



United for Smart Sustainable Cities (U4SSC) initiative
Sixth meeting of the United for Smart Sustainable Cities initiative
Virtual meeting, 7 December 2021

Meeting Report - version 16 December 2021

1. Introduction

The [“United for Smart Sustainable Cities” \(U4SSC\)](#) is a United Nations initiative, coordinated by the International Telecommunication Union (ITU), the United Nations Economic Commission for Europe (UNECE), and the United Nations Human Settlements Programme (UN-Habitat). U4SSC is supported by the following 14 UN Agencies and Programmes:

- Convention on Biological Diversity (CBD)
- Economic Commission for Latin America and the Caribbean (ECLAC)
- Food and Agriculture Organization (FAO)
- United Nations Educational, Scientific and Cultural Organization (UNESCO)
- United Nations Development Programme (UNDP)
- United Nations Economic Commission for Africa (UNECA)
- United Nations Entity for Gender Equality and the Empowerment of Women (UN-Women)
- United Nations Environment Programme (UNEP)
- United Nations Environment Programme Finance Initiative (UNEP-FI)
- United Nations Framework Convention on Climate Change (UNFCCC)
- United Nations Industrial Development Organization (UNIDO)
- United Nations Office for Partnerships (UNOP)
- United Nations University Operating Unit on Policy-Driven Electronic Governance (UNUEGOV) and
- World Meteorological Organization (WMO).

U4SSC was established in 2016 with the aim of envisioning smart and sustainable city actions towards the achievement of **Sustainable Development Goal 11: "Make cities and human settlements inclusive, safe, resilient and sustainable"**. Together with the support of 17 United Nations entities, since its creation, this initiative has been serving as the global platform to advocate for public policies and drive discussions revolving around the use of ICTs to facilitate and ease the transition to Smart Sustainable Cities (SSCs).

The [Sixth Meeting of U4SSC](#) was organized by the United Nations Economic Commission for Europe – UNECE, the International Telecommunication Union – ITU and the United Nations

Human Settlement Programme - UN-Habitat on 7 December 2021, from 10:00 to 15:30 CET (Geneva time). The meeting took place online on Zoom given the ongoing situation related to the COVID-19 pandemic. This meeting brought together over 200 participants including leading specialists and stakeholders in the field, such as city planners, engineers, designers, policymakers, government officials, regulators, academia, and standards experts.

The list of participants (online) can be found [HERE](#). The recording of the U4SSC meeting can be found [HERE](#).

2. Objectives and Programme

The objectives of the Sixth U4SSC meeting were to:

- Discuss U4SSC activities;
- Provide an update on the work of the U4SSC thematic groups;
- Approve the U4SSC Terms of References and Annual Work Plan (2021-2022); and
- Present the latest U4SSC deliverables.

The programme and the presentations of the Sixth U4SSC Meeting can be found at: <https://www.itu.int/en/ITU-T/ssc/united/Pages/202112/meeting.aspx>.

3. Highlights of the discussions

3.1. Opening of the Meeting

The meeting was opened by **Mr Malcolm Johnson, Deputy Secretary General, International Telecommunication Union**, who acknowledged the work conducted by U4SSC since its creation and highlighted the role that this initiative plays in the post-COVID era for the adoption of new and emerging technologies including AI, IoT, Digital twin and blockchain for the transition to smart and sustainable cities, to enable decision-makers to accelerate the digital transformation of their cities and communities. Mr Johnson also underscored the ongoing standardization activities undertaken by the ITU, under the umbrella of ITU-T Study Group 20 on IoT & Smart Cities and Communities, which complements the U4SSC. He also recognized the increasingly important role played by the U4SSC KPIs based on Recommendation ITU-T Y.4903 in equipping cities with the means for self-assessments and noted that over 150 cities worldwide have implemented these KPIs, including the cities of Mashhad, Daegu, Riyadh, Valencia and Dubai which cooperated directly with ITU.

Mr Dmitry Mariyasin, Deputy Executive Secretary, UNECE, highlighted the importance of collaboration within the UN System on matters relating to smart and sustainable cities together with the Sustainable Development Goals (SDGs). He informed that UNECE finalized Smart Sustainable City Profiles which are based on the U4SSC KPIs for SSC for five cities in Norway; and five cities in Eastern Europe and Central Asia; and underlined the importance of the use of innovative financing mechanisms to support smart sustainable cities projects. He further informed on the Second Forum of Mayors which will take place on 4 and 5 April 2022 and will provide Mayors an opportunity to share their experiences and best practices in promoting smart sustainable

urban development. Mr. Mariyasin underlined the value of the U4SSC initiative in developing the important topic of digital transformation in cities. He thanked the U4SSC Chair, Vice-chairs, Secretariat, Partners and Participants for their contributions to the U4SSC and making the Initiative a success.

