

Smart City strategy in Hungary

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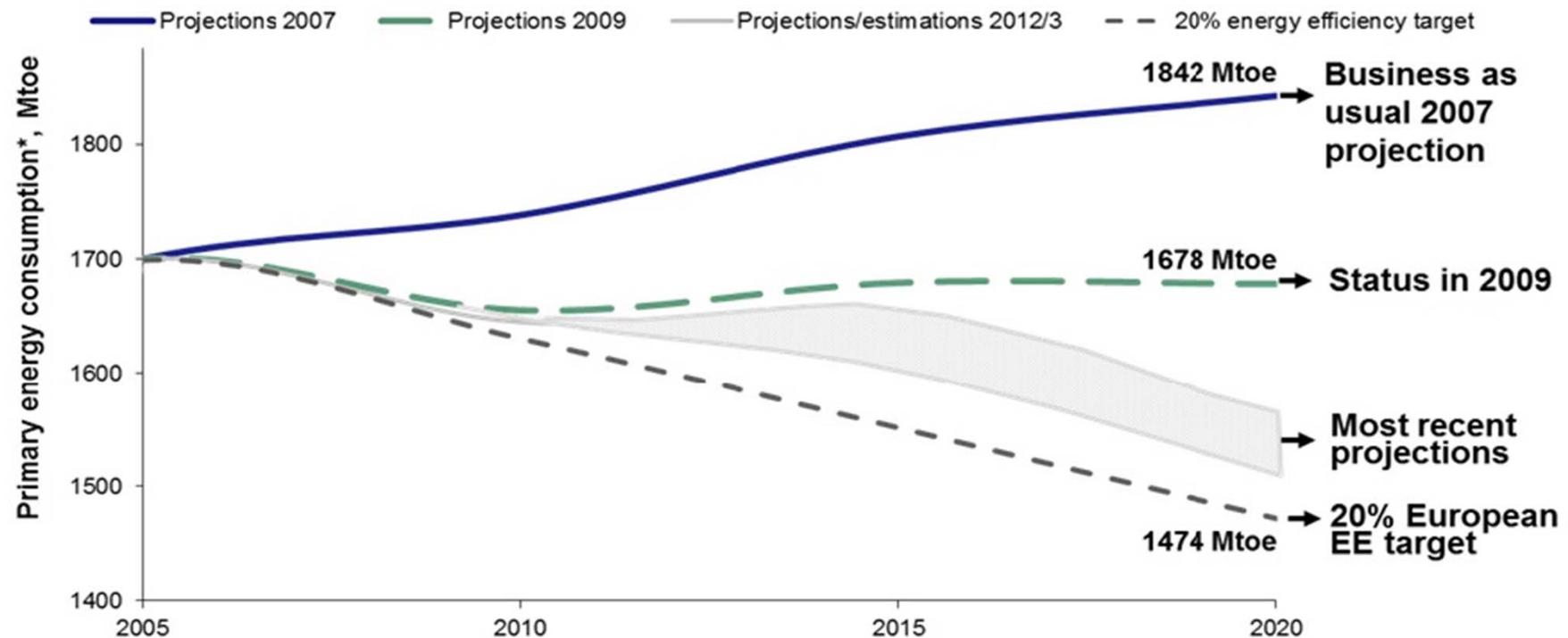
INTRODUCTION: EU SMART CITY STRATEGY

EU – Societal Challenges



1. Health, Demographic Change and Wellbeing
2. Food Security, Sustainable Agriculture and Forestry, Marine, Maritime and Inland Water Research and the Bioeconomy
3. Secure, Clean and Efficient Energy
4. Smart, Green and Integrated Transport
5. Climate Action, Environment, Resource Efficiency and Raw Materials
6. Europe in a changing world - Inclusive, innovative and reflective societies
7. Secure societies – Protecting freedom and security of Europe and its citizens

EU primary energy consumption scenarios for 2020



The initial positive effects after 2009 did not prevail, and the system was restored in 2013 to essentially the same growth path gradient (green line).

