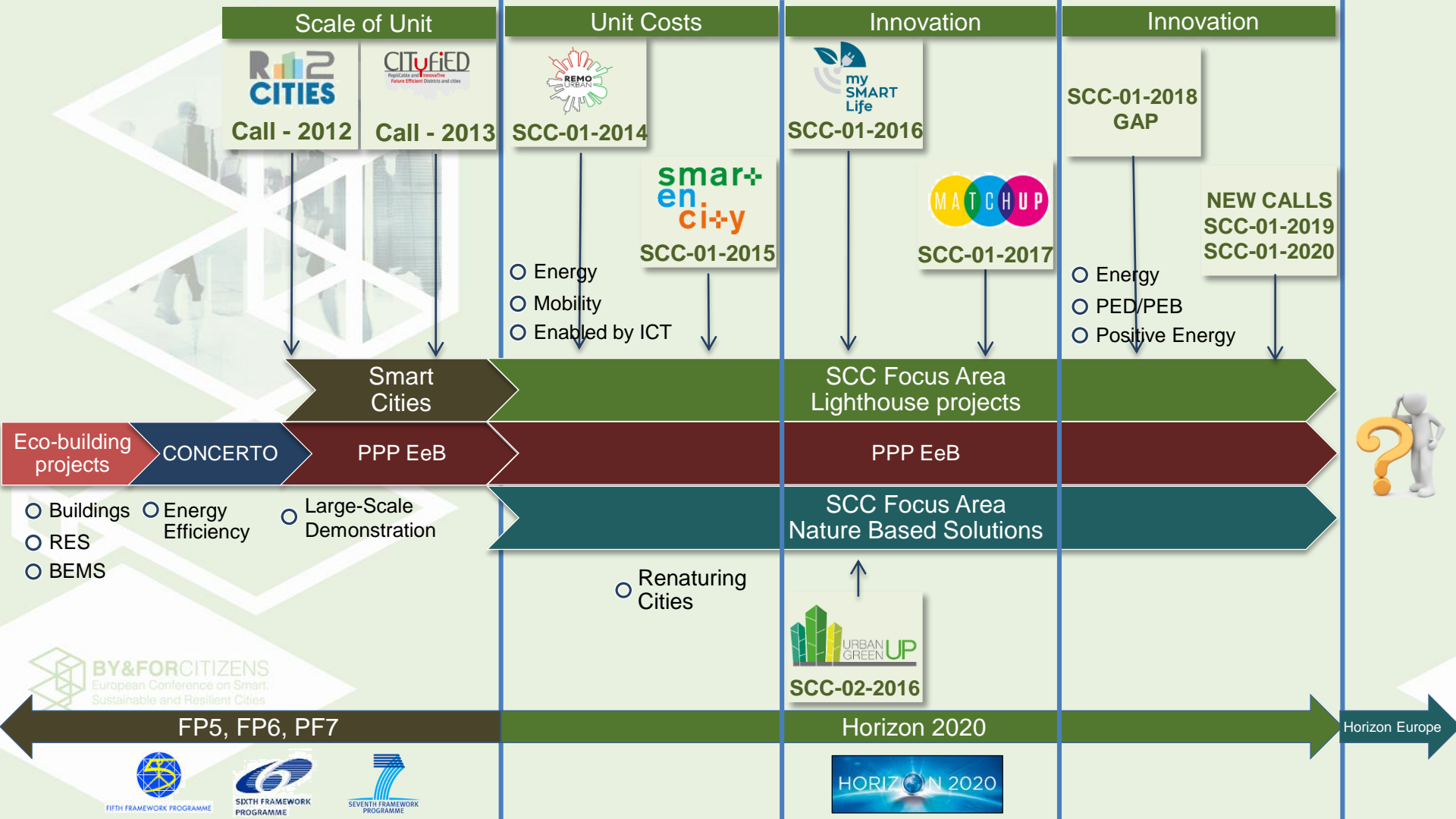




Rubén García Pajares
CARTIF Technology Center

FINANCING EC SMART CITY PROJECTS





FP7 CALLS

EEB.ENERGY.2012.8.8.3 – 2012
ENERGY.2013.8.8.1 – 2013



BY&FORCITIZENS
European Conference on Smart,
Sustainable and Resilient Cities

Scale of Unit Concept

Scale of Unit



R2
CITIES



CITUFiED
ReplCable and iInnovaTive
Future Efficient Districts and cities



ZenN
Nearly Zero energy Neighborhoods



READY



Sinfonia



EUGUGLE



CITYzen
New urban energy

Call - 2011

Call - 2012

- Flat rate cost to finance Building-related interventions
 - Façade
 - Efficient Windows
 - Energy systems (RES-based)
 - Domotics
 - Controls
- Energy Systems at District-level
- District Heating and or/cooling
- Large-demonstration actions
- 50 €/m₂ of conditioned area [minimum cost of 100 €/m₂]



