



Smart Cities and Communities Lighthouse Projects

Synergies with the EIP-SCC

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SCC1 lighthouse projects' cluster

EUROPEAN INNOVATION PARTNERSHIP ON SMART CITIES AND COMMUNITIES



CITYkeys (SCC2)
Smart City Indicators



ESPRESSO (SCC3)
Smart City Standards

SCC1-2014



triangulum
DEMONSTRATE DISSEMINATE REPLICATE



SCC1-2015



SCC1-2016



SMART CITIES INFORMATION SYSTEM (SCIS)



EU Smart Cities
Information
System



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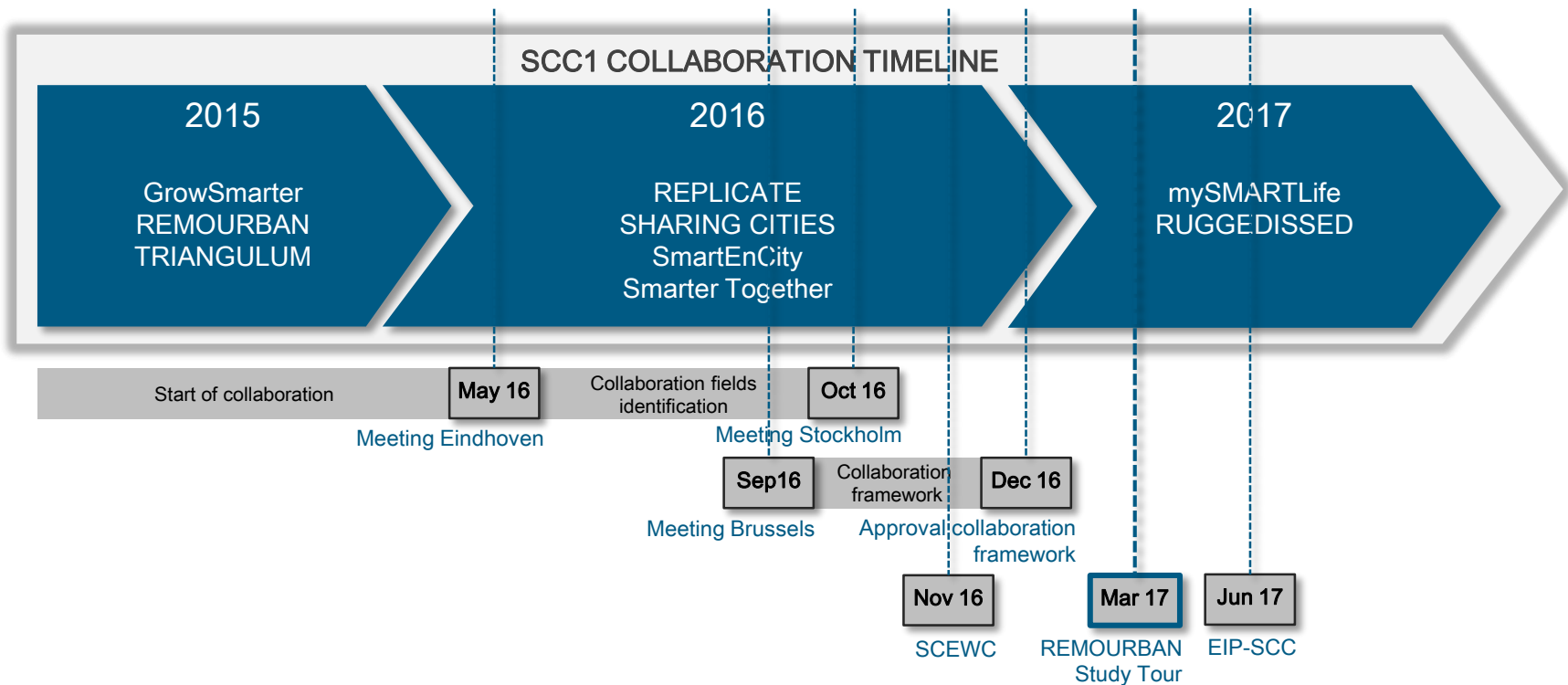
Lighthouse Projects Cooperation

57 cities paving the way towards a Smarter and more Sustainable Europe



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Expected outcomes (the five pillars)

- **Smart Cities solutions** are mainstreamed
- **Shared learning** and capacity building
- **Foster scale adoption** (demand aggregation, replication and mass market adoption)
- **Value for money** through:
 - Delivering greater internal efficiency
 - Demonstrate that smart approaches deliver real external return of investment and drive market value
- **Policy insights** to support future regulatory change



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Lighthouse Projects Cooperation Manifesto

- Approved by all SCC1 coordinators and EC
- Signed by all SCC1 coordinators in Nottingham
(March, 23 2017)
- Establishes the basis for the cooperation

THE LIGHTHOUSE PROJECTS COOPERATION MANIFESTO

Shaping the market of Smart Cities in Europe through the cooperation of European lighthouse projects

towards ensuring their replication potential in other cities.

