



Smart Cities Innovation Partnership

Challenges and opportunities for EU cities



International Conference
Smart energy solutions for sustainable development
10 May 2017



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European Commission

Directorate General for Energy

Head Of Unit

New energy technologies, innovation and clean coal

Cities – Key for Europe

- 78% of EU's population lives in cities.
- 85% of EU's GDP is generated there.
- Cities deliver on jobs, growth, investments, innovation and CO₂ reduction, to name a few ...

EU Challenges



Modernise our economy by bringing down greenhouse gas emissions while creating jobs and growth



The EU as the **world leader on renewable energy and placing energy efficiency first** based on new technologies and industrial leadership



Ensure a socially fair transition where regions, cities and consumers play an active role



Cities – Drivers of policy

2020

- **20%** less greenhouse gases
- **20%** renewable Energy
- **20%** Energy savings

2030

- **40%** less greenhouse gases
- **27%** renewable Energy
- **27%** Energy savings

**Energy
Union**

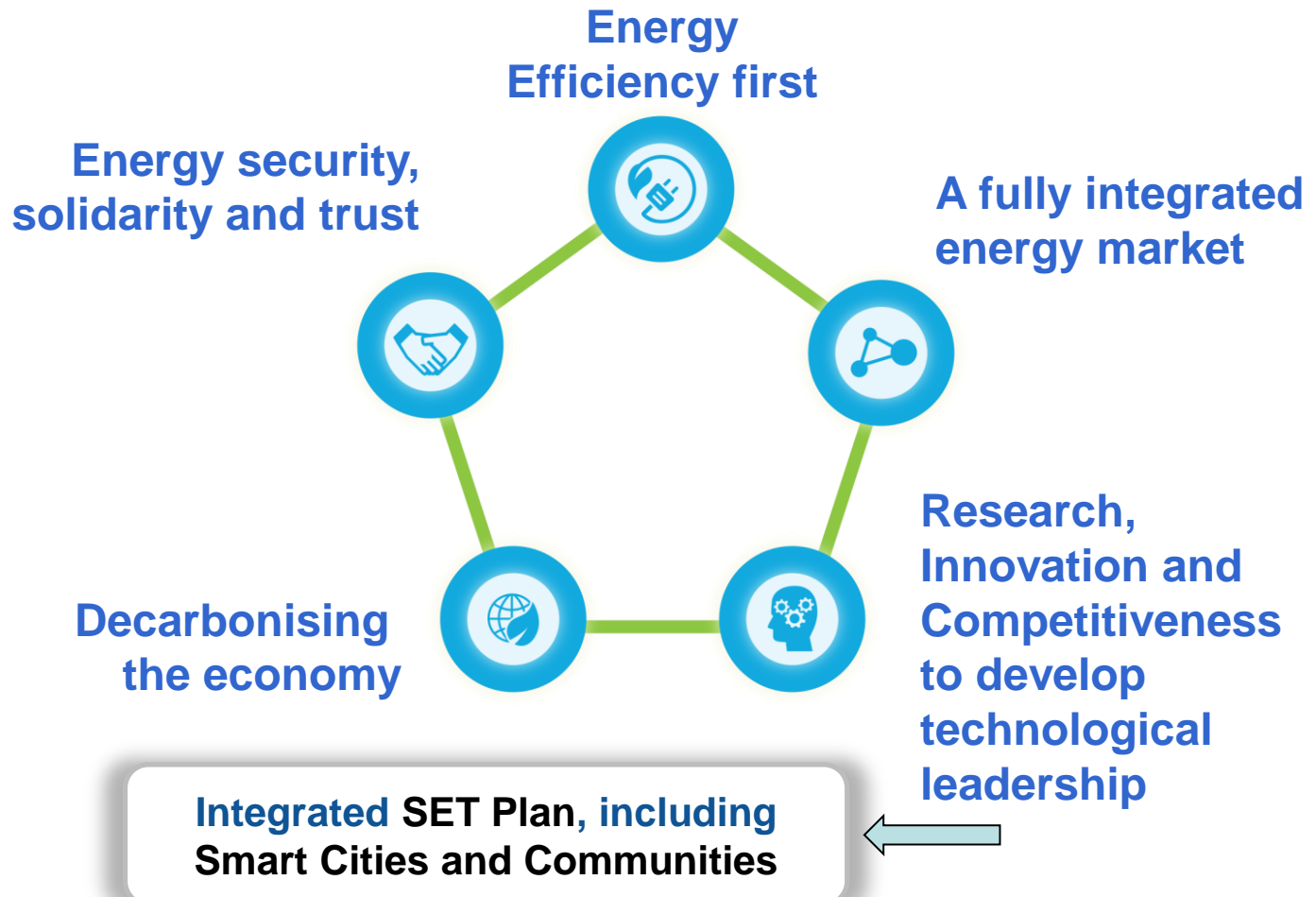


ENERGY UNION STRATEGY

The 5 dimensions



The **Energy Union** aims at *secure, sustainable, competitive, affordable* energy.





Synthesis

Smart Cities EU Context



EU Funding
Initiatives &
Programmes

Technology

**Smart Cities &
Communities**

DG ENER,
DG MOVE & DG CNECT

Financing/Funds

**Elena
Facility**

DG ENER,
EIB & IFI

**Juncker
Plan**

EC

**European Structural &
Investment Funds**

DG REGIO

**Political
Leadership**
(no EU
funding)

**Covenant
Of Mayors**

DG ENER & JRC

**Climate
Adaption**

DG CLIMA

**Sustainable
Growth & Jobs**

**EU
context**

Global Covenant Of Mayors

DG ENER, DG REGIO, FPI, DG DEVCO & EEAS

