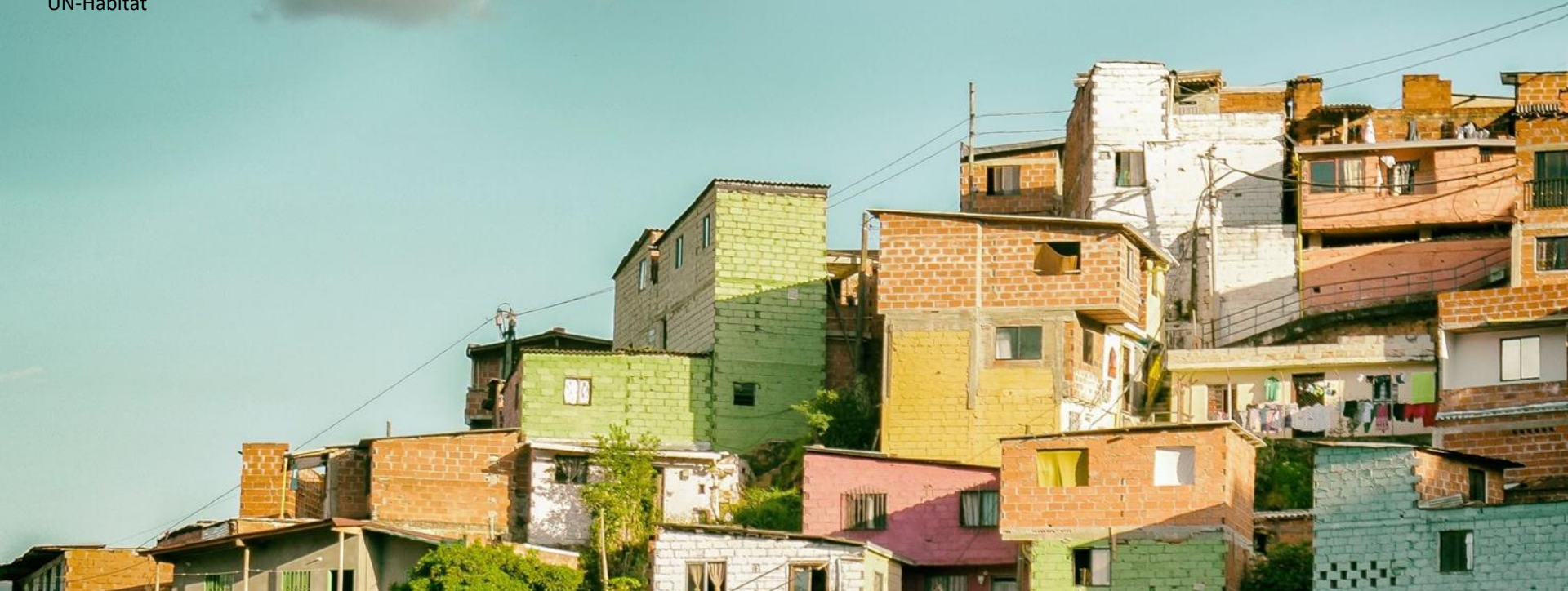


Cities and digitalization

Smart sustainable cities and frontier technologies in Latin America
8th December 2020

Javier Torner, Coordinator Urban Lab Mexico
UN-Habitat



Urbanization Challenges



More than **4,000** cities in the world with populations exceeding **100,000**



1 billion people live in informal settlements and slums in overcrowded and inadequate housing

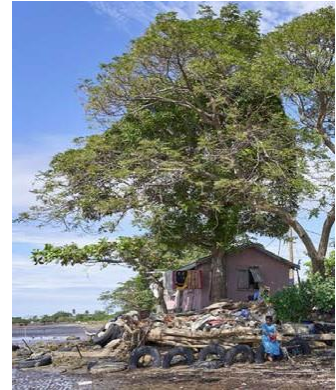
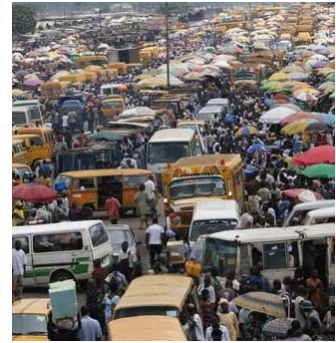


