



# **An EU view on Smart Cities**

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## Smart Cities– General Overview

### ➤ **Context**

level of urbanisation in EU above 75%, to rise to 80% by 2020, with cities consuming over 70% of energy and emitting as much of greenhouse gases in EU  
Need to act now to achieve EU climate and energy goals

### ➤ **20-20-20 goals**

20% reduction CO2 compared to 1990

20% share of renewable energy in total energy mix

20% improvement in energy efficiency

### ➤ **Digital Agenda: ICT is key to achieve the sustainability targets**

a) the successful integration of wind and solar power into the energy system along with the new processes, market roles and technologies this entails

b) energy efficiency via new monitoring and control devices, applications and services (e.g. for buildings)

c) behavioural change and public engagement via Web, social media and Living Labs



# Political Guidelines for the next European Commission

*Extract from the Opening Statement of Jean-Claude Juncker, Strasbourg, 15 July 2014*

1. A new Boost for Growth, Growth and Investment
  - Additional public and private investment in the real economy
  - Focus on infrastructure, notably broadband, energy networks, transport infrastructure in industrial centres; education, research and innovation; renewable energy
2. A Connected Digital Single Market
  - Generate up to 250 billion EUR of additional growth in Europe -> vibrant knowledge-based economy
  - Ambitious legislative steps towards a connected digital single market
3. A Resilient Energy Union with a Forward-Looking Climate Change Policy
  - A new European Energy Union
  - Significantly enhance energy efficiency beyond the 2020 objective, notably when it comes to buildings -> ambitious, binding target

## Smart Cities – Top Priority for the EU

- Tackle common challenges & bottlenecks
- Develop innovative & replicable solutions
- Bundle demand from cities and regions
- Attract and involve business and banks

➔ **Create markets!**





## European Innovation Partnership on Smart Cities and Communities

### ➤ **Objective**

Accelerate development and deployment of **integrated** energy, transport and ICT solutions at local level **to serve EU climate/energy targets**

### ➤ **Ultimate aim**

Transform a number of European cities

### ➤ **How**

Exchange of Best Practices – Learning from each other

Provide funding through H2020 for selected large-scale demonstration projects

Prepare for scale-up through focused horizontal activities (capturing lessons learned, identifying needs for regulation & standards, harmonising approaches to data collection, formatting and measurement, etc.)