**International
context**

Stakeholders

- Cities & Regions
- Industry
- Research
- Associations
- etc. ...

EU Initiatives

- CIVITAS
- Green Digital Charter
- CONCERTO

Lighthouse Projects

Implementation &
replication with EU funding

Covenant of Mayors

Political
commitments
without EU funding

SCC-EIP
Market Place
Commitments
Implementation
without EU funding

Smart Cities &
Communities
EU actions

Smart City Information System



The Strategic Energy Technology (SET) Plan

The Strategic Energy Technology (SET) Plan

Adopted in **2008**

Set-up of **European Industrial Initiatives** for technologies

And Coordinates the research actions of EU and Member States

For technologies with market impact up to 2020 and beyond



Integrated SET Plan Communication (2015)

Four core priorities (RES, consumers, energy efficiency, sustainable transport – in line with Energy Union) + CCS and nuclear

10 Actions: for each action a **Declaration of Intent** among countries (EU, EEA and Turkey) and with stakeholders

SET Plan structure

SET Plan Integrated Roadmap (13 themes)

T10: Development of renewables

T8: System flexibility

T1: Engaging consumers
T2: Smart technologies for consumers

T6: Modernising the electricity grid
T7: Energy storage
T8: System flexibility
T9: Smart cities & communities

T3: Energy efficiency in buildings
T4: Energy efficiency in heating & cooling
T5: Energy efficiency in industry & services

T7: Energy storage

T13: Biofuels, fuel cells & hydrogen, alternative fuels

T11: Carbon capture storage/use

T12: Nuclear energy

**ENERGY UNION
R&I &
Competitiveness
priorities**

N°1 in Renewables

**Smart EU Energy
System with
consumers at the
centre**

**Efficient Energy
Systems**

**Sustainable
Transport**

SET Plan (10 key actions)

