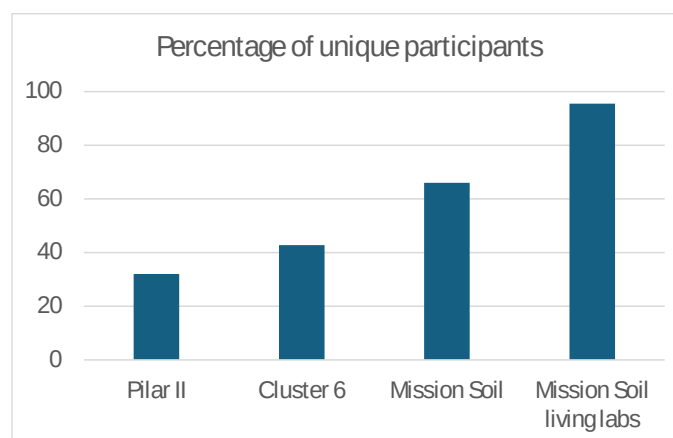
⁽¹⁶⁶⁾ Non-research organisations: private for-profit entities, public bodies and other; research organisations include also higher or secondary education establishments (public or private).

Figure 32. Comparison by types of beneficiaries in H2020 soil-related projects, Mission Soil projects and Mission Soil Living Labs.



There are **1 377 organisations** involved in the 63 Mission Soil-funded projects, and a large number of unique organisations (909). The Mission and the Living Labs show a high level of unique participants ⁽¹⁶⁷⁾, emphasising diversity, especially considering the size of the soil scientific community.

Figure 33. Unique participants versus total participants in Horizon Europe Pillar II, Cluster 6, Mission Soil projects and Mission Living Labs.



In terms of outputs, projects funded through the Mission Soil are developing more than **160 tools for soil health assessment and monitoring**.

By integrating various types of data (climate, topography, soil health), the [AI4SoilHealth data cube](#) can revolutionise soil management in Europe by **enabling precision agriculture, predictive analysis** to forecast future soil conditions and potential issues and **integrated decision making**. The project also incorporates both traditional laboratory and physic-chemical methods, such as spectroscopy, soil penetrometers, and Ion Selective Electrodes for key measurements (e.g. pH, salinity), making **testing more accessible to farmers, advisors, and citizen scientists**.

⁽¹⁶⁷⁾ Number of distinct organisations involved in projects. One organisation participating in several projects is only counted once.

The [ECHO project](#) is developing a Citizen Science Platform, including a mobile app and a toolbox for citizens to monitor and gather data on soil biodiversity. This citizens-science project has assessed 16 500 sites and created a long-term open access [repository](#) with a direct link to the EUSO (EU Soil Observatory).

The number of **soil educational materials developed** (i.e. courses/modules for soil education in primary and secondary schools as well as in universities) currently amounts to 57. The overall output is expected to reach a value of at least 160, including: programmes, curricula and guidelines; training materials, such as videos for soil advisors and farmers; training modules for citizen science; a European atlas of soil education and training; tools and manuals to support organisations to engage with quintuple-helix stakeholders; etc.

The [NBSOIL Academy](#) stands as a pioneering two-year training prototype aimed at empowering existing and aspiring soil advisors to effectively deploy nature-based solutions. It is a blended training programme where participants engage with soil health and nature-based solutions experts, demonstration sites, advisory services, and other Mission projects. It comprises 3 modules from foundation-tier (60 hours) to advance-tier (240 hours).

As concerns the actual **delivery of training sessions**, the number is above 400. More than 7 000 teachers/students/researchers have participated in **upskilling activities**. The participants in training include (self-)trained teachers/students, school heads, young scientists, and BA/MA/PhD students.

Another interesting indicator is the **number of open soil datasets**, also available in the Horizon Dashboard. All open datasets produced by Mission projects will be captured by the [SoilWise](#) project and exported to the EU Soil Observatory for stakeholder use and to support the implementation of the Soil Monitoring Law. The current [SoilWise prototype repository](#) shows already 34 000 records catalogued.

The Mission project [SoilWise](#) and the Mission Soil **Cluster on Data and Knowledge Management** provide an integrated and actionable access point to scattered and heterogeneous soil data and knowledge in Europe, making them FAIR (Findable, Accessible, Interoperable and Reusable). In its first 24 months, SoilWise delivered two working prototypes of the SoilWise Catalogue, allowing users to access **33 743** records, from historic datasets (**11 833**) and publications to policy reports and unstructured content (other knowledge types **22 090**). The catalogue runs on a scalable infrastructure and already harvests metadata from trusted sources, including CORDIS, OpenAIRE, Zenodo, ESDAC, BonaRes, PREPSOIL, the FAO Soils Portal, the EEA Datahub, and ISRIC. Dedicated tools assess and enrich metadata quality, improving traceability, completeness, and standard compliance. The **Mission Soil-attributed records** are 1 178, including 338 datasets and 840 knowledge objects.

Close to 80 **communities of practice** (CoPs) ⁽¹⁶⁸⁾ are expected to be supported under Mission Soil-funded projects (LOESS, HuMUS, NOVASOIL, PREPSOIL, SoilValues, CURIOSOIL, DeepHorizon, MONALISA, and Soiltribes).

Considering that many of the Mission Soil-funded projects are still in their initial stages, it is too early to report on their outcomes. They deal with behavioural and environmental changes and other achievements (e.g. citations after the publishing of an article) that take

⁽¹⁶⁸⁾ Communities of Practice (CoPs) typically comprise stakeholders from education, research, community initiatives and policymaking, who share a common interest in promoting soil health and education. For example, see [LOESS](#).

time to materialise and measure. Nevertheless, data on initial results (from impact sections of Mission Soil projects) for some projects for the following indicators are:

- Land managers and other “users” of soil health ecosystem services involved in R&I activities – **16 055** in just six projects for which there is available information ([BENCHMARKS](#), [NBSoil](#), [Soil O-live](#), [DeepHorizon](#), [Hort2thefuture](#), and [LILAS4SOILS](#)).
- Number of municipalities and regions pursuing citizen-identified soil-related objectives – **154** in seven projects ([HuMUS](#), [NBSoil](#), [PREPSOIL](#), [GOV4ALL](#), [LILAS4SOILS](#), [Path4Med](#), and [Spades](#)). These are typically municipalities/regions involved in pilot activities related to soil health, e.g. on alleviating grazing pressure and defining new methodology to get an integrated territorial system in land management regarding water resources, hydrological systems and soil.
- Number of businesses and companies developing strategies for valorising soils in their production and supply chains – **265** in just four projects with available information ([BENCHMARKS](#), [NBSoil](#), [Soil O-live](#), and [Path4Med](#)). This type of behavioural change includes, e.g. farms applying sustainable practices and novel solutions and businesses in value chains that have adopted soil health incentive schemes.
- Number of **participants** in co-creation⁽¹⁶⁹⁾, engagement⁽¹⁷⁰⁾, and networking events – **35 385** under just 12 projects. They include participants in symposia and seminars ([LOESS](#)), workshops ([AI4SoilHealth](#)), conferences ([CURIOSOIL](#)), community of practice webinars ([DeepHorizon](#)), open days ([Hort2thefuture](#)). The reported values for participants so far show that **more than 13 600 participants** have been involved in such events under twelve Mission Soil-funded projects. These include participants in cluster events, networking events, conferences, online presentations, workshops, etc.

The knowledge developed by the Mission significantly contributes to policies related to soil health. The recently adopted EU Soil Monitoring and Resilience Directive (the **Soil Monitoring Law**, SML)⁽¹⁷¹⁾ refers to the Mission as a key instrument for the implementation of the Directive. The Mission has also provided relevant support during its design (for example, on the estimation of unhealthy soils). The Mission is firmly embedded in 18 out of 28 **Common Agricultural Policy** (CAP) Strategic Plans, basis for the allocation of CAP funds in Member States. Overall, **fifteen policy initiatives mention**

⁽¹⁶⁹⁾ Events related to co-creating R&I visions, agendas, policies or frameworks.

⁽¹⁷⁰⁾ Events related to co-creating R&I action plans or technology roadmaps; engaging actors in collecting data for the project, analysing data for the project, providing resources, monitoring and/or evaluating R&I results, testing & experimenting with innovative R&I solutions, contributing to scientific publications or patent applications; debating R&I findings and implications for them.

⁽¹⁷¹⁾ [Directive \(EU\) 2025/2360 of the European Parliament and of the Council of 12 November 2025 on soil monitoring and resilience](#)

and rely on the Mission actions to achieve their objectives, including the Soil Strategy for 2030 and the SML ⁽¹⁷²⁾.

Cooperation with global actors for soil health has been largely strengthened. For example, on 3 December 2023, the European Commission and the **Gates Foundation** announced cooperation on soil health challenges through the Mission Soil ⁽¹⁷³⁾ that has translated into [specific investments](#). The **Novo Nordisk Foundation's** Challenge Programme 2026 ⁽¹⁷⁴⁾ is a high-risk approach that promotes explicit collaboration with the Mission Soil. The Novo Nordisk Foundation is a signatory of the Mission Soil Manifesto. The Mission Soil collaborates closely with **UNESCO** ⁽¹⁷⁵⁾ on soil health, including through participation in the [SOILSCAPE](#) project, creating a soil literacy portal, among other things; and collaboration around the network of soil sentinel sites. The Mission has also a permanent cooperation with **FAO** through the [Global Soil Partnership](#) with specific actions in several areas ⁽¹⁷⁶⁾. The European Science Alliance for Agriculture and Food (**ESAFA**), a European coalition of leading agricultural and life sciences institutions ⁽¹⁷⁷⁾, highlights the Mission Soil as fundamental in gathering all the relevant stakeholders across value chains with a strong portfolio approach, where stakeholders work across project boundaries and have extended the impact of the individual projects greatly ⁽¹⁷⁸⁾. **CIRAD** is also a signatory of the Manifesto and a partner in the [SoilWise](#) and [FENIX](#) projects, strengthening knowledge exchange and storage while promoting sustainable soil management.

5.2.2. Living Labs and Lighthouses - Co-creating and upscaling place-based innovations to improve soil health (operational objective 2)

The Mission Soil counts on Living Labs (LLs) and Lighthouses (LHs) (operational objective 2) to drive the European transition to healthy soils by 2030. More specifically, it aims to set up a network of 100 Soil Health Living Labs with minimum of 1 000 testing

⁽¹⁷²⁾ EU Biodiversity Strategy for 2030 (COM(2020) 380 final); EU Action Plan “Towards Zero Pollution for Air, Water and Soil” (COM(2021) 400 final); EU Climate Adaptation Strategy (COM(2021) 82 final); EU Forestry Strategy – New EU Forest Strategy for 2030 (COM(2021) 572 final); Sustainable Carbon Cycles Communication (COM(2021) 800 final); Communication on Safeguarding Food Security and Reinforcing the Resilience of Food Systems (COM(2022) 133 final); Communication on Ensuring Availability and Affordability of Fertilisers (COM(2022) 590 final); Communication from the Commission on the European Citizens’ Initiative (ECI) “Save bees and farmers! Towards a bee-friendly agriculture for a healthy environment” (C(2023) 2320 final); Nature Restoration Law (Regulation (EU) 2022/869); Vision for Agriculture and Food (COM(2025) 75 final); European Water Resilience Strategy (COM(2025) 280 final); Communication on Boosting Biotechnology and Biomufacturing in the EU (COM(2024) 137 final); EU Life Sciences Strategy (COM(2025) 525 final).

⁽¹⁷³⁾ [European Commission and the Bill & Melinda Gates Foundation to cooperate on soil health challenges in Sub-Saharan Africa - Agriculture and rural development](#)

⁽¹⁷⁴⁾ [Challenge Programme 2026 – Harnessing biology for climate-resilient and healthy soils](#)

⁽¹⁷⁵⁾ [UNESCO signs Mission Soil Manifesto](#)

⁽¹⁷⁶⁾ For example, [World Soil Day contests](#).

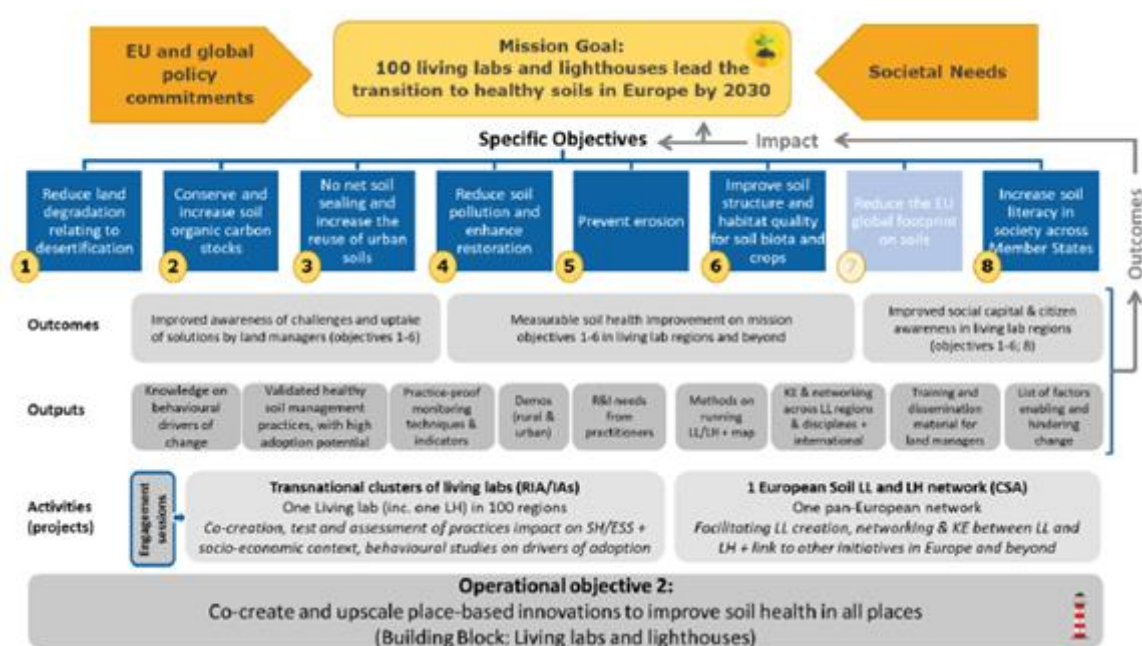
⁽¹⁷⁷⁾ [Members – ESAFA](#): Aarhus University, Julius Kuehn-Institute (JKI), INRAE, Spanish National Research Council (CSIC), Wageningen University & Research, Warsaw University of Life Sciences.

⁽¹⁷⁸⁾ [ESAFA supports Soil Mission as a key driver for healthy soils by 2030](#)

sites and 100 Lighthouses, distributed evenly across all European biogeographical regions, in order to encompass all European pedoclimatic conditions ⁽¹⁷⁹⁾.

The Mission Soil is **unique in positioning LLs at its core** ⁽¹⁸⁰⁾, recognising them as drivers of user-centric, **co-created innovation** crucial for systemic societal change. Mission Soil LLs are **user-centred, place-based** and **transdisciplinary** R&I ecosystems that involve multiple partners to co-design, test, monitor and evaluate solutions in real-life settings for improving soil health. Mission Soil LLs comprise multiple experimentation sites that vary by land-use type – agriculture, (peri-)urban, forestry, (post-) industrial, and natural environments. They can evolve into LHs when demonstrating exemplary performance in terms of soil health improvements, thus serving as models for effective soil management.

Figure 34. Intervention logic in relation to operational objective 2.



5.2.2.1. The added value of Living Labs

Living Labs and Lighthouses are working **directly with users in real-life settings**, making sure that **co-created solutions** are improving soil health, ecosystem services and are in line with people's values, priorities and economic realities.

They **adapt knowledge from research and combine it with tacit knowledge**, in order to produce solutions that are fit to the diverse contexts found on EU territory, beneficial in terms of ecosystem delivery and economically viable for the managers.

⁽¹⁷⁹⁾ Biogeographical regions broadly correspond to pedoclimatic regions of Europe and were chosen to align with its usage in other European programmes and instruments: [Biogeographical regions in Europe](#).

⁽¹⁸⁰⁾ [Mission Soil Board's view on Soil Health Living Labs under Horizon Europe](#)

While the **co-creation concept** plays a key role in producing results that are **adapted to the needs of the local actors** (e.g. farmers, industries), it also helps to respond to the overall European and international policies and overarching rules.

By involving **multiple actors** – academics, policymakers and citizens – in their governance and implementation, LLs have the capacity of reshaping the dynamics of climate/environmental policies.

5.2.2.2. Expected benefits of working with Living Labs to achieve the objectives of the Mission Soil

Living Labs and Lighthouses are a core element of the Mission through which already existing and new knowledge created under the R&I programme (operational objective 1), and knowledge from actors on the ground, including from CAP EIP Operational Groups, is **further transformed into innovations** with real impact and a **high potential for rapid uptake** by land managers and other relevant actors (e.g. industry, consumers etc.) across Europe.

Furthermore, Europe exhibits significant diversity in soil characteristics, encompassing **13 distinct biogeographical regions**. This heterogeneity is further compounded by the wide range of cropping and production systems, as well as by diverse socio-economic and cultural contexts, which reflect varying levels of readiness to adopt sustainable soil management practices and innovations. Taken together, these factors increase the complexity of the overall situation.

Consequently, no single, uniform solution can adequately address soil-related challenges across Europe. Instead, **solutions must be tailored to local conditions**, from which they can subsequently be **scaled up to enhance the uptake of sustainable soil management practices and innovations**. This underscores the need for **place-based approaches** that are responsive to local and regional specificities. In this regard, **Living Labs constitute an appropriate and effective instrument**.

Furthermore, in the field of sustainable soil management, several persistent challenges remain, most notably the insufficient translation of existing knowledge into practice, resulting in a continued **knowledge–practice gap**. To address this gap, **Living Labs once again represent a key mechanism**. They offer dedicated environments for participatory, practice-oriented research, facilitate the co-design of solutions, and enable the assessment of impacts at farm, landscape and ecosystem levels. As such, they serve as important enablers and brokers of knowledge and innovation.

5.2.2.3. Advancing on the path to 100 Living Labs

The Mission LLs are rolled out in three, interconnected phases: 1) the induction and pilot phase (2021-2024); 2) the expansion and innovation phase (2025-2026); 3) the scaling up and mainstreaming phase (2027-2030).

In the **induction and pilot phase**, the early implementation efforts focused predominantly on **preparatory activities** (capacity building, stakeholders' engagement, mapping regional needs). To that end, from 2021 to 2023, two preparatory actions were implemented to support the progressive deployment of the Mission, establishing the basis for subsequent operational LL activities.

Building on these foundations, the first two waves of 9 living lab projects were introduced through the 2023 and 2024 Work Programmes (so called first and second wave LLs). As a result, **45 Living Labs are now established** via these nine projects with the first 25 LLs starting operations in September 2024 and next 20 in 2025.

The implementation is continuing to the **expansion and innovation phase**, with the Work Programme 2025, which has published new calls for proposals. Under these calls, four further projects (and consequently 20 further LLs) are foreseen for funding. The Work Programme 2026-2027, which has been adopted in December 2025, has calls for another ten projects and 50 LLs, (Table 4), ensuring continuity, **reaching and even overpassing the objective of 100 LLs**.

Table 4 shows the current status and planned evolution of the Mission Soil LLs and LHs network.

Table 4. Number of experimentation sites is 10-20 per each LL, so target values are calculated accordingly. The number of experimentation sites may increase during the project. The number of Lighthouses is expected to increase during the project lifetime.

Calls for LLs	LLs start date	No of projects	No of LLs	No of experimentation sites ⁽¹⁸¹⁾	No of LHs	Mission Soil LLs phases
2023	Q3 2024	5	25	370	60	Induction and pilot
2024	Q4 2025	4	20	297	20	
2025	2026	4	20	200-400	20	Expansion and innovation
2026	2027	4	20	200-400	20	
2027	2028	6	30	200-400	20	Scaling up and mainstreaming
Current total for the Induction and pilot phase		9	45	667	60	
Target (2030)		23	100-110	1000-2000	100-110	
Achieved		42,85%	45%	33-66%	60%	

Within these projects, LL experimentation sites evolve dynamically. They may be predefined during proposal development, co-created during implementation, or established using the FSTP instrument ⁽¹⁸²⁾. As a result, their number typically increases over the course of each project, as well as the number of land managers involved. Finally, Lighthouses serve as demonstration environments for tested practices and developed solutions. Consequently, they are expected to emerge in the later stages of project implementation, once sufficient evidence and outputs have been generated. Currently, there are **60 Lighthouses established** under the first wave of LLs from the 2023 call (Table 4).

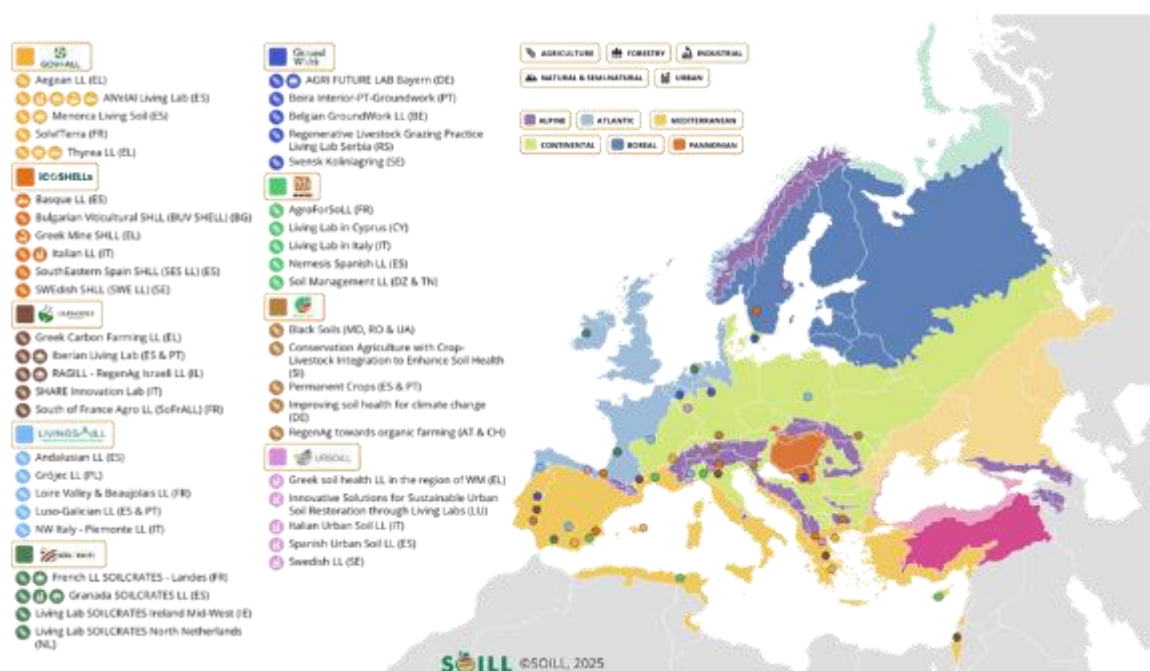
Concerning the **biogeographical coverage**, the first 45 LLs are gradually covering the majority of [European biogeographical regions](#) (figure 35), while the subsequent calls are

⁽¹⁸¹⁾ These numbers reflect information supplied by the Living Labs in May 2025 and may change, usually increasing, with new sites that the Living Labs incorporate via open calls for small grants to land managers such as farmers.

⁽¹⁸²⁾ [Cascade Funding Calls / Financial Support for Third Parties \(FSTP\)](#)

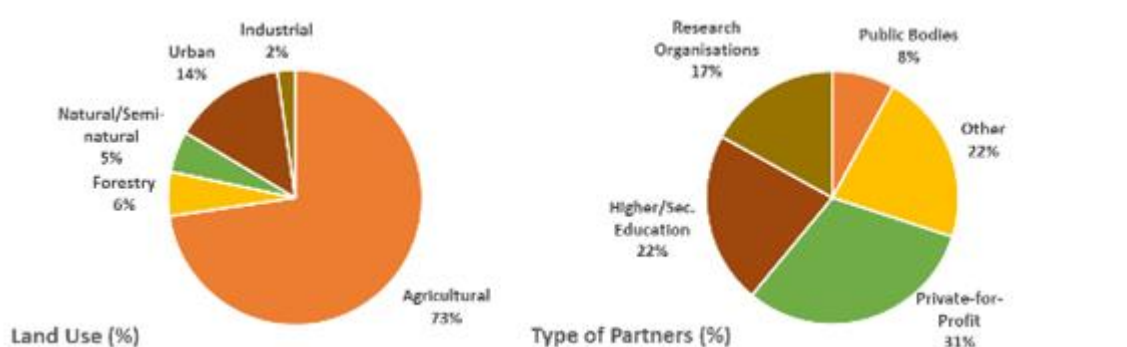
prepared in a way that they target underrepresented regions, ensuring ultimate balanced coverage of the Mission LLs across Europe.

Figure 35. Distribution of the Mission Soil Living Labs across the [European biogeographical regions](#). The map has been produced by the SOILL project, the support structure for Living Labs.



Concerning the **land use**, among the first 45 LLs launched during the Induction and Pilot Phase (2023–2024), the majority of LLs focus on agricultural land use, followed by urban, forestry, natural/semi-natural and industrial areas. The **types of partners** are diverse, with private for-profit entities being the most represented, followed by "Other" stakeholders, with significant involvement from academic, research, and public institutions (figure 36).

Figure 36. Land use and type of partners for the LLs 2023–2024 (Induction and pilot phase).



Finally, the first 45 LLs are contributing to achieving the Mission Soil specific objectives (MSO), covering all MSO, with the one on conserving soil organic carbon being addressed by 71% of LLs, followed by the MSO on soil biodiversity (69%) and preventing erosion (64%). Around 65% of LLs are directly working on improving soil literacy (table 5).

Table 5. Mission Soil specific objectives coverage for 2023 and 2024 LLs.

Mission Soil specific objectives	LLs (2023)	LLs (2024)	LLs total (total)	LLs (% total)
Reduce desertification (SO1)	4	7	11	24%
Conserve organic carbon stocks (SO2)	17	15	32	71%
Stop soil sealing and increase re-use of urban soils (SO3)	0	5	5	11%
Reduce soil pollution and enhance restoration (SO4)	13	12	25	56%
Prevent erosion (SO5)	15	14	29	64%
Improve soil structure to enhance soil biodiversity (SO6)	17	14	31	69%
Reduce EU footprint on soils (SO7)	0	1	1	2%
Improve soil literacy in society (SO8)	13	16	29	64%

Standout example in a wider landscape of LLs excellence - The LILAS4SOILS Living Labs project

LILAS4SOILS tests **Carbon Farming Practices (CFP)** in farms managed by individual farmers in 5 Living Labs across 6 countries: Portugal, Spain, France, Italy, Greece, Israel.

The project makes use of cascade **grants** mechanism to **involve farmers**. Through an **open call**, the project received almost 300 applications and has selected 53 sites to create a network of 100 experimental sites (farms). The call was published in **several languages and on local channels** linked to the Living Labs geographies, with targeted dissemination efforts focusing **on deficit regions, crops, CFPs categories**.

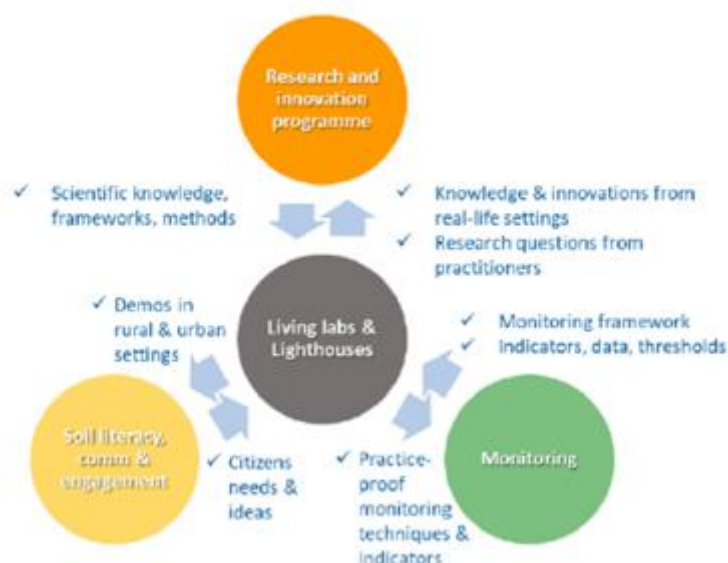
5.2.2.4. Synergies with other Mission activities/operational objectives

Living Labs contribute to **operational objective 1 – R&I programme (5.5.2.1)** by generating practice-based knowledge and innovations from real-life contexts, as well as by channelling research questions originating from practitioners. Conversely, the new knowledge produced under the R&I Programme is further developed into innovations through co-creation with relevant actors in real-life environments, ensuring tangible impacts and fostering rapid uptake by land managers and other stakeholders across Europe.

Within **operational objective 3 – Soil Health Monitoring (5.5.2.3)**, LLs receive support regarding the monitoring framework, including indicators, data requirements and thresholds. In return, LLs **provide practice-validated data** that feed into and strengthen this Mission activity.

Under **operational objective 4 – Soil Literacy, Communication and Engagement (5.5.2.4)**, mechanisms are in place to ensure that citizens' ideas and needs are integrated and addressed by LLs. In turn, LLs contribute through **demonstrations of new practices and developed solutions in both rural and urban settings**, thereby supporting the implementation of this operational objective and promoting improved soil literacy (figure 37).

Figure 37. Synergies between the Living Labs and other Mission activities/operational objectives.



5.2.2.5. 100 Living Labs – Outputs, outcomes and impacts

In terms of the Mission overarching goal (outputs)

The Mission Soil is on track towards **its overall goal of 100 Living Labs to lead the transition towards healthy soils. The interest is so high that it will most likely overpass its initial targeted number of LLs.** The induction and pilot phase will end with the establishment of a total of **45 LLs by the end of 2025**. The expansion and innovation phase has been launched with the WP 2025 call. The final phase, scaling up and mainstreaming, will take place with WP 2026-2027. Balanced biogeographical and land use coverage is being achieved through targeted current and future calls.

In terms of added value for the Mission (outcomes)

Living Labs have built a growing network of real-life sites, bringing together farms, natural areas, urban plots, and others, actively engaging a diverse range of stakeholders, from private companies and NGOs to universities and local communities. On the ground, they are driving improvements in soil health, enhancing carbon retention, strengthening soil structure, boosting biodiversity, and raising soil awareness. LL participants are also pioneering practical approaches to soil monitoring, testing protocols, exchanging lessons, and preparing the ground for the implementation of the Soil Monitoring Law.