Mr. Raf Tuts, Director, Global Solutions Division, UN-Habitat, highlighted the continued relevance of U4SSC in addressing both established and emerging challenges facing cities. He congratulated U4SSC on adapting its processes and structures to the needs of partners and members and noted the potential contribution that experience with the U4SSC KPIs might make to the UN Urban Monitoring Framework that will be discussed by Member States in New York in March 2022. Finally, Mr Tuts described how UN-HABITAT has been advocating for people-oriented cities including the deployment of technological innovations to promote sustainability, inclusivity, prosperity and human rights through digital transformation.

Mr. Nasser Saleh Al Marzouqi, Chairman of the U4SSC, through his opening remarks appreciated the strong collaboration between the United Nations agencies on the activities of U4SSC and highlighted the importance of moving towards net-zero emissions for the transition to a low carbon and climate resilient economy in cities, as recognized during COP-26.

Mr. Al Marzouqi also applauded the launch of the following U4SSC deliverables:

- Blockchain for smart sustainable cities
- Simple ways to be smart
- Smart public health emergency management and ICT implementations
- Compendium of survey results on integrated digital solutions for city platforms around the world
- Digital solutions for integrated city management and use cases
- Guidelines on tools and mechanisms to finance smart sustainable cities projects

3.2. Session 1: Update on the work of the U4SSC thematic groups

This session was moderated by **Ms Tania Marcos, Vice Chairman of the U4SSC**.

The session covered the key activities being conducted in the existing Thematic Groups of the U4SSC.

- **Mr Ramon Ferri, Leader of the Thematic Group on City Platforms**, [[Presentation](#)] expanded on the current structure of the related Thematic Group which aims to explore the current best practices relating to the establishment of city platforms and their operations. It also examines the various challenges and requirements linked to the creation of an agile response architecture, predicated on an ecosystem of emerging technologies, in different environments. Through this presentation, a new Working Group 5 on “Reference Framework for integrated management of smart sustainable cities” was also proposed for the consideration of U4SSC.
 - **Mr Martin Brynskov, Leader of Working Group 3 of the Thematic Group on City Platforms**, [[Presentation](#)] provided an insight into its ongoing activities relating to the scope of the related deliverable. Accordingly, this report will cover minimum

- interoperability mechanisms of data systems and services along with the architectural frameworks elucidated in international standards for Open APIs.
- **Mr Alberto Bernal, Leader of Working Group 4 on the Tourism, Health and Resilience Management** from the perspective of a Smart City Platform, [\[Presentation\]](#) elaborated on the current activities by underscoring the key objectives of exploring solutions relating to enhancing the sustainable development of the tourist destinations, with the aim of improving its accessibility, visitor interaction and building overall resilience to ease transition to smart and sustainable cities. In this context, the presentation also underscored the concept of “Smart Tourism Destinations” relating to innovation, technology, human capital and leadership, along with quality of life, and holistic socio-economic growth.

 - **Ms Gulnara Roll, Leader of the Thematic Group on Innovative Financing Instruments for Smart Sustainable Cities and the Thematic Group on Economic and Financial Recovery in Cities and Urban Resilience Building in the Time of COVID-19** [\[Presentation\]](#), highlighted how the ongoing COVID-19 pandemic has posed a global challenge which will require a concerted global response. In this context, it is essential that smart sustainable cities are collectively able to generate comprehensive mechanisms to respond to ongoing crises, to safeguard the socio-economic aspects of cities, protect vulnerable populations and reduce the impact of the COVID-19 pandemic on the current smart and sustainable city projects. She informed on activities under the two thematic groups; including on the deliverables of the Thematic Group on Innovative Financing Instruments for Smart Sustainable Cities.

 - **Mr Okan Geray, Leader of the Thematic Group on Guiding principles for artificial intelligence in cities** [\[Presentation\]](#), underscored the scope of the related Thematic Group, which focusses on the creation of a principle-based framework to ease the implementation of Artificial Intelligence (AI) – based technologies in cities. For this reason, Thematic Group has been vetting several use-cases relating to the governance, policies and ethical principles employed by urban stakeholders when deploying AI within the urban ecosystem.

 - **Mr Warren Smith and Mr John Davies, Leaders of the Thematic Group on Procurement Guidelines for Smart Sustainable Cities** [\[Presentation\]](#), through this presentation reiterated the scope of the related Thematic Group, which is dedicated to the development of practical guidelines to strengthen smart city supply chains and support procurement for expanding smart sustainable cities. These guidelines will be derived from a series of case studies, inter alia, from the United Kingdom and Mexico, which focus on enhancing social value, improving transparency and accountability, digital maturity, and breaking silos in smart cities.

