

Feedback opportunity for the work programme 2025

Mission: 100 Climate-Neutral and Smart Cities by 2030

Draft expected impacts:

The Climate-neutral and smart cities Mission 2025 Work Programme will continue to support the implementation of the Mission by providing strong and direct support to cities that will commit to climate neutrality by 2030, in synergy with significant progress towards zero pollution, sustainable and inclusive urbanization, as well as a safe digital transformation. In turn, the cities benefitting from these actions will act as experimentation and innovation hubs for other cities to become climate-neutral by 2050.

Supporting cities in their twin green and digital transition while aiming for climate neutrality brings important co-benefits and urban qualities such as reduced air and noise pollution, more sustainable mobility, improved health and well-being, reduced urban environmental footprints, enhanced urban greening, more efficient use of energy and infrastructures and improved waste and water management. It also improves policy coherence across sectors and stimulates participatory and inclusive decision-making. Therefore, in addition to a significant contribution to the objective of the European Green Deal to make Europe climate-neutral by 2050, the supported actions will also contribute to the UN Agenda 2030, the Urban Agenda for the EU, the New Leipzig Charter, the Fit for 55 strategy, the EU Industrial Strategy, the Green Deal Industrial Plan and the Net-Zero Industry Act, the EU Zero Pollution Action Plan, the Circular Economy Action Plan, the Smart and Sustainable Mobility Strategy and the related new EU urban mobility framework, the Biodiversity Strategy for 2030, Europe's Digital Decade and the EU Strategy on adaptation to climate change.

Proposals for topics should set out a credible pathway to contributing to the Climate-Neutral and Smart Cities Mission, and more specifically to one or several of the following impacts:

- Facilitated twin green and digital transition and social resilience for at least 100 European cities by 2030.
- Implementation of the Climate City Contracts (CCCs) prepared by the cities participating in the Mission.
- Cities are taking action to increase energy and resource efficiency, promote circular economy, encourage urban regeneration and resilience, and they accelerate the uptake of innovative systemic solutions and clean tech in key areas (e.g., energy, mobility, construction, industry, spatial planning, environment, digitization, and data handling).

Cities are engaging and involving their citizens in the solutions, technologies developed and actions taken to become climate neutral, in order to guarantee acceptance, adherence and adoption, as well as, give particular attention to vulnerable groups.

- Cities are increasingly using data and digital technologies (such as data platforms, IoT, AI and local digital twins for predictive scenarios) for better decision-making and to drive efficiencies in delivering services and reducing emissions through open standards and shared technical specifications.
- Cities embrace innovative and inclusive cross-sectorial collaborative governance models, facilitating multi-level and multi-stakeholder engagement in decision-making and joint

planning, as well as the CCC implementation in collaboration with citizens and local stakeholders.

- The CCCs identify and pool the demands of the cities in the Cities Mission across sectors, providing scalability and predictability for industry and investors, thus strengthening the competitiveness of European industry and SMEs.

Those expected impacts are highly relevant for all of the Key Strategic Orientations (KSO) in the Horizon Europe Strategic Plan 2025-2027:

- KSO 1 – The green transition:

R&I activities will support the development, testing, demonstrating and scaling-up new and innovative solutions for urban climate neutrality across sectors (e.g. energy efficiency, renewable energy, affordable energy, demand side flexibility, sustainable, safe and smart mobility, renovation, net-zero industry, clean tech deployment, circularity, digitalisation incl. AI-powered local digital twins, joint green and social procurement, etc.) through traditional calls for proposals but also through Horizon Europe Partnerships. In order to ensure higher impact, these actions will provide adequate funding for projects so that they can go beyond proofs of concept and limited pilots and offer ground for synergies among different Partnerships for demonstrating solutions. In addition, several projects in each of these areas will be funded so as to offer a wide range of tested solutions fitting to cities.

