

EN

Annex XI

Horizon Europe
Work Programme 2025

12. Missions

DISCLAIMER

This draft has not been adopted or endorsed by the European Commission. Any views expressed are the preliminary views of the Commission services and may not in any circumstances be regarded as stating an official position of the Commission. The information transmitted is intended only for the Member State or entity to which it is addressed for discussions and may contain confidential and/or privileged material.

Calls for proposals

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

HORIZON-MISS-2025-04

Overview of this call¹

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

Topics	Type of Action	Budgets (EUR million)	Expected EU contribution per project (EUR million) ²	Indicative number of projects expected to be funded
		2025		
Opening: 06 May 2025 Deadline(s): 04 Sep 2025				
100 Climate-Neutral and Smart Cities by 2030				
HORIZON-MISS-2025-04-CIT-01: Coupling circularity and climate mitigation in industrial sites and their cities and regions	IA	17.00 ³	Around 8.50	2
HORIZON-MISS-2025-04-CIT-02: Innovative, AI-based solutions for urban planning and management	IA	24.00 ⁴	Around 6.00	4
HORIZON-MISS-2025-04-CIT-03: Boosting the transformation towards climate-	PCP	37.00 ⁵	7.00 to 12.00	4

¹ The Director-General responsible for the call may decide to open the call up to one month prior to or after the envisaged date(s) of opening.

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

All deadlines are at 17.00.00 Brussels local time.

The budget amounts are subject to the availability of the appropriations provided for in the general budget of the Union for 2025.

² Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.

³ Of which EUR 7.62 million from the 'Food, Bioeconomy, Natural Resources, Agriculture and Environment' budget and EUR 1.93 million from the 'Digital, Industry and Space' budget and EUR 0.25 million from the 'Civil Security for Society' budget and EUR 6.91 million from the 'Climate, Energy and Mobility' budget and EUR 0.29 million from the 'Culture, Creativity and Inclusive Society' budget.

⁴ Of which EUR 1.76 million from the 'Food, Bioeconomy, Natural Resources, Agriculture and Environment' budget and EUR 14.11 million from the 'Digital, Industry and Space' budget and EUR 0.27 million from the 'Civil Security for Society' budget and EUR 7.54 million from the 'Climate, Energy and Mobility' budget and EUR 0.32 million from the 'Culture, Creativity and Inclusive Society' budget.

⁵ Of which EUR 5.43 million from the 'Food, Bioeconomy, Natural Resources, Agriculture and Environment' budget and EUR 6.51 million from the 'Digital, Industry and Space' budget and EUR 0.84

neutral cities, the net-zero economy and open strategic autonomy through Pre-Commercial Procurement (PCP)				
Overall indicative budget		78.00		

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

Call - Joint Call between the Climate-Neutral and Smart Cities Mission and the Cancer Mission

HORIZON-MISS-2025-06

Overview of this call⁶

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

million from the 'Civil Security for Society' budget and EUR 23.24 million from the 'Climate, Energy and Mobility' budget and EUR 0.98 million from the 'Culture, Creativity and Inclusive Society' budget.

⁶ The Director-General responsible for the call may decide to open the call up to one month prior to or after the envisaged date(s) of opening.

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

All deadlines are at 17.00.00 Brussels local time.

The budget amounts are subject to the availability of the appropriations provided for in the general budget of the Union for 2025.

Topics	Type of Action	Budgets (EUR million)	Expected EU contribution per project (EUR million) ⁷	Indicative number of projects expected to be funded			
		2025					
Opening: 06 May 2025							
Deadline(s): 04 Sep 2025							
EU Missions' Joint Calls							
HORIZON-MISS-2025-06-CIT-CANCER-01: Increasing walking and cycling: to reap health benefits, emission reductions and integrate active mobility and micro-mobility devices, with smart technologies and infrastructure	IA	12.00 ⁸	Around 6.00	2			
Overall indicative budget		12.00					

General conditions relating to this call

<i>Admissibility conditions</i>	The conditions are described in General Annex A.
<i>Eligibility conditions</i>	The conditions are described in General Annex B.
<i>Financial and operational capacity and exclusion</i>	The criteria are described in General Annex C.
<i>Award criteria</i>	The criteria are described in General Annex D.
<i>Documents</i>	The documents are described in General Annex E.
<i>Procedure</i>	The procedure is described in General Annex F.

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

⁸ Of which EUR 1.47 million from the 'Food, Bioeconomy, Natural Resources, Agriculture and Environment' budget and EUR 1.94 million from the 'Digital, Industry and Space' budget and EUR 1.77 million from the 'Health' budget and EUR 6.28 million from the 'Climate, Energy and Mobility' budget and EUR 0.23 million from the 'Civil Security for Society' budget and EUR 0.32 million from the 'Culture, Creativity and Inclusive Society' budget.

<i>Legal and financial set-up of the Grant Agreements</i>	The rules are described in General Annex G.
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DRAFT

100 Climate-Neutral and Smart Cities by 2030

The Work Programme 2025 of the Climate-Neutral and Smart Cities Mission, in line with the [Implementation Plan of the Cities Mission](#), supports the implementation of the Mission by providing strong and direct support to cities committed to climate-neutrality, enabling them to implement their climate action plans and achieve climate-neutrality by 2030. The cities benefitting from these actions will act as experimentation and innovation hubs for other European cities aiming to become climate-neutral by 2050.

Cities' green and digital transformation with the aim of climate-neutrality is associated with important co-benefits and urban qualities such as reduced air and noise pollution, more sustainable mobility, improved health and well-being, reduced urban environmental footprints, enhanced urban greening, more efficient use of energy and infrastructures, as well as improved waste and water management. It also improves policy coherence across sectors and stimulates participatory and inclusive decision-making.

Therefore, in addition to a significant contribution to the objective of the [European Green Deal](#) to make Europe climate-neutral by 2050 at the latest, 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](#).

The topics of the Work Programme 2025 reflect the cross-cutting nature of the Cities Mission and most of them have been designed as joint activities with other parts of the Horizon Europe programme, namely Cluster 4, 5, 6, other Missions, co-programmed partnerships, as well as in close coordination with other topics, such as one under the Ocean Mission (HORIZON-MISS-2025-03-OCEAN-05). The envisaged actions will aim at:

- Coupling circularity and climate mitigation in industrial sites and their cities and regions through a **joint action with the Circular Cities and Regions Initiative (CCRI)**;
- Innovative, AI-based solutions for urban planning and management through a **joint action with Horizon Europe Cluster 4**;
- Boosting the transformation towards climate-neutral cities, the net-zero economy and open strategic autonomy through Pre-Commercial Procurement (PCP);
- **Joint call “Cancer Mission – Cities Mission”:** Increasing the modal share of walking and cycling to reap health benefits and emission reductions and integrating active mobility and micro-mobility devices, with smart technologies and infrastructure.

Not listed in detail in this section of the Work Programme, but co-financed by the Cities Mission budget, is the following topic located in Cluster 5, Destination 5 under the transport-related health and environment part of the programme:

- **Joint topic “Zero-Emission Waterborne Transport (ZEWWT) Partnership – Cities Mission”:** Real time monitoring of regulated and non-regulated emissions to enforce emission limits in waterfront cities.

Moreover, the prize “Renewable energy technology (RET) solutions in energy communities” in Cluster 5 under other actions, links to the Cities Mission. Energy communities can play a pivotal role in achieving climate neutrality at the city level. Embedding their activities in existing strategic and systematic approaches to climate neutrality in the city, such as the Climate City Contracts, will be weighted in the evaluation for the prize.

The operational capacity of the Mission Platform established through a Framework Partnership Agreement (HORIZON-MISS-2021-CIT-02-03) will be strengthened in order to: (1) reinforce services aimed at supporting the implementation of the Climate City Contracts (CCCs) of the cities selected to participate in the Mission through the Call for Expression of Interest; (2) provide basic services targeted at cities falling under the second objective of the Mission as well as cities that applied to the Call for Expression of Interest, committed to the climate-neutrality target by 2030 but were not eventually selected in the final list.

Support for financial advisory services to be provided to help cities implement their investment strategy for becoming climate-neutral will also be addressed under this Work Programme.

Proposals should demonstrate, as appropriate to their scope and size, how they internalise the principles of the Cities Mission, notably: (1) the contribution of the action to an overarching strategy aiming at climate-neutrality for cities, (2) the place of the action within a holistic and cross-sectoral approach to climate neutrality, and (3) diversity in terms of geographical location and size of cities.

