



SPECIAL SESSION

SMART CITIES AND THE GROWING ROLE OF THE FRONTIER TECHNOLOGIES IN SUSTAINABLE URBANIZATION

Key words

2030 Agenda; Artificial Intelligence; Big Data; Blockchain; Cyber Space; Cyber Threats; Digital Governance; Digital Technologies; Digitalization; Frontier Technology; Information And Communication Technology; Innovation; Innovative Transport Technology; New Urban Agenda; Smart Cities; Sustainable Development Goals; Transportation and Mobility Systems; Virtual Reality

Objectives of the session

The session aims:

- To contribute to the global debate on defining a ‘smart-city approach’ with reference to the New Urban Agenda and the 2030 Agenda for sustainable development.
- To explore the role of frontier technologies -Artificial Intelligence, cyber space, virtual reality, blockchain- in achieving sustainable urbanization.
- To discuss possible national policies needed in order to support smart cities.

Introduction of the topic

In recent years, the role of digital technologies has become increasingly important in urban development. Ubiquitous sensor networks, big data, open data, internet of things, virtual reality as well as data accessibility, privacy and accountability are becoming more common as part of urban development, both the global north and south. ICTs offer new ways for citizens to take part in decision making and governance processes and hold policy makers to account for their decisions by facilitating information flows between governments and citizens. This provides new opportunities to contribute to the delivery of a sustainable future.

Local, regional and national Governments and citizens have come to recognize the increased relevance of new technological advancements to the achievement of the 2030 Agenda for Sustainable Development and the attainment of the Sustainable Development Goals. Urban leaders have begun to tap into new streams of data on the state and performance of their cities, often in real time, to realize a forward-looking vision of a “smart city”.



In smart cities, urban leaders and citizens use data, information and knowledge to ensure co-created, resilient and sustainable urban development. But many city leaders struggle to understand how to best invest in intelligent infrastructure to improve city life. At the same time, the concept of the smart city has grown controversial. Proponents argue that smart city innovations can have huge positive impact on sustainable city development, while sceptics fear that prioritizing “fancy” technology over less exciting but more important urban development will distort crucial investments. Nevertheless, technological developments, including big data, autonomous vehicles and sensors are having an impact on our cities, and urbanists need to consider their impact on urban planning, governance, service delivery and financing.

According to the recent World Development Report, Digital Dividends, governments are allocating significant sums on smart city projects, including in the developing world. China, for example, has launched a reported US\$70 billion “smart city” credit line and a US\$8 billion investment fund. However, most smart city innovations originate in the private sector. But, as the World Bank argues, for individual “smart systems” to add up to a “smart city,” innovations must be on a citywide scale. That requires contributions and ideas not just from commercial firms but also from governments and citizens. It is particularly important that city leaders focus smart city efforts on the needs of all residents, including the urban poor and other marginalized groups. While digital technologies can promote innovation, boost efficiency and increase service inclusion there are also persistent digital divides across gender, geography, age, and income dimensions.

In the New Urban Agenda, Member States commit to adopt a smart city approach that makes use of opportunities from digitalization, clean energy and technologies to make cities more environmentally friendly, promote economic growth and enable cities to improve service delivery. In the New Urban Agenda Member States also promote the development of citizen-centric digital governance tools and digital platforms that improve long-term integrated urban and territorial planning and design, land administration and access to urban services.

Guiding Questions

Q1: What is a ‘smart city approach’?

Q2: What national policies need to be put in place to support smart cities?

Q3: How can frontier technologies be leveraged for sustainable development?

Q4: How is your city using frontier technologies to improve urban outcomes?



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Q5: What role can the private sector play in supporting cities address frontier issues using new and emerging technologies?

Q6: What is the multi-lateral system doing to standardize smart cities globally?

Q7: How can we ensure that smart cities and the use of frontier technologies benefit local communities?