1. Performant renewable technologies integrated in the system
2. Reduce costs of technologies

3. New technologies & services for consumers

4. Resilience & security of energy system

5. New materials & technologies for buildings
6. Energy Efficiency in Industry

7. Competitive in global battery sector (e-mobility)

8. Renewable fuels

9. CCS/U

10. Nuclear Safety

TEMPORARY WORKING GROUPS

Global leadership in **Photovoltaics**

Global leadership in **solar thermal el.**

Global leadership in **offshore wind.**

Global leadership in **deep geothermal**

Global leadership in **ocean**

Smart solutions for energy consumers

Smart cities and communities

Smart energy systems

New materials and tech. For EE solutions for Buildings

Cross cutting Heating and Cooling technologies for buildings

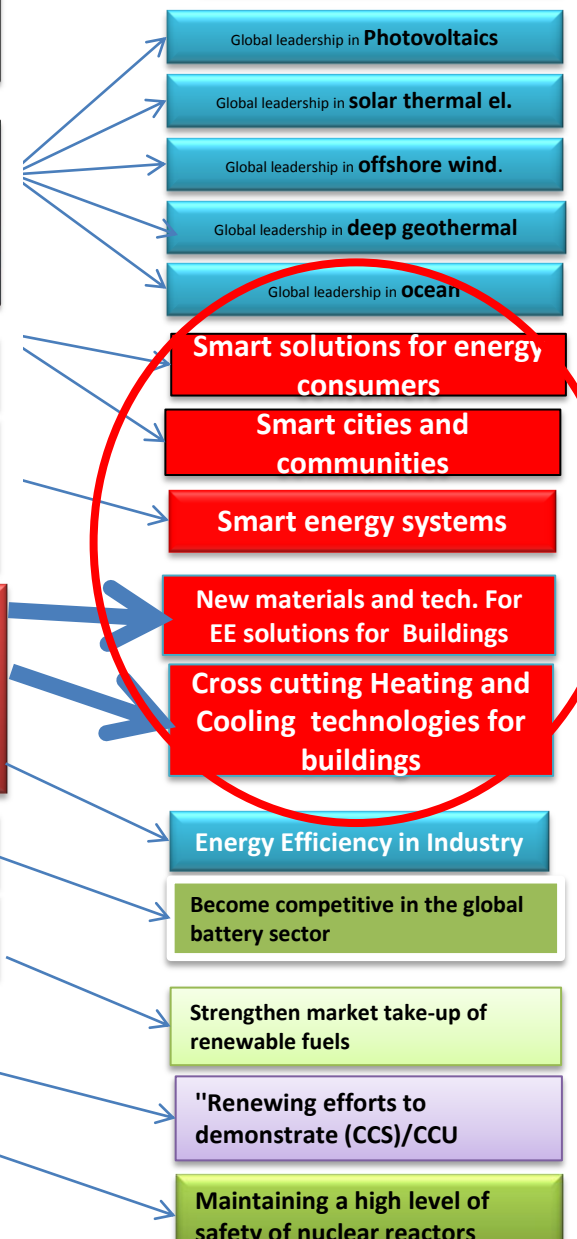
Energy Efficiency in Industry

Become competitive in the global battery sector

Strengthen market take-up of renewable fuels