These 9 projects represent a total of 27 lighthouse cities and 10 follower cities, working to demonstrate these processes, technologies and business models to transform their ecosystems into smarter and more sustainable places.

REMOURBAN

- TR - Taipei/Essex
- ES - Valladolid
- UK - Nottingham
- BE - Sarsing
- HU - Miskolc

TRIANGULUM

- NO - Stavanger
- NL - Eindhoven
- UK - Manchester
- ES - Sabadell
- DE - Leipzig
- CZ - Prague

GROWSMARTER

- DE - Köln
- ES - Barcelona
- SE - Stockholm
- RO - Cluj-Napoca
- IE - Cork
- MT - Valletta
- PT - Porto
- AT - Graz

SMARTER TOGETHER

- DE - München
- FR - Lyon
- AT - Wien
- ES - Santiago
- IT - Venezia
- BG - Sofia
- UA - Kiev
- JP - Yokohama

SHARING CITIES

- UK - London
- IT - Milano
- PT - Lisboa
- BG - Burgas
- FR - Bordeaux
- PL - Warszawa

REPLICATE

- ES - Donostia
- ES - San Sebastián
- IT - Firenze
- UK - Bristol
- DE - Essen
- TR - Nispetari

SMARTENCITY

- DK - Sønderborg
- ES - Vilnius/Vaivara
- EE - Tartu
- ES - Valencia
- BG - Asenovgrad
- IT - Lecce

mySMARTLife

- FR - Nantes
- FI - Helsinki
- DK - Hamburg
- ES - Valencia
- PL - Rzeszów
- BG - Varna
- HU - Budapest

RUGGEDISED

- SE - Umeå
- UK - Glasgow
- NL - Rotterdam
- IT - Parma
- CZ - Brno
- PL - Gdansk

and sign this Lighthouse Projects Cooperation Manifesto in the Lighthouse City of Nottingham, on March 23rd of 2017

In representation of the signature hosting city

Nottingham City Council
www.nottinghamcity.gov.uk

NOTTINGHAM TRENT UNIVERSITY
www.ntu.ac.uk

In representation of the lighthouse projects

triangulum
http://triangulum-project.eu

GrowSmarter
www.grow-smarter.eu

smart+en+city
http://smartencity.eu

SHARINGCITIES
http://www.sharingcities.eu

REPLICATE
http://replicate-project.eu

SMARTER TOGETHER
http://smarter-together.eu

mySMARTLife
www.mysmartlife.eu

RUGGEDISED
www.ruggedised.eu

REMOURBAN
www.remourban.eu

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Provide joint ideas and evidence to support knowledgebase of the Smart Cities Information System (SCIS)



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Some outcomes so far

- Smart City solutions mainstreamed:
 - Development of map of measures
 - Development of a multi-touch screen software to show this information
- Workshops/meetings for knowledge transfer on:
 - E-mobility implementation
 - Financial schemes and business models for districts retrofitting
- Joint participation in events



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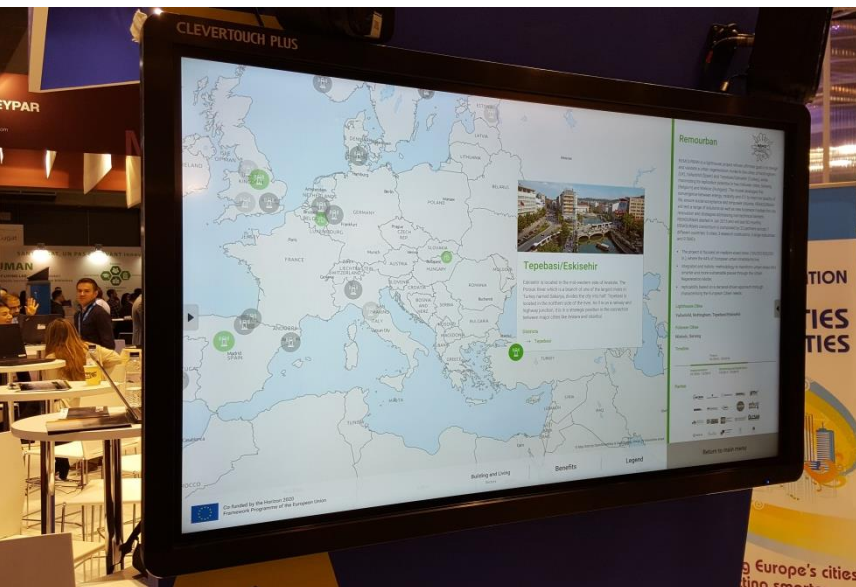
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Showcasing the SCC1 measures in joint dissemination activities



