



EUROPEAN UNION



# EU MISSIONS

**CLIMATE-NEUTRAL & SMART CITIES**

**Concrete solutions for our greatest challenges**



#EUmissions #HorizonEU #MissionCities



## WHY A MISSION ON CLIMATE-NEUTRAL CITIES?

- **75%** of EU citizens live in cities → projected to increase to about 85% in 2050
- **65%+** of energy consumption and **70%+** of CO<sub>2</sub> emissions worldwide stem from cities
- The **European Green Deal** is set at EU / national level, but will be implemented at local level – particularly in cities and regions – where policy meets people
- Multiple **co-benefits from climate action** – lower air/noise pollution, less congestion and safer mobility, a more secure energy supply, more comfortable buildings, healthier lives
- Cities have the **ambition** to go further – they need targeted help to achieve their goal of climate neutrality



## OBJECTIVES OF THE MISSION



1. Deliver at least 100 climate-neutral and smart European cities by 2030
2. Ensure that these cities act as experimentation and innovation hubs to put all European cities in a position to become climate-neutral by 2050



EUROPEAN UNION

#MissionCities

EU MISSIONS

EU27

28 April 2022

# ANNOUNCEMENT OF THE SELECTED CITIES

100 EU cities and 12 cities from Associated Countries selected from 377 applicants



Cities from every Member State



Capital cities



Small, medium, large cities



Frontrunners and less prepared cities

## Associated countries

- ALBANIA**  
Elbasan
- BOSNIA AND HERZEGOVINA**  
Sarajevo
- ICELAND**  
Reykjavik
- ISRAEL**  
Eilat
- MONTENEGRO**  
Podgorica
- NORWAY**  
Oslo  
Stavanger  
Trondheim
- TURKEY**  
Istanbul  
Izmir
- UNITED KINGDOM**  
Bristol  
Glasgow

Selected EU cities represent 12% of EU population



## MAIN ELEMENTS OF THE MISSION

### Horizon Europe

#### Mission Platform

- Run by [NetZeroCities](#) consortium
- Tailor-made advice on technical, regulatory, financial and social innovation issues
- R&I demonstrators
- Twinning and mutual learning

#### Portfolio of R&I projects



### Climate City Contracts

- Including climate action plan and investment strategy
- Innovative city governance and citizen engagement
- Involvement of European, national and regional level



### MISSION LABEL



- Synergies with other programmes
- Help with access to funding and financing

## Missions Work Programme 2023

### Weblink

[https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/wp-call/2023-2024/wp-12-missions\\_horizon-2023-2024\\_en.pdf](https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/wp-call/2023-2024/wp-12-missions_horizon-2023-2024_en.pdf)

# Cyprus' Performance in Mission Climate Neutral and Smart Cities Horizon Europe Work Programme 2021-2022

Source: NCPs / PC members





## MAIN ORIENTATIONS

### Cities Mission part of Missions Work Programme 2023

- Coherence with the commitments made in the Cities Mission **Implementation Plan**
- Contribution to the implementation of the Mission's **1<sup>st</sup> objective by supporting cities committed to climate neutrality by 2030**, in synergy with significant progress towards zero pollution, sustainable urbanisation and digital transformation
- Contribution to the Mission's **2<sup>nd</sup> objective by using these cities as experimentation and innovation hubs for other cities to become climate-neutral by 2050.**
- Developing **synergies** with other Missions (i.e. Adaptation to Climate Change Mission) and Horizon Europe Partnerships (CCAM, 2Zero)

Horizon Europe Missions Work Programme 2023 Cities Mission part	Funding scheme	Important dates	Budget EUR M
<b>HORIZON-MISS-2023-CIT-01-01:</b> Co-designed smart systems and services for user-centred shared zero-emission mobility of people and freight in urban areas (2Zero, CCAM and Cities Mission)	IA	Opening: 10 Jan 2023 Deadline: 27 Apr 2023	50*
<b>HORIZON-MISS-2023-CIT-01-02:</b> Positive clean energy district (PED) digital twins – from modelling to creating climate-neutral cities	IA	Opening: 10 Jan 2023 Deadline: 27 Apr 2023	20
<b>HORIZON-MISS-2023-CLIMA-CITIES-01-01:</b> Urban greening and re-naturing for urban regeneration, resilience and climate neutrality	IA	Opening: 10 Jan 2023 Deadline: 27 Apr 2023	40**
<b>HORIZON-MISS-2023-CIT-02-01:</b> Associating Ukrainian cities to the Climate-Neutral and Smart Cities Mission	CSA	Opening: 4 Apr 2023 Deadline: 6 Sep 2023	5

\* including EUR 30M from partnerships

\*\*including EUR 20M from Adaptation to Climate Mission



## HORIZON-MISS-2023-CIT-01-01: Co-designed smart systems and services for user-centred shared zero-emission mobility of people and freight in urban areas (2Zero, CCAM and Cities Mission) [weblink](#)

**Scope:** Urban mobility for passengers and freight is a key sector that cities need to address to accelerate their transition to climate neutrality. Citizens, urban planners, transport operators and technology providers should jointly exploit the combined potential of electric, automated and connected vehicles and of integrated and shared people mobility and freight transport in their planning and actions.