"Renewing efforts to demonstrate (CCS)/CCU

Maintaining a high level of safety of nuclear reactors



SET plan Working Groups relevant to Smart Cities

Smart solutions for energy consumers

Smart cities and communities

Smart energy systems

**New materials and technologies
for EE solutions for Buildings**

**Cross cutting Heating and Cooling
technologies for buildings**



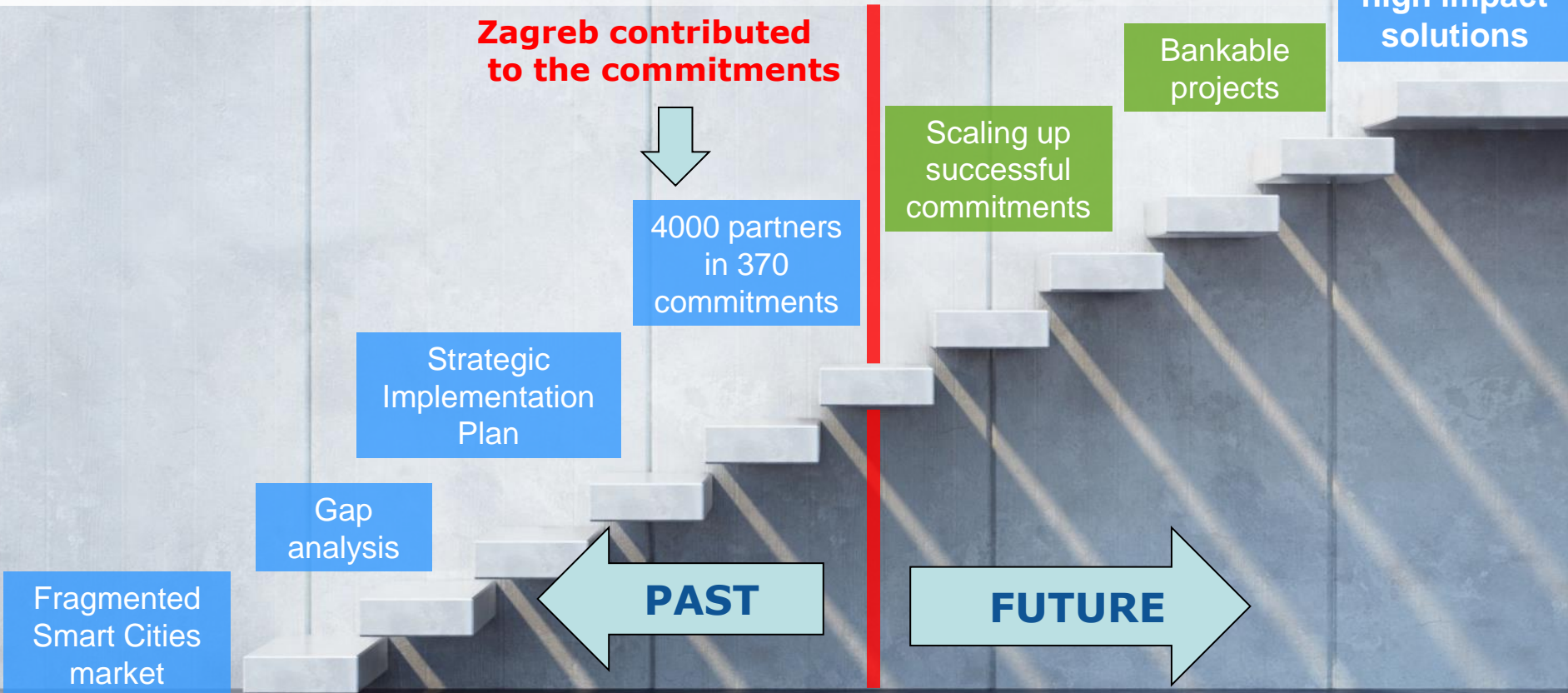
The European Innovation Partnership on Smart Cities & Communities (EIP-SCC)

Smart Cities and Communities (EIP-SCC)

establishes **strategic partnerships** between industry and European cities for the development of the **urban systems of tomorrow**



General roadmap



The Marketplace" of the EIP-SCC

*features physical meetings and a virtual collaboration via the Marketplace webpages. The Marketplace aims to **build a bankable project pipeline** that shall trigger smart city project investments of up to **1Billion Euro by 2020.***

