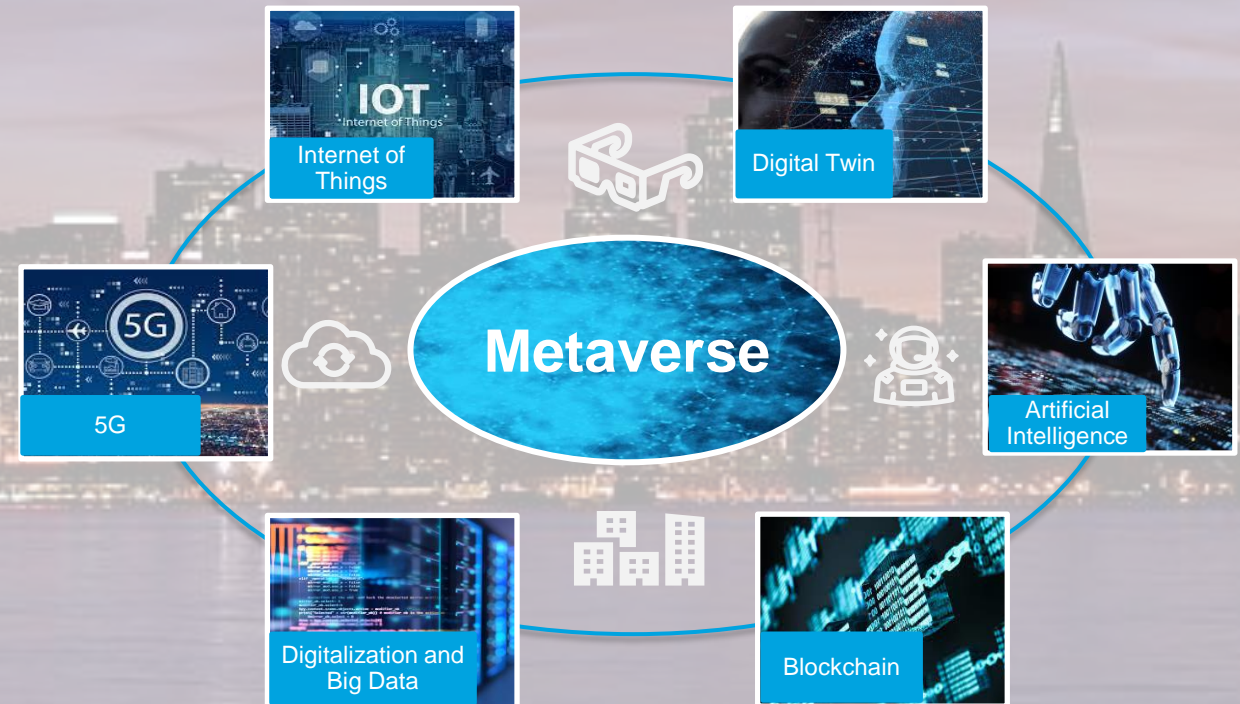# Side Event on Building People-Oriented Cities Through Digital Transformation

7th Multi-stakeholder Forum on Science, Technology and Innovation for the Sustainable Development Goals (STI Forum)
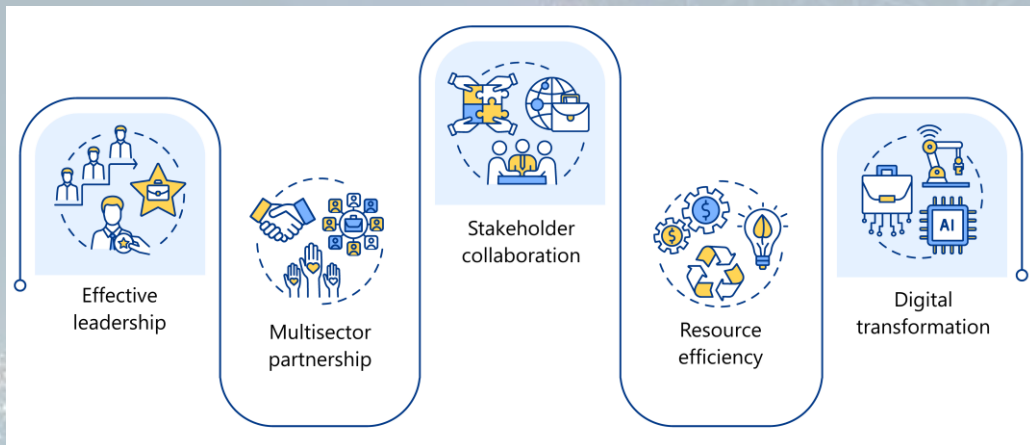
Cristina Bueti,
ITU Focal Point on Environment and
Smart Sustainable Cities & Communities