Applicants are encouraged to show how their proposals take into account and build upon existing programmes and/or the results of previous R&I projects. Where applicable, they should consider the services offered by the EU-funded European Research Infrastructures⁹; these services range from data sets in human behaviour to modelling or experimental techniques. Proposals should also ensure the '[Do No Significant Harm](#)' principle.

Strong synergies contributing to the implementation of the objectives of the Cities Mission is expected also from other relevant Horizon Europe partnerships such as the European Partnership for People-centric Sustainable Built Environment (Built4People) and on Driving Urban Transitions to a Sustainable Future (DUT). Topics under the Cities Mission Work Programme are also relevant for the Cancer Mission, in particular when addressing co-benefits generated by achieving climate-neutrality such as reduced pollution, improved health and wellbeing, increased active mobility contributing then to cancer prevention. Similarly, actions funded under the Cancer Mission focusing on behavioural change can contribute to the objectives of the Cities Mission especially when targeting actions at urban level. In addition, synergies are expected with the [Regional Innovation Valleys](#), which, in line with the [New European Innovation Agenda](#), bring together less and more innovative regions with a view to

⁹ ri-portfolio.esfri.eu/ri-portfolio/table/

addressing the most burning challenges facing the EU, namely reducing the reliance on fossil fuels, increasing global food security, mastering the digital transformation (including cybersecurity), improving healthcare and achieving circularity. Moreover, strong synergies exist with the [LIFE Programme](#), a main EU funding instrument for environmental and climate action plans, particularly through its Climate Change Mitigation and Adaptation sub-programme, which aligns closely with the Cities Mission's objectives by supporting innovative efforts to reduce GHG emissions, enhance urban resilience, and promote climate change awareness.

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

- Increased capacity among European cities, with particular attention to those selected under the Cities Mission, to implement their CCCs and to achieve climate-neutrality.
- Cities are taking action to increase energy and resource efficiency, promote circular economy, encourage urban regeneration and resilience, and they accelerate the uptake of innovative systemic solutions and clean tech in key areas (e.g., energy, mobility, construction, industry, spatial planning, environment, digitization, and data handling).
- Cities are engaging their citizens in the technologies developed and actions taken to achieve climate-neutrality, in order to guarantee acceptance, adherence and adoption, while paying particular attention to vulnerable groups.
- Cities are increasingly employing data and digital technologies to enhance decision-making, improve the efficiency of service delivery, and reduce emissions through open standards and shared technical specifications.
- Cities embrace innovative and inclusive cross-sectorial collaborative governance models, facilitating multi-level and multi-stakeholder engagement in decision-making and joint planning, as well as the CCC implementation in collaboration with citizens and local stakeholders.
- The CCCs identify and pool the demands of the cities in the Cities Mission across sectors, providing scalability and predictability for industry and investors, thus strengthening the competitiveness of European industry and SMEs.

Proposals are invited against the following topic(s):

HORIZON-MISS-2025-04-CIT-01: Coupling circularity and climate mitigation in industrial sites and their cities and regions

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

<i>Expected EU contribution per project</i>	The Commission estimates that an EU contribution of around EUR 8.50 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR 17.00 million.
<i>Type of Action</i>	Innovation Actions
<i>Eligibility conditions</i>	<p>The conditions are described in General Annex B. The following exceptions apply:</p> <p>The following additional eligibility criteria apply:</p> <p>At least 3 different demonstration sites and at least 3 replication sites must be part of the consortium as beneficiaries. Each site must involve key circular economy actors from both local public authorities and industries in a certain region. They must each be situated in different EU Member States or countries associated to Horizon Europe, ensuring geographical balance. At least one demonstration site should be situated in a mission city implementing a Climate City Contract and at least another site should involve a CCRI city, region or territorial cluster¹⁰. Demonstration sites must cover at least 2 different economic sectors and their related value chains and/or services.</p>
<i>Technology Readiness Level</i>	Activities are expected to achieve TRL 6-8 by the end of the project – see General Annex B.
<i>Legal and financial set-up of the Grant Agreements</i>	<p>The rules are described in General Annex G. The following exceptions apply:</p> <p>Grants awarded under this topic will be linked to the following action(s):</p> <p style="text-align: center;">HORIZON-MISS-2021-CIT-02-03</p> <p>Collaboration with the Cities Mission Platform¹¹ is essential and projects must ensure that appropriate provisions for activities and resources aimed at enforcing this collaboration are included in the work plan of the proposal. The collaboration with the Cities Mission Platform must be formalized through a Memorandum of Understanding to be concluded as soon as possible after the project starting date.</p> <p>This topic will also be part of the demonstration projects for the implementation of the European Commission's Circular Cities and</p>

¹⁰ Lists of [CCRI Pilots](#) and [Fellows](#). List of cities and regions participating in the [CCRI projects](#).

¹¹ Set up by Horizon 2020 project NetZeroCities - Accelerating cities' transition to net zero emissions by 2030, Grant Agreement n. 101036519, and scaled up through topic *HORIZON-MISS-2021-CIT-02-03: Framework Partnership Agreement (FPA) for the Climate-Neutral and Smart Cities Mission Platform*.

	Regions Initiative (CCRI) and must be carried out in close cooperation with it. This means that proposals must cooperate with CCRI and its Coordination and Support Office by means of sharing with this initiative knowledge and experiences developed during the project lifetime. Applicants must integrate explicitly these obligations into their proposal's work plan.
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Expected Outcome: Projects are expected to contribute to all the following outcomes:

- Significant advances in climate mitigation and resource circularity, with associated reduction in pollution and waste, in industrial ecosystems at urban and peri-urban scale.
- Increased local and regional competitiveness and strengthened capacity for innovation of EU industries.
- Long-term change towards sustainable, flexible and responsive local and regional industrial ecosystems that connect key circular economy and climate mitigation stakeholders throughout planning, interventions and value chains.

Relevant indicators and metrics for the 2030 horizon, with baseline values, should be clearly stated in the proposal.

Scope: Climate mitigation and circularity are key building blocks for achieving industrial and urban futures that are climate-neutral and sustainable. While mitigation and circularity performance are typically modelled at the global or national level, a gap persists in action plans and practice at local level where the coupling of decarbonisation and circularity against the background of industrial-urban symbiosis and of the sharing economy (energy and materials) could yield significant ecological, economic and social benefits. There is therefore a pressing need to overcome the lack of coordination among industrial, circularity and urban activities and actors that yields sub-optimal outcomes in terms of climate mitigation, energy efficiency, resource use (including water), material valorisation and waste reduction.

Proposals must involve at least 3 different demonstration sites and at least 3 replication sites as beneficiaries. Each site must involve key circular economy and mitigation actors from both local public authorities and industries in a certain region. Each site must be situated in different EU Member States or countries associated to Horizon Europe, ensuring geographical balance. At least one demonstration site should be situated in a mission city and at least another demonstration site should be a CCRI city, region or territorial cluster. Demonstration sites must cover at least 2 different economic sectors, value chains and/or services.

The proposed actions will:

- Set up and deploy innovative governance and business models as well as joint actions on climate mitigation¹² and circularity (such as circular supply models, collaborative

¹²

As defined in the Info Kit for Cities: [cb258381-77d5-435a-8b25-9a590795dc9e_en \(europa.eu\)](https://ec.europa.eu/info/sites/default/files/info_kit_cities_en.pdf)

consumption models, service system models, hire or leasing models, joint public procurements etc.) in the 3 demonstration sites as defined above.

- Assess and quantify the climate and other benefits of proposed joint mitigation and circularity actions including but not limited to: reduction of greenhouse gas emissions, pollution and water use; reduction of costs for secondary raw materials and waste management; new revenues generated from end-of-life and by-products, waste diversion from landfill and incineration; performance of mitigation infrastructure; industrial-urban symbiosis; creation of new business opportunities; development of green skills and strengthening of environmental profiles.
- Quantify and assess the co-benefits, constraints and trade-offs of coupling circularity and climate mitigation, considering social, economic and environmental aspects, as well as links with key sectors such as energy, buildings and transport. Complementary actions in terms of spatial planning (e.g. more sustainable and efficient uses of land and building stock), digitalisation and data enhancement should also be considered as appropriate.
- Define for each demonstration and replication site the strategies, processes and actions needed to underpin the climate-neutral and circular transition through a systemic, multi-sectoral multi-stakeholder approach. This should include the engagement of relevant stakeholders such as policymakers, research bodies and academia, the civil society and the private sector (industry, entrepreneurs, start-ups, SMEs etc).
- Based on the lessons learned, deliver guidelines and recommended approaches (including innovative methods) to integrate circularity in the cities' mitigation strategies and vice versa.
- Implement activities to develop and secure long-term support from the national and regional public authorities, which may include the establishment of inter-institutional multi-level governance partnerships, the introduction of binding rules, regulations, subsidies and/or other economic incentives.

