

# Second Global Expert Meeting of the Expert Working Group

## International Guidelines on People-Centred Smart Cities

DAY 1

Nairobi, Online | 26 September 2024



# Agenda – EGM Day 1

Time (EAT)	Discussion	Speaker
14:00 - 14:10	<b>Welcome and opening remarks</b>	<b>Ms. Edlam Abera Yemeru</b> , Director (a.i.) External Relations, Strategy, Knowledge and Innovation Division Chief
14:10-14:30	<b>Taking stock of progress and way forward</b>	<b>Ms. Milou Jansen</b> , Knowledge and Innovation Branch
14:30 – 15:00	<b>Presentation of latest draft of the guidelines + Q&amp;A</b>	<b>Ms. Florencia Serale</b> , Knowledge and Innovation Branch
15:00 – 15:30	<b>Presentation on World Smart Cities Outlook</b>	<b>Mr. Paolo Gerli</b> , Edinburg Napier University
15:30 – 15:50	<b>Q&amp;A on the World Smart Cities Outlook</b>	<b>Plenary discussion</b> <b>Moderation: Ms. Roberta Maio</b> , Knowledge and Innovation Branch
15:50 – 16:00	<i>Break</i>	-
16:00 – 16:45	<b>Breakout rooms: Core-aspects of each thematic area</b>	<b>Ms. Florencia Serale , Ms. Hazel Kuria, Ms. Milou Jansen, Ms. Roberta Maio</b> , Knowledge and Innovation Branch
16:45 – 16:55	<b>Plenary summary of the break-out discussions</b>	<b>Ms. Milou Jansen</b> , Knowledge and Innovation Branch
16:45 – 16:55	<b>Closing remarks</b>	<b>Ms. Edlam Abera Yemeru</b> , Knowledge and Innovation Branch

# Taking stock of progress and way forward

## Check-in:

Experts get the chance to reflect on their role as advisors and can provide suggestions on the way forward

1. How do you think the international guidelines themselves are progressing?

[More Details](#)

Very Good	7
Good	5
Acceptable	1
Poor	0



2. How do you think the consultation process of the guidelines is progressing?

[More Details](#)

[Insights](#)

Very Good	6
Good	6
Acceptable	1
Poor	0



3. How engaged do you feel at this moment as Expert in Global Expert Working Group on the guidelines?

[More Details](#)

Very Engaged	7
Somewhat Engaged	6
Not very Engaged	0



# Third Draft- Key changes

General Feedback	Key changes
<i>Length of the document</i>	Reduced content to 35 pages (46 pages total)
<i>Link with UNH mandate and Strategy</i>	Added outcomes based on UNH strategy and a new principle "territorial development"
<i>Implementation</i>	New draft Annex without readiness levels- to be covered in a separate companion document
<i>Overlaps across duties</i>	Revised overlaps and government duties
<i>Length of the definition</i>	New iteration
<i>Practical guidance</i>	Exploring a summary table with key actions per actor

# Third Draft- Key changes

General Feedback	Key changes
<i>Length of the document</i>	Reduced content to 35 pages (46 pages total)
<i>Link with UNH mandate and Strategy</i>	Added outcomes based on UNH strategy and a new principle "territorial development"
<i>Implementation</i>	New draft Annex without readiness levels- to be covered in a separate companion document
<i>Overlaps across duties</i>	Revised overlaps and government duties
<i>Length of the definition</i>	New iteration
<i>Practical guidance</i>	Exploring a summary table with key actions per actor

# Updated Outline

---

## 1: Introduction

- Objectives of the guidelines
- Definition People-Centred Smart Cities
- Embracing a new paradigm of smart city development
- Preparatory process for the development of the Guidelines

## 2: International Guidelines

- Structure of the Guidelines
- Principles and Duties

## 3: Annex

- Annex I: Resolution
- Annex II: Implementation of the Guidelines
- Annex III: Actors
- Annex IV: Glossary

