

**Cities Mission WP 2026-2027 – TOPICS WITH DESCRIPTION**

Nr	Draft topic title	Short Description	Type of action	Joint action between Cities Mission and
1	<p><b>Introducing circular economy models in the construction sector from building to city scale</b></p>	<p>Reduce the energy use and the lifecycle GHG of the building stock by implementing circularity principles at district or city level.</p> <ul style="list-style-type: none"> <li>• Develop tools and solutions to support the implementation of the circularity at district and city level. Such as:                             <ul style="list-style-type: none"> <li>○ Solutions for urban mining at district to city level for the sourcing of reusable and recyclable elements (including from deconstruction).</li> <li>○ Solutions for increasing the quantities of biobased materials used in the construction sector.</li> <li>○ Solutions for preventing and reducing construction and demolition waste (including reuse of construction material, products or equipment).</li> <li>○ Solutions for diagnosis of construction and demolition waste and lifecycle inventories of materials and products and suitable business models.</li> </ul> </li> <li>• Engage with relevant stakeholders of the construction sector, building owners and local authorities.</li> </ul>	IA	<p>Built4People (B4P) Partnership</p> <p>New European Bauhaus Facility</p>
2	<p><b>Innovative Low-Voltage Direct Current (LVDC) microgrids in buildings</b> delivering improved energy and materials efficiency and inherent optimization of self-consumption, storage and demand response in urban context</p>	<p><b>Rationale:</b></p> <ul style="list-style-type: none"> <li>• Most electric appliances in buildings are based on Direct Current (DC): PV panels, stationary and e-vehicle batteries, LED lighting, IT equipment, heat pumps and other appliances.</li> <li>• Their connection to a DC microgrid would significantly improve energy and materials efficiency (replacing AC/DC converters by simpler DC/DC converters) and optimise self-consumption of local renewables, storage and demand response.</li> </ul> <p><b>Description:</b></p> <ul style="list-style-type: none"> <li>• Development of innovative and sustainable LVDC microgrids design tools, including the assessment of the life-cycle costs/benefits, sustainability and supply chain resilience.</li> <li>• Demonstration of LVDC microgrid in buildings. Projects under this topic shall cover at least one</li> </ul>	IA	<p>(Link to SET Plan Implementation Working Group on Direct Current technologies)</p>

		<p>of the following use cases: residential / office / commercial buildings.</p> <ul style="list-style-type: none"> <li>• Development of awareness, education and training material.</li> </ul>		
3	<p><b>Transition to low-temperature heating (individual &amp; district heating)</b> in urban environments to decarbonise heating and cooling</p> <p>Integrating renewable energy and waste heat sources is a prerequisite to roll out efficient district heating systems</p>	<p>The topic aims at supporting the transition to low-temperature heating in urban areas, where high-temperature supply solutions are currently prevalent. Even though low-temperature heating solutions in urban areas offer higher potential for integration of renewable energy sources and waste heat, their deployment is slowed down because the existing stock of inefficient buildings has been designed for high-temperature heat delivery systems.</p> <p>The topic addresses both individual heating as well as district-based heating solutions. They both require the creation of the conditions necessary for the conversion of existing supply solutions into low-temperature alternatives, along with reducing and optimising the heat load of buildings.</p> <p>Most of the <b>district heating systems</b> in place have high system temperatures and they are supplying vast area of buildings with low energy performance. Research in this field may cover system design improvements, integrating diverse heat supply sources, and analysing economic and regulatory aspects to aid the transition. At district or city levels, thermal grids and ambient loops could reduce energy demand and support low-temperature district heating. Proposed solutions should be scalable and modular, adapting to building performance improvements. Integrating renewable energy and waste heat is crucial for enhancing system efficiency, aligning with the Energy Efficiency Directive (EU) 2023/1791.</p> <p>When it comes to <b>individual</b> solutions, heating often relies on fossil fuel boilers, like gas, even though heat pumps could be more widely used despite challenges. Heat pumps, which harness ambient heat, face administrative, informational, and technical hurdles, especially in multi-family buildings. Efforts aim to boost heat pump usage in residential</p>	IA	