In terms of support to policy (outcomes and impact)

LLs are establishing baselines of the soil conditions to allow for an accurate co-assessment of the changes in the different sites over time, and to monitor soil health improvements. The set of soil health indicators/descriptors presented in the Soil Monitoring Law is used, as a basis and may be complemented with additional indicators depending on the soil health challenge(s) addressed, pedoclimatic conditions and land use. **LLs also monitor and evaluate the effects of the proposed solutions on soil health** and associated ecosystem services, demonstrating their viability – technical, social, economic,

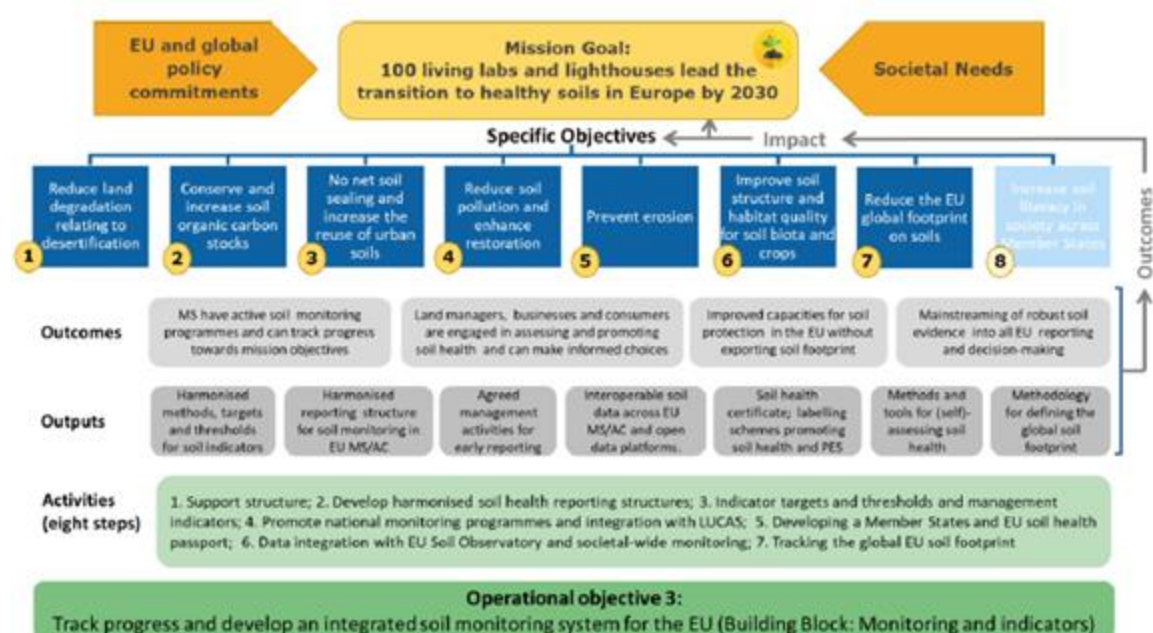
cultural and environmental – scalability and transferability to diverse contexts. With these activities, LLs are contributing to setting up a basis for future provision of data for the EU wide soil monitoring, in support to the implementation of the Soil Monitoring Law and they support improving interventions, for example under the CAP. The overall impact is the long-term improvement of soil health in Europe.

5.2.3. Soil-health monitoring system (operational objective 3)

5.2.3.1. Status of the Monitoring System

Mission Soil's operational objective 3 is to support the development of an **integrated EU soil monitoring system** and track progress towards soil health. Soil health monitoring is a key component of the Mission: it is needed to track progress towards policy objectives, to assess the impacts of measures for soil management, and assess the impact of the Mission overall.

Figure 38. Intervention logic in relation to operational objective 3.



At the start of the Mission, key concepts such as soil health were absent, while comparable baseline data were only available for some soil degradation indicators, mainly based on the soil assessment in the Land Use and Coverage Area Frame Survey (LUCAS Soil), and only a rough estimate of the extent of unhealthy soils in the EU was available.

This changed with the launch of the [EUSO Soil Degradation Dashboard](#) in 2023, created by the JRC under the Mission's building block 'Monitoring and Indicators'. The EUSO Dashboard ⁽¹⁸³⁾ is a tool for monitoring and reporting on the **state of soil degradation at the EU level** and provides a spatial assessment of unhealthy soils and the degradation processes affecting them (Panagos et al., 2024). The first version of the EUSO Dashboard (March 2023) included 15 indicators covering nine soil degradation processes. The number of **indicators increased to 19** in the second version (June 2024), thanks to the work carried out under the Mission's building block 'Monitoring and Indicators'. **These indicators**

⁽¹⁸³⁾ [EUSO Dashboard](#)

represent the main soil degradation processes described in scientific literature and match the indicators listed in the Mission Soil Implementation Plan (Broothaerts et al., 2024). For each indicator, the dashboard presents science-based EU-wide geospatial data. The dashboard has been developed as a **dynamic platform**, so that it can be updated when new indicators or improved datasets become available. **The most recent version of the dashboard shows that approximately 62% of EU soils are degraded** ⁽¹⁸⁴⁾ and warns that most degraded soils are subject to more than one type of soil degradation.

Secondly, the **diversity of datasets** of soil degradation processes and indicators increased thanks to the Mission as explained in previous sections, resulting in a better monitoring and spatial assessment of the state of soils in the EU. These datasets are added to the European Soil Data Centre (ESDAC) (Panagos et al., 2022) and, if relevant, to the EUSO Soil Degradation Dashboard.

Thirdly, the **thematical, temporal and spatial coverage** of soil monitoring improved, thanks to Mission Soil projects. More soil degradation processes are now included in soil monitoring efforts (thematical coverage; e.g. various Mission Soil projects working on monitoring and indicators); seasonal, annual and multiannual trends are now covered by monitoring campaigns (temporal coverage; e.g. the Mission Soil projects BENCHMARKS and AI4SoilHealth and the Living Labs); **and all types of land use in rural and urban areas are covered**, while previously soil monitoring has focused only on agricultural soils (spatial coverage; see e.g. figure 35 for the land use types covered by the Living Labs).

Fourthly, data resulting from soil monitoring activities of Mission projects are shared according to the **FAIR data principles**. Moreover, data and metadata are now **more accessible and searchable**, thanks to the prototype of the [SoilWise HE Data and Knowledge hub](#). This SoilWise Data and Knowledge Hub will be integrated into the EUSO platforms to ensure its longevity.

Finally, clear principles and criteria for soil indicator selection have been established, along with better supported monitoring frameworks. Distinct **frameworks for soil health assessment** are now well described, each with a unique role, application and scale regarding soil monitoring. These frameworks were developed by the Mission Soil projects and the EUSO and include the ‘fitness for purpose’, ‘free from degradation’, ‘external benchmarking’ and ‘value assessment’ frameworks (Campbell et al., 2025). The ‘free from degradation’ framework is used in the EUSO Soil Degradation Dashboard, as it best fits the scale and objectives of the dashboard.

Detecting and monitoring **temporal changes in soil status** is a challenging task. It requires systematic, standardised, repeatable soil monitoring campaigns, including consistent sample and lab methodologies and a consistent data coverage. Furthermore, many soil characteristics change slowly and react slowly to improved management practices. This means that repeated soil monitoring campaigns covering several years are needed. **LUCAS**

⁽¹⁸⁴⁾ The Mission Soil Board provided first evidence in the [Mission Soil Implementation Plan](#), confirmed by the JRC ([Panagos et al., 2024](#)). [EUSO Dashboard](#).

Soil ⁽¹⁸⁵⁾ is currently the only available soil monitoring system that enables trend analysis of soil health indicators at EU scale. In addition, the call [HORIZON-MISS-2025-05-SOIL-04](#) will develop **transfer functions to integrate national monitoring schemes** with LUCAS Soil enabling harmonised soil health assessments and trend analyses across the EU.

LUCAS Soil enables the analysis of trends in soil health indicators; two examples are presented below (soil erosion by water and soil organic carbon content). A third example illustrates the use of satellite imagery to analyse trends in soil sealing. These three examples are linked to the Mission's specific objectives on preventing erosion, conserving and increasing soil organic carbon stocks, and no net soil sealing respectively. Although the presented trend analyses do not yet cover the Mission Soil period, they provide insights into the progress in soil health over the last few decades, as well as the available tools and methods for studying progress and trends. As soon as more recent data becomes available, it will be added to the trend analysis.

5.2.3.2. Soil erosion by water (2000-2023)

Based on an updated version of the Revised Universal Soil Loss Equation (RUSLE2015) model, soil loss in the EU for the years 2000, 2010, 2016 and 2023 was assessed. This model incorporates the most recent pan-European datasets for input factors such as rainfall erosivity, soil erodibility, cover-management, topography and support practices (Panagos et al., 2015). **The estimated mean soil loss from water erosion in the EU decreased in the period 2000-2023.** It declined by 9% in the period 2000-2010, by 0.4% in the period 2010-2016 ⁽¹⁸⁶⁾, and by 2.5 % in the period 2016-2023 ⁽¹⁸⁷⁾. These positive trends mark progress towards the Mission's specific objective 5 'Prevent erosion'. This trend is attributed to the implementation of enhanced soil protection management practices in agricultural areas, which are associated with the Good Agricultural and Environmental Condition (GAEC) requirements of the Common Agricultural Policy (CAP) and EU soil protection guidelines (Panagos et al., 2020).

5.2.3.3. Soil organic carbon content (2009-2018)

Soil Organic Carbon (SOC) content across the EU was estimated based on LUCAS Soil in 2009, 2015 and 2018. Using the LUCAS Soil data, it was possible to estimate the SOC change in mineral agricultural soils for the EU and UK (De Rosa et al., 2024). Total SOC

⁽¹⁸⁵⁾ LUCAS Soil is the soil assessment within the Land Use and Coverage Area Frame Survey. LUCAS Soil sampling campaign took place in 2009-2012, 2015, 2018 and 2022. Results of LUCAS Soil are available for 2009-2012 (Orgiazzi et al., 2018; Tóth et al., 2013), 2015 (Jones et al., 2020) and 2018 (Fernandez-Ugalde et al., 2022). Results of 2022 are expected in 2026.

⁽¹⁸⁶⁾ Panagos, P., Borrelli, P., Poesen, J., Ballabio, C., Lugato, E., Meusburger, K., Montanarella, L., Alewell, C. 2015. [The new assessment of soil loss by water erosion in Europe](#). *Environmental Science & Policy*. **54**: 438-447. DOI: 10.1016/j.envsci.2015.08.012; Panagos, P., Ballabio, C., Poesen, J., Lugato, E., Scarpa, S., Montanarella, L., Borrelli, P. 2020. [A Soil Erosion Indicator for Supporting Agricultural, Environmental and Climate Policies in the European Union](#). *Remote Sensing*. **12**: 1365. DOI: 10.3390/rs12091365

⁽¹⁸⁷⁾ Borrelli, P., Panagos, P. 2026. [A data-driven indicator for assessing the evolving impact of the EU Common Agricultural Policy on soil erosion mitigation](#). Data in Brief, 112390, DOI: 10.1016/j.dib.2025.112390

loss from cropland between 2009 and 2018 was about 0.75% of their initial soil carbon, with a different spatial distribution and northern carbon rich soils more affected by higher losses. Grassland was more resilient to changes, showing also SOC increase especially at medium latitudes. These trends are linked to the Mission's specific objective 2 'Conserve and increase soil organic carbon stocks'. Once LUCAS Soil results for 2022 are available (expected in 2026), the SOC changes covering 2009-2022 will be analysed and discussed.

5.2.3.4. Soil sealing (2006-2018)

Temporal changes in soil sealing⁽¹⁸⁸⁾ at the scale of the EU can be monitored by using **high-resolution satellite imagery**. The most used source of information is the high-resolution Copernicus imperviousness datasets (High-Resolution Layer Imperviousness product of the European Environmental Agency, EEA), available for the period 2006 to 2018 (3-yearly). The high-resolution imperviousness dataset of the year 2021 is expected to be published in Q4 2025, the dataset of 2024 is scheduled for publication in Q2 2026. Once these datasets are available, temporal changes in soil sealing for the period 2006-2024 – also covering the operation time of the Mission Soil – can be analysed and discussed.

The current available datasets show that in 2018, 110 702 km² of soil was sealed, representing 2.7% of the total area of the EU. The increase in sealed area between 2006 and 2018 was 3 606 km², which is an increase of 3.4% at the level of the EU. The largest increase in sealed surface at the EU-level was in the period 2006-2009 (increase of 1088 km² or 1%) and 2009-2012 (increase of 1156 km² or 1.1%). The increase in sealed surface was a bit lower in the next period (2012-2015, 567 km² or 0.5%) but increased again in the period 2015-2018 (794 km² or 0.7%) (European Environmental Agency, 2024). These trends are linked to the Mission's specific objective 3 'No net soil sealing and increase the reuse of urban soils'.

5.2.3.5. Cluster on Soil Indicators and Monitoring⁽¹⁸⁹⁾

This cluster provides a platform to support Mission Soil-funded projects in navigating the evolving policy and technical landscape of soil health assessment. It brings together initiatives developing or applying **soil indicators and monitoring frameworks**, enabling **knowledge exchange and methodological alignment**.

The cluster gathers at this moment around **40 projects with 40-60 participants** regularly attending meetings and other activities. While it is mainly composed of Mission Soil-funded projects, related non-Mission Soil initiatives also participate where relevant, broadening the knowledge base and connecting to other EU efforts. The cluster is co-led by the projects **AI4SoilHealth** and **BENCHMARKS** as Cluster Advisers, supported by the **Mission Soil Platform**.

⁽¹⁸⁸⁾ Soil sealing is the permanent covering of soils with an impermeable artificial material, such as buildings, constructions and roads.

⁽¹⁸⁹⁾ [Factsheet Soil Indicators and Monitoring](#)

As an example, the projects AI4SoilHealth and BENCHMARKS jointly organised in September 2025 an “Indicator lab”, providing practical guidance on selecting relevant soil health indicators tailored to local contexts and land-use systems.

5.2.3.6. Cluster on Data and Knowledge Management

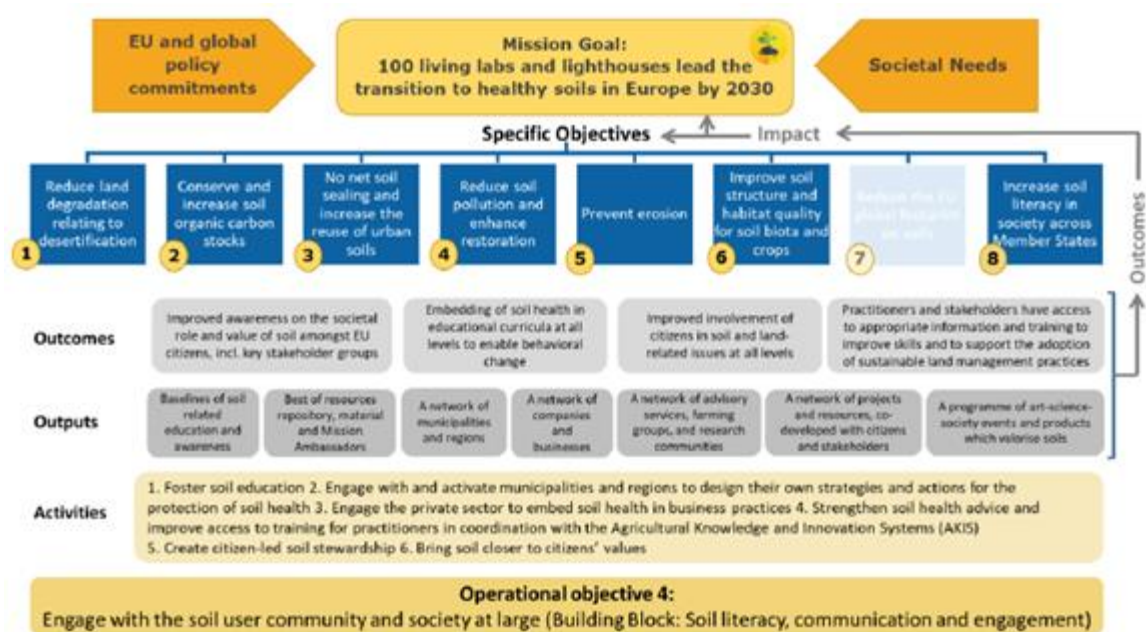
The **data and knowledge management cluster** brings together Mission Soil projects working on one of the most fundamental – and cross-cutting – aspects of the Mission Soil: **how to organise, structure, store, share, and access the wealth of data and knowledge being produced**. Its main purpose is to help projects make their outputs **FAIR** – Findable, Accessible, Interoperable, and Reusable – ensuring that the results of individual projects can be discovered, connected, and reused by others, both within and beyond the Mission Soil community. By creating a platform for exchange, the cluster enables collaboration, alignment, and mutual learning among data managers and technical partners. Since its launch in early 2024, the data and knowledge management cluster has evolved into an active community connecting more than 60 Mission Soil projects, chaired by the SOILWISE project.

The cluster’s added value lies in building a community of practice around data and knowledge management. Through this collaboration, projects not only improve their own data workflows but also contribute to the development of a coherent European soil data ecosystem, in close connection with the European Soil Observatory (EUSO).

5.2.4. Engage with the soil user community and society at large (operational objective 4)

Activities under this operational objective are referred to as building block ‘Soil literacy, communication and citizen engagement’ in the Mission Implementation Plan. They address the identified lack of awareness on the importance of soils and the need for more targeted advice and education in the area.

Figure 39. Intervention logic in relation to operational objective 4.



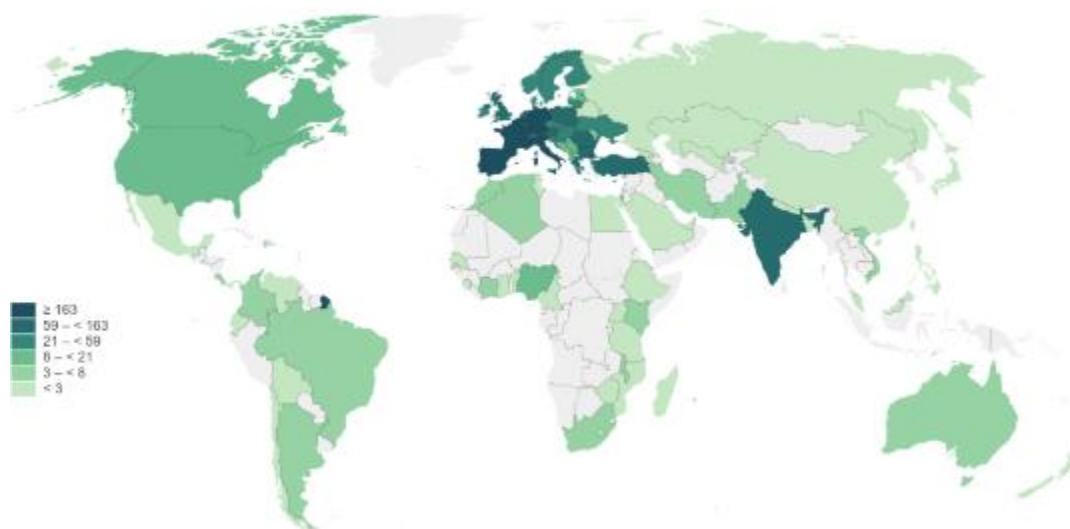
Launched in 2023, the Mission Soil Manifesto is a tool to express engagement for soil health, from citizens to private and public actors. It is a call for action to respond to the urgent need to protect and improve soil health in Europe and beyond, bringing together policymakers, stakeholders and citizens in a dynamic community focused on soil health. This voluntary document is endorsed by representatives of municipalities, regions, private or public companies and organisations, NGOs and philanthropic organisations, schools and education institutions, as well as by research institutions and citizens.

To date, the **number of signatories of the Mission Soil Manifesto is above 3 700**, with around 700 legal entities and 3 000 individuals. Signatories come from more than **90 countries worldwide** (figure 40).

The Manifesto is demonstrating to be a powerful engagement instrument able to leverage international interest and cooperation. Single organisations with multinational or multi-organisational representativity are also signatories of the Manifesto, such as the African Union, UNESCO, or the Inter-American Commission for Organic Agriculture (ICOA).

The Manifesto also shows the strong political buy-in of the Mission. On 10 December 2024, during the Agri-Food Days, Commissioners Hansen (Agriculture and Food) and Roswall (Environment, Water Resilience and a Competitive Circular Economy) [signed the Manifesto](#), shortly after taking office, reaffirming the EU's commitment to preserving and restoring soil health. Other relevant signatories are Members of the European Parliament, the European Regions Research and Innovation Network (ERRIN), the "4 per 1 000" initiative or philanthropic organisations (such as the Novo Nordisk Foundation).

Figure 40. *Manifesto signatories by country.*



More information about the Manifesto progress can be found here: [Global engagement with the Mission Soil Manifesto : a declaration on soil protection and restoration | Mission Soil Platform](#).

The **Mission Soil Ambassador programme** was launched in 2023 to support the Mission objectives to increase soil literacy, communication and citizen engagement. It aims at having at least one Ambassador per Member State and one per Horizon Europe Associated

Country. Mission Soil Ambassadors have been nominated for their demonstrated commitment to soil health and for being excellent communicators.

The ambassadors' role is focused on communication activities. Their commitment is voluntary, and their activities are neither remunerated nor reimbursed. Ambassadors should raise awareness about the importance of soil health, promote the Mission and its activities; facilitate connections and networking; lead by example and inspire others to act. Ambassadors' profiles are visible on the Mission Soil website ⁽¹⁹⁰⁾. In addition to visibility, Ambassadors have been invited to participate in events such as the European Mission Soil Week 2023, 2024 and 2025, and to take part in communication products (articles, newsletters, videos, podcasts, posts on social media). They can also get access to training and networking opportunities within the Mission Soil community. Ambassadors have received a communication toolkit in their respective national language and will continue to receive assistance and updated material from a dedicated team. To facilitate exchanges, a private LinkedIn group has been set up.

The **number of active Mission Soil Ambassadors was 37** as of mid-June 2025 covering 23 EU Member States and 13 Horizon Europe Associated Countries.

Among the communication materials, the Mission Soil newsletter has been very successful since its launch in 2023. The current **number of subscribers exceeds 5 500**. The 10th issue was published on 5 December, coinciding with World Soil Day.

The number of **social media engagements** shows a steady growth and currently stands at more than **20 000**. On average, the number of these engagements is about 5 000 per six months. The **Mission Soil website** has reached more **than 110 000 views, with more than 30 000 unique visitors**. Both indicators show an overachievement of the targets of 7 000 page views and 3 900 unique visitors (in the first six months of its launch).

Three editions of the **European Mission Soil Week**, the Mission's flagship annual event have taken place in Spain (2023), Belgium (2024) and Denmark (2025). EU Council Presidencies showed interest to host and co-organise the events, demonstrating Members States' political buy in and ownership of the Mission's objectives. Each edition has attracted, on average, around 300 participants on site and more than 1 000 online. The next edition is already planned for November 2026 in Ireland. Mission projects have also organised large-scale events mobilising stakeholders. For example, the Mission project CREDIBLE has organised three "Carbon Summits" attracting in total over 1550 in-person participants and a broader online audience reached through live streaming around carbon farming.

The **aggregated reach of communication activities stands at almost 18 million** (November 2025). This number is aggregated for social media post reach, newsletter openings, and website visits. It is to note that the reach data excludes LinkedIn. Consequently, the actual reach is likely to be higher than reported here. The combined hashtags #MissionSoil, #MissionSoilWeek and #EuropeanMissionSoil have contributed the most to the overall communication activities, with a reach totalling 17.8 million and 64.3 million impressions.

⁽¹⁹⁰⁾ [Ambassadors | Mission Soil Platform](#)

Training opportunities for citizens, land managers, and other stakeholders have been reported under section 5.5.2.1.

The Mission has also promoted and supports national coordination structures (**Mirror Groups** ⁽¹⁹¹⁾, soil national hubs or similar) in 21 countries ⁽¹⁹²⁾, to **reinforce multilevel governance**, foster national ownership and ensure that Mission knowledge effectively informs national policies. They bring together public authorities, researchers, farmers, NGOs and other stakeholders to strengthen **science-policy dialogue** ⁽¹⁹³⁾, facilitate co-creation and support the uptake of sustainable soil management practices. By promoting collaboration across sectors and administrations, mirror groups help embed the Mission's ambitions within long-term national strategies for soil health. An active network of **companies, businesses, philanthropies and investors** has been created around the Mission Manifesto and the 2025 edition of the European Mission Soil Week titled "Leading the transition towards healthy soils: finance and landscape perspectives". **A new dedicated annual conference starting in June 2026 on business models and investment** will boost the business community jointly with a new financial advisory service to promote further investments and projects for soil health around the Mission. The **collaboration with other initiatives such as the Circular Biobased Europe Joint Undertaking (CBE JU)** (Enhancing soil health through innovative bio-based soil improvers, fertilisers and materials in agricultural application), **the EIT Food** (Advancing agri-food system transformation through innovative soil health solutions) **and the EIC** (Biotech for Regenerating Agricultural Soils) expands the Mission's ecosystem to innovative and deep-tech startups in the soil health space.

5.3. Conclusions

5.3.1. Summary

After four years of implementation, the Mission has, for the first time, provided evidence to place **soil health firmly and visibly on the political agenda** of the European Union and its Member States. In 2025, the Mission reached its expansion and deployment phase and continues to address the persistent deterioration of soil resources in the European Union, where it has estimated that **62% of soils remain in unhealthy condition** due to erosion, organic matter decline, compaction, contamination or loss of biodiversity. Soil – long overlooked despite its fundamental role in food security, biodiversity, climate mitigation and resilience – has now become a recognised strategic priority. Through the Mission, soil health is no longer a technical concern confined to specialists but a matter of broad public and political relevance, increasingly embedded in national strategies, regional development plans and EU policymaking.

The Mission is **successfully anchored in key EU policies**. Its knowledge, monitoring systems, innovations and Living Lab infrastructure directly support the implementation of the **Common Agricultural Policy (CAP)**, national CAP Strategic Plans, the obligations

⁽¹⁹¹⁾ [Mission Soil Board's set of recommendations for the establishment of national Mirror Groups](#)

⁽¹⁹²⁾ [Webinar - Soil Mission Mirror Groups: Where Do We Stand?](#)

⁽¹⁹³⁾ [Support to the operation and further development of soil-health science-policy interfaces and national soil-health hubs | Programme | HORIZON | CORDIS | European Commission](#)

of the **Soil Monitoring Law** and the **Implementation of Carbon Removal and Carbon farming Regulation**. The Mission directly supports the **EU Soil Strategy for 2030**, providing the research, innovation, modelling capacity and demonstration sites needed to deliver its objectives. It reinforces the **Biodiversity Strategy**, the **Water Resilience Strategy**, contributes to the implementation of the Vision for Agriculture and Food, the Long term Vision for Rural Areas, new EU Bioeconomy Strategy, the Life Science Strategy, the **Nature Restoration Law**, the **Zero Pollution Action Plan**, the **Climate Adaptation Strategy**, and the **Organic Action Plan**.

The Mission has succeeded in creating the **first coherent EU framework of soil-health-focused interventions**, bringing together research, innovation, monitoring, demonstration and societal engagement under a unified vision. It has built a genuinely European – and increasingly global – **community of practice**, connecting scientists, policymakers, farmers, land managers, businesses, civil society organisations and citizens. For the first time, Europe has a structured and permanent ecosystem for **gathering, preserving and disseminating soil data, knowledge, tools, technologies and practices**, ensuring long-term continuity and accessibility through the Mission Soil Platform and the EU Soil Observatory.

The Mission has succeeded in creating local innovation ecosystems for soil health. Thanks to the strong mobilisation across countries and sectors, the Mission is **firmly on track to reach – and very likely to exceed – its objective of establishing 100 Living Labs by 2030**, marking a substantial achievement in place-based innovation.

The Mission's **outreach and engagement strategy has been exceptionally successful, raising soil awareness across society** – from regional and local authorities to schools, youth organisations and individual citizens. The Mission Soil is driver of change, in Europe and globally. Through the Manifesto, national mirror groups, communication campaigns and numerous events, the Mission has contributed to a cultural shift, helping embed soil health into public consciousness and local action.

The Mission Soil has successfully engaged the **private sector** by aligning soil health objectives with **new business models** and supply-chain resilience. It offers concrete opportunities through Living Labs and Lighthouse sites, where companies test innovative solutions under real-world conditions. Public funding and collaboration with, for example, philanthropic organisations, help **de-risk private investment**, encouraging co-investment in research and deployment. In addition, the Mission promotes common data frameworks, monitoring tools and standards, creating markets for digital solutions and advisory services.

Furthermore, the Mission has established a **comprehensive collaboration strategy**, working constructively with international organisations, European partnerships, joint undertakings and research networks. This ensures alignment with global agendas on climate, biodiversity, food systems and land restoration, **positioning the EU as a leader in soil governance**.

The assessment provides an overview of the Mission's progress to date and identifies the key priorities required to consolidate and accelerate its contribution to the restoration and long-term resilience of EU soils.

5.3.2. Deployment of Living Labs and Lighthouses

A major operational milestone of the Mission is the establishment of a **large-scale network of Living Labs (LLs) and Lighthouses (LHs)**. Almost **700 sites** are now operational or in advanced preparation across Europe in **45 Living Labs**. These sites represent a wide diversity of climate zones, soil types and land-use systems and are designed to facilitate experimentation, co-creation and validation of innovative soil solutions under real-world conditions.

Although the Living Labs are still at an early stage and have not yet delivered measurable results, the diversity of their participants, including farmers and other ‘unusual suspects’ in Horizon projects, already demonstrates a positive impact by anchoring innovation in real-world needs and fostering broad stakeholder ownership.

The Mission has developed and disseminated a **common methodology** for the functioning of Living Labs, including governance principles, monitoring procedures and evaluation criteria. This harmonisation is essential for ensuring comparability across sites while allowing for contextual adaptation. The Living Labs represent a unique European infrastructure for place-based innovation, fostering synergies with other initiatives such as EIP-AGRI Operational Groups, regional innovation ecosystems and advisory services. This interconnectedness strengthens the innovation chain and accelerates the scaling and replication of successful practices.