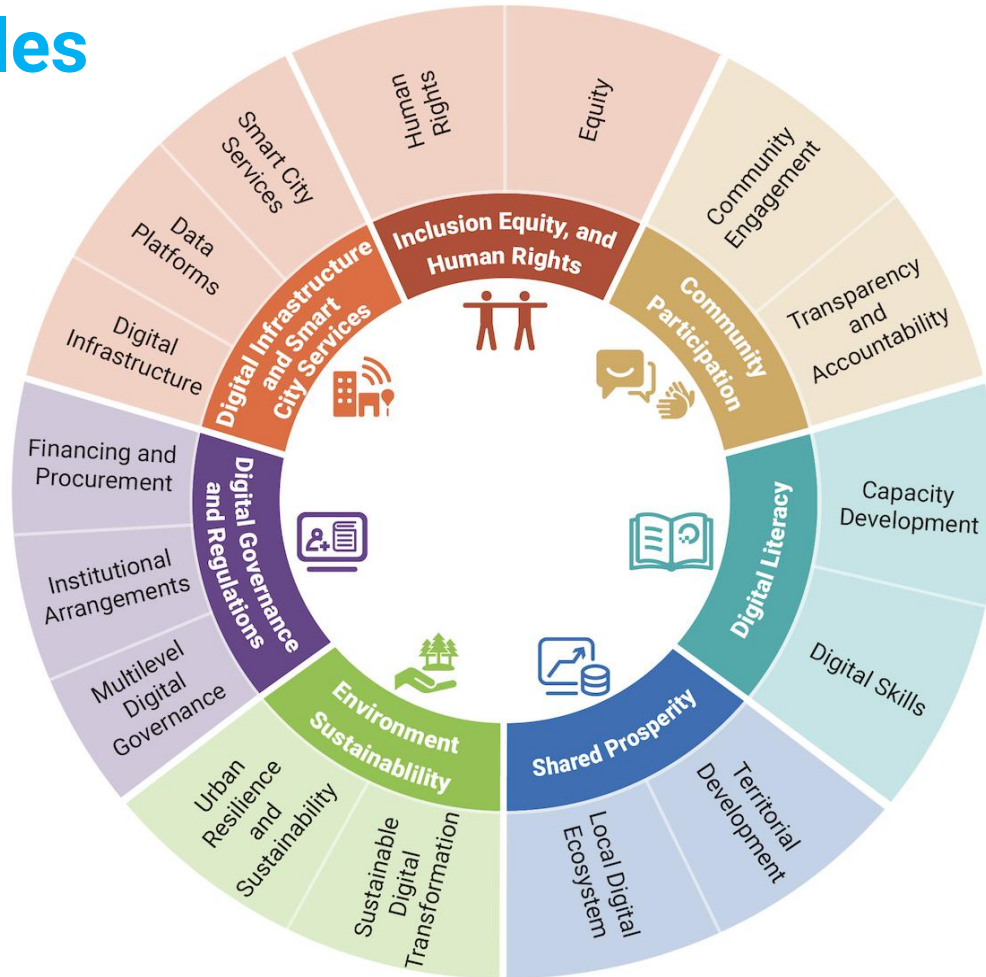
# Updated Definition

---

- *A people-centred smart city leverages technology to improve the **quality of life** of people and the **sustainability and resilience** of the environment.*
- *It ensures that smart city innovations are developed through **participatory approaches** and collaboration, providing **equitable access to digital services, skills and infrastructures** especially for people in vulnerable situations.*
- *It respects, protects and promotes **human rights**, with **multi-level governance systems and regulations** ensuring that technology supports sustainable development rather than becoming the goal itself*

# Updated Structure

## Principles



## Duties



**National Governments**



**Local and Regional Governments**



**Civil Society Organizations**



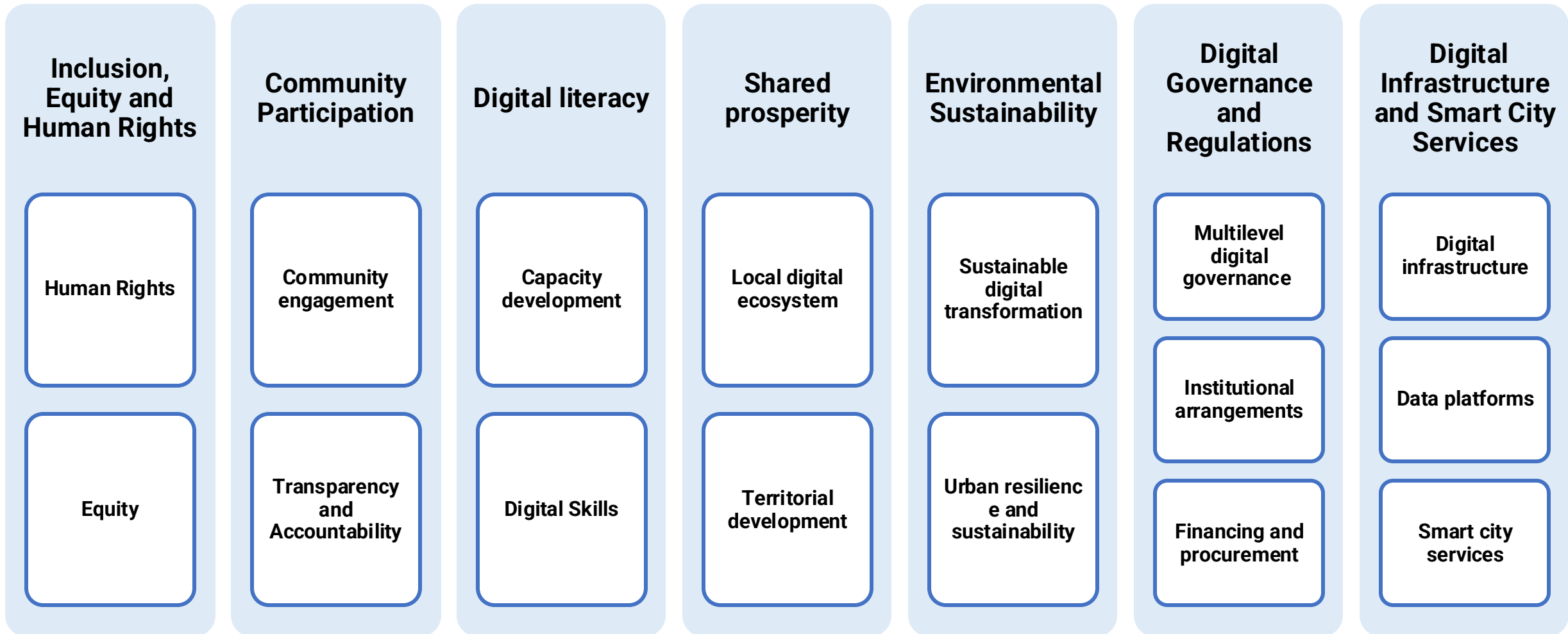
**Academia**



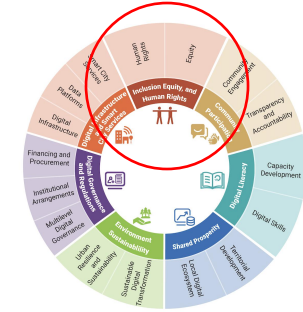
**Private Sector**



# IG-PCSC: Principles and Duties



# Inclusion, Equity and Human Rights



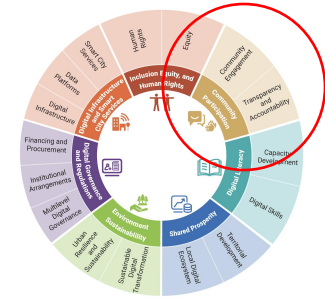
People-centred smart cities address existing disproportionate access barriers, with a focus on vulnerable people in vulnerable situations. They respect, protect and promote human rights, reducing territorial, social and digital inequalities, to ensure everyone can benefit from smart city services safely and inclusively

**Principle 1: Human Rights**

**Principle 2: Equity**

# Community Participation

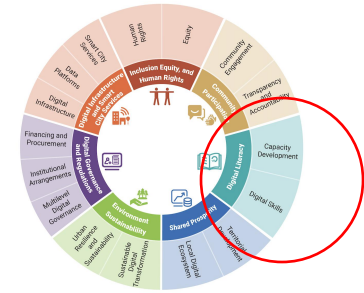
People-centred smart cities are places where people can thrive in their communities. They ensure participation and representation in smart city development by developing participatory approaches, platforms and engagement mechanisms that promote trustworthy involvement of people and stakeholders.