EU 20/20/20

the need of the sustainable solutions

EU 20-20-20 objectives

(20% pollutant emission decrease, 20% renewable energy and 20% energy efficiency increase)

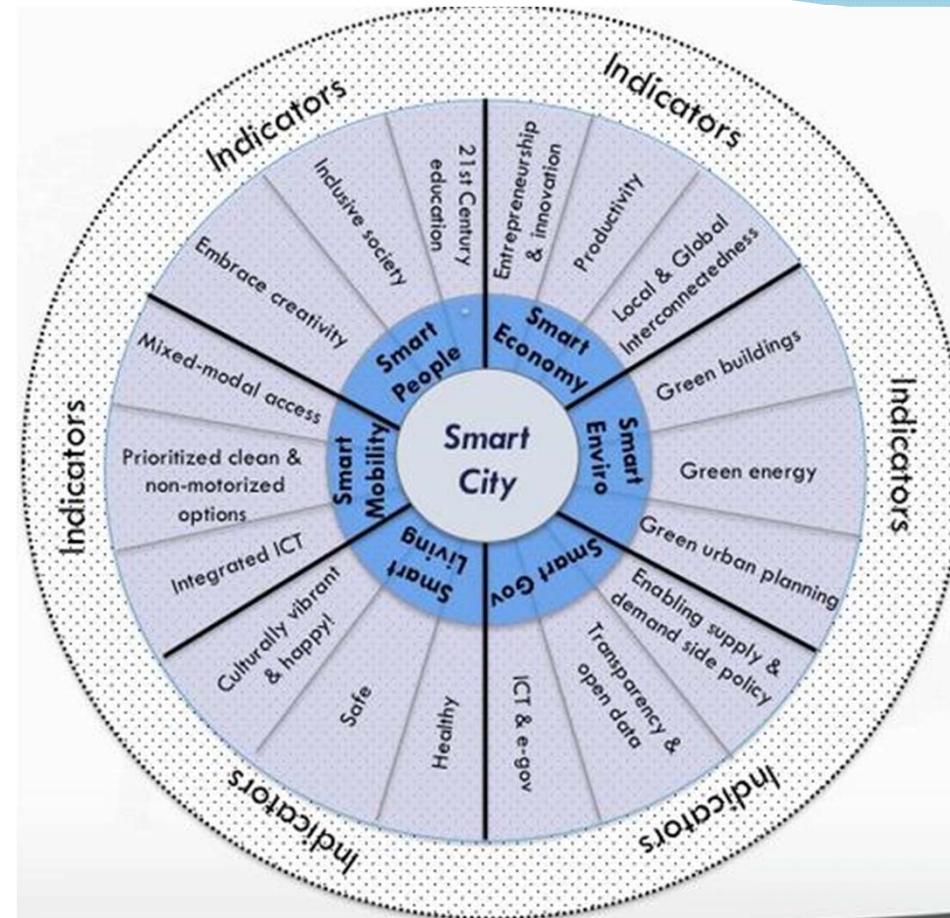
The EU considers drastic changes closely related to each other necessary in the following areas:

- energy production and energy utilization,
- transport and delivery systems,
- infrastructure (build environment – building, public utility), and
- information technology and communication technologies.

Cities in the focus

- 75% of the population lives in cities
- uses 70% of the utilized energy, and
- the proportion is the same in the area of pollutant emission.

Key components for the smart cities



Cohen, B.: http://www.ubmfuturecities.com/author.asp?section_id=219&doc_id=524053

Elements of EU Smart City strategy

EU Smart City strategy aims at developing three key areas:

- Sustainable urban mobility using alternative energies and smart solutions:
 - in public transport, logistics,
 - areas of planning and operational management.
- Sustainable energy efficient buildings and areas:
 - increasing the energy efficiency of buildings and areas,
 - increase the proportion of renewable energy utilization,
 - enhancing the quality of life of the community.
- Establishing integrated infrastructure:
 - to connect energetics, transport and ICT,
 - to increase efficiency and sustainability.

Implementation of Smart City Strategy



http://ec.europa.eu/eip/smartcities/files/operational-implementation-plan-oip-v2_en.pdf

Key components for the smart cities

The key cornerstones:

- traditional solutions (interests) are not sustainable;
- new approach is necessary, which is:
 - market oriented and sustainable in the long run,
 - based on individual-community (public-private cooperation),
 - unification of complex urban needs and service industry interests.

Elements of a business model related to Smart Cities:

- modular approach,
- adaptability of local (operating) ecosystems, and
- creates the European market of solutions, technologies and products-services designed for smart cities.

SMART CITY STRATEGY OF HUNGARY

Planning frameworks and professional forums

National Digital Development Programme (passed in 2014):

- provide the framework for commencing strategy development on government level.

Future Internet National Technology Platform (2011):

- Its members are:
 - Ministry of National Development and National Innovation Office,
 - significant universities and the relevant Academy institutes,
 - significant telecommunications and IT firms, professional associations.

