

ITU Regional Forum on “Internet of Things, Telecommunication Networks and Big Data as basic infrastructure for Digital Economy”

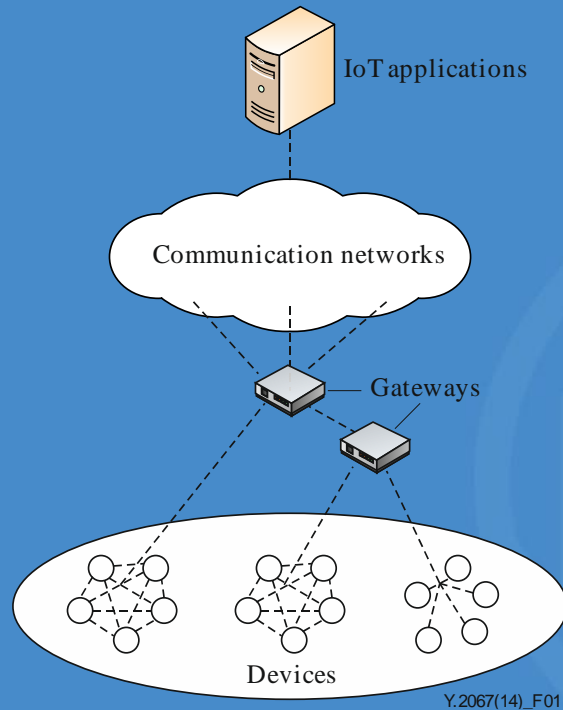
ITU-T SG20 Mandates and Activities

Ramy A. Fathy
