United 4 Smart Sustainable Cities

A UN initiative

Convention on Biological Diversity

UNITED NATIONS
ECLAC

Food and Agriculture Organization of the United Nations

ITU

UNDP
Empowered lives.
Resilient nations.

United Nations
Economic Commission for Africa

UNECE

UNESCO
United Nations
Educational, Scientific and
Cultural Organization

UN environment programme

UNEP FINANCE INITIATIVE

United Nations
Framework Convention on
Climate Change

UN HABITAT
FOR A BETTER URBAN FUTURE

UNIDO

UN OFFICE 4 PARTNERSHIPS

UNITED NATIONS UNIVERSITY
UNU-EGOV
Operating Unit on Policy-Driven
Electronic Governance

UN WOMEN

WORLD METEOROLOGICAL ORGANIZATION

Foreword

This publication has been developed within the framework of the United for Smart Sustainable Cities (U4SSC) initiative.

Overview

This publication provides information on the United for Smart Sustainable Cities (U4SSC) initiative. The U4SSC serves as the global platform to advocate for public policy and to encourage the use of ICTs to facilitate and ease the transition to smart sustainable cities.

United for Smart Sustainable Cities (U4SSC)
A UN Initiative

The challenge of urbanization

Urbanization presents unprecedented challenges. Most probably, with the exponential growth of the urban population, by the middle of the twenty-first century, four out of every five people will be living in cities. While cities are engines of economic growth, they also face diverse urban development challenges, including uncontrolled urbanization, urban sprawl, informal constructions, demographic challenges such as ageing or migration, homelessness, climate change and environmental pollution, outdated urban infrastructure and a lack of access to affordable and adequate housing. The efforts of countries and cities to address these challenges are hindered by disasters, such as earthquakes, floods and the spread of diseases that have devastating impacts on the quality of life and urban economies. It is expected, for example, that the economic crisis resulting from the COVID-19 virus pandemic will affect long-term global economic and social development much more than the global financial crash of 2008.

The need for guidance

In this context, there is an urgent need to identify and apply innovative solutions to support the sustainable development of cities. Policymakers at all levels, businesses and civil society organizations require better guidance and support to develop adequate evidence-based policy measures and tools to address urban challenges, and to achieve the Sustainable Development Goals.

The potential: people-centred technologies and tools

The use of digital technologies and other means to improve quality of life, enhance the efficiency of urban operation and services, and competitiveness are now more needed than ever. This of course needs to happen while ensuring that the needs of present and future generations are met in the full respect of economic, social, environmental as well as cultural aspects and values of society; in brief, technologies and tools need to be put at the service of the people.

U4SCC as a solution

Multiple challenges such as knowledge gaps, limited finances, lack of coordination among actors, the absence of monitoring tools for policy implementation, emergencies and the impact of natural and human-made disasters and climate change can be roadblocks on the path towards sustainable urban development.

In order to help national and local governments to overcome these challenges, the United for Smart Sustainable Cities Initiative (U4SSC) was established in 2016. Partner UN organisations and agencies that work together to implement U4SSC include CBD, ECLAC, FAO, UNDP, UNECA, UNESCO, UNEP, UNEP-FI, UNFCCC, UNIDO, UNOP, UNU-EGOV, UN-Women and WMO. The secretariat of the initiative is provided jointly by International Telecommunication Union (ITU), UN-Habitat and United Nations Economic Commission for Europe (UNECE).

The goal

The goal of the U4SSC initiative is to promote 'smart sustainable city' approaches that support the implementation of the 2030 Agenda and help to achieve its Sustainable Development Goals - especially SDG 11: "Make cities and human settlements inclusive, safe, resilient and sustainable".

A smart sustainable city is an innovative city that uses ICTs and other means to improve quality of life, efficiency of urban operation and services, and competitiveness, while ensuring that it meets the needs of present and future generations with respect to economic, social, environmental as well as cultural aspects.

U4SSC supports the development of a coordinated approach to address the sustainable development of cities. In the context of U4SSC, the UN partner organizations support cities and countries in developing their capacities for implementing innovative urban solutions and mechanisms. This helps foster standardization and improve the integration and interoperability of digital technologies within cities to make them smart and sustainable.