Science, Technology and Innovation to Support Cities Facing Challenges

- GHG Emissions
- Infrastructure Gaps
- Overpopulation
- Informal Housing
- Crime
- Service Gaps
- Low Connectivity

Internet of Things

Digital Twin

5G

Metaverse

Artificial Intelligence

Digitalization and Big Data

Blockchain

Digital Transformation for People-Centred Cities

(Source: Shutterstock)

Community: Empowering people

Digital Equity: Making access to technology equitable

Infrastructure: Responsibility managing data & digital infrastructure

Security: Building trust by securing digital assets

Capacity: Building multi-stakeholder capacity

(Source: UN-Habitat)

ITU Supports STI for Cities and Communities

SUSTAINABLE DEVELOPMENT GOALS

GROWTH   INCLUSIVENESS   SUSTAINABILITY   INNOVATION   PARTNERSHIP

U4SSC:
United for Smart Sustainable Cities initiative

Joint IEC-ISO-ITU Smart Cities Task Force

JCA-IoT and SC&C:
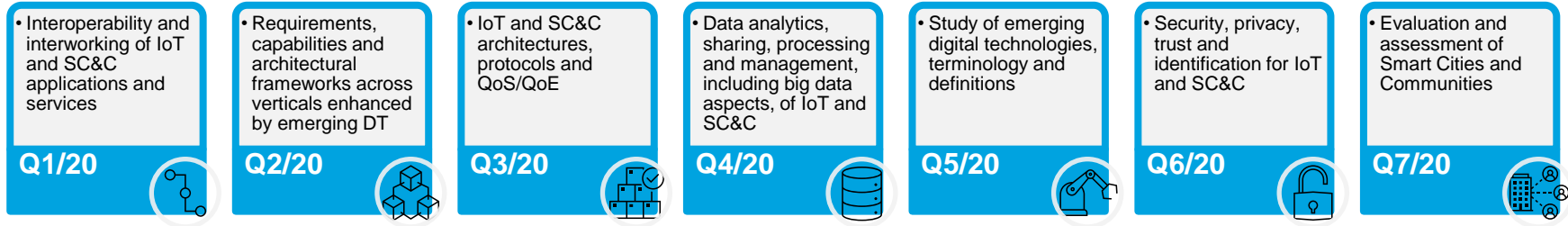Joint Coordination Activity on IoT and Smart Cities and Communities

ITU-T Study Group 20:
ITU Study Group on IoT and Smart Cities and Communities

ITU:
International Telecommunication Union – the UN specialized agency for ICTs

ITU-T Study Group 20 IoT and Smart Cities & Communities

- Internet of Things and its Applications
- Smart Cities and Communities
- IoT Identification
- Digital health related to IoT and SSC

Q1/20
- Interoperability and interworking of IoT and SC&C applications and services

Q2/20
- Requirements, capabilities and architectural frameworks across verticals enhanced by emerging DT

Q3/20
- IoT and SC&C architectures, protocols and QoS/QoE

Q4/20
- Data analytics, sharing, processing and management, including big data aspects, of IoT and SC&C

Q5/20
- Study of emerging digital technologies, terminology and definitions

Q6/20
- Security, privacy, trust and identification for IoT and SC&C

Q7/20
- Evaluation and assessment of Smart Cities and Communities

Regional Groups

Africa Region

Americas Region

Arab Region

EECAT Region

Joint Coordination Activity & New Focus Group

Joint Coordination Activity on Internet of Things and Smart Cities and Communities (JCA-IoT and SC&C)

Focus group on Artificial Intelligence (AI) and Internet of Things (IoT) for Digital Agriculture (FG-AI4A)