2.4 billion people lack adequate access to safe water and sanitation

- + Spatial and social inequality
- + Slums and informal settlements, deprived neighborhoods
- + Lack of urban services services
- + Rapid growth, urban sprawl and poor planning
- + Natural disasters and conflict
- + Environmental and health threats
- + Climate change
- + Safety and protection
- + Exclusion and lack of participation
- + Upsurge in international migration



Over **95%** of total cases in urban areas



“The world we live in has been transformed in a manner not witnessed in recent times.”

World Cities Report 2020

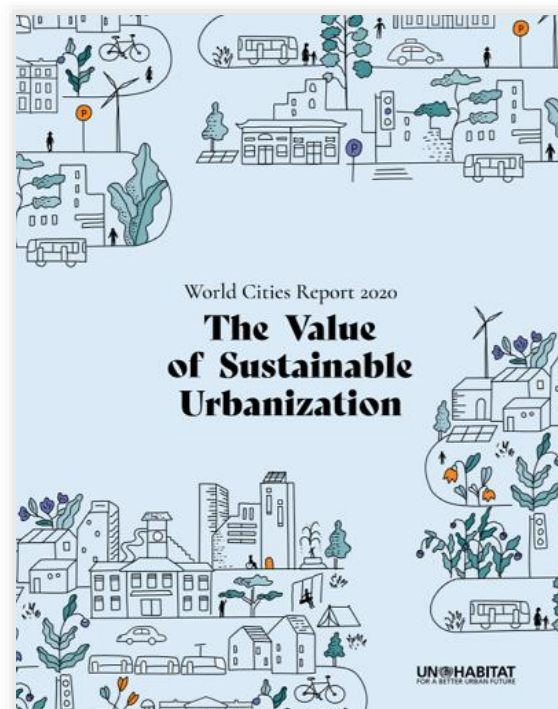
Intrinsic **value of sustainable urbanization** to be harnessed for **wellbeing of all**:

- from an economic, social and environmental perspective > effective implementation of New Urban Agenda;
- innovation and technology;
- role of local governments;
- targeted investments.

Affirmation...

well-planned, managed and financed cities and towns create value that can be harnessed...

- to build resilient cities that can bounce back from the devastating impacts of pandemics;
- improve the quality of life of all residents;
- leverage in fight against poverty, inequality, unemployment, climate change and other pressing global challenges.



source: <https://unhabitat.org/World%20Cities%20Report%202020>

Policy Considerations....

- + Cities must work to promote **effective policies** to protect citizen data and empower citizens to understand how to protect their personal data.
- + Clear, **ethical frameworks and institutional arrangements** for data collection and data sharing should be put in place.
- + **Technology** is most effective when coupled with **institutional innovation** and is not a substitute for improving governance.
- + Results of smart city experiments are mixed and particularly poor when these efforts are technology rather than **people driven**.
- + **Technology cannot displace citizen engagement** in community and city affairs.



New Urban Agenda

Paragraph 66:

“66. We commit ourselves to **adopting a smart-city approach** that makes use of opportunities from digitalization, clean energy and technologies, as well as innovative transport technologies...”

