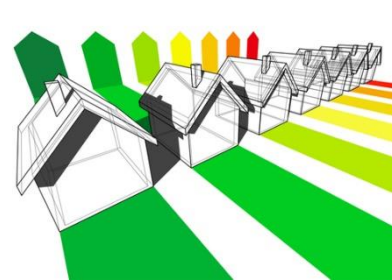


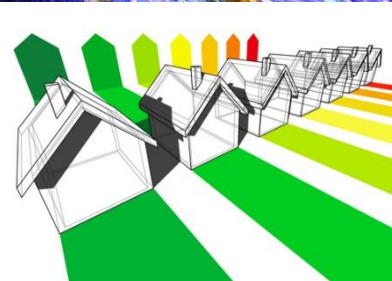


# INNOVATIVE SOLUTIONS FOR SMART INFRASTRUCTURE AND SERVICES IN CITIES

Tuesday 7<sup>th</sup> October 2014 – Fundacion Galicia



**12<sup>th</sup> European Week of  
Regions and Cities**  
Brussels 6 - 9 October 2014



**Mercè Griera i Fisa**

**Unit "Smart Cities and Sustainability",  
Directorate-General for Communications Networks, Content and  
Technologies (DG CONNECT),  
European Commission**

**An EU view on Smart Cities**

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# **An EU view on Smart Cities**

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***Unit "Smart Cities and Sustainability",***

***Directorate-General for Communications Networks, Content and Technologies,***

***European Commission***

## 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 CO<sub>2</sub> compared to 1990

20% share of renewable energy in total energy mix

20% improvement in energy efficiency

### ➤ **Definition**

Smart cities can be seen as systems with people, flows of energy, materials, services and financing that catalyse sustainable economic development and high quality of life through the wise use of technology and innovative transparent urban planning that is closely related to the economic and social activity of communities.

## Smart Cities – "Philosophy"

- 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 - Strategic Implementation Plan