3.3. Session 2: Latest U4SSC deliverables

This session “Latest U4SSC Deliverables” was moderated by **Mr Giampiero Bambagioni, Vice Chairman of the U4SSC**.

The session provided a snapshot of the latest deliverables finalized under the umbrella of U4SSC:

- **Ms Gulnara Roll, Secretary to the Committee on Urban Development, Housing and Land Management, UNECE** [[Presentation](#)], provided a brief overview of the recently published U4SSC Report on “*Guidelines on tools and mechanisms to finance smart sustainable cities projects*” (August 2021) and on the development of the Compendium of Practices on Innovative Financing for Smart Sustainable Cities Projects which is expected to be published in the first quarter of 2022.
- **Ms Judy Backhouse, Senior Academic Fellow, UNU-EGOV** [[Presentation](#)], provided a summary of the U4SSC Report on “*Simple Ways to be Smart*” (March 2021) which covered various use-cases pertaining to the creation of smart and sustainable cities, keeping in mind aspects relating to quality of life (QoL), decision-making, cost-benefit analysis. It was noted that the report layed out five criteria based on which smart solutions could be considered simple: Low cost, annual returns, possibility of scaling, leveraging proven technologies and existing skills, low complexity, and sustainability. The report also contained a basic framework to enable cities to evaluate their problems in relation to the implementation of technologies and technology transfer.
- **Mr Ramon Ferri, Smart City Officer of the València City Council, Spain** [[Presentation](#)], presented the Report and the Compendium published by U4SSC under Working Group 1 of the Thematic Group on City Platforms:
 - *Digital solutions for integrated city management and use cases* (December 2021): This report highlights the importance of developing effective and interoperable smart city platforms for the deliverable of services. It further provided insights on how city platforms facilitate more efficient and effective control of public infrastructure and services, improve economic efficiencies, enable rapid development of new or complex services and play a critical role in the overall digital transformation of urban areas. Accordingly, the report layed out a reference architecture for the same, which included the basic functionality of the common components of a city platform, relevant urban services, security and current standardization landscape.
 - *Compendium of survey results on integrated digital solutions for city platforms around the world* (December 2021): This report details the survey results provided by the representatives of the cities relating to the drafting of “Digital Solutions for Integrated City Management and use cases”. Nine use-cases from cities in Europe, seven in Asia and six in the Americas have been covered in this Compendium.
- **Mr Leonidas Anthopoulos, Leader of Working Group 2 of the Thematic Group on City Platforms**, [[Presentation](#)] briefly presented the report on “*Smart public health emergency management and ICT implementations*”, which highlights the important role smart cities could play in the management of public health emergencies including the

ongoing COVID-19 pandemic. The presentation further delved into the existing terminology on public health hazards and, and the emergency models dedicated to detection, prediction, and monitoring the spread of communicable diseases in order to frame surveillance mechanisms within the urban ecosystem by leveraging IoT, AI and Big data and examining pre-COVID-19 pandemics for generating timely responses to outbreaks, epidemics and pandemics.

3.3. Session 3: U4SSC Implementation Programme and U4SSC Hub

This session was moderated by **Mr Paolo Gemma, Vice Chairman of the U4SSC**. It provided an update on the activities of the U4SSC Implementation Programme and introduced the concept of the U4SSC Hub and its functionalities to the participants.

- **Ms Cristina Bueti on behalf of Ms Kari Eik, Leader of the U4SSC Implementation Programme [Presentation]**, provided an overview of the U4SSC Implementation Programme, which supports the implementation of projects, builds partnerships and aims to build smarter and more sustainable cities worldwide.
- **Ms Barbara Kolm, Director, Austrian Economics Center & Vice President, Austrian National Bank**, provided insights on the establishment of the first U4SSC Austrian Country Hub, which is currently hosted by the Austrian Economics Center. This Hub provides a unique platform to disseminate and promote the U4SSC deliverables, and U4SSC KPIs, accelerate cooperation between the public and private sectors, facilitate knowledge transfer on topics related to smart sustainable cities and digital transformation in Austria. This Hub aims to liaise with SMEs, multinationals, universities and research institutions, with the aim of translating expertise, knowledge and experience into best practices on smart sustainable cities. The first U4SSC Hub of this kind will report on its annual activities to next U4SSC meeting.
- **Dr Kristian Mjøen, Head of the Geneva UN Charter Centre of Excellence in Trondheim and Project Lead for the U4SSC National Project Norway**. Norwegian municipalities have received the support of the UN, both through the U4SSC Implementation Program, as well as through a separate UNECE 17 cities project, to evaluate the performance and potential of Norwegian Municipalities, and translate findings into implications for policy, action and impact. One of the strengths he of the approach has been to connect the city profiling methodology offered by the UNECE, in combination with the methodology and platform for connecting local potential to the solutions, knowledge and funding needed to make the city profile actionable and offered under the U4SSC Implementation Program under the stewardship of OiER and Program Director Ms Kari Aina Eik. The Norwegian experience suggests that the division of labour developed between the cities, OiER and individual UN agencies such as UNECE is powerful, and an innovation in its own right, where the strengths of each stakeholder are amplified. Changes to the current division of labour needs to be made carefully, and flow from a good understanding of the whole and a multilateral approach.