**Principle 1: Community Engagement**

**Principle 2: Transparency and Accountability**

# Digital Literacy



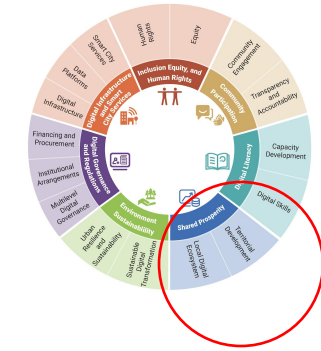
People-centred smart cities foster a culture of continuous learning and adaptation to technological advancements, promoting learning opportunities and enhancing public staff and stakeholders' skills to participate safely and proactively in a smart city and understand the impact, limitations, opportunities, and risks posed by technology.

**Principle 1: Capacity Development**

**Principle 2: Digital Skills**

# Shared Prosperity

People-centred smart cities nurture a local digital economy that harness digital technologies and data to create impactful outcomes for people including prosperity, well-being, higher standards of living, economic and social progress and territorial development.

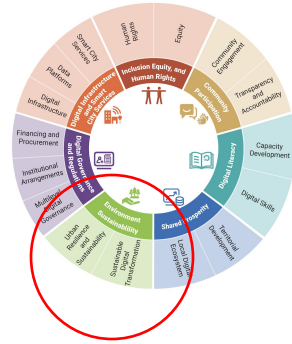


**Principle 1: Local Digital Ecosystem**

**Principle 2: Territorial Development**

# Environmental Sustainability

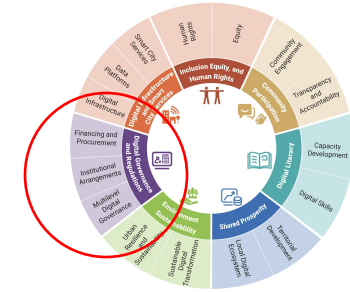
People-centred smart cities ensure people and the planet are central to urban planning and champion a sustainable digital transition that contributes to mitigating the environmental impact of cities, strengthens resilience to climate change and minimizes the pollution and the consumption of natural resources caused by digitalization.



**Principle 1: Sustainable Digital Transformation**

**Principle 2: Urban Resilience and Sustainability**

# Digital Governance and Regulations



People-centred smart cities promote effective multi-level digital governance and robust regulations and policies at the national, regional metropolitan and local levels to maintain oversight over the development and use of technology.

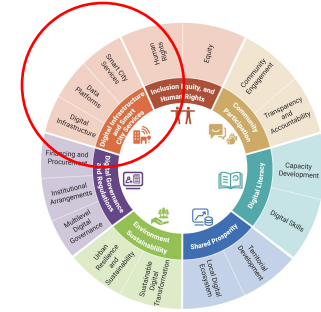
**Principle 1: Multi-level Digital Governance**

**Principle 2: Institutional Arrangements**

**Principle 3: Financing and Procurement**

# Digital Infrastructure and City Services

People-centred smart cities value connectivity as a basic urban service. As such, they provide secure and trustworthy digital infrastructure through regulation, investments and partnerships to support the delivery of smart city services and tools .



