

Two cross-cutting dimensions complete the loop shaping and guiding success in four dimensions outlined above. First, R & I actions need to explore new 'governance' arrangements fit for purpose aligned with the global priorities and agendas of our time. The second cross-cutting dimension involves new approaches to the 'measurement' of initial conditions and change of integrated innovative urban eco-systems, as well for the evaluation of achievements and impacts, notably — but not exclusively — driven by the indicator set established by SDG 11.

The European cities of the future will be human centred, resilient, inclusive, diverse, prosperous, safe and sustainable. Cities will have a well-assembled physical setting: there is character, distinctiveness, diversity and vitality across the range, with high levels of liveability and all the necessary support facilities from health, to education, to culture and to public spaces — all of which generate a rich civic life with leadership and vision at all levels. Success requires innovative, visionary and systemic solutions.

'The human-centered city: Opportunities for citizens through research and innovation'

European Commission | Directorate-General for Research and Innovation

 ${\it Directorate D-Clean Planet \mid Unit D.2-Future Urban \& Mobility Systems}$

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THE HUMAN-CENTRED

Opportunities for citizens through research and innovation

A public summary



75 % of Europeans live in cities. This is projected to increase to 80 % by 2050, adding over 36 million new urban citizens. Cities and metropolitan regions are centres of encounter and economic activity, but also major contributors to global challenges. They consume vast amounts of natural resources and accelerate climate change and problems related to air quality, waste, health, energy and transport. In cities, there are unequal economic prospects and social cohesion and inclusion issues, as well as immigration pressures.

Given the complexity of cities, only an integrated er perspective on all urban systems (including acurban planning, energy supply, mobility, built environment, food and well-being) can address the cluster of escalating problems arising from rapid urbanisation.

This approach applied to research and innovation (R & I) is crucial to provide innovative, holistic and sustainable solutions. It can limit adverse consequences, mitigate trade-offs and ensure sustainable urban development. Investing in R & I is also critical to identify the policy levers that can help implement the urban agenda for the EU, the 'Habitat III new urban agenda'.

Horizon Europe needs a compelling vision and mission that engages all stakeholders in the making of innovative cities. Participatory papproaches and social innovations are the key to creating safer, healthier and more prosperous cities.

Cities should be human centred. This entails rights and responsibilities for both citizens and public authorities. To become city makers and shapers or co-creators of an evolving urban landscape is not an entitlement. It means being an active citizen

engaged with both local and global urgencies. We acknowledge the following.

- ▶ The challenge is to manage the transition to a more liveable and sustainable world, to avert a climate collapse, to shift to a more sustainable global food system in order to sustain a rising global population and new waves of global migration.
- Complex problems, from social and economic polarisation to inequalities and climate change, must be addressed in an integrated way.
- ▶ Cities are complex metabolisms that attract people, economic activity, resources, opportunity and innovation.
- The global fight against climate change and for achieving carbon neutrality or a circular economy and creating human scale urban environments will be won or lost in cities.
- National governments have the authority to define the overall regulations or incentives and the policy landscape while cities often have greater legitimacy to act, as they are closer to citizens and their needs.

'The human-centred city' outlines how R & I policy can contribute to addressing these problems and how Horizon Europe can help deliver on the UN's sustainable development goal (SDG) 11 'To make cities inclusive, safe, resilient and sustainable'. It also shows that cities have a decisive role in accelerating society's transition to reach the other 16 SDGs. SDG 11, other major global agreements (such as the COP21 Paris Agreement) and emerging trends frame the report and its recommendations.

One of the objectives of Horizon Europe is to help redesign urban systems with innovative solutions

that are not only environmentally sustainable but also in line with the highest global standards ethically, politically, economically, socially, technologically and culturally.

Cities are accelerators of opportunity. Their proximities force-feed interaction, exchange and innovation. Innovative cities identify, nurture, support and promote skills, expertise and talent, and foster inclusion and participation. Their regulations and incentives regimes, institutions and governance structures are enabling conditions to address global challenges.

- The 'people' dimension seeks to devise new ways to make the most of diversity; build community and social bonding; and create an inclusive city for all to avert inequalities and spatial segregation and to establish a sense of safety.
- The 'place' dimension focuses on planning within planetary boundaries with renewables and energy efficiency at its core. It includes decarbonising all our systems; rethinking food cycles; adaptive reuse; shared and smart mobility services; fostering the circular economy and embedding 'cradle-to-cradle' business models; and creating an aesthetically literate built environment that works for people.
- The 'prosperity' dimension adopts an integrated framework to identify and develop innovative forms
 of value creation; redesign and optimise urban innovation systems; and reconsider the benefits of
 agglomeration economies and the position of cities as nodes of global value chains in order to foster
 new economic opportunities, jobs and prosperity in both developed and less-developed regions of Europe
 through new models to finance public services and urban policies.
- The **'resilience'** dimension establishes how foundations for building resilience can be created based on vulnerability profiles with mechanisms to avert shocks and risks including building institutional capacity.