5.3.3. Strengthening soil monitoring and the knowledge base

A central achievement of the Mission is the establishment of a **harmonised and operational framework for soil health monitoring**. The Mission has contributed to the development of a comprehensive set of indicators and methodologies, now integrated into the **EU Soil Observatory (EUSO)**. The Mission has also delivered a breakthrough in generating **comparable national-level soil health data** for the first time in EU history. This achievement provides an unprecedented evidence base for policymaking, supports the implementation of the **Soil Monitoring Law**, and strengthens Member States’ ability to assess trends, identify risks and target interventions effectively.

The Mission has significantly expanded the scientific knowledge base necessary for evidence-based soil management. Horizon Europe projects funded under the Mission have generated new insights into soil functions, degradation processes, nature-based solutions and remediation techniques. These findings are consolidated and will be made accessible through the Mission’s **Knowledge Hub**, which functions as a central reference point for policy makers, advisors, researchers and land managers. This consolidation of scientific evidence enhances coherence across research initiatives and strengthens the link between scientific outputs and policy implementation.

5.3.4. Enhancing engagement, awareness and community development

The Mission has played a decisive role in strengthening the soil health community, raising awareness and facilitating mobilisation across the EU. The **Mission Soil Manifesto** continues to expand, gathering commitments from a broad range of stakeholders, including local and regional authorities, R&I actors, civil society, private sector stakeholders and several international organisations. This has contributed to enhancing recognition of soil

as a strategic natural resource and an integral component of the green and digital transitions.

In parallel, **21 national Mission Soil Mirror Groups** or similar structures have been established to ensure alignment between EU-level objectives and national and regional priorities. Communities of Practice and targeted communication and outreach activities are significantly improving soil literacy and fostered greater stakeholder engagement. This expanded community provides an enabling environment for co-creation processes, knowledge exchange and the wider uptake of sustainable soil management practices.

5.3.5. Progress in the uptake of sustainable soil management practices

Progress in the uptake of sustainable soil management practices across the EU is evident but remains **heterogeneous and below the required pace** given the scale of soil degradation. Policy instruments under the **CAP**, including eco-schemes and rural development measures, have supported the adoption of practices such as cover cropping, reduced tillage, organic fertilisation and agroecology. Nevertheless, sustained behavioural and structural changes require additional incentives, stronger advisory systems and clearer demonstration of the long-term environmental and economic benefits of adopting such practices.

The Mission, included in most CAP Strategic Plans, contributes actively to expanding uptake by generating practice-ready knowledge, supporting demonstration activities and facilitating co-creation processes with land managers. Living Labs and Lighthouses provide evidence of the feasibility and benefits of sustainable soil management practices, helping reduce uncertainty and supporting informed decision-making by farmers and landowners.

5.3.6. Strategic priorities for the next phase

Looking ahead, the next phase of the Mission should prioritise consolidation and scaling of the structures, innovations and knowledge established to date.

- **Consolidation and full operationalisation of the Living Lab network:** strengthening coordination mechanisms, supporting Living Lab leadership and ensuring systematic data collection and exchange across sites. Harmonisation will be critical to reinforce comparability and to derive aggregated insights for policy and practice. Widespread deployment will provide soil health improvement at scale across the EU.
- **Further development of soil monitoring capacities:** continue supporting the implementing of the Soil Monitoring Law, expanding indicator coverage, improving data quality and ensuring interoperability with national systems. Enhanced monitoring capacities will also contribute to more robust assessment of trends and impacts.
- **Stronger integration with EU policies:** reinforce alignment with the CAP, carbon farming and carbon removal regulation, the Nature Restoration Law, the Water Resilience Initiative, the Bioeconomy Strategy, the Life Science Strategy and climate adaptation frameworks. This policy integration is essential to ensure coherence and maximise the Mission's long-term impact.

- **Greater engagement with the private sector:** facilitated exchange and engagement with key actors of the private sector (SMEs, Start-ups, innovation ecosystems, etc.) to showcase viable business models and leverage additional funding for soil health
- **Ensuring accessibility and usability of knowledge:** efforts should focus on translating scientific outputs into operational guidance for practitioners, advisors and policy makers. Strengthening advisory systems and ensuring effective knowledge diffusion will be key to supporting behavioural change and accelerated uptake of sustainable practices.
- **Developing a soil-focused investment and financial ecosystem:** there is growing potential for soil health to be recognised as a natural capital asset. The Mission should support the emergence of investment pipelines, blended finance mechanisms and valuation tools that enable public and private actors to invest in soil health restoration and management, including through nature-based solutions.

5.3.7. High-value Mission initiatives

Several core Mission Soil initiatives have proven highly valuable and should be reinforced and preserved as the Mission advances.

- The network of **Living Labs and Lighthouses** is a long-term investment establishing interactive R&I infrastructure. Beyond serving as experimental and demonstration sites, Living Labs provide the socio-technical environments where behavioural change is fostered through continuous engagement, co-creation and learning. Their **long-term value** lies in their capacity to remain relevant as both technological and non-technological innovations evolve, ensuring that new knowledge, practices and solutions can be continuously tested, adapted and adopted among peers in real operational contexts. As dynamic spaces for innovation, they will continue to anchor transitions on the ground and support lasting changes in soil management practices.
- The Mission's **continued contribution to expanding and steering the soil knowledge** base is essential. Addressing persistent knowledge gaps, such as soil water resilience, emerging pollutants and other new challenges, requires a coherent and strategically guided research portfolio. This entails maintaining **strong coordination across projects, fostering synergies and clustering activities, ensuring consistent data collection and promoting joint actions**. It also requires sustained alignment and integration across instruments and funding streams, including R&I, communication and engagement, and financial support mechanisms across the Multiannual Financial Framework.
- The **Mission Soil Platform** should remain a central infrastructure for delivering impact. This includes the Knowledge Hub, communication and engagement activities, Communities of Practice, policy support tools, and mechanisms to stimulate investment in soil health. Together, these elements form a coherent ecosystem that facilitates knowledge exchange, stakeholder mobilisation and the translation of evidence into practice, thereby ensuring that soil health remains a visible, actionable and investable priority at EU and national levels.

III. ENABLING PROGRESS THROUGH THE MISSION-ORIENTED APPROACH

This section assesses whether and how the mission-oriented approach adopted by EU Missions drives their progress. It horizontally examines the features and practices that characterise this approach across all Missions, gauging whether and how they act as mechanisms enabling progress.

The Missions are an innovative attempt to deliver impact towards societal challenges. They are called to bring about concrete impact by:

- **Orchestrating action** towards a timebound measurable objective, launching new actions and aligning and combining fragmented initiatives to build the scale and focus needed to make a real impact.
- **Forming and engaging with communities in an inclusive way**, reaching a broader range of actors than those traditionally involved in R&I.
- **Developing and delivering concrete solutions**, including at the local level to meet societal needs.

The ultimate goal of the Missions is to catalyse broad-based change that extends outside the scope of their activities in the context of Horizon Europe, establishing the necessary conditions for systemic transformation. These conditions include, among others, the development and deployment of solutions, the creation of enabling conditions, aligning policy landscape and changing behaviour.

To assess how effectively the EU Missions are delivering on this ambition, the analysis is framed through the lens of the four key dimensions that underpin the mission-oriented policy approach, ensuring its successful implementation:

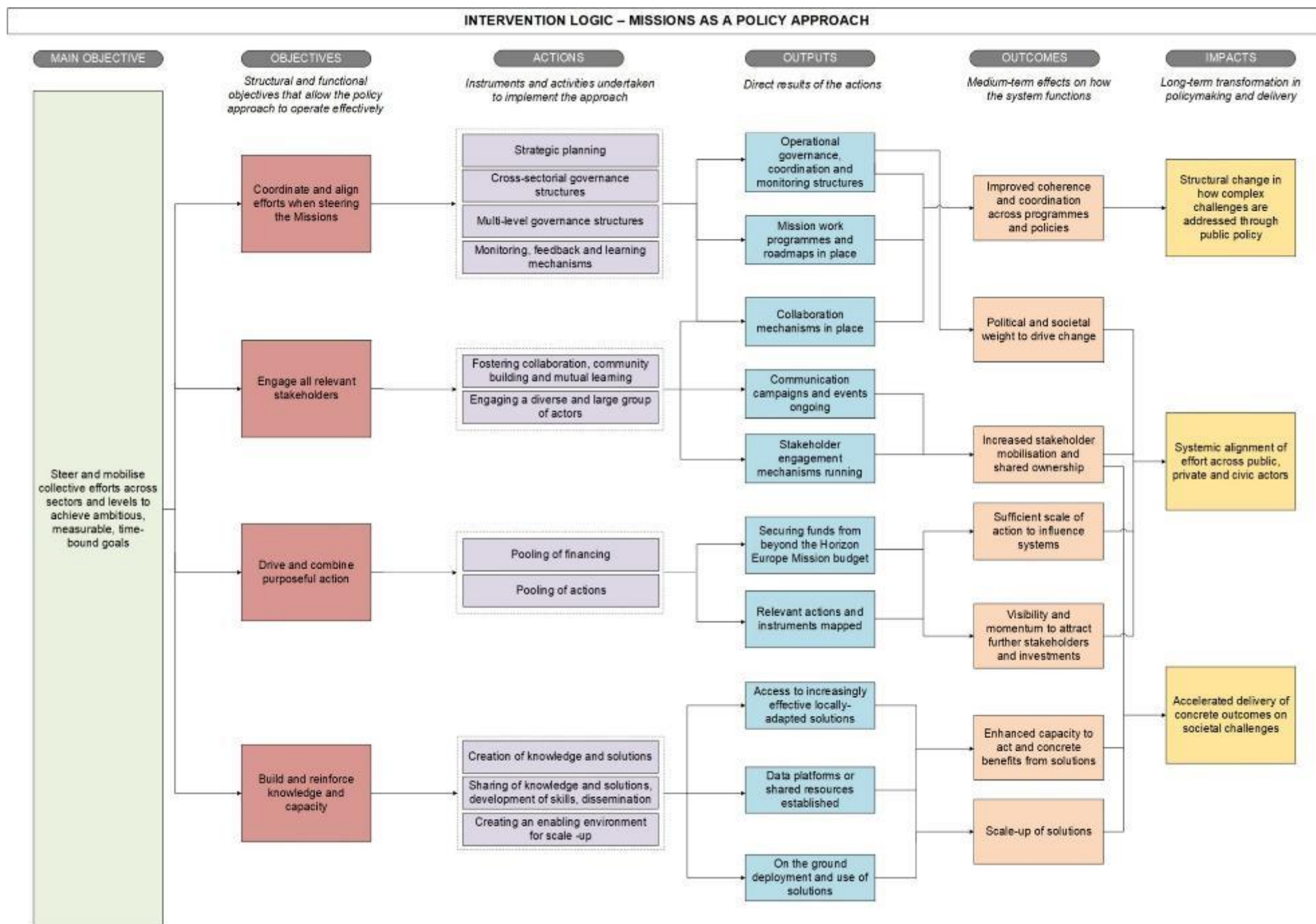
- **Governance:** to establish effective multilevel and cross-cutting governance structures that ensure strategic direction, accountability, and coordination among stakeholders.
- **Engagement:** to mobilise and involve citizens, communities, and stakeholders from various sectors in a meaningful and sustained way, ensuring co-ownership and co-creation by those they aim to serve.
- **Pooling of efforts and resources:** to successfully align and leverage public and private investments, policies, instruments, and actions across geographical levels and sectors.
- **Knowledge creation, innovation, and scaling up:** to generate new knowledge, foster experimentation, and support R&I ecosystems in developing, testing and taking up novel solutions.

The next four chapters will analyse the effectiveness of each dimension, with the support of direct references to specific Mission initiatives, figures obtained from EU databases, and surveys targeting the participants to Mission events and activities.

Each of these four dimensions encompasses a set of specific actions, aimed at concretely implementing the overall approach. As a direct result, outputs are produced and are the subject of this horizontal pillar. By analysing outputs, it is possible to recognise their effect

on the system and therefore the success of the EU Missions in achieving their objectives. Overall, this horizontal section sheds light on the effective development of the EU Missions towards achieving the objectives of a mission-oriented policy approach.

Figure 41. Intervention logic for Missions as a policy approach.



1. GOVERNANCE

Missions are coordinated transformation efforts that require direction, alignment and collective action over time. Their governance is instrumental to provide strategic planning, enable coordination across sectors and policy domains, and support effective multilevel implementation. It also facilitates collective ownership and accountability and enables learning and course correction throughout their lifecycle.

This section will assess EU Missions' governance capacity to deliver these benefits by analysing the presence and effectiveness of structures for:

- **Strategic planning:** mechanisms promoting the coordination and sequencing of actions in a shared direction to enable systemic change.
- **Cross-sectoral governance:** existence and effectiveness of structures that enable coordination between the different policy domains of EU Missions at EU and national levels.
- **Multilevel governance:** how and how well the EU, national and regional levels interact with regards to implementing EU Missions.
- **Monitoring, evaluation and learning (MEL) mechanisms:** presence of monitoring structures and their ability to redirect EU Missions' implementation based on their learnings.

This section relies on data collected from Member States and Associated Countries, European Commission services, Mission-funded projects and the OECD. A full list of sources is included in the Methodological considerations annex, section B.

1.1. Strategic planning

EU Missions address complex, long-term societal challenges that require coordinated action across multiple sectors, levels of governance and funding streams. Strategic planning is therefore essential to provide a shared direction, sequence interventions over time and align the enabling conditions needed to turn ambition into sustained, systemic change.

EU Missions establish structured pathways towards the achievement of their objectives through dedicated planning instruments at EU level like the Mission Implementation Plans or – at local level – tools including Climate City Contracts, regional adaptation plans, sea basin strategies or Soil Territorial Agreements. These plans provide long-term visibility over complex and multi-step courses of action, articulating how different workstreams ⁽¹⁹⁴⁾ are expected to interact over time.

A crucial output of EU-level planning tools is Horizon Europe Mission-specific Work Programmes ⁽¹⁹⁵⁾, which offer specific funding opportunities for projects aligned with Missions' strategic directions and implementation plans.

⁽¹⁹⁴⁾ E.g. research and innovation, demonstration, stakeholder engagement, financing, governance, monitoring.

⁽¹⁹⁵⁾ Available in the [EU Funding & Tenders Portal](#).

By sequencing actions and identifying milestones, responsibilities, and enabling conditions, these instruments help align diverse actors and initiatives around shared objectives. They also support the set-up of critical enabling factors, including monitoring frameworks, investment pathways, and coordination mechanisms, thereby creating a coherent framework within which Missions can steer progress and adapt implementation as learning accumulates.

1.2. Cross-sectoral governance

The EU Missions address complex challenges that cut across several policy domains⁽¹⁹⁶⁾. These usually fall under the responsibility of different services or departments. Part of the EU Missions' success necessarily depends on well-functioning coordination between these areas to ensure coherence and complementarity. Cross-sectoral governance structures are therefore necessary to establish communication channels and collaboration between policy domains, ensuring they jointly contribute to the Missions' goals.

Several structures promote cross-sectoral governance at EU level. Mission Secretariats with members from different Directorates-General (DGs) ensure that the perspective of different policy domains is embedded in the day-to-day implementation of each Mission. A Mission Owners Group (MOG) gathers members from the DGs that contribute to the objectives of each Mission and – vice versa – whose objectives Missions are supporting. A Mission Manager and deputy Mission Manager are responsible for higher-level representation of each Mission across the European Commission⁽¹⁹⁷⁾. In addition, a horizontal service within the DG for Research and Innovation facilitates coordination across all EU Missions. Three executive agencies (CINEA, REA, HaDEA) entrusted by the Commission with the implementation of spending programmes covering the EU Missions, are responsible for the evaluation, preparation and management of actions supporting the implementation and delivery of all EU missions.

These structures have a relatively high level of maturity⁽¹⁹⁸⁾ characterised by a stable composition, regular meetings, a high participation rate, systematic information flows and impactful outputs. They are aligning sectoral priorities with Missions' objectives, coordinating contributions across DGs, supporting co-creation in the context of Horizon Europe, steering strategic choices and trade-offs, facilitating the integrated use of instruments, as well as creating direct links with high-level political priorities. In addition, they have been successful in embedding EU Missions into broader EU policy initiatives: the Europe's Beating Cancer Plan, the European Ocean Pact, the European Water Resilience Strategy, the upcoming European Climate Resilience and Risk Management integrated framework, the Vision for Agriculture and Food and the Common Agricultural Policy, the Soil Monitoring Law, the Mediterranean Pact, the Policy Agenda for Cities, the European Affordable Housing Plan, or the Social Climate Fund. This integration is important to ensure policy alignment, avoid fragmentation and duplication of efforts, and maximise the leverage of mission activities by connecting R&I investments with

⁽¹⁹⁶⁾ E.g. research and innovation, environment, health, transport, social policy.

⁽¹⁹⁷⁾ The Mission Manager and deputy Mission Manager are usually high-ranking European Commission officials from each of the two Directorates-General that are responsible for each Mission.

⁽¹⁹⁸⁾ Secretariats survey.

regulatory, strategic and deployment. Cross-sectoral governance mechanisms are also intended to promote shared ownership and accountability across services for the delivery of Mission objectives. Besides the information-sharing resulting from regular meetings, outputs from these structures include the production of shared communication products, the organisation of joint events ⁽¹⁹⁹⁾, or the high-level “anchoring” of EU Missions in other EU initiatives ⁽²⁰⁰⁾. In general, this enables continuous operational communication and supports the Missions’ coherence and visibility.

Table 6. Directorates-General involvement per EU-level cross-governance structure.

Mission	DGs involvement per structure		
	Mission Secretariat	(Deputy) Mission Manager	Mission Owners Group
Climate adaptation	RTD, CLIMA	CLIMA, (RTD)	CLIMA, RTD, AGRI, CNECT, DEFIS, ECFIN, ENV, EAC, FISMA, GROW, HOME, INTPA, MARE, MOVE, REGIO, SANTE, REFORM, JRC, CINEA, EISMEA, REA
Cancer	RTD, SANTE	RTD, (SANTE)	RTD, SANTE, AGRI, BUDG, CNECT, EAC, ECFIN, EMPL, ENER, ENV, ESTAT, FISMA, GROW, MARE, MOVE, REGIO, SG REFORM, TAXUD, JRC
Ocean and Waters	RTD, MARE	MARE, (RTD)	MARE, RTD, ENV, ENER, EAC, GROW, MOVE, DEFIS, REGIO, NEAR, AGRI, CNECT, CLIMA, JRC, REA, CINEA
Cities	RTD, ENV	ENV, (RTD)	MOVE, RTD, ENER, ENV, CLIMA, CNECT, EAC, GROW, MARE, HOME, REGIO, JRC, REA, CINEA
Soil	AGRI, RTD	AGRI, (RTD)	AGRI, CLIMA, CNECT, DEFIS,

⁽¹⁹⁹⁾ E.g. the Climate Adaptation Mission organised joint webinars with the Mission Soil on 25 June 2025, with the Cancer Mission on 30 April 2025, and with the Ocean and Waters Mission on 30 September 2024.

⁽²⁰⁰⁾ The “anchoring” exercise leveraged EU-level cross-sectoral governance structures to explicitly highlight EU Missions as important contributors and/or enabling factors for new European Commission initiatives, amplifying their impact.

			GROW, EAC, ECFIN, ECHO, EMPL, ENER, ENV, HOME, INTPA, JRC, MARE, MOVE, REGIO, RTD, SANTE, JRC, REA
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Cross-sectoral structures are also necessary at the national level but remain uneven and with substantially different levels of maturity. Austria, Germany, France, Norway and Portugal set up dedicated interinstitutional coordination structures for the implementation of EU Missions ⁽²⁰¹⁾; Ireland, Italy and Slovakia are showing growing inter-ministerial cooperation via the establishment of working groups and task forces on specific Missions. At the same time, 11 out of the 22 Member States and Associated Countries for which data is available rely on pre-existing R&I structures for horizontal coordination or do not foresee any formal mechanism for horizontal coordination besides engaging in EU Missions' projects and activities. While it is encouraging that more countries are embedding dedicated structures for EU Missions in their national governance, EU Missions' activities at national level still risk being limited to participation in projects without clearer allocation of strategic leadership and steering functions.

1.3. Multilevel governance

The EU Missions address complex challenges that cannot be solved at a single level of governance. Multilevel governance is essential for EU Missions because their objectives are implemented at different administrative levels. In fact, levers for successful implementation often lie outside of Brussels. National and local actors are closer to where EU Missions make their impact – making them crucial implementers and enablers of EU Missions' progress. Multilevel governance structures should allow for appropriate coordination across different levels of governance ⁽²⁰²⁾, helping each actor to meaningfully contribute to implementation where they are best empowered to.

Executive agencies (HaDEA, CINEA, REA) play a central role in the implementation of EU Missions by translating high-level policy objectives into concrete, coordinated actions that have an impact at local level. They are responsible for managing calls, evaluations, and grant agreements, as well as actively steering project portfolios to ensure alignment with Mission goals. Beyond traditional programme management, Executive Agencies' role extends to facilitating collaboration across projects, organising cluster activities, monitoring collective progress, and supporting the production of joint deliverables such as policy recommendations, helping ensure that projects contribute to broader societal impact beyond individual research outcomes. From the perspective of executive agencies, the implementation of Mission projects differs from that of traditional Horizon Europe projects, both in approach and expectations. While standard projects typically operate more independently with a primary focus on scientific and technological results, Mission projects are designed as part of a portfolio of interlinked actions working towards a shared

⁽²⁰¹⁾ Austria implemented a whole-of-government model with Mission Action Groups co-chaired by different Ministries as well as a Mission Management Unit acting as a coordinator and secretariat. Germany, France, Norway and Portugal formed cross-ministerial groups or mirror groups to steer the implementation of EU Missions.

⁽²⁰²⁾ This assessment analyses the EU, national and local level.

objective. This requires stronger coordination, participation in thematic clusters, and contributions to common outputs, including addressing cross-cutting priorities such as inequalities. Mission projects are also expected to engage more directly with citizens, policymakers, and end-users, and to deliver results that can inform policy and real-world implementation.

The Horizon Europe Strategic Programme Committee (SPC) and its dedicated Missions' working groups are part of comitology and act as an important vertical link for strategic discussions on EU Missions between the EU and national level. SPC working groups ensure the vertical flow of information and facilitate policy dialogue, but are less effective when it comes to promoting joint strategic planning and monitoring of EU Missions' implementation.

A number of structures allow engagement with regional and local actors⁽²⁰³⁾. Mission Implementation Platforms (MIPs) are designed to support the operational delivery of EU Missions⁽²⁰⁴⁾. They act as central hubs that bring together stakeholders, knowledge, and resources to implement mission objectives in a coordinated way. The Mission Climate Adaptation has mobilised over 300 regions and local authorities across 25 Member States; the Cities Mission involved 112 cities through the NetZeroCities platform. Mission Charters⁽²⁰⁵⁾ are a foundational document that formalises the Mission's objectives, roles, responsibilities, and commitments of actors.

In addition, Missions have been in direct contact with the Committee of the Regions (CoR) to increase participation of local authorities across the EU⁽²⁰⁶⁾. Two rounds of discussions held in 2022 and 2023 resulted in action points to be developed at the level of individual Missions. Besides this specific cooperation, the Commission and the CoR have overall agreed on the importance of establishing more structural workstreams between the two institutions. A Joint Action Plan⁽²⁰⁷⁾ between the CoR and several Commission Directorates-General formalised this commitment. Based on the document, the CoR should support the Missions by relaying information on events, funding opportunities and general developments to its members. At the same time, Missions should facilitate the participation of CoR members in their activities – benefiting from local authorities' insights on territorial developments.

At the national level, involvement of local actors mostly relies on non-Mission-specific structures. 9 out of 18 Member States and Associated Countries for which data is available

⁽²⁰³⁾ The 2021-2023 Horizon Europe Work Programme initiated efforts to establish multi-level coordination structures. It included calls for the [coordination of complementary actions for Missions](#), as well as to [establish Mission Implementation Platforms \(MIPs\)](#) and a [transnational network of NCPs for Missions](#).

⁽²⁰⁴⁾ MIPs: [MIP4Adapt](#), [Climate ADAPT](#), [Cancer Mission implementation](#), [Net Zero Cities](#), [Prep4Blue](#), [Mission Soil Platform](#).

⁽²⁰⁵⁾ [Climate adaptation Mission's Charter](#); [Ocean Mission's Charter](#), [Mission Soil Manifesto](#).

⁽²⁰⁶⁾ In 2022, the Committee of Regions notably hosted and co-organised the first Climate Adaptation Mission Forum.

⁽²⁰⁷⁾ [Joint Action Plan between the European Committee of the Regions and the European Commission Directorate General for Education and Culture, Directorate General for Research and Innovation, and the Joint Research Centre](#)

rely on less developed, pre-existing mechanisms for non-regular or limited engagement, including National Contact Points established under Horizon Europe or Smart Specialisation Strategy (S3) governance mechanisms. The remaining 9 countries have more advanced structures that allow for regular engagement of local and regional actors, including mission hubs ⁽²⁰⁸⁾.

1.4. Monitoring, evaluation and learning mechanisms

Monitoring, evaluation and learning (MEL) mechanisms track EU Missions' progress and transfer evidence from their implementation into strategic discussions for the steering of future action. This feedback system allows EU Missions to identify issues, select effective policy options, seize emerging opportunities and address gaps. In short, MEL supports progress by helping replicate successful implementation models or informing course adjustment where needed.

All five EU Missions established specific MEL structures reflecting their respective intervention logics and objectives ⁽²⁰⁹⁾. These structures have varying levels of maturity ⁽²¹⁰⁾, face specific limitations and consequently differ in terms of effectiveness. However, they allow each Mission to meaningfully track progress towards its goals, as demonstrated by the mission-specific section of this report (section II). Table 7 summarises each Mission's MEL mechanisms.

Table 7. Summary of each EU Mission's MEL mechanisms.

The **Climate Adaptation Mission** uses a layered M&E system combining public barometer updates, regional reporting and internal project oversight. MIP4Adapt publishes a six-monthly Barometer ⁽²¹¹⁾ assessing the Mission's progress. The EEA annually monitors the governance, risk assessment, planning and actions of regional and local signatories ⁽²¹²⁾. Mission-funded projects are monitored through Horizon Europe's periodic reporting. Internally, MIP4Adapt maintains a real-time dashboard and undergoes monthly reviews with the Secretariat to ensure coherent implementation. Recognising that monitoring adaptation outcomes is a knowledge gap in itself, the Mission has launched the UNDERPIN project ⁽²¹³⁾ to develop a harmonised, outcome-focused framework.

The **Cancer Mission** developed a methodology to track progress and measure impact across funded projects using a set of indicators, and it is currently implementing it. The Cancer Mission Board advises the Commission on the Cancer Mission and promotes coherence and synergies with related EU initiatives, including Europe's Beating Cancer Plan. The Mission gathers stakeholder and citizen input via the

⁽²⁰⁸⁾ Austria and Portugal rely on an interministerial coordination group involving multiple ministries and regional authorities; Denmark's mission coordinators work directly with regional authorities to ensure coherence across policy levels; France integrates EU Missions within existing national programmes, ensuring consistency between national delivery and EU objectives.

⁽²⁰⁹⁾ These differences are not a shortcoming if a functioning horizontal monitoring system exists, as discussed later in this subsection.

⁽²¹⁰⁾ Missions' MEL structures differ in the definition of clear objectives and scope, the identification of relevant indicators, data availability and quality, measurement capacity, baseline and targets, adaptability and resilience, transparency and communication, integration into governance routines.

⁽²¹¹⁾ [Barometer - Portal of the EU Mission on Adaptation to Climate Change](#)

⁽²¹²⁾ [Signatory Reporting | Knowledge and Data | EU Mission on Adaptation to Climate Change Portal Climate-ADAPT](#)

⁽²¹³⁾ [Outcome iNDicators to mEasuRe Progress on climate resIlieNce | UNDERPIN | Project | Fact Sheet | HORIZON | CORDIS | European Commission](#)

National Cancer Mission Hubs (ECHO-S project), as well as via project cluster policy webinars, focus groups, roadshows and targeted dialogues.

Mission Ocean and Waters is monitored through a mix of broader EU policy frameworks and Mission-specific tools. Its macro-level monitoring relies on EU-wide assessments by the Joint Research Centre (JRC), European Environmental Agency (EEA) and Eurostat. At micro level, the EEA tracks progress through 16 indicators assessing the expected and realised outcomes of Mission projects. These are complemented by an external analysis of Horizon Europe-funded projects and Mission Charter Actions. Additionally, the Mission Monitoring Dashboard provides indicators on Mission resources, activities and outputs.

The **Cities Mission** uses a structured monitoring, evaluation, and learning (MEL) cycle to track and improve progress toward climate neutrality. Cities start with a Climate City Contract (CCC); progress is measured through a shared Comprehensive Indicator Framework and integrated city-level data, while the NetZeroCities Barometer and Dashboard provide Mission-wide visibility. Feedback loops enable continuous learning and course correction.

Mission Soil implements monitoring across several interconnected levels. At the highest level, the Mission Soil dashboard tracks overall progress using interactive indicators that show both EU-wide and national activities and results. Soil health monitoring is supported by the EU Soil Observatory's Soil Degradation Dashboard. A third layer focuses on the Mission's soil health Living Labs and Lighthouses, where the SOILL project provides support and conducts regular evaluations through a comprehensive assessment framework.

In addition to individual Missions' MEL structures, the Commission carried out several horizontal exercises assessing EU Missions.

Most notably, the Horizon Europe Regulation⁽²¹⁴⁾ mandated an assessment that was published alongside the "EU Missions two years on: assessment of progress and way forward" Communication in 2023. The assessment examined the individual EU Missions, the EU Missions instrument, and reviewed the Mission areas. It confirmed the relevance and importance of Missions for the Horizon Europe and European Commission toolbox, but found a need to improve their governance, securing more and better co-investment – including from the private sector – and enhancing citizens and stakeholder awareness and engagement.

The conclusions of the 2023 exercise resulted in a series of corrective actions addressing the limitations identified in the Communication⁽²¹⁵⁾. With this, the 2023 initiative acted as a functioning MEL mechanism. The 2026 assessment of EU Missions presented in this document follows up on the 2023 exercise, looking into how the implementation of Missions has progressed since. Compared to the 2023 initiative, it employs an improved framework integrating the now-developed individual EU Missions' monitoring structures

⁽²¹⁴⁾ Regulation (EU) 2021/695

⁽²¹⁵⁾ Corrective actions taken as follow-up to the 2023 Communication include the decision to hold recurring meetings of Mission Managers to improve the Missions' horizontal steering, the strengthening of the Missions' monitoring and evaluation system, an improved cooperation with the European Investment Bank to explore funding sources beyond Horizon Europe, the comprehensive revamp and modernisation of the joint online portal dedicated to all Missions, increasing overall efforts around citizen engagement.

with horizontal indicators assessing EU Missions as a policy approach ⁽²¹⁶⁾ based on the work of the Commission Expert Group to support the monitoring of EU Missions ⁽²¹⁷⁾.