Pursuing the objectives of the Mission and engaging a large number of European Cities in accelerating their transition to climate neutrality will bring massive and visible “co-benefits” – such as better air quality, enhanced resource and energy efficiency, more sustainable and less congested mobility, warmer housing and lower heating costs, healthier active mobility, fewer road deaths, cleaner industries, better use and reuse of materials, less noise and more liveable spaces – thus substantially contributing to this impact area. Cost-effective and cross-sectorial approaches to significantly reduce GHG emissions, restore biodiversity and ecosystems and valorize nature’s potential for climate and pollution mitigation will be inherently embedded in the Cities Mission and cities CCCs. Their development, upscaling and replication will be supported through the R&I actions in the Work Programmes, including through developing positive indicators to measure progress for the participating cities on this aspect. Further to climate neutrality, such actions will also make a significant contribution to the fulfilment of the zero emission and zero pollution ambition, and the EU Biodiversity strategy for 2030.

- KSO 2 – The digital transition:

Development of digital and smart solutions will be encouraged as horizontal enablers across the full range of actions, as appropriate. As underlined in the Cities Mission Implementation Plan, cities are key players and uniquely well placed to draw on the fundamental, transformative and crosscutting power of data in the digital era for their twin green and digital transitions to address the complexities and maximize social, environmental and economic impacts. An example of these digital and smart solutions are the digital twins; these will allow cities to create their climate neutrality plans based on scientific evidence and real life data by visualizing and forecasting needs/testing policy scenarios for climate neutrality in an efficient way. These scenarios should include tests for cybersecurity and other potential risks.

- KSO 3 – A more resilient, competitive, inclusive and democratic Europe:

Citizen engagement is a key feature of Horizon Europe Missions since their inception phase and even more so during their implementation. The five Horizon Europe Missions will collaborate and share best

practices cross-cutting issues such as citizen engagement, and communication and outreach activities. Within the Cities Mission, dedicated actions will be developed through the Mission Platform to harness the potential of social innovation and citizen engagement for the preparation and rolling out of the CCCs and for place-based approaches developed directly with cities and their citizens. The Mission Platform will help cities participating in the Mission to explore innovative governance methods. This includes the involvement of key local stakeholders, such as civil society platforms to engage with citizens and actively involve them to develop, implement and monitor progress of the CCCs. Special purpose vehicles, local climate pacts, one-stop shops and citizen and renewable energy communities are examples of such organisational models. The goal is to link local actions for climate neutrality with their co-benefits such as air quality, reduction of energy bills, less noise and more liveable spaces and road safety, thus building up the local ownership of the transition and inducing stronger local commitment, acceptance and adoption of relevant measures as well as behavioural change. Actions taken under the Cities Mission take into consideration vulnerable groups, thus contributing to an inclusive Europe and a just transition.

Direct involvement of citizens in the policies for climate neutrality can be realised through use of digital technologies, for example local digital twins (including 3D models of a city), interactive data dashboards and AR/VR or gamification technologies. These allow citizens to visualise and test scenarios and policy impacts, and respond to these by shaping decision-making in their local area.

In terms of competitiveness, the Mission cities can become early adopters of clean technologies and new materials and create “lead markets” for Europe’s clean tech manufacturing capacity. The CCCs will help identify and pool the demands of the cities in the Mission across sectors. This has the potential to create scalability and predictability of demand for both investors and industry. The large-scale decarbonisation and climate resilience efforts of cities in Europe within the Cities Mission constitute a driver of demand for the net-zero industry in Europe making it relevant for Europe's competitiveness.

Main expected outcomes:

In line with the commitments undertaken through the Cities Mission Implementation Plan, the Work Programme 2025 for the Cities Mission targets the implementation of three building blocks: (1) the scaling up of the Mission Platform to ensure support for all cities in the Mission; (2) the setup of R&I actions to develop, test and demonstrate new and innovative solutions for climate neutrality in cities across sectors; (3) and contribution to the deployment of solutions, including scaling up, tailor-made finance advisory services. The expected outcomes related to the implementation of actions under these building blocks are the following:

- Strengthened operational capacity of the Mission Platform to support the implementation of CCCs.
- Supported existing financial advisory services for Mission cities to help implement their investment strategy.
- Synergies with other Missions and partnerships and other relevant EU- funded initiatives through large-scale demonstrations and pilots in cities to test and scale up solutions for climate neutrality on e.g. energy efficiency; renewable energy; sustainable, safe and smart mobility for passengers and goods; digitalization; circularity; urban regeneration etc.
- Supported preparation and implementation of joint procurements.