**Principle 1: Digital Infrastructure**

**Principle 2: Data Platforms**

**Principle 3: Smart City Services**



# Presentation on World Smart Cities Outlook

---



**Mr. Paolo Gerli**  
Associate Professor of Digital Innovation  
and Entrepreneurship  
Edinburg Napier University



# UN World Smart City Outlook

Paolo Gerli, Fabio Neves Da Rocha, Huong Nguyen, Luca Mora

**Expert Group Meeting**

26 September 2024

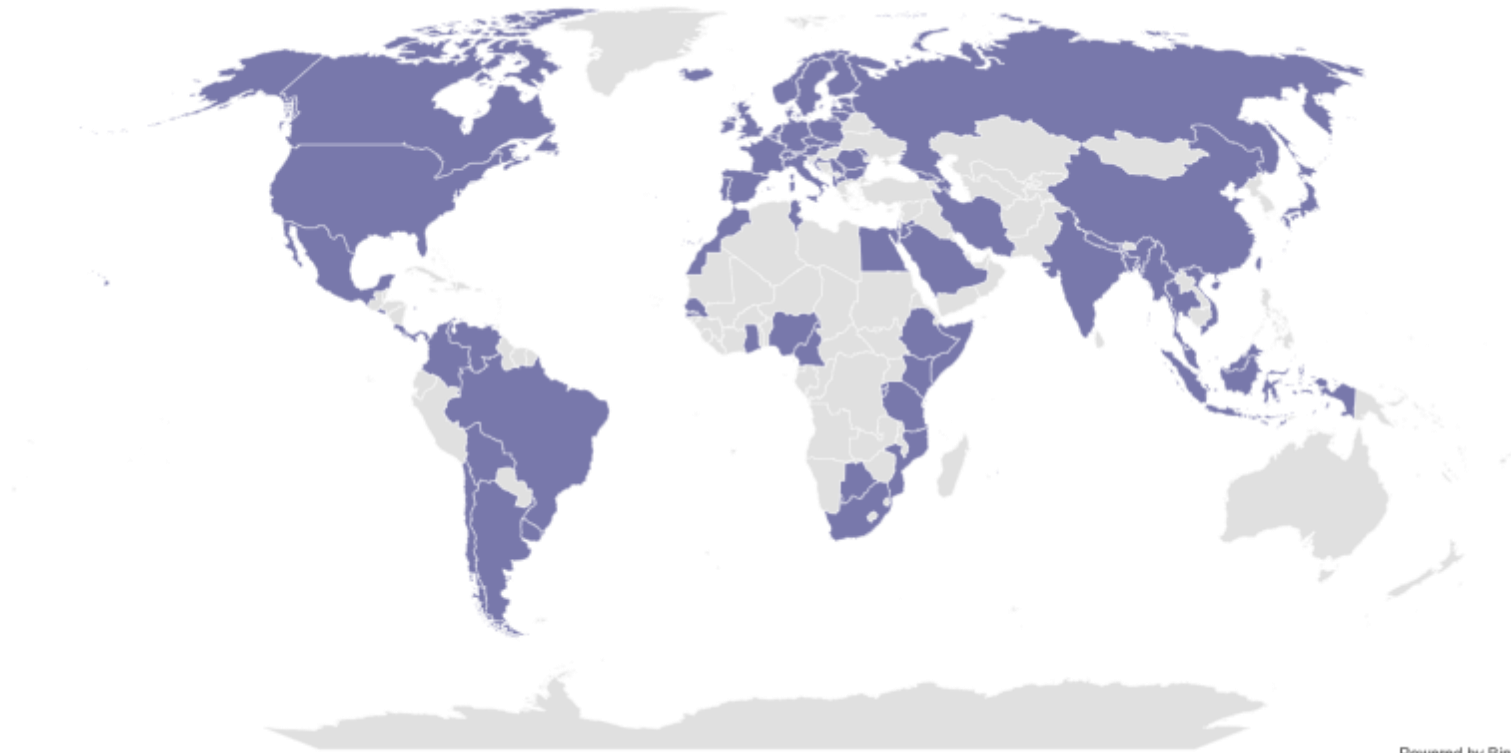
# Outline

- Methodology of the study
- Key findings
- Key considerations and priorities

# Methodology

- **Global Review** of Smart City Governance Practices (289 cities)
- **UN-DESA e-Government Survey** (193 cities)
- **UN-Habitat Global Assessment of Responsible AI in cities** (118 cities)
- Other sources on specific aspects (GSMA, OECD, etc.)
- **155 interviews** with smart city experts from **55 countries**
- **48 responses** from **32 countries** to the call for best practices
- Review of the **academic and grey literature**

# Geographic coverage



# Municipal strategies vs national policies

**69% of the municipalities covered by the Global Review (GR) have adopted either a smart city vision or a smart city plan.**

- **Strategic plans were less common in Africa and North America (approx. 40%),**
- **Smart city visions were in place in less than 70% of American municipalities.**
- **In the UN-H survey on responsible AI, 100% of North American cities have their own AI strategy (against a global average of 40%)**

**Nationwide smart city policies** were reported by **54% of the GR respondents**

- **The incidence of nationwide policies was higher in Asia (75%), while no national plans have been reported in North America.**
- **ITU and UN-DESA confirm that nationwide digital strategies are less common in North America.**

## KEY FINDINGS: STRATEGIES AND POLICIES

### Participatory planning: easier said than done!

Beyond the local government, **universities** are the **most likely to be involved** (60% of cases in the GR) in the definition of smart city strategies and visions.

The **participation of residents and civil society organizations** tend to be **higher in North America (85%) and Europe (73%)**, while remains less common **in Asia (29%) and Africa (39%)**

**European and North American cities** also showed the **highest levels** of involvement **for civil society organizations**.

Overall, the interviews emphasized how municipalities worldwide **struggle to implement effective participatory planning processes**, especially to include the perspective of marginalized communities and vulnerable groups.

# Monitoring: still work-in-progress

Only **37%** of the GR respondents declared that their **cities have been monitoring smart city initiatives** (with a **higher incidence in Latin America**).

Worldwide, **monitoring processes prioritize social outcomes** over economic and environmental impacts, **especially in Africa and North America** (where environmental impacts were monitored by less than 50% of the sampled cities).

The interviews confirmed that municipalities and their partners **struggle to systematically monitor smart city implementation** due to a **lack of consistent metrics and methods** and a **lack of harmonized processes for data collection and analysis**.



## KEY FINDINGS: INSTITUTIONAL ARRANGEMENTS

### Smart city units: breaking the administrative silos

**56%** of the cities in the GR **already have** a dedicated entity overseeing smart city development (**smart city unit**) – but this is **less frequent in Africa (36%) and Asia (40%)**.

Most of these units (**64%** of cases) are **integrated in existing municipal departments** (e.g., IT department, Urban Planning department). Other cities have **purposely established cross-functional teams or committees open to external stakeholders**.

All data sources confirmed that **smart city units lead to a better coordination among all partners**. However, GR respondents and interviewees reported that their **smart city units** are often equipped with **insufficient human and financial resources**.

## KEY FINDINGS: INSTITUTIONAL ARRANGEMENTS

### Bridging the skills gap: an ongoing challenge

**88%** of GR participants reported that **skills shortages within the public sector** are, at least to some extent, **a constraint to smart city development** (with a **higher incidence among African and Latin American cities**).

The UN-H study on responsible AI found that **skills gaps specific to AI** are being experienced by **72% of municipalities** worldwide, especially **in Latin America and Africa**.

Among the causes of the skills gap, interviewees mentioned the **inability** of municipal governments **to hire high-level or good quality staff** because the **salary levels** that they can offer are very **low compared to the private sector**.

**Partnerships with academic institutions** were instead identified as potential solutions **to expand or upgrade the skillset of municipal staff**.

## KEY FINDINGS: DIGITAL INFRASTRUCTURES

### Digital access and skills: a divide still to bridge

**18.6% of world population has a fixed broadband subscription (but the penetration rate drops to 0.8% in Africa, while it is 36.4% in Europe).**

As of 2023, **4G** was available to **64%** of the **African and Asian residents** against a **global average of 90%**, while the coverage of **5G networks (38% globally)** was six times higher in **Europe (68%)** than in **Africa (6%)**.

GSMA also estimated a **20% gap** in the **population with basic computer skills between developed and developing countries**.

All data sources confirmed the **digital divide as a major impediment** to smart city development. **6 out of 10 municipalities** in the GR have been **offering public Wi-Fi, digital skills training and demand subsidies**. All these measures tend to be **more common in the Americas**.