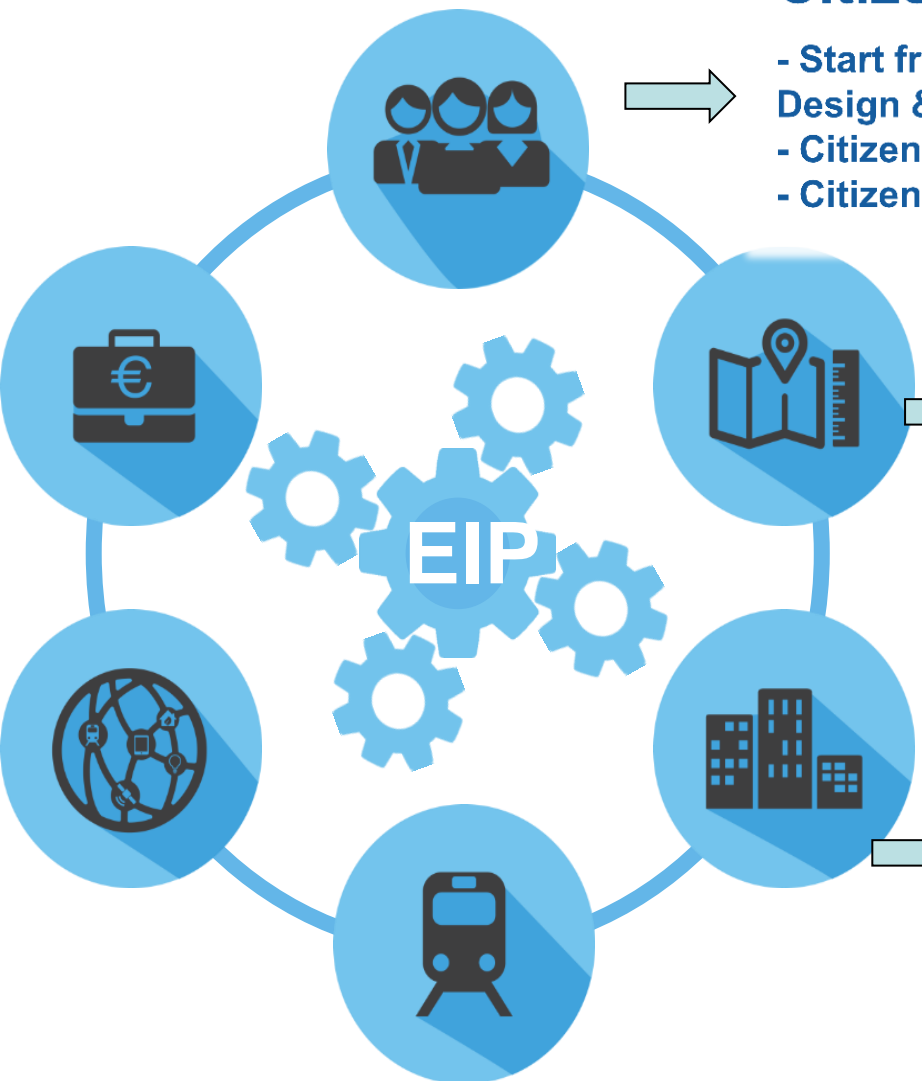


The 6 Action Clusters

5100 partners,
370 commitments,
31 countries.

It is all about scale,
acceleration, impact,
common solutions,
integrated approaches
and collaboration.





Citizen focus

- Start from Existing Habits and Identify the Needs: Co-Design & Co-Creation as Tools
- Citizen-Centric Approach to Data
- Citizen & Stakeholders Communication Platforms

Policy and regulations/ integrated planning

- From Planning to Implementation
- Tools for Decision Making and Benchmarking
- Six Nations Forum
- Governance for Cultural Heritage (coming soon)