The recommendations and actions following the 2023 assessment and the improved coherence of the 2026 assessment compared to its predecessor demonstrate the existence of a well-functioning EU-level MEL mechanism that is able to assess the EU Missions' performance and inform strategic discussions about their implementation when needed.

In addition, the Interim Evaluation of Horizon Europe ⁽²¹⁸⁾ (2024) assessed the Horizon Europe dimension of EU Missions. It recognised the EU Missions' role in supporting Europe's transition towards a greener, healthier, and more inclusive future, aligning closely with the UN Sustainable Development Goals and highlighted the positive public backing due to their potential to address significant societal challenges. However, the evaluation also identified some drawbacks, including an overly complex governance structure and an incomplete monitoring system, alongside a lack of systematic reporting on the financing leveraged by EU Missions. These findings contributed to refining of the monitoring framework for the 2026 assessment, in particular with the integration of portions of the framework designed to assess the progress and impact of Horizon Europe ⁽²¹⁹⁾ as well as the inclusion of a dedicated analysis of financing leveraged outside of the framework programme (Section III, chapter 3). Finally, the Missions Monitoring Flash ⁽²²⁰⁾ (2025) provided instead a comprehensive overview of Horizon Europe funding with regards to EU Missions.

At the national level, EU Missions' MEL mechanisms remain largely under development ⁽²²¹⁾ ⁽²²²⁾. Only a few countries – Austria, France, and Portugal – demonstrate more structured systems capable of linking national monitoring with the implementation of Mission objectives. Austria has developed an integrated monitoring and learning system for the Mission Cities, with a defined set of indicators and an evaluation launched in 2025. France maintains established monitoring structures under the Climate and Resilience Law, the National Cancer Plan and water and soil programmes, ensuring strong data collection at both national and regional levels. Portugal relies on its National Adaptation Strategy and national cancer control reporting as indirect mechanisms that feed Mission-relevant data,

⁽²¹⁶⁾ The 2023 assessment was based on a framework that was independent from the individual Missions' monitoring structures, which at the time were either not mature enough or non-existent.

⁽²¹⁷⁾ European Commission. (2024). Commission Expert Group to support the monitoring of EU missions (final report of the EG). <https://doi.org/10.2777/076494>

⁽²¹⁸⁾ COM/2025/189 final

⁽²¹⁹⁾ Annex V of the Horizon Europe Regulation outlines the monitoring and evaluation framework designed to assess the progress and impact of Horizon Europe. The framework is based on nine Key Impact Pathways (KIPs), with KIP5 being entirely dedicated to Missions. The horizontal section of this assessment uses selected KIPs as a data source.

⁽²²⁰⁾ [Horizon Europe Missions monitoring flash](#)

⁽²²¹⁾ Survey of EU Member States and Associated Countries part of the Horizon Europe Strategic Programme Committees (SPC survey)

⁽²²²⁾ The cross-EU nature of EU Missions implies that the responsibility for coherent MEL mechanisms should primarily fall within the EU's remit. However, Member States and Associated Countries can play an important role by contributing to EU-level monitoring exercises with information and data.

supported by its participation in Horizon Europe coordination projects such as ECHoS and BlueMissionMed.

1.5. Conclusions on governance

EU Missions have established governance structures that go beyond traditional R&I programme management. These structures are allowing them to address the complexity of their objectives by connecting the policy domains and geographical levels required for change.

At EU level, these structures have enabled a more comprehensive approach, ensured coherence across different strands of action, and facilitated the integration of Missions into the broader EU policy landscape. This governance is supported by strategic planning instruments which ensure complex, multi-step actions are visible in the long term. By sequencing workstreams, responsibilities and enabling conditions, these instruments help align different actors and support coherent and adaptive implementation across the Mission ecosystem.

Governance arrangements set up by national authorities remain heterogeneous. At the same time, EU Missions have developed particularly strong links with sub-national levels via direct channels that connect the EU and national, regional and local stakeholders. This reflects the central role of sub-national levels in translating Mission objectives into concrete action on the ground.

MEL mechanisms are maturing and being increasingly integrated into the Missions' steering and planning. However, it remains challenging to identify meaningful indicators and scale data collection to adequately capture progress towards highly ambitious and systemic objectives. These challenges are inherent to the nature of Missions and are being continuously addressed in the oversight of MEL structures.

2. CITIZENS AND STAKEHOLDERS' ENGAGEMENT

EU Missions target areas of broad public interest: climate adaptation, cancer, ocean and waters, green cities, and soil. Engaging citizens, local authorities, businesses, civil society and practitioners helps ensure that mission objectives, solutions and pathways are grounded in real needs and contexts, increasing their relevance, feasibility and uptake on the ground. Besides, stakeholders contribute practical knowledge, help identify barriers and enablers and support co-creation and experimentation. Citizen engagement also strengthens democratic legitimacy and trust. Involving citizens fosters transparency, shared ownership and public support, which are critical for sustaining long-term action and political commitment. The goal is therefore to establish strategic direction, engagement, coordination, and effective collaboration among diverse stakeholders.

The 2023 Communication on EU Missions identified several challenges related to citizen and stakeholder engagement, including low involvement of the private sector, as well as a general lack of awareness about the benefits and potential of EU Missions as a whole. The Communication emphasised the need to enhance citizen and stakeholder engagement to ensure the success and impact of EU Missions. This section assesses the extent to which the EU Missions mobilise and involve citizens, communities, and stakeholders from across sectors in a meaningful and sustained way, ensuring that missions are co-shaped by those

they aim to serve, offering a basis for comparing the progress made since the 2023 Communication.

This engagement pillar specifically aims to assess whether the EU Missions have fostered engagement in a way that ensures collaboration, co-creation, and awareness raising among diverse and numerous stakeholders. It presents an analysis of data related to the four key dimensions of engagement:

- size of engagement,
- co-creation/collaboration,
- diversity of engagement,
- awareness/inspiration.

The analysis is primarily based on data collected from Member States and Associated Countries, European Commission Services, Mission-funded projects, and analyses of mentions of the Missions in social media and online media, as well as references to previous reports and surveys on the implementation of the EU Missions (see annex).

2.1. Size of engagement

A significant participation is essential to the success of EU Missions as it affects their transformative potential, extending their impact far beyond individual projects. A critical mass of engagement makes transformation visible, self-reinforcing, and harder to reverse, accelerating the spread of innovative solutions. When good practices are tested, adapted, and replicated across networks, learning and diffusion happen faster, while economies of scale enhance cost-effectiveness and market viability. Moreover, widespread participation strengthens political durability, as it builds legitimacy and long-term commitment.

Engagement within this scale is not uniform but spans a continuum, from awareness and information-sharing to consultation, co-creation and active participation, allowing different actors to contribute at levels suited to their capacities while collectively reinforcing the Missions' transformative momentum.

To this end, a wide array of methods has been employed to engage stakeholders, including regular meetings, policy webinars, dialogues, bus roadshows, flagship events such as annual conferences or thematic forums, hackathons, or quizzes. Newsletters and social media platforms played a crucial role in information dissemination. Concrete forms of engagement involved participation in action-oriented formats, such as living labs, lighthouses, and pilot actions, where actors are directly involved in testing solutions and implementing actions.

As a result, Missions have engaged an extensive range of stakeholders at scale, as reported by MS/ACs. For example, commitment to Missions' objectives is reflected in a high number of formal pledges and affiliations. 112 cities committed to climate neutrality under Mission Cities ⁽²²³⁾. More than 3 500 signatories were gathered to the Mission Soil Manifesto (685 legal entities and 2 837 individuals) ⁽²²⁴⁾. And Mission Ocean Charter has

⁽²²³⁾ <https://netzerocities.eu/mission-cities/>

⁽²²⁴⁾ <https://mission-soil-platform.ec.europa.eu/community/signatories-and-friends>

attracted more than 1 100 pledged actions (including 16 Member States, over 30 regions, and 70 municipalities) representing EUR 8 billion ⁽²²⁵⁾. In addition, 327 regional and local authorities from 30 countries (representing more than 280 million inhabitants) have formally joined the Mission Climate Adaptation by signing the Mission Charter and another 63 private companies, service centres, research networks, and local action groups have endorsed the Charter and become friends of the Mission ⁽²²⁶⁾.

Events, participatory formats and learning programmes going beyond R&I activities have also mobilised large numbers of stakeholders and citizens. Major Mission-level events include the Mission Cities 2025 Annual Conference with over 825 participants and the third Annual Mission Ocean and Waters Forum, which attracted more than 1 500 participants ⁽²²⁷⁾. The Mission Cancer roadshow organised in Poland, Lithuania and Romania attracted over 16 000 visitors ⁽²²⁸⁾, reached nearly 16 million people through media and partnered with 59 local stakeholders (e.g. hospitals, research centres, patient organisations, etc.). Mission Cities partnered with 78 cities through its Twinning Learning Programme and trained more than 70 cities in systemic transition approaches. The European Mission Soil Week regularly gathers 300 participants on-site and more than 1 000 online. Moreover, web, media and newsletter outreach has further amplified reach. Mission Soil outreach activities reached 15.2 million people through social media, newsletters and events, supported by 4 912 newsletter subscribers and 115 073 website pageviews ⁽²²⁹⁾. Between 2025-2026, Mission Cancer stakeholder engagement boost activities, including thematic events during Poland, Denmark and Cyprus Presidencies of the Council of the European Union have reached approximately 15 million people.

In terms of participation to Mission projects as beneficiaries, the number of participants indicates a significant growth, having doubled from 3 000 in September 2023 to 6 400 in October 2025 ⁽²³⁰⁾ ⁽²³¹⁾. It is worth mentioning that some stakeholders participate in multiple Mission initiatives (32% of the stakeholder survey respondents indicated being part of more than 5 initiatives related to EU Missions).

Stakeholders highlight demand for further engagement activities: 53% of all stakeholder survey respondents have indicated the need for more citizens events, and 47% have called for more stakeholder events. 42% of respondents have called for more integrated communication campaigns (188) and 37% believe that Mission ambassadors should be more relied on for outreach (163).

⁽²²⁵⁾ https://maritime-forum.ec.europa.eu/theme/research/mission-ocean-and-waters_en

⁽²²⁶⁾ <https://op.europa.eu/en/publication-detail/-/publication/f5bb6378-5ba7-11f0-a9d0-01aa75ed71a1>

⁽²²⁷⁾ Secretariats survey

⁽²²⁸⁾ <https://projects.research-and-innovation.ec.europa.eu/en/funding/funding-opportunities/funding-programmes-and-open-calls/horizon-europe/eu-missions-horizon-europe/eu-mission-cancer/implementation-page/eu-cancer-mission-roadshow>

⁽²²⁹⁾ Secretariats survey

⁽²³⁰⁾ e-Corda

⁽²³¹⁾ It should be noted that this growth can be largely explained by the fact that the vast majority of the Missions' projects launched after September 2023.

Geographic coverage of stakeholder engagement in EU Missions is substantial. In terms of participation intensity, a majority of regions are represented in Mission projects, although engagement levels differ amongst regions. Data ⁽²³²⁾ indicates only one NUTS1 region (EU major socio-economic regions) without any participants in the Missions to date (Corsica, France). At NUTS2 level (EU basic regions), only 9% of regions, distributed across 10 MS ⁽²³³⁾, have no participants to date. And at NUTS3 level (EU small regions), participation in Mission projects extends to 571 regions, representing around 50% of all NUTS3 regions.

According to the 2025 JRC report on local and regional actors in Mission-oriented innovation ⁽²³⁴⁾, the geographical distribution of EU Missions participation shows both progress and remaining challenges. Although participation spans a wide territorial base, funding remains concentrated: the top 20 regions - mostly major metropolitan areas such as Amsterdam, Brussels, Barcelona, Paris, and Madrid - account for 41.7% of total Mission funding (compared to 36.9% for Horizon Europe overall). This reflects the strong role of urban hubs hosting universities, research centres, and large businesses. Overall, EU Missions achieve broad territorial coverage, while participation remains skewed towards metropolitan regions, indicating potential to further stimulate engagement in rural and peri-urban areas. Mission Cancer and Mission Cities have the highest funding concentration in terms of overall geographical coverage, reflecting Mission Cancer's focus on specialised research hubs (e.g. major health centres) and Mission Cities' deliberate strategy of targeting 112 cities for CCCs. Mission Ocean and Mission Soil show greater geographic dispersion, engaging a larger number of regions through mechanisms like charters, forums, and local partnerships. Mission Climate Adaptation is positioned in between, in third place for both concentration of funding in NUTS3 regions and in terms of average funding per NUTS3 region, and in second place for the number of NUTS3 regions with participants, with a total of 327 regional and local authorities from 25 EU Member States having signed the Mission Charter at the time of the report ⁽²³⁵⁾.

Overall, the data on size of engagement and broad geographical coverage demonstrate that the EU Missions are not only achieving scale, but actively creating and mobilising communities around shared objectives. While critical mass is essential to build momentum and visibility, it is not sufficient on its own. The Missions' transformative potential also depends on who makes up these communities, how diverse they are, and how effectively they collaborate over time.

⁽²³²⁾ e-Corda

⁽²³³⁾ Austria, Belgium, Germany, Greece, Spain, France, Hungary, Poland, Romania and Spain

⁽²³⁴⁾ European Commission. (2025). *Territoriality and multi-level governance of missions: Exploring the role of local and regional actors in mission-oriented innovation and industrial policies*. <https://doi.org/10.2760/2715342>

⁽²³⁵⁾ The data are derived from Figure 8 of the 2025 JRC report (p. 13), which presents key figures on the territorial coverage of EU Missions at NUTS3 level. "Concentration in top 3 regions" refers to the share of total Mission funding allocated to the three NUTS3 regions receiving the highest funding. "Average funding per region" is calculated as total Mission funding divided by the number of participating NUTS3 regions.

2.2. Co-creation/collaboration

The EU Missions' objectives do not only need the involvement of diverse actors, but also for them to work together, creating integrated solutions, rather than isolated projects. Co-creation lies at their heart, as it allows scientific, technical, regulatory and practical considerations to be aligned from the start. The performance of EU Missions is based on collaboratively ensuring that the results are relevant, widely supported, and aligned with the real needs and aspirations of those who will ultimately implement and benefit from them.

Within the monitoring framework of Horizon Europe, Key Impact Pathways 6 measures the involvement of EU citizens and end-users in the co-creation of content within projects. Over 91 Mission projects have been identified where citizens or end-users contribute significantly to the R&I process. This involvement can range from consultation and dissemination activities to co-creation and co-ownership or joint decision-making. Compared to other components of the programme, this indicator scores better for Missions, illustrating a stronger emphasis on fostering collaboration and integrating societal perspectives into the research process.

On top of projects-specific activities, a wide range of mechanisms are put in place for co-creation at different levels of the Missions' implementation.

Governance structures described earlier in this report are instrumental to strategic collaboration across policy fields and geographic levels. Mission Implementation Platforms have peer learning, twinning and matchmaking mechanisms. A Mutual Learning Exercise was carried out between 2024 and 2025 for national governments to share their practices on Mission implementation⁽²³⁶⁾. Deliberative mechanisms such as citizen assemblies and co-design workshops are also a common practice. For instance, Mission Ocean uses citizen-centric initiatives, including co-creation workshops with coastal communities, citizen mobilisation campaigns like Plastic Pirates, and citizen science projects. Its Mission Charter and Lighthouses initiative has collected 480+ stakeholder actions, while regional innovation ecosystems like WaterCampus Leeuwarden drive research and collaboration. The Climate Adaptation Mission tries to advance the knowledge and innovation on citizen engagement for climate adaptation through projects CLIMAS and AGORA. It also provides technical assistance to regions and local authorities to engage citizen and stakeholders in their adaptation efforts. Between 2023-2026, the Cancer Mission has, through a series of thematic workshops and the 2023 Young Cancer Survivors conference, gathered around 100 young cancer survivors, health professionals, MEPs, projects, and policymakers to discuss specific needs and gaps and support the Cancer Mission to define concrete solutions. Moreover, it mandates two key principles in call for proposals: first, funded projects must join cross-disciplinary clusters to drive impact through shared research, policy and public engagement; second, projects should also systematically embed end-users (patients, survivors, citizens) in co-design and implementation, ensuring solutions are both innovative and rooted in real-world needs. Mission Cities emphasises co-creation of Climate City Contracts, and the collaboration

⁽²³⁶⁾ <https://projects.research-and-innovation.ec.europa.eu/en/statistics/policy-support-facility/eu-missions-implementation-national-level>

with industry partners e.g. through a EUR 50 million joint call for zero-emission mobility solutions, alongside social innovation tools like participatory budgeting. Mission Soil engaged 3 500+ signatories for its Manifesto with projects like HUMUS, involving 33 regions in co-creating Territorial Management Agreements ⁽²³⁷⁾.

As an outcome of engagement activities, cooperation emerged as a significant theme on social media in 2023, mentioned by approximately 15% of all mentions of EU Missions.

Challenges to effective co-creation include scaling up societal awareness and acceptance, promoting mobilisation, and facilitating collaboration ⁽²³⁸⁾.

While co-creation and involving various types of stakeholders bring many benefits, it can also pose challenges and comes with slower processes, due to the need to balance conflicting interests and tailoring approaches to different needs. For example, private companies may prioritise economic interests, while public authorities focus on policy goals.

2.3. Diversity of engagement

The involvement of a wide range of actors, sectors, groups and territories is important to achieve the EU Missions' objectives, because they require complementary expertise and different actors each hold different parts of the solution. When stakeholders are involved in shaping solutions from the outset, it ensures relevance and ownership; the resulting actions are better aligned with real needs and more widely supported. This ensures that Missions reflect the needs, constraints and ambitions of those who will ultimately implement and live with the changes.

Ensuring participation and engagement from non-traditional stakeholders is particularly important in the context of EU Missions. Non-traditional stakeholders refers to actors who do not usually participate in R&I activities but who are directly involved in, affected by, or essential to implementing solutions on the ground: citizens and civil society organisations (NGOs, community groups), local and regional authorities and public service providers, practitioners and end-users (e.g. farmers, fishers, healthcare professionals, urban planners), SMEs, start-ups, social enterprises outside the "research community", foundations, investors, and intermediaries, education, cultural and creative actors.

Evidence from project data ⁽²³⁹⁾, surveys ⁽²⁴⁰⁾, and social media all indicate engagement with the EU Missions by a diverse range of stakeholders. Stakeholders were numerous to report ⁽²⁴¹⁾ that the benefits from their Mission involvement include engaging with stakeholders they usually do not collaborate with (30%), working with new types of organisations (22%), and engaging citizens (15%).

⁽²³⁷⁾ Secretariats survey

⁽²³⁸⁾ European Commission. (2024). *Commission Expert Group to support the monitoring of EU Missions (Final Report of the EG)*. <https://doi.org/10.2777/076494>

⁽²³⁹⁾ e-Corda

⁽²⁴⁰⁾ Survey of Mission's Stakeholders (Stakeholders survey), SPC survey

⁽²⁴¹⁾ Stakeholders survey

Traditional R&I actors from research and higher education organisations account for around three-quarters of EU Mission projects coordinators. However, there are also project coordinators from non-traditional stakeholders, including businesses (11%), public bodies (less than 5%), and “others” including NGOs (12%). For project participants, the share of non-traditional partners accounts for approximately 23% research organisations, 20% higher/secondary education establishments, 21% businesses, and 14% public bodies, while 16% identified as “other” (including NGOs). This is aligned with the analysis of funding by stakeholder type in the 2025 JRC report ⁽²⁴²⁾ which found that non-traditional R&I stakeholders are better represented in Missions than in Horizon Europe as a whole: non-traditional actors secure 10.7% of funding in EU Missions compared to 3.3% in Horizon Europe. This analysis is not considering other actors participating via cascade grants. This type of financial support to third parties is used by many Mission projects (e.g. the Mission Soil Living Labs or Pathways2Resilience) to facilitate the participation of small actors (such as farmers or communities) who would not otherwise be able to do so.

Furthermore, the SME share of business participants is 86% in mid-2023 and has remained consistent ever since, making SMEs by far the bulk of business participation. The highest proportion is found in projects funded under the Mission Ocean (20%) and Mission Soil (20%), while the lowest proportion is found in Mission Cancer (14%) ⁽²⁴³⁾.

At national level, the engagement of private sector actors (industry, financial sector, etc.) was at an early stage. On average, the depth and quality (from 1 lowest to 5 highest) of stakeholder engagement activities were ranked at a moderate level, while varying across countries. This variation reflects different national governance traditions regarding their preferred forms of stakeholder engagement in R&I actions, as well as Mission-specific contexts. Accordingly, the Commission Expert Group to support the monitoring of EU Missions acknowledged that there is high heterogeneity in the importance placed and actual designs of citizen and stakeholder engagement in EU Missions ⁽²⁴⁴⁾. Engagement activities varied by Mission and context, evolving alongside governance and implementation structures, primarily driven by Mission Implementation Platforms and Secretariats.

Professional interest in the Missions’ topics is the main driver for participation in public consultations, citizen science initiatives, and local events. Data also shows that citizens tend to be reactive rather than proactive in their engagement, indicating a need for more structured approaches to reach out to them. According to a Eurobarometer six-country survey ⁽²⁴⁵⁾, a lack of awareness and lack of trust in public institutions are amongst the primary barriers to citizen participation. Lack of interest or not having enough time are, in

⁽²⁴²⁾ European Commission. (2025). *Territoriality and multi-level governance of missions: Exploring the role of local and regional actors in mission-oriented innovation and industrial policies*. <https://doi.org/10.2760/2715342>

⁽²⁴³⁾ e-Corda

⁽²⁴⁴⁾ European Commission. (2024). *Commission Expert Group to support the monitoring of EU Missions (Final Report of the EG)*. <https://doi.org/10.2777/076494>

⁽²⁴⁵⁾ European Commission. (2025). *Engaging citizens in EU Missions: Insights from a six-country experimental survey*. <https://doi.org/10.2777/1415582>

most cases, seen as least significant barriers. This suggests that enhancing citizen engagement with a diverse mix of engagement methods tailored to different participation preferences is needed to raise awareness and engage the public.

An analysis of the social media accounts with the greatest reach mentioning the EU Missions shows that a wide range of stakeholder types are engaged. Researchers and executives are the most engaged profiles regarding the Missions, followed by teachers/lecturers and politicians. Together, these four profiles account for 70% of all identifiable account types mentioning the Missions in their posts. Social sciences and humanities (SSH) voices also play a role in social media discussions. Among the less traditional R&I profiles engaged on social media were health practitioners, journalists, artists, students, sales/marketing and IT workers. In terms of fields, environment is identified as an interest of 20%, with science, business and technology reflecting approximately 10% each.

Figure 42. Top professions and thematic interests among accounts mentioning the Missions (Brandwatch).



The public sector also receives a higher share of funding in the Missions (10.7%) than in Horizon Europe (3.9%). However, this varies across Missions: Mission Cities is characterised by a strong private sector share (40% of funding), while Mission Climate Adaptation shows a more balanced funding distribution across stakeholder categories ⁽²⁴⁶⁾. Examples of actions targeting diverse stakeholders, including the non-traditional ones, include Mission Climate Adaptation’s and Mission Cities 2024 Citizens Hackathon Championship which directly involved 300+ citizens and researchers. Mission Ocean, on the other hand, engaged coastal communities, ports, fishing industries, and policymakers, with initiatives like the Europe-wide Plastic Pirates campaign involving 13 countries and over 25 000 students to collect scientific evidence on river pollution, available to be used afterwards by researchers and policymakers across Europe. Also targeting students, 76 schools are receiving grants for ocean and waters restoration actions, while the ProBleu project has supported more than 30 schools to connect students with water and marine ecosystems. In Mission Soil Living Labs, almost half (48.7%) of the beneficiaries are not research organisations or higher or secondary education establishments (without considering small actors, such as farmers, involved through cascade grants).

2.4. Awareness and Inspiration

The effectiveness of EU Missions relies fundamentally on widespread awareness among citizens and stakeholders to generate the societal legitimacy and momentum required for transformative action. When missions succeed in being known and perceived as

⁽²⁴⁶⁾ European Commission. (2025). *Territoriality and multi-level governance of missions: Exploring the role of local and regional actors in mission-oriented innovation and industrial policies.* <https://doi.org/10.2760/2715342>

inspirational, they create shared narratives that motivate diverse actors to contribute their expertise and resources.

The stakeholder survey shows that a majority of respondents declare having a well-established knowledge about EU Missions. Overall, stakeholders report a generally good level of awareness of the EU Missions, with only a small minority indicating low or no familiarity ⁽²⁴⁷⁾. Traditional R&I actors report a very high knowledge of Missions, but it is worth noting that non-traditional actors such as NGOs (78%), regional public bodies (68%), national public bodies (63%) and business organisations (54%) also report relatively high awareness levels. From all stakeholder categories, citizens report the lowest level of knowledge about EU Missions; however, awareness remains relatively solid, with 45% indicating good to very good knowledge ⁽²⁴⁸⁾.

The timeline of awareness shows that 31% of stakeholder survey respondents knew of EU Missions before their launch in 2021 ⁽²⁴⁹⁾. Out of all reported ways in which respondents found out about the EU Missions, professional/work colleagues accounted for approximately 23% of mentions, the European Commission or Mission website for about 16%, and academic networks, conferences or other events for roughly 14%.

Social media analysis indicates that awareness of R&I organisations, municipalities, NGOs, and funders is high, evidenced by frequent LinkedIn posts from these groups announcing mission-related events/calls/labels. General citizens' awareness is variable – city-level initiatives attract local attention, but wider public awareness beyond engaged communities is less visible.

An analysis of online media coverage examined how mentions of EU Missions contributed to public awareness by measuring i.e. the potential reach of articles, based on estimated readership. Social media mentions of Missions were found Europe-wide, with the leading country being Belgium, reflecting that many EU-level stakeholders are based there, followed by Spain, Ireland (reflecting the prominence of English posts), Germany, Italy and France. Activity density was particularly high around EU Mission events and call announcements (e.g. the launch of Europe's Beating Cancer Plan, the announcement of the selected Mission Cities, Berlin's failed Climate Referendum).

Estimated readership has reached more than 100 million in certain instances. Overall, the data shows that cancer-related topics receive the most coverage in online media and social media, while topics related to sustainable cities are the second most prominent. The findings translate directly to citizen awareness, as evidenced by the 2025 Eurobarometer

⁽²⁴⁷⁾ This result should be interpreted with caution, as the survey targeted stakeholders already engaged with or exposed to EU Missions, for whom a higher level of awareness can reasonably be expected.

⁽²⁴⁸⁾ 28 respondents selected “citizen” as one of their categories. However, out of those 28, 10 also selected one or more additional stakeholder categories, resulting in 18 respondents identifying exclusively as citizens.

⁽²⁴⁹⁾ Missions and Mission areas were discussed before their official launch in a collaborative process involving Missions Boards, stakeholders, citizens, etc.

six country survey ⁽²⁵⁰⁾: while data indicates that public concern about all the EU Mission areas is high (less than 10% say they are not at all concerned about any of the Mission challenges), over 50% of citizens are particularly concerned about cancer.

The peaks corresponding to significant EU Missions events demonstrate the amplified public visibility created by these events. Mission weeks, labelled city announcements, calls, forums, and EC announcements are the main moments when networks amplify Missions, contributing to public awareness raising.

The stakeholder survey suggests that EU Missions are widely seen as inspirational, particularly by public authorities, NGOs and research actors, while perceptions are more moderate among citizens and lowest among private sector associations.

2.5. Conclusions on citizens and stakeholders' engagement

To achieve their complex objectives, EU Missions must mobilise a critical mass of diverse stakeholders, each with distinct roles and capacities, and enable their collaboration to drive transformation that can scale through awareness and inspiration.

The assessment confirms that EU Missions have made significant progress in building and expanding a broad mission community, demonstrating increasing stakeholder participation. This growing engagement is reflected in the number of commitments to their objectives (i.e. Climate City Contracts, Charters, Manifestos), increasing participation of beneficiaries in Mission projects (from 3 000 in September 2023 to 6 400 in October 2025), and strong turnout at Mission events. These trends indicate that the Missions are successfully mobilising a critical mass of actors around shared objectives.

Within these communities, EU Missions have engaged a diverse range of stakeholders and have a distinctly higher representation of non-traditional actors compared to Horizon Europe as a whole. While traditional R&I stakeholders still play a central role, public authorities, industry, civil society and citizens are increasingly involved in Mission activities, with grassroots and local initiatives playing a particularly important role in anchoring Missions on the ground (e.g. the 2024 Citizens Hackathon Championship, Plastic Pirates, and similar citizen-led initiatives).

As Missions progress from R&I towards deployment, the profile of engaged stakeholders is expected to evolve accordingly. Engagement will need to shift from primarily research-driven actors to include a greater proportion of implementation-oriented stakeholders, such as public authorities, regional and local administrations, service providers, market actors, and civil society organisations capable of scaling and sustaining solutions.

For these diverse actors to work together, mechanisms for collaboration and co-creation have been established at multiple levels, enabling multi-disciplinary, need-based and impactful approaches. These mechanisms, such as citizen assemblies, co-design workshops, or peer learning, twinning and matchmaking activities by the MIPs, should

⁽²⁵⁰⁾ European Commission. (2025). *Engaging citizens in EU Missions: Insights from a six-country experimental survey*. <https://doi.org/10.2777/1415582>

remain active throughout the replication and upscaling phases, as continued collaboration is essential for expanding and adapting successful solutions across contexts.

The assessment also shows that awareness of Missions grows through social media and communication around events and major announcements, creating a ripple effect across a wider community of actors. However, this visibility is not continuous and remains concentrated around key moments. Citizens remain the least informed group, suggesting the need for more targeted outreach through broader channels and multipliers beyond the R&I community.

Sustaining long-term engagement can be challenging, as stakeholders may experience information fatigue or be affected by shifting political priorities. However, Missions are widely regarded as inspirational, which presents a great opportunity to convert this enthusiasm into lasting commitment and sustained participation.

Overall, EU Missions represent a pioneering effort to mobilise stakeholders around ambitious shared objectives and to promote societal transformation. The evidence demonstrates notable achievements in expanding stakeholder diversity and scale, fostering co-creation, and increasing visibility. The next phase should focus on sustaining community growth, evolving engagement profiles in line with deployment needs, and intensifying outreach to citizens to fully realise the transformative potential of EU Missions.