Proposals should plan for early financing follow-up by linking with the [Climate City Capital Hub](#) of the NetZeroCities Mission Platform and the Circular Cities and Regions Initiative financial advisory services (including the Horizon Europe funded [Project Development Assistance Projects](#) and the [European Investment Bank's Circular City Centre](#)). This should serve to further scale-up and deploy at city/region scale the innovative activities/measures/business models through a combination of funding sources and financial instruments beyond the duration of the proposed action.

Proposals should envisage clustering activities with other projects selected under this topic, which could be in the form of cooperation, consultations as well as joint activities on cross-cutting issues such as sharing results, lessons learned and ways to address barriers and mitigate risks, joint communication, dissemination and capacity building activities, or assessing and evaluating impacts. Dedicated tasks with appropriately earmarked resources should be planned

to this end. These tasks may also include collaboration with relevant CCRI-related projects¹³ and relevant projects funded under the Cities Mission.

As part of the broader European Green Deal framework, proposals should link as relevant with the objectives of the new [Circular Economy Action Plan](#) of 2020¹⁴ (that recognises the interlinkage between the circular economy and climate policies, presenting ‘circularity as a prerequisite for climate neutrality’) and the [Green Deal Industrial Plan](#) of 2023¹⁵ (that, together with the [2020 Industrial Strategy](#)¹⁶ and its [2021 update](#)¹⁷, sets the framework for the transformation of the EU’s industry for the net-zero age). Projects should also link as relevant with the objectives of the [Net Zero Industry Act](#)¹⁸, the [Critical Raw Materials Act](#)¹⁹ and the [Clean Transition Dialogues](#)²⁰ that highlight the importance of circularity in the green transition. In addition, actions should consider and promote synergies with pollution reduction measures, with reference to the [Zero Pollution Action Plan](#)²¹ and the [Industrial Emissions Directive](#)²². Synergies are expected with other relevant EU initiatives, such as the [Hubs for Circularity](#)²³ and the [Regional Innovation Valleys](#)²⁴, which foster industrial circularity hubs and support circularity transition at a local and regional level.

HORIZON-MISS-2025-04-CIT-02: Innovative, AI-based solutions for urban planning and management

Call: Supporting the implementation of the Climate-Neutral and Smart Cities Mission	
Specific conditions	
<i>Expected EU contribution per project</i>	The Commission estimates that an EU contribution of around EUR 6.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR 24.00 million.
<i>Type of Action</i>	Innovation Actions

¹³ List of [CCRI Projects | Circular Cities and Regions Initiative \(europa.eu\)](#)

¹⁴ https://environment.ec.europa.eu/strategy/circular-economy-action-plan_en

¹⁵ COM(2023) 62 final

¹⁶ COM(2020) 102 final

¹⁷ COM(2021) 350 final

¹⁸ COM(2023) 161 final

¹⁹ COM(2023) 160 final

²⁰ COM(2024) 163 final

²¹ https://environment.ec.europa.eu/strategy/zero-pollution-action-plan_en

²² https://environment.ec.europa.eu/topics/industrial-emissions-and-safety/industrial-emissions-directive_en

²³ Set up under Horizon Europe, the [Hubs for Circularity](#) are first-of-a-kind, lighthouse demonstrator plants of near commercial size implementing industrial and/or urban industrial symbiosis, optimising the use of resources in energy-intensive industries and beyond.

²⁴ The [Regional Innovation Valleys for Bioeconomy and Food Systems](#) contributes to the New European Innovation Agenda by building 100 regional deep-tech innovation valleys, fostering bioeconomy deployment, addressing the EU's innovation gap, and achieving circularity.

<p><i>Eligibility conditions</i></p>	<p>The conditions are described in General Annex B. The following exceptions apply:</p> <p>If projects use satellite-based earth observation, positioning, navigation and/or related timing data and services, beneficiaries must make use of Copernicus and/or Galileo/EGNOS (other data and services may additionally be used).</p> <p>The following additional eligibility criteria apply:</p> <p>Each of the participating cities should be located in a different EU Member State or a country associated with Horizon Europe.</p>
<p><i>Technology Readiness Level</i></p>	<p>Activities are expected to achieve TRL 6-8 by the end of the project – see General Annex B.</p>
<p><i>Legal and financial set-up of the Grant Agreements</i></p>	<p>The rules are described in General Annex G. The following exceptions apply:</p> <p>Grants awarded under this topic will be linked to the following action(s):</p> <p style="text-align: center;">HORIZON-MISS-2021-CIT-02-03</p> <p>Collaboration with the Cities Mission Platform²⁵ is essential and projects must ensure that appropriate provisions for activities and resources aimed at enforcing this collaboration are included in the work plan of the proposal. The collaboration with the Cities Mission Platform must be formalized through a Memorandum of Understanding to be concluded as soon as possible after the project starting date.</p> <p>Eligible costs will take the form of a lump sum as defined in the Decision of 7 July 2021 authorising the use of lump sum contributions under the Horizon Europe Programme – the Framework Programme for Research and Innovation (2021-2027) – and in actions under the Research and Training Programme of the European Atomic Energy Community (2021-2025)²⁶.</p>

Expected Outcome: Projects are expected to contribute to the following outcomes:

- AI-based Digital Twin models (including generative AI to foster European-based technology), with their associated tools, (developed in line with the requirements defined

²⁵ Set up by Horizon 2020 project NetZeroCities - Accelerating cities' transition to net zero emissions by 2030, Grant Agreement n. 101036519, and scaled up through topic *HORIZON-MISS-2021-CIT-02-03: Framework Partnership Agreement (FPA) for the Climate-Neutral and Smart Cities Mission Platform*.

²⁶ This [decision](#) is available on the Funding and Tenders Portal, in the reference documents section for Horizon Europe, under 'Simplified costs decisions' or through this link: https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/ls-decision_he_en.pdf

in the scope), which are tested, calibrated, and implemented in each city participating in the proposal;

- Guidelines and recommended approaches on the integration and orchestration of developed models, applications and tools in urban planning and management and the subsequent decision-making process, considering synergies with the open sand-boxing infrastructure provided by the LDT-CitiVERSE-EDIC²⁷;
- Capacity building, for instance, making available software in relevant platforms (such as AI on Demand platform²⁸, open source, EU LTD toolbox, etc.), and peer learning for potential replication in other cities;
- Plans for the exploitation of the project result(s) through relevant Smart Cities networks specifically of the Digital Twins developed, including a market analysis for replicability and scalability of solutions;
- Visualisation component of the Digital Twin promoting participatory urban planning and management and facilitating communication between different stakeholders, while enabling citizens to provide well-informed feedback and solutions;
- Creation of multidisciplinary communities, bringing together IT developers, urban planners, designers, local authorities, and other relevant actors. This will facilitate future activities for adaptation, enhancement and integration of existing and future AI-based applications and solutions, including Digital Twins, applied in different urban domains (e.g. infrastructure planning, including nature-based solutions, urban logistics, network and traffic management, climate neutrality, safe and inclusive streets, health and wellbeing urban space, etc.). This could be achieved through synergies with the LDT-CitiVERSE-EDIC²⁹ and with other funded projects under this topic and under topics covering similar themes and aspects.

Scope: Urban planning and management require the analysis and integration of data ranging from zoning laws and buildings to overground infrastructure (street networks and their amenities, rail networks, etc.) and underground infrastructure (sewage, gas, electricity, heat, and water supply networks). Besides this complex physical urban fabric, urban planning and management cover intangible features such as administrative organisation, flows of goods and services, environmental determinants, demographic, social, and economic trends, evolving social values, behaviours, and local cultures.