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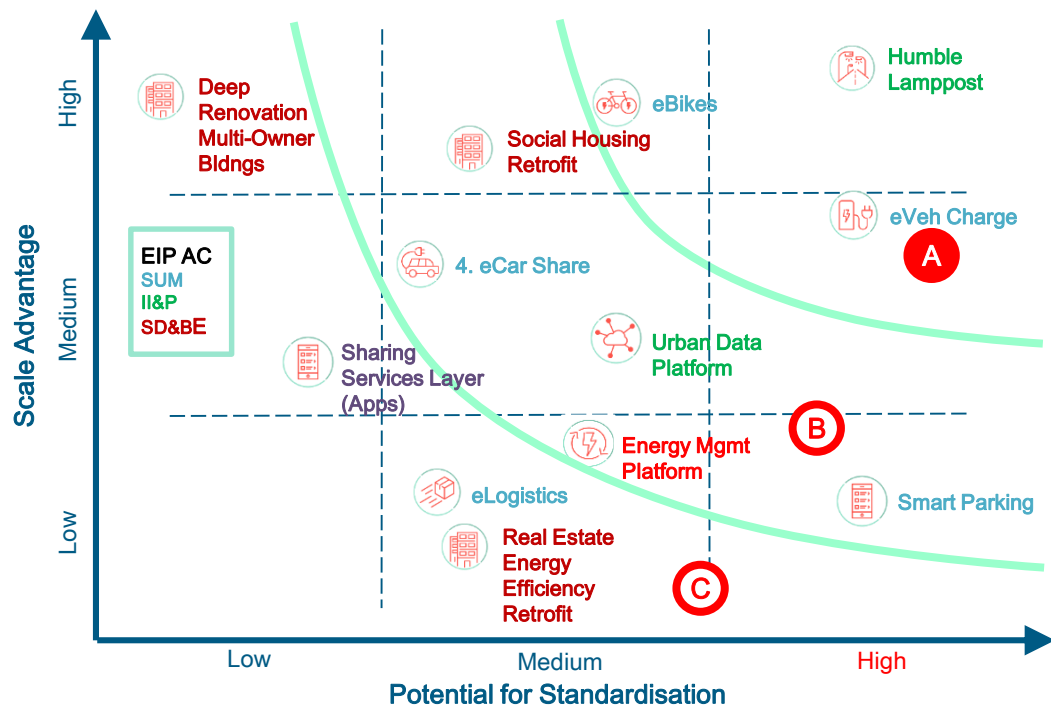


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Potential for replication and scaling



Source: Sharing Cities



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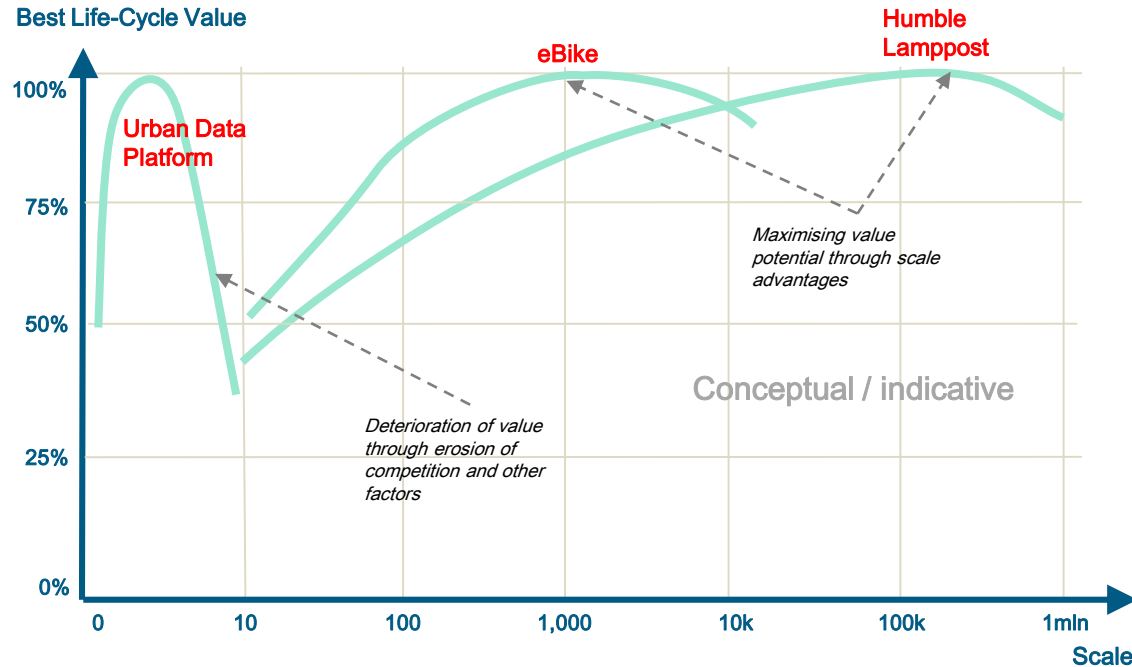


