

# EU Mission: Climate-Neutral and Smart Cities

#### Dr. E. Bekiaris

Director, Hellenic Institute of Transport (HIT - www.imet.gr)

Vice-President, Centre for Research & Technology Hellas (CERTH – <a href="https://www.certh.gr">www.certh.gr</a>)

GR representative in EU Mission of Climate-Neutral & Smart Cities <a href="mailto:abek@certh.gr">abek@certh.gr</a>

### What are EU Missions?



- EU Missions (5) are a novelty of the Horizon Europe research and innovation programme for the years 2021-2027.
  - Adaptation to Climate Change
  - Cancer
  - Restore our Ocean and Waters by 2030
  - 100 Climate-Neutral and Smart Cities by 2030
  - ☐ A Soil Deal for Europe



- Each mission will operate as a **portfolio of actions** such as research projects, policy measures or even legislative initiatives to achieve a **measurable goal** that could not be achieved through individual actions.
- ➤ They also aim to **mobilise and activate public and private actors**, such as EU Member States, regional and local authorities, research institutes, farmers and land managers, entrepreneurs and investors to **create real and lasting impact**.
- Missions will engage with citizens to boost societal uptake of new solutions and approaches.

# 100 Climate-Neutral and Smart Cities by 2030



The objectives of the mission are to achieve 100 climate-neutral and smart European cities by 2030 and to ensure that these cities act as experimentation and innovation hubs to enable all European cities to follow suit by 2050

The Cities Mission will involve local authorities, citizens, businesses, investors as well as regional and national authorities to:

- 1. Deliver 100 climate-neutral and smart cities by 2030 (in progress).
- 2. Ensure that these cities act as experimentation and innovation hubs to enable all European cities to follow suit by 2050.

# 100 Climate-Neutral and Smart Cities by 2030



#### The envisaged actions aim at:

- → accelerating the transition of European cities to climate neutrality by **exploiting the potential of electric**, **automated and connected as well as shared people mobility and freight transport** through a joint action with the Horizon Europe Partnerships dedicated to **Zero-emission Road Transport** (**2Zero**) and **Connected**, **Cooperative** and **Automated Mobility** (**CCAM**);
- → engage cities in decisive climate mitigation and adaptation efforts to reduce emissions, based on innovative use of urban greening and nature-based solutions through a joint action with the Adaptation to Climate Change Mission;
- → develop and test a digital twin of a Positive clean Energy District (PED) covering modelling, management, citizen interaction, self-optimization, decision support/scenario analysis.

Relevant areas of action

- → Sustainable *Urban Mobility*
- → *Energy neutral* and bioclimatic homes and offices
- → Renewable Energy Sources and Intelligent Energy Grids
- → Interconnected City and its Intelligent Management Systems
- → *Intelligent Water* and Wastewater Management Systems
- → Sustainable Urban Environment and *Biodiversity*
- → Sustainable *Tourism*
- → *Security* and *Cyber*security
- → Business models of Smart Cities
- → *Training a*nd Certification of Municipalities staff on Intelligent Technologies and Cities issues
- → Interconnection and Mobilization of *Civil Society*



# The Call for Expression of Interest t "100 climate-neutral and smart citie

On 25 November 2022, the Commission launched a call for expression of interest addressed to cities to join the European Mission on Climate-Neutral and Smart Cities → End of Call 31/1/2022



- ➤ 100 cities from EU Member States + 12 cities from associated countries have been selected to pursue ambitious goals to reduce emissions rapidly and pioneer innovative approaches with citizens and stakeholders.
- By joining the mission, selected cities will be at the forefront of innovation and the transition towards climate neutrality, as part of the European Green Deal.

