

# Horizon Europe Missions

## Climate Neutral and Smart Cities

[#HorizonEU](#) [#EUmissions](#)

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[#MissionCities](#)



This presentation is based on the Commission Proposals for Horizon Europe and the draft legal texts on Horizon Europe agreed between the European Parliament and the Council in March/April 2019. It does not represent the official view of the European Commission.

# Adaptation to climate change, including societal transformation



Healthy oceans, seas, coastal and inland waters



**5 mission areas**



Cancer

Climate-neutral and smart cities



Soil health and food



## Research and innovation missions

- Strong visibility and **impact**
- Achieve a bold, inspirational and measurable **goal** within a set timeframe
- Find **solutions** to some of the major challenges faced by European citizens

# What a EU mission is NOT

Missions are an entirely new approach based on portfolios of actions working towards broadly defined goals, and should not be confused with existing methods and instruments i.e. missions are not the same as

- **R&I** Programmes
- R&I **Partnerships**
- Focus Areas from **Horizon 2020**
- Single projects or topics
- Horizon Europe **Clusters**

# Climate Neutral and Smart Cities – Mission Board

#MissionCities

OUR ORDERS

- Be **bold and inspirational**, with wide societal relevance;
- Indicate a **clear direction**: targeted, measurable and time-bound;
- Be **ambitious but realistic** research and innovation actions;
- Spark **innovation across disciplines**, sectors and actors;
- Be based on a **bottom-up approach** of multiple solutions
- **Engage citizens** in co-designing, co-creating, co-implementing and co-assessing missions



# Mission Boards

- Top-level independent experts (max 15 per mission area)
- Sectoral, gender and geographical balance
- Mixture of high level profiles from research and academia, industry, innovation and business, policy, public sector, citizens associations, public engagement and science education, international agencies, civil society organisations, foundations, finance and communication

# Mission Board for Climate Neutral and Smart Cities



**Hanna  
GRONKIEWICZ-WALTZ**



**Allan  
LARSSON**



**Katrine Krogh  
ANDERSEN**



**Anna Lisa  
BONI**



**Paulo  
FERRAO**



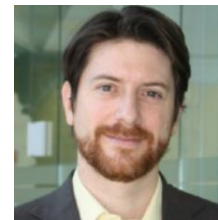
**Emmanuel  
FOREST**



**Romana  
JORDAN**



**Barbara  
LENZ**



**Julio  
LUMBRERAS**



**Chrysses  
NICOLAIDES**



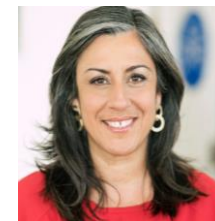
**Joakim  
REITER**



**Martin  
RUSS**



**Anne SULLING**



**Maria  
VASSILAKOU**



# Mission Board role: Our Tasks

Mission Boards will **advise** the European Commission on:

- Identification of one or more missions in the respective mission area, with input from stakeholders and citizens
- Content of work programmes, with input from stakeholders and citizens
- Characteristics of project portfolios for missions
- Adjustment actions, or termination if appropriate
- Selection and briefing of independent expert evaluators, specific evaluation criteria and their weighting;
- Framework conditions which help achieve the objectives of the mission
- Communication
- Policy coordination/synergies
- Key performance indicators

# Climate Neutral and Smart Cities – Definition and issues at stake



- **Cities in the EU:**

- 800 cities of more than 50,000 inhabitants
- 150 cities of more than 250,000 inhabitants
- 2 metropolitan areas above 10 Million



- **Climate Neutral cities:** A city with no carbon emissions from direct sources or with some (close to zero) emissions that are compensated through carbon removal activities.
- **Smart cities:** A smart city is a place where traditional networks and services are made more efficient with the use of digital and telecommunication technologies for the benefit of its inhabitants and business.



- Cities occupy **3% of the planet's landmass** but consume over **65% of the world's energy** and account for more than **70% of the global CO<sub>2</sub> emission**
- 75% of the European citizens live in cities and expected to **raise to 85% by 2050**
- Paris Agreement and Agenda 2030
- European Green Deal: **Europe first climate neutral continent by 2050**, more ambitious target for 2030





*“When it comes to climate action, **no one is doing more than cities, but no one is doing enough.** We are entering a make-or-break decade for the preservation of our planet and environmental justice for every community”*

Eric Garcetti, C40 Chair & Mayor of Los Angeles

# Climate Neutral and Smart Cities – State of Play

# Climate Neutral and Smart Cities – Report – December 2019



## ***100 Climate Neutral Cities by 2030 by and for citizens***

- Establish a mission that will support and promote 100 European cities in their systemic transformation towards climate-neutrality by 2030;
- Direct impact on climate and associated benefits on citizens' wellbeing (air quality, healthier lifestyle...) and job creation.





