



Funded Projects under Horizon 2020

Secure, clean and efficient energy

Smart Cities and Communities Calls 2015

Source: European Union Open Data Portal

<https://open-data.europa.eu/en/data/dataset/cordis-h2020projects-under-horizon-2020-2014-2020>

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This document gives information on calls and funded projects of the EU Framework Programme for Research and Innovation Horizon 2020 for the Societal Challenge – Secure, clean and efficient energy for the year 2015.

The data used in this document was extracted from the tables available at the website of the European Union Open Data Portal. More data is available in those tables.



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Topic SCC-01 – Projects

Topic: SCC-01-2015	Acronym: REPLICATE
Call: H2020-SCC-2015	Type of Action: IA
Title: REnaissance of Places with Innovative Citizenship and TEchnolgy	
Starting date: 01.02.2016	End date: 31.01.2021
Total Cost: 29,250,563.53 €	EU max. contribution: 24,965,263.09 €
Coordinator: AYUNTAMIENTO DE DONOSTIA SAN SEBASTIAN	
Participants: <ul style="list-style-type: none"> ▪ SISTELEC SOLUCIONES DE TELECOMUNICACION, S.L. ▪ CO-WHEELS CAR CLUB COMMUNITY INTEREST COMPANY ▪ ESOTERIX SYSTEM LTD ▪ KNOWLE WEST MEDIA CENTRE LBG - KWMC ▪ BRISTOLISOPEN LIMITED ▪ TECHNOMAR GMBH ▪ ZABALA INNOVATION CONSULTING, S.A. ▪ UNIVERSITA DEGLI STUDI DI FIRENZE ▪ SPES CONSULTING ▪ ENEL DISTRIBUZIONE S.P.A. ▪ CONSIGLIO NAZIONALE DELLE RICERCHE ▪ EUSKALTEL SA ▪ LEYCOLAN S.A.L. ▪ ENDESA ENERGIA S.A. ▪ BURSA NILUFER BELEDIYESI HESAP ISLERI MUDURLUGU ▪ STADT ESSEN ▪ FOMENTO DE SAN SEBASTIAN SA ▪ FUNDACION ESADE ▪ University of the West of England ▪ NEC EUROPE LTD ▪ ROUTE MONKEY LTD ▪ TOSHIBA RESEARCH EUROPE LIMITED ▪ ZEETTA NETWORKS LIMITED ▪ THE CHANCELLOR, MASTERS AND SCHOLARS OF THE UNIVERSITY OF OXFORD ▪ UNIVERSITY OF BRISTOL ▪ Thales Italia spa ▪ TELECOM ITALIA SPA ▪ MATHEMA SRL ▪ COMPANIA DEL TRANVIA DE SAN SEBASTIAN SA - CTSS ▪ FUNDACION TECNALIA RESEARCH & INNOVATION ▪ EUROHELP CONSULTING SL ▪ ANGEL IGLESIAS S.A. - IKUSI ▪ ADMINISTRATION COMMUNALE DE LA VILLE DE LAUSANNE ▪ BRISTOL CITY COUNCIL ▪ COMUNE DI FIRENZE 	
Countries: ES;IT;DE;UK;TR;CH	

Objectives:

The objective of REPLICATE is to demonstrate Smart City technologies in energy, transport and ICT in districts in San Sebastia, Florence and Bristol addressing urban complexity and generate replication plans in other districts and in follower cities of Essen, Nilufer and Lausanne.

Main challenges for cities are to increase the overall energy efficiency, to exploit better local resources in terms of energy supply and demand side measures. For successful implementation of Smart City technologies two main elements are considered:

- Cities are the customer: considering local specificities in integrated urban plans and the need to develop monitoring systems to extract conclusions for replication.
- Solutions must be replicable, interoperable and scalable.

REPLICATE considers also the complexity of cities, the tangible benefits for citizens, the financial mechanisms and the new business models. The 3 pillars implemented in the pilots with the engagement of citizens, private actors and authorities are:

- Low energy districts: cost-effective retrofitting, new constructive techniques with optimal energy behaviour and high enthalpy RES in residential buildings. Include also efficient measures in public and residential buildings: ICT tools, PV, shading or natural ventilation; district heating is demonstrated hybridising local biomass, recovered heat and natural gas.
- Integrated Infrastructure: deployment of ICT architecture, from internet of things to applications, to integrate the solutions in different areas. Smart Grids on electricity distribution network to address the new challenges, connecting all users: consumers, producers, aggregators and municipality. Intelligent lighting will allow automated regulation of the amount of light and integration of IP services via PLC.
- Urban mobility: sustainable and smart urban bus service, electric urban bike transport, 3-wheeler delivery and transport services, deployment of EV charging infrastructures and ICT tools.