		settings by supporting projects that assist local administrations in developing standard solutions for various building types. These projects address key technical barriers such as ensuring heating capacity, access to heat sources, and meeting hot water, cooling, and ventilation needs while adhering to noise and safety standards.		
4	Hydrogen valleys	<p><u>Expected Outcome:</u> Project results are expected to contribute to the following expected outcomes:</p> <ul style="list-style-type: none"> <li>• Investments in - and deployment of - hydrogen applications and infrastructure for hard-to-abate industry in and around cities will mitigate local air pollution and lead to economic growth and jobs, bringing urban environments at the forefront of sustainability and innovation.</li> <li>• Communities of practice will foster the interaction between leaders and implementers from cities, ports, industry, local and regional government, as well as researchers and citizens.</li> </ul> <p><u>Scope:</u> A growing number of cities across Europe is developing hydrogen strategies, either for mobility applications or for decarbonising their local and peri-urban industries. By acting as experimentation and innovation hubs, these cities can be testbeds for the energy transition, balancing decarbonisation with competitiveness and social cohesion.</p> <p>Projects are expected to establish ‘twinning’ of Hydrogen Valleys (in particular those that have elements relevant for cities or ports) with cities that are interested to decarbonise their local and peri-urban industries using hydrogen. Such twinning activities could also target enlargement countries, such as the Western Balkans, Ukraine, and Moldova.</p> <p>Partnerships should be based on mentor-mentee pairings. Collaborative activities can address for example feasibility assessments (including technology choices, business cases, regulatory challenges and stakeholder engagement), designing a detailed implementation plan (including funding strategy, infrastructure requirements, supply chain</p>	CSA	Consecutive call with Clean Hydrogen Joint Undertaking

		integration), environmental and socio-economic impact assessment, sharing best practices and lessons learned, and education and training.		
5	<b>Urban wastewater:</b> energy neutrality, energy efficiency, water resilience, climate adaptation	<p>In light of requirements on competent authorities:</p> <ul style="list-style-type: none"> <li>- under the Mission Cities to reduce GHG from wastewater treatment</li> <li>- under the Mission Adaptation to prepare and plan adaptation pathways to climate resilience</li> <li>- under the recast Urban Wastewater Treatment Directive (EU) 2024/3019 to take action on energy neutrality, efficiency and green-blue infrastructure, projects will be required to address: <ul style="list-style-type: none"> <li>• Energy audits: methodologies &amp; tools to identify the potential and cost-effectiveness of energy efficiency and renewable energy measures.</li> <li>• Energy efficiency: innovative practices and technologies to reduce energy use.</li> <li>• Renewable energy: including solar energy production; biogas production from sludge; waste heat recovery.</li> <li>• Green / blue infrastructure: including vegetated ditches, treatment wetlands and storage ponds designed to support biodiversity and where possible to reuse water.</li> <li>• Water resilience: solutions to reuse water in the context of integrated urban wastewater management plans</li> <li>• Storm water management: solutions to reduce pollution from storm water overflows and urban runoff</li> </ul> </li> </ul>	RIA	Mission Adaptation  Water4all Partnership
6	<b>Urban nature:</b> support implementation of Nature Restoration Regulation in cities, towns & suburbs, including via sustainable greening with street trees	<p>In light of requirements on competent authorities:</p> <ul style="list-style-type: none"> <li>- under the Mission Cities to address nature-based solutions</li> <li>- under the Mission Adaptation to prepare and plan adaptation pathways to climate resilience</li> <li>- under the Nature Restoration Regulation EU 2024/1991 to map and restore urban ecosystems in all cities, towns and suburbs</li> </ul> <p>projects will be required to address:</p> <ul style="list-style-type: none"> <li>• Methodologies to map how different patterns of urban green space and urban tree canopy cover impact on local climate regulation, and how changing / increasing their distribution / quantity could help build</li> </ul>	IA	Mission Adaptation  New European Bauhaus Facility