# KEY FINDINGS: DIGITAL INFRASTRUCTURES

## Data: an underutilised asset?

**Sensor network** were present in **73%** of the GR cities, but **only a fraction of the data** collected was **effectively utilized because of data silos and limited data analytics skills.**

The GR municipalities also tend to rely on **data from national governments** (60% of cases) and **universities** (43% of cases). Data sharing **with private companies was** more frequent in **Asia and Latin America**, data from **residents** were more commonly collected in **North and Latin America.**

**Data security and data protection** recurred as major obstacles to data sharing along with the **lack of data standards** and **clear data governance practices.**

**New regulations and policies on data protection and governance are contributing to boosting the quality and security of data platforms,** encouraging data sharing within smart cities, but the **environmental impacts of data platforms and sensor networks is to be further monitored.**

## KEY FINDINGS: COLLABORATIVE ECOSYSTEMS

### Participation of private companies: the dark side of procurement?

**6 out of 10** municipalities included in the GR have partnered with **local and non-enterprises** for smart city development. The **involvement** of these private actors was **higher in North America (> 80%) and lower in Africa (<50%)** for both planning implementation phases

The **low willingness** of private companies **to participate** in smart city projects emerged as **a constraint for 64% of cities**, with a **higher incidence among Latin American and African respondents (>75%)**.

Across the world regions, the interviews remarked that the complexity of existing **procurement processes and regulations** contributes to **undermining the participation of innovative start-ups and SMEs**.

## KEY FINDINGS: COLLABORATIVE ECOSYSTEMS

### Participations of residents: not for everyone yet

**Residents** have been involved in the **implementation** of smart city projects **in 48%** of the GR cities. Respondents based in **Europe and North America** generally reported **higher levels** of citizens' engagement.

Across the regions, approx. **50%** of respondents agreed that it remains **difficult to ensure the participation of residents** in smart city development, despite the **variety of engagement tools deployed by municipalities**.

From the interviews, it emerged that **digital literacy** remains a **barrier to citizens' engagement along with ongoing urban inequalities**.

Municipal governments also **lack the human and technical resources to ensure that participatory activities are truly inclusive**.

## Key considerations: regional differences

Differences across the world regions in the development of people-centred smart cities persist, mostly reflecting:

- **idiosyncrasies in national institutions and policies** (e.g. lack of ad-hoc regulations or nationwide strategies, absence of coordination mechanisms between national and local governments, etc.),
- **path dependencies in the collaborative ecosystems** (e.g. limited competition among local enterprises, high level of socio-economic inequalities at the local level, civil society organisations with little resources, etc.)
- **global inequalities** (e.g. in the access and distribution of technological resources, in the environmental impacts of digital technologies, etc.)

# Key priorities and preliminary recommendations

## **Inclusion, Equity and Human Rights**

- Develop **ex-ante human rights impact assessments** to preliminary evaluate the potential impacts of smart city solutions in terms of inclusion, equity and fairness.
- Devise and enforce **policy guidance for the design of inclusive smart city solutions**.

## **Community Participation and Digital Literacy**

- Devise comprehensive **strategies to address ongoing and emerging digital divides**.
- Partner with community actors to **build a relationship of trust with marginalised communities** and support their active participation in people-centred smart cities.

## **Shared Prosperity**

- Adopt **innovative procurement processes and business development programs** to sustain the participation of local SMEs (especially from underrepresented backgrounds).
- **Build synergies with other local authorities** to ensure that the benefits of smart city projects **spill over neighbouring communities**.



# Key priorities and preliminary recommendations

## Environmental Sustainability

- Refine metrics and methods for the assessment of the environmental impacts of digital infrastructures and services.
- Include lifecycle impact assessments in the strategic planning of smart city projects.

## Governance and Regulations

- Introduce institutional mechanisms for the coordination and alignment of local and national initiatives, policies and strategies.
- Develop harmonised regulatory frameworks at the supralocal level and provide clear guidance for their enforcement at the local level.

## Digital Infrastructure and Smart City Services

- Reinforce public oversight over critical infrastructures and essential services.
- Leverage grassroots innovation and bottom-up processes for the design of community-driven, people-centred services and infrastructures.

# Q&A on the WSCO



# Break-out Rooms

---

- **What needs to change to make the guidelines more understandable? Is the language clear?**
- **Where do the current duties need improvement, are they clear? What is the most important?**
- **What are the gaps or redundancies in thematic areas, principles and duties? What would you omit?**



# Break-out Rooms

---

## Room 1

### Digital Governance, Infrastructure & City Services

Moderator: Florencia Serale

## Room 2

### Community Participation & Digital Literacy

Moderator: Hazel Kuria

## Room 3

### Inclusion, Equity and Human Rights

Moderator: Milou Jansen

## Room 4

### Environmental Sustainability & Shared Prosperity

Moderator: Roberta Maio

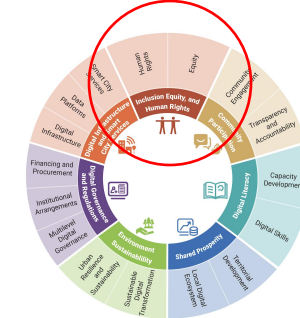


# Break-out Rooms



<b>Room 1: Digital infrastructure, city-services &amp; Governance</b>	<b>Room 2: Community Engagement, Participation and Capacity</b>	<b>Room 3: Digital Inclusion, Equity &amp; digital human rights</b>	<b>Room 4: Environmental Sustainability &amp; Economic Development</b>
<i>Florencia Serale</i>	<i>Hazel Kuria</i>	<i>Milou Jansen</i>	<i>Roberta Maio</i>
<i>Alice</i>	<i>Nigel</i>	Antonio Carvalho e Silva Neto	<i>Dave</i>
Alanus von Radecki	Samuel Seth Passah	Caroline Zorn	Ana Paula Bruno
Anar Valiyev	Rini Rachmawati	Santiago Garces Escobar	Santiago Caprio
Biyu Wan	Rogelio Alcocer Gomez	Abdelkhalek Ibrahim	Brigitte Bariol-Mathais
Kunal Kumar	Kiran Jain	Hugo Isaak	Zaheer Allam
Sharone April	Yukinari Tanaka	Jung-Hoon Lee	Rashnee Atkinson
Lucas Omollo	Karen Lassman	Atty Villanueva	Shahnaz Badalova
Francois Ossama	Fathi Salam		Yame Nkgowe
Ekaterina Baranova	Juliet Chinemelu		Selma Tabet

