

HORIZON-MISS-2024-CIT-01-02 | ZERO-POLLUTION CITIES

1. TOPIC: [HORIZON-MISS-2024-CIT-01-02](#)

Specific conditions	
Expected contribution per Project	EU The EU estimates that an EU contribution of 5.00 M€ would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
Indicative budget	20.00 M€
Type of Action	RIA
Technology Readiness Level	Where technological solutions are proposed, these are expected to reach up to TRL 5 by the end of the project
Deadline	11/02/2025
Eligibility Criteria	The following additional eligibility criteria apply: Proposals are required to address at least two areas listed in the scope .
Other conditions	Grants awarded under this topic will be linked to the following action(s): HORIZON-MISS-2021-CIT-02-03 Collaboration with the Cities Mission Platform[[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 <i>HORIZON-MISS-2021-CIT-02-03: Framework Partnership Agreement (FPA) for the Climate-Neutral and Smart Cities Mission Platform</i>]] is essential and projects must ensure that appropriate provisions for activities and resources aimed at enforcing this collaboration are included in the work plan of the proposal. The collaboration with the Mission Platform must be formalized through a Memorandum of Understanding to be concluded as soon as possible after the project starting date .

Expected Outcome:

Projects are expected to contribute to the **following outcomes**:

- Methods for more **precisely assessing exposure to air, water, soil and/or noise pollution, health impacts** and public information at regional and/or local level;
- Methods for better **assessing exposure of vulnerable groups** (including due to socio-economic context) to air, water, soil and/or noise pollution at regional and/or local level, enabling more precise evidence to inform health impact assessments;
- Improved and comparable **assessment of mortality and morbidity** impacts of air, water, soil and/or noise pollution at regional and/or local level;
- Improved understanding of the role of behavioural economics, psychology and organizational behaviour to design measures oriented to lower pollution in urban environments;
- Improved understanding of the **correlation between improving environmental quality of urban spaces and human health** and wellbeing;

- **Methods for determining the sources** of air pollutants at urban level so that local authorities, stakeholders and citizens know the proportion of the pollutant emissions attributable to urban transport, heating etc.
- **Comparative analysis of selected successful pollution reduction/abatement strategies** at local level and identify key factors underlying such successes and their replication potential.

Scope:

Cities are concerned by various types of pollution, including air, water, soil and noise pollution, and their negative impacts on human health and the environment. Many of these pollutants emanate from the same sources as greenhouse gas emissions being tackled in the context of the EU Mission Climate-Neutral Smart Cities, so it is clear there are potential environmental co-benefits from reducing GHG emissions.^[2] Designing effective policies to protect city dwellers from pollution depends on solid evidence as well as on cooperation and communication between and with policy makers and citizens.

Due to resource constraints, city administrations may often need to prioritise between different actions on different forms of pollution – and for this a solid risk-based evidence-base of the exposure to, impacts of and measures against pollution will allow to arrive at more informed and cost-effective local measures. These measures are often closely connected and affected by energy policy choices demonstrating the benefits of holistic approaches in for instance the planning, budgeting and assessment of costs and benefits in environmental, energy and climate policies at local level.

More informed, coherent and targeted local measures will help European cities to deliver environmental co-benefits under the EU Mission for Climate-Neutral, Smart Cities, comply with or exceed **EU legislative standards for air and water quality**, and supporting the delivery of environmental objectives such as the targets of the **EU Zero Pollution Action Plan** and commitments under the **Green City Accord**.

Applicants should propose projects that deliver better and innovative local measures against pollution through, among others, improved knowledge on the exposures of citizens to pollution and improved health impact assessments and strategies to reduce health impacts related to air, water, soil and/or noise pollution. Where technological solutions are proposed, these are expected to reach up to **TRL 5 by the end of the project**.

In order to address these needs, individual projects must address **at least two of the following areas**:

- Improved health impact assessments to highlight and attempt to monetize the (co)benefits and socio-economic impacts of zero pollution measures, in combination with climate neutrality policies, contributing to better ex-ante cost-benefit analysis and increasing public acceptance of measures.

- Measurement and modelling methods for more precisely assessing exposure and risk-based health impacts at regional and/or local level (should deliver results that can be communicated to the wider public as well).
- More precise evidence on exposure, notably of vulnerable population groups, and making health impact assessments easily comparable.
- Exploration of the effectiveness of dynamic abatement strategies by monitoring changes in pollution levels, complemented by citizen science / observations.