Accelerating Digital Transformation in Cities with ITU-T Recommendations

Requirements and use cases

Recommendation ITU-T Y.4208: "IoT requirements for support of edge computing"

Recommendation ITU-T Y.4211: "Accessibility requirements for smart public transportation services"

Recommendation ITU-T Y.4214: "Requirements of IoT-based civil engineering infrastructure health monitoring system"

Infrastructure and architecture

Recommendation ITU-T Y.4470: "Reference architecture of artificial intelligence service exposure for smart sustainable cities"

Recommendation ITU-T Y.4480: "Low power protocol for wide area wireless networks"

Recommendation ITU-T Y.4500.1: "oneM2M-Functional Architecture"

Interoperability

Recommendation ITU-T Y.4200: "Requirements for interoperability of smart city platforms"

Recommendation ITU-T Y.4201: "High-level requirements and reference framework of smart city platform"

Recommendation ITU-T Y.4805: "Identifier service requirements for the interoperability of Smart City applications"

Data management

Recommendation ITU-T Y.4472: "Open data application programming interface (APIs) for IoT data in smart cities and communities"

Recommendation ITU-T Y.4461: "Framework of open data in smart cities"

Recommendation ITU-T Y.4464: "Framework of blockchain of things as decentralized service platform"

Recommendation ITU-T Y.4475: "Lightweight intelligent software framework for IoT devices"

Assessment

Recommendation ITU-T Y.4903: "Key performance indicators for smart sustainable cities to assess the achievement of sustainable development goals"

Recommendation ITU-T Y.4904: "Smart sustainable cities maturity model"

Recommendation ITU-T Y.4905: "Smart sustainable city impact assessment"

Recommendation ITU-T Y.4906: "Assessment framework for digital transformation of sectors in smart cities"

Identification and security

Recommendation ITU-T Y.4807: "Agility by design for Telecommunications/ICT Systems Security used in the Internet of Things"

Recommendation ITU-T Y.4808: "Digital entity architecture framework to combat counterfeiting in IoT"

Recommendation ITU-T Y.4809: "Unified IoT Identifiers for intelligent transport systems"