Paragraph 156:

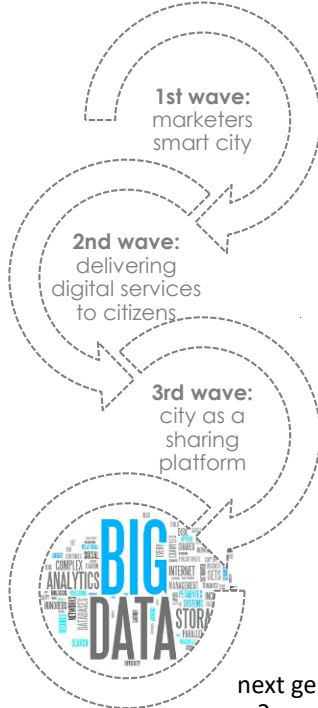
“156. We will promote the development of national information and communications technology policies and e-government strategies, as well as **citizen-centric digital governance** tools, tapping into technological innovations, including capacity-development programmes, in order to **make information and communications technologies accessible** to the public, including women and girls, children and youth, persons with disabilities, older persons and persons in vulnerable situations, to enable them to develop and **exercise civic responsibility, broadening participation and fostering responsible governance, as well as increasing efficiency...**”



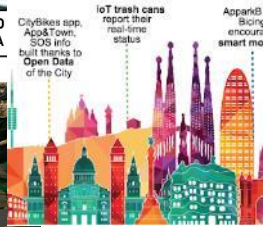
António Guterres, Secretary-General of the United Nations:

“We cannot go back to business as usual. Cities and communities are demanding that those in authority take the opportunity to build back better. To emerge stronger, we need a sustainable, inclusive and green recovery for people and the planet.”
(source: World Cities Report 2020)

Global Trends on Smart Cities



OPEN DATA



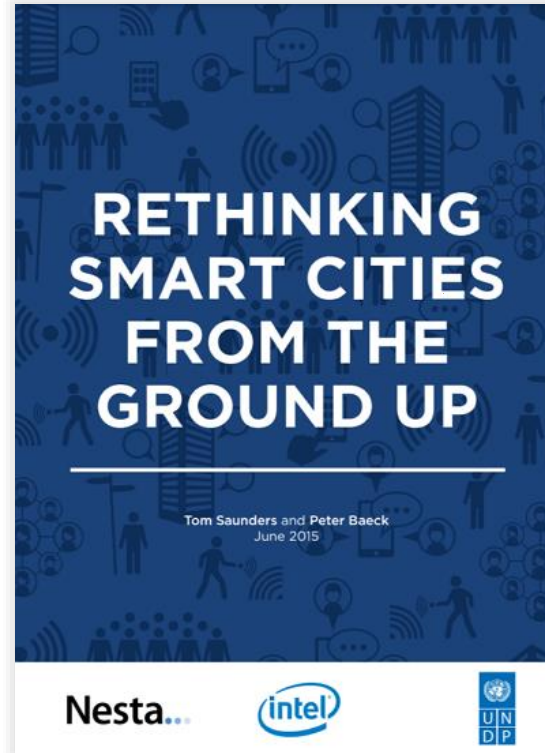
Global Trends on Smart Cities

Towards a new paradigm...

Rethinking Smart Cities

Four flaws with the smart city vision...

1. Starting with technology instead of urban challenges
2. Insufficient use or generation of evidence
3. Lack of awareness of how others are working to improve cities
4. Little role for citizen and stakeholder engagement



source: https://media.nesta.org.uk/documents/rethinking_smart_cities_from_the_ground_up_2015.pdf

Global Trends on Smart Cities

But are we really re-thinking smart cities?



Speech
Technology
Center

SMART TRACKER:
AI-driven face recognition
as part of Smart City public
health surveillance
against pandemics

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MAY 14, 2020 | 09.00 AM (GMT)



next
generation ...?

Our approach to tech innovation

UN-Habitat Strategic Plan 2020-2023

new focus on innovation, digital and smart cities

82. Frontier technologies are profoundly influencing the emergence of smart cities, the ways in which we build and manage our cities and other human settlements, and how urban managers take more informed decisions.

85. An increased emphasis on capacity-building in local government and across the built environment professions is crucial in order to turn smart city plans and the use of frontier technologies in urban planning, design and regeneration into people-centred opportunities, rather than technology-led endeavours.

