



**URBAN
TRANSITIONS**
MISSION

Sept 2022

Urban Transitions Mission's Innovation Roadmap

EXECUTIVE SUMMARY



The Challenge

Cities account for nearly three-quarters of global energy consumption and 70% greenhouse gas emissions and are a key actor to accelerate progress towards the Paris Agreement goals and pathways to net-zero. To meet the global climate goals, national governments, local governments, the business sector, local stakeholders and civil society must quickly partner to accelerate the implementation of a holistic transition to a net-zero future.

The Goal

The Mission will work with a cohort of 50 ambitious cities worldwide to demonstrate integrated pathways towards holistic, people-centred urban transitions built around clean energy and innovative net-zero carbon solutions. By 2030, these pathways will be validated by a group of 250 cities and inspire cities across world regions on their journey towards decarbonisation.

The Mission

The Mission will mobilise decision makers across all levels of government to prioritise climate-neutral and net-zero pathways enabled by clean energy and systemic innovation across all sectors and in urban governance. By accelerating capacity-building and closing the gap between research, development and deployment, the Mission will empower cities to adopt innovative solutions and help reach the tipping points in the cost and scale of those solutions for urban transitions.

Innovation Roadmap – Executive Summary

The transformation of the urban environment must follow a long-term and holistic strategic approach involving multiple actors in the co-creation and co-implementation.

Urban development must be based on ambitious approaches aimed at lowering the energy needs and consumption and the greenhouse gas footprint of the community in the first place. It must rely on the integration of existing and innovative solutions such as currently available technologies, nature-based solutions, the electrification of end-use sectors together with a mainstream application of renewable energy sources, resilient and flexible infrastructures, and good governance and policies that allow stakeholder to actively engage in the transition and invest in the long-term vision. The integration of urban development and planning across sectors unfolds the full potential towards climate neutrality and net-zero development, and its co-benefits for the community.

The Urban Transitions Mission wishes to increase the capacity of cities worldwide, empowering them to shape urban transitions based on robust knowledge and a strong net-zero community of support and exchange. Thanks to increased capacity and access to knowledge, cities will be able to mobilise their inherent strength and the potential of their communities – and develop their own customised solutions to effectively transition to net-zero. The Mission aims to close the gap between research, development and deployment on systemic transition pathways to net-zero, resilient and human-centred cities through multi-level, multi-sectoral, and outcome-oriented partnerships. Based on the active engagement of the MI Member countries in the partnership and in the [MICall series](#), the Mission will encourage directing and substantially increasing their national R&I budgets towards activities channelled for and through their cities and local governments. The Mission activities will help the cities be solutions providers, join forces on global level to tackle key challenges for urban transitions efficiently, and aggregate the demand for R&I at the global level, increasing the speed and scale of deployment of net-zero development scenarios. It will also mobilise cities and national governments to develop and adopt innovative solutions and approaches for the urban transitions based on renewable energy sources, resilience and circular economy principles, and people-centred transition across all sectors.

To complement the objectives of the mission and support the co-creation of the net-zero urban transition framework, the **Global Innovation Alliance** (GIA) will be composed of the UTM members and include interested MI Member governments, city partner organisations, private sector, urban research & innovation clusters, finance institutions and youth organisations. This engaged group of partners will share solutions, needs and lessons learnt, and co-create innovative approaches to support cities globally to be net-zero climate, resilient, and people-centred. The GIA members will make their knowledge and expertise available, connecting with cities across the globe via the Mission's global knowledge exchange centre. They will help replicate best practices, adapt and leverage solutions across all sectors, as well as address identified needs and gaps. Thanks to the

targeted outreach efforts, the UTM plans to include 10+ MI member governments, 10+ global private-sector partners from different countries and sectors, 10+ global youth organisations, as well as research institutions and civil society organisations to support the global transition.

The Urban Transitions Mission will leverage existing complementary initiatives, partnerships and programmes within and beyond the Mission’s consortium. It will also build on strong engagement of national governments to foster the urban transition and on support of the Global Innovation Alliance partners.

Synergies with several initiatives of the co-leads will be instrumental in the delivery of the Mission. Such initiatives include the European Union’s Mission on [Climate-Neutral and Smart Cities](#) and the Global Knowledge Exchange Centre for urban climate neutrality, JPI Urban Europe’s [Driving Urban Transitions to a Sustainable Future \(DUT\) partnership](#) and [Mical series](#), as well as on the GCoM activities ([Data4Cities](#), [Innovate4Cities](#), [Invest4Cities](#)) and [National/Regional Chapters](#). Synergy with initiatives of the core and support members will play a key role as well, such as [MI Innovation Community of Affordable Heating and Cooling of Buildings](#), [India’s Smart Cities Mission](#), [ENoLL’s Living Labs](#) and the urban components of the [UNFCCC Global Innovation Hub](#).

