

# Circular Cities: Challenges And Opportunities Towards Their Transition to A Green, Smart and Circular Economy

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## Abstract

Cities cover 3% of the land on Earth, however with more than 70% of the population expected to live in urban areas by 2050 they drive almost three-quarters of GHG emissions. They account for two-thirds of global energy demand, consume 60-80% of natural resources and generate 50% of waste.

Urban metabolism is becoming the most important indicator of measuring the sustainability of cities, as society approaches the limits of the ecosystem.

Cities are on the front lines combatting major challenges, notably climate change, pandemics, integration of refugees, decarbonisation, air pollution, food security, energy poverty, waste/water management and putting in place a truly circular economy. Cities are hubs of sustainable economic activity, community engagement and innovation.

The policy choices local governments make today will determine the successful transition to greener, cleaner, smarter way of living and will offer new economic opportunities. Cities and regions can act as enablers of the transition, providing the conditions for the circular economy to happen in practice. To this end, cities and regions can: i) adapt/update regulatory instruments; ii) mobilize/efficiently allocate financial resources; iii) develop training programmes to foster capacities; iv) support business innovation; v) generate an information system.

This paper/presentation explores major urban challenges driven by climate change and outlines the sound EU policy framework. It observes new human-centric urban trends and technologies shaping circular urban planning. It draws the main axes of integrated policies, collaborative governance and technology-powered solutions that cities can deploy to speed-up their transition to a green, smart and circular economy.

**Keywords:** governance, innovation, sustainability, technology, urban-metabolism