86. Ultimately, the deployment of frontier technologies and sustainable urban development needs to pay particular attention to underserved populations in order to address inequalities and bridge social and spatial divides.



source: https://unhabitat.org/sites/default/files/documents/2019-09/strategic_plan_2020-2023.pdf

UN-Habitat Flagship Initiative

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-focused 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 and Capacity Building

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



Flagship programme on people-centered smart cities launched at World Urban Forum

Smart cities policy transformation

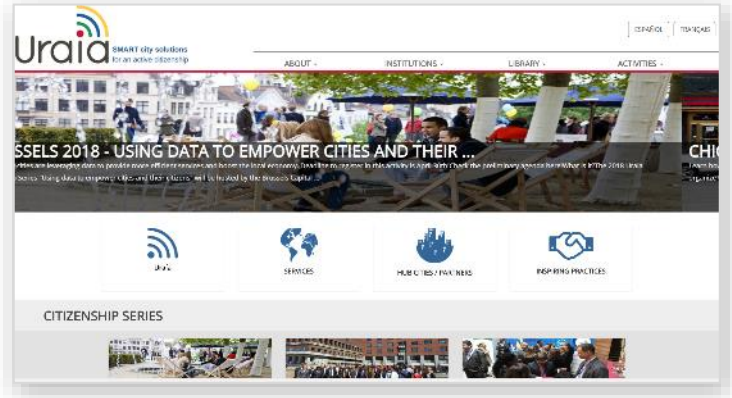
Vice-Chair of ITU Focus Group of Data Processing for Smart Cities



Steering group of United for Smart Sustainable Cities



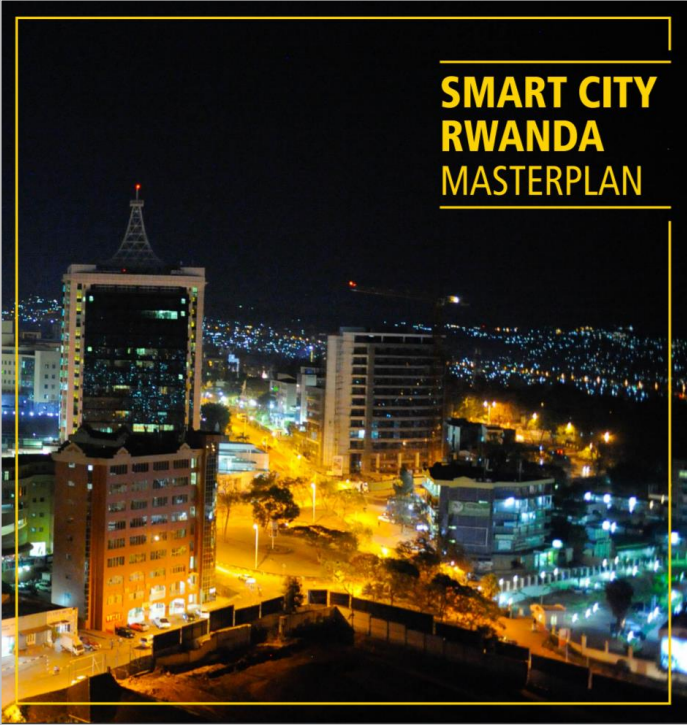
Host of the Uraia network of smart cities and practitioners



