

RESOLUTION 85 (Rev. Baku, 2025)

Facilitating the Internet of Things and smart sustainable cities and communities, including villages, for global development

The World Telecommunication Development Conference (Baku, 2025),

recalling

- a)* Resolution 197 (Rev. Bucharest, 2022) of the Plenipotentiary Conference, on facilitating the Internet of Things (IoT) and smart sustainable cities and communities (SSC&C);
- b)* Resolution ITU-R 66-2 (Rev. Dubai, 2023) of the Radiocommunication Assembly, on studies related to wireless systems and applications for the development of IoT;
- c)* Resolution 98 (Rev. New Delhi, 2024) of the World Telecommunication Standardization Assembly, on enhancing the standardization of IoT, digital twins and SSC&C for global development;
- d)* Resolution 50 (Rev. Dubai, 2014) of the World Telecommunication Development Conference (WTDC), on optimal integration of information and communication technologies (ICTs);
- e)* Resolution 71 of the Plenipotentiary Conference, on the strategic plan for the Union, as revised periodically;
- f)* Recommendation ITU-D 22 (Dubai, 2014) of WTDC, on bridging the standardization gap in association with regional groups of the study groups;
- g)* Resolution 139 (Rev. Bucharest, 2022) of the Plenipotentiary Conference, on use of telecommunications/ICTs to bridge the digital divide and build an inclusive information society;
- h)* Resolution 77 (Rev. Baku, 2025) of this conference, on broadband technology and applications for greater growth and development of telecommunication/ICT services and broadband connectivity;
- i)* Resolution 200 (Rev. Bucharest, 2022) of the Plenipotentiary Conference, on the Connect 2030 Agenda for global telecommunication/ICT, including broadband, for sustainable development,

noting

- a) the work carried out by the United for Smart Sustainable Cities (U4SSC) initiative, launched by ITU together with the United Nations Economic Commission for Europe (UNECE) in May 2016;
- b) that applying an SSC&C approach to villages can support the digital transformation of rural and remote areas;
- c) that the smart village initiative is an inclusive approach to delivering essential telecommunication/ICT services to rural and remote communities,

considering

- a) that the development of IoT technologies will have a positive impact on both ICT and non-ICT sectors, including health, agriculture, transport and energy in view of the applications provided;
- b) that IoT deployment will contribute significantly to the successful implementation of the 2030 Agenda for Sustainable Development;
- c) that the development and deployment of IoT will benefit from cooperative efforts at regional and global levels;
- d) that the development and implementation of IoT and the creation of SSC&C will hinge upon the active participation of governments, industry and other relevant international and regional organizations and stakeholders;
- e) that special support should be given to developing countries¹, as they may have limited resources and digital skills to build an inclusive society;
- f) that IoT and SSC&C can be key enablers for the information society and digital transformation, including in rural and remote areas;
- g) that public-private partnerships may support the efficient implementation of IoT and SSC&C,

¹ These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

recognizing

- a) the important role of ITU and, in particular, that of the ITU Telecommunication Development Sector (ITU-D), in encouraging telecommunication/ICT development at the global level; and in particular the relevant work carried out by ITU-D study groups;
- b) the role of the ITU Telecommunication Standardization Sector (ITU-T) and, in particular, that of ITU-T Study Group 20, in carrying out studies and standardization work associated with IoT and its applications, including SSC&C, and coordinating with other organizations working in these two areas;
- c) the role of the ITU Radiocommunication Sector (ITU-R) in conducting studies on the technical and operational aspects of radio networks and systems for IoT;
- d) that U4SSC is a United Nations initiative coordinated by ITU, UNECE and the United Nations Human settlements Programme (UN-Habitat) to achieve Sustainable Development Goal (SDG) 11;
- e) that smart village initiatives have been able to create scalable and impactful models for digital rural development,

resolves

- 1 that ITU-D, in close collaboration with ITU-T and ITU-R, promote the adoption of IoT and the development of SSC&C, in order to maximize the benefits in advancing socio-economic development and contribute to achieving the SDGs and the Connect 2030 Agenda;
- 2 to promote the expansion of SSC&C initiatives to encompass smart villages, so that rural and remote communities benefit from the technological advancements, telecommunication/ICT services and enduring development approaches on the same basis as urban areas,

instructs the study groups of the ITU Telecommunication Development Sector, each within its mandate

1 to collect national and regional experiences on the adoption of IoT and SSC&C and prepare guidelines for the implementation of IoT and SSC&C on the basis of ITU Recommendations and contributions from other organizations;

2 to carry out studies on the opportunities and challenges in the implementation of IoT and SSC&C;

3 to identify case studies on the application of IoT and SSC&C, focusing on factors affecting the roll-out of IoT and SSC&C,

instructs the Director of the Telecommunication Development Bureau

1 to support Member States, in particular developing countries, in adopting IoT and SSC&C through providing relevant information, expertise, capacity building and accumulation of best practices aimed at facilitating the development of enabling environments and infrastructure, attracting investment and fostering digital innovation ecosystems;

2 to facilitate deployment and adoption of IoT and SSC&C, especially in developing countries, through projects under the United Nations development systems and in accordance with No. 118 (Article 21) of the ITU Constitution;

3 to work in collaboration with the ITU Sectors and in coordination with international and regional organizations and all the stakeholders in order to establish a favourable environment to enable the exchange of knowledge, expertise and best practices to support the deployment of IoT and SSC&C, including applications and services, by organizing workshops and forums at both regional and international levels;

4 to continue providing technical assistance, and capacity building, such as guidance, toolkits, knowledge exchange, best practices, etc., within available resources, for the development and implementation of smart village and smart community initiatives,

instructs the Director of the Telecommunication Development Bureau, in collaboration with the Directors of the Telecommunication Standardization Bureau and the Radiocommunication Bureau

1 to prepare and/or update a report identifying the needs of developing countries related to IoT and SSC&C, based on the work conducted by ITU-T, ITU-R and ITU-D in connection with U4SSC;

2 to collate the work done within ITU relating to IoT and SSC&C, including studies conducted on technology and standards as well as recommendations on policy and regulation, so as to facilitate the development and adoption of IoT;

3 to facilitate discussions and exchange of best practices through the organization of workshops and training programmes on IoT and SSC&C;

4 to foster collaboration among ITU Sectors to discuss how the IoT ecosystem and SSC&C technologies can further the achievement of the SDGs and the framework of the World Summit for the Information Society;

5 to provide developing countries with capacity-building opportunities in IoT and SSC&C;

6 to continue their collaboration efforts in facilitating the enablement of smart villages,

invites Member States, Sector Members, Associates and Academia

- 1 to participate actively in ITU studies relating to IoT and SSC&C, including applications and services, by providing all possible assistance;
- 2 to collaborate and exchange expertise and best practices in this area;
- 3 to deliver capacity-building courses and training programmes on IoT and SSC&C for developing countries,

encourages Member States

- 1 to adopt appropriate strategies, policies, plans and an enabling environment to facilitate and stimulate the development of IoT and SSC&C, including applications and services using new and emerging telecommunications/ICTs;
- 2 to cooperate and share knowledge, expertise and best practices on IoT and SSC&C;
- 3 to consider SSC&C planning as appropriate to local contexts, using new and emerging telecommunications/ICTs;
- 4 to consider smart village and smart community initiatives as part of national digital transformation strategies.