Vice Chairman ITU-T SG20

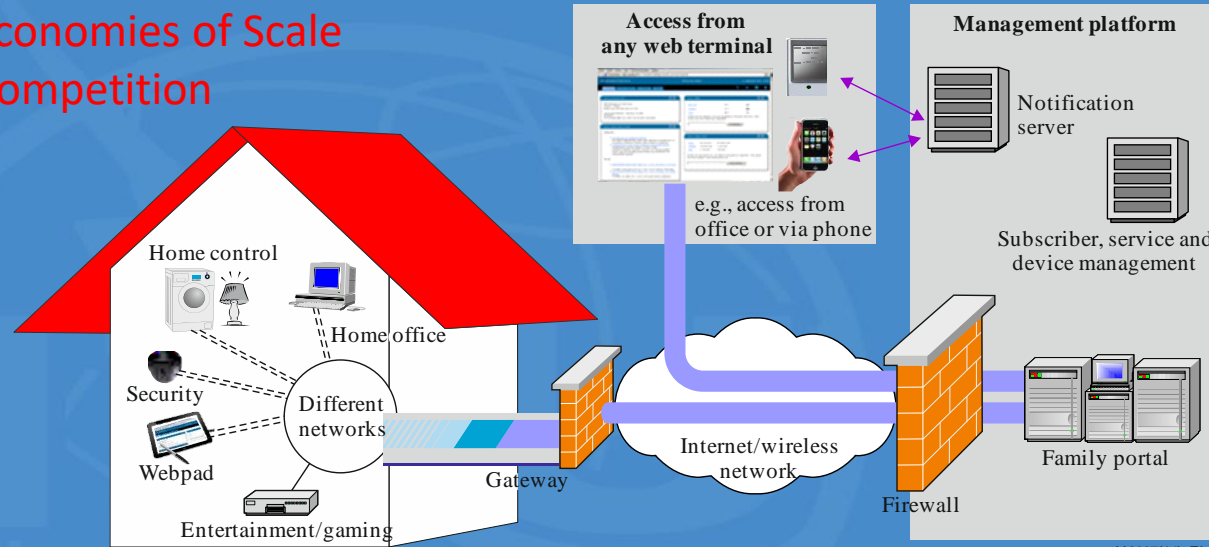
June 2018, Saint Petersburg, Russia



Basic IoT Elements



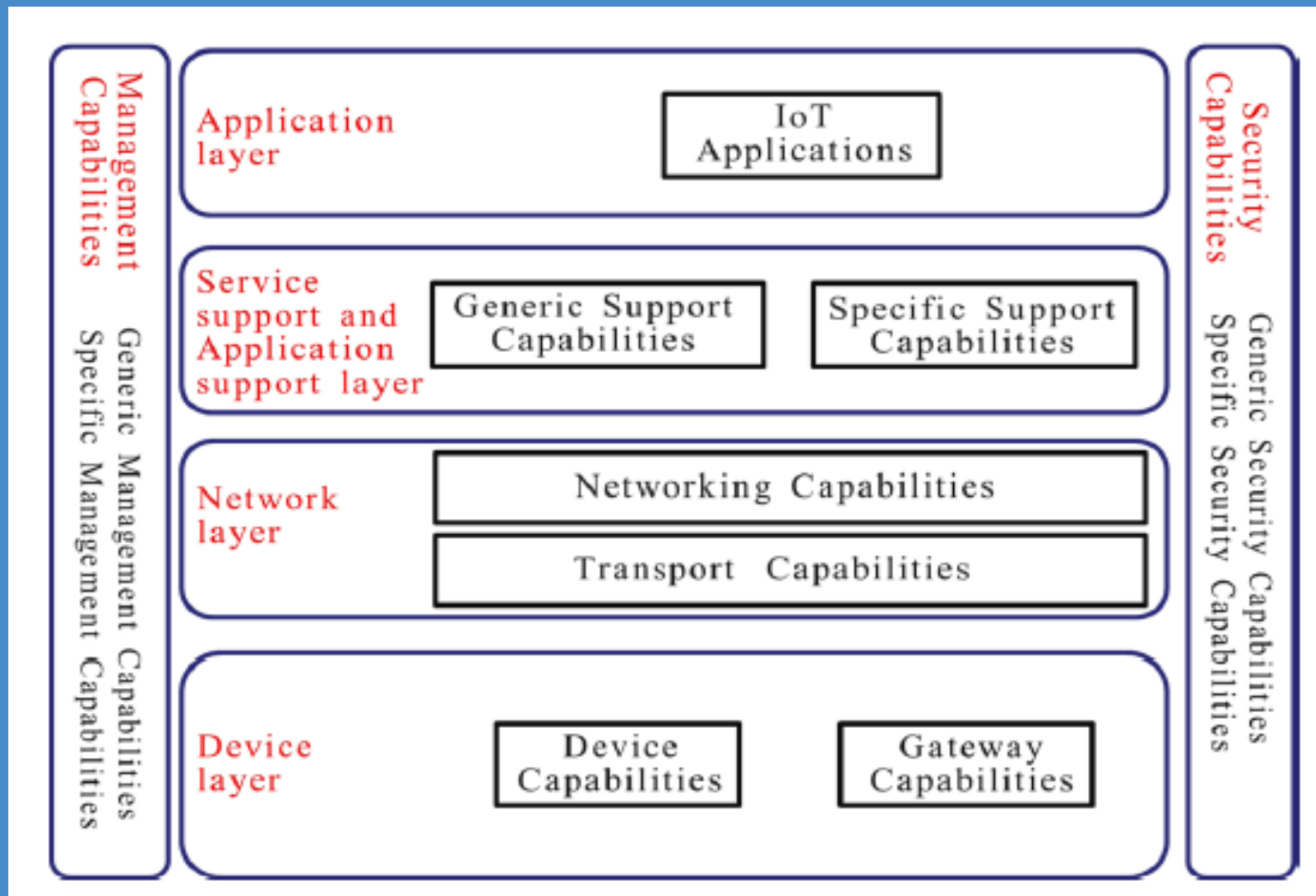
Interoperability
Economies of Scale
Competition



