



People-Centered Smart Cities



Building People-Centered Smart Cities from the ground up

The world is rapidly urbanizing. In 2008, the important milestone of more than 50 percent of the world's population living in urban areas was reached, a figure that is estimated to rise to 70 percent by 2050. At the same time, the world is rapidly becoming more digital. Data, artificial intelligence, connectivity and the new digital economy are shaping the future of our societies.

Digital technologies have the potential to serve people, improve public services and working conditions. But persistent digital divides remain, and the digital revolution must be directed and governed in a democratic and inclusive way.

Today, while more than 50 percent of the world's population is online, there are still 3.6 billion people without affordable access to the internet. Among the world's 47 least developed countries, more than 80 per cent of the population is still offline. And the gender gap in connectivity continues to widen.

Only 2 per cent of women in Latin America and the Caribbean and in East Asia and the Pacific own a mobile phone with internet access. Worldwide, some 327 million fewer women than men have a smartphone and can access the mobile internet.

Women are also drastically under-represented in scientific education, information and communications technology jobs, and tech-related academic careers. **Connecting all the world's people by 2030 should be a shared priority, not only for sustainable development, but for gender equality.**

Digital technologies, depending on their use, can be a force that widens social gaps or reduces them. Considering the

importance of this, the Secretary General has made one of his top five priorities for 2019 "reducing digital inequality, building digital capacity and ensuring that new technologies are a force for good" and is pursuing the implementation of the recommendation of the High-Level Panel on Digital Cooperation on capacity-building and on the need to maximize digital public goods.

The United Nations is the essential platform where all relevant actors, including governments, along with companies, technical experts and civil society – can come together to share policy expertise, and explore the possibility of a **Global Commitment on Digital Trust and Security.**

The UN Strategy on Sustainable Urban Development highlights digital transformation and new technologies as one of four frontier issues that require a special, coordinated response. The New Urban Agenda calls for the adoption of "a smart-city approach that makes use of opportunities from digitalization, clean energy and technologies".

The explosion in digital technologies is playing a major role in shaping cities – from the internet of things, to digital platforms for service delivery and 5G for autonomous mobility – and our challenge is to set a new direction that favours inclusive, resilient and sustainable use of technologies by local governments.

These technologies, if well governed, can contribute to sustainable development by reducing carbon emissions and facilitating the ecological transition, increasing access to affordable housing, enhancing participation in policy making for citizens, and ensuring access to inclusive services for communities.

We have a collective responsibility to give direction to new technologies so that we maximize benefits and prevent unintended consequences. For instance, Artificial Intelligence and data can be used for the public good, but can also be used to monitor and manipulate behavior, to manipulate voters, to track human rights defenders and to stifle expressions of dissent.

In the absence of public oversight and accountability, data on individuals and communities is being extensively recorded, often by private companies, raising concerns around privacy, surveillance, data sovereignty and individual autonomy. We need to ensure that human rights obligations apply online as they do offline. That's why the Office of the High Commissioner on Human Rights is working on understanding exactly how international human rights can be applied in cyberspace.

For the same reason, UN-Habitat is backing the Cities Coalition for Digital Rights, with more than 60 cities globally shaping a digital future that puts people first and helps bridge

the social divide. Smart cities should serve the people and improve living conditions for all. While these are principles that governments are designated to uphold, they often lack the capacity to do so.

National governments are overwhelmed by the complexity of digital policies. Municipalities rarely have the in-house skills to create people-centered smart city projects or to execute holistic impact assessments on the agreements they sign with private companies.

By bringing its unique global urban perspective to the digital transition, UN-Habitat can ensure that potentially highly disruptive technology is used effectively for sustainable urban development. UN-Habitat's unique approach and knowledge of urban development can create new capabilities for local government to move the discussion about smart cities beyond technology and link it to the implementation of the urban dimension of the Sustainable Development Goals, specifically SDG 11 and the New Urban Agenda.



Programme Goals

The main objective of this flagship programme is to make urban digital transformation work for the benefits of all, driving sustainability, inclusivity and prosperity and the realization of human rights in cities and human settlements.