3.4. Session 4: U4SSC Terms of References and Annual Work Plan 2021-2022

This session was moderated **Ms Cristina Bueti, ITU Focal Point on Smart Sustainable Cities and U4SSC Secretariat**. This session explored the future work trajectory of U4SSC including the approval of the updated terms of reference and annual action plan, along with the finalization of the timeline of publication of reports, and new topic areas to be considered by U4SSC.

- **Ms Cristina Bueti, U4SSC Secretariat** [[Presentation](#)], briefly presented the proposal on the creation of a new Thematic Group on “Digital Transformation for People-Oriented Cities”. The proposed Thematic Group on “Digital Transformation for People-Oriented Cities” will provide guidance and formulate a series of policy-based recommendations and assessment frameworks for driving digital transformation in an urban context. The Leaders of this Thematic Group will be Mr Okan Geray (Digital Dubai), Ms Cristina Bueti (ITU) and Ms Barbara Kolm (Austrian Economic Center). This Thematic Group will comprise the following Working Groups:
- **Working Group 1: *Setting the Context: Digital Transformation for People-oriented Cities***
 - to be led by Mr Okan Geray (Digital Dubai) and Ms Cristina Bueti (ITU)
- **Working Group 2: *Policy Benchmarks for Digital Transformation for People-oriented Cities***
 - to be led by Ms Bettina Ratz-Ryan (Gartner) and Ms Mythili Menon (ITU)
- **Working Group 3: *Digital Transformation Assessment for People-oriented Cities***
 - to be led by Mr John Smiciklas (Augment City) and Ms Victoria Schmid (Austrian Economic Centre)
- **Working Group 4: *Guidelines for Unlocking Net Zero in Cities Through Sustainable Digital Transformation***
 - to be led by Mr Leonidas Anthopoulos, Greece
- **Working Group 5: *Methodology for Measurement of GHG Emissions in Smart Sustainable Cities***
 - to be led by Mr Paolo Gemma (Huawei) and Ms Shuguang Qi (CAICT)

The creation of this new Thematic Group was approved and welcomed by the participants. The first e-meeting for this new Thematic Group is expected to take place towards the end of January 2022.

- **Ms Gulnara Roll, U4SSC Secretariat**, provided an overview of the updated Terms of Reference for U4SSC. She explained the secretariat updated the Terms of References to provide more clarity on the core roles and responsibility of the Management Team, U4SSC Partners, Thematic Group Leaders, the U4SSC Implementation Programme. The ToR were discussed and approved by U4SSC Partners in February 2021. The updated version is available on the U4SSC web page.

- **Mr Robert Lewis-Lettington, U4SSC Secretariat** [\[Presentation\]](#), presented the Annual Action Plan of U4SSC (including the new Thematic Group), which was noted and agreed by the Partners . It included the main updates to the activities and upcoming e-meetings of all Thematic Groups. The meeting noted that the Thematic Group on Innovative Financing Instruments for Smart Sustainable Cities as well as Working Group 1 and Working Group 2 of the Thematic Group on City Platforms have completed their work. The remaining Thematic Groups will continue with their activities as follows:
 - The U4SSC Deliverable “Lessons learned from building urban economic resilience at city level during and after COVID-19” is anticipated to be developed and published in 2022, with e-meetings in February, April and June 2022.
 - The U4SSC Deliverable – Compendium of Practices on Innovative Financing for Smart Sustainable Cities Projects is anticipated to be published in the first quarter of 2022. No more e-meetings are anticipated as ongoing efforts are being directed towards its finalization.
 - The U4SSC Deliverable on “Guiding principles for artificial intelligence in cities” is expected to be published in 2022, with e-meetings in December 2021, February 2022, April 2022 and June 2022.
 - The U4SSC Deliverable on “Procurement Guidelines for Smart Sustainable Cities” will be finalized in July 2022, with planned e-meetings in January, March and May 2022.

4. Closure of the Meeting

Mr Nasser Al Marzouqi delivered the closing remarks, stressing on the important role that U4SSC can play in re-imagining people-centric cities to make them more resilient, inclusive, and sustainable for improved governance, especially since the advent of the COVID-19 pandemic. This coupled with the U4SSC KPIs help cities conduct self-assessment and monitor progress towards the targets within the SDGs. He concluded his address by emphasizing on the strong interest and contributions from the global community to the activities of U4SSC.

The meeting ended at 15:45h (Geneva time).
