



# **ITU-T Activities on smart sustainable cities**

**- How the ITU Helps Build Smart Cities and Communities -**

**Jun Seob LEE**

**ITU-T Q1/20 Rapporteur**

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# Standardization with global reach: ITU-T Study Group 20

- ◆ ITU-T Study Group 20 (SG20) develops international standards (ITU-T Recommendations) providing commonly agreed guidance for implementing the IoT and its applications, as well as smart cities and communities. Its work supports digital transformation in both urban and rural areas enabled by solutions in fields such as IoT, digital twins, and artificial intelligence
  - The next ITU Study Group 20 meeting will take place on 15-24 January 2025 in Geneva, Switzerland



# Standardization with global reach: ITU-T Study Group 20

- ◆ Results of WTSA-24 on SG20: WTSA Resolution 98
  - ITU-T Y.4600 is referenced
    - ❖ Requirements and capabilities of a digital twin system for smart cities
  - ITU-T Y.4903 is referenced
    - ❖ Key performance indicators for smart sustainable cities to assess the achievement of sustainable development goals
  - ITU-T SG20 is instructed to study on digital twins and citiverse
    - ❖ citiverse: metaverse for smart sustainable cities and communities
- ◆ Results of WTSA-24 on SG20: WTSA Resolution 2
  - Digital twin and metaverse for SSC&C (citiverse) are added into its scope and mandate of SG20

# Digital Transformation Dialogues (DTD)

- ◆ The Digital Transformation Dialogues (DTD) offer a dynamic platform to facilitate a deeper understanding of emerging technologies to reshape traditional processes, improve operational efficiency and unlock new possibilities for innovation and standardization
  - Ask the expert session – Smart Submarine Cables: The future of disaster management(5 November 2024, 14:00 – 14:30 CET)



## Digital Transformation Dialogues

[www.itu.int/cities/  
digitaltransformationdialogues](http://www.itu.int/cities/digitaltransformationdialogues)



# United for Smart Sustainable Cities

- ◆ The United for Smart Sustainable Cities (U4SSC) is a global UN initiative that supports cities and communities in accelerating digital transformation and achieving the Sustainable Development Goals (SDGs)
- ◆ The U4SSC accomplishes this through its Thematic Groups, developing action plans and guidelines, and the Key Performance Indicator project, which evaluates ICTs' role and provides tools for self-assessment to promote smartness and sustainability in cities.



# United for Smart Sustainable Cities

## ◆ Ongoing Thematic Groups



**City Platforms**



**Building Urban Economic Resilience  
at City Level**



**Artificial Intelligence in Cities**



**Enabling People-Centred Cities  
through Digital Transformation**



**Digital Wellbeing**



**Future Foresight for Cities**



**Sustainable Digital  
Transformation in Buildings  
and Urban Energy**



**Social-cultural Sustainability  
in People-centred City  
Governance**



**Digital Public Infrastructure  
for Cities**

# United for Smart Sustainable Cities

## ◆ Past Thematic Groups



### **Procurement for Smart Sustainable Cities**

Deliverable: Procurement guidelines for smart sustainable cities



### **Compendium of Practices on Innovative Financing for Smart Sustainable Cities Projects**

Deliverable: Compendium of practices on innovative financing for smart sustainable cities projects



### **Blockchain 4 Cities**

Deliverable: Blockchain for smart sustainable cities



### **Guidelines on strategies for circular cities**

Deliverable: A Guide to Circular Cities and its case studies



### **Impact of Frontier Technologies in Cities**

Deliverable: Accelerating city transformation using frontier technologies



### **Simple ways to be smart**

Deliverable: Simple ways to be smart



### **Innovative Financing Instruments for Smart Sustainable Cities**

Deliverable: Guidelines on tools and mechanisms to finance smart sustainable cities projects



### **City Science Application Framework**

Deliverable: City Science Application Framework and its case studies



# KPIs for Smart Sustainable Cities

- ◆ The U4SSC KPIs are a vital tool for cities wishing to achieve the UN Sustainable Development Goals. They support cities and communities worldwide in evaluating their level of smartness and sustainability
  - Over 200 cities worldwide are already implementing these KPIs



## REPORT

Publish key areas of analysis, important lessons learned, establish actionable outcomes and other key city insights



## BENCHMARK

Track year over year progress, perform longer term trend analysis and benchmark performance



## MAP

Provide a powerful visual representing the areas where city action is required

# Toolkit on Digital Transformation for People-Oriented Cities and Communities

- ◆ The Toolkit on Digital Transformation for People-Oriented Cities and Communities supports strategizing and planning the digital transformation of cities and communities to promote sustainable, inclusive, resilient and improved quality of life for residents in cities and communities
- ◆ The Toolkit is:
  - A one-stop guide containing latest international standards and other ITU and UN resources, publications and reports
  - An endeavor to identify the challenges faced by cities as well as potential solutions that they can leverage for maximum positive impact.
  - A comprehensive, yet non-exhaustive collation of information that is meant to inspire and support progress toward the SDGs, especially SDG 11, at the local level.

# Toolkit on Digital Transformation for People-Oriented Cities and Communities

## ◆ Modules



Digital Transformation of Cities and Communities



Developing a Digital Transformation Strategy



Data Processing and Management



Connectivity, Digital Divide and Digital Inclusion



Accessibility and Digital Inclusion



Reduce the Environmental Impact of Cities



Smart Energy Management



Smart Water Management



Emergency Management



4IR and Smart Manufacturing



Smart Sustainable City Governance



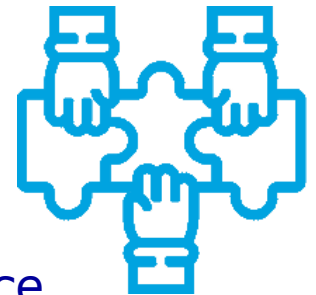
Digital Agriculture

# Strengthening collaboration with SDOs and industry Fora



- ◆ Joint Coordination Activity on Internet of Things and Smart Cities and Communities (JCA-IoT and SC&C)
  - The JCA-IoT and SC&C provides a visible contact point for IoT and its applications including smart cities and communities (SC&C) activities. This would also help to coordinate with external bodies working in the field of IoT and SC&C and enable effective two-way communication with these bodies

- ◆ IEC-ISO-ITU Joint Smart Cities Task Force (J-SCTF)
  - ITU, ISO and IEC have established a Joint Smart Cities Task Force to coordinate international standardization for smart cities. The Joint Task Force aims to engage stakeholders to identify standardization demands and provides leadership in guiding the supporting collaboration of ITU, ISO and IEC and the broader standardization ecosystem





**Thank you for your attention!**