3. POOLING OF FUNDING AND ACTIONS

EU Mission objectives cannot be achieved through a single funding instrument or policy lever. Pooling funding and different types of action is essential for EU Missions to match the scale and complexity of the challenges they aim to address and to enable real systemic change. By aligning and combining funding streams and actions, Missions avoid isolating projects and create coherent pathways toward shared goals. The integrated structure of Missions offers a platform to steer multiple actions and resources in an integrated way.

The 2023 assessment of EU Missions provided an initial snapshot of investments, highlighting several key areas for improvement due to the limited development at the time. Important recommendations included building a broader portfolio of instruments beyond HE as well as a closer alignment between EU funding and Member State programming. In addition, the assessment called for an increased involvement of additional actors in the Missions' activities, such as the European Investment Bank (EIB) and the private sector, to increase visibility and momentum for organic investment growth.

This section of the assessment examines the extent to which EU Missions have been effective in pooling finance, as well as in pooling actions. The pooling of finance will be analysed in terms of their ability to attract additional funds via:

- **Direct leverage:** attracting additional financing from project participants on top of the allocated net EU contribution from the Horizon Europe budget.

- **Synergies** with other parts of Horizon Europe: financing of the HE projects that are not directly attributed to Missions calls, but mention Missions in their abstracts and/or topics and/or free keywords ⁽²⁵¹⁾.

The pooling of actions will be analysed in terms of mechanisms through which Missions may inspire, trigger, or gather diverse and complementary actions under their umbrella approach. The analysis is implemented along the following aspects:

- Pooling of actions **across means of interventions**: combining different types of actions to tackle the missions' objectives.
- Pooling of actions **across policy fields**: addressing objectives that are cross-disciplinary, where progress depends on coordinated action from multiple sectors.
- Pooling of actions **across geographical levels**: national strategies and EU frameworks must support local implementation.

3.1. Pooling of finances

3.1.1. Direct leverage

Direct leverage for the EU Missions is calculated as the additional co-financing received by projects developed under calls in the work programme (WP) of the Missions. This is the most direct indicator of private and public actors' willingness to contribute actively to the objectives of each Mission. This definition of "direct leverage" is based on Key Impact Pathway 9 and corresponds to the difference between the net EU contribution received by each project and participant, and the total costs. This indicator focuses on measuring the leverage of private sector investment on top of the framework programme funding in the short-term.

Overall, projects funded under the umbrella of EU Missions calls have leveraged EUR 318 million across 303 projects analysed ⁽²⁵²⁾. This represents 4.67% of the total costs linked to the projects, which amount to EUR 6.8 billion. The Framework Programme's ⁽²⁵³⁾ direct leverage ratio sits at 18,35%, six times the Missions', but includes types of action with lower funding rates which Missions do not have in their toolbox. When considering only the types of action encountered in the EU Missions' WP (that is, CSAs, IAs, and RIAs), the programme's direct leverage lowers to 7.2%. While the Missions' direct leverage ratio across years 2021-2025 is lower than the programme's figure, there seems to be an upward trend in the Missions' leverage: for projects slated to start in 2026 and already encoded, the direct leverage ratio sits at 7.5% of the total cost, for the first time passing HE's for comparable action types.

In terms of direct leverage by type of participant, the analysis shows that private companies are the main source of external funding received, an expected results given the structure of

⁽²⁵¹⁾ Synergies beyond Horizon Europe will be tackled looking at pooling of actions across policy fields and geographical levels.

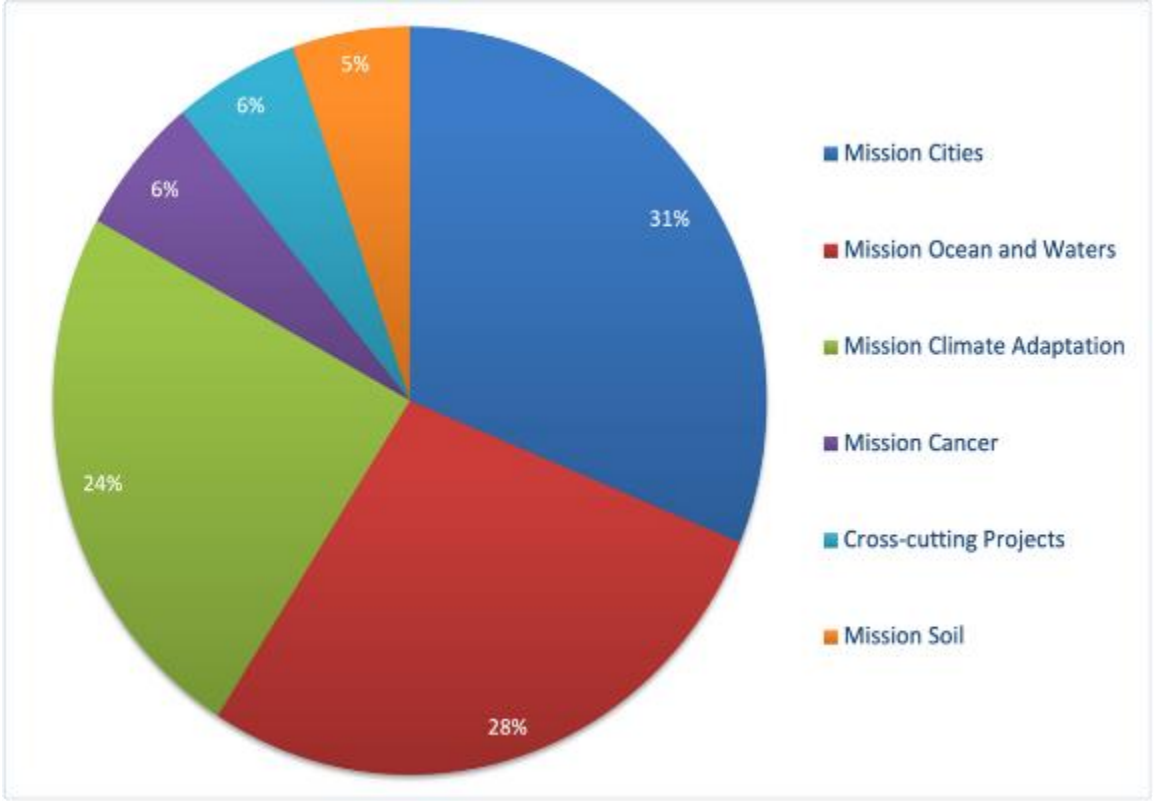
⁽²⁵²⁾ The 3034 projects considered include all projects financed under EU Mission calls launched since Horizon Europe Work Programme 2021-2022 to Work Programme 2023-2024. Data retrieved from e-Corda on 3 December 2025.

⁽²⁵³⁾ Data retrieved on January 13 from the public Horizon dashboard.

FP funding rules. They contribute with EUR 308 million, covering almost the entirety of direct leverage for Mission-call projects.

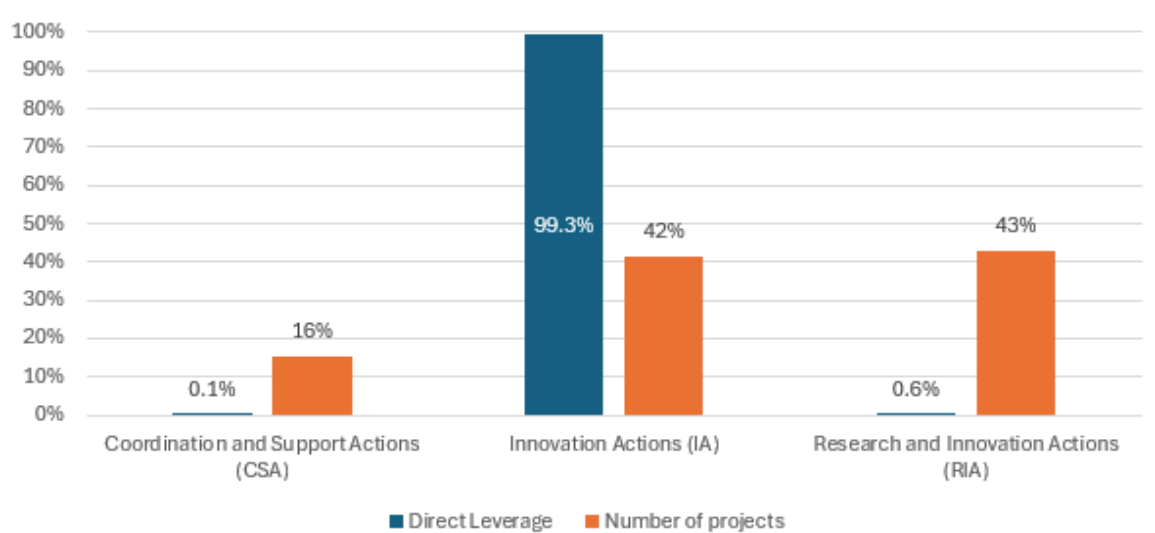
Of the EUR 318 million leveraged by Missions, projects attributed to Cities and Ocean and Waters Missions raised approximately 30% of the total each, followed by projects for Climate Adaptation that generated around 25%. On the contrary, the Soil and Cancer Missions and cross-cutting projects exhibit significantly lower shares of direct leverage finance, around 5-6% of the total budget (Figure 43).

Figure 44. Shares of total pooling of finance by mission (e-Corda, cut-off date 3 December 2025).



Looking at the different types of actions, while the distribution of projects shows a somewhat balanced segmentation, IAs exhibit the largest share of pooling via direct

Figure 43. Pooling of finance and projects funded by type of action (e-Corda, cut-off 3 December 2025).



leverage channel, while Coordination and Support Actions (CSA) attract the lowest amount of external funds (Figure 44). This difference, while remarkable, can be explained by the IAs lower funding rate, set at 70%, which requires for-profit participants to contribute with larger amounts of own funding to EU projects.

Geo-localising direct leverage allows to identify those regions that show predisposition to attracting external funding in the context of EU projects. In absolute terms, Catalunya is the top performer, with EUR 17 million raised by participants located in the territory when taking part in Mission projects. Among the regions leveraging more than EUR 4 million we find clusters of multiple regions from Spain, Italy, and Germany, but also outliers such as “widening” regions, e.g. Attica (Greece) with EU 14.5 million, Cyprus with EUR 10.5 million, Portugal’s Norte region with EUR 8.8 million, and Bucharest (Romania) with EUR 4.8 million directly leveraged. Analysing the ratio of leveraged financing compared to total costs and participation rates, we see that for every four euro in EU funding Liguria (Italy) has leveraged almost one euro in external funding, across 22 participations. Other strong performances include those from Provence-Alpes-Côte d’Azur (France) and Asturias (Spain), who have leveraged almost one euro every five in EU funding. Still, such levels are only attained in cases where participation is on the lower side of the spectrum. Regions with high participation generally see, instead, a ratio of 4~7% between direct leverage and EU funding.

Finally, we performed an analysis of direct leverage amounts clustered by the Regional Innovation Scoreboard’s regional innovation index (henceforth, RII). Overall, most pooling occurs in regions with a strong or moderate innovation RII ranking (254). However, we can also observe some regions in Spain, South of France and the north of Italy with low levels of RII exhibit high levels of direct financial leverage. At the same time, most regions in Germany, Belgium, Netherlands and the United Kingdom, do not raise a lot of finance via direct leverage, while being characterised as regions with high RII.

3.1.2. Synergies

Under pooling, the terms synergy is used in reference to the contribution from other parts of Horizon Europe to the EU Missions, identifying projects not funded under Mission calls, but which explicitly refer to EU Missions in their abstracts, topics, or keywords ⁽²⁵⁵⁾. These projects represent a small part of the larger EU Mission portfolios, built to collect all initiatives that relate to the EU Missions but funded outside of their specific work programme. The total EU funding of these identified 137 projects amounts to EUR 4.2 billion, representing around 9% of the Horizon Europe budget outside the Missions work programme. When combined with the Missions’ dedicated budget, this brings the overall share of Horizon Europe resources linked to EU Missions to 21% of the total programme budget.

⁽²⁵⁴⁾ The Regional Innovation Index classifies regions based on their innovation performance, measured against a limited number of indicators, dividing regions into four categories: innovation leaders, strong innovators, moderate innovators, and emerging innovators

⁽²⁵⁵⁾ Methodologically, this process represents the most direct and traceable way to establish which projects set out to achieve formal links to the EU Missions since their drafting phase.

In terms of leveraging external funding, these synergetic projects have raised EUR 2.9 billion. The number is equal to almost ten-fold the total direct leverage raised by Mission projects alone, showing the importance for the Missions to connect with relevant initiatives to create impact. However, it is important to note that among these synergetic projects nine (7% of the segment) are co-funded actions, or European Partnerships ⁽²⁵⁶⁾, which are explicitly designed to bring in additional external funding as a core feature. If we were to exclude these nine, the total sum of leveraged finance would drop to EUR 30 million (or, 1.07% of the total).

As shown in table 8, Mission-related projects emerge across multiple parts of HE, confirming that the Missions' thematic focus resonates widely within the wider HE portfolio and mobilises additional complementary resources.

Table 8. Total EU funding destined to projects explicitly referring to the EU Missions per Work Programme part ⁽²⁵⁷⁾ for years 2021-2026.

Horizon Europe component	Total budget (EUR million)
Marie Skłodowska-Curie Actions	1.79
Research Infrastructures	307.44
Cluster 1 - Health	857.15
Cluster 2 - Culture, Creativity & Inclusive Society	30.52
Cluster 3 - Civil Security for Society	32.74
Cluster 4 - Digital, Industry & Space	667.90
Cluster 5 - Climate, Energy & Mobility	659.03
Cluster 6 - Food, Bioeconomy, Natural Resources, Agriculture and Environment	2 074.77
Widening Participation & Strengthening the ERA	15.17

Looking at the breakdown of mission-related projects by action type, we note that RIAs generate most of the related projects (70%), followed by Coordination and Support Actions (CSA) with 12% and IAs accounting for 10% of the synergetic projects.

At a first glance, a budgetary breakdown of co-funding raised through these synergies by entity type reveals a slightly different picture from the direct leverage analysis. The data show that largest shares of additional funds are channelled through Public Bodies and Research Organisations, followed by Higher Educational Establishments. This marked

⁽²⁵⁶⁾ The European Biodiversity Partnership; Partnership for the Assessment of Risks from Chemicals; Water4All – Water Security for the Planet; European Partnership Driving Urban Transitions; A climate neutral, sustainable and productive blue economy Partnership; Fostering a European Research Area for Health Research; European partnership on accelerating farming systems transition – agroecology living labs and research infrastructures. The 'European Partnership Driving Urban Transitions' and 'A climate neutral, sustainable and productive blue economy Partnership' had two rounds of funding under the Work Programmes which included the EU Missions as an initiative to create synergies with.

⁽²⁵⁷⁾ From the list of potential synergies, additional MSCA actions had to be excluded from the count, due to their accounting peculiarities given by the use of lump-sum funding.

difference is mainly explained by the presence of European Partnerships in the mix of actions analysed, as they often refer to the creation of synergies and collaboration activities with the Missions. Given their nature, Partnerships attract more public institutions than other calls and require additional funding.

Considering the specificities of Partnerships as an instrument, their presence in the compiled list of synergies is of high importance. They share important features with the Missions, such as strategic directionality in R&I funding, clear destinations and pathways, and the integration of different work and funding streams. Beyond the synergies explored in this section, other direct links have been established between the two initiatives. As reported in the Biannual Monitoring Report of the European Partnerships ⁽²⁵⁸⁾ 34 strategic exchanges between Partnerships and Missions have been conducted, together with joint communication and dissemination of results actions, networking of project partners and capacity building activities, among others.

Finally, the geo-localisation of Mission-related HE budgets reveals pronounced spatial variation in the distribution of additional funds. Compared to direct leverage, there is more variety at the top of the ranking for external funding attracted, with less concentration among key countries. Still, some regions demonstrate consistently high levels of Mission-aligned leverage, such as Germany or the Netherlands. Others show more modest levels of engagement, as in Italy's case, which classified eight regions in the top 50 regions for total direct leverage, but only two in the same exercise for synergies. This points to potential disparities in Mission-related absorption capacity, but also highlights areas with already proven support for Mission activities and opportunities for targeted support. Together, regional patterns provide an important indication of where the Missions may find fertile ground for combining or scaling solutions, as well as where further strategic mobilisation may help broaden participation.

3.2. Pooling of actions

3.2.1. Pooling across means of intervention

Missions need a variety of intervention instruments, which must span the full innovation cycle, combining R&I funding with regulatory, procurement, investment, and capacity-building instruments. Some instruments must address barriers that are not only technological (social, behavioural, regulatory, financial, or organisational obstacles while others must test and embed solutions on the ground, such as pilots, living labs, public procurement, and standards.

Over three iterations of the Work Programme, EU Missions have attempted to optimise research activities for societal impact through different types of actions. These distinct sets of activities are positioned along the innovation chain, and target diverse fields and audiences, to anticipate the needs of each Mission in relation to its specific challenges. Considering the nature of the framework programme, it is not surprising that the relative majority of topics launched at Mission level can be categorised as targeting the scientific

⁽²⁵⁸⁾ European Commission: Directorate-General for Research and Innovation, *Performance of European partnerships – Biennial monitoring report 2024 on partnerships in Horizon Europe*. <https://data.europa.eu/doi/10.2777/991766>

and technological sector in the experimental and stabilisation phases ⁽²⁵⁹⁾. Still, governance has been an often-recurring theme, with the second largest share of topics focused on such field of action, and a high number of these in the diffusion phase of the innovation cycle. This indicates that Missions have already been pooling actions aiming at scaling up approaches to the relationship between goals and policies that favour collaborative design.

Table 9. EU Missions Work Programme – number of topics per lever and phase.

PHASE → LEVERS ↓	Experimentation	Stabilisation	Diffusion	Institutionalisation	Total	Share
Governance	7	21	47	16	91	30.0%
Economy & Finance	3	10	9	0	22	7.3%
Individual & collective action	8	13	15	7	43	14.2%
Science & Technology	25	61	56	5	147	48.5%
Total	43	105	127	28	303	
Share	14.2%	34.7%	41.9%	9.2%		

At the same time, a funding-focused analysis of Mission topics reveals that funding has been highly concentrated in experimental science and technology actions. Interestingly, the largest amount of budget was dedicated to diffusion actions, which signals a prominent interest in the scale up and replication of activities across different places in Europe.

Steps forward have also been made in terms of the different instruments used in the context of the work programmes. Among others, the 2023 Communication recommended the use of public procurement as means of implementation. While it was not used in the first two instances of the Missions WP, since 2025 four calls were launched in the shape of pre-commercial public procurement (PCP). The Cities Mission has contributed with one such action, opened in the context of the 2025 work programme, encouraging public procurers to stimulate from the demand side the competitive development of market-ready innovative solutions to reduce greenhouse gas emissions contributing climate neutrality in local communities.

Additional PCP calls were launched by the Climate Adaptation Mission, targeting the construction sector to accelerate its preparedness and resilience to climate change, and the Cancer Mission, focusing on the provision of affordable and innovative solutions in the treatment of cancer patients, with the final addition of a cross-cutting call including PCP procedures for the creation of lead markets in the context of the Missions' challenges. Even beyond the Missions' specific work programme, the Climate Adaptation Mission is planning the launch of a PCP call in collaboration with the Health Cluster of HE for the development of 'Tools and technologies to support health adaptation to climate change'. The use of PCP is crucial to create impact, as it stimulates innovation as it enables the public sector to steer the development of new solutions directly towards its needs.

The 2023 Communication also recommended increased collaboration with the European Investment Bank (EIB) because of the distinct mindset and capacities it can offer. Building on initial cooperation through advisory services, each Mission has since developed tailored

⁽²⁵⁹⁾ The mapping of Mission topics was based on the combination of 'phases' (experimentation, stabilisation, diffusion, and institutionalisation) and 'levers' (governance, finance and economy, individual and collective action, and science and technology).

forms of collaboration with the EIB to reflect its specific objectives. Since 2023, these collaborations range from financial and business support to entities involved in projects – now offered by almost all Missions– to more specific far-reaching initiatives. Notable examples include the EIB Advisory support for the climate-neutral and smart cities mission, to which the EIB has earmarked a dedicated EUR 2 billion lending envelope to support participating Mission cities, and the EU Blue Champions pilot scheme developed in the context of the Oceans and Waters Mission. In addition, the Climate City Capital Hub was established by the European Commission under Horizon Europe as part of the NetZeroCities consortium implementing the Cities Mission and in partnership with the Climate Adaptation Mission.

3.2.2. Pooling across policy fields

Since their launch, the EU Missions have improved their presence in other mainstream policy initiatives at EU level, with different levels of development. Given their foundation in R&I, it has not always been evident how to best frame the Missions in other policy fields without fundamental questions arising over the scope or the ownership of the initiative. Nonetheless, important progress has been made in embedding the Missions into their respective broader thematic policy field, which provide a base on which to develop further.

The Oceans and Waters Mission has been linked to two important initiatives in its field of action: the European Ocean Pact and the European Water Resilience Strategy. In both cases, the Mission's achievements are leveraged to become a building block of larger initiatives that do not have a specific R&I focus, but can benefit from the innovations developed by the Mission in these first years, including protecting ocean health, restoring water cycles, supporting coastal communities and securing clean water for all.

The Mission Soil takes a full part in the Soil Strategy where it will be the instrument for liaising with Member States to create a community of practitioners to improving soil-related modelling capacities. In similar fashion, the Cancer Mission is an established partner of the Europe's Beating Cancer Plan, where it acts as the R&I engine, producing knowledge, technologies, and solutions for prevention, screening, early detection and diagnosis, treatment, and quality of life.

The Climate Adaptation Mission is one of the main implementation vectors of the EU Adaptation Strategy. As climate adaptation continues to gain traction, the upcoming integrated framework for climate resilience is being grounded by the experience and knowledge created by the Climate Adaptation Mission.

This dynamic is also visible in the **Cities Mission**. By supporting cities in developing **Climate City Contracts (CCCs)** - integrated strategies combining climate action planning, governance arrangements and investment pathways – the Mission has created a framework for coordinating local action towards climate neutrality. The **Policy Agenda for Cities (2025)** takes this approach further as part of a broader effort to streamline and strengthen the landscape of EU initiatives supporting cities.

Moreover, the Missions have developed a strong and stable process to compile portfolios of actions, across all relevant EU funding sources, that contribute to their objectives. These portfolios provide a vast overview of initiatives taken in the context of those EU programmes that have not been built with the Missions in mind – such as the LIFE,

EU4Health, EMFAF (European Maritime, Fisheries and Aquaculture Fund) or Erasmus+ programmes. In total, over 1 700 actions have been found and validated as contributing to the objectives of the Missions, coming from 24 different programmes. In terms of size, the most important programmes are Interreg (489 projects identified), the current iteration of the LIFE Programme (487 projects) and its predecessor (156), and the EU4Health programme with 142 projects.

The distribution of projects across portfolios also sheds some light on potential structured synergies. Of the programmes mentioned, only Interreg projects appear in all portfolios, while the Erasmus+ programme has also contributed at least one project to each Mission portfolio. LIFE has benefited all Missions apart from the Cancer Mission, and potential contributions from the Digital Europe programme have so far only missed the Mission Soil. More in detail, EU4Health projects contribute not only to the Cancer Mission (115 out of 142 projects), but have provided interesting activities for the Cities Mission too. Still, together, these programmes provide the support needed to expand the values and objectives of the Missions beyond Horizon Europe.

Finally, in the context of cohesion policy, the European Regional Development Fund (ERDF) programmes contribute to strengthening the regional innovation ecosystems and enhancing regions' R&I capacities to enable participation in Missions activities, as well as facilitate the deployment of the innovative solutions emerging from the Missions on the ground. This generates upstream and downstream synergies, respectively.

3.2.3. Pooling across geographical levels

Across Member States and Associated Countries, a range of national, regional and (non-HE) EU funding instruments are being mobilised in support of the EU Missions. Several countries report substantial dedicated contributions from their national programmes: for example, Austria, which allocates over EUR 50 million annually across national R&I schemes and its Climate-Neutral Cities Mission, alongside targeted calls, municipal capacity-building and ERDF support. Other countries, such as Belgium (Flanders) and Estonia, emphasise that mission-relevant activities are embedded across broad, bottom-up or whole-of-government R&I systems, making it difficult to quantify mission-specific allocations.

Some MSs provide indicative figures for specific Missions (Lithuania's EUR 1.2 million on support for soil monitoring and specific support for Climate City Contracts and, Germany's integration of the Cancer Mission in its National Decade Against Cancer programme, endowed with EUR 125 million, and Ireland's use of EU4Health and Shared Island funding for cancer research). Others, like France, highlight extensive use of multiple EU programmes by national and local actors to support Mission funding received by national applicants, in addition to combinations with national funding. Several Member States report additional support through thematic national programmes (e.g. Portugal 2030 for climate action, Sweden's mission-oriented innovation programmes, Slovakia's environmental and Interreg funding). Norway notes significant national investments in marine, climate and cancer research, though often not explicitly labelled under the Missions.

Overall, while there is evidence of mobilisation of diverse funding sources at national and sub-national levels for Mission-related activities, many national authorities underline the difficulty of isolating exact amounts due to integrated programming, fragmented funding systems and the absence of mission-tagged expenditure across national and EU instruments. A missed opportunity, then, was the coordination between the EU Missions and the national Recovery and Resilience Plans (RRPs) articulated in the context of the Recovery and Resilience Fund. A text-based analysis reveals that up to 285 initiatives in total, across all RRP, can be thematically connected to the EU Missions ⁽²⁶⁰⁾. In practice, greater coordination could have been achieved through explicit mission tagging of relevant projects and a dedicated coordination mechanism between Mission governance structures and the RRP actions' owners. This would have enabled more systematic view pooling of resources, strengthened strategic coherence, and improved the ability to monitor and demonstrate the added value of RRP contributions to Mission objectives.

3.3. Conclusions on pooling of funding and actions

Looking at the ability of EU Missions to pool funding and actions, the analysis reveals the critical importance of mechanisms for pooling, aligning and coordinating in driving progress towards the Missions' objectives, with significant implications for future policymaking and strategic decision-making. Considering data, the Missions have managed to raise EUR 318 million over the past years, representing around 5% of the total expenditure on launched or planned projects. While the total ratio of direct leverage raised is today below the usual Horizon Europe figure, there are clear signs that the trend is moving upwards and could pass the framework programme's direct leverage in the coming years.

A focal point, within Horizon Europe funding, is the creation of synergies with other projects outside of Mission calls. Our analysis shows that, in sheer numbers, there have been many instances where Missions were specifically referred to in the text of other calls launched. Positively, this was the case not only for typical collaborative calls, but also for European Partnerships, a key area for Missions to build collaboration in. For the second half of the Missions' term, still, it will be crucial to build synergies that can also bring in external funding: to date, Partnerships represent almost the totality of external funding added through synergetic projects.

In addition to funding figures, it is also crucial to consider the development that the Missions have shown, switching from setting up their supporting structures in their initial phase, to more complex attempts at delivering impact through different types of instruments. This is demonstrated by the use of different types of activities, not only within the boundaries of the framework programmes, but also in collaboration with different actors, such as the Member States and the European Investment Bank.

Beyond funding, the pooling of actions shows promising signs for impact in the second half of the Missions' lifecycle. The area where most dynamism is already perceivable is the use of different instruments and actions, with the increased use of pre-commercial procurement, and a strong ongoing collaboration with the European Investment Bank.

⁽²⁶⁰⁾ It should be noted that text-based analysis has inherent limitations, and full alignment with the Missions' objectives would require further validation.

Alongside these developments, the efforts undertaken at policy level also show potential for broader ramifications: by positioning the Missions in other key initiatives of the Commission, they can show to be a reliable partner for innovative solutions, and they can find springboards to achieve impact throughout society.

In terms of the geographical diffusion of pooling, progress has been made in the representation of regions from all Member States, across all levels of innovation capacity. While increasing the amounts of leverage collected is an important goal for the following years, it is important to underline that Member States have also provided insights on the combination of different programmes and funds outside the framework programme itself.

4. KNOWLEDGE CREATION, USAGE AND SCALING-UP

EU Missions are expected to develop learning ecosystems where knowledge is co-created rather than simply transmitted. Diverse actors – public authorities, research organisations, industry, end-users, etc. – should co-create knowledge and solutions. Structures within the Missions’ ecosystems should allow the results of co-creation to be tested, adapted, shared, replicated and scaled up. In addition, dedicated mechanisms should allow actors to learn from each other’s challenges and successes, refine effective approaches and develop the skills to implement, use and deploy results in the best way. These ecosystems reduce perceived risks for individual actors and strengthen ownership, making it easier to try new approaches and invest in change.

Considering the above, this section explores the EU Missions’ actual ability to create, use and scale up knowledge. The assessment is carried out across four dimensions:

- **Creation of knowledge and solutions:** how and what Missions are producing in terms of new knowledge and solutions.
- **Knowledge and solution sharing, skills development and dissemination:** how Missions organise the dissemination of knowledge and solutions and support the development of skills and capacities required for implementation and scaling.
- **Deployment and use of solutions:** how solutions put forward by Missions move from design to practice – focusing on uptake, replication and scaling.

This section mainly relies on data collected from Member States and Associated Countries, European Commission services and Mission-funded projects ⁽²⁶¹⁾.

4.1. Creation of knowledge and solutions

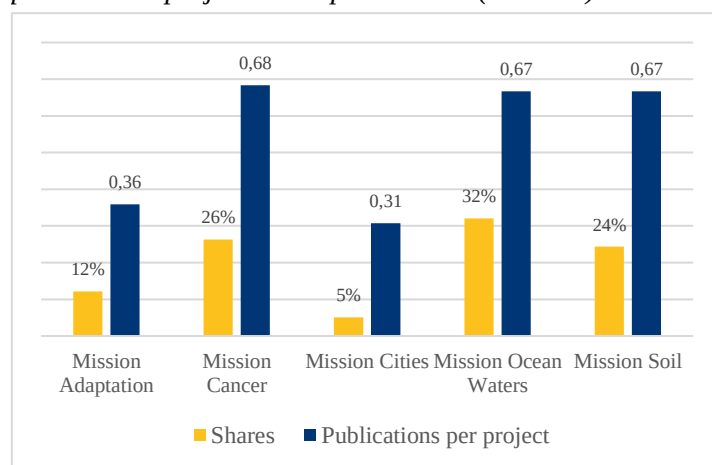
This section analyses how Missions generate new knowledge and develop solutions to fulfil their objectives. Missions foster transdisciplinary R&I by bringing together scientific disciplines, technical expertise, and perspectives. Knowledge is co-produced through real-world experimentation, pilot projects, and place-based approaches, ensuring that solutions are problem-driven, context-specific, and oriented towards societal impact rather than solely academic outputs.