One key area of intervention for UN-Habitat is **supporting national and local governments** with their digital transition, applying a multi-level governance strategy and helping them build skills and capabilities to develop, procure and effectively use digital technologies in an ethical and inclusive way to make sure that no one is left behind.

Another important activity is **global advocacy**, ensuring that voices from marginalized groups, including children, youth and older people, women in vulnerable situations and people with disabilities as well as cities with less resources are more strongly heard in global platforms, including United for Smart Sustainable Cities, Agile and Open Smart Cities and the Cities for Digital Rights Coalition.

Finally, significant **financing must be mobilized for urban innovation projects** that make a direct positive impact on the planet and on people's lives in cities, prioritizing the Global South and communities with less access to resources. Investment objectives will be guided by the achievement of higher socio, economic and environmental standards and increasing equality in the standards of living achieved, in line with the International Covenant on Economic Social and Cultural Rights and the SDGs.

Overall, this programme enables UN-Habitat and its partners to make a serious and deep contribution to a field that is often focused on the technology itself and not sufficiently focused on inclusion, ethics, quality of life, human rights and achieving the Sustainable Development Goals.

UN-Habitat will take an approach that starts with identifying real challenges and priorities coming from citizens, communities and urban residents, while respecting human rights. It is critical that smart city planning focuses on solving specific sustainability problems and key missions such as battling climate change, reducing poverty, and increase citizens' participation rather than following a technology-driven, industry-driven approach.

Together with the other flagship programmes and in collaboration with other UN Agencies, as well as state and non-state actors, this flagship on "People-centered Smart Cities" is expected to achieve the following outcomes:

1. POLICY TRANSFORMATION

Increased focus and mainstreaming of people-centered, sustainable and inclusive digital transition as a critical policy topic in high level political forums and global dialogues on smart cities.

2. FINANCING DIGITAL URBAN INNOVATION

Increased investment and financing for people-centered smart cities to accelerate the achievement of the SDGs

with a specific focus on developing countries, small and medium size cities and grassroots urban communities

3. DIGITAL EMPOWERMENT & CAPACITY BUILDING

Enhanced capacity of governments at all levels to adopt a people-centered, privacy-enhancing, and rights-preserving approach to digital technologies for inclusion and sustainable urban development in the achievement of the SDGs.

Outcome 1 will be achieved through a variety of initiatives, including:

- Engagement with smart cities and urban digital technology platforms such as relevant ITU study groups, the G20 Global Smart Cities Alliance, Open and Agile Smart Cities and the Cities for Digital Rights Coalition and United for Smart Sustainable Cities.
- Engagement with relevant Human Rights Forums, particularly the Human Rights Council and its subsidiary bodies.
- Assessment at regional and national level to link programming effectively with the UN System-Wide Strategy on the Implementation of the 2030 Agenda and the UN System-Wide Strategy on Sustainable Urban Development.
- Establishment of a multi-stakeholder governance process and technical working group on smart cities to drive the people-focused smart city agenda in global dialogues on smart cities and digital transition.

Outcome 2 will be achieved through a variety of initiatives, including:

- Establishment of a '\$1 Billion "urban digital innovation financing facility" to provide funding for frontier technology and urban innovation initiatives that aim to achieve the SDGs at the local level.
- Mobilization of \$ 1 billion in investment to catalyze innovative smart city visions that are inclusive, sustainable and resilient. This facility will provide funding to local governments and civil society organizations to implement innovation and smart city/urban technology projects. It will have two focus areas: use of technology and innovation to close the gap between North and South and improve the lives of the urban poor; and the use of public-interest tech and data to tackle societal and sustainability challenges.
- A challenge-driven innovation programme that will use a variety of open innovation tools, including challenge prizes, to match cities' pressing needs with innovators and technology providers, including

startups, community based organizations and SMEs. Initiatives in small and medium-sized cities, those with large marginalized populations or major environmental challenges will be prioritized.

