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| **Abstract:** | This document contains the outcome of the suggested changes to ToR of Question Q7/20 “Evaluation and assessment of Smart Sustainable Cities and Communities”, based on the results of the Q7/20 e-meeting held on 3 April 2024.  |

Draft outcome from e-meeting, 3 April 2024

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| Q7/20: Evaluation and assessment of Smart Cities & Communities(text from TD757R3, need further updates by March 2024 )  | Question G/20 – Evaluation and assessment of Smart Cities and Communities(Continuation of Question Q7/20)MotivationStudy Group 20 focuses on developing guidelines, methodologies and best practices related to standards to help cities, communities, and rural areas deliver services using relevant emerging technologies, including edge computing, next generation Internet technology, [metaverse], blockchain, trusted computing, digital twins, artificial intelligence / machine learning (AI/ML), data processing and analytics, orchestration and automation technologies with advanced sensing and actuation technologies —also known as “smart cities and communities (SC&C).”The service/sector offerings of SC&C, including smart education, smart hospital, smart farm, traffic awareness, environmental protection, smart manufacturing, new energy vehicles, digital power infrastructure, energy storage business, charging business, etc. realize human-centric goals.Given the diverse uses and types of technologies for municipal governments to create SC&C, it is useful to undertake further studies on how municipal governments can deploy SC&C technologies to make better-informed decisions, to effectively integrate and deliver better municipal services, and to encourage comprehensive strategies to implement SC&C principles and goals. One of the ways to assist municipal governments in adopting SC&C technologies is through quantitative and qualitative assessments. The use of key performance indicators (KPIs), for instance, can help measure the implementation and success of SC&C technologies and goals. 2 QuestionsStudy items to be considered include, but are not limited to:– General principles that could be used to establish methodologies to assess the use of ICT as well as the impact of ICT on city smartness and sustainability.– Smart Sustainable Cities Index for worldwide use across countries and regions.– Usefulness of different methodologies (measurement, statistics sampling, case studies, best practices, etc.) with respect to different countries and regions.– Best methods for assessing the collection, sharing, processing, and analysis of reliable data, accounting for the evolution of that data over time.– How to assess the achievement of the sustainable development goals (SDGs) in a smart city?– How to assess the interworking and integration capabilities of smart city systems and platforms?– How to evaluate and assess the use of relevant emerging technologies such as edge computing, next generation Internet technology, [metaverse], blockchain, trusted computing, digital twins, artificial intelligence/machine learning (AI/ML), data processing and analytics, orchestration and automation technologies with advanced sensing and actuation technologies, among others, in SC&C?– How to evaluate and assess human-centricity and quality of human life aspects in the use of IoT and SC&C technologies? – How to measure and evaluate a city's specific performance and e/smart services with respect to defined sector (or vertical) indicators such as open data indicators, e-health indicators, utilities indicators, etc.– How to assess city resilience and robustness?– Collaboration with which standards development organizations (SDOs) would be necessary to maximize synergies and harmonize existing standards?3 TasksTasks include, but are not limited to:– Developing Recommendations, Reports, Guidelines, etc. as appropriate on:• Methodologies, general principles, and criteria for cities/communities to collect and analyze data for the evaluation and assessment of SC&C technologies;• Methodologies, general principles, and criteria for cities/communities to assess their current service/sector offerings, implement relevant SC&C technologies including edge computing, next generation Internet technology, [metaverse], blockchain, trusted computing, digital twins, artificial intelligence/machine learning (AI/ML), data processing and analytics, orchestration and automation technologies with advanced sensing and actuation technologies, among others, and measure their impact on a local level;• Methodologies, general principles, and criteria for cities/communities to assess their current service/sector offerings, implement relevant SC&C technologies including edge computing, next generation Internet technology, [metaverse], blockchain, trusted computing, digital twins, artificial intelligence/machine learning (AI/ML), data processing and analytics, orchestration and automation technologies with advanced sensing and actuation technologies, among others, and measure their impact on the UN Sustainable Development Goals; • Methodologies, general principles, and criteria for cities/communities to assess their performance, resilience and robustness;• reporting on the Global Smart Sustainable Cities Index;– Providing the necessary collaboration for joint activities in this field within ITU and between ITU-T and SDOs, UN agencies, consortia and forums.An up-to-date status of work under this Question is contained in the SG20 work programme (<https://www.itu.int/ITU-T/workprog/wp_search.aspx?sp=17&q=7/20>).4 RelationshipsWSIS Action Lines:– C2, C3, C6, C7, C8, C10, C11Sustainable Development Goals:– 3, 6, 7, 9, 11 and 13Recommendations:– All the pertinent Y.4000 series Recommendations and Y supplementsQuestions:– All Questions of ITU-T SG20Study Groups:– ITU-T, ITU-D and ITU-R Study Groups, as appropriateOther bodies:– IETF– Open Mobile Alliance (OMA)– Open Geospatial Consortium (OGC)– IEEE– ATIS– ETSI TC Smart M2M– CCSA TC10– oneM2M– ISO/IEC JTC 1/SC41, ISO/IEC JTC 1/WG11– Joint IEC-ISO-ITU Smart Cities Task Force– GSMA– 3GPP/3GPP2– W3C– Organization for the Advancement of Structured Information Standards (OASIS)– Object Management Group (OMG)– Industrial Internet Consortium (IIC)– Alliance of Industrial Internet (AII)– Alliance for IoT Innovation (AIOTI)– Open Connectivity Foundation (OCF) |

Note 1: Documents can be found: [/ifa/t/2022/sg20/exchange/wp2/q07/2024\_04\_emeeting/Contributions for ToR/ (itu.int)](https://www.itu.int/ifa/t/2022/sg20/exchange/wp2/q07/2024_04_emeeting/Contributions%20for%20ToR/)

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