⁽²⁶¹⁾ A full list of sources is included in the annex.

Across 306 Mission projects (²⁶²), knowledge production is visible both through academic outputs (e.g. publications) and tangible outputs (e.g. technologies, monitoring systems, policy and regulatory arrangements, financing models, etc.).

Missions have produced 156 peer-reviewed publications over 2021–2025 (²⁶³). These are distributed unevenly across Missions (figure 45) and are associated with different action types. A notable share of publications in Missions Cities and Ocean and Waters originate from projects focused on piloting and demonstrating innovations in real-world settings (IAs), indicating that at least part of the demonstration activity is documented and subject to external scientific review. By contrast, Mission Cancer and Mission Soil show a stronger publication contribution from upstream R&I activity (RIAs) consistent with their reliance on research-intensive knowledge generation alongside solution development.

Figure 45. Share of publications and peer-reviewed publications/projects ratio per Mission (e-Corda).



Besides peer-reviewed publications, the Missions' primary contribution in terms of knowledge creation lies in the broad and diversified set of solutions they produce, spanning the full innovation chain. According to the Survey of the five Mission Secretariats (Secretariats Survey), these include operational outputs (e.g. monitoring systems, diagnostic tools, restoration infrastructures), new policy, regulatory and governance arrangements (e.g. contractual frameworks and governance models), and financing and business models that mobilise investment and uptake. In parallel, Missions produce substantial knowledge-sharing and capacity-building outputs (various types of publications, guidelines, training, advisory services), as well as analytical tools and models, which underpin planning and decision-making (see section 4.2).

(²⁶²) The data cut-off date is 28 November 2025.

(²⁶³) Defined as number of validated, foreground publications published in peer-reviewed outlets (KIP1) defined in Annex V to the Horizon Europe Regulation).

Table 10. Example of solutions developed by the Mission Ocean and Waters.

Mission Ocean and Waters already developed 118 solutions, complemented by 139 solutions produced by Charter Actions. These include pollution-prevention and remediation technologies (e.g. microplastics and nutrient-recovery systems), zero-carbon shipping and port infrastructure, blue-carbon restoration and circular aquaculture and marine bio-based products, basin-scale Lighthouse governance arrangements and circular blue-economy models, ocean knowledge infrastructures such as ecosystem and pollution assessments, biodiversity and hydrosphere datasets, the Digital Ocean & Water Knowledge System and Digital Twin Ocean.

Solutions developed by Missions are demand-driven, compared to those resulting from other Horizon Europe projects. This type of knowledge production is ensured by the active participation of user communities in the prioritisation, design and creation of knowledge outputs. Co-production is evident in the high involvement of non-research organisations in Missions' projects. Research organisations and universities represent 47% of the participant organisations, while users such as companies, public organisations – including regional authorities, cities, associations, NGOs, clusters, and more – and other types of communities represent 53%. This is substantially different from the rest of Horizon Europe, where research organisation and universities account for 64% of participants and user communities represent only 36%. The integration of knowledge creation within the communities, territories, and systems needing change is one the Missions' most unique contributions to the European R&I landscape.

4.2. Sharing of knowledge and solutions, development of skills, dissemination

This section analyses how Missions organise the exchange and dissemination of knowledge and solutions within and beyond their ecosystems, including the development of skills and capacities required for implementation and scaling.

All Missions have established effective mechanisms for knowledge and solution-sharing, supported by dedicated structures that promote cross-learning, coordination, and the dissemination of results. Missions have formalised communities of practice, peer-learning formats, helpdesks and working groups, encouraging ongoing feedback among implementation actors. These mechanisms are supported by Mission Implementation Platforms and online portals that serve as diffusion infrastructures, providing repositories, solution libraries, and learning materials. The compliance of all Missions with Horizon Europe's open-access and FAIR data requirements⁽²⁶⁴⁾ further facilitates knowledge exchange and its dissemination.

Missions' projects include activities from research and development down to implementation – as demonstrated by the different action types within each Mission⁽²⁶⁵⁾.

⁽²⁶⁴⁾ Principles to ensure that research data are Findable, Accessible, Interoperable, and Reusable. These requirements guide how data should be managed and shared, promoting transparency, reproducibility, and the efficient reuse of data across projects and research communities.

⁽²⁶⁵⁾ Three action types may underpin EU Missions projects: RIAs, IAs or coordination and support actions (CSAs). RIAs establish new knowledge and/or explore new or improved solutions – they are upstream and further away from markets. IAs are closer to market deployment and produce plans or designs for new or improved solutions including prototyping, testing, demonstrating, piloting, large-scale product validation and market replication. CSAs do not produce new knowledge or solutions; instead, they support cooperation between legal entities from the EU and Associated Countries and may include e.g.

Taken together, these actions suggest a coherent logic that links upstream and downstream R&I, which is integral to the design of the Missions. In this regard, each Mission combines scientific research, demonstration, social innovation, and standardisation efforts that enable cross-learning and dissemination. An analysis of these groups of projects shows that Missions tend to focus more on downstream implementation, with IAs representing 41% of Missions' projects compared to 9% of Horizon Europe projects. This is consistent with the Missions' objective to bring knowledge closer to deployment. However, a high share of IAs alone does not demonstrate strong links between upstream research and downstream deployment. The extent to which different action types are connected and collectively managed as integrated portfolios varies, and evidence of linkages between RIAs and IAs is insufficient.

The Missions' ability to build capacities and skills is closely linked to the sharing and dissemination of knowledge and solutions. These capacities and skills are crucial for implementation and scaling. The Secretariats survey shows that all Missions built structured mechanisms to strengthen their stakeholder communities' skills and absorptive capacity. Three main categories of mechanisms exist:

- **Formalised training and capacity building**, including recurring, formal formats such as seasonal schools, thematic webinars, national training sessions, and workforce skills initiatives.
- **Peer-learning architectures** in the forms of Communities of Practice, discussion and working groups, study visits, or twinning activities.
- **Technical assistance** as a skills transfer mechanism, including advisory services, help desks, and feasibility studies.

These mechanisms have involved 6 865 researchers⁽²⁶⁶⁾ across all Missions and are supported by learning infrastructures embedded within or alongside the Mission Implementation Platforms.

In addition, there is evidence that some of the Missions' integration with external knowledge systems and cross-Mission synergies are used to facilitate upskilling. For example, Mission Cities reuses MyCovenant and CDP-ICLEI Track data within the NetZeroCities Platform's tools and combines them with an Online Planning Lab course to create skill-building loops for city teams. Training offers are also aligned with EU frameworks and policy priorities beyond the five EU Missions. Upskilling in Mission Cities, Mission Adaptation and Mission Cancer is tied to EU frameworks such as the European Urban Initiative, URBACT, Erasmus+, and EEA/Climate-ADAPT, as well as Europe's Beating Cancer Plan. Mission Cancer and Mission Cities are linked to national platforms and plans.

awareness-raising, communication and networking activities, policy dialogues, mutual learning, studies.

⁽²⁶⁶⁾ Defined as number of researchers involved in training, mentoring, coaching, mobility and access to R&I Infrastructures (KIP2 defined in Annex V to the Horizon Europe Regulation).

Table 11. *Examples of skills development mechanisms developed by the five Missions.*

Formalised training and capacity building

Mission Cities offers multi-day transition training via seasonal schools, structured training on Mission strategies via an Online Planning Lab, practical training for finance officers and project leads via a Capital Hub, as well as onboarding sessions via the Mission's portal. Mission Climate Adaptation offers a training webinar programme through the MIP4Adapt Platform and a thematic calendar with monthly training events. Mission Ocean and Waters has already channelled support to 76 schools and more than 7 000 students to familiarise local actors with restoration, pollution reduction and basin stewardship; around 30 schools have already completed funded activities. Training is also provided to the associated regions that replicate the solutions. Mission Cancer developed a research and innovation-centred capacity-building programme to support existing and future comprehensive cancer infrastructures (CCIs) which delivered 3 regional conferences and 10 online courses as well as establishing an online Resources Centre of more than 220 validated and curated resources for developing research and innovation in CCIs. Mission Soil offers workshops on soil-monitoring techniques, carbon-farming practices, and data-collection methodologies.

Peer-learning architectures

Mission Cities has online discussion groups, the Twinning Learning Programme, group study visits, and a Community of Practice. Mission Climate Adaptation relies on a Community of Practice combined with Thematic Working Groups and peer-learning among regions facing similar challenges. Mission Ocean and Waters use the basin Lighthouses' National Hubs, Arenas, and Living Labs for multi-actor exchange, and the Blue Parks community to share tools and practices. In the Mission Cancer, project clusters and working groups bring together researchers, clinicians, and patients. Mission Soil's field-based, peer-to-peer training is the core delivery model, reflecting a decentralised approach to capacity-building anchored in local experimentation rather than centralised curricula.

Technical assistance

Across Missions, technical assistance reaches at least 150 local or sectoral entities. The Mission Cities' NetZeroCities Platform provides advisors and helpdesk functions. Mission Cancer offers onboarding and support for shared infrastructures.

4.3. Deployment and use of solutions

This section analyses how EU Missions move solutions from design and testing to real-world application. It considers the full spectrum of activities that enable solutions to be demonstrated, piloted, and tested in real-life contexts; replicated, twinned, and scaled across regions or sectors; supported through targeted investment and funding; embedded in policy and regulatory frameworks; and promoted through demand-side instruments to create markets and stimulate uptake.

Demonstration, piloting and real-life testing

Across Missions, piloting, real-life testing, and demonstration are incorporated into project design ⁽²⁶⁷⁾. This supports the successful development of solutions and their adoption. Real-world testing is organised through formal pilot programmes, territory-based demonstration environments (such as basins, cities, or regional testbeds), coordinated demonstration clusters, and living labs. Pilots and demonstrations are testing the enabling conditions for deployment and generating outcomes, as they involve users who may adopt the solutions at the end of the process – e.g. municipal and regional authorities, sectoral

⁽²⁶⁷⁾ Secretariats survey

operators and service providers, research teams and clinical centres, SMEs, and civil society.

The Mission Cities runs a Pilot Cities Programme that tests solutions in municipal contexts. The Mission Adaptation funds a seven-project NBS4EU demonstration cluster and multiple projects explicitly using living-lab methods. The Mission Ocean and Waters structures testing and demonstration sites with the basin Lighthouses. The Mission Soil demonstrates a hybrid deployment model through its Living Labs and Lighthouses, where field-based testing occurs in agricultural, forestry, and urban contexts

Replication, twinning and scaling

Replication mechanisms exist across all Missions ⁽²⁶⁸⁾. Coordination and Support Action (CSA) projects complement them by adding brokerage, twinning calls, labelling/quality assurance, and advisory services. Taken together, these elements create the conditions for scaling up and making use of solutions developed by Missions. This architecture is present across Missions, though the degree of operationalisation and evidence of results vary – notably due to the uneven monitoring of replication outcomes and user engagement.

Investment and funding

Funding mechanisms provide the financial pathways that connect experimentation with large-scale uptake. Instruments such as cascade funding, pilot and twinning grants enable local and regional actors to replicate and adapt solutions tested elsewhere, turning isolated innovations into transferable practices. Complementary funding sources – e.g. the European Investment Bank (EIB) facilities, InvestEU, or BlueInvest ⁽²⁶⁹⁾ – further extend this diffusion by supporting investment readiness and scaling beyond the research phase. However, financial mechanisms supporting replication and scale up of Missions’ solutions vary substantially in maturity and in the delivery of results.

The Cities Mission has established a structured investment support architecture to help participating cities translate their Climate Neutrality Action Plans into implementable and finance-ready investment programmes. Within this architecture, the Climate City Capital Hub provides EU-level structuring and coordination support. Building on this experience, the Climate Adaptation Mission is providing dedicated resources to the Hub to support financing of adaptation measures, effectively building bridges between Missions. The Mission Ocean and Waters collaborates with InvestEU, though no investments have been identified yet. In addition, the EU Blue Champions facility provides advisory services and matchmaking for 20 projects. Under Mission Soil, Living Labs are beginning to develop business models and financing concepts that can enable future leverage of farmer and other private investment in soil-health practices. The Cancer Mission has launched calls to

⁽²⁶⁸⁾ The Secretariats survey identifies three mechanisms that are used alone or in combination: (i) cascade funding to third parties (FSTP) is used in Associated Regions and cohorts to support the take-up by additional territories; (ii) “leader–follower” (lighthouse–replicator) groupings to test with “leaders” and prepare adoption by “followers”; and (iii) structured twinning and mentoring schemes which support cohorts and Associated Regions.

⁽²⁶⁹⁾ EIB, InvestEU, and BlueInvest provide investment-based financing under market rules to support commercially viable projects; Horizon Europe mainly offers grants awarded under EU research and innovation rules with specific eligibility and reporting requirements.

leverage investments from philanthropies and funders. It provides the framework and infrastructure that make philanthropic investments more coordinated, visible and impactful at European scale. Three public-private partnership projects on cancer have been co-funded with industry partners.

Policy and regulatory uptake

Mechanisms for policy and regulatory uptake are emerging across the Missions, particularly through collaboration with EU institutions. Here, Missions' evidence, standards, and governance models feed into European strategies and legislative frameworks (see section I, chapters 1.2 and 1.3). At the national level, integration of Missions results into domestic regulatory or policy frameworks is emerging but uneven ⁽²⁷⁰⁾.

Demand-side instruments and market creation

Demand-side mechanisms remain limited across Missions, with only a few examples of innovation procurement and early-market incentives ⁽²⁷¹⁾. The Climate Adaptation Mission and the Cities Mission were among the first Missions to pilot explicit demand-side instruments by launching pre-commercial procurements (PCPs). The Adaptation Mission is explicitly supporting standardisation efforts of climate services ⁽²⁷²⁾. Several Missions (Cities, Climate Adaptation and Soil) plan to pioneer an EIC challenge approach.

4.4. Conclusions on knowledge creation, usage and scaling-up

EU Missions are creating **integrated knowledge ecosystems**. They are **generating knowledge and solutions** spanning the innovation chain. These outputs are largely co-created with end-users and demand-driven – marking a clear departure from traditional, project-based Horizon Europe innovation. Via these ecosystems, EU Missions are successfully testing innovative funding approaches and engaging new actors in EU-funded R&I. At the same time, EU Missions-related actions entail challenges for implementing entities, requiring intense interactions at different levels, generally linked to constraints inherent to the use of R&I funding and programme rules to bring about concrete achievements and impacts on society in the short term.

To share knowledge and solutions and strengthen capacities, each Mission has built operational mechanisms that provide access to tools, standards, data and practical examples and training, while connecting peers facing similar challenges. Through shared catalogues, data spaces, repositories, communities of practice, and other formats, knowledge is pooled, exchanged and contextualised. At the same time, these mechanisms contribute to skills development by engaging thousands of practitioners across disciplines

⁽²⁷⁰⁾ The Secretariats and SPC surveys show that several Member States – including France, Finland, and Portugal – report policy pilots, standardisation work or sandbox initiatives that test Mission tools at the national level. Ministries in Czechia, Italy, and Greece have started referencing Climate City Contracts in their urban-climate strategies. However, these developments remain at an early and experimental stage.

⁽²⁷¹⁾ Secretariats survey

⁽²⁷²⁾ See topic HORIZON-MISS-2026-01-CLIMA-03: [Standardising and supporting climate services for climate adaptation](#)

and sectors – researchers, teachers, students, city officers, regional planners, adaptation coordinators, basin managers, clinicians – supporting capacity-building within the Missions’ knowledge ecosystems.

Missions have established mechanisms for the **deployment and use of solutions they have developed**. These have allowed them to move from ‘pilots as showcases’ to ‘pilots as stepping stones’ for replication – which is built into the implementation of the missions rather than being an informal spillover. Similarly, early advisory on financing and procurement is helping local actors fund the deployment of identified solutions. This is a major accelerator compared to traditional project logic. However, large-scale, long-term uptake still relies on factors that go beyond individual demonstration projects, including stable funding sources after the initial support from Missions ends. In general, only a limited number of cases provide clear evidence of financing commitments or routine financing pathways that can carry solutions after the project phase. This creates a risk that solutions remain “tested” or “prepared for scaling” without conversion into funded implementation.

Overall, the Missions are creating ecosystems that accelerate the deployment of solutions and foster change. In this way, the ecosystem is both an enabler and an outcome of the Mission, creating an environment in which solutions can be taken up, adapted, and scaled effectively.

IV. CONCLUSIONS

All EU Missions made substantial progress towards their headline 2030 goals (table 12). The **Climate Adaptation Mission** has already exceeded its target by supporting 292 regions in their climate adaptation efforts, well above its goal of 150. Based on the expected impact of initiatives supported between 2021 and 2024, the **Cancer Mission** is already estimated to be able to improve the lives of 2.3 million people by 2030, out of its overall objective of 3 million. The **Mission Soil** is expected to exceed its target of 100 Living Labs covering all main soil-climate zones, degradation processes and land uses across the EU: it has already established 45 Living Labs involving more than 500 real sites (such as farms) across Europe, and the selection process for another 60-70 is ongoing. The **Ocean and Waters Mission** advanced the EU's 2030 biodiversity, zero-pollution, and climate-neutral blue economy goals, delivering 121 solutions, tested in 349 real-world demonstration sites, engaging 86 regions in replication, and mobilising over 1,000 Charter Actions from stakeholders. The **Cities Mission** is performing strongly, with 107 cities producing Climate City Contracts, comprising political commitments, climate neutral action plans and investment plans that together identify for emissions reduction of 199.68 MtCO₂e, roughly equivalent to the combined annual emissions of Austria, Romania and Slovakia. This constitutes an unprecedented commitment and mobilisation around a climate neutrality framework, with the Mission approach extending beyond the original cohort through national platforms and city-to-city replication activities.

However, quantitative progress towards their target is only one metric of the EU Missions' success. Missions were intentionally launched with very ambitious objectives, reflecting the scale and urgency of the required actions. In addition to their headline 2030 goals, all EU Missions are highly effective in producing tangible impact tackling societal challenges. This is demonstrated by the following high-value achievements ⁽²⁷³⁾:

- The **Climate Adaptation Mission** is working directly with more than 600 regions and local authorities to strengthen climate resilience through tailored technical assistance, peer exchanges, political commitment and demonstration projects. Beyond broad mobilisation, the Mission helped regional and local authorities embed adaptation into governance structures, develop climate-risk assessments and adaptation strategies, improve coordination across levels of government, and test innovative resilience solutions adapted to local realities. The Mission currently supports 185 regions and local authorities that demonstrate hundreds of innovative adaptation solutions, while more than 110 additional territories are preparing the ground for future replication and scaling. Through co-design with citizens, researchers and local stakeholders, these activities are helping translate adaptation objectives into concrete action on the ground.
- For the **Cancer Mission**, all Member States and three Horizon Europe Associated Countries joined the initiative coordinating the establishment of the **Network of National Cancer Mission Hubs**, signalling an unprecedented political

⁽²⁷³⁾ A more comprehensive overview of high-value achievements is included in table 12.

commitment to transform cancer prevention and care. **19 Hubs** are already operational, turning ambition into action across Europe. National Cancer Mission Hubs replicate the Cancer Mission's approach at national, regional and local level, breaking down barriers, bringing together people at risk of cancer, cancer patients living with and beyond cancer, clinicians and policymakers to accelerate innovation, contributing to improve equitable access to prevention and care across Europe.

- The **Ocean and Waters Mission** has developed a growing portfolio of 121 solutions for the restoration of the ocean and waters, tested across 349 demonstration sites and replicated these in 86 regions across Europe and beyond. The Mission has attracted more than 1 000 pledges under its Mission Charter from public and private actors from around the world. It has also completed the design of the core infrastructure of the **European Digital Twin Ocean**, which is now accessible to all. The Digital Twin Ocean is expected to be fully operational by 2030 as a public service, providing continuous and updated information about the behaviour of marine species, marine circulation patterns, bio-geochemical processes, economic activities and more.
- **107 cities committed to a reduction of 76% of their current GHG emissions** under the **Cities Mission**, equivalent to approximately 6.64% of EU-27 emissions in 2024. Through Climate City Contracts, the Mission has introduced a new framework for urban climate governance and investment planning, now recognised in the EU Policy Agenda for Cities as one of the references for integrated urban strategies and investment pipelines. The Mission approach is increasingly anchored at national level through dedicated platforms and programmes that extend its benefits to additional cities. At the same time, pilots, twinning and the Mission Platform have created a European ecosystem where cities test and replicate climate-neutral solutions, positioning Mission cities as innovation hubs that enable other European cities to follow similar pathways towards climate neutrality by 2050.
- The **Mission Soil** significantly increased political attention to soil health by presenting first-time evidence that 62% of soils are in an unhealthy condition. In addition, the Mission **enabled the development of methodologies to measure soil health and built a monitoring system** to track progress with 19 indicators at continental scale, supporting the implementation of the Soil Monitoring and Resilience Directive and the Common Agricultural Policy. Its Living Labs are essential innovation infrastructures that already involve more than 500 farms, forests and urban plots to develop, test and support the adoption of context-specific sustainable soil management practices.

Reaching these important milestones was made possible thanks to the Missions' unique approach combining established structures and practices to improve policy coordination across different governance levels, mobilising new stakeholders, promoting shared ownership of solutions and increasing the visibility of societal challenges and our capacity to act on them.

As Missions increasingly move from experimentation and coordination in a preparatory stage towards a phase of deployment, scaling and replication of solutions, their needs are evolving accordingly for the second half of their ten-year lifecycle. In this context, the national governance of missions requires further development to become as effective as that at EU level, there is space for higher involvement of citizens in Missions' activities, and a more diverse toolbox of instruments than those offered by the Framework Programme alone will be necessary. In particular, deployment, scaling and long-term uptake of solutions beyond the project phase will require improved access to funding and financing at different levels.

Crucially, Missions are contributing to the development of ecosystems that support the generation, demonstration and uptake of solutions for societal challenges, as well as enabling conditions for transformative change. The governance and delivery structures underpinning these ecosystems are not only instruments to advance the Missions' objectives. They constitute achievements in their own right:

- **Cross-sectoral and multilevel governance frameworks** have been established to connect policy domains and territorial levels in a systemic way. These frameworks improve coherence across policies, make it easier to align EU-level objectives and local implementation, and offer a practical model for integrating complex, cross-cutting objectives into broader policy actions.

For example: Mission Implementation Platforms (MIPs) are supporting the operational delivery of EU Missions, acting as central hubs that bring together stakeholders, knowledge, and resources to implement mission objectives in a coordinated way. In addition, Missions have been in direct contact with the Committee of the Regions (CoR) to increase the participation of local authorities across the EU.

- **Large and diverse stakeholder communities** have been mobilised around shared objectives, bringing together public authorities, R&I actors, industry, civil society and citizens. By engaging actors that are not traditionally involved in R&I activities, these communities widen the range of available capacities and perspectives, accelerating their absorption. The resulting networks can be activated independently of the Missions themselves.

For example: Besides traditional R&I actors, Missions are increasingly involving public authorities, research institutions, industry, civil society and citizens in their activities. Grassroots and local initiatives are playing a particularly important role in anchoring Missions on the ground, e.g. the 2024 Citizens Hackathon Championship, Plastic Pirates, and similar citizen-led initiatives.

- **Mechanisms for co-creation and knowledge co-production** have enabled stakeholders and citizens to jointly develop, test and adapt solutions, while sharing know-how, data and tools. These collaborative approaches improve relevance, legitimacy and uptake, and offer reusable models for participatory, needs-driven policymaking.

For example: Missions have formalised communities of practice, peer-learning formats, helpdesks and working groups, encouraging ongoing feedback among implementation actors. These mechanisms are supported by Mission Implementation Platforms and online portals that serve as diffusion infrastructures, providing repositories, solution libraries, technical support and learning material.

- **A diversified set of intervention instruments** has been deployed, combining funding, advisory support and facilitation. Together, these instruments support the testing, deployment and uptake of solutions at a scale that exceeds individual projects, while early guidance on financing and procurement strengthens the capacity of local and regional actors to move from innovation to implementation.

For example: Instruments such as cascade funding, pilot and twinning grants enable local and regional actors to replicate and adapt solutions tested elsewhere, turning isolated innovations into transferable practices. Complementary funding sources further extend this diffusion by supporting investment readiness and scaling beyond the research phase, e.g. via European Investment Bank (EIB) facilities, InvestEU, or BlueInvest.

Taken together, these structures constitute the ecosystem within which transformative change can be initiated and sustained. They represent a valuable asset that can be further leveraged and valorised within the policy domains to which Missions contribute, supporting continued impact on societal challenges over the longer term.

Table 12. Overview of EU Missions' progress towards their headline 2030 goals and key achievements.

	Progress to the goals		High-value achievements
	Headline 2030 goals	Description	
Climate Adaptation	Support at least 150 European regions, local authorities and communities to become climate resilient.	327 regions, local authorities and communities signed the Adaptation Charter and 292 received tailored technical assistance.	• 185 regions and local authorities are testing and implementing nearly 1000 real-life adaptation solutions through Mission demonstrators, while more than 110 additional territories are preparing the replication and scaling of successful approaches across Europe. • Through tailored technical assistance, peer learning and Mission activities, regions and local authorities strengthened adaptation governance, improved climate-risk planning, and developed locally tailored resilience pathways. • The launch of the 27 National Adaptation Hubs is laying the foundation for a stronger multilevel governance approach to climate resilience, connecting EU, national and regional levels and supporting the scale-up of adaptation solutions across Europe.
Cancer	Improve the lives of more than 3 million people through prevention, early detection, treatment and care for not only those affected by cancer, but also their families.	An estimated 2.3 million lives were improved by activities supported by the Cancer Mission between 2021 and 2024. The 3 million target will be achieved as additional projects are funded and more accurate results become available.	• Between 2021 and 2026, the Cancer Mission set up 19 National Cancer Mission Hubs. They are engaging national authorities, stakeholders and citizens in cross-policy dialogues on cancer and accelerating the adoption of Mission project outcomes in health systems. • Between 2021 and 2024, the Mission provided 62 projects with EUR 480 million in funding, resulting in 23 multicountry clinical trials, 40 new tools for prevention, detection and treatment, and over 850 collaborations across research, healthcare and policy. Taking 2025 into account, the overall investment comes to EUR 605 million, supporting 75 projects. • The Mission invests into the creation of two digital platforms, aligned with the future European Health Data Space: (1) UNCAN.eu data platform, supporting researchers and data holders to advance data-driven cancer research and innovation, and (2) European Cancer Patient Digital Centre, supporting patients, survivors and caregivers with services and trusted information.

Ocean and Waters	Protect and restore marine and freshwater ecosystems and biodiversity, prevent and eliminate pollution of our ocean, seas and waters, make the sustainable blue economy carbon-neutral and circular.	The Mission has made progress on all its 2030 EU targets for biodiversity, pollution and climate neutrality in the blue economy. It has delivered 121 innovative solutions tested in 349 real-world demonstration sites, engaged 86 regions in replication efforts and secured over 1 000 Charter Actions from stakeholders.	• The Mission has anchored a basin-level approach, fostering cooperation at sea and river level through its lighthouses – an approach that the forthcoming European Ocean Act will build on. • Under the Mission, the design of the core infrastructure of the European Digital Twin Ocean – expected to be fully operational by 2030 – was completed and is now accessible to all. • A range of replication instruments and financial advisory services are beginning to turn this foundation into a larger wave of restoration investments and projects outside the initial Mission portfolio.
Cities	Deliver at least 100 climate-neutral cities by 2030 and ensure that these cities also act as experimentation and innovation hubs for others to follow, to enable all European cities to become climate-neutral by 2050.	107 cities have formally committed to climate neutrality and collectively expect to reduce emissions by around 199.68 MtCO ₂ e by 2030 (approximately 6.6% of EU-27 emissions in 2024). In addition, there has been progress in the cities' ability to act as experimentation hubs via the Pilot Cities, Enabling City Transformation Programmes (105 cities mobilised) and Twinning Learning Programme (181 cities mobilised) initiatives, complemented by national platforms that are scaling the Mission approach beyond the original cohort, already mobilising dozens of additional cities across Europe. This represents a significant contribution to EU climate objectives, while underlining the scale of effort required to achieve climate neutrality by 2030.	• The Mission's Climate City Contracts have introduced a new dynamic governance tool for urban climate governance and investment planning, now recognised in the EU Policy Agenda for Cities as one of the references for integrated urban strategies and investment pipelines. • Pilots, twinning and the Mission Platform have created a European ecosystem where cities test and replicate climate-neutral solutions, positioning Mission cities as innovation hubs that enable other European cities to follow similar paths towards climate neutrality by 2050. • The Mission has mobilised and aligned funding and financing streams around city climate investments, including a EUR 2 billion lending envelope from the European Investment Bank for Mission Label cities, emerging national funding via national platforms and emerging private investment through the Capital Hub.
Soil	100 Living Labs and Lighthouses to lead the transition towards healthy soils,	45 Living Labs established, and ongoing selection for another 60-70. As all Living Labs will be operating by 2028, the Mission is expected to exceed its 2030 goal.	• The Mission presented evidence for the first time that 62% of soils are in an unhealthy condition, drawing political attention to soil health. • Thanks to the Mission, Europe now has a structured and permanent ecosystem for producing, gathering, preserving and disseminating soil data, knowledge, tools, technologies and practices. • The Mission's Living Labs are essential innovation infrastructure, with more than 500 farms, forests and urban plots in 24 different countries already involved. The Living Labs develop, test and support the adoption of context-specific sustainable soil-management practices.