- Propose a mission on climate neutral and smart cities that will maximize the impact of EU support to R&I and demonstrate its relevance for society and citizens;
- Holistic, systemic approach (buildings, resources, mobility, services...);
- R&I only a component of the Mission, synergies needed with other EU and MS programs and policies and funding sources



Citizens are:

- Political **actors** in the city governance structure

*As well as*

- **Users, producers, consumers and owners**

*»» Citizens and civil society have a primary role in driving systemic transition towards climate neutrality of cities*



- Support and promote **100 European cities** towards climate neutrality by 2030 and turn them into models for all cities in the run to 2050;
- Offer cities **financial means** to achieve the mission goals through Horizon Europe and other EU instruments;
- Build a multi-level, **co-creative process**, formalized through a Climate City Contract, to turn key barriers into drivers;
- Help delivering the **SDG** by improving air quality, creating jobs, promoting healthier lifestyles, and reducing the negative effects of **mobility**;
- Capitalize on existing European **climate initiatives and stakeholders** (CoM, EIT KICs, SET Plan...);
- Collaborate with European **businesses** in order to contribute to innovation and improve their global **competitiveness**.



The Climate City Contract will:

- Identify the **policy and implementation gaps** as a basis to inform a roadmap for transition;
- **Coordinate all stakeholders** within the city towards a common climate goal;
- **Coordinate national and EU authorities** to deliver the necessary legal, governance and financial framework conditions necessary to give each city the means to achieve climate neutrality;
- **Create a one-stop-shop** for multi-level negotiations in order to facilitate city activities to make the transition reality.

The Climate City Contract will be **adapted to the specificities of each city**, will **include goals and targets, strategies and the roadmap** for achieving the transition



The Climate City Contract will address the following barriers and turn them into drivers:

- Models for the **transformation of cities to innovation hubs**;
- New forms of **governance**;
- A new **economic model for climate action**;
- A model for **integrated urban planning** and operations;
- **Smart technologies, data platforms** and urban system modeling.

The Climate City Contract should be a **binding document** that will be signed by the local government, the Commission and the respective national or regional authorities.



## **Models for the transformation of cities to innovation hubs:**

- City innovation not to be considered exclusively from the perspective of advancing only technological, but also the social, creative, organizational and financial innovations needed to transform cities;
- Cities will test new ideas, technologies, solutions and methodologies; they will be encouraged to introduce management roles or structures that will act as catalyzers of innovation across departments and traditional organizational 'silos'.



## New forms of governance:

- Propose a systemic transformation that goes beyond the usual top-down approach, privileging on-the-ground coordination with stakeholders to jointly agree upon a vision, targets and measures and finding synergies to share and reduce their climate impact;
- **The involvement of citizens is pivotal for the success of the mission;**
- **The Climate City Contract will give citizens and civil society an active role, new platforms to act from, and resources to design and implement climate actions.**



## A new economic model for climate action:

- **Combine financing** from different European, national and local resources, across the whole “value chain” from R&I to planning, investment and implementation;
- Propose that all relevant EU funding programs should be designed with a “**window**” to **allocate resources** to the mission for climate neutral cities.





## A model for integrated urban planning and operations:

- Break the traditional silos in urban projects;
- Approach urban development and projects using an integrated urban system in order to **make efficient use of resources** and provide significant benefits for cities, their citizens and the economy;
- Develop and implement a **common perspective** to the planning and running of this integrated urban system for all cities in Europe.



## Smart technologies, data platforms and urban system modeling:

- Smart and **digital technologies and data use** can improve the efficient use of resources and better decision making, including by making use of **urban systems modeling**;
- Need to **incentivize private investments**, promote voluntary data sharing, establish digital twins, **ensure open platforms** and put in place a **harmonized approach to public procurement** on the supply-side.



For the Climate City Contract, a city can refer to a:

- City district, neighborhood or zone of special interest of a city administered or governed by a type of “district council”;
- City represented by a government unit (e.g. municipality);
- Conglomeration or a functional area consisting of many neighboring cities or government units, represented by the respective government units;

The 100 cities will be encouraged to include in their Climate City Contracts **partner cities** with significant structural challenges, who will be supported in achieving climate neutrality.



- Cities through the Climate City Contract will focus on climate mitigation but will also address climate adaptation and resilience
- To be further developed in coordination with the Climate Adaptation mission



- **Mitigating** and offsetting all GHG (in CO<sub>2</sub>-eq) within a city by 2030, is the key target of the mission;
- Other anthropogenic impact to the climate, environment, energy transition, resilient cities and smart cities will be part of a **monitoring and reporting framework**;
- **Biennial reporting**, using possibly the “deep decarbonization pathways” approach;
- Help move from production-based (scope 1 and 2) to consumption-based carbon accounting (inclusion of Scope 3 emissions in the measurement).