U4SSC provides an international platform for information exchange, knowledge-sharing and partnership building. U4SSC partners implement projects that support the development of smart sustainable cities principles, improve business opportunities (including for small and medium enterprises (SMEs)), promote job-creation and support the engagement of public, private and third sector organizations in delivering smart and sustainable urban solutions.

U4SSC approaches ICTs and digital technologies not as an end in themselves, but rather as tools with which to make a meaningful contribution towards achieving the SDGs in the increasingly digitalized landscape.

U4SSC Activities

■ The U4SSC initiative supports the evaluation of cities' performance using the **Key Performance Indicators for Smart Sustainable Cities (KPIs for SSCs)**, a United Nations standard on smart sustainable cities, which was initially developed by UNECE and ITU in 2015 in collaboration with over 300 experts.

■   U4SSC also supports the implementation of smart sustainable cities' solutions through the development of guidelines, studies and city action plans. Among its activities U4SSC raises awareness and build capacity through events, webinars and trainings. The work of the U4SSC initiative is organized according to different themes and the following thematic groups:

- City platforms
- Economic recovery in cities and urban resilience building in the time of COVID-19
- Innovative Financing Instruments for Smart Sustainable Cities
- Guiding principles for Artificial Intelligence in cities
- Procurement guidelines for Smart Cities and Communities

The participating UN agencies contribute to lead the work of these thematic groups along with representatives of national and local governments, the private sector, civil society and academia.

U4SSC Implementation Programme

The partner UN agencies also support the implementation of smart sustainable solutions through technical assistance projects, forums, conferences and capacity building events. Information on the UN partner organizations' projects is disseminated through the **U4SSC Implementation Programme** (U4SSC-IP). The Implementation Programme disseminates information on partnerships and promotes exchange of experiences and best practices.

The benefit

SDGs define priorities and establish long-term goals for cities. Since the U4SSC initiative operationalizes the SDGs, by working within its KPI framework based largely on the SDGs targets, cooperation with U4SSC will help cities become more sustainable and get to the root of their challenges. The analytical nature of the U4SSC framework lends itself to the use of clear baselines to improve internal planning and implementation. Other derived benefits include the possibility of gap analysis, infusing priorities into a budget process, cutting programming redundancies and saving resources, and tracking outcomes. Cities also have opportunities to engage across the global network of public and private organizations engaged in U4SSC activities.

U4SSC Deliverables

Simple ways to be smart

The term "smart city" conjures up images of futuristic, high-tech large cities that are clean, efficient, and a delight to live in. A common perception is that smart cities are all larger cities that function smoothly, are well resourced and with deep skill bases, that can be drawn on to develop sophisticated, high-tech interventions. However, smart technologies and ideas have relevance for all cities and settlements as they enable better city management and operation and can improve quality of life. This report on Simple ways to be smart was conceived to identify smart interventions that do not require excessive material or capacity inputs, and yet can help cities and settlements to become more inclusive, safe, resilient, and sustainable.
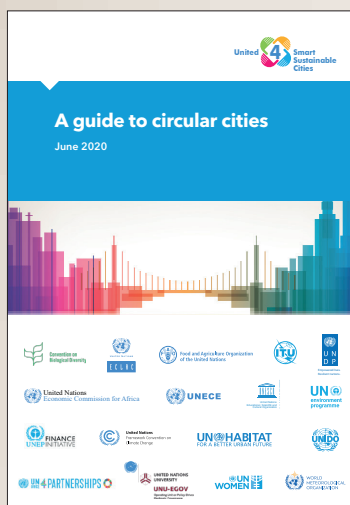
Blockchain for smart sustainable cities