Sustainable districts and built environment

- Small giants
- Positive energy blocks



Business models, finance & procurement

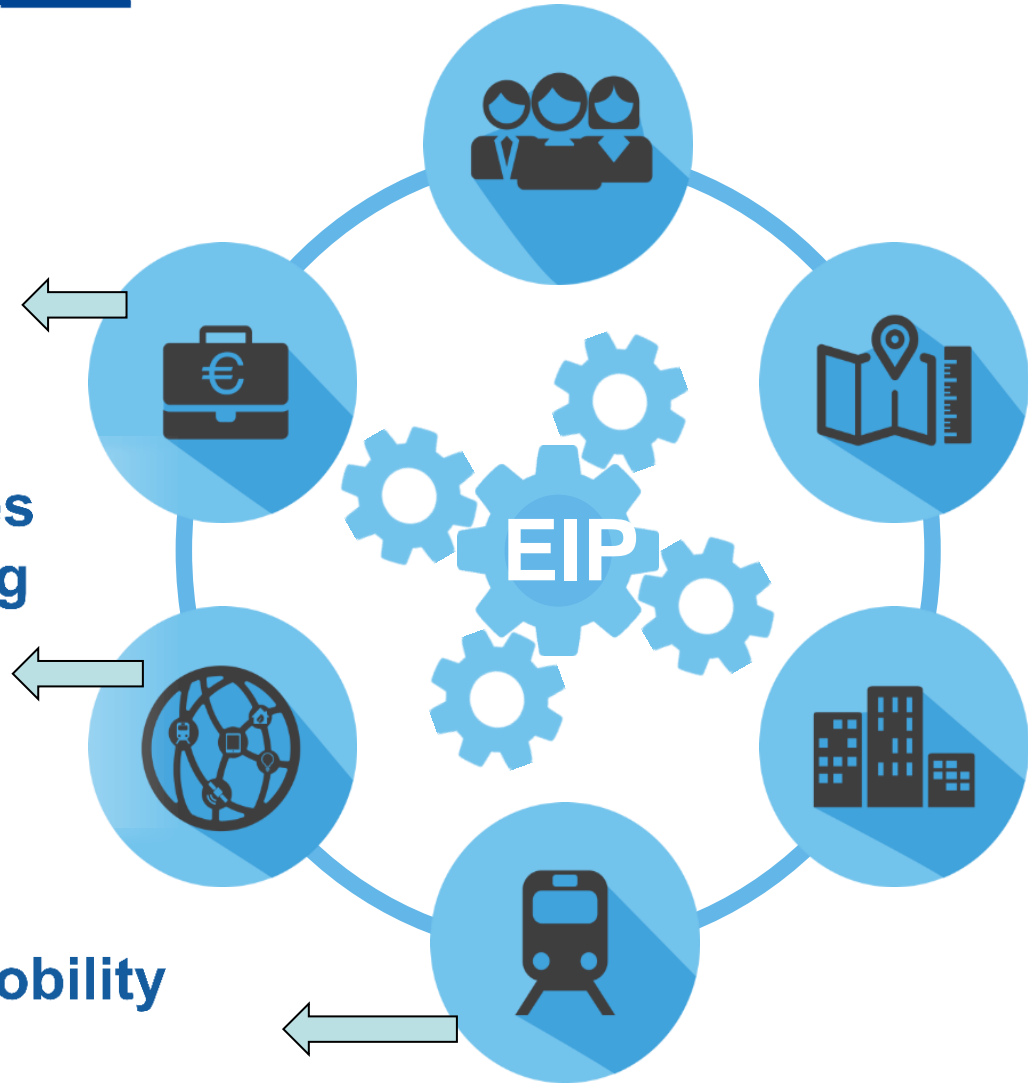
- Innovative business model use cases

Integrated infrastructures and processes (including Open Data)

- Humble lampposts
- Urban platforms

Sustainable urban mobility

- Electromobility
- New mobility services





European
Commission

Outlook 2017

- Further scale-up of the initiatives
- New interactive and collaborative tools for the Market Place's web site
- Next General Assembly end of 2017



in fall 2017 possible re-Launch of the
High Level Group of the EIP-SCC

a mix of very active smart city mayors, CEO, Finance, etc smart city relevant personalities whose members act as EIP-SCC ambassadors and advisors



Why being involved?



- Practical **knowledge** sharing
- **Capacity** building
- **Partnering** for EU or other projects
- Bundling of demand enables **easier access to all funding sources**
- Gaining **visibility** for your city, project, association, company, etc.

How to join?

- 
- Create a public profile at <https://eu-smartcities.eu/user/register>.
 - Join an existing commitment or an initiative.
 - Join an Action Cluster to provide your specific expertise on a certain issue.



European
Commission

€ 5.9
billion
For
ENERGY

€ 80
billion
In total

HORIZON 2020

THE FRAMEWORK PROGRAMME FOR RESEARCH AND INNOVATION



European
Commission

EVOLUTION OF SMART CITIES & Communities CONCEPT

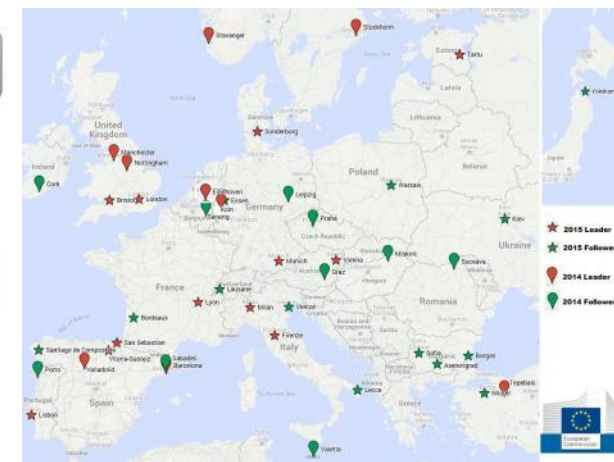
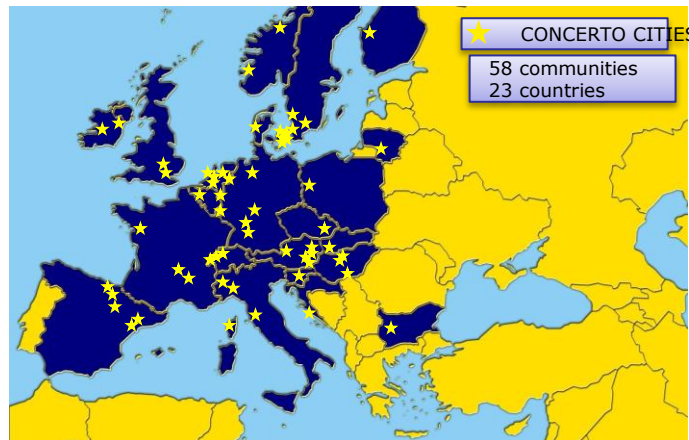
CONCERTO