Since the 1980-ties, Geographic Information Systems (GIS) integrating urban information within layers of data and translating them into tables, graphs, and maps, were introduced in urban planning with the purpose to allow a more efficient data collection, analysis, aggregation, and management, enabling planning and decision-making for increasingly sustainable and innovative cities. However, given the rapid digitalisation of almost every aspect of urban life

²⁷ https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=OJ:L_202400459

²⁸ <https://www.ai4europe.eu/>

²⁹ <https://living-in.eu/news/ldt-citiverse-edic-fact>

and the increase in complexity and variety of data over the last decades, the field of Artificial Intelligence (AI) opens promising, new opportunities for embedding sustainability and climate-neutrality concepts in urban planning and management. AI-based applications (including generative AI) and tools such as machine learning (ML), neural networks (NNs), deep learning, autonomous systems, pattern recognition, simulation modelling – Digital Twins, Internet of Things (IoT), etc. can be harnessed to guide decision-making, predict trends, develop scenarios, optimize resource allocation, engage citizens, and further enhance and promote human creativity, inclusiveness and well-being in urban planning and design.

This topic explores the use and integration of AI-based applications and tools, particularly of Digital Twins, in urban planning and management.

Proposals should contain a comprehensive state-of-the-art of existing AI applications and tools for urban planning and management and evidence of relevant skills for the development of Digital Twins.

Proposals are invited to develop a Digital Twin model that complies with the following requirements:

- Integrates within the urban planning process and practice and supports the development of medium- and long-term strategic visions at city level for achieving a climate-neutral city.
- Supports decision-making and prioritization of policies and investment for sustainable, energy-efficient, and climate-neutral measures and solutions through visualization, prediction, diagnosis, assessment and prevention.
- Incorporates static physical urban characteristics such as topography, buildings, overground, underground, blue-green infrastructures, energy and heat grid, also considering the EU buildings dataset from the EU_LDT toolbox and at least two of the following urban features as variables:
 - Urban functions – zoning, land-use.
 - Mobility modes and services, including freight transport and logistics.
 - Energy generation and consumption, including energy generation from RES and energy storage infrastructure (e.g., heat grid).
 - Weather forecast and reduction of pollutant emissions.
 - Socio-demographic, economic and cultural trends.
- Provides different scenarios for achieving climate-neutrality as well as the possibility to simulate the impacts when prioritizing the implementation of specific policies, measures, or solutions for the other areas/sectors, and for the city as a whole. When defining climate-neutral scenarios, both forecasting and backcasting methodologies could be employed.

- Evaluates potential use cases, and assesses the potential of replication of developed Digital Twins, in other cities.
- Allows, using its flexible features, the estimation of the resources needed to implement the different projected scenarios.

Proposals should explore the development and use of Digital Twins that incorporate real-time monitoring and response, with the purpose to support city authorities, operators, service providers and citizens to strengthen city's resilience and its coping and response mechanisms when confronted with unexpected events or hazards.

Proposals should promote the possibility of joint policy coordination such as clustering activities guidelines, synergies from the start of the project.

The AI-based Digital Twin to be developed for each city could cover a city-wide area – the urban core but can extend as far as the functional urban areas with well-defined characteristics (in terms of morphology, density, socio-demographic and/or economic features)³⁰. The involved cities should promote complementarity in terms of climatic conditions, city typologies and geographical balance.

This topic invites for proposals from consortia composed of at least three cities of which at least one is a Cities Mission city, where the responsible local authorities, urban planners, IT developers, operators, service providers and other relevant actors jointly develop, test and integrate Digital Twins in urban planning and management. The participating local partnerships should demonstrate their common plan and vision on how they will put in place an effective cooperation.

A demonstrated contribution to the implementation and delivery of the Climate City Contracts and/or Sustainable Energy Action Plans, Sustainable Energy and Climate Action Plans and/or Sustainable Mobility Plans is expected.

If proposals use satellite-based earth observation, positioning, navigation and/or related timing data and services, beneficiaries are expected to describe how the use of Copernicus and/or Galileo/EGNOS are incorporated in the proposed solutions.

Synergies with the Driving Urban Transitions partnership³⁰ and the Urban Transitions Mission³¹ under Mission Innovation, would be of added value, as well as synergies with the Local Digital Twin Toolbox that will be composed of open AI-based tools to foster the adoption of digital twins across rural and urban.

Proposals should also demonstrate that the proposed approaches and developed AI-Based applications and tools are built on the results from previous research and innovation actions funded under Horizon 2020 and Horizon Europe calls/topics. Moreover, proposals are encouraged to explore the support of the Digital Europe Programme and its EU Toolbox for Local Digital Twins helping cities to combine data from different domains. In the same context,

³⁰ <https://dutpartnership.eu/>

³¹ <https://mission-innovation.net/missions/urban-transitions-mission/>

actions to be funded under this topic could liaise with projects funded under the third call for proposals EUI-Innovative Actions³², notably the topic “Technology in Cities”.

Proposals are encouraged to seek synergies, concerning the data collected and used, with the Common European Data Spaces³³, especially the Data Spaces that are relevant such as the EU Smart Communities Data Space under SIMPL³⁴, the mobility Data Space, Tourism Data Space, the Green Deal Data Space etc. Proposals are invited to consult the Staff Working Document³⁵ on the European Data Spaces³⁶.

Proposals are expected to demonstrate the robustness of the AI-based systems and/or techniques that will be used. For instance, they should be technically and socially robust, reliable, and able to provide a suitable explanation of its decision-making process.

Proposers should demonstrate that appropriate security measures are in place to ensure that the data collected and used in the projects are secured from unauthorised access and cannot be used for purposes other than the project.

Data Management actions should be included in the proposals to ensure that Data used in the Digital twins are of good quality and data generated are well documented and can be reused in future projects.

Proposals should briefly describe the environmental footprint of the AI tools in the project and if it is significant, (e.g., at a scale that makes a difference), in that case, a short cost benefit analysis and corresponding actions are expected to be carried during the project to address the environmental footprint. Finally, proposals are expected to assess potential risks in the project and if relevant, describe solutions that mitigate those risks.

HORIZON-MISS-2025-04-CIT-03: Boosting the transformation towards climate-neutral cities, the net-zero economy and open strategic autonomy through Pre-Commercial Procurement (PCP)

Call: Supporting the implementation of the Climate-Neutral and Smart Cities Mission	
Specific conditions	
<i>Expected EU contribution per project</i>	The Commission estimates that an EU contribution of between EUR 7.00 and 12.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR 37.00 million.

³² <https://www.urban-initiative.eu/calls-proposals/third-call-proposals-innovative-actions>

³³ <https://digital-strategy.ec.europa.eu/en/policies/data-spaces>

³⁴ <https://digital-strategy.ec.europa.eu/en/policies/simpl>

³⁵ <https://digital-strategy.ec.europa.eu/en/library/staff-working-document-data-spaces>

³⁶ <https://dssc.eu/>

Type of Action	Pre-commercial Procurement
Eligibility conditions	<p>The conditions are described in General Annex B. The following exceptions apply:</p> <p>The specific conditions for actions with PCP/PPI procurements in section H of the General Annexes apply to grants funded under this topic.</p>
Legal and financial set-up of the Grant Agreements	<p>The rules are described in General Annex G. The following exceptions apply:</p> <p>Grants awarded under this topic will be linked to the following action(s):</p> <p style="text-align: center;">HORIZON-MISS-2021-CIT-02-03</p> <p>Collaboration with the Cities Mission Platform³⁷ is essential and projects must ensure that appropriate provisions for activities and resources aimed at enforcing this collaboration are included in the work plan of the proposal. The collaboration with the Cities Mission Platform must be formalized through a Memorandum of Understanding to be concluded as soon as possible after the project starting date.</p> <p>The Cities Mission Platform should in particular support cities with the preparatory work for the PCP and facilitate the upscaling as well as the replicability of the solutions that will be developed through the PCP.</p> <p>This action allows for the provision of financial support to third parties in line with the conditions set out in General Annex B – Eligibility of the Horizon Europe Work Programme. The beneficiaries can use financial support to third parties to provide financial incentives to final end-users to adopt the solutions. The support to third parties can only be provided in the form of grants. As a derogation to the standard limit of EUR 60 000 per third party entity set in the Financial Regulation 480 (Article 204), the Commission considers that in order to ensure the deployment and impact of the project outcomes, the maximum amount to be granted to each third party is EUR 200 000. The selection of the third parties to be supported under the grant will be based on an external review by independent experts of the proposed work.</p>

Expected Outcome: Projects are expected to contribute to the following outcomes:

³⁷ Conceived through the Horizon 2020 project NetZeroCities - Accelerating cities' transition to net zero emissions by 2030, Grant Agreement n. 101036519, and scaled up through the topic *HORIZON-MISS-2021-CIT-02-03: Framework Partnership Agreement (FPA) for the Climate-Neutral and Smart Cities Mission Platform*.