### Expected Outcomes

- User-centric and needs-based mobility solutions co-designed with local authorities, citizens and stakeholders, tested and implemented in cities
- Capacity built among local authorities, users and mobility systems providers
- Transferrable solutions for mobility of people and/or freight exploiting the combined potential of electrification, automation and connectivity
- Implementation plans for local and public transport authorities
- Reduced GHG emissions and improved efficiency, safety and inclusiveness

**Type of Action:** Innovation Action



## HORIZON-MISS-2023-CIT-01-02: Positive clean energy district (PED) digital twins – from modelling to creating climate-neutral cities [weblink](#)

**Scope:** Understanding and modelling of the Positive Clean Energy District system to get a picture of the status quo and extent of the challenge. The digital twin will then help to find the most effective integration of solutions and to adapt/manage/optimize the real system over time. The scope goes beyond the creation of a digital twin and integration of (technical) PED solutions. It shall be the starting point for a reflection on the necessary (replicable) elements and processes needed to make the district and later the city climate neutral.

### **Expected Outcomes:**

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

- Increased number of (tangible) city planning actions for positive clean energy districts using the (proto-)PED design, development and management digital twin tools (based on pre-market research learnings) using open-standards based components which can be reused elsewhere.
- Enhanced data gathering approaches with identification relevant (standardised) multi-dimensional data set (e.g. meteorological, load profile, social, geo-spatial, etc.) including relevant forecasting data, drawing also on the work of common European data spaces, including the smart communities data space.

**Type of Action:** Innovation Action



## HORIZON-MISS-2023-CLIMA-CITIES-01-01: Urban greening and re-naturing for urban regeneration, resilience and climate neutrality [weblink](#)

**Scope:** To enable cities through integrated urban planning to design and mainstream “greening” and “re-naturing” solutions into regeneration and rehabilitation plans targeting, e.g. derelict industrial sites and brownfields, upgrading large estate social housing, deprived districts and neighbourhoods, neglected or abandoned areas etc. to tackle both CC mitigation and adaptation simultaneously by reducing energy demands (active mobility, natural heating/cooling etc.) and GHG atmospheric concentrations (sequestration, carbon sinks), enhance urban climate change resilience (e.g. heatwaves, urban heat island effect, pollution, flood risks, heavy precipitations, flooding, extreme weather events), with multiple co-benefits: health, well-being, social cohesion, air/water purification etc.

### Expected Outcomes:

- Regenerated, re-natured and socio-economically upgraded targeted urban areas
- More climate- and pollution-proofed, liveable, functional, healthier and resilient cities and communities
- Participative urban planning and co-design practices for urban regeneration, re-purposing and rehabilitation

**Type of Action:** Innovation Action *[joint topic with the Adaptation to Climate Change Mission]*



## HORIZON-MISS-2023-CIT-02-01: Associating Ukrainian cities to the Climate-Neutral and Smart Cities Mission [weblink](#)

**Scope:** Associate Ukrainian cities to the climate neutrality efforts that are being promoted by the Climate-Neutral and Smart Cities Mission. This presents an opportunity for Ukraine and its cities to combine reconstruction with long-term climate neutrality and sustainability objectives in line with the EU Green Deal, relevant international policy frameworks and the New European Bauhaus initiative.

### Expected Outcomes:

- Contribute to the implementation of EU policy and international commitments (European Green Deal, Global Approach to Research and Innovation);
- Identify a core group of Ukrainian cities that would commit to a climate neutrality target, including in reconstruction efforts;
- Accelerate the systemic transition to climate neutrality of Ukrainian cities by preparing local authorities to meet the overarching objectives of the European Green Deal;
- Engage cities participating in the Cities Mission in twinning and teaming activities with Ukrainian city partners

**Type of Action:** Coordination and Support Action



EUROPEAN UNION



# Thank you!

**#MissionCities**

**#EUmissions**

**#HorizonEU**

© European Union, 2021

Reuse is authorised provided the source is acknowledged and the original meaning or message of the document are not distorted. The European Commission shall not be liable for any consequence stemming from the reuse. The reuse policy of the European Commission documents is implemented by Commission Decision 2011/833/EU of 12 December 2011 on the reuse of Commission documents (OJ L 330, 14.12.2011, p. 39).

All images © European Union, unless otherwise stated. Icons © Flaticon – all rights reserved.