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Economies of scale for different solutions



Source: Sharing Cities



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Mapping of actions

eV and Charging points coarse analysis

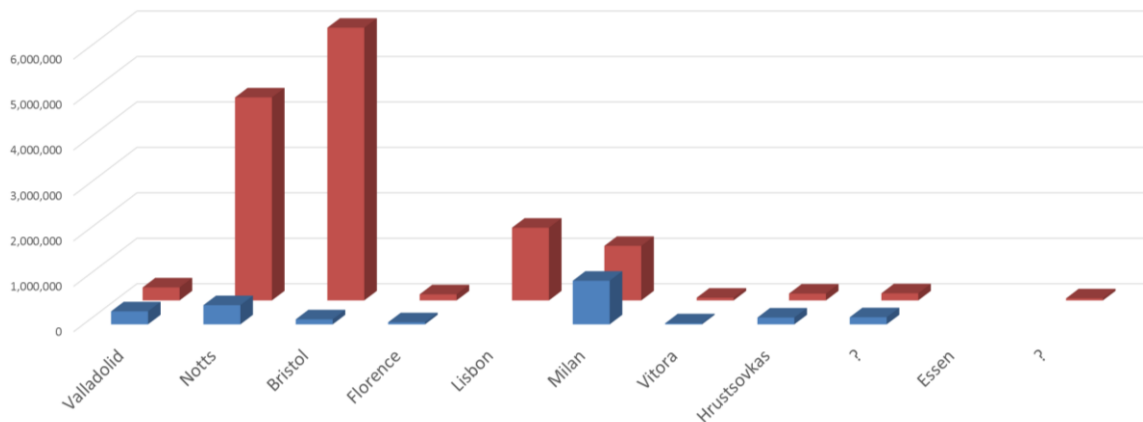
Using EC funds to stimulate scale



€ 2.1 m EU funds – ‘stimulus’

€ 14 m Total Direct – city-specific additional investment

€ 40 m identified trigger funds



Source: *Sharing Cities*



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Mapping of actions

Energy actions

Buildings			
EU funding (€)	42 M€	Energy savings (MWh/year)	316,967
Total direct investment (€)	308 M€	CO2 emissions reduction (tCO2/year)	122,279
Leverage factor (before replication)	7.17	Total number of citizens impacted	1.15 M
Total direct investment after replication in the city (€)	2,582 M€		
Leverage factor (after replication)	60.11		

Source: INEA



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SCC1 lighthouse projects' impacts

Impacts of the lighthouse projects

Total expected impacts			
EU funding (€)	109.76 M€	Total direct investment after replication in the cities	3,756.08 M€
Total direct investment (€)	1,201.21 M€	Leverage factor after replication	34.22
Leverage factor (before replication)	10.94	Energy savings (MWh/year)	593,369
Invested €/MWh/year saved	2,024 €	CO2 emissions reduction (tCO2/year)	230,445
EU funding/citizen	22.52	Total number of citizens impacted	4.87 M
Global emission factor (tCO2/MWh)	0.39		

Source: INEA



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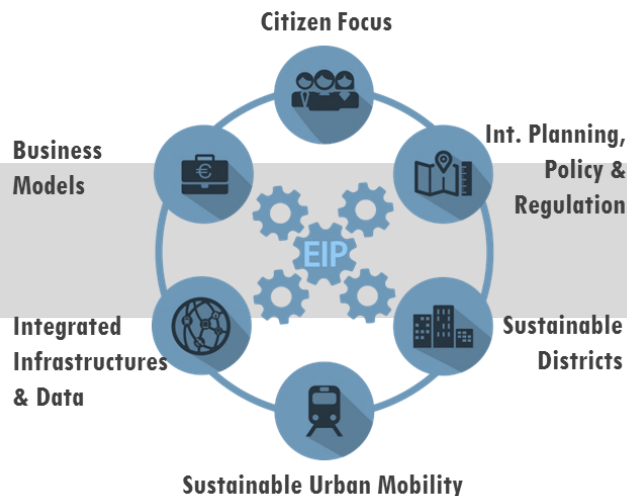


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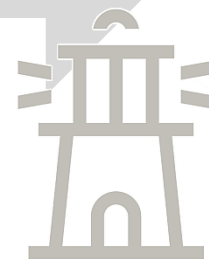
Lighthouse cities

Demonstration of common solutions for shared challenges (technical, social, financial)



Follower cities

Ground for replication, represent the city needs/demand



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Thank you for your attention!

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