		<p>a more resilient urban ecosystem for the future.</p> <p>Innovative measures and practices to increase urban green space and urban tree canopy cover, and consideration of what types of tree or green are best suited to providing the ecosystem services outlined in the Nature Restoration Regulation: enhancing biodiversity and adapting to climate change.</p> <p>Proposals should demonstrate the importance of trees, including street trees, in cities' ecosystems by undertaking the following actions:</p> <ul style="list-style-type: none"> <li>• Analyse the environmental, economic and social impacts of urban trees in three cities with similar macroclimates</li> <li>• Identify main obstacles and barriers that limit the existence of trees in urban environments</li> <li>• Assess effect of urban trees on climate adaptation and prevention of extreme weather events, considering their quantity, location, and types of trees planted</li> <li>• Assess contribution of urban trees on biodiversity of the region and impact on human health</li> </ul> <p>Develop innovative urban planting methods in pilot sites, including streets, car parks and other transport corridors</p>		
7	<p>Developing inclusive and climate resilient <b>multimodal passenger hubs</b> enhancing modal shift towards sustainable transport and shared mobility</p>	<p>The topic aims at increasing climate resilience of multimodal passenger hubs' infrastructures and services connecting cities as well as peri-urban and rural areas.</p> <p>Projects are expected:</p> <ul style="list-style-type: none"> <li>• To analyse long-term impacts of multi-modal passenger hubs on modal shift towards sustainable modes of transport</li> <li>• Identify local climate-related vulnerabilities of critical multimodal transport infrastructures</li> <li>• Develop and test innovative solutions for climate-resilient multimodal passenger hubs and related services</li> <li>• Provide best practices for ensuring inclusive multimodal passenger hubs</li> </ul>	IA	Adaptation Mission?

		<ul style="list-style-type: none"> <li>Establish co-designing processes and engaging with stakeholders to ensure successful uptake of solutions</li> </ul>		
8	Energy efficient <b>urban and sub-urban public transport</b> , complemented by shared mobility	<p>The objective of this topic is to increase the energy-efficiency and attractiveness of urban and sub-urban public transport and to integrate it with new shared mobility services.</p> <p>Living labs shall facilitate exchange of experiences and good practices, leading to a state of the art of electrification and attractiveness of urban and sub-urban transport with complementary shared mobility solutions, usable for local authorities and public transport operators.</p>	IA	
9	Circular economy in the city: <b>reducing waste from e-commerce and urban logistics</b>	<p>Topic addresses the interplay between urban logistics, e-commerce dynamics, and the circular economy, with primary focus on the implications of the new EU rules on packaging and packaging waste in business-to-business exchange of goods. Proposals should:</p> <ul style="list-style-type: none"> <li>Research and provide an overview of the implications for urban logistics operations, e-commerce deliveries and possibly fast deliveries of the EU rules on Packaging and Packaging Waste;</li> <li>Develop new modular loading units (boxes), tools for security/stowage of cargo, transportation units and loading/unloading processes addressing these new “rules”</li> <li>Test these new solutions in pilots in selected cities;</li> <li>Assess how urban logistics can support circular economy, including the role of reverse logistics;</li> <li>In co-design with local authorities, propose recommendations on how cities and local authorities could create the regulatory and market conditions to establish a circular model for good deliveries and logistics in cities, and how these policies could be integrated with the overall local circular economy strategies;</li> <li>Provide recommendations for secondary and implementing legislation on packaging and waste reduction based on the project findings.</li> </ul>	IA	EIT-EAC?

10	Innovative Procurement Action	<p>Innovation procurement can drive innovation from the demand side. This enables faster modernization of public services while opening market opportunities for companies in Europe.</p> <p>Pre-commercial procurement (PCP) is an innovation procurement approach that allows public authorities to steer the development of innovative solutions by procuring R&amp;D services from companies, with the aim of creating new products, services, or processes that can address specific societal challenges. In the context of this topic, PCP actions will be used to stimulate the development of innovative solutions to reduce greenhouse gas emissions in cities. The goal is to drive innovation, increase resilience in the supply chain, and enhance EU open strategic autonomy, while also supporting small and medium-sized enterprises (SMEs) and startups in accessing the public procurement market.</p> <p>Building on HORIZON-MISS-2025-04-CIT-03.</p>	PCP	
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