- Public procurers stimulate from demand side the competitive development of market ready innovative solutions to reduce greenhouse gas emissions that can contribute to the transition of local communities towards climate neutrality, whilst strengthening EU open strategic autonomy;
- Public procurers leverage PCP to bring to the market innovative solutions in sectors relevant for climate change mitigation (such as energy efficiency in buildings, production and use of renewable energy, sustainable and smart mobility, digitalisation etc.) and implement those innovative solutions in the participant cities to reduce greenhouse gas emissions;
- Public procurers drive innovation and increase resilience in the supply chain by opening up opportunities for innovative companies established in the European Union's Member States and Horizon Europe Associated Countries, in particular SMEs and Startups, to access the public procurement market and scale up their business;
- Increased opportunities for wide market uptake and economies of scale for the supply side through increased demand for innovative solutions to reduce greenhouse gas emissions at the local level, wide publication of results and where relevant contribution to standardisation, regulation or certification;
- Present the expected greenhouse gas emission reduction in the participating cities by 2030 and 2050, in comparison to a baseline established at the beginning of the project.

Scope: By closing the gap between supply and demand in a way that reinforces EU open strategic autonomy, PCPs can make a key contribution to enhancing the European Union's economy and competitiveness³⁸. In order to master the green and digital transition and make our cities climate-neutral and liveable places, European public procurers need to lead by example by procuring more solutions to reduce greenhouse gas emissions. This topic therefore focuses on forward looking procurement of R&D to bring to the market new solutions to reduce greenhouse gas emissions that can increase Europe's resilience and preparedness to tackle the climate challenge.

On the road towards climate-neutral cities this topic addresses the lack and fragmentation of public demand for innovative solutions. Europe's companies, in particular SMEs and Startups, are indispensable in delivering the required innovations. As past experience shows that pre-commercial procurement opens up the procurement market for startups and enables the public sector to address societal challenges more effectively, public procurers should make more strategic use of PCP.

³⁸ General Annex H to the work programme provides for specific conditions for PCP such as place of performance and commercialisation conditions that can require the majority of the procured R&D activities and later commercialisation/production of developed solutions to take place in the European Union's Member States and Associated Countries, as well as the possibility to limit the participation to the PCP procurement to economic operators that are established in the European Union's Member States and Associated Countries if there are sufficient economic operators in these territories that can develop the requested solutions. These conditions apply to this topic.

This topic supports public procurers, specifically local authorities, to collectively implement PCPs to drive innovation from the demand side and open up wider commercialisation opportunities for companies in Europe to take or maintain international leadership in new markets for net-zero technologies that can deliver solutions to reduce greenhouse gas emissions. The aim is to leverage PCP to encourage the development and to provide a first customer reference for the piloting, installation and validation of breakthrough innovations.

PCP actions target consortia of procurers with similar needs that want to procure together the development of innovative solutions to reduce greenhouse gas emissions in cities. This topic does not provide direct funding to developers, industry or research organisations to perform R&D. They will be able to respond to the call for tenders launched by consortia of procurers funded under this call. Specific guidance on PCP actions and minimum eligibility requirements can be found in General Annexes H of the Horizon Europe work programme.

Continuous dialogue between demand and supply side is required for the success of PCPs, therefore the effective involvement of end users (e.g. cities teams that would need to adopt climate mitigation solutions, regional structures cooperating with cities on climate mitigation, citizens etc.) needs to be considered in the proposal. Furthermore, to stimulate dialogue with the supply side, public procurers are required to organise an open market consultation before launching the procurement and to promote the call for tenders widely across Europe to potentially interested suppliers.

Proposals should demonstrate sustainability of the action beyond the life of the project. They should demonstrate how the project is anchored in a clear strategy to provide climate-neutral cities and enhance the economy in a sustainable way through stronger early adoption of innovative solutions to reduce greenhouse gas emissions. Activities covered should include cooperation with policy makers to reinforce the national policy frameworks and mobilise substantial additional national budgets for PCP and innovation procurement in general beyond the scope of the project.

Involvement of procurement decision makers is needed to ensure that end solution(s) are adopted by local public buyers, increasing the societal impact of the related research activities. Therefore, procurers should declare in the proposal their interest to pursue deployment of solutions resulting from the PCP in case the PCP delivers successful solutions and indicate whether they will (1) procure successful solution(s) as part of the PCP, (2) launch a separate follow-up procurement after the PCP to buy such type of solutions, (3) adopt successful solutions without the need to procure them (e.g. in case of open source solutions), (4) foresee financial or regulatory incentives for others to adopt successful solutions (e.g. in case the final end-users of the solutions are not the procurers but for example citizens). In these four cases, the procurers can implement the project as a fast-track PCP (see general annex H). In the first case, the procurers must foresee the budget in the proposal to purchase at least one solution during the PCP. In the second case, the procurers should include in the proposal a deliverable that prepares the follow-up procurement to purchase such type of solution(s) after the PCP. In the first and third case, the procurers must foresee sufficient time during the project to deploy and validate that the solutions function well after installation. In the fourth case, the procurers

can use financial support to third parties to provide financial incentives to final end-users to adopt the solutions, with a maximum budget of EUR 200 000.00. Projects funded under this topic, which target the higher end of the budget range, should demonstrate a greater degree of ambition in terms of innovation level and/or deployment scope.

Projects funded under this topic should include at least three cities of the 112 selected ones for the EU Mission on Climate-Neutral and Smart Cities³⁹, and the lead procurer from the buyers group should be one of these 112 cities. In addition to the buyers' group that will implement the PCP, projects are encouraged to actively cooperate with an additional group of follower cities in the preparation and follow up of the procurement, including possibly also in the testing of solutions, to smoothen faster uptake of solutions to the wider followers group. Collaboration amongst the projects financed under this topic and with the 'Climate-Neutral Smart cities' Mission Platform is essential to the increase impact and coherence of the action. Appropriate provisions for activities and resources aimed at enforcing this collaboration should be included in the work plan of the proposal. The Mission Platform will support cities with the preparatory work for the PCP. The Mission Platform will also support the upscaling and replicability of the developed solutions, and the monitoring of the impact of the projects using a common methodology and clearly established indicators. The collaboration with the Mission Platform must be formalised through a Memorandum of Understanding to be concluded as soon as possible after the project starting date. To ensure that the new solutions are appropriately identified, the projects should plan for liaising with the different other Horizon funded projects, partnerships and initiatives that promote innovation in the different domains (such as CCAM Partnership, 2ZERO Partnership, and Built4People Partnership, Circular Cities and Regions, and CIVITAS) to avoid overlaps or contradictory conclusions.

100 Climate-Neutral and Smart Cities by 2030: Other Actions

1. Specific Grant Agreement to the FPA to reinforce the operations of the Climate-Neutral and Smart Cities Mission Platform

The consortium of the selected HORIZON-MISS-2021-CIT-02-03: Framework Partnership Agreement (FPA) for the Climate-Neutral and Smart Cities Mission Platform with identified beneficiary and specific grants awarded to identified beneficiary for Research and Innovation Action under the Framework Partnership Agreement, is invited to submit a proposal for a Specific Grant Agreement (SGA) to reinforce the operational capacity of the platform. The expected outcomes of the SGA should be in line with the scope of the FPA. The standard evaluation criteria, thresholds, weighting for award criteria and the maximum rate of co-financing for this type of action are provided in parts C and E of the General Annexes.

One single proposal for SGA should be submitted. This action aims at ensuring the Mission Platform's continued full operational capacity addressing and developing the actions needed to

³⁹ The EU Mission on Climate-Neutral and Smart Cities aims to deliver 100 climate-neutral and smart cities by 2030 and ensure that these cities act as experimentation and innovation hubs to enable all European cities to follow suit by 2050. On 28 April 2022, the Commission announced the 100 EU cities that will participate in the Mission. In addition, 12 cities have been selected from countries associated or expected to be associated the Horizon Europe programme.

implement the relevant building blocks of the Framework Partnership Agreement (FPA) for the Climate-Neutral and Smart Cities Mission Platform while taking into account the lessons learned and the new priorities that emerged from the first few years of its implementation.

