



Call to Action on Smart Sustainable Cities



1. Introduction

Achieving sustainable urbanization, along with the preservation of our planet, has been recognized as one of the major challenges of our society in the coming decades. Urban areas reflect the complexity of our societies, where social, economic and environmental issues are tightly interconnected.

At present, the majority of the global population is concentrated in urban areas and this percentage is foreseen to rise to 70% by 2050. Cities are responsible for more than 70% of global greenhouse gas emissions, and they are accountable for 60-80% of global energy consumption, contributing to environmental degradation locally, regionally and globally.

As a result, achieving urban sustainability is crucial to successfully addressing global environmental challenges.

Information and Communication Technologies (ICTs) provide solutions to many of the problems facing cities as they become magnets for migrating populations as well as contributing to making cities more eco-friendly and economically viable. For many city dwellers, it is nearly impossible to imagine life without ICTs. From television to mobile phones and the Internet, ICTs have reshaped the world, helping billions of people to live, work and play. ICTs present innovative ways of managing our cities – smart buildings, intelligent traffic management, new efficiencies in energy consumption and waste management, and not least exchanging information and knowledge and communicating on the move in an increasingly converged information society.

2. Call to Action on Smart Sustainable Cities

We, the participants at the ITU-EC forum on “*Greener Smarter Better Cities*” in Paris, France, on 17 September 2012 call upon the municipalities, ICT sector, policy makers, international and regional organizations, to identify and agree on key priorities to boost the development of sustainable, smart, climate-neutral urban areas.

2.1 Key priorities

1. Mitigation to Climate Change & Reduction of the ICT Footprint in Cities		
<ul style="list-style-type: none"> - Promote efficient policies, strategies, standards and methodologies to help advance towards a low carbon economy and reduce greenhouse gases (GHG) emissions. - Support cities in their efforts to implement standardized methodologies for measuring their own carbon footprint and identify actions needed to improve their energy efficiency and low carbon growth. 	<ul style="list-style-type: none"> - Disseminate more holistic and comprehensive policies and strategies to tackle environmental issues specific of urban areas. - Promote intensive use of ICTs in sustainable policies and financial frameworks to maximize social, economic and environmental wealth in cities. 	<ul style="list-style-type: none"> - Promote the use of ICTs to mitigate social, economic and environmental costs resulting from the increasing growth of cities and lessen the burden on their resources. - Foster strategies and standards to help cities deliver services in a smart way by optimizing the use of scarce resources.
2. Energy Efficiency		
<ul style="list-style-type: none"> - Provide incentives to the development of smart grids with the ultimate goal of enhancing energy efficiency, maximizing the use of energy from renewable sources and of reducing the environmental footprint of cities. - Increase investment in support of the development of renewable energies. 	<p>Use ICT solutions to provide people with more information about their energy consumption.</p> <p>Enable future scenario in which energy is "scavenged" by the sensors directly from the environment (environmental energy).The environmental energy could also be increased by new techniques of wireless energy transfer. This futuristic scenario calls for changes, in the short run, in the way energy is produced (renewable sources), distributed (energy induction and energy scattered needs) and consumed (smart energy at home).</p>	<p>Adopt energy-efficient, low-carbon and green technologies to provide public services to society.</p> <p>Use ICTs extensively to network humans and things in order to reduce energy waste and improve the overall quality of services to the end client.</p>

3. Waste Management		
Rely on ICTs services like IoT (Internet of Things) to develop new waste management strategies.	Support programmes to manage solid and electronic waste in urban areas and encourage the development of community-based approaches through the use of ICTs.	Disseminate recycling information using social networks and applications.
4. Water Management		
Encourage the development of energy efficiency and integrated water-energy conservation strategies and standards.	Implement solutions, such as water meters, to provide people with more information about their usage of water and raise their self-awareness.	Adopt ICT tools that can allow decision makers to better evaluate the water needs and resources of cities and explore alternative water systems. Rely on ICTs services like IoT (Internet of Things) to develop automated solutions to identify and solve water leakages problems (today a big amount of water is lost in the water distribution systems due to hidden leakages).
5. Adaptation to Climate Change and Urban Planning		
Support existing or create disaster management plans to reduce and address vulnerabilities of cities brought on by natural hazards, climate change and increasing urban growth.	Support ongoing initiatives to build resilience in urban areas.	Foster the development of ICT-driven policies, strategies and standards to address the vulnerabilities of cities and help them adapt to climate change.
6. Smart Architecture and Infrastructure		
Increase the levels of energy efficiency for new building constructions by establishing insulation and lighting standards, and implement those standards on existing structures.	Ensure sustainable housing, with the ultimate goal of protecting the ecosystem and achieving social inclusion. Invest on ICT for smart public lighting automated solution aimed at reducing energy usage for public lighting	Invest in ICT systems to manage new infrastructures and support existing ones. Support the development of the "smart city ICT platform" based on: cloud computing, IoT (Internet of Things), short range capillary network to enable the scenario of the smart connected city. This is the basis for using ICT technologies for a sustainable city.

7. Smart Mobility

<ul style="list-style-type: none"> - Encourage people to use common transportation systems by making them affordable and more environmentally friendly. - Encourage the use of alternative fuel vehicles and purchase them for municipal services. 	<p>Promote the use of ICTs to improve mobility in congested urban areas, regulating traffic and road conditions.</p> <p>Promote the use of ICTs to implement real-time management of public transportation, enabling more efficient service through the use of intelligent control of traffic lights and the control of paths/zones reserved to public service.</p> <p>Promote the use of ICTs to enable effective private car sharing.</p> <p>Promote the usage of Electric vehicles managed by ICT solutions (smart charging) for public car sharing service</p>	<p>Establish global standards on intelligent transport systems (ITSs); foster the development of new (semi-) automated transportation systems to make life in cities better and more sustainable.</p>
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8. Suburban Areas

<p>Improve the quality of life in suburban areas by encouraging the establishment of decentralized programmes.</p>	<p>Identify barriers to achieve sustainability in suburban areas, encompassing environmental, economic, and social spheres.</p>	<p>Support strategies of remediation for industrial areas.</p> <p>Define strategies to enable widespread access to ICTs in suburban areas in the same way as in central areas.</p>
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9. Community Engagement and Environmental Justice

<ul style="list-style-type: none"> - Identify new ways to get communities involved in the decision-making processes in the area of environmental sustainability while also relying on social networks. - Support the growing trend of citizens using ICTs to monitor the urban environment. - Support ongoing initiatives of community-based green activism and promote sustainability education. 	<ul style="list-style-type: none"> - Guide communities to adopt more environmentally friendly and sound behaviour. - Help people be aware of the value of ICT solutions in improving the quality of their lives. - Meet people’s demands for better information about their usage of resources through the use of ICT tools. 	<ul style="list-style-type: none"> - Develop smart collaborations with public and private key stakeholders. - Promote essential ICT architecture that underpins all services and activities in the city to enhance the quality of life and drive growth toward a sustainable and inclusive future.
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10. Smart Sustainable Cities		
Support ongoing efforts to help technology transfer and capacity building for smart sustainable cities in developing countries.	Encourage the integration of ICTs in urban infrastructure and policies in smart sustainable cities.	Foster the creation of and participation in global platforms to share best practices and standards on multidisciplinary and long-term strategies to address urban challenges and vulnerabilities.

3. Future Steps

3.1 3.1 Shaping Smart Sustainable Cities

1. Organize similar forums to report on the progress made at the next Green Standards Week.
2. Invite ITU to create a Focus Group to analyze smart solutions that may be standardized, and to identify best practices which can facilitate the implementation of such solutions in cities.