Topic: SCC-01-2015	Acronym: SHAR-LLM
Call: H2020-SCC-2015	Type of Action: IA
Title: Sharing Cities	
Starting date: 01.01.2016	End date: 31.12.2020
Total Cost: 28,045,835.09 €	EU max. contribution: 24,753,944.98 €
Coordinator: GREATER LONDON AUTHORITY	
Participants:	
<ul style="list-style-type: none"> ▪ IMPERIAL COLLEGE OF SCIENCE TECHNOLOGY AND MEDICINE ▪ EUROCITIES ASBL ▪ Miasto Stołeczne Warszawa ▪ OBSHTINA BURGAS ▪ SIEMENS SPA ▪ TEICOS UE SRL ▪ RICERCA SUL SISTEMA ENERGETICO - RSE SPA ▪ LEGAMBIENTE ASSOCIAZIONE ONLUS ▪ CEFRIEL - SOCIETA CONSORTILE A RESPONSABILITA LIMITATA ▪ POLITECNICO DI MILANO ▪ PT INOVACAO E SISTEMAS SA ▪ EDP DISTRIBUICAO ENERGIA SA ▪ INSTITUTO SUPERIOR TECNICO ▪ EMEL - EMPRESA PUBLICA MUNICIPAL DE ESTACIONAMENTO DE LISBOA, E.E.M. ▪ CAMARA MUNICIPAL DE LISBOA ▪ KIWI POWER LTD ▪ ROYAL BOROUGH OF GREENWICH 	<ul style="list-style-type: none"> ▪ SIEMENS PUBLIC LIMITED COMPANY ▪ URBAN DNA SOLUTIONS LLP ▪ FUTURE CITIES CATAPULT LIMITED ▪ INSTYTUT ENERGETYKI ▪ VILLE DE BORDEAUX ▪ A2A SPA ▪ NHP srl ▪ KIUNSYS SRL ▪ POLIEDRA-CENTRO DI SERVIZIO E CONSULENZA DEL POLITECNICO DI MILANO SUPIANIFICAZIONE AMBIENTALE E TERRITORIALE CONSORZIO ▪ COMUNE DI MILANO ▪ CEIIA - CENTRO PARA A EXCELENCIA E INOVACAO NA INDUSTRIA AUTOMOVEL ▪ Reabilita, Lda ▪ LISBOA E-NOVA AGENCIA MUNICIPAL DE ENERGIA E AMBIENTE DE LISBOA ▪ TRANSPORT FOR LONDON*TFL ▪ DANFOSS A/S ▪ MASTODON C LTD ▪ CONCIRRUS LTD
Countries: BE;IT;UK;PT;DK;PL;BG;FR	

Objectives:

Sharing Cities has four key objectives.

- 1) To achieve scale in the European smart cities market by proving that properly designed smart city solutions, based around common needs, can be integrated in complex urban environments. This will be done in a way that exhibits their true potential and allows for the significant scale-up and consequent increase in social, economic and environmental value.
- 2) Adopt a digital first approach which proves the extent to which ICT integration can improve and connect up existing infrastructure, as well as the design and running of new city infrastructure. This will also allow for the creation of a new set of next stage digital services which will help citizens make better and beneficial choices around energy efficiency and mobility, which when scaled up will enhance the city's ability to hit key targets for mobility, housing, energy efficiency and resilience, and economic development.
- 3) Accelerate the market to understand, develop and trial business, investment and governance models, essential for the true aggregation and replication (through collaboration) of smart city solutions in cities of different sizes and maturities. In doing this, we intend to accelerate the pace by which we make transformative improvements, and enhance sustainability in communities.
- 4) Share and collaborate for society: to respond to increasing demand for participation; to enhance mechanisms for citizens' engagement; to improve local governments capacity for policy making and service delivery through collaboration and co-design; resulting in outcomes that are better for citizens, businesses and visitors. These will be delivered by a range of expert partners across 8 work packages.