The Mission Platform will assist the cities that were selected⁴⁰ as a result of the open Call for Expression of Interest which was launched in November 2021 and resulted in 377 expressions of interest from cities in all 27 EU Member States and from 9 associated countries. These cities respond to the first objective of the Mission to deliver at least 100 climate-neutral and smart European cities by 2030. Cities that are not yet able to commit to the Mission's timeline but are willing to commit to accelerate their transition towards climate neutrality within a longer timeframe following the Cities Mission basic principles, will also receive basic support from the Mission Platform. These cities respond to the second objective of the Mission to ensure that the cities responding to the first objective act as experimentation and innovation hubs to put all European cities in a position to become climate-neutral by 2050.

Under the proposed SGA, activities should particularly focus on:

1. reinforcing services aimed at supporting the implementation of the Climate City Contracts (CCCs) of the cities selected to participate in the Mission through the Call for Expression of Interest;
2. provision of basic services targeted at cities falling under the second objective of the Mission as well as cities that applied to the Call for Expression of Interest, committed to the climate-neutrality target by 2030 but were not eventually selected in the final list.

Special emphasis should be placed on the following activities:

- Building on the good practices developed in the previous SGAs to support cities in the implementation of their investment plans through tailored advice and assistance offered by the **Climate City Capital Hub** and the **City Finance Specialists**. This activity will reinforce synergies between the Adaptation and Cities Missions, supporting cities in finding financing solutions for both mitigation as well as adaptation projects;
- Assistance to cities with **innovative and strategic procurement**, including joint procurement with other cities, bridging with EU mechanisms and collaborating with national platforms on procurement, for example through regulatory sandboxes;
- Support for cities in **monitoring and reporting** on the implementation of the CCC;
- Expand and regularly update the **open-source services of the online platform**, accessible to all cities;
- Carry out a **capacity building and mutual learning programme**, supporting cities' move towards climate neutrality;

⁴⁰

https://ec.europa.eu/commission/presscorner/detail/en/IP_22_2591

- Foster **mutual learning and exchange of good practice** through for instance mentoring and twinning actions;
- **Demonstrators accelerating and sustaining city climate-neutrality solutions**, building on the experience of activity 4 under the *Specific Grant Agreements to the FPA for the Climate-Neutral and Smart Cities Mission Platform* in the Work Programme 2021-2022. This support will enable Mission Cities to catalyse and sustain innovation and accelerate systemic change towards the objectives articulated in their CCC. In particular, it will support Mission Cities to anchor the resulting paradigm shift and embed transformative change over time towards the new normal of carbon neutrality.
 - Launch and manage calls for proposals to support pilots for the deployment in participating Mission cities;
 - Establish cooperation and regular exchange with the R&I projects that are and will be funded under the Climate-neutral and smart cities Mission Work Programme in order to identify complementarities, avoid potential overlaps with the pilots supported by the Mission Platform and ensure synergies where relevant, to the benefit of the participating cities. This collaboration should be formalised through a Memorandum of Understanding with the relevant projects and initiatives.

The Mission Platform should build on existing actions, including relevant ones developed through Horizon 2020 and Horizon Europe projects. It should collaborate closely with successful ongoing initiatives that have developed knowledge and expertise, in particular with the Covenant of Mayors and their methodologies and processes co-developed with the JRC, and the Covenant Community Group of Cities Practitioners. The assets of the Smart Cities and Communities context (including Energy Communities and Living-in.eu, data space for smart communities), the Smart Cities Marketplace and the Common Services Platform should be factored in, with regard to engaging public, private and civil society stakeholders to support project financing and implementation as well as the promotion of shared standards and technical specifications to facilitate data exchange and to ensure interoperability of solutions. Synergies should be ensured with the upcoming European Urban Initiative of the Cohesion Policy and with the Urban Agenda for the EU and with actions funded under the DIGITAL European Programme.

The Mission Platform will coordinate with the European Commission to ensure that advice and support provided to cities remains aligned to the latest policies and initiatives and makes full use of available tools and services provided or supported by the Commission.

In addition, it will draw in national-level support and expertise through close cooperation with the Cities Mission's national networks, established under the calls HORIZON-MISS-2021-CIT-01-01 and HORIZON-MISS-2024-CIT-02-01.

Specific conditions:

This action allows for the provision of financial support to third parties in line with the conditions set out in General Annex B – Eligibility of the Horizon Europe Work Programme. The activity "Demonstrators accelerating and sustaining city climate-neutrality solutions", includes the launch of open calls for proposals to support pilots for the deployment in participating Mission cities of systemic innovative solutions. For this purpose, beneficiaries may provide financial support to third parties. The support to third parties can only be provided in the form of grants. As a derogation to the standard limit of EUR 60 000 per third party entity set in the Financial Regulation⁴¹ (Article 204), the Commission considers that in order to increase the impact of the pilot projects to be supported under the call(s) that will address the deployment of systemic innovative solutions and in order to achieve the objectives of this action, the maximum amount to be granted to each third party is EUR 1.5 million. The Commission considers that the size of the pilots should range between EUR 0.5 million up to EUR 1.5 million, depending on the expected impact of the proposed projects. The selection of the third parties to be supported under the grant will be based on a review of the proposed work by external independent experts. The scope of these calls will be further defined building on and ensuring complementarities with similar initiatives developed by the projects funded under the Horizon 2020 Green Deal call topic LC-GD-1-2-2020: Towards climate-neutral and socially innovative cities⁴² as well as the projects funded under the *Specific Grant Agreements to the FPA for the Climate-Neutral and Smart Cities Mission Platform* in the Horizon Europe Missions Work Programme 2021-2022.

The standard evaluation criteria, thresholds, weighting for award criteria and the maximum rate of co-financing for this type of action are provided in parts D and G of the General Annexes.

This action will be implemented through Research and Innovation Actions (RIA).

Form of Funding: Grants not subject to calls for proposals

Type of Action: Specific grant agreement awarded without call for proposals in relation to a Framework Partnership Agreement

Indicative timetable: Third quarter 2025

Indicative budget: EUR 30.64 million from the 2025 budget⁴³

⁴¹ <https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX%3A32018R1046&from=EN>

⁴² Horizon 2020 Work Programme 2018-2020, Part 20. Cross-cutting activities, Call - Building a low-carbon, climate resilient future: Research and innovation in support of the European Green Deal: <https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/lc-gd-1-2-2020>. The Horizon 2020 project NetZeroCities - Accelerating cities' transition to net zero emissions by 2030, Grant Agreement n. 101036519, has been selected under the Green Deal call topic "LC-GD-1-2-2020 Towards Climate-Neutral and Socially Innovative Cities" and started its activities on 1 October 2021.

⁴³ Of which EUR 4.50 million from the 'Food, Bioeconomy, Natural Resources, Agriculture and Environment' budget, EUR 5.39 million from the 'Digital, Industry and Space' budget, EUR 0.69 million from the 'Civil Security for Society' budget, EUR 19.25 million from the 'Climate, Energy and Mobility' budget, EUR 0.81 million from the 'Culture, Creativity and Inclusive Society' budget.

2. Financial advisory services and technical assistance to Mission cities

This action aims at supporting the provision of financial advisory services and technical assistance to the 112 cities selected as part of the Climate-neutral and smart cities Mission through its Call for Expression of Interest with the objective to develop and subsequently implement their investment strategy for becoming climate-neutral. Through a top-up of existing activities and advisory structures such as the European Local Energy Assistance (ELENA), Mission cities will receive targeted support including e.g. technical studies, energy audits, business plans and financial advisory, legal advice, tendering procedure preparation, project bundling, project management.

The action should be implemented through the existing advisory agreement with the EIB Group for the implementation of the InvestEU Advisory Hub.