• 6 Greek cities in the 100 Smart Cities of Europe! **EU CITIES** 

• 1<sup>st</sup> place considering the population parameter



## Greece's Representation in Climate-Neutral and Smart Cities Mission

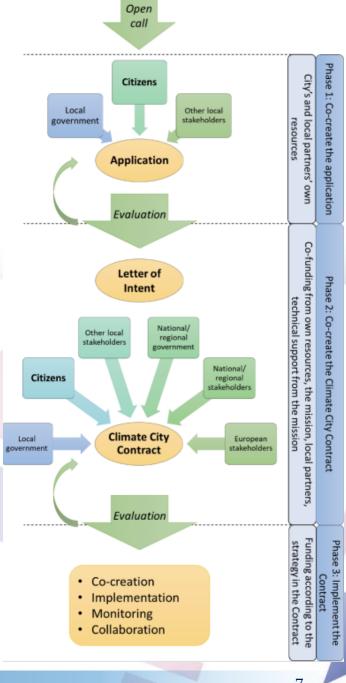
- Six Greek cities in Europe's 100 climate neutral by 2030 (Athens, Thessaloniki, Kalamata, Ioannina, Trikala and Kozani).
  - A total of 22 notable applications were submitted by Greek municipalities / municipal partnership bodies, most of which concluded in January 2022 a Memorandum of Cooperation at the initiative of the Hellenic Ministry of Environment and Energy to accelerate their transition to climate neutrality and in their digital transformation, while simultaneously recovering from the coronavirus pandemic.
- □ Currently, the Memorandum of Cooperation includes **78 Greek municipalities** with the contracting parties realizing the need to integrate the new elements through the strongest and widest possible participation of agencies.

		ΑΡΙΘΜΟΣ		
Κατάταξη	ΕΥΡΩΠΑΙΚΕΣ ΠΟΛΕΙΣ 📢	ΠΟΛΕΩΝ 🚚		
1	Γαλλία	10		
2	Γερμανία	9		
3	Ιταλια	9		
4	Ισπανία	7		
5	Σουηδία	7		
6	Ελλάδα	6		
7	Ολλανδία	6		
8	Φιλανδία	6		
9	Πολωνία	5		
10	Βέλγιο	4		
11	Δανία	3		
12	Ουγγαρία	3		
13	Πορτογαλία	3		
14	Ρουμανία	3		
15	Σλοβενία	3		
16	Βουλγαρία	2		
17	Ιρλανδία	2		
18	Λετονία	2		
19	Λιθουανία	2		
20	Σλοβακία	2		
21	Αυστρία	1		
22	Εσθονία	1		
23	Κροατία	1		
24	Κύπρος	1		
25	Λουξεμβούργο	1		
26	Μάλτα	1		
27	Τσεχική δημοκρατία	1		



# **Climate City Contracts**

- Mission Cities will start their journey with the creation of their **Climate City Contract**, an overall plan for climate neutrality across all sectors such as energy, buildings, waste management and transport, together with related investment plans. This process will involve **citizens**, **research organisations** and the **private sector**.
- Climate City Contracts will be co-created with local stakeholders and citizens, with the help of a Mission Platform (which is currently managed by NetZeroCities), providing the necessary technical, regulatory and financial assistance to cities. The Cities Mission online portal is fully functional (<a href="https://netzerocities.app">https://netzerocities.app</a>)
- NetZeroCities also runs a its **Pilot Cities Programme** that tests new approaches to reaching climate neutrality goals across cities in Europe. €32 million As part of the EU Cities Mission, the Pilot Cities Programme is providing in grants and hands-on support to cities.



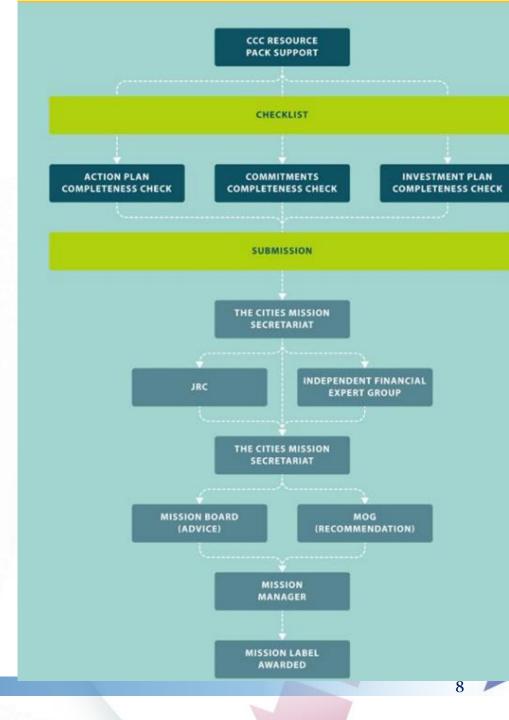
# **Climate City Contracts**



- ➤ Guidance materials and templates for 3 components (Action Plan, Investment Plan and Commitments Document) were published.
- City Advisors have met with the Mission Cities they will be supporting through a series of "Discovery Meetings" and the Support Needs Assessment Process (SNAP).
- Estimated CCC signing ambition (based on NZC survey among Mission cities): Q1 2023 18, Q2 2023 25.