LIST OF ACRONYMS

AC	Associated Countries
AGRI	Agriculture and Rural Development
BUDG	Budget
CAP	Common Agricultural Policy
CAYA	Children, adolescents, and young adults
CCC	Climate City Contract
CEF	Connecting Europe Facility
CINEA	European Climate, Infrastructure and Environment Executive Agency
CLIMA	Climate Action
CNAP	Climate Neutral Action Plan
CNECT	Communications Networks, Content and Technology
CoR	Committee of the Regions
CSA	Coordination and Support Action
DEFIS	Defence Industry and Space
DG	Directorate-General
EAC	Education, Youth, Sport and Culture
EBCP	Europe's Beating Cancer Plan
ECFIN	Economic and Financial Affairs
ECHO	European Civil Protection and Humanitarian Aid Operations
ECPDC	European Cancer Patient Digital Centre
EEA	European Environmental Agency
EHDS	European Health Data Space
EIB	European Investment Bank
EIC	European Innovation Council
EMPL	Employment, Social Affairs and Inclusion
ENER	Energy
ENV	Environment
ERDF	European Regional Development Fund
ESDAC	European Soil Data Centre
ESTAT	Statistical Authority of the European Union
EU	European Union
EUCAIM	European Cancer Imaging Initiative
EUSO	European Soil Observatory
FAIR	Findable, Accessible, Interoperable, and Reusable
FISMA	Financial Stability, Financial Services and Capital Markets Union
FP	Framework Programme
FSTP	Financial support to third parties
GHG	Greenhouse gases
GROW	Internal Market, Industry, Entrepreneurship and SMEs
HADEA	European Health and Digital Executive Agency
HE	Horizon Europe
HOME	Migration and Home Affairs
IA	Innovation Action
INTPA	International Partnerships
IP	Investment Plan

JRC	Joint Research Centre
JUST	Justice and Consumers
LH	Lighthouse
LL	Living Lab
MARE	Maritime Affairs and Fisheries
MEL	Monitoring, evaluation, and learning
MIP	Mission Implementation Platform
MOP	Mission-oriented policy
MOVE	Mobility and Transport
MS	Member state
NBS	Nature-Based Solutions
NEAR	Enlargement and Eastern Neighbourhood
NGO	Non-governmental organisation
NUTS	Nomenclature of Territorial Units for Statistics
NUTS 1	Major socio-economic regions
NUTS 2	Basic regions for applying regional policies
NUTS 3	Small regions for specific diagnose
OECD	Organisation for Economic Co-operation and Development
PCP	Pre-Commercial Procurement
PSF	Policy Support Facility
RAST	Regional Adaptation Support Tool
REA	European Research Executive Agency
REGIO	Regional and Urban Policy
RIA	Research and Innovation Action
RII	Regional Innovation Index
RLACs	Regions, local authorities, and communities
RRP	Recovery and Resilience Plan
RTD	Research and Innovation
S3	Smart Specialisation Strategy
SANTE	Health and Food Safety
SG REFORM	Reform and Investment Task Force
SME	Small and medium enterprise
SML	Soil Monitoring Law
SPC	Strategic Programme Committee
SSH	Social Science and Humanities
TAXUD	Taxation and Customs Union
WP	Work Programme

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ANNEX – METHODOLOGICAL CONSIDERATIONS

A. The progress of the five EU Missions

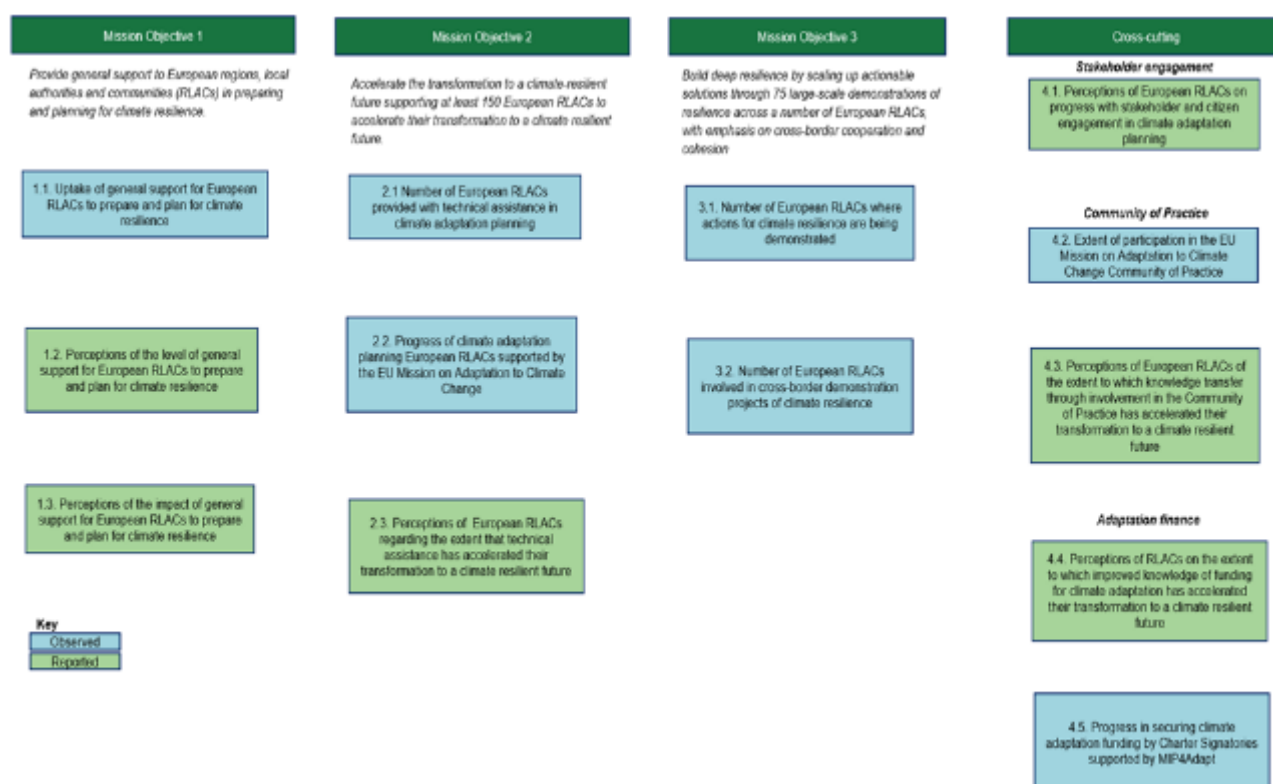
The following subsections include methodological considerations linked to the Missions' chapters in section II of this document. Similar to the chapters, efforts have been made to harmonise the structure of each Mission's methodological note. However, divergences remain due to the differences between each Mission's monitoring frameworks.

1. Adaptation to Climate Change

Rationale for selection of indicators and methodology

Due to its time-bound nature, the Mission requires strict monitoring of progress over time. To monitor the Mission's progress against its objectives, a comprehensive indicator set comprising of 13 process and output indicators was developed to this purpose through the Mission Barometer, of which five are outlined in the Adaptation Mission Chapter. Each indicator relates to one of the Mission's objectives or are cross-cutting in addressing more than one of the objectives (see figure below). The comprehensive Barometer provides the basis of the monitoring presented here.

How the barometer's 13 indicators relate to the Mission's objectives



The barometer does not include outcome indicators regarding the components of climate risks (i.e. the sensitivity, adaptive capacity, and exposure of receptors to climate-related hazards) due to associated challenges, which include:

- The length of time that it can take to implement adaptation actions due to their scope and scale.
- The length of time that it can take adaptation actions to mature and deliver measurable outcomes, as exemplified by trees and their ecosystem services.
- The difficulties of attributing outcomes to an adaptation action, for example, due to:
 - The wide range of potentially confounding variables that may operate at all scales.
 - Difficulties in identifying a truly analogous comparator/control.
- The length of time that monitoring needs to be sustained, which poses practical issues regarding long-term funding and use of a consistent methodology for production of comparable data; meaning that successful long-term monitoring schemes are rare.

This ongoing challenge is highlighted in the work of the UNFCCC's [Global Goal on Adaptation](#) (GGA), which stress the complexity of tracking progress due to long implementation times, attribution difficulties, and data continuity issues. Despite these barriers, outcome-oriented monitoring is essential to assess whether adaptation efforts are effectively reducing vulnerabilities and building resilience. In response, the new Horizon Europe project UNDERPIN (2025–2029) aims to address critical gaps in monitoring, evaluation, and learning (MEL) by developing a harmonised, outcome-focused framework. It will integrate novel data sources such as Earth observation and citizen science, and co-create indicators with stakeholders in pilot regions. By aligning with EU and global reporting standards, UNDERPIN will support more consistent and meaningful tracking of adaptation progress across governance levels.

Data collection

Data for the 13 indicators is collected through the following methods:

- **Surveys:** conducted every six months, primarily directed at Charter Signatories. These gather both quantitative and qualitative data, including progress on adaptation planning, satisfaction with technical assistance, and perceptions of knowledge exchange.
- **Reporting from Mission Projects:** this includes information submitted to CINEA as part of mandatory reporting, responses to a Mission Project database survey capturing information including regions and local authorities projects are working with, thematic areas covered, relevant climate hazards and sectors, and methods used.
- **Monitoring of technical assistance:** Technical Assistance providers monitor the progress in climate adaptation planning of RLACs receiving support. MIP4Adapt use a scoring system built around the six steps of the Regional Adaptation Support Tool. Pathways2Resilience and CLIMAAX monitor progress through the use of self-assessment questionnaires of the regions they support.

- **General information from the Mission:** this includes data such as the number of Mission-related events held, website visits and downloads, Peer Learning Programme participation, and Community of Practice participation.

Limitations of the approach taken include a focus on output and process indicators and not outcome indicators. However, this reflects the practical realities of monitoring early-stage adaptation efforts, where impact-level change takes time to materialise and the large diversity of geographies and project types involved. Another limitation includes the dependency on responses RLACs as well as Mission-funded Projects. Nevertheless, a sufficient sample size was reached for all the indicators. Lastly, ensuring consistency and alignment between MIP4Adapt and Mission Projects in their monitoring approaches remains an ongoing challenge in order to articulate progress at a ‘Mission-level’.

Complementary information on synergies between LIFE and the Mission

A targeted search for references to the Adaptation Mission in the grant agreements of LIFE projects was carried out, followed by manual validation of their relevance by reviewing how the Mission was mentioned in the proposals.

- **15 LIFE projects** were identified as directly contributing to, or having strong synergies with, the Adaptation Mission.
- This represents a **total budget of EUR 161.8 million**, with an **EU contribution of EUR 95.5 million**.

A closer look at the proposals shows that these projects are developing synergies with the Mission in various ways:

- Using LIFE projects explicitly to **implement Mission objectives or commitments**
- Contributing to the Mission’s overarching **climate resilience goals**.
- **Applying or upscaling** results and solutions developed through the Mission.
- **Building on progress made through technical assistance** to advance regional adaptation efforts.
- Highlighting their **involvement in the Mission Charter** as a demonstration of regional commitment to adaptation.
- Planning to **leverage their participation in the Mission** to disseminate project results more widely.

No.	Acronym	Proposal Title	EU Requested Grant	Total Budget
1	LIFE23-IPC-SI-LIFE4ADAPT	Slovenia’s Strategic Integrated LIFE Project for Adaptation	EUR 14,177,979.00	EUR 26,580,389.00
2	LIFE23-CCA-PL-LIFE DREAM CITIES	LIFE DREAM CITIES – Designing and Realization of Exemplary Adaptation among Medium-sized CITIES – “Malopolska ready for adaptation”	EUR 3,142,325.00	EUR 5,237,209.00
3	LIFE22-CCA-PT-LIFE ResLand	Adapt and Promote a Resilient and Firewise Living Landscape	EUR 2,338,936.00	EUR 3,898,228.00
4	LIFE22-CCA-SK-FLOPRES	Flash Flood Prediction and Prevention System	EUR 1,920,676.00	EUR 3,201,129.00

5	LIFE22-CCA-PT-COOLIFEALMADA	COOLIFEALMADA: Facing heat waves through 4D cooling actions in Almada hotspots	EUR 1,778,908.00	EUR 2,964,846.00
6	LIFE21-CET-LOCAL-IN-PLAN	Integrated Energy, Climate and Spatial Planning	EUR 1,657,908.00	EUR 1,745,170.00
7	LIFE22-CCA-NL-LIFE WATERSOURCE	Demonstrating a Climate-Resilient Drinking Water Source, Adopting Nature-Based Solutions	EUR 2,999,756.00	EUR 4,999,594.00
8	LIFE24-IPC-FR-LIFE ADAPT EST	Déploiement de la feuille de route régionale d'accélération de l'adaptation au changement climatique en Grand Est	EUR 15,624,703.00	EUR 26,041,173.00
9	LIFE23-CCA-FR-LIFE VINOSHIELD	Protect Vines Against Climatic Variations	EUR 2,466,301.00	EUR 4,142,915.00
10	LIFE23-CCA-ES-LIFE ACCLIMATE	Cultivating Resilience: Climate Change Adaptation Strategies for Greenhouses to Enhance Yield and Resource Efficiency	EUR 2,681,123.00	EUR 4,468,538.00
11	LIFE23-IPC-DK-LIFE ACT	LIFE ACT – Action for Climate Transition	EUR 17,057,007.00	EUR 28,428,376.00
12	LIFE23-CCM-AT-LIFE MOONSET	Implementing a Nocturnal, Eco-Friendly, and Integrated Shared Transportation Concept	EUR 1,729,702.00	EUR 2,913,812.00
13	LIFE23-CCA-FR-LIFE BiospherAdapt	Adapting participatory management to the challenges of climate change in Biosphere Reserves	EUR 3,759,243.00	EUR 6,775,888.00
14	LIFE24-IPC-SK-NatAdaptSK	Nature-based solutions for climate change adaptation in Slovakia	EUR 10,199,357.00	EUR 16,998,929.00
15	LIFE22-IPE-PL-LIFE Podkarpackie	Effective implementation of the Air Quality Plan for the Podkarpackie Voivodeship, including energy poverty considerations	EUR 14,039,999.00	EUR 23,400,000.00

2. Cancer

Rationale for selection of indicators and methodology

It is most important that all the four specific objectives of the EU Cancer Mission are monitored for progress because they are interdependent and collectively drive the Mission's overall goal of improving the lives of 3 million people by 2030. Progress in one area, such as prevention, depends on advances in understanding cancer biology, while innovations in diagnosis, treatment, and survivorship support rely on coordinated efforts across all objectives. Continuous monitoring of all objectives ensures that scientific, clinical, and policy achievements are translated into measurable benefits for citizens and helps identify gaps where additional action or investment is needed. It also allows the European Commission and Member States to align national cancer plans and resources effectively, ensuring equity in outcomes across regions. Ultimately, systematic monitoring of all objectives maximises impact, and ensures that the Mission remains on track to deliver tangible, evidence-based improvements in cancer control across Europe.

The following indicators were chosen for monitoring because they directly answer to the overarching goal of the mission and as such allow all stakeholders to have a first view of

overall expected results. Our estimations are based as much as possible on robust calculations with a mindset of caution to not overestimate. The calculations and factors that were considered to increase its accuracy and meaningful value are detailed below.

- **Number of projects and actions funded**
- **Number of project collaborations established**
- **Number of tools developed**
- **Number of population-based screening programmes**
- **Number of multi-country clinical trials**
- **Number of novel diagnostic and prognostic tests and methods**
- **Number of scientific publications produced**

These indicators were selected based on availability of information and feasibility of informative assessment and analysis in this early phase of the EU Cancer Mission. Successive rounds of monitoring and assessment will incorporate more indicators that measure research results and outcomes. We reviewed all 62 Mission projects funded from 2021 to 2024 (including websites) to count projects where development of new innovative outputs and actions are in progress to be delivered.

- **Composite indicator, that directly aims to measure improved lives with or affected by cancer by 2030.**

At this stage, the **composite indicator** is calculated using a projection of the expected number of people at risk of cancer by 2030 as a base and considering the subpopulation that is potentially reached as indicated in each project. To mitigate the fact that this is still an estimation, we have incorporated several measures which avoid gross overestimation.

Firstly, the indicator includes a probability factor designed to provide a cap to how successful the interventions might be according to the scientific literature. As “success” we are considering the fact that the tested intervention is clinically validated (i.e. it improves the life or the health of patients in any sense) and that it reaches the full target population.

The new composite indicator is then the combination of the specific target population defined by the cancer type/subtype for each project (as in number of patients – new cases) and a probability factor of the project reaching the defined target population. For each project we determined the:

- **Target population**: the specific number of patients per tumour type/sub-type, and specific stages or age-populations as defined by the project in Europe living with cancer by 2030;
- **Probability factor**: determined based on the categories defined in the table below and the information available on what is the average success rate of different R&D efforts. Some projects will not directly impact patients and therefore have a probability of impacted patients of 0 (i.e. those projects aiming to boost research through tools and infrastructure; or those investigating the mechanisms of disease and risk factors with no direct path to application).

In future, we will add to the “lives improved” (i.e. caregivers, families, screening population, etc.) for a more comprehensive understanding of the impact of the EU Cancer Mission.

Secondly, **the target population** is also considered in a way that minimises over-estimating the number of patients who may benefit from the Mission projects, by fully acknowledging that the target populations often overlap between projects and Mission objectives.

For each project, the estimated number of patients’ lives improved is obtained as the product of its probability factor and the projected corresponding population living with cancer by 2030. Once estimates have been obtained for all projects individually, there are three further considerations we follow before obtaining a final global estimate:

1. There are projects and objectives that tackle overlapping sets of patients. To avoid double-counting populations and inflate the estimation of the potential patients impacted, for the calculation we select the values corresponding to the project with the widest possible reach. For example, if two projects tackle lung cancer and NSCL tumours, we keep the population of the first project since it includes the second, which targets specifically a sub-type of lung tumour.
2. Projects pertaining to blood cancers are distributed among the relevant cancer sites before the calculations, and projects with a broad scope (i.e. not specific to a site or type, but more broadly cancer patients) are labelled as “non-site specific”.
3. For projects pertaining to more than one objective, the population counts are distributed evenly among them (and not double-counted).

To keep in mind, the **target population**, as in the number of cancer cases, is projected using incidence and mortality rates – taken from the JRC’s European Cancer Information System (ECIS), which provides age-standardised rates using the European standard population – in combination with EU population estimates – sourced from two Eurostat datasets: EUROPOP2019 for population numbers in 2021, and EUROPOP2023 for 2022-2030.

We use the **number of new cancer cases in 2021** as a baseline for the calculation of the population of affected and potentially reachable patients by 2030. This baseline could also correspond to the **prevalence** instead, as the goal is to improve the lives of all patients living with cancer. However, cancer sites are categorised and distributed differently for different types of statistics in ECIS data, so that prevalence counts, and incidence and mortality rates are not directly mappable between each other, which means that we are not able to use prevalence data at this stage. In addition to this, the prevalence data for certain age groups is not available (e.g. children, young adults) because the youngest age bracket available is defined as 0-54. We consider refining this indicator later in the monitoring study. We do note that taking the total number of patients living with cancer in Europe into account would result in much larger estimates of the population reached. Nevertheless, we believe this is more conceptually aligned with the goal of the Mission.

Although this approach is robust enough to deploy at this stage, it makes certain assumptions. It may not reflect the actual target population without sufficient details provided in the project or when there are changes during project development that change

the impacted patient population. For example: some studies may ultimately be applied to a sub-set of patients with specific clinical variables.

There are limitations to measuring the implementation of ongoing projects so assumptions have been made, and a probability factor was introduced.

It is unlikely that all proposed solutions in projects reach successful implementation in practice. Furthermore, any solution that is successfully validated may not reach their complete (or even a large subset of) European target population within the 2030 timeframe due to factors such as regulatory timelines, access/reach, adoption/adherence, HR capacity of national healthcare systems, etc. To mitigate this, a **probability factor** has been added to the calculation of the composite indicator. Inclusion of the probability factor helps give a more realistic estimation of patients impacted than just the yearly number of diagnosed cases.

Based on the scientific literature, **the probability factor of each project reaching its target-population was set accordingly to the categories detailed in the table below**. All selected projects (from 2021 to 2024) were mapped to one of these categories and the exercise will continue in the future through the review of any newly approved proposals. The probability factor (PF) for each category has been determined following findings in scientific literature. In instances where we found conflicting figures, the lowest value was chosen to keep a conservative approach.

Calculation of Probability Factor

Category	Description	Projects (n)	PF	Rationale
Indirect impact: Platforms and infrastructures to boost research	Projects which aim to support several research efforts, either through infrastructures, data sharing, etc.	6	0	Any potential impact of these projects would not directly reach people's lives and hence difficult to measure
No expected impact on people: Understanding of disease and risk factors	Projects which aim to develop our understanding of the neoplastic process, risks and biomarkers.	12	0	Projects that focus on understanding disease mechanisms, risk factors, etc and do not directly aim in short term to impact lives until 2030
Behavioural and public health interventions	Projects which aim to develop or test behavioural or other interventions linked to health policy and healthcare implementation	9	0.05	There is only limited evidence on the success rate of eHealth and mHealth interventions, as well as behavioural and more broad Public Health and Health promotion interventions. A gap exists between proven efficacy and implementation of such interventions ⁽²⁷⁴⁾ . This means that on top of the clinical
eHealth tools for patient quality of life and literacy	Projects that aim to develop and deploy eHealth tools (e.g.	5	0.05	

⁽²⁷⁴⁾ See Glasgow RE, Lichtenstein E, Marcus AC. Why don't we see more translation of health promotion research to practice? Rethinking the efficacy-to-effectiveness transition. Am J Public Health. 2003 Aug;93(8):1261-7. doi: 10.2105/ajph.93.8.1261. PMID: 12893608; PMCID: PMC1447950. [Why Don't We See More Translation of Health Promotion Research to Practice? Rethinking the Efficacy-to-Effectiveness Transition](#) - PMC

Category	Description	Projects (n)	PF	Rationale
	webpages, digital tools) to improve disease management, patients' quality of life and literacy			validation of the intervention, its capacity to reach the target population and sustain a certain level of engagement for actual significant success should be low with a probability factor of 5%.
Therapeutical approaches: Drugs, medical devices, clinical interventions	Projects which aim to develop or test a new therapeutical approach or clinic care tool	12	0.034	According to the literature, the overall estimated phase-I-to-approval probability of success for oncological drugs in R&D programs between 2000 and 2015 was 3.4% ⁽²⁷⁵⁾ .
Diagnostic, prognostic and patient stratification tools and protocols	Projects which aim to develop or test technologies/protocols for diagnostics and biomarkers for prognosis or patient stratification	5	0.034	Due to the absence of a more specific estimation in the literature, the category has a probability factor similar to the value assigned for other clinical interventions.
Screening tools and protocols	Projects which aim to develop or test new screening tools and/or change prevention screening protocols	10	0.08	We considered using the lowest possible uptake level, across European countries and available cancer sites, as a conservative estimate of how much uptake can be expected, given existing conditions ⁽²⁷⁶⁾ .

The **estimated peoples' lives improved sums up to 2.3 million in Europe up to 2030** ⁽²⁷⁷⁾; with the *Prevention and Early detection* and *Quality of Life* projects potentially leading to a greater number of people impacted. As is expected, the *Understanding* objective is likely to contribute less to the goal, since it deals with underpinning research and innovation. The table below provides more details on the Mission's estimated impact overall and by each objective thus far.

See Tian L, Wen Y, Li J, Guan J, Li T, Fan J. Effects of Remote Web-Based Interventions on the Physiological and Psychological States of Patients With Cancer: Systematic Review With Meta-Analysis

JMIR Mhealth Uhealth 2025;13:e71196. doi: 10.2196/71196 [JMIR mHealth and uHealth - Effects of Remote Web-Based Interventions on the Physiological and Psychological States of Patients With Cancer: Systematic Review With Meta-Analysis](#)

⁽²⁷⁵⁾ See Chi Heem Wong, Kien Wei Siah, Andrew W Lo, Estimation of clinical trial success rates and related parameters, *Biostatistics*, Volume 20, Issue 2, April 2019, Pages 273–286, <https://doi.org/10.1093/biostatistics/kxx069>

⁽²⁷⁶⁾ European Cancer Organisation, "Cancer Screening Data," webpage, undated. As of 5 September 2025: <https://www.europeanecancer.org/screening/impact/cancer-screening-data.html>

⁽²⁷⁷⁾ For projects funded under Mission Work Programmes 2021, 2022, 2023 and 2024 (n=59).

Indicator	Mission objective	Goal measured by the indicator	Baseline	Target	Estimated impact up to 2030 (up to 2024 work programme)
Composite indicator	Total (all objectives considered)	Potential number of peoples' lives improved	0	3 m lives	2.3 m
By objective	Understanding	Potential number of peoples' lives improved	0	NA	too early to be measured
	Prevention and Early detection	Potential number of peoples' lives improved	0	NA	1.2 m
	Diagnosis and treatment	Potential number of peoples' lives improved	0	NA	0.3 m
	Quality of Life	Potential number of peoples' lives improved	0	NA	0.8 m

3. Restore our Ocean and Waters by 2030

Rationale for selection of indicators and methodology

The objectives of the Mission Restore our Ocean and Waters, presented in section II, chapter 3, are quantitative in nature and follow closely broader EU waters- and ocean-related targets.

The Mission's implementation plan includes 11 impact targets on ecosystems protection & restoration, zero-pollution and circular and climate neutral blue economy, and specifies that *“the Mission will have been accomplished if these targets [...] have been met by 2030 in the EU ocean, seas and waters.”*

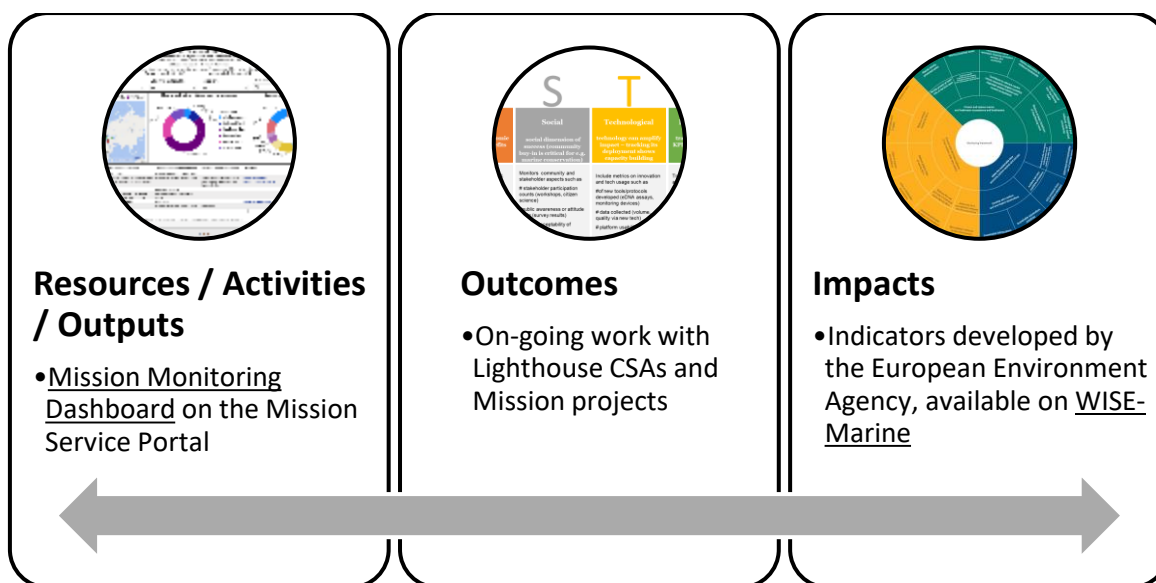
EU policies' objectives and targets, against which the Mission is assessed, are broader than the scope of the Mission and their achievement cannot rely on the Mission funding and projects alone. There is a broad range of support and efforts towards addressing the Mission's objectives and targets beyond projects directly funded by the Mission budget.

As highlighted in the interim evaluation of Horizon Europe, the Goal statement of the Mission Ocean and Waters (“Restore our Ocean and Waters by 2030”) is neither quantified nor easily measurable as it is not supported by clearly defined baselines or coherent set of measurable indicators. In particular, the absence of harmonised Key Performance Indicators (KPIs) makes it challenging to systematically track progress, assess the cumulative contribution of individual projects and activities to Mission-level impacts.

To address these methodological challenges, the monitoring of the Mission Ocean and Waters is based on a set of coherent and harmonised indicators, still partially under development, covering the whole intervention logic of the Mission, and building i.e. on the

outcome of Commission Expert Group to support the monitoring of EU Missions and the OECD project “Missions Implementation: Making Missions Actionable”.

It is organised around 3 blocks:



- The first set of indicators relates to **Resources, Activities and Outputs**. Indicators were developed by the Mission Implementation Platform, are available on Mission Monitoring Dashboard on the Mission Service Portal and are regularly updated.
- A second set of indicators related to **Outcomes** is under development at the time this report is being drafted. Work is ongoing with the Mission Basin Lighthouse Coordination and Support Activities and the Mission projects, integrating PESTEL analysis and Theory of change, to further define Outcome KPIs capturing both internal progress and external enabling conditions.
- Finally, a set of 16 **Impacts** indicators is being developed by the European Environment Agency to quantify the contribution of the Mission activities to achieve its policy objectives and targets by 2030. These indicators respond to the selected targets and are consistent when relevant with EU policies and their existing monitoring frameworks at EU level. The EEA indicators include both qualitative and quantitative assessments of the impact of the projects. At this stage, indicators are mostly populated with information on the expected outcomes of projects, as described in their technical annexes submitted during proposal phase. It is expected that, in future iterations, this will be completed by information on the actual outcome of the projects and the deployment of the solutions. These indicators are available on an interactive knowledge platform on [WISE-Marine](#).

At the time this report was drafted, the development of outcomes and impacts indicators was still in progress. Against that background, and also to provide a consistent framework with the other four EU Missions, the Mission Secretariat decided to extract from the large set of output indicators available on the Mission Dashboard, a subset of **four headline indicators** that cut across all three specific objectives. These headline indicators track the pathway from core outputs (solutions and demonstration sites), through early outcomes (replication in Associated Regions), to mobilisation (Mission Charter Actions). These indicators have a **2021 baseline of zero** and are monitored through the Mission Monitoring

Dashboard. However, **no target** for these indicators was included in the 2021 implementation plan, that was focusing on specific objectives.

The headline indicators are the following:

1. **Number of Mission Ocean & Waters solutions produced:** measures progress in the production of solutions in all three Specific Objectives
2. **Number of local demonstration sites:** measures the territorial footprint of testing and demonstration activities contributing to all three Specific Objectives
3. **Number of Associated Regions replicating Mission solutions:** direct outcome indicator capturing the transition from project-level outputs and support (solutions, technical assistance, cascading grants) to real-world uptake contributing to all three Specific Objectives
4. **Number of Mission Charter Actions:** measures stakeholder mobilisation supporting all three Specific Objectives

Taken together, these indicators provide a fair picture of the **momentum on solutions, territorial reach, replication and mobilisation** that **the Mission has built by late 2025**.