Legal entities:

EIB, 98-100, boulevard Konrad Adenauer L-2950 Luxembourg

Form of Funding: Indirectly managed actions

Type of Action: Indirectly managed action

Indicative timetable: Third quarter 2025

Indicative budget: EUR 16.00 million from the 2025 budget⁴⁴

⁴⁴ Of which EUR 2.35 million from the 'Food, Bioeconomy, Natural Resources, Agriculture and Environment' budget, EUR 2.81 million from the 'Digital, Industry and Space' budget, EUR 10.05 million from the 'Climate, Energy and Mobility' budget, EUR 0.36 million from the 'Civil Security for Society' budget, EUR 0.42 million from the 'Culture, Creativity and Inclusive Society' budget.

EU Missions' Joint Calls

Proposals are invited against the following topic(s):

HORIZON-MISS-2025-06-CIT-CANCER-01: Increasing walking and cycling: to reap health benefits, emission reductions and integrate active mobility and micro-mobility devices, with smart technologies and infrastructure

Call: Joint Call between the Climate-Neutral and Smart Cities Mission and the Cancer Mission	
Specific conditions	
<i>Expected EU contribution per project</i>	The Commission estimates that an EU contribution of around EUR 6.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR 12.00 million.
<i>Type of Action</i>	Innovation Actions
<i>Eligibility conditions</i>	<p>The conditions are described in General Annex B. The following exceptions apply:</p> <p>The following additional eligibility criteria apply:</p> <p>At least five lead cities and five follower cities should be part of the consortium as beneficiaries. The cities must each be situated in different EU Member States or countries associated to Horizon Europe, ensuring geographical balance.</p> <p>If projects use satellite-based earth observation, positioning, navigation and/or related timing data and services, beneficiaries must make use of Copernicus and/or Galileo/EGNOS (other data and services may additionally be used).</p>
<i>Technology Readiness Level</i>	Activities are expected to achieve TRL 7-8 by the end of the project – see General Annex B.
<i>Legal and financial set-up of the Grant Agreements</i>	<p>The rules are described in General Annex G. The following exceptions apply:</p> <p>Grants awarded under this topic will be linked to the following action(s):</p> <p>HORIZON-MISS-2021-CIT-02-03</p>

	<p>Collaboration with the Cities Mission Platform⁴⁵ is essential and projects must ensure that appropriate provisions for activities and resources aimed at enforcing this collaboration are included in the work plan of the proposal. The collaboration with the Mission Platform must be formalized through a Memorandum of Understanding to be concluded as soon as possible after the project starting date.</p> <p>In grants awarded under this topic, eligible costs for major infrastructure works related to the deployment/installment of the walking and cycling solutions should not constitute more than 20% of the total eligible costs. Beneficiaries' own resources and/or mobilisation and leverage of additional investments from other EU programs and initiatives (such as EU Structural and Investment Funds) and/or other sources, private or public, could make up the remaining investment costs to secure the economic and financial sustainability of the project.</p>
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Expected Outcome: Projects are expected to contribute to all the following outcomes:

- Cities advance in **achieving their climate neutrality targets** and reducing greenhouse gas emissions from transport by at least 15%, by promoting and implementing walking and cycling and by incorporating walking, cycling and micro-mobility infrastructure and services (e.g. bicycles, e-bikes and e-scooters) in multimodal transport networks;
- **Increased modal share** of walking and cycling in follower cities, in particular increased number of daily trips on foot and by bike, by at least 30%;
- Increased **integration** of (e)bikes and -e-scooters (and other “intelligent” micromobility vehicles) through the **digital and green** road infrastructure by extending the work on Cooperative Intelligent Transport Systems (C-ITS) to them in order to increase their modal share as well as their safety;
- As a feedback to EU research, health and transport policy, a comprehensive EU guidance on increasing (1) walking, (2) cycling, and (3) micro-mobility in cities is developed, including:
 - concrete measures for improving the quality, safety, quantity, continuity and attractiveness of pedestrian/walking and cycling infrastructure;
 - improved integration of walking, cycling and micro-mobility in transport models and traffic management urban systems/traffic light management at local/regional/national level;

⁴⁵ Set up by Horizon 2020 project NetZeroCities - Accelerating cities' transition to net zero emissions by 2030, Grant Agreement n. 101036519, and scaled up through topic *HORIZON-MISS-2021-CIT-02-03: Framework Partnership Agreement (FPA) for the Climate-Neutral and Smart Cities Mission Platform*.

- o concrete measures for industry and city planners to use smart technologies to bring about healthy behavioural change for getting more people into active modes of transport;
- o support and guidance for urban transport authorities to establish partnerships with the relevant local/regional/national health authorities to promote active mobility projects and solutions that demonstrate quantified health benefits for the city population. In particular through implementation research on cancer prevention by increasing physical activity and reducing obesity and how walking and cycling can improve symptoms and side effects of cancer patients.

The expected outcomes should be supported by clear indicators with baselines and quantified targets which are monitored for each city. The expected outcomes should take into account expected technological and policy developments.

Scope: Mobility and transport are key components in every citizen's life, especially in cities, regardless of their size and population density. However, transport is still a significant source of greenhouse gas emissions, air, noise, soil and water pollution. Congestion and scarcity of public space remain serious challenges to the efficiency of transport systems and reduce the liveability of affected areas at a considerable cost to society and the economy.

Active mobility modes, such as walking and cycling, represent a sustainable and healthy means of mobility, with considerable potential to support the decarbonisation of urban transport and help achieve the EU-wide target of reducing net greenhouse gas emissions by at least 55% by 2030, compared to 1990, and climate neutrality by 2050 in line with the European Climate Law⁴⁶.

According to the WHO, physical inactivity, overweight and obesity are linked to many types of cancer⁴⁷: regular physical activity, maintaining both a healthy body weight and diet can reduce the risk. Similarly, air pollution has been linked to several malignancies⁴⁸, especially lung cancer⁴⁹: an increase in the uptake of cycling and walking is a promising, low-cost, and equitable route to more physical activity, thus reducing the risk of cancer. Engaging patients in physical activity during or after cancer treatment can assist in recovery, reduce the incidence of

⁴⁶ REGULATION (EU) 2021/1119 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 30 June 2021 establishing the framework for achieving climate neutrality and amending Regulations (EC) No 401/2009 and (EU) 2018/1999 ('European Climate Law')

⁴⁷ E.g. oesophagus, colorectal, breast, endometrial and kidney cancer. Excess body mass was responsible for 3.4% of cancers in 2012, including 110,000 cases of breast cancer per year.

⁴⁸ Including lung cancer, urinary bladder cancer and acute leukaemia: the evidence is most abundant for lung cancer, for which several causal factors are well established (Samet JM, Cohen AJ (2006). Air pollution In Schottenfeld D, Fraumeni JF Jr, eds Cancer Epidemiology and Prevention, 3rd ed New York: Oxford University Press, pp 355-381)

⁴⁹ Recent studies published in the AACR journal Cancer Epidemiology, Biomarkers and Prevention have demonstrated that fine particulate matter in the air may increase cancer-specific mortality in adult patients with early breast cancer and in paediatric and young adult patients with various cancers. Globally about 300,000 lung cancer deaths in 2019 were attributed to exposure to fine particulate matter, known as PM2.5 contained in air pollution.

second cancers and other chronic diseases, and improve survival⁵⁰, thus improving their quality of life.

With the increase in numbers of active mobility users as well as the increasing use of micro-mobility devices⁵¹, improvements towards high-quality infrastructure, effective planning and preparation are required. This includes the preparation of cycling and walking infrastructure network plans, raising standards in design guidance documents, linking cycling and walking with other modes of transport, in particular public transport, and improvements in how the transport system and traffic flows are managed.

While cars are becoming more (inter-)connected, more work is needed to test how to bring e-bikes, e-scooters and micro-mobility devices, into the design of “smart” infrastructure through the measures of digitalization and connectivity of vehicles and infrastructure in the intelligent transport systems. Connected mobility / Cooperative Intelligent Transport Systems (C-ITS) are being developed but other road users of (e-)bicycles and e-scooters are yet to be integrated. Although some European cities have already tested use cases of bicycles in intelligent transport systems sector⁵², more efforts are needed to extend the work on C-ITS to them. Additional efforts should lead to increased safety via the digital road infrastructure and an increase in their modal share.