# Inclusion, Equity and Human Rights

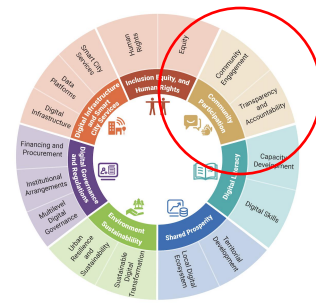


## Thematic Area: Inclusion, Equity and Human Rights

Actors/Duties*	Human Rights	Equity
<b>National Government</b>	<ul style="list-style-type: none"> <li>○ Develop accountability frameworks, legislation, safeguards</li> <li>○ Establish oversight mechanisms</li> <li>○ Conduct human rights due diligence</li> </ul>	<ul style="list-style-type: none"> <li>○ Ensure availability, accessibility, and affordability of internet services, digital devices, services and platforms</li> <li>○ Develop digital inclusion policies and oversight bodies</li> </ul>
<b>LRGs</b>	<ul style="list-style-type: none"> <li>○ Embed human rights principles in local legislation</li> <li>○ Uphold the right to privacy in smart city technology</li> <li>○ Conduct human rights due diligence and impact assessments</li> </ul>	<ul style="list-style-type: none"> <li>○ Co-design digital services with vulnerable groups</li> <li>○ Ensure affordability and accessibility of digital infrastructure</li> <li>○ Develop a digital inclusion plan and assess the digital divide</li> </ul>
<b>CSOs</b>	<ul style="list-style-type: none"> <li>○ Enforcement and oversight</li> <li>○ Monitor the impact of regulations</li> <li>○ Report human rights violations</li> </ul>	<ul style="list-style-type: none"> <li>○ Implement digital inclusion projects</li> <li>○ Represent the needs of vulnerable populations</li> <li>○ Monitor implementation of smart city tools</li> </ul>
<b>Academia</b>	<ul style="list-style-type: none"> <li>○ Assess and evaluate impact of technologies on human rights</li> </ul>	<ul style="list-style-type: none"> <li>○ Collect and analyze data on the digital divide</li> <li>○ Provide policy recommendations</li> </ul>
<b>Private Sector</b>	<ul style="list-style-type: none"> <li>○ Conduct human rights due diligence and impact assessments</li> <li>○ Mechanisms to ensure privacy and security online</li> <li>○ Robust controls and content moderation</li> </ul>	<ul style="list-style-type: none"> <li>○ Develop affordable and accessible digital services and tools</li> <li>○ Measures to include peoples' needs in technology design</li> <li>○ Apply universal design and accessibility standards.</li> </ul>

\*note this is an illustrative list of duties, please consult the draft for the full list

# Community Participation

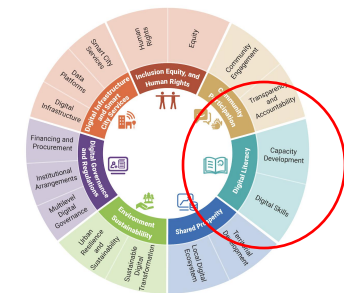


<b>Thematic Area: Community Participation</b>		
<b>Actors/Duties*</b>	<b>Community Engagement</b>	<b>Transparency and Accountability</b>
<b>National Government</b>	<ul style="list-style-type: none"> <li>○ Policies and frameworks to foster inclusive and meaningful engagement and public participation at the local level.</li> <li>○ Level national digital platforms and applications to enable online participation</li> </ul>	<ul style="list-style-type: none"> <li>○ Legal frameworks for effective collaborations in smart city projects</li> <li>○ Guidelines and provisions to increase transparency in the development of smart city tools and services</li> </ul>
<b>LRGs</b>	<ul style="list-style-type: none"> <li>○ Develop tools and guidelines to engage with people meaningfully and responsibly</li> <li>○ Connect with community leaders</li> <li>○ Design participatory platforms, tools, approaches and communication channels offline to help enhance feedback</li> </ul>	<ul style="list-style-type: none"> <li>○ Accountability and transparency processes on the status of smart city interventions</li> <li>○ Publish commitments for smart city development</li> <li>○ Publish in open and accessible formats policy documents</li> </ul>
<b>CSOs</b>	<ul style="list-style-type: none"> <li>○ Support active participation of communities</li> <li>○ Participate in consultation processes</li> <li>○ Advocate for including the needs of vulnerable groups</li> </ul>	<ul style="list-style-type: none"> <li>○ Hold the public sector accountable for the commitments, actions, and progress of smart city projects</li> <li>○ Ensure that feedback from communities is included</li> </ul>
<b>Academia</b>	<ul style="list-style-type: none"> <li>○ Research on participatory methods and community engagement best practices.</li> <li>○ Join steering committees and participate in advisory groups</li> </ul>	<ul style="list-style-type: none"> <li>○ Develop methods to evaluate the impact of technologies</li> <li>○ Support monitoring of smart city projects and commitments</li> </ul>
<b>Private Sector</b>	<ul style="list-style-type: none"> <li>○ Development of tools and platforms to enhance participation</li> </ul>	<ul style="list-style-type: none"> <li>○ Ensure smart city commitments are embed in tools</li> <li>○ Develop tools to increase transparency</li> </ul>

\*note this is an illustrative list of duties, please consult the draft for the full list