## Priority Areas ...

<p>➤ <b>Urban Sustainable Mobility</b></p> <p><i>Multi-modal transport planning, alternative energy carriers, smart logistics, ...</i></p>	<p>➤ <b>Districts and Built Environment</b></p> <p><i>Integration of renewables, positive energy districts, deep retrofiting, ....</i></p>	<p>➤ <b>Integrated Infrastructures</b></p> <p><i>Cross-sectoral infrastructures integration, joint planning and business models, common standards, ...</i></p>
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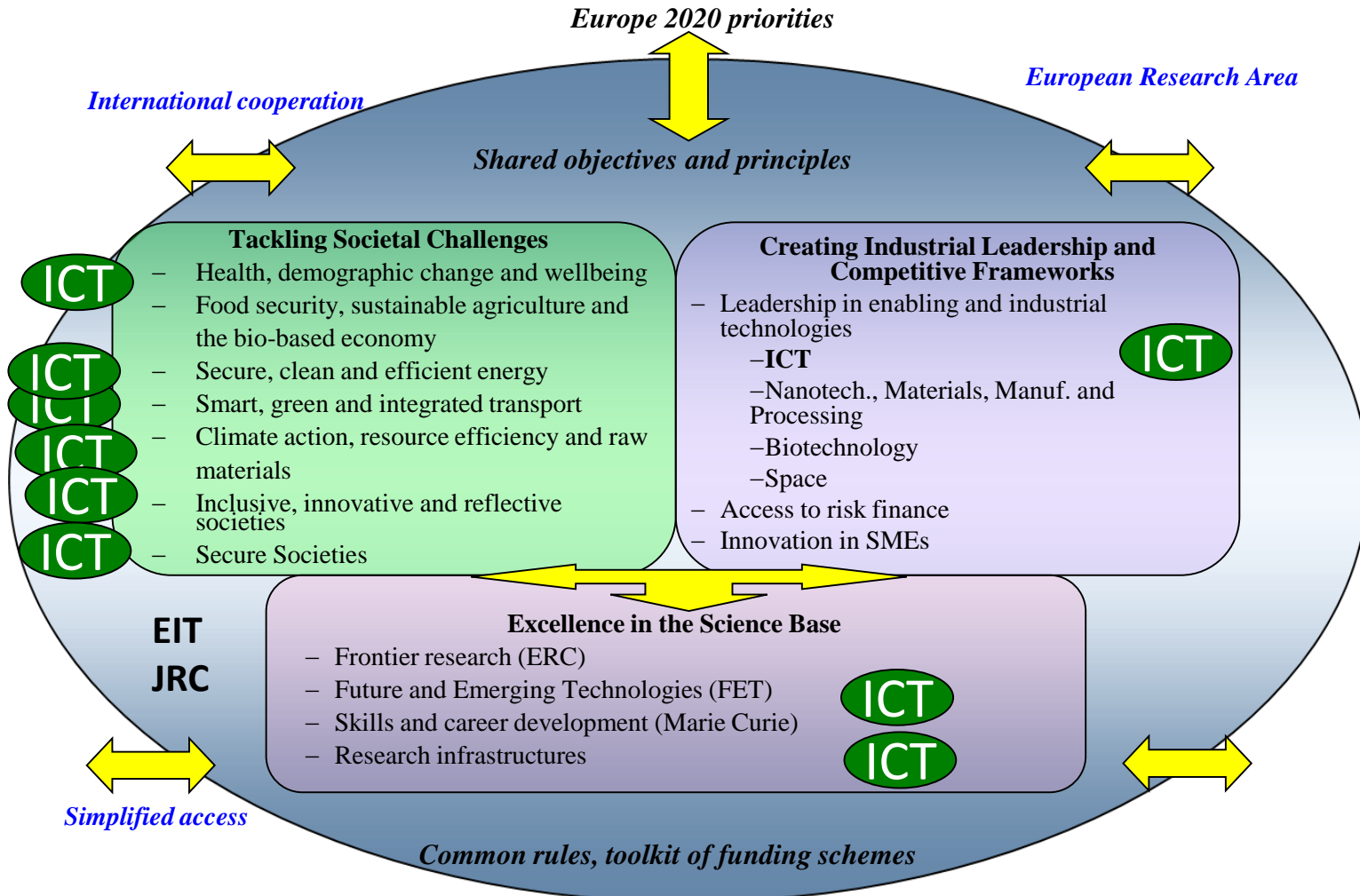
## ... and Common Challenges and Levers across them

<p><b>Insights &amp; Governance</b></p> <p>➤ <b>Citizen focus</b></p> <p><i>Participative citizen involvement right from planning stage, empowerment through information...</i></p> <p>➤ <b>Integrated planning &amp; management</b></p> <p><i>Realising systemic, holistic views in organisations, goal-based organisations, strong political leadership....</i></p> <p>➤ <b>Knowledge Sharing</b></p> <p><i>Targeted networking and marketplaces for maximum outreach....</i></p>	<p><b>Funding &amp; Finance</b></p> <p>➤ <b>Procurement</b></p> <p><i>Joining forces for greater purchasing power, total cost of ownership...</i></p> <p>➤ <b>Financing &amp; Business Models</b></p> <p><i>Cross-sectoral business models, aligned with public revenue streams, pay-per-use, optimising use of existing instruments, capability building with local admin'....</i></p>	<p><b>Information &amp; Decisions</b></p> <p>➤ <b>Open Data</b></p> <p><i>Repositories with standardised data formats, apps-development on top of open data, increased predictive power through wide integration, privacy by design...</i></p> <p>➤ <b>Standards</b></p> <p><i>De-risking invests and achieving interoperability at the level of data, reducing entry barriers, ....</i></p> <p>➤ <b>Baselines, Performance Indicators and Metrics</b></p> <p><i>Measuring progress, identifying best-of-breed solutions....</i></p>
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## 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"