All projects are required to:

- **Develop methods and tools** that can swiftly be deployed and used by cities and regional authorities. Once implemented they should help policy makers prioritise actions, and address social aspects of zero pollution policies,
- **Support implementation of zero pollution policies by overcoming barriers** to behavioural change which natural science and evidence alone cannot overcome. New approaches to address these barriers should be explored from the angles of behavioural economics, psychology, communication and organisational behaviour, with a view to inform effective local and regional zero pollution policies.

Project(s) funded under this topic should involve **at least two cities**. Ideally at least one city in each project should be a city selected for the EU Mission Climate-Neutral Smart Cities and/or a city signatory to the EU Green City Accord (these can be the same city).

To increase impact and coherence, project(s) should maximise coordination and complementarity with the 'Climate-Neutral Smart cities' Mission platform. Collaboration with the Cities Mission Platform 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. Synergies should also be explored and, as appropriate, pursued with other relevant initiatives, such as the European Green Capital / Leaf Awards, European Urban Initiative, the Covenant of Mayors Europe and the New European Bauhaus. Work performed or underway in other Horizon funded projects should also be considered, to the extent feasible, to avoid overlaps or contradictory conclusions. Cooperation with various stakeholders is recommended, for example, with health experts to professionally assess the impact of environmental influences on human health.

Expected impacts:

Proposals should set out a credible pathway to contributing to the main objectives of the Cities Mission, and more specifically, according to their specific focus to the following impacts:

- Enhanced innovation capacity of local/regional administrations and accelerated uptake of shared, smart and sustainable zero emission solutions;

- Increased use of transferrable solutions for sustainable mobility of people and goods exploiting the combined potential of zero-emission mobility systems, automation and connectivity;
- Increased deployment of solutions involving in particular urban greening, renaturing, reducing soil sealing, green/blue infrastructures, nature-based solutions and ecosystem-based approaches tackling both climate mitigation and adaptation aspects;
- Development and testing a digital twin of a Positive clean Energy District and improved knowledge on the necessary (replicable) elements and processes needed to make first a district and subsequently a whole city climate-neutral;
- Improved urban public space connectivity and accessibility of different urban districts and neighbourhoods by integrating multimodality and new (shared) services within the urban public space layout and infrastructure;
- Improved methods for assessing exposure to air, water, soil & noise pollution, particularly of vulnerable groups, informing health impact assessment focusing on the (co-)benefits and socio-economic impacts of zero pollution measures combined with climate neutrality policies;
- Better understanding and enhanced societal acceptance of sustainable mobility management schemes, including guidance and recommendations for national, regional and local authorities, EU institutions, public and private organisations;
- Improved sustainable development of peri-urban areas through the integration of green and smart mobility, energy, industry and governance solutions and measures to achieve climate-neutrality;
- Increased preparedness and capacity of national, regional and local authorities in EU Member States and countries associated to Horizon Europe to engage in cities' transition towards climate neutrality;
- Increased capacity among European cities, with particular attention to those selected under the Cities Mission, to design and roll out their Climate City Contracts, including related investment plans and to achieve climate-neutrality by 2030.

2. HIGHLIGHTS OF EUROPEAN MISSIONS SECTOR KEY DOCUMENTS

Include relevant information on the key documents linked to the topic (SRIAs, Roadmaps, Regulation...). In this case: [EU legislative standards for air and water quality](#), [EU Zero Pollution Action Plan](#), [Green City Accord](#).

DOCUMENT 1

DOCUMENT 2

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3. REFERENCE PROJECTS / SIMILAR TOPICS / MAIN STAKEHOLDERS

Identify related projects (mandatory those cited in the TOPIC) and include a short summary (as proposed below). You can use KAILA to perform this kind of analysis.

Topic: [HORIZON-MISS-2021-CIT-02-01](#)

UP2030 | Urban Planning and design ready for 2030

Coordinator: FRAUNHOFER

Summary: P2030 aims to guide cities through the socio-technical transitions required to meet their climate neutrality ambitions. It will do so by enabling a quantum leap from a 'business as usual', project-by-project decarbonisation approach to a vision-driven, strategy-based approach that is anchored on sound projects and renewed policy development. The approach uses urban planning and design as a vehicle to create better connected, more compact, net-zero neighbourhoods in the city pilots – i.e. neighbourhoods that promote liveability and, through designing with intent, promote mitigation action.

4. KEY ISSUES NEEDED TO CONSIDER

KEY ISSUE	HOW TO SOLVE THE ISSUE
<i>(*) Include <u>at least two cities</u></i>	<i>(*) Include at least 2 cities with different urban development plans that will help to validate methods and tools developed within the project, located in different European climates (North-Continental, Central-Atlantic and South-Mediterranean).</i>
<i>TRL5 by the end of the project</i>	<i>This means that technological tools developed must be validated in a relevant environment (i.e. cities within the project)</i>