United 4 Smart Sustainable Cities

City Platforms

Building Urban Economic Resilience at City Level

Innovative Financing for Smart Sustainable Cities Projects

Artificial Intelligence in Cities

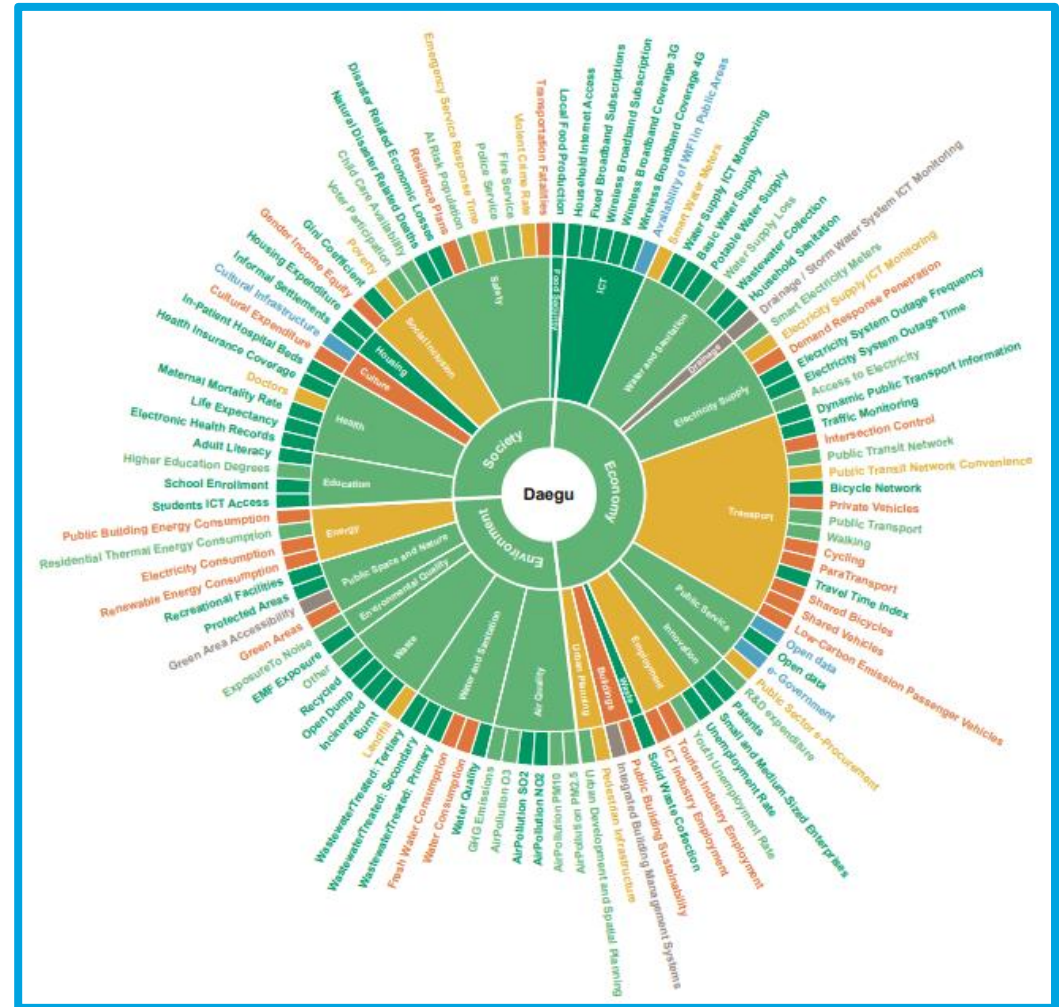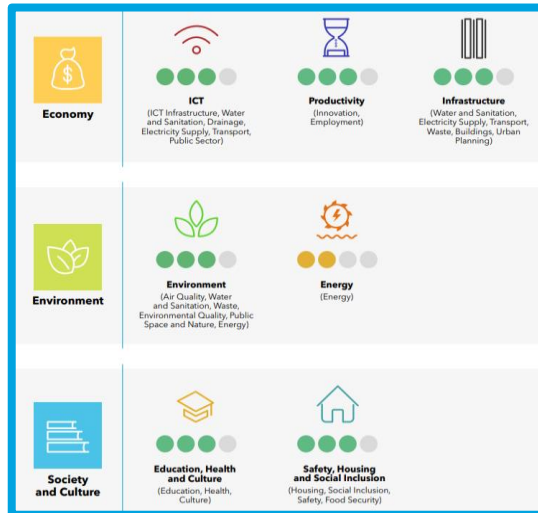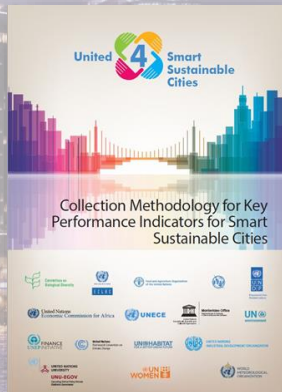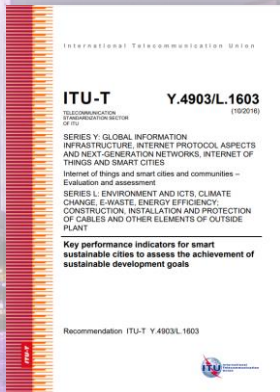Procurement for Smart Sustainable Cities

Enabling People-Centred Cities through Digital Transformation

ITU's Implementation of the U4SSC KPIs in more than 150 Cities worldwide

Track progress

Perform trend analysis

Benchmark performance

Compare results

Supporting Digital Transformation for Cities and Communities

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

https://toolkit-dt4c.itu.int/

Digital Transformation for People-Oriented Cities and Communities
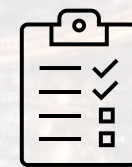

https://itu.int/go/dt4cc

Develop international standards to support Digital Transformation for Cities

Make Tangible Progress Towards Smartness and Sustainability

Resources Developed by ITU-T SG20 and U4SSC to address cities'challenges

Thank you!

Questions? Interested in learning more?
Let us know!

Email

Website

u4ssc@itu.int

ITU-T, Smart Sustainable Cities