The Blockchain for Smart Sustainable Cities contains insights into the multifaceted potential of blockchain technology in building trust in the SSC endeavours, by supporting the creation of an effective, secure and scalable distributed architecture to tackle challenges related to interoperability, security and privacy, data collection, data sharing and data analytics. Through the analysis of a series of urban blockchain use-cases, this report provides key recommendations on overcoming procedural and substantive constraints in blockchain implementation for smart city transitions and presents the 4S framework (Situation, Sustainability, Smartness and Suitability) for understanding the vital dimensions and patterns for the application of blockchain in smart cities.
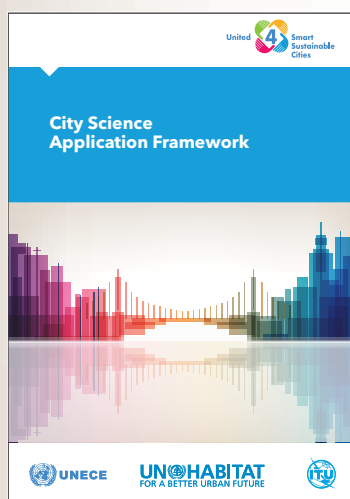
Accelerating city transformation using frontier technologies

The report aims to shed light on the impact of frontier technologies in cities and on citizens. This report will provide insights into the current urbanisation trends and provide an overview of the importance of connecting cities with the sustainable development goals (SDGs).
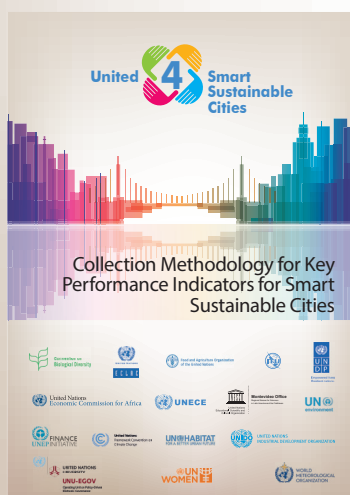
A Guide to Circular Cities

The Guide for Circular Cities contains a circular city implementation framework that is designed to improve circularity in cities and support stakeholders in implementing circular actions. The framework consists of a four-step methodology that provides a consistent method for assessing, prioritising and catalysing different circular actions. This deliverable is developed in response to the growing sustainability challenges that cities are facing and the emergence of the circular economy concept and its applicability and extension in the city setting.
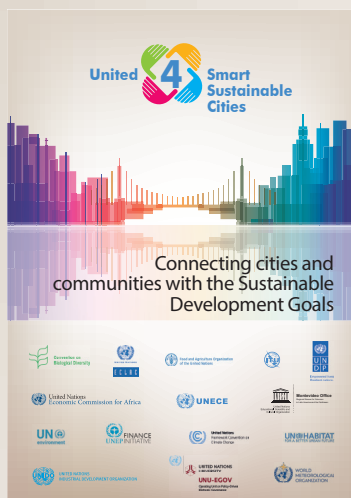
City Science Application Framework

The City Science Application Framework provides a four-step methodology for cities to solve their pressing urban challenges. By using empirical evidence as the basis for evaluation, the city science application framework offers a reliable and consistent way for cities to assess, prioritize and boost their city applications.

Collection Methodology for Key Performance Indicators for Smart Sustainable Cities

This publication provides cities with a methodology on how to collect core data or information linked to key performance indicators (KPIs) for smart sustainable cities (SSC). This set of KPIs for SSC was developed to establish the criteria for assessing the smartness and sustainability of a city, and to provide cities with the means for self-assessments, while simultaneously achieving the SDGs.

Connecting cities and communities with the Sustainable Development Goals

This publication provides an overview of how cities can use ICTs to achieve the Sustainable Development Goals (SDGs). It also maps the case studies to the various international agreements as well as to the SDGs.

Enhancing innovation and participation in smart sustainable cities

This publication provides a series of case studies on smart governance, smart people and smart economy, which will catapult successful smart city practices into the global spotlight.

Implementing SDG11 by connecting sustainability policies and urban-planning practices through ICTs

This publication provides a study of the advantages of using ICTs to support the implementation of the SDGs, namely SDG 11, by facilitating the missing linkages that exist between sustainability policies and urban-planning practices through digitally-enabled urban actions.

U4SSC

For any query related to United 4 Smart Sustainable Cities, please contact the U4SSC Secretariat:

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