Steering group of Cities for Digital Rights Coalition



Building smart cities capacity globally



People-centered smart cities in practice



Block by Block – Using Minecraft for public participation in public space design

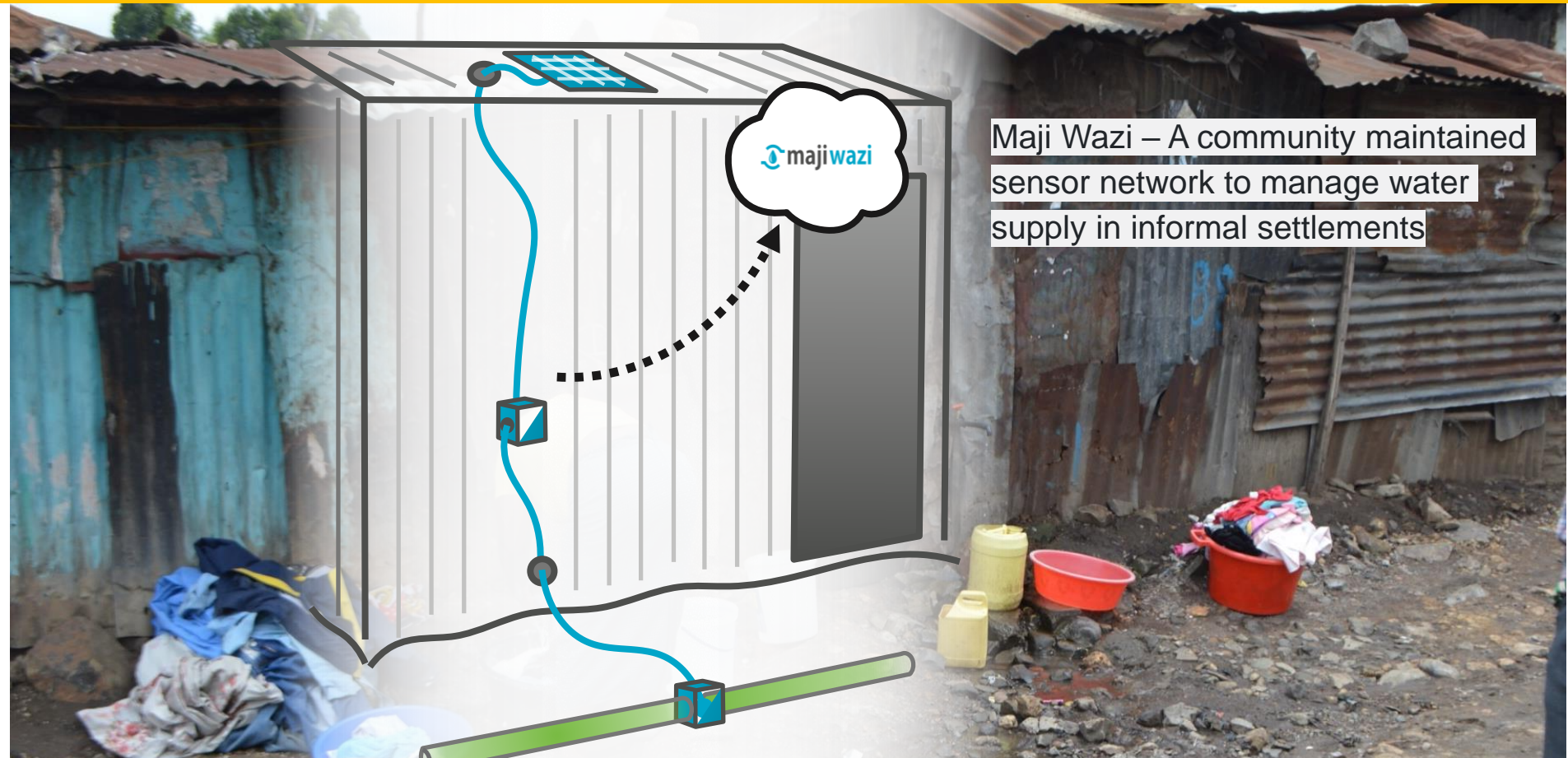
People-centered smart cities in practice



Developing inclusive technology solutions to urban mobility challenges through the Transformative Urban Mobility Initiative startup accelerator in Nairobi



People-centered smart cities in practice



Maji Wazi – A community maintained sensor network to manage water supply in informal settlements

People-centered smart cities in practice



'Mixed reality' and digital twins to visualize and co-create urban design projects

People-centered smart cities in practice



Understanding walkability in informal settlements using brain monitoring technologies and making stress assessments