# Digital Literacy

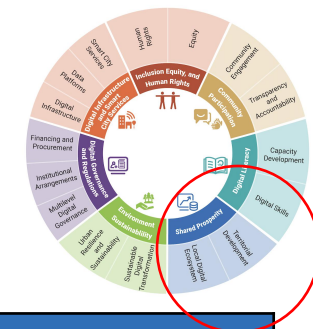


## Thematic Area: Digital Literacy

Actors/Duties*	Capacity Development	Digital Skills
<b>National Government</b>	<ul style="list-style-type: none"> <li>○ Develop capacity building programmes and digital literacy interventions</li> <li>○ Educational curricula and tools</li> <li>○ Establishment of partnerships and allocation of resources</li> </ul>	<ul style="list-style-type: none"> <li>○ Develop competency frameworks in digital transformation</li> <li>○ Include technology education and digital skills in the curricula</li> <li>○ Upskill people and stakeholders</li> </ul>
<b>LRGs</b>	<ul style="list-style-type: none"> <li>○ Ensure equal access to learning by partnerships, incentives</li> <li>○ Assess needs and digital literacy</li> <li>○ Digital training, in-person engagements and awareness to stakeholders</li> </ul>	<ul style="list-style-type: none"> <li>○ Provide lifelong learning opportunities to upskill people in areas such as data use, data protection and cybersecurity.</li> <li>○ Offer basic technology skills in low-income neighborhoods</li> <li>○ Offer training programs and workshops for both public and private sector employees to develop advanced digital skills</li> </ul>
<b>CSOs</b>	<ul style="list-style-type: none"> <li>○ Support implementation of capacity building actions</li> </ul>	<ul style="list-style-type: none"> <li>○ Support the local government in implementing upskilling programmes</li> </ul>
<b>Academia</b>	<ul style="list-style-type: none"> <li>○ Deliver capacity building programs and curricula</li> </ul>	<ul style="list-style-type: none"> <li>○ Design and deliver educational curricula, courses, and workshops</li> </ul>
<b>Private Sector</b>	<ul style="list-style-type: none"> <li>○ Develop platforms that include learning needs and capacities</li> <li>○ Support the implementation of programs</li> </ul>	<ul style="list-style-type: none"> <li>○ Upskill workforces</li> </ul>

\*note this is an illustrative list of duties, please consult the draft for the full list

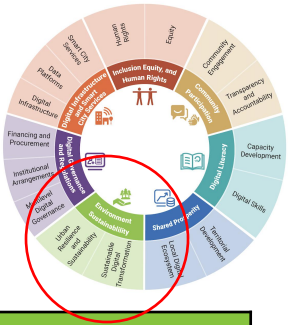
# Shared Prosperity



<b>Thematic Area: Shared Prosperity</b>		
<b>Actors/Duties*</b>	<b>Local Digital Ecosystem</b>	<b>Territorial Development</b>
<b>National Government</b>	<ul style="list-style-type: none"> <li>○ Create an enabling environment to support innovation and local entrepreneurship</li> <li>○ Increase international cooperation to develop legal frameworks and safeguards to ensure work-life balance in digital environments</li> <li>○ Promote partnerships, local innovation and entrepreneurship to enhance the competitiveness of the local economy</li> </ul>	<ul style="list-style-type: none"> <li>○ Support inter-municipal cooperation in the development of solutions</li> <li>○ Strengthen inter-city relations and synergies and link urban planning to regional development to ensure territorial cohesion and smart city development at city-region level</li> <li>○ Develop standards to monitor the impacts of digitalization on the territory</li> </ul>
<b>LRGs</b>	<ul style="list-style-type: none"> <li>○ Enable micro, SMEs, local business and community organizations to access and compete in the digital economy</li> <li>○ Channel investments towards projects that integrate local entrepreneurship and community co-creation</li> </ul>	<ul style="list-style-type: none"> <li>○ Monitor the impact of technology and smart city projects on economic development, job creation, prosperity.</li> <li>○ Smart city tools that help mitigate the impactful effects of digitalization on urban life and support the care economy</li> </ul>
<b>CSOs</b>	<ul style="list-style-type: none"> <li>○ Support community groups and local organizations in designing local digital tools to tackle local challenges</li> </ul>	<ul style="list-style-type: none"> <li>○ Advocate for the development of smart city tools that promote increased livelihoods of vulnerable groups</li> </ul>
<b>Academia</b>	<ul style="list-style-type: none"> <li>○ Support community groups and local organizations in designing locally-owned digital tools</li> </ul>	<ul style="list-style-type: none"> <li>○ Evaluate the impact of tools on territorial development</li> </ul>
<b>Private Sector</b>	<ul style="list-style-type: none"> <li>○ Facilitate access to financing to support the development of smart city projects</li> </ul>	<ul style="list-style-type: none"> <li>○ Develop smart city tools and platforms that increase cooperation and synergies across cities</li> </ul>

\*note this is an illustrative list of duties, please consult the draft for the full list

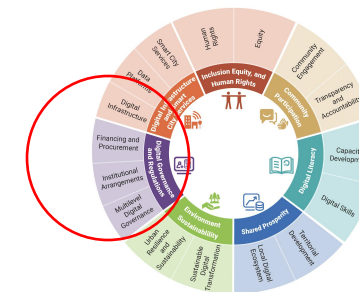
# Environmental Sustainability



<b>Thematic Area: Environmental Sustainability</b>		
<b>Actors/Duties*</b>	<b>Sustainable Digital Transformation</b>	<b>Urban Resilience and Sustainability</b>
<b>National Government</b>	<ul style="list-style-type: none"> <li>○ Set national standards and regulations for energy consumption and pollution reduction of digital infrastructure</li> <li>○ Provide subsidies, tax incentives, or grants to encourage investment</li> <li>○ Integrate digital sobriety, eco-design, and sustainable data center practices in digital transformation strategies</li> </ul>	<ul style="list-style-type: none"> <li>○ Develop legislation to promote longer use or reuse of devices</li> <li>○ Implement circular economy principles to minimize waste and promote the reuse and recycling of devices.</li> <li>○ Promote frameworks and initiatives to manage energy consumption</li> </ul>
<b>LRGs</b>	<ul style="list-style-type: none"> <li>○ Support the collection of data on the direct and indirect environmental impact of digital transformation</li> <li>○ Promote sustainable digital transformation practices</li> <li>○ Prioritizing digital infrastructure, tools and services that minimize pollution and conserve natural resources</li> </ul>	<ul style="list-style-type: none"> <li>○ Leverage digital planning tools , data and technologies to ensure sustainable practices</li> <li>○ Measure and scrutinize the environmental impacts of corporations</li> <li>○ Educational curricula on sustainability and digitalization</li> </ul>
<b>CSOs</b>	<ul style="list-style-type: none"> <li>○ Advocate for efficient resource utilization and conservation in the development of digital tools</li> </ul>	<ul style="list-style-type: none"> <li>○ Create awareness on sustainable practices and green solutions.</li> <li>○ Advocate for efficient resource utilization and conservation</li> </ul>
<b>Academia</b>	<ul style="list-style-type: none"> <li>○ Use data to measure the impact of digitalization and assess the environmental impact of digital tools and infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>○ Create academic programs and courses that focus on the intersection of digitalization and sustainability</li> </ul>
<b>Private Sector</b>	<ul style="list-style-type: none"> <li>○ Develop digital devices and technologies that are energy-efficient, durable, and easily recyclable</li> </ul>	<ul style="list-style-type: none"> <li>○ Implement take-back programs to promote recycling and reuse and invest in green technologies</li> </ul>

