United Smart Cities: Towards smarter and more sustainable cities

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Outline

• “United Smart Cities” project:
  – activities
  – objectives
  – partners
  – cities and events

• The project’s outputs
  – the indicator set
  – the smart city profiles
  – the platform

• The inter-governmental process for the indicators

• Next steps
Urbanization in UNECE region

Statistics
- 1/5 of global population
- 73% urban residents (85% in 2050)
- 60% of the world’s GDP
- 45% of energy consumption
- 40% of GHG emissions

Main challenges
- High energy consumption
- High quantities GHG emissions
- Overpopulation and critical living conditions for citizens
- Informal settlements
- Conversion of land and green spaces into constructions and buildings
- Mobility problems and lack of infrastructures and services
- Housing issues
Many **orientations/definitions** of “Smart Cities” but its main features are:

- technologically (especially ICT) oriented to **improve competitiveness and ensure a more sustainable future**
- interconnected networks of people, businesses, technologies, infrastructures, consumption, energy and spaces (systemic approach)

Its strategies and initiatives **must include at least one of the following characteristics:**

- Smart Governance
- Smart People
- Smart Living
- Smart Mobility
- Smart Economy
- Smart Environment
“A smart sustainable city is an innovative city that uses information and communication technologies (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, cultural and environmental aspects.” [ITU-T TR SSC]
UNECE Smart city: characteristics

A smart city is:

- Inclusive
- Safe
- Resilient
- Competitive
- Sustainable
- “Connected”

Sustainable Development Goal (SDG) 11
The sustainability of a smart city is based on **five** main “abilities”: 

- **Economic:** ability to generate income and employment for the livelihood of the inhabitants.
- **Social:** ability to ensure well-being (safety, health, education etc) and inclusiveness of the citizens can be equally delivered despite differences in class, race or gender.
- **Environmental:** ability to protect future quality and reproducibility of natural resources.
- **Governance:** ability to maintain social conditions of stability, democracy, participation, transparency, ethics and justice.
- **Cultural:** ability to promote cultural identity and adequacy, value and emotional wellbeing.
UNECE smart cities initiative: Summary of activities

«UNITED SMART CITIES» project - launched in May 2014

**Phase 0**
- Methodology
- Pilot cities

**Phase 1**
- City assessment
- Smart city profiles

**Phase 2**
- City action plan
- Implementation of the recommendations

**Phase 3**
- Measuring
- Monitoring & benchmarking
- Reporting changes

**Parallel activities**
- Meetings and capacity building workshops
- Website to disseminate information (platform)
Objectives

- Identify and develop smart FINANCING MECHANISMS
- Help national and local authorities to develop POLICIES on sustainable urban development
- Establish partnerships and COOPERATION between stakeholders
- Promote KNOWLEDGE and BEST PRACTICES TRANSFER on sustainable urban development
- Improve the inhabitants’ QUALITY OF LIFE
- Extend the concept of smart cities to LOW- and MEDIUM INCOME economies
- Promote KNOWLEDGE and BEST PRACTICES TRANSFER on sustainable urban development
The selected cities

Pilot cities

- Goris - Armenia
- Aktau – Kazakhstan
- Polotsk - Belarus
- Vinnitsa – Ukraine
- Tbc – Albania
- Tbc - Georgia
**Outputs**

1. Development of a set of indicators for evaluating a smart and sustainable city

2. Preparation of smart city profiles with recommendations

3. Creation of a multi-stakeholder platform and content hub for smart city initiatives

4. Capacity building
Output 1: the indicators set

Developed by a consortium of partners – leading partners UNECE, Environment Agency Austria, ITU

**Approach**
3 main areas
18 topics
71 indicators (core & additional)
Indicator set: benefits

Helpful tool to:

- evaluate the current status of a city
- serve as a starting point for action
- set priorities
- measure changes
The indicators set: sources

Starting point: SMART CITY PROFILES Austria

• Sources:
  – more than 25 worldwide urban indicator initiatives
  – available statistical data (i.e. EUROSTAT, Urban Audit, World-Bank, WHO, FAO etc.)
  – available maps (i.e. likelihood of drought, earthquakes, flooding, precipitation)
  – alternative methods to assess the quality of urban features (perception surveys, check lists, expert judgement etc.)
  – meetings of the ITU Focus Group on smart sustainable cities
Output 2: the smart city profiles

Pyramid workshop

- in Goris/Armenia
- Discussion of indicators & feasibility
- Identification of key measures
- Input for Smart City Profile
- Presentation to donors
Output 3: The United Smart Cities Platform

- UNECE HLM website
  www.unece.org/housing/smartcities.html
- Website http://unitedsmartcities.com/
  under construction
- Share best practices on smart and sustainable urban development
- Serve as a multi-stakeholder platform and content hub for smart city initiatives
Output 4: Capacity building and events 2015

**FEBRUARY**
- Smart City workshop
  - Krasnodar

**APRIL**
- Initial Stakeholder Assembly
  - Vienna

**MAY**
- Geospatial World Forum
  - Lisbon
- Smart Cities and Communities
  - Brussels

**MAY**
- Metropolitan Solutions
  - Berlin

**SEPTEMBER**
- II International Forum “Social Innovations – Municipal Experiences”
  - Vologda

**SEPTEMBER**
- XIV All-Russian Forum “Strategic planning in cities and regions of Russia” - St Petersburg

**OCTOBER**
- Smart cities workshop
  - Minsk

**NOVEMBER**
- Smart cities Expo
  - Barcelona

**DECEMBER**
- 76th HLM Committee session
  - Rome

**FEBRUARY & APRIL**
- Smart City Workshop
  - GORIS
Smart City Indicators: the political process

- **2013**: survey “Challenges and priorities for the UNECE region”
- **2013**: 74th session of the Committee on Housing and Land Management (CHLM) - smart cities as one of the main priorities for member States
- **2014**: 75th session of the CHLM - smart cities enters the program of work of UNECE with the project “United Smart Cities”
- **2015**: 76th session of the CHLM – eventual endorsement of the set of the UNECE-ITU smart sustainable cities indicators
Smart City Indicators: Milestones for the adoption of the indicators

- 2014: Development of the draft list of indicators
- 2015: Draft indicators tested in the pilot city of Goris, Armenia for feasibility
- 2015, 4 and 5 June: Workshop and Committee Bureau meeting, Rakvere, Estonia – starting point of the inter-governmental dialog
- 2015, 30 June: Cities workshop, Vienna, Austria – input from cities
- 2015, June: negotiations with ITU to merge ITU and UNECE indicators
- 2015, July: draft to be sent to the member States focal points for comments
- 2015, September: eventual second negotiation session
- 2015, 14-15 October: ITU proposes endorsement of indicators among its member states
- 2015, 14-15 December: the Committee will be invited to adopt the indicators among its member States
Next steps

1. Indicators
   - Smart and sustainable cities standards
   - Smart and sustainable cities index

2. Smart City profiles
   - Concrete action plan for Goris
   - Selection of the next pilot

3. Platform
   - Launching of the platform
   - Collecting and updating information

4. Capacity building
   - Scheduled activities in many countries and cities
Thank you for your attention

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