In complement, the first Mission Monitoring Assessment from the European Environment Agency ⁽²⁷⁸⁾, provide a qualitative assessment of how the early Mission activities (first 67 HE-funded projects) contribute to the designation and more effective management of marine protected areas, to the restoration and/or depollution of marine and freshwater ecosystems, and to the fostering of a climate neutral and circular Blue Economy.

4. 100 Climate-Neutral and Smart Cities by 2030

Rationale for selection of indicators and methodology

The EU Mission “100 Climate-Neutral and Smart Cities by 2030” monitors progress across all its objectives and sub-objectives, reflecting the Mission’s systemic and mission-oriented intervention logic. In this assessment equal priority is given to the Mission’s overarching objectives and their associated specific objectives, as these most directly reflect progress toward climate neutrality by 2030 and provide the clearest evidence of added value at EU level.

The Mission’s two general objectives, delivering at least 100 climate-neutral cities by 2030 and ensuring that these cities act as experimentation and innovation hubs for others to follow by 2050, are operationalised through eight specific objectives. These span the full transition cycle, from planning and governance, to innovation, investment, capacity building, synergies with EU policies, emissions reductions, and monitoring. Monitoring these eight specific objectives ensures that the assessment captures not only end results but also the enabling conditions required for systemic urban transformation. Over the past years, the framework of specific objectives was refined from the seven originally included in the Mission implementation plan to the current eight-objective framework. This refinement was introduced to strengthen clarity and accountability. While the original objectives covered the broad enablers of climate neutrality, they did not explicitly isolate greenhouse gas (GHG) emissions reduction potential as a measurable outcome. A

⁽²⁷⁸⁾ <https://water.europa.eu/marine/europe-seas/eu-mission-restore-our-oceans-and-water>

dedicated objective was therefore introduced to operationalise and quantify expected emissions reductions through Climate City Contracts (CCCs). This adjustment ensures that the Mission's central purpose, delivering climate neutrality in 100 cities, is tracked transparently and consistently, while investment demand, governance innovation, synergies with EU initiatives and access to skills and expertise continue to function as critical enabling objectives.

This subsection explains the rationale, methodological basis and limitations of the indicators used in the assessment. The indicators are presented in the same order as they are used in the chapter, reflecting the narrative progression from commitment and ambition to implementation enablers, investment demand and monitoring.

Number of Climate City Contracts reviewed by the Commission and Mission Labels awarded (SO1)

This indicator measures the number of Climate City Contracts that have officially received the Mission Label from the Mission Manager, complemented by the number of CCCs currently under review. It was selected because the CCC is the central delivery instrument and the primary mechanism through which cities translate political ambition into structured action and investment plans. It operationalises SO1: Develop city-focused Climate City Contracts (CCC) including investment plans for innovative and climate neutral solutions. The award of the Mission Label confirms that a city has developed a credible, coherent and complete contract covering political commitment, a Climate Neutral Action Plan (CNAP) and a Climate Investment Plan (CIP). The indicator is based on administrative records of CCC submissions and reviews. A limitation of this indicator is that it captures political commitment and planning maturity, rather than realised impact. However, given the Mission's phased approach, and the recent completion of most CCCs, the number of labelled CCCs remains the most robust proxy for progress at this stage of the Mission lifecycle.

Amount of GHG emissions (MtCO₂e) to be reduced by Mission cities through their Action Plans as set out in their CCC (SO5) ⁽²⁷⁹⁾

The Mission's impact on GHG emissions by 2030 is assessed through the information cities provided in their CCC in the form of an emissions gap table or equivalent, where baseline emissions can be checked against intended emissions reductions and residual emissions. This indicator operationalises SO5: Support the delivery of GHG emissions reductions in Mission cities as outlined in their CCCs. The absolute emissions reduction is computed with respect to the most recent baseline inventory presented in the CCC, which most commonly corresponds to 2019 (hereinafter, "recent baseline"). Because some emissions reductions were set against Business-As-Usual (BAU) scenarios or older baselines (e.g. 1990), a procedure of recalculation was performed so that progress already achieved is not counted twice and future reductions can be measured more accurately. Specifically, three main adjustments are applied: 1) if the emissions reduction was originally applied to a BAU baseline lower than the most recent inventory, the decline in emissions projected to occur is considered part of the total emissions reduction; 2) if the

⁽²⁷⁹⁾ Todeschi, V., Ulpiani, G., Vettors, N., Galioto, C., Banja, M. et al., Climate-neutral and Smart Cities Mission: 2025 assessment - Monitoring the overall progress and impact of the Cities Mission, European Commission, Ispra, 2026, JRC146414

emissions reduction was originally applied to a BAU baseline higher than the most recent inventory, it is used in the calculation as-is; 3) if the emissions reduction was originally applied to a baseline different from the most recent one, the already achieved reduction is deducted. While the first two adjustments may increase the total emissions reduction compared to the original value provided in the CCC, the third adjustment produces the opposite effect. It is noted that, given the high variability in target formulations, perfect comparability is unfeasible. The proposed adjustments ensure cities' efforts are reflected more fairly and transparently. The analysis considers gross greenhouse gas emissions that are obtained by removing all negative values associated with land use, land-use change and forestry (AFOLU) across all relevant inventories. In a few cases, AFOLU was reported as a single negative aggregated figure without distinguishing between emissions and removals; in such instances, AFOLU was entirely excluded. The proposed indicator calculated as discussed above measures the total expected reduction in GHG emissions by 2030, based on the '*Baseline emissions reduction target*' (absolute and %) and the "*Baseline emissions*" as presented in Table A-2.1 of the CNAP template (i.e. the emissions gap table), as well as the most recent inventory provided by the cities in their CCC and annexed documents. The results are cross-checked against the sum of '*Emission reductions through other existing action plans*' and '*Emission reductions through the CCC*' (again from Table A-2.1) to ensure internal consistency. It is to be noted that climate neutrality under the Cities Mission is defined as achieving a net-zero balance of greenhouse gas emissions by 2030 across five accounting sectors: stationary energy, transport, waste, Industrial Processes and Product Use, and Agriculture, Forestry and Other Land Use. The definition covers Scope 1 and 2 emissions and selected Scope 3 emissions related to waste treatment, and includes seven greenhouse gases. Residual emissions are expected to remain below approximately 20% of a recent baseline as an orientation, encouraging maximum emissions reduction at source. Cities are required to justify analytically the level of residual emissions and to revisit this assessment at each update of their Climate Neutrality Action Plan, reflecting the dynamic nature of technological, regulatory and contextual constraints. Limitations of this indicator include inconsistent reporting of sectoral and scope coverage, the use of outdated baselines, and the blending of existing and new mitigation actions.

Number of pilot projects launched by the Mission Platform (SO2)

This indicator measures the number of pilot projects launched through the Mission Platform. It captures progress under SO2: Support Research & Innovation pilots and demonstrators through the Mission Platform to scale-up and replicate solutions. Data are collected and processed by the NetZeroCities consortium using information from CCCs, Expressions of Interest and related documents. Data are stored in internal systems, harmonised manually and structured in a central knowledge management platform. These datasets inform the design of future pilot and twinning calls. A current limitation is the limited availability of systematically tracked co-benefit indicators, which could strengthen the implementation of city action portfolios by capturing and leveraging the quantifiable and monetisable co-impacts of the transition.

Number of EU initiatives, policies and programmes referencing the Cities Mission (SO3)

This indicator measures the extent to which the Cities Mission is embedded in EU policy and funding frameworks and supports SO3: Develop synergies with existing Commission initiatives. It excludes documents produced directly by the Mission and considers only

external strategies, legislative acts, programmes and instruments where the Mission is explicitly referenced or clearly supported. With regard to the TEN-T Regulation, the explicit reference to the Mission appears in the Council’s General Approach of December 2022. While the adopted Regulation (EU) 2024/1679 embeds urban-node obligations that support the Mission’s objectives, the explicit wording “Cities Mission” is only found in the Council text cited above. Pre-dating acts are considered only where the Cities Mission is explicitly mentioned, such as in the Zero Pollution Plan and the 2020 Transport Strategy milestone of “100 climate-neutral cities. For EU programmes and instruments, the analysis distinguishes between explicit references and broader synergies or support without consistently naming the Mission. The assessment builds on the findings of the 2023 evaluation, complemented by updates from 2024–2025, and integrates further inputs on Horizon Europe synergies, the Climate City Capital Hub, and the EIB’s ring-fenced lending envelope. A limitation is that some policy impacts are indirect and not always reflected through explicit textual references.

Estimated investment costs and financing needs (SO8)

This indicator compares the estimated costs of Climate Investment Plans (CIPs) developed under the Climate City Contracts and the implied financing needs, including the required balance between municipal and non-municipal funding using cost estimates derived from the NetZeroCities Economic Model. It was selected to assess SO8: Mobilise investment funding to achieve climate neutrality through the Investment Plans. The indicator is based on an analysis, conducted by Bankers without Boundaries, of the investment plans from a subset of 28 Mission Cities that applied the NetZeroCities Economic Model, and extrapolated to all EU-located Mission Cities using population and emissions-reduction parameters. As an *ex ante* estimate, it does not measure mobilised capital but estimates the scale of capital expenditure required to achieve climate neutrality.

National and regional platforms and tailored support to Mission cities (SO7)

This indicator captures the number of national and regional platforms and of city networks that support Mission cities. It also captures support delivered through city advisors and city support groups. The indicator was selected to assess progress in helping cities develop innovative governance approaches that overcome siloed working practices and ensure buy-in and commitment at all levels (SO7). Data are drawn from Mission Platform records and reporting by national platforms under the EU-funded CapaCITIES project⁽²⁸⁰⁾, which supports national authorities in improving their measures and conditions for cities to become climate-neutral. While the indicator provides a clear picture of institutional uptake, it does not fully capture variations in intensity, quality or effectiveness of support across countries.

Number of cities engaging with the Mission Platform’s knowledge resources, learning activities and advisory support (SO4)

This indicator captures the city engagement with the Platform’s knowledge resources, learning activities (seminars, trainings), city advisors and support groups. It operationalises SO4: Provide cities with access to EU-wide skills and expertise and help them connect in international networks to accelerate climate action. Data are collected and processed by

⁽²⁸⁰⁾ <https://capacities.eu/>

the NetZeroCities consortium using internal systems that consolidate information from CCCs, learning programmes and advisory activities. While the indicator reflects engagement levels, it does not measure behavioural change at city level. These datasets inform knowledge products and learning programmes.

Monitoring and reporting at city and aggregate level (SO6)

Monitoring progress at city level is based on individual CCCs, which labelled cities commit to updating at least every two years using the Mission's Comprehensive Indicator Framework ⁽²⁸¹⁾. This framework supports tracking of GHG emissions reductions as well as wider co-benefits, such as governance, economic and social dimensions. At aggregate level, progress is assessed through consolidated reporting by Mission cities via existing platforms such as CDP-ICLEI Track and MyCovenant, combined with public datasets. These inputs are integrated into the NetZeroCities Barometer and Dashboard, which provide a harmonised EU-wide view of ambition, trajectories and progress. This indicator was selected to reflect the Mission's objective of establishing robust monitoring and learning mechanisms (SO6). A key limitation is that the reporting is in its initial phase and realised impacts are not yet visible.

Considerations on data collection and availability

Data feeding into the indicators are drawn from a combination of administrative records, city-submitted CCCs and reporting, Mission Platform datasets, EU policy documents and analytical studies supporting the Mission. The main cut-off date for data included in this chapter is 28 May 2026. Data availability reflects the Mission's current stage of implementation. Most indicators capture commitments, projected impacts and enabling conditions rather than realised outcomes, particularly for emissions reductions and investment-related indicators. Despite these limitations, the selected indicators provide a robust and transparent basis for assessing the Mission's progress in its first phase. As implementation advances and monitoring systems mature, future assessments will be able to rely increasingly on observed outcomes, richer datasets and more granular evidence of impact.

5. A Soil Deal for Europe

Rationale for selection of indicators and methodology

The selection of monitored objectives responds to the four operational objectives set out in the Mission Soil Implementation Plan and therefore covers all the different aspects of the Mission Soil:

1. Build capacities and the knowledge base for soil stewardship;
2. Co-create and upscale place-based innovations to improve soil health in all places (Living Labs and Lighthouses);
3. Develop an integrated EU soil monitoring system and track progress towards soil health;
4. Engage with the soil user community and society at large.

⁽²⁸¹⁾ <https://netzerocities.app/resource-4120>

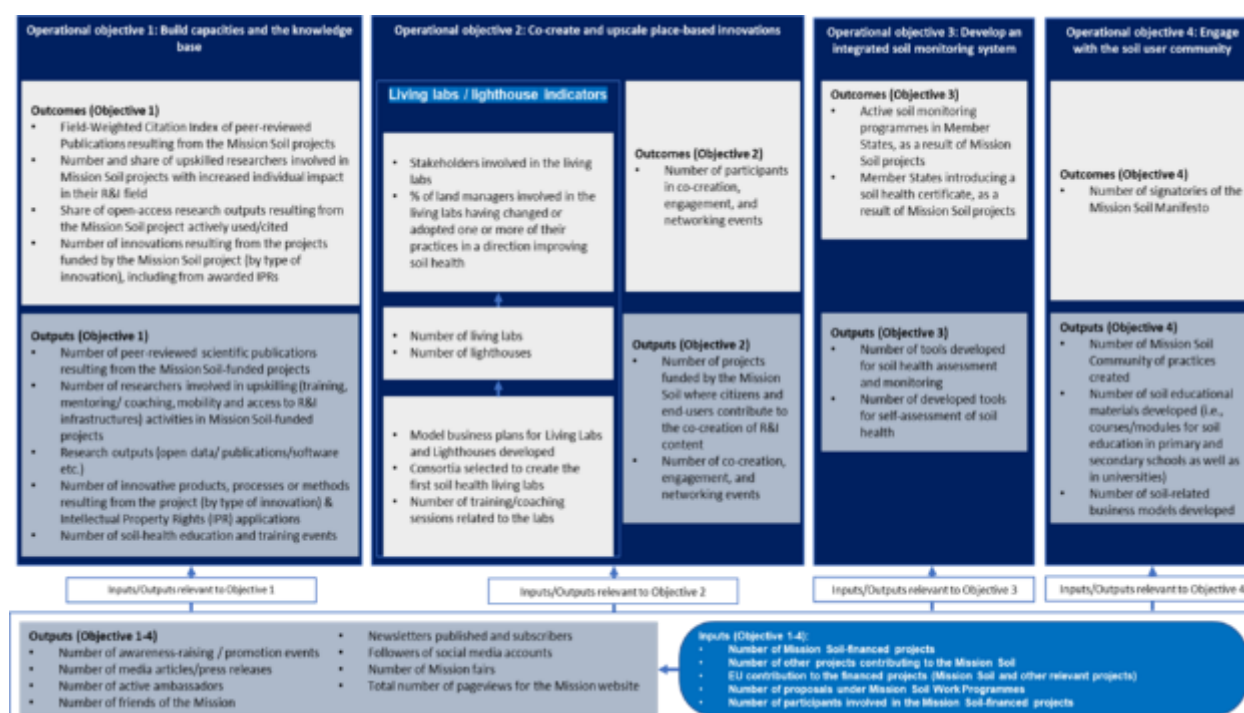
The selection of indicators for section 5.2 of the Mission Soil's chapter is based on the Mission Implementation Plan and the methodology developed under deliverable 3.1 of the Service Contract REA/2022/OP/0001 ([Mission Soil Platform](#)) and follows standard practice:

- Inputs – resources used (financial/human resources, number of projects);
- Outputs – direct products generated by the action, e.g. events and training;
- Outcomes – medium-term effects of projects supported under a given topic;
- Impacts – mid-term and long-term effects of the Mission, including aggregated effects of the project outcomes on society/policies/the environment.

In addition, the indicators follow the general Horizon Europe monitoring and reporting system, and the overall indicator system requirements presented in the Better Regulation Toolbox (RACER criteria).

In line with the Mission Implementation Plan, the 4 **operational objectives** are linked to **output and outcome indicators**, whereas the 8 **specific objectives** are linked to **impact indicators**. For each operational objective, a set of indicators was defined, as shown in the figure below.

Choice of indicators



The detailed information on the **input** indicators is presented in section 5.2.2 of the chapter.

Output indicators are quantified as number of: Living Labs, Lighthouses and experimental sites, stakeholders involved in the Living Labs, innovative soil management technologies or practices developed/adopted in the living lab area/adopted in other areas, demonstration/upscaling/training activities undertaken, number of participants in these demonstration activities, reports, scientific publications, professional articles and media articles on lessons learnt in the Living Labs R&I activities, knowledge exchange activities conducted between Living Labs, indicators qualifying the intensity of community

exchange (e.g. through social media), cooperation activities with Living Labs and Lighthouses outside Europe.

The examples of **outcome** indicators include: rate of awareness of land managers with regards to soil health challenges (survey based), percentage of land managers having changed or adopted one or more of their practices in a direction improving soil health (in the living lab areas and outside), level of soil health indicators and ecosystem services in the living lab areas, level of social capital (norms, values, networks, governance) in living lab areas (using quantitative and qualitative methodologies documented in literature).

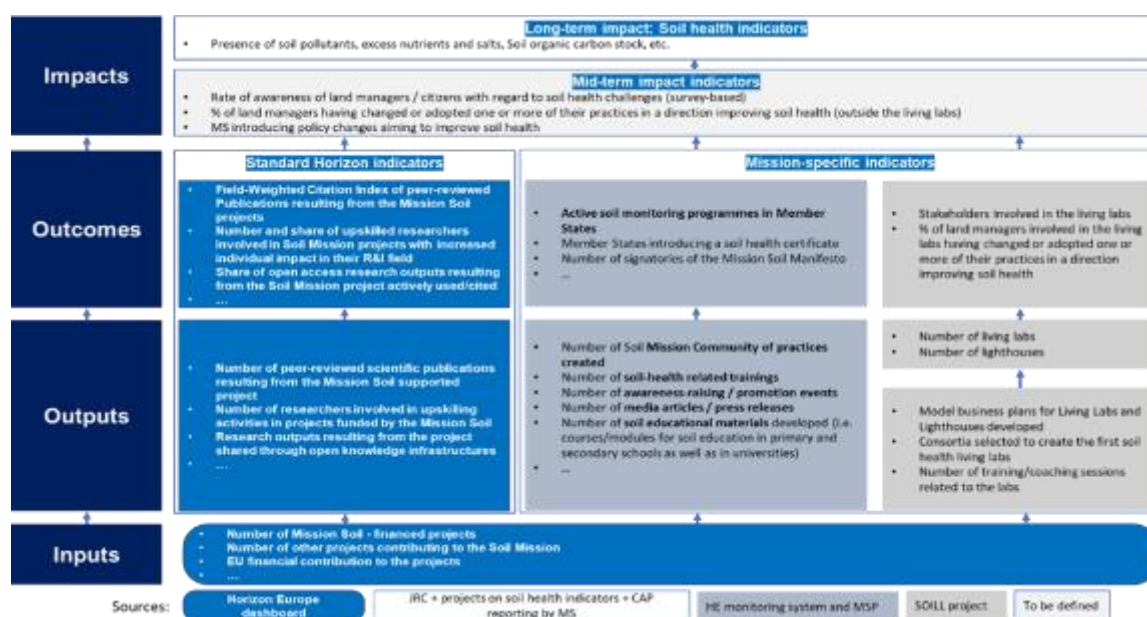
Finally, there are eight soil health indicators, which correspond to **impact** indicators (presence of soil pollutants, excess nutrients and salts, soil organic carbon stock, soil structure including soil bulk density and absence of soil sealing and erosion, soil biodiversity, soil nutrients and acidity, vegetation cover, landscape heterogeneity, forest cover).

Mission's monitoring framework

The Mission Soil uses existing data and developed also a new data framework to monitor and report on its functioning and progress (see figure below). Currently, the following sources of information are used:

- [Horizon Europe Dashboard](#)
- Mission Soil Platform monitoring system (including the [Mission Soil Dashboard](#))
- [Continuous reporting platform](#)
- Information provided by relevant projects (e.g. SOILL for the status of the Living Labs and information from applications for those projects that provided consent)
- [EUSO Soil Degradation Dashboard](#)

Mission Soil monitoring framework



Considerations on data collection and availability

Considering the current state of implementation of the Mission and the Mission Soil-funded projects, **the assessment covers mainly expected/achieved values of output indicators, but also some outcome indicators**, which are monitored by the Mission Soil Platform. Impact indicators are not covered due to the initial stage of most Mission Soil projects and the time needed to observe impacts after the projects' end. Moreover, assigning changes of impact indicators to the implementation of the Mission Soil is in many cases very difficult.

Much of the information presented under the chapter's section 5.2.1 is accessible on the [Mission Soil dashboard](#), an integrated part of the Mission monitoring system. Using interactive graphs and maps, it visualises, through a series of indicators, the progress of activities related to the Mission objectives. It provides data in a general overview and at EU Member State level. In particular, the dashboard currently includes input indicators (e.g. number of projects and EU contribution) and output indicators (e.g. number of individual signatories of the Mission Soil Manifesto). As Mission Soil-funded projects progress, more indicators capturing project outputs and outcomes will be added to the dashboard.

Monitoring of the Mission Soil health Living Labs and Lighthouses (section 5.2.2) is specifically supported by information collected by the [SOILL](#) project. This project was awarded under the Framework Partnership Agreement (FPA) for a living lab network support structure and provides comprehensive support, information, capacity building and monitoring within and beyond the 100 LL/LHs Mission network. The SOILL [Monitoring and Evaluation Guidelines](#) is an exhaustive guide to the Mission Soil Monitoring & Evaluation process for Living Labs. It is based on 5 dimensions (strategy, operations, openness, users&reality and impact and monitoring) and two questionnaires:

- [Self-assessment questionnaire](#)
- [Qualitative assessment questionnaire](#)

Regular monitoring and evaluation of LL/LHs is conducted based on this assessment framework. As first Living Labs started in September 2024, the available information is still limited and is presented in section 5.2.2.

The selection for the indicators in section 5.2.3 was based on the proposal made in the Mission Implementation Plan. There is a difference though between indicators having a direct effect on soil health and indicators having an indirect effect. Soil pollutants, soil organic carbon, soil structure, soil biodiversity, soil nutrients and pH determine to a large extent the properties of the soil and therefore can provide a good indication of soil health.

The EUSO Dashboard provides currently 19 soil indicators for all EU MS, representing the main soil degradation processes and classified in nine major categories. This includes a short description, the related scientific references and methodologies, and the thresholds used (if applicable) ⁽²⁸²⁾. The data collection of these indicators is based on the LUCAS

⁽²⁸²⁾ [Broothaerts, N., Panagos, P. and Jones, A., A proposal for soil health indicators at EU-level – Report on indicator framework available through the EU Soil Observatory, POEU, 2024](#)

Soil Survey ⁽²⁸³⁾ or the results of specific modelling exercises. The most recent data available from LUCAS refers to the year 2022. Further improvement of some of these indicators is foreseen in future research projects (e.g. soil salinisation).

Many national data collected at MS level are following different protocols and methodologies. A dedicated research project will start in 2026 to establish transfer functions in order to harmonise the national or regional data and make them comparable.

B. Enabling progress through the mission-oriented approach

The overall monitoring framework underpinning section III of this document was developed based on the Final Report by the Commission Expert Group to support the monitoring of EU Missions. The report put forward a framework and set of indicators intended to measure Missions as an overall policy approach – focusing on their development and implementation beyond the scope of Horizon Europe. The framework is summarised in the table below.

⁽²⁸³⁾ LUCAS (Land Use and Land Cover Area Frame Survey), <https://esdac.jrc.ec.europa.eu/projects/lucas>

Monitoring framework and indicators proposed by the Commission Expert Group to support the monitoring of EU Missions (extracted from the Expert Group's Final Report)

PILLAR	SUB-ASPECT	INDICATOR	
Pillar 1 Knowledge creation and usage	1.1 Knowledge valorisation at local and regional level for transformative Mission-oriented solutions	1.1.1	New knowledge created in different Mission units (LLs, LHs, cities, hubs, platforms) [to launch in 2024+]
		1.1.2	Novel solutions further developed & piloted in Mission units [2024+]
Pillar 2 Governance	2.1 Mission-oriented governance mechanisms	2.1.1	Mission-oriented governance mechanisms at EU level to implement EU Missions [Piloted (P) - 2023]
		2.1.2	Mission-oriented governance mechanisms at MS and AC level to implement EU Missions [P-2023]
	2.2 Acceptance of Mission-oriented innovation policy	2.2.1	Acceptance of Mission-oriented policy approach for complex societal challenges beyond five EU Missions [2025+]
Pillar 3 Participatory engagement of citizens and stakeholders	3.1 Co-creation of Mission solutions with citizens in programs beyond Horizon Europe	3.1.1	No. of actions developed by Mission units where citizens contribute to the co-creation of solutions [2024+]
		3.1.2	No. of actions reported in 3.1.1 that have considered inclusiveness criteria [2024+]
	3.2 Citizens engaged in processes and activities in line with the Missions	3.2.1	No. of formal engagement mechanisms developed by Mission units [2024+]
		3.2.2	Presence and relevance of Mission goals in (social) media [2024+]
	3.3 Strong civil engagement with R&I solutions for societal challenges achieved	3.3.1	Citizen awareness of the EU Missions [2024+]
		3.3.2	Citizens' engagement in the EU Missions domain [2024+]
Pillar 4 Pooling and scaling-up	4.1 Pooling and leveraging public and private funds	4.1.1	Mission-oriented budgets/funding in EU programmes other than HE [P-2023]
		4.1.2	Mission-oriented funding in shared management programmes disbursed by EU MS/AC, Co-programmed and co-funded HE Partnerships allocations by EU MS/AC; National and regional R&I programmes [P-2023]
		4.1.3	Mission-oriented private sector investment & donations from charities and philanthropic organisations [P-2023]
	4.2 Scaling of transformative solutions and supportive measures	4.2.1	Innovative solutions further tested and deployed across countries and regions to support Mission goals [2025+]
		4.2.2	No. and types of institutional changes explicitly adopted to support scale-up of Mission solutions [2025+]
Level of monitoring of indicators:  Integrated into Mission Monitoring Systems  Common Assessment across Missions  Special EC Coordinated Survey			

Section III of this assessment drew heavily from this conceptualisation. It notably retained the four-pillar structure and a version of the sub-aspects, which were later integrated into the actions and outcomes described by the intervention logic visualised in figure 41. The indicators defined by the Expert Group informed the development of areas of measurement which were the basis for data collection across the different pillars.

The concept resulting from the refining of the Expert Group's framework is included in the table below. This concept was further adapted during the data analysis phase, eventually leading to the final intervention logic which guided the assessment and the preparation of conclusions.

Concept used for data collection following refinement of the Expert Group's framework.

Indicator or area of measurement		
Pillar 1 <i>Governance</i>	1.1	Governance mechanisms at EU level to implement EU Missions
	1.2	Governance mechanisms at MS and AC level to support the implementation of EU Missions
	1.3	Use of a mission-oriented approach in policymaking at the national level, beyond the five EU Missions
Pillar 2 <i>Citizens and stakeholders' engagement</i>	2.1	Presence and relevance of EU Mission goals in (social) media
	2.2	Citizens' awareness of EU Missions and Missions' thematic areas of activity
	2.3	Citizens' engagement in EU Missions and Missions' thematic areas of activity
Pillar 3 <i>Pooling of funding and actions</i>	3.1	Mission-oriented funding in shared management programmes disbursed by EU MS/AC; National and regional R&I programmes
	3.2	Mission-oriented private sector investment & donations from charities and philanthropic organisations
Pillar 4 <i>Knowledge creation, usage and scaling up</i>	4.1	New knowledge created in EU Missions
	4.2	New solutions further developed and piloted in EU Missions
	4.3	Innovative solutions further tested and deployed across countries and regions to support EU Mission goals
	4.4	Number and types of institutional changes (standards, regulations, policies, processes, etc.) explicitly adopted to support scale-up of EU Mission solutions

Moving from the above concept, collection of new data took place between April and November 2025. It relied on three surveys addressed to Member States and Associated Countries to Horizon Europe, Mission Secretariats and Missions' stakeholders, the extraction of Horizon Europe project-level data from Commission database e-Corda, selected Horizon Europe Key Impact Pathways (KIPs), and media and social media analysis. Additional information from publicly available sources complemented the data collection. A detailed list of sources is provided below.

Main data sources ⁽²⁸⁴⁾

- Survey of EU Member States and Associated Countries part of the Horizon Europe Strategic Programme Committee (SPC survey)
- Survey of the five Mission Secretariats (Secretariats survey)
- Survey of Missions' stakeholders (Stakeholders survey)
- Extraction from the External COMmon Research DATA Warehouse (e-Corda)
- Horizon Europe's Key Impact Pathways (KIPs)
- Online media and social media analysis
- Mission Implementation Platforms (MIPs) and related administrative sources, including data on Mission charters, hubs, fora and other governance coordination instruments

⁽²⁸⁴⁾ When relevant, the abbreviation used for in-text references is in brackets.

- Policy Support Facility (PSF) Mutual Learning Exercise (MLE) on EU Missions Implementation
- Horizon Europe TRAMI project outputs
- ERA Monitoring Country Reports 2024
- OECD STIP Compass
- EEA and Norway Grants project database
- Cohesion Policy data (ESIF) from the Cohesion Data platform and Kohesio, covering planned funding from the ERDF, CF, ESF+ and JTF for the 2021–2027 programming period
- Recovery and Resilience Plans (RRPs)

Selected additional literature:

European Commission. (2021). *Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on European Missions (COM/2021/609 final)*. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:52021DC0609>

European Commission. (2023). *Citizens' awareness of EU missions and opportunities for citizen engagement: Results from a multi-country survey*. <https://doi.org/10.2777/493830>

European Commission. (2023). *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 (SWD(2023) 260 final)*. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:52023SC0260>

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European Commission. (2024). *Citizen engagement: Mutual learning exercise on EU missions implementation at national level: fourth thematic report*. <https://doi.org/10.2777/395232>

European Commission. (2024). *Commission Expert Group to support the monitoring of EU missions (final report of the EG)*. <https://doi.org/10.2777/076494>

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- Mazzucato, M. (2018). Mission-Oriented Research & Innovation in the European Union: A problem-solving approach to fuel innovation-led growth. European Commission, Directorate-General for Research & Innovation. <https://doi.org/10.2777/360325>
- OECD. (2021). OECD Science, Technology and Innovation Outlook 2021: Times of Crisis and Opportunity. <https://doi.org/10.1787/75f79015-en>