LIGHTHOUSE PROJECTS H2020 FIRST GENERATION

SCC-01-2014

SCC-01-2015



Unit Costs (for Building interventions)

Unit Costs



smar+
en
ci+y



triangulum
DEMONSTRATE DISSEMINATE REPLICATE

SHARINGCITIES

GrowSmarter
Transforming cities for a smart sustainable Europe



SCC-01-2014

SCC-01-2015

- Energy-savings related financing
- Subject to go above current practices (national standards):
 - Façade
 - Efficient Windows
 - Energy systems (RES-based)
 - Domotics & Controls
- Energy Systems at District-level
- District Heating and or/cooling
- Large-demonstration actions
- Mobility and ICTs are financed according to innovation



LIGHTHOUSE PROJECTS H2020 SECOND GENERATION

SCC-01-2016

SCC-01-2017



New Business models required

Only Innovative aspects



SCC-01-2016

SCC-01-2017

- EC financing was decreased
- Interventions in Buildings are NOT financed by the EC:
 - Façade insulation / new construction
 - Efficient Windows
 - Energy systems (RES-based)
- Energy Systems at District-level
- Storage Solutions
- District Heating and or/cooling
- Large-demonstration actions
- Financing only innovation

Examples of complementary BM

Only Innovative aspects



SCC-01-2016

SCC-01-2017

- Crowd-funding
- RES as a service
- Digital boilers (innovative waste heat technology)
- Community car-sharing
- Roofs Rent
- Compensation of Reactive power with Solar PV plants
- Ecosystem of innovation through UP datasets (hackathons)
- EPCs
- ESIF
- 50/50 programme
- Citizens as Prosumers (aggregation of demand, rental PV...)



NATURE BASED SOLUTIONS

SCC-02-2016

SCC-02-2017



Nature-Based Solutions

NBS



SCC-02-2016



#ediCitNet

SCC-02-2017

- Financing re-naturing cities
- 2016: **climate and water resilience**
- 2017: **inclusive urban regeneration**
- Innovative NBS financed in the projects
 - Vertical gardens, green noise barriers
 - Green roofs, green shelters and green façades
 - Green areas (urban trees, shading, parks)
 - Urban farms
 - Green paths, green pavements
 - Floodable parks
 - Composting, greenhouses, bio-filters, pollinators...



**LIGHTHOUSE PROJECTS
H2020 THIRD GENERATION
NOW: SCC-01-2018
FUTURE: SCC-01-2019/2020**



BM for active management of +Energy

Only Innovative aspects

SCC-01-2018

POSITIVE ENERGY
BLOCKS/DISTRICTS

- Ensure a PED: District level
- RES-based production
- Decentralised generation
- Storage systems
- Management of energy
- Energy as a Service
- Demand management as a key success factor

SCC-01-2019 & SCC-01-2020

Sustainable and Resilient Cities



OTHER ALTERNATIVES



BY&FORCITIZENS
European Conference on Smart,
Sustainable and Resilient Cities

European Structural and Investment funds

- ERDF
- Cohesion funds
- ESIF
- EAFRD
- EMFF

European Funding Programmes

- LIFE
- Community-led local development
- URBACT III
- CIVITAS activity fund
- Territorial Cooperation

Project Development Assistance

- ELENA EIB
- ELENA CEB
- ELENA EBRD
- ELENA KfW

EU Financial Instruments

- EEEF
- PF4EE
- EFSI

Alternative Financial Schemes

EPC (TPI)

Soft Loans, guarantees


Crowd-funding

On bill-financing

Revolving loan

Green Bonds

More details here: <https://www.eumayors.eu/support/funding.html>



Rubén García Pajares [[@RbnGarciaP](#)] [rubgar@cartif.es]
Head of Smart City Area. Energy Division
Fundación CARTIF [[@CARTIFCT](#)]

THANK YOU FOR YOUR ATTENTION!