Smart City Section (2014):

- New approach is necessary, which is:
 - support the development and implementation of the domestic strategy,
 - promote successful bidding and project implementation,
 - provides forum for municipalities and service providers.

Strategic frames for Smart City developments

Strategic frames for Smart City developments		
<i>EU Digital Agenda</i>	<i>National Infocommunication Strategy 2014-2020</i>	<i>National Digital Development Programme 2014-2020</i>
EU-wide broadband coverage by 2013	Reaching all domestic settlements with optical cable by 2016	
EU-wide min. 30Mbps broadband coverage by 2020	all domestic households with min. 30Mbps broadband access by 2020	All domestic households with min. 30Mbps broadband access by 2018
min. 50% of EU households with min. 100Mbps broadband Internet subscription by 2020	Min. 50% of households with min. 100Mbps broadband Internet access by 2020	min. 50% of households with min. 100Mbps broadband Internet access by 2020

Smart City developments in DNFP implementation process

The place for Smart City developments in DNFP implementation process			
Digital infrastructure	Digital community and economic development	Digital public services	Digital competences
all domestic households with min. 30Mbps broadband access by 2018	Provision of free devices among population (neediness)	New, digital customer points (approx. 270 government windows)	Introduction of new, IT based public education program
Connecting local public institutions to broadband internet network	Intelligent City (Smart City) services	Every service available electronically by 2020	Strengthening digital literacy
Financing: Cooperation of market and government	Economic development: - Regional programs - development of IT background of SME-s	Compulsory use of electronic services for businesses	Incentives for adult education programs

Professional background for Smart City development programs

„Smartpolis”

Budapest Centre of Excellence for Smart Cities

- Consortium of Fraunhofer FOKUS (FFI), the Urban Software Institute (USI) and the Budapest University of Technology and Economics (BME)
- Federated Innovation and Knowledge Centre of BME
- BME's Smart City concept and planning system
- BME EIT Smart City coordination activities
- BME Smart City competence areas
 - Smart energetics, Intelligent buildings,
 - Quality of life and Healthcare
 - Intelligent transport
 - Climate and Environmental protection, Water quality and water management
 - Community participation in urban development
 - Infocommunication and Systems integration

Smart City Hungarian concept

The most important elements:

- Smart city services and their grouping
 - Determination of relevant Smart City services
 - Categories of Smart City services
- Smart city central technology platform, domestic concept and framework system
- Evaluation of services on utility and comfort
- Specific local specialities
- Considerations of economies of scale
- Investment and operation solutions
- Smart city monitoring system
- Smart city professional platform

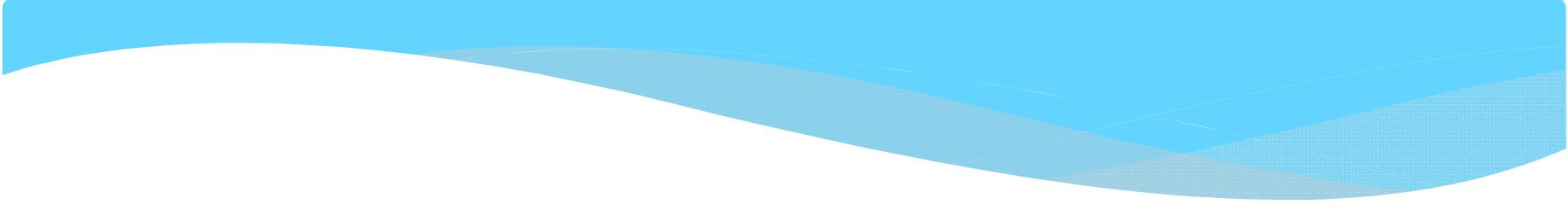
EU Smart City tender application opportunities

Horizon 2020 – Smart Cities and Communities 1 – 2014/2015



Hungarian Smart City landscape and tender opportunities

EU and ‘Hungarian EU’ funding programs and Smart City funding areas	
Horizon 2020 H2020	Excellence programs: Integrated intelligent infrastructure (ICT, energetics, transport), Innovation and sustainability
Economic Development and Innovation Operative Program (GINOP)	Incentives for R+D+I activity, Development of ICT sector, SME competitiveness with the development of ICT capabilities
Regional and Settlement Development Operative Program TOP	Economic development building on regional sources, Improvement of settlement quality of life Regional knowledge centres
Environmental and Energy Efficiency Operative Program KEHOP	Intelligent and green energetics, Intelligent adaptation to climate change effects, Complex water management



THANK YOU FOR YOUR ATTENTION !