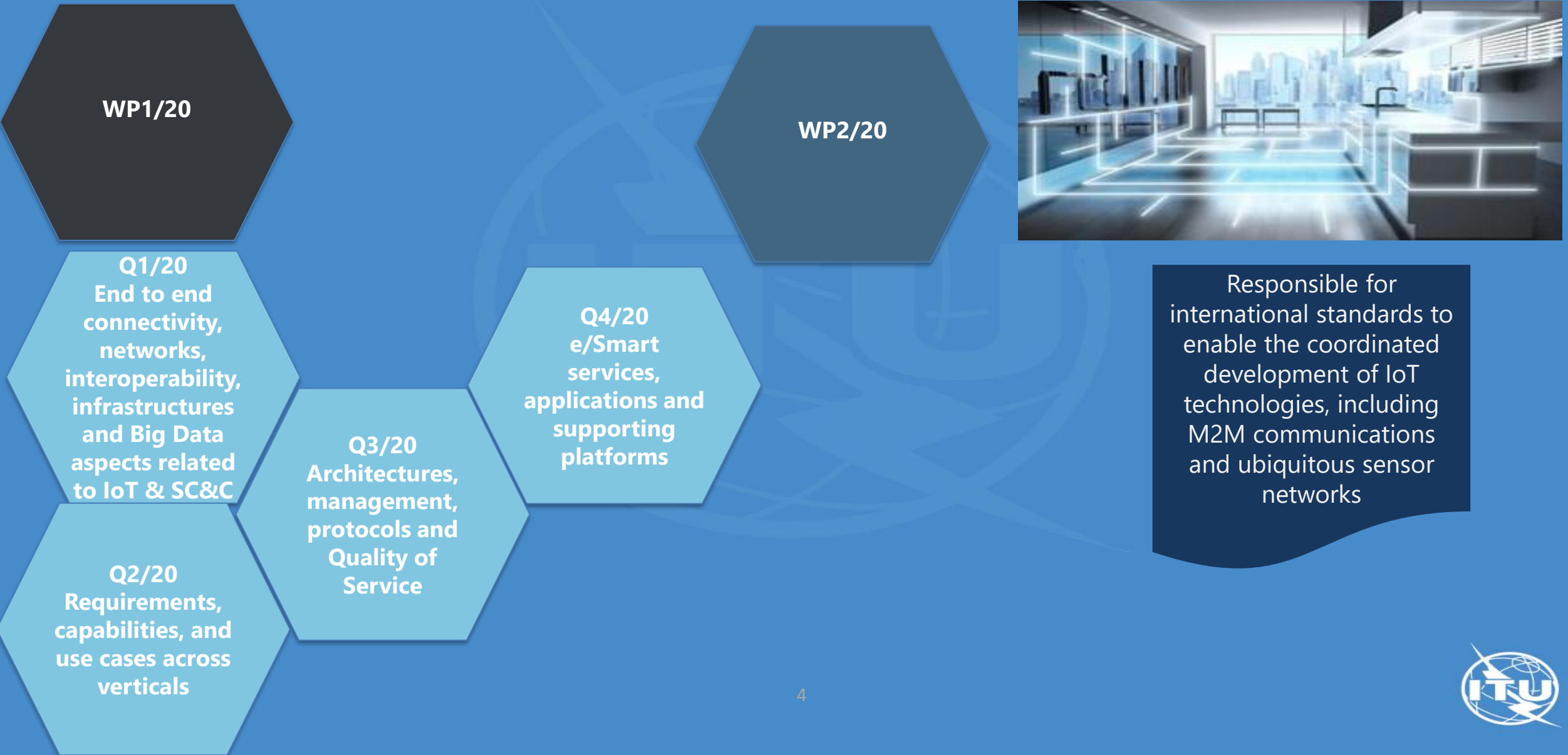
ITU-T Draft Recommendation Y.2067-R1



IoT Reference Model



ITU-T Study Group 20: IoT and its applications including smart cities and communities (SC&C)



ITU-T Study Group 20: IoT and its applications including smart cities and communities (SC&C)



ITU-T Study Group 20: IoT and its applications including smart cities and communities (SC&C)



Responsible for international standards to enable the coordinated development of IoT technologies, including M2M communications and ubiquitous sensor networks



ITU-T SG20 Current Key topics



Internet of Things (IoT) & Smart cities and Communities (SC&C)

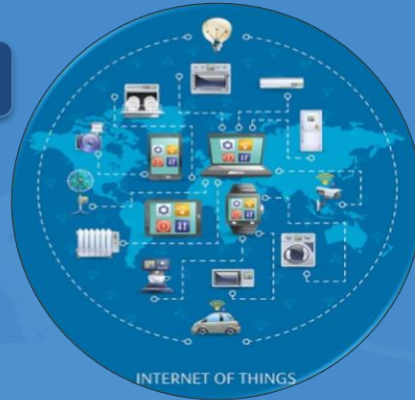
- Common terminology for IoT and SC&C
- Consideration on end user adoption of IoT
- IPv6
- Research and emerging technologies related to IoT and SC&C
- General requirements and capabilities of IoT applications and services
- Frameworks and functional architectures of IoT to support networks and gateway
- Specific IoT services covering transportation safety services, e-health services and so on
- IoT based smart greenhouse, smart farming, smart manufacturing and Big Data issues
- Security, trust and privacy protection in IoT
- SC&C related ecosystem, applications, services and use cases
- Standards that are directly related to SC&C with focus on:
 - ✓ Urban planning ✓ Water ✓ Mobility ✓ Logistic ✓ Healthcare ✓ E-government ✓ Education ✓ Transport ✓ Energy
 - Open Data
 - Spatio-temporal modeling for SC&C
 - Integrated sensing & management for Smart Sustainable Cities



ITU-T SG20 main results

6 New Recommendations approved

- ITU-T Y.4113 **“Requirements of the network for the Internet of Things”**
- ITU-T Y.4451 **“Framework of constrained device networking in the IoT environments”**
- ITU-T Y.4452 **“Functional framework of Web of Objects”**
- ITU-T Y.4453 **“Adaptive software framework for IoT devices”**
- ITU-T Y.4553 **“Requirements of smartphone as sink node for IoT applications and services”**
- ITU-T Y.4702 **“Common requirements and capabilities”**