## 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€

## Lighthouse projects

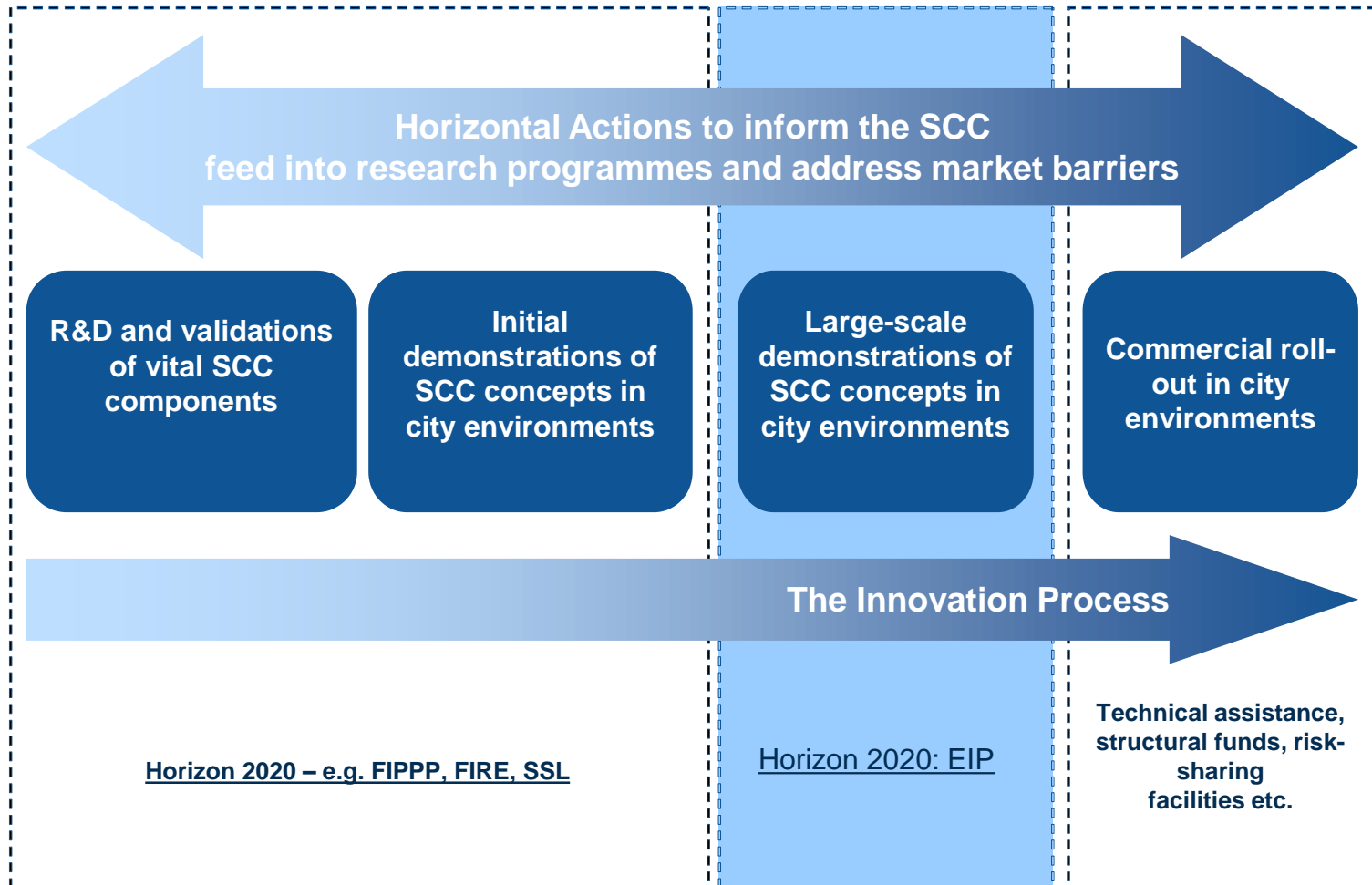
- *Low energy districts*
- *Integrated infrastructures*
- *Sustainable urban mobility*

## 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



## Smart Cities and Communities in Horizon 2020



# 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!

[Merce.Griera-i-Fisa@ec.europa.eu](mailto:Merce.Griera-i-Fisa@ec.europa.eu)

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**Disclaimer: The opinions in this presentation are those of the author and do not commit in any way the European Commission**