Proposals are therefore expected to address all of the following:

1) improve the quality, safety, quantity, accessibility, continuity and attractiveness of walking and cycling infrastructure by:

- Providing an updated state of the art of the uptake of walking and cycling policies, programmes and projects in urban, transport, research, and health strategies and plans as well as of their socio-economic, environmental and health benefits resulting from their demonstrated potential in emission reduction.
- Preparing cycling and walking infrastructure network plans which foster multimodality by linking cycling and walking with other modes of transport, in particular public transport, and by improving network and traffic flow management.
- Develop case studies and identify best practices particularly focused on quality, safety, quantity, accessibility, continuity and attractiveness of walking/pedestrian and cycling infrastructure.

2) improve integration and modal share of active mobility:

⁵⁰ McTiernan A, Friedenreich CM, Katzmarzyk PT, Powell KE, Macko R, Buchner D, Pescatello LS, Bloodgood B, Tennant B, Vaux-Bjerke A (2019) Physical activity in cancer prevention and survival: a systematic review. *Med Sci Sports Exerc* 51:1252–1261

⁵¹ Micro-mobility refers in this context to a growing range of small, lightweight vehicles options operating at speeds typically below 25km/h and mostly used for trips up to 10km. Micro-mobility vehicles can be personally owned or shared; electric or manual

⁵² [MegaBITS | Interreg North Sea; Final Remarks on the BITS Project, Interreg VB North Sea Region Programme](#)

- Developing a case study to identify how walking and cycling can help to improve symptoms and quality of life of cancer patients.
- Looking at the integration of walking and cycling policies and projects in urban development, transport-research and health strategies and plans through a comparative analysis across at least 10 EU cities, selected by taking into account geographical balance, size and population as well as different levels in the uptake of active mobility.
- Demonstrating in new and/or existing living labs innovative solutions to increase the modal share of active mobility, including through testing tactical urbanism measures in real-life urban spaces.
- Test behavioural change regarding the uptake of walking and cycling among different populations through implementation research. Identify and address specific bottlenecks and barriers that prevent the uptake of behavioural change.
- Fostering the exchange of knowledge, experience and best practices about the implementation and upscale of innovative solutions for walking and cycling that could be replicated and upscaled among cities.
- Supporting the development of local, regional and national active mobility policies, and their implementation across cities participating in the action, leading at least to a 30% increase in the modal share of walking and cycling within follower cities and thus contributing to the implementation of related EU policies and in particular of the European Declaration on Cycling⁵³.

3) use smart technologies and integration in traffic management systems/traffic light management at local/regional/national level, including in the new “smart” infrastructure:

- Exploring conditions and infrastructure requirements for the integration of e-bikes and micro-mobility devices in traffic management systems/traffic light management.
- Identifying and testing use cases to extend connected vehicles technology (C-ITS) to cycling, micro-mobility, bike sharing etc. to enhance the contribution of these transport modes to a sustainable urban mobility system.
- Exploring conditions for a wider uptake of smart technologies in the cycling/micromobility sector taking into account the latest legislative developments⁵⁴ and building on results from previous European R&I projects⁵⁵.

4) coordination/exchange/capacity building for increasing the uptake of active mobility by:

⁵³ [EUROPEAN DECLARATION ON CYCLING \(C/2024/2377\)](#)

⁵⁴ E.g. revised Delegated Regulation on EU-wide multimodal travel information service (MMTIS: https://ec.europa.eu/commission/presscorner/detail/en/qanda_23_6112); ongoing work on building the European Mobility Data Space ([Passenger Mobility Package - European Commission \(europa.eu\)](#)) and the revised ITS Directive ([Directive - EU - 2023/2661 - EN - EUR-Lex \(europa.eu\)](#))

⁵⁵ E.g. BITS – Bicycle and ITS: [BITS, Interreg VB North Sea Region Programme](#)

- Supporting further coordination, exchange of experience and best practices, including training and capacity building activities, as well as co-creation and citizens engagement activities, taking into account the different levels of experience and development of walking and cycling strategies across Europe.
- Involve a variety of actors, including e.g. local/regional/national transport, research and health authorities, cancer charities, academia, public transport authorities and operators, urban mobility practitioners, shared mobility service providers, citizen associations, stakeholder organisations, and industry associations and representatives.

The topic invites proposals from consortia including at least five cities from different Member States and/or Associated Countries, together with at least five follower cities, reflecting a sound geographical balance, where the responsible local authorities and other relevant stakeholders join forces to test and implement packages of technological and non-technological innovations and policy-based measures. At least half of the cities should be among the 112 cities selected for the EU Mission on Climate-neutral and Smart Cities⁵⁶.

This topic requires the effective contribution of social sciences and humanities (SSH) disciplines and the involvement of SSH experts, institutions as well as the inclusion of relevant SSH expertise, in order to produce meaningful and significant effects enhancing the societal impact of the related research activities.

Projects selected through this topic will contribute to the implementation of EU policies and strategies fostering sustainable urban mobility such as the European Green Deal⁵⁷, Sustainable and Smart Mobility Strategy⁵⁸, New Urban Mobility Framework⁵⁹, Recommendation on national SUMP support programme⁶⁰ and in particular active mobility, including the EU Declaration on Cycling⁶¹, as well as contributing to the implementation of the Mission on Cancer⁶² and Europe's Beating Cancer Plan⁶³ in particular promoting active mobility as effective mean of cancer and obesity prevention and to the implementation of the Zero Pollution Action Plan⁶⁴, its targets for 2030 and the relevant Flagship Initiatives, in particular the reduction by more than 55% the health impacts (premature deaths) of air pollution and by 30%

⁵⁶ The EU Mission on Climate-Neutral and Smart Cities aims to deliver 100 climate-neutral and smart cities by 2030 and ensure that these cities act as experimentation and innovation hubs to enable all European cities to follow suit by 2050. On 28 April 2022, the Commission announced the 100 EU cities that will participate in the Mission. In addition, 12 cities have been selected from countries associated or expected to be associated the Horizon Europe programme.

⁵⁷ The European Green Deal, COM(2019) 640 final

⁵⁸ Sustainable and Smart Mobility Strategy – putting European transport on track for the Future, COM(2020) 789 final

⁵⁹ The New EU Urban Mobility Framework, COM(2021) 811 final

⁶⁰ COMMISSION RECOMMENDATION (EU) 2023/550 of 8 March 2023 on National Support Programmes for Sustainable Urban Mobility Planning (notified under document C(2023) 1524)

⁶¹ EUROPEAN DECLARATION ON CYCLING (C/2024/2377)

⁶² [470f388c-1b44-43a1-87f5-cf9119ee0251_en_\(europa.eu\)](https://ec.europa.eu/470f388c-1b44-43a1-87f5-cf9119ee0251_en_(europa.eu))

⁶³ Europe's Beating Cancer Plan, COM(2021) 44 final

⁶⁴ Pathway to a Healthy Planet for All, EU Action Plan: 'Towards Zero Pollution for Air, Water and Soil', COM(2021) 400 final

the share of people chronically disturbed by transport noise, with numerous co-benefits in other areas.

Proposals should plan for an active collaboration amongst the projects selected under this topic - for dissemination, evaluation and coordination - facilitated by and within the CIVITAS⁶⁵ initiative through the signature of a Memorandum of Understanding. Proposals should ensure that appropriate provisions for activities and resources aimed at enforcing this collaboration are included in the work-plan. Detailed description of the specific activities and common actions that will be undertaken is not required at proposal stage and can be further defined during the grant agreement phase. Collaboration with the Mission Platform (HORIZON-MISS-2021-CIT-02-03) is essential and should take place through the CIVITAS initiative. The latter should establish, through a collaboration agreement, clear links with the Mission portfolio for synergies and complementarities. Collaboration with the Driving Urban Transitions (DUT) partnership is recommended.

Proposals should take stock of existing work developed in relevant EU and/or national projects, build on the results of existing studies⁶⁶. In order to ensure complementarity in particular on road safety related aspects, projects awarded under this topic will be invited to liaise and collaborate with the projects that will be selected under topic Horizon-2025-D6-12 “Safety of Cyclists, Pedestrians and Users of other Micro-mobility Devices”.

⁶⁵

<https://civitas.eu/>

⁶⁶

E.g. results from projects funded under the calls: [MG-4.1-2017](#); [LC-MG-1-3-2018](#); [MG-7-2-2017](#); [MG-5.3-2014](#) as well results from the study supported through the call for tender “[THE DEVELOPMENT OF CROSS-BORDER CYCLING LANE INFRASTRUCTURE - EC-MOVE/2024/OP/0029](#)”