#### **CCC** review process – <u>Suggested</u> workflow

- Completeness check by the Mission Platform
- Assessment by Cities Mission Secretariat, JRC and independent financial group
- Advice of the Mission Board and recommendation of the Mission Owners Group
- Award of Mission label



# Climate-Neutral and Smart Cities Mission Calls – WP2023

2023	Funding Scheme	Project size EUR M	Expected projects to be funded	Budget in WP EUR M	Deadline
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)	IA	25	2	50*	27 Apr 2023
HORIZON-MISS-2023-CIT-01-02: Positive clean energy district (PED) digital twins – from modelling to creating climate neutral Cities		6-7	3	20	27 Apr 2023
HORIZON-MISS-2023-CLIMA-CITIES-01-01: Urban greening and re-naturing for urban regeneration, resilience and climate neutrality	IA CSA SGA/RIA	10-12	4	40**	27 Apr 2023
HORIZON-MISS-2023-CIT-02-01: Associating Ukrainian cities to the Climate-neutral and smart cities Mission		5	1	5	6 Sep 2023
Other actions Specific Grant Agreement to the FPA to top-up the operations of the Mission Platform		40	1	40	Indicative timetable: 1st quarter 2023
TOTAL				155	

<sup>\*</sup>Including EUR 30M from partnerships \*\*Including EUR 20M from Adaptation Mission

### **Additional Related Initiatives**



# Driving Urban Transitions to a Sustainable Future

- The DUT partnership aims to contribute significantly to the European and global mission on climate-neutral cities, the European Green Deal, and the Urban Agenda for the EU by developing and implementing a transformative research and innovation (R&I) programme.
- In order to enhance the impact of the R&I investments for local action, a comprehensive programme management is established including capacity building measures and creating evidence with and for cities and urban actors.

#### **Facts**

- ✓ A public-public partnership, co-funded by 27 European countries and the European Commission under Horizon Europe.
- ✓ A consortium with 60+ national and regional R&I funders, authorities and agencies dealing with urban policy, research performing organisations and other organisations as strategic partners.
- ✓ Annual calls addressing topics related to three impact pathways: -15-minute City, Positive Energy Districts, Circular Urban Economies.
- ✓ 450 million EURO minimum indicative budget for 2022-2028.



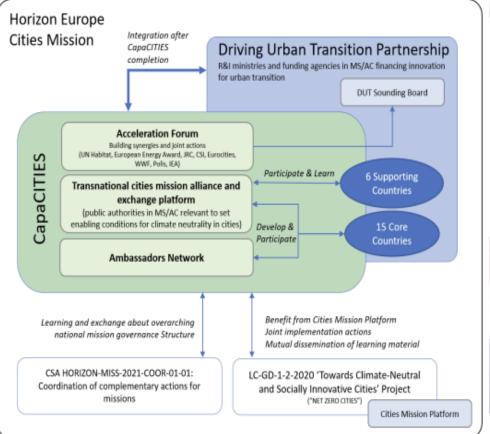
"To support cities along their specific strategies, the DUT Partnership focuses on three critical urban sectors and their interrelations."

### **Additional Related Initiatives**

# CapaCITIES BUILDING CAPACITIES FOR THE CLIMATE NEUTRAL AND SMART CITIES MISSION

- CapaCITIES aims to provide support for national and regional authorities for a transformative national change processes by improving their multi-level governance and shaping national ecosystems for urban climate neutrality transitions.
- ➤ **Transnational exchange** is being facilitated to learn across countries and enhance the momentum for the city mission.
- The CapaCITIES consortium represents not only 15 European countries but **builds upon a well-established network of national authorities** with its relevant urban stakeholder organisations beyond the consortium partners and countries.
- ➤ CapaCITIES capitalises on these trusting relationships that have formed through JPI Urban Europe and DUT and brings together 60 organisations from national, regional and local levels.







- CERTH/HIT and GSRI are representing Greece as Partners in both DUT and CapaCITIES initiatives, contributing to the effort:
  - of shaping a European environment that will favour urban climate neutrality transitions for national, regional and local authorities.
  - initiating and strengthening national change processes by creating national networks and governance structures and by providing specific support to public authorities to establish favourable conditions and measures for cities to achieve the relevant mission of cities.

# **Coming Events:**



#### How to strengthen national governance for achieving the Cities Mission

20 March, 14:00-16:00 (CET), online

Are you interested in how to strengthen national governance for achieving the Cities Mission? Join our first webinar on good practice cases from Austria, France, Greece and Hungary.

MORE INFO

National event will be held in Thessaloniki in the context of CapaCITIES @ Mid March → We will be very glad to see you there! For more info please contact Mrs. Matina Loukea (mloukea@certh.gr)