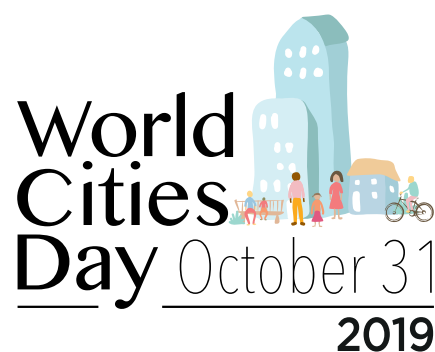


Changing the World: Innovations and a Better Life for Future Generations



The key to our planet's future lies in our towns and cities where over half the world's population now live. Cities are on the frontline of several global challenges but are also hubs of creativity and innovation that can have an impact at scale. New technologies can make our cities more inclusive, safer, sustainable and resilient, but concerted effort is needed to make sure that the benefits are shared widely and leave no one behind.



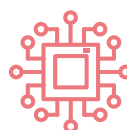
Innovation can make us more efficient and effective in the way we manage our resources, the way we move people and goods, deliver our services and construct our infrastructure and buildings.



Innovation can help us to design more liveable cities, neighborhoods and public spaces. Our urban spaces can at once provide space to work and be social, to contribute to a thriving ecosystem and bio-diversity, to help absorb carbon, produce green energy and contribute to our food security.



The explosion in the use of digital technologies is playing a major role in shaping cities – from the internet of things and sensor networks, to digital platforms and tools for urban management and service delivery and the coming age of electric and autonomous mobility.



Digitalization and smart technologies provide opportunities to promote safe and affordable access to urban services and to decarbonize cities. Solutions include shared mobility services, energy efficiency, waste management and recycling apps, distributed renewable energy generation, building efficiency systems and civic technology that foster participation and inclusion.



Innovation can help us to deliver zero carbon and resilient solutions for infrastructure and buildings at scale and fuel a green economy. Scalable solutions are needed to fill the 70 % gap of urban infrastructure as we double our urban space by 2050. It can generate 'green-centric' economic growth, providing employment.



Cities account for 65 per cent of global energy demand and are responsible for 75 per cent of global carbon dioxide emissions. They have enormous untapped potential to increase energy efficiency. Between 2015 and 2018, the number of cities supplied by at least 70 per cent of renewable electricity doubled.



Cities can speed up the move to renewable energy through the building, transport, solid and liquid waste management sectors. For example, biogas production has increased in the EU, encouraged by the renewable energy policies, to reach 18 billion m3 methane in 2015 - half of the global biogas production; between 2010 and 2014 and rooftop solar power capacity more than tripled worldwide, from 30 GW to 100 GW.



Innovation can foster inclusiveness and social cohesion. It should allow new comers, people with disabilities, urban poor and other vulnerable groups to be full citizens, with equal rights and access to services, infrastructure, livelihood opportunities and to have their voice heard in urban governance.



However, the positive results of digitalization are unevenly spread. While half the world has access to the internet the other half do not. Only about 15 per cent can afford access to broadband internet and nearly 2 billion people do not own a mobile phone.



The digital divide within countries can be as marked as that between countries. Worldwide, one in five households in the bottom 40 per cent of their countries' income distribution don't have access to a mobile phone and 71 per cent don't have access to the internet.



The rapid spread of technologies requires policies to ensure that they don't increase inequality, social dislocations or jeopardize risk human rights. National and local governments must place digital inclusion at the top of the agenda.



National and local governments should ensure that human rights' principles such as privacy, freedom of expression and democracy are incorporated into digital platforms starting with locally-controlled digital infrastructures and services.