### ➤ **Constituency building**

High Level Group, Sherpa Group, Stakeholders Platform

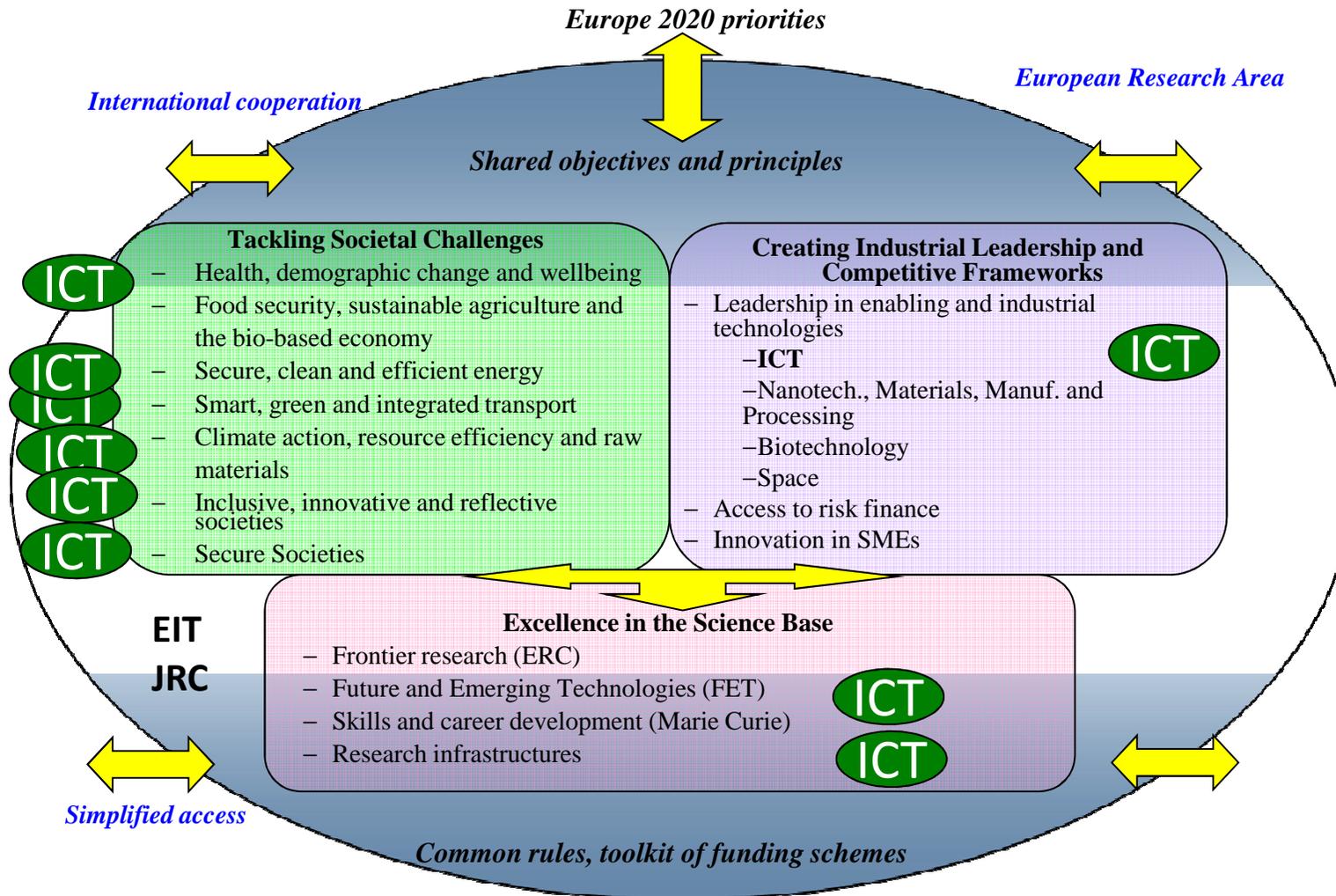


## Smart Cities and Communities EIP – the Novelties

- Seeks to break down “silos” between the energy, transport and ICT sectors, and consolidate European Commission’s initiatives under “one roof”
- Joint leadership by three Commissioners responsible for energy, transport and ICT, close involvement of Commissioners responsible for research, regional policy and environment
- Though overall goal is to serve EU climate/energy targets, expect progress elsewhere, e.g., interoperability of service infrastructures, open data, harmonized metrics, etc.
- Focus on innovation through integration of technologies/ business models rather than research into new technologies
- Funding, bundled in Horizon2020 focus area "smart cities"



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## Societal Challenge 3: Secure, clean and efficient energy

### ENERGY EFFICIENCY

- Buildings and consumers
- Heating and cooling
- Industry and products
- Finance for sustainable energy

### COMPETITIVE LOW CARBON ENERGY

- Renewable electricity and heating/cooling
- Modernising the European electricity grid
- Providing the energy system with flexibility through enhanced energy storage technologies
- Sustainable biofuels and alternative fuels for the European transport fuel mix
- Enabling the decarbonisation of the use of fossil fuels during the transition to a low-carbon economy
- Supporting the development of a European research area in the field of energy
- Social, environmental and economic aspects of the energy system
- Cross-cutting issues

### SMART CITIES AND COMMUNITIES

- Enhancing the roll-out of Smart Cities and Communities solutions by stimulating the market demand



## How might a Lighthouse project look like?

- Strong industry consortium: technology partners and key service providers from the energy, transport & ICT sectors together with cities
- Demonstration of integrated novel technologies, business models and citizens' acceptability in at least two cities and two follower cities
- Commitment to share experiences, to open standards that prevent lock-in and foster competition
- Evidence of scale-up and replication potential within the city and in other cities, solutions should be transferable and deliver EU added value
- Funding ranging from 18 to 25M€

Horizon 2020 Work Programme 2014-2015

## Lighthouse projects

- *Low energy districts*
- *Integrated infrastructures*
- *Sustainable urban mobility*