Outcome 3 will be achieved through a variety of initiatives, including:

- Development of policies, standards, principles and tools - including robust smart cities principles, ethical digital standards, best practice on the implications of frontier technologies for local governments, governance frameworks on urban data, including data sovereignty and privacy-enhancing technologies, toolkits on smart city strategies, technology procurement and management guidelines, development of performance metrics, KPIs and operational benchmarks, etc.
- Technical assistance and advice to local governments on the adoption and implementation of smart city strategies, policies and solutions, guiding cities on the use of technology and innovation to deliver sustainable urban development outcomes.
- Piloting and testing solutions, technology, and innovations with local and national governments, with a focus engagement of communities via bottom-up participatory approaches and the inclusion of marginalized groups including the urban poor, women in vulnerable situations, youth, children, people with disabilities and older people.

A robust results framework will be developed to track the impact of the flagship programme through SMART indicators, including:

- Smart city guidelines developed by UN Habitat have been implemented by 20 national governments, 200 city governments, and 300 tech companies by 2025, and
- \$1 billion USD of investment in inclusive and sustainable smart city technology have been raised by 2030.

Significant financing must be mobilized for urban innovation projects that make a direct positive impact on the planet and on people's lives in cities, prioritizing the Global South and communities with less access to resources.



Regional Projects

Potential locations for the roll-out of the flagship programme include: Bahrain; Brazil; Cambodia; Côte d'Ivoire; Egypt; France; India; Indonesia; Jordan; Kazakhstan; Kenya; Lao PDR; Lebanon; Malaysia; Mexico; Myanmar; Nigeria; China; Republic of Korea; Russian Federation; Rwanda; Saudi

Arabia; Senegal, South Africa; Spain; Sweden; Thailand; Vietnam; Zimbabwe.



Girls use Minecraft to improve safety in their neighbourhood in Hanoi, Vietnam @Lovestrandell



Partnerships and Alliances

UN-Habitat will engage strongly with external actors, including amongst others United for Smart Sustainable Cities, the Global Smart Cities Alliance, Smart Africa, Open and Agile Smart Cities and the Cities for Digital Rights Coalition. Strong partnerships with universities, research institutions and civil society, including organizations representing the urban poor and the private sector will also be established. There is an opportunity for UN-Habitat to take a convening role and bring many of these actors together in a coordinated way that could be further strengthened by the establishment of a smart city reference group.

Partnerships already exist with the following actors: ITU, UNECE, the Smart City Expo, the Smart Africa Alliance, the Cities for Digital Rights Coalition, Smart LATAM, Smart Cities Business America Institute of Brazil, the Swedish Energy Agency, World Blind Union, G3ICT and the Swedish Institute, Huawei, Ericsson, Microsoft, Mojang, Alibaba, ESRI, Liquid Telecom, SMEs and startup platforms such as the World Startup Factory, Pangea Accelerator etc.



Timing and Milestones

This flagship programme is intended to run for at least 8 years and provides an overall umbrella which will include a variety of pilot projects, coordination mechanisms, policy

and normative tools, technical advisory services and the financing facility.

2020

2021

2022

2023

2024

2025

2026

2027

The issues of urban equality, social inclusion, human rights and environmental sustainability are mainstreamed in the global dialogue on smart cities

Investment and financing are directed to inclusive smart cities for accelerated achievement of the SDGs with a specific focus on the developing countries and small and medium size cities

Enhanced capacity among all levels of government to use frontier technologies for inclusion and sustainable urban development.



Budget

The flagship programme, given its scope (global, regional, national and local) and the range of activities, is estimated at around **\$30 million USD** over a period of 10 years. UN-Habitat will drive the development, implementation and monitoring of the programme in conjunction with a wide range of credible and experienced partners.

The purpose of the multi-stakeholder digital urban innovation fund and challenge-driven innovation programme is to create

a proposition that is sufficiently interesting and relevant for member states and private sector companies to join forces. The aim is to raise **\$10 million USD** in funding and get soft commitments of **an additional \$1 billion USD** from development banks, philanthropists and private capital that can be invested in identified bankable projects.

A better quality of life for
all in an urbanizing world

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