\*note this is an illustrative list of duties, please consult the draft for the full list

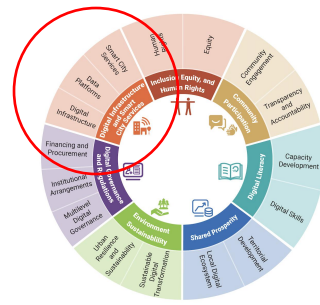
# Digital Governance and Regulations



## Thematic Area: Digital Governance and Regulations

<i>Actors/Duties*</i>	Institutional Arrangements	Multi-level Digital Governance	Financing and Procurement
<b>National Government</b>	<ul style="list-style-type: none"> <li>○ Appoint an office, or mandate an existing one, in charge of overseeing smart city projects</li> <li>○ Create smart city networks</li> </ul>	<ul style="list-style-type: none"> <li>○ Regulations and standards to govern digital technologies and infrastructure</li> <li>○ Develop policy evaluation mechanisms and strategies for monitoring and regular updating regulations</li> </ul>	<ul style="list-style-type: none"> <li>○ Develop legal structures to finance smart city projects</li> <li>○ Allocate resources and investments</li> <li>○ Develop regulations and policies to foster innovative public procurement</li> </ul>
<b>LRGs</b>	<ul style="list-style-type: none"> <li>○ Assess and reorganize the internal structures and processes</li> <li>○ Establish or mandate a dedicated Smart City Unit</li> <li>○ Define roles and responsibilities in smart city development</li> </ul>	<ul style="list-style-type: none"> <li>○ Localize national and international legislation into local regulations</li> <li>○ Develop strategies, policies, and protocols</li> <li>○ Incorporate privacy rights and transparency measures in smart city governance processes</li> </ul>	<ul style="list-style-type: none"> <li>○ Develop financing and economic models with emphasis on diverse funding sources</li> <li>○ Support community-based financing</li> <li>○ Leverage procurement to foster innovation within the local ecosystem</li> </ul>
<b>CSOs</b>	<ul style="list-style-type: none"> <li>○ Participate in steering committees and networks</li> </ul>	<ul style="list-style-type: none"> <li>○ Ensure enforcement of regulations</li> </ul>	<ul style="list-style-type: none"> <li>○ Advocate for the inclusion of universal design and accessibility standards in procurement</li> </ul>
<b>Academia</b>	<ul style="list-style-type: none"> <li>○ Help assess institutional capacities and provide recommendations on novel structures</li> </ul>	<ul style="list-style-type: none"> <li>○ Provide insights, future scenario-analysis and research to inform regulations</li> </ul>	<ul style="list-style-type: none"> <li>○ Conduct research and advice on sustainable financing and procurement practices</li> </ul>
<b>Private Sector</b>	<ul style="list-style-type: none"> <li>○ Participate in steering committees and networks</li> </ul>	<ul style="list-style-type: none"> <li>○ Comply with regulations</li> </ul>	<ul style="list-style-type: none"> <li>○ Comply with procurement standards</li> <li>○ Support financing and engage in PPPs</li> </ul>

\*note this is an illustrative list of duties, please consult the draft for the full list



# Digital Infrastructure and City Services

## Thematic Area: Digital Infrastructure and City Services

<i>Actors/Duties*</i>	Digital Infrastructure	Data Platforms	Smart City Services
<b>National Government</b>	<ul style="list-style-type: none"> <li>○ Include digital infrastructure provisions for underserved areas</li> <li>○ Technical assistance and/or resources to local governments</li> <li>○ Invest in Digital Public Infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>○ Offer national open data platforms to local governments to increase urban data availability</li> <li>○ Open data of interest to local governments and develop data strategies</li> </ul>	<ul style="list-style-type: none"> <li>○ Define standards, roles and responsibilities for local service provision of smart city tools</li> <li>○ Invest in the development or reuse of digital public goods</li> </ul>
<b>LRGs</b>	<ul style="list-style-type: none"> <li>○ Increase the availability of local digital infrastructure through investments and regulatory actions to retain control and secure smart city assets</li> </ul>	<ul style="list-style-type: none"> <li>○ Data management arrangements and operationalize data governance processes for data collection and hosting, sharing and use</li> <li>○ Open data and promote data use</li> </ul>	<ul style="list-style-type: none"> <li>○ Establish digital service standards</li> <li>○ Digitalize public services and leverage technologies to enhance universal access to basic urban services</li> </ul>
<b>CSOs</b>	<ul style="list-style-type: none"> <li>○ Support community owned infrastructure.</li> </ul>	<ul style="list-style-type: none"> <li>○ Help people and communities use data and steward data of community interest</li> </ul>	<ul style="list-style-type: none"> <li>○ Support needs assessments, consultation processes and feedback</li> </ul>
<b>Academia</b>	<ul style="list-style-type: none"> <li>○ Support the development of Digital Public Infrastructure and novel use of technologies</li> </ul>	<ul style="list-style-type: none"> <li>○ Research and tools to make data accessible to communities and support stakeholders in increasing use</li> </ul>	<ul style="list-style-type: none"> <li>○ Support the co-design and delivery of tools and services</li> </ul>
<b>Private Sector</b>	<ul style="list-style-type: none"> <li>○ Facilitate and finance the supply, design, and delivery of digital infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>○ Open data of interest for the city and support the development of analytical tools and portals</li> </ul>	<ul style="list-style-type: none"> <li>○ Deliver services and applications based on peoples' needs</li> </ul>

\*note this is an illustrative list of duties, please consult the draft for the full list

# Plenary Summary of break-out room discussions

# Closing Remarks

# Thank you!

---

Get in touch →



For more information on the international guidelines on people-centred smart cities, get in touch with us via: [ig-pcsc@un.org](mailto:ig-pcsc@un.org)

Innovation Section, UN-Habitat