### Conditions

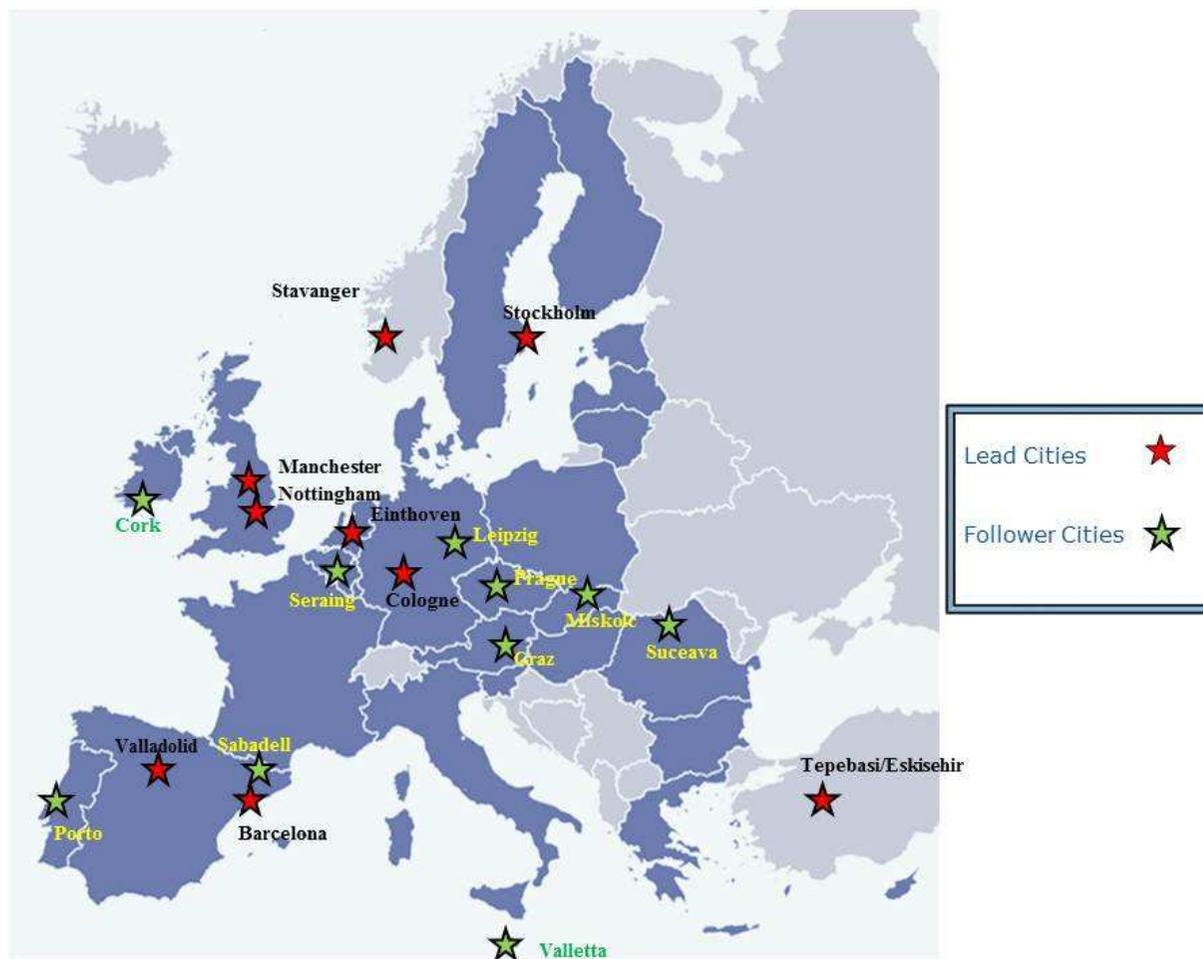
- *Consortia: industry & cities*
- *2-3 cities involving*  
*2-3 follower cities*
- *Part of ambitious urban plan*
- *Funding from other parts secured*
- *Affordable solutions*
- *Interoperability – no lock-in!*
- *Contributions to data collection*





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## 2014 – Selected Lighthouse proposal (pending contractual arrangements)





## **SCC1 - Smart Cities and Communities: Lighthouse projects**

- **Type of action: Innovation Actions**
- **Indicative budget distribution:**  
*[EUR 90.32 million from the 2014 budget]*  
EUR 108.18 million from the 2015 budget
- **Single stage proposals**
- **EU contribution: between EUR 18 to 25 million  
(eligible costs and flat rate financing for buildings)**
- **Date of publication: 10 December 2014**
- **Call deadline: 05/05/2015**



## But SCC is more than H2020 calls

- **Invitation for Commitments closed 15<sup>th</sup> June 2014:**
  - 354 eligible commitments (excluding a few sent by separate partners about the same project)*
  - involving 2564 partner organisations*
  - in 194 cities all over Europe*
- **24<sup>th</sup> September High Level Group meeting**
- **Exchange of best practices**
- **Pulling demand**
- **Focussing funding**
- **Clusters kick-off meeting on 9<sup>th</sup> October**



**More information on:**

**H2020 Participant Portal:**

**<http://ec.europa.eu/research/participants/portal/desktop/en/home.html>**

**SCC1:**

**<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2148-scc-01-2015.html>**

**SCC EIP:**

**<http://ec.europa.eu/eip/smartcities/>**



**Thank you for your attention!**

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