Smart Cities & EeB PPP



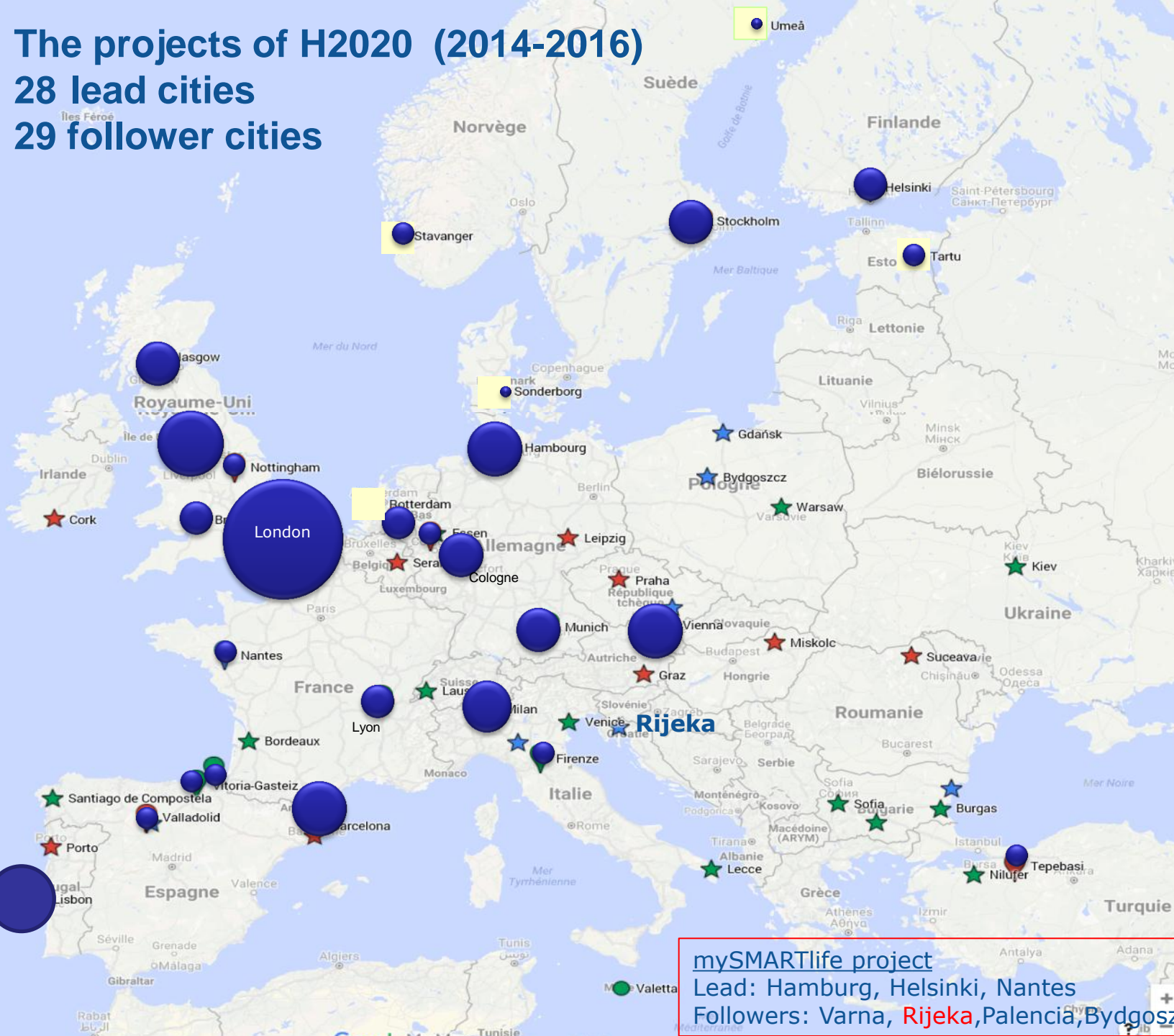
Smart Cities in H2020



	CONCERTO (2005-2009)	EeB PPP (2010-2013)	Smart Cities and Communities (2014 -)
Support	175,5 M€	216 M€	190 M€
Projects/sites	19/58	21/63	9/28
M€/year	35,1 M€/y	54 M€/y	72 M€/y