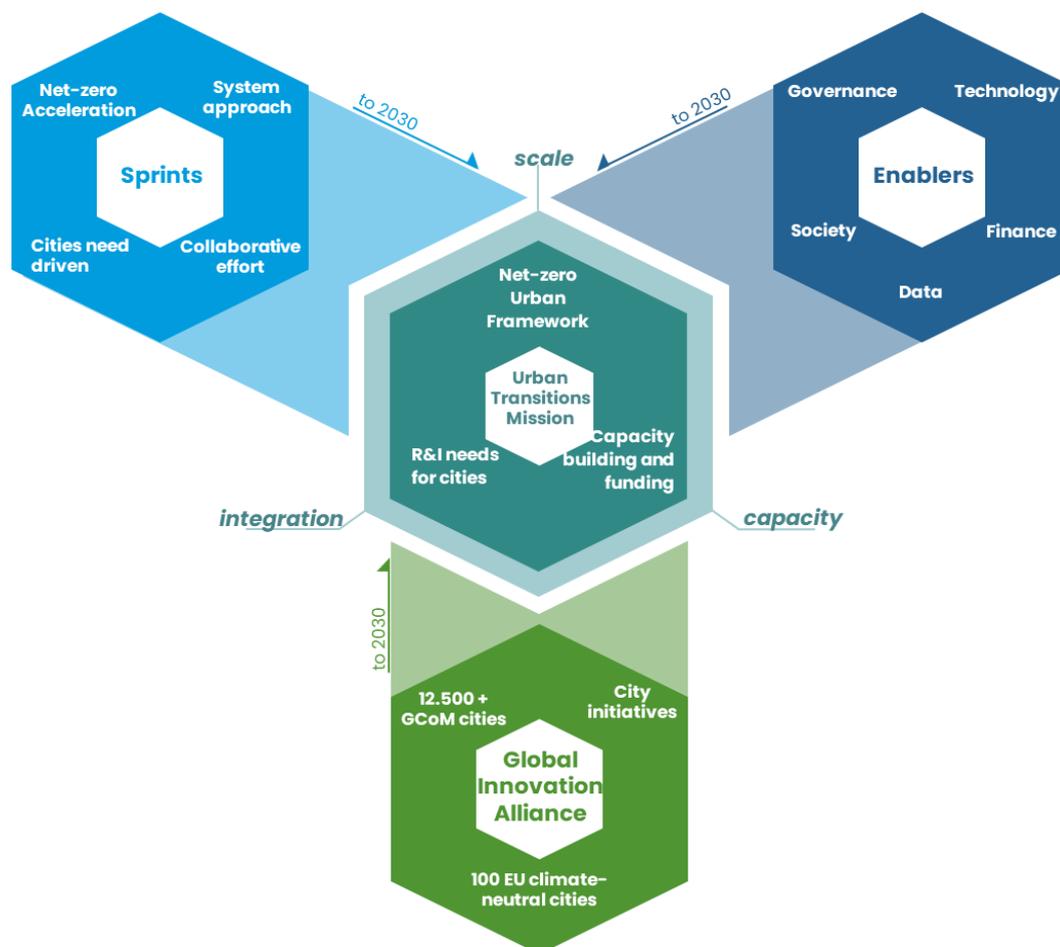
The UTM will explore opportunities for collaboration with activities of Mission Innovation (MI) such as the Net-zero compatibility assessment initiative (NCI) and with other MI Missions, such as the Green Powered Future Mission (GPFM).

The Mission will gather available knowledge and networking opportunities (such as through the [MI Innovation Platform](#) or the [Global Covenant of Mayors Regional Chapters](#)), and build on results from R&I projects on innovative data gathering, policy innovation, and finance models.

These objectives will be delivered by the UT Mission partnership following 3 Pillars:

1. **Innovative urban net-zero transition** - including the development of the **Urban Transitions net-zero framework**, helping cities to strengthen their existing climate and energy action plans and adopt systemic approaches to reach net-zero, with the potential of global replication and mainstreaming offered by the Mission’s outreach.
2. **Capacity building and funding for the net-zero urban transition** - including the creation of a **Global Knowledge Exchange Centre on emissions reduction pathways for urban environments** that aims to facilitate the management and transfer of global knowledge on urban climate action
3. **Research and innovation challenges for the global net-zero transition** - including the organisation of an **Annual Innovation Summit** to share and disseminate the Mission findings and provide a networking space to the **Global Innovation Alliance**.

Crosscutting to the Pillars, sprints and active collaboration and synergy with existing initiatives focusing on net-zero transition in the urban environment will accelerate the objectives of the Mission.



The approach of the Mission

- **Simplification:** Pinpoint where existing technologies and approaches on finance, policy, governance and social aspects of the energy transition at the urban level need better integration and implementation, and spearhead new R&I and investment priorities following these needs. Offer access to guidance, tools, resources, good practices on innovative and systemic solutions at each step of the GCoM city climate action journey.
- **Scaling:** Move from pilot level to global implementation of integrated urban net-zero pathways, based on an urban transition net-zero framework that bridges the gap between ambition and implementation. Accelerate the integration of available and new technologies within the built environment, mobility and transport, industry, waste, and energy sectors.
- **Synergies:** Drive partnerships with similar and complementary initiatives at the global and national levels to help shift the system, by scaling and bringing down both technology and implementation cost of the net-zero urban transition.