9 New Supplements agreed

- ITU-T Y.Supp.42 to ITU-T Y.4100 series **“Use cases of User-Centric work Space (UCS) Service”**
- ITU-T Y.Supp.34 to ITU-T Y.4000 series **“Smart Sustainable Cities - Setting the stage for stakeholders' engagement”**
- ITU-T Y.Supp.33 to ITU-T Y.4000 series **“Smart Sustainable Cities - Master plan”**
- ITU-T Y.Supp.32 to ITU-T Y.4000 series **“Smart sustainable cities - a guide for city leaders”**
- ITU-T Y.Supp.31 to ITU-T Y.4550 series **“Smart Sustainable Cities - Intelligent sustainable buildings”**
- ITU-T Y.Supp.28 to ITU-T Y.4550 series **“Integrated management for smart sustainable cities”**;
- ITU-T Y.Supp.29 to ITU-T Y.4250 series **“Multi-service infrastructure for smart sustainable cities in new-development areas”**;
- ITU-T Y.Supp.30 to ITU-T Y.4250 series **“Overview of smart sustainable cities infrastructure”**;
- ITU-T Y.Supp.27 to ITU-T Y.4400 series **“Setting the framework for an ICT architecture of a smart sustainable city”**.

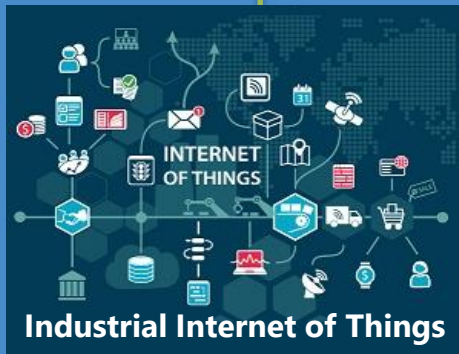
1 Draft new Recommendation determined

- ITU-T Y.4454 **“Platform Interoperability for Smart Cities”**

ITU-T SG20 future topics



Robotic and Artificial Intelligence



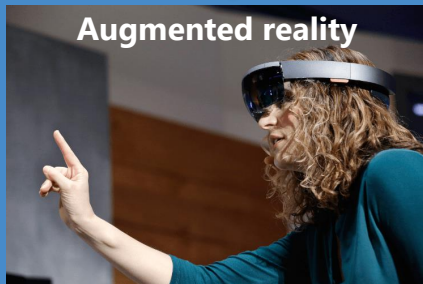
Industrial Internet of Things



Integrated Management for SSC



Connected vehicles

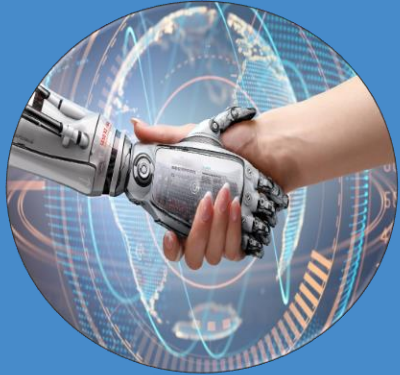


Augmented reality



Smart services

Publications, Events & Projects on IoT and Smart Cities



**Flipbook on
Unleashing the
potential of the
Internet of Things**



**Flipbook on Shaping
smarter and more
sustainable cities:
Striving for Sustainable
Development Goals**



8 events
from Oct 2015 to Oct 2016

**Montevideo Declaration
towards Habitat III**



Dubai

Buenos Aires

Singapore

Montevideo

Valencia

Manizales

and many others...



United for Smart Sustainable Cities (U4SSC) – new UN Initiative!



U4SSC is a global platform for smart city stakeholders which advocates for public policy to encourage the use of ICTs to facilitate the transition to smart sustainable cities.

JOIN us now!

11 SUSTAINABLE CITIES AND COMMUNITIES

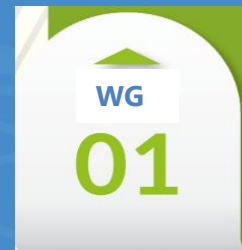


Co-Chairmen:

- H.E. Ms Daiva Matoniene, Vice Minister of Environment (Lithuania)
- Nasser Saleh Al Marzouqi, Chairman, ITU-T SG20

Secretariat:

Contact: u4ssc@itu.int



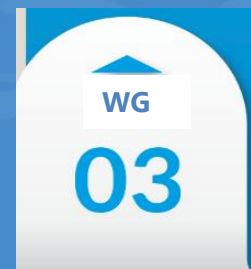
Setting the Framework

- Urban planning
- Policy, standards & regulation
- Key performance indicators



Connecting Cities and Communities

- Smart living
- Smart mobility
- Smart environment



Enhancing Innovation & Participation


- Smart governance
- Smart people
- Smart economy

A Virtual Meeting every month!





**KEEP
CALM
SG20
IS HERE**

A 3D rendering of a road with a dashed white line down the center, leading towards a large globe. The globe is partially obscured by a large blue arrow pointing upwards and to the right. The scene is set against a blue sky with white clouds.

**Thank you
ITU-T, IoT and applications, smart cities**

<http://itu.int/go/tsg20>

tsb20@itu.int

Thank you