# Climate Neutral and Smart Cities – Next steps

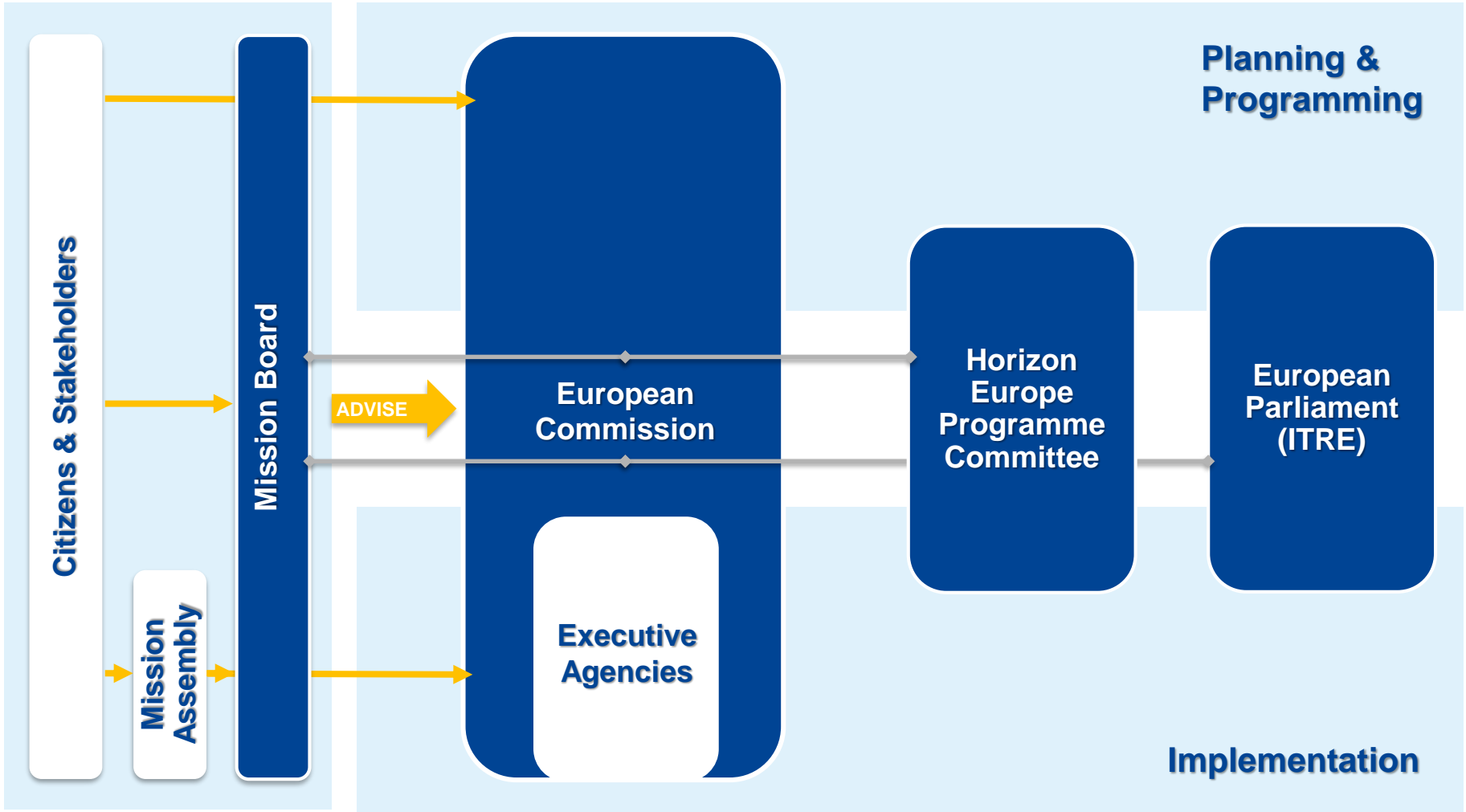


- Consultations with stakeholders and citizens engagement activities will be launched in first half of 2020
- Consolidation of the Mission concept and its implementation by Mid 2020
- Identification of R&D activities to be implemented in the first Work Programme (2021-2022) of Horizon Europe

# Dialogue with Member States and European Parliament



# Actors in Mission Co-Design



# Timeline

# Steps towards Horizon Europe Strategic Plan & Missions in the Work Programme



# Link with the European Green Deal



- European Green Deal:
  - Prioritize revision of climate legislation and targets for 2030
  - European Investment Bank to become a Climate Bank
- Green technology prices and markets conditions moving in directions that favor climate-friendly investments

- Achieving Climate neutrality: Comprehensive plan to increase the EU climate ambition for 2030 and 2050
- Clean, reliable and affordable energy
- Sustainable transport: strategy for sustainable and smart mobility by 2020, alternative fuels supply, more stringent air pollutant emission standards...
- Zero pollution Europe: air pollution action plan...
- Financing the transition: facilitate the identification of a robust pipeline of projects

- 35% of Horizon Europe will fund new solutions for implementing the Green Deal
- 4 Green Deal Missions will help deliver large scale changes
- Partnerships with industry and Member States will support R&I on strategic sectors such as transport, energy...
- EIC dedicate funding to achieve breakthrough Green Deal innovation

***Conventional approaches will not be sufficient***

# YOUR Turn - #MissionCities



# 3 crucial Questions #MissionCities

## What do YOU say?

- How do YOU envisage your green city by 2030? What can YOU do to achieve this vision?
- What can YOUR CITY do to achieve this vision?
- What can the MISSION do to achieve this vision?



Thank you!

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**<http://ec.europa.eu/horizon-europe>**