The projects of H2020 (2014-2016)

28 lead cities
29 follower cities



Villes Phares
2014-16



(Size by population)

Villes suiveuses

- ★ 2016
- ★ 2015
- ★ 2014

mySMARTlife project
Lead: Hamburg, Helsinki, Nantes
Followers: Varna, Rijeka, Palencia, Bydgoszcz

Next relevant events (1/6)

EUSEW2017 – Clean Energy for All Europeans



**SUSTAINABLE
ENERGY WEEK**

An initiative
of the



European
Commission

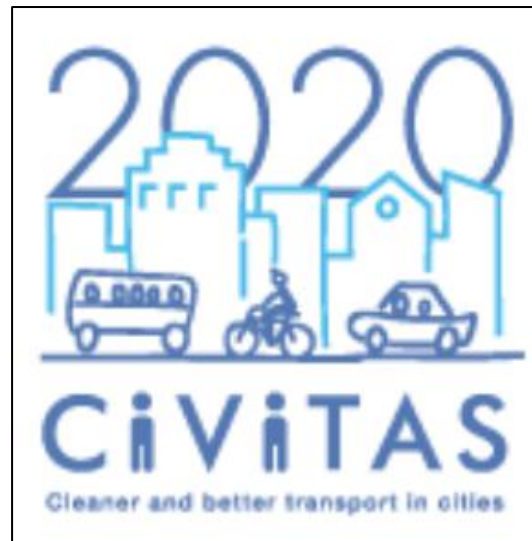
19 June 2017 to 25 June 2017

Brussels, Belgium

<http://www.eusew.eu/>

Next relevant events (2/6)

15th CIVITAS FORUM Conference 2017



27-29 September 2017
Torres Vedras, Portugal

<http://civitas.eu/content/save-date-civitas-forum-conference-2017>

Next relevant events (3/6)

Smart Cities Information system conference



Budapest, Hungary
2&3 October 2017

Next relevant events (4/6)

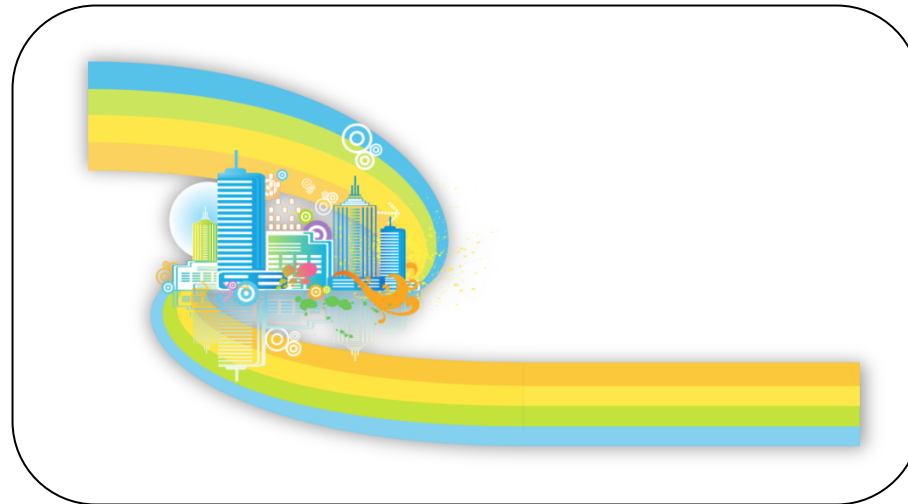
European Week of Regions and Cities



European Week | Brussels
9-12 October 2017

Next relevant events (5/6)

General Assembly of the European Innovation Partnership on Smart Cities and Communities



Tuesday, 12th October, 2017
Brussels, Belgium

Next relevant events (6/6)

10th SET-Plan Conference 2017



30/11/2017 to 01/12/2017

Bratislava, Slovakia



Merci!

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Join us at <http://eu-smartcities.eu!>