

4th ITU Green Standards Week

Setting the Vision for Smart Sustainable Cities **24 September 2014, Beijing, China**

CALL TO ACTION

Achieving sustainable urbanization, together with the preservation of our planet's fragile ecosystem is recognized as one of the major challenges for humanity in the coming decades.

Cities are responsible for more than 70% of global greenhouse gas emissions (GHG), and they are accountable for 60-80% of global energy consumption, contributing to environmental degradation locally, regionally and globally.

These percentages are expected to rise with the growing population rates in terms of migration and increasing birth rates. This exacerbates the pressures posed by urban poverty and marginalization, pollution, reduced natural resource availability, decaying infrastructure, increasing stress on government administration, and the impacts of climate change in cities around the globe. Within this context, sustainability has become crucial not only to overcome the environmental challenges faced by the planet, but also to achieve socio-economic development at the local, national and regional levels.



Information and Communication Technologies (ICTs) have the capacity to enable processes of urban transformation, by helping cities become "smarter" and more "sustainable". Experiences from around the world suggest that ICTs are helping to make cities more eco-friendly, providing functionally viable and economically sustainable options for various urban sectors to achieve the goal of urban sustainability. For many city inhabitants, it is nearly impossible to imagine life without ICTs. From television to smart phones, smart watches and the Internet, ICTs have been reshaping the world, fostering new ways of, learning, employment, networking, production and accessing opportunities that were unimaginable just decades ago. ICTs offer innovative approaches to managing our cities more effectively and holistically, through applications such as smart buildings, smart water management, intelligent transportation systems, modern logistics network, new efficiencies in energy consumption and waste management, and information exchange, which ultimately contribute to increasing the wellbeing of urban inhabitants. In addition to sustainable urban management, ICT enables cities to provision and offer citizen services to enhance their citizen experience or quality of life (QOL).

By fostering the design and implementation of Smart Sustainable Cities (SSCs), an important precedent in harnessing the potential of ICTs to overcome environmental degradation, improve citizens' wellbeing, and simultaneously promote sustainable economic growth can be set.

We, the participants of the [4th Green Standards Week](#), September 2014, call upon the [ITU](#) in collaboration with policy makers, governmental authorities, academic institutions, non-governmental organizations (NGOs) and relevant international and regional organizations, to:

- 1. Think sustainably:** Promoting the integration of ICT applications and services into new and existing city infrastructures will foster the establishment of Smart Sustainable Cities globally. Efforts should be directed towards highlighting the benefits of ICT based systems which can effectively upgrade urban management systems including water management systems, waste management systems, healthcare systems, transportation systems, education and energy management systems which form the basis of SSCs.
- 2. Assess:** Assessing the 'smartness' and 'sustainability' of their cities should become a key priority for policy makers and city planners. ITU is therefore called upon to develop a set of indicators

to be applied to cities. This will help guide cities in their move towards becoming smarter and more sustainable.

3. Adopt: Fostering the adoption of the Internet of Things (Iot), Internet Protocol version 6 (IPv6), other international standards developed by ITU, best practices and policies, will help the establishment of smarter and more sustainable cities worldwide.

4. Act responsibly: SSCs should give top priority to meet the needs of the present and future generations. This includes improving QOL, efficiency of urban operation and services, and competitiveness by using ICTs.

5. Mobilize stakeholders: Mobilizing a wide set of stakeholders is essential to the success and the inclusiveness of SSC strategies. ITU is called upon to develop a methodology to assess the environmental impact of ICT in cities together with other concerned stakeholders (e.g. energy sector), and conduct further research on the topic of SSCs.

6. Build a green and resource efficient economy: The integration of ICT into the city's infrastructure will assist in tackling climate change impacts, enhancing energy efficiency, improving water management, strengthening emergency response, improving road safety, promoting the use of green products and reducing pollution, as part of smarter and more eco-friendly cities.

7. Boost partnerships: It is essential to enhance cooperation at international, national, regional and local levels, and between cities, organizations, research institutes, governments, industry and civil society for the establishment of SSCs. This involves the creation of new business models and multi-stakeholder partnerships to realize the SSC's vision, and the achievement of its goals. A series of technical specifications and guidelines are being developed and will be standardized by ITU in collaboration with other international, national and regional Standard Development Organizations (SDOs).

8. Raise awareness and build capacity: Adopting a city-wide perspective and a holistic approach will raise awareness about the potential of ICTs. This will serve to strengthen existing infrastructure and build new capacities across all city departments, thus ensuring the skill base needed to implement and sustain SSC strategies.

9. Demonstrate success and feasibility: Efforts should be directed towards carrying out pilot and flagship demonstration projects that support the development of SSCs, testing novel solutions, and fostering learning by benchmarking Key Performance Indicators (KPIs). This will assist in identifying strengths and weaknesses of implementation strategies and reporting on success stories, cost implications and innovative solutions used in each case. Cities, using these KPIs, can quantify their degree of achievement in accordance with their administration and development goals.

10. Articulate a common vision: Adopting a common framework for action is vital to achieve the articulated SSC strategies of assembling diverse stakeholders, ensuring the technical specifications and ICT infrastructure required to provide smart city services, measuring progress through internationally recognized performance indicators as well as adopting standards and other monitoring systems towards accountability and data security. This framework is expected to help cities incorporate ICTs into their infrastructure with the aim of reducing GHG emissions, energy consumption, and water consumption, ultimately improving citizens' wellbeing and trust in privacy friendly technologies, thus helping cities to become smarter and more sustainable.

Green Standards Week concluded calling for stronger cooperation between the energy and ICT sector and emphasizes the value of international technical standards in ensuring that smart-city solutions see the benefits of economies of scale and interoperability.

More information can be found at: <http://www.itu.int/en/ITU-T/climatechange>