Topic: SCC-01-2015	Acronym: SmartEnCity
Call: H2020-SCC-2015	Type of Action: IA
Title: Towards Smart Zero CO2 Cities across Europe	
Starting date: 01.02.2016	End date: 31.07.2021
Total Cost: 32,201,606.03 €	EU max. contribution: 27,890,138.75 €
Coordinator: FUNDACION TECNALIA RESEARCH & INNOVATION	
Participants:	
<ul style="list-style-type: none"> ▪ SOFIA ENERGY CENTRE LTD ▪ D'APPOLONIA SPA ▪ AS EESTI TELEKOM ▪ AS FORTUM TARTU ▪ Institute of Baltic Studies ▪ MITTETULUNDUSUHING TARTU ▪ REGIOONI ENERGIAAGENTUUR ▪ TARTU LINNAVALITSUS ▪ PLANENERGI FOND ▪ BOLIGFORENINGEN B42 ▪ BOLIGFORENINGEN SOEBO ▪ PROJECT ZERO A/S ▪ ESTUDIOS GIS S.L. ▪ GIROA SOCIEDAD ANONIMA ▪ ACCIONA INFRAESTRUCTURAS S.A. ▪ AGRUPACION CLUSTER DE ELECTRODOMESTICOS DE EUSKADI AIE ▪ CENTRO DE ESTUDIOS AMBIENTALES ▪ Vivienda y Suelo de Euskadi, S.A. 	<ul style="list-style-type: none"> ▪ STEINBEIS INNOVATION GGMBH ▪ OBSHTINI ASENOVGRAD ▪ CITTA DI LECCE*COMUNE DI LECCE ▪ Cityntel OU ▪ TAKSO OÜ ▪ TARTU ULIKOOL ▪ SMART CITY LAB ▪ AALBORG UNIVERSITET ▪ VIKINGEGAARDEN AS ▪ SONDERBORG ▪ ANDELSBOLIGFORENING ▪ SONDERBORG ▪ FORSYNINGSSERVICE AS ▪ FUNDACION CARTIF ▪ MCCTELECOM S COOP ▪ ETIC-EMBEDDED ▪ TECHNOLOGIES INNOVATION CENTER S. COOP. ▪ FAGOR EDERLAN S.COOP. LTDA ▪ MONDRAGON CORPORACION COOPERATIVA SCOOP ▪ Ayuntamiento de Vitoria-Gasteiz
Countries: EE;ES;DK;IT;BG;DE	

Objectives:

SmartEnCity's main Objective is to develop a highly adaptable and replicable systemic approach towards urban transformation into sustainable, smart and resource-efficient urban environments in Europe through the integrated planning and implementation of measures aimed at improving energy efficiency in main consuming sectors in cities, while increasing their supply of renewable energy, and demonstrate its benefits.

The underlying concept of the proposal is the Smart Zero Carbon City concept, where city carbon footprint and energy demand are kept to a minimum through the use of demand control technologies that save energy and promote raised awareness; energy supply is entirely renewable and clean; and local energy resources are intelligently managed by aware citizens, as well as coordinated public and private stakeholders.

This approach will be firstly defined in detail, laid out and implemented in the three Lighthouse demonstrators (Vitoria-Gasteiz in Spain, Tartu in Estonia and Sonderborg in Denmark). The three cities will develop a number of coordinated actions aimed at:

- Significant demand reduction of the existing residential building stock through cost-effective low energy retrofitting actions at district scale.
- Increase in RES share of energy supply, through extensive leveraging of local potentials.
- Enhance the use of clean energy in urban mobility, both for citizens and goods, by means of extensive deployment of green vehicles and infrastructure.

An extensive use of ICTs is planned to achieve integration and consistency in demo planning and implementation, and to enable further benefits and secure involvement of citizens.

These actions will be aligned to city-specific Integrated Urban Plans (IUPs), and the process will be replicated in two Follower cities: Lecce, (Italy), and Asenovgrad (Bulgaria) to ensure adaptability and maximize the project impact.

Additionally, a Smart Cities Network will be setup to support project replication at European scale.

Topic: SCC-01-2015	Acronym: SMARTER TOGETHER
Call: H2020-SCC-2015	Type of Action: IA
Title: Smart and Inclusive Solutions for a Better Life in Urban Districts	
Starting date: 01.02.2016	End date: 31.01.2021
Total Cost: 29,119,448.36 €	EU max. contribution: 24,742,978.64 €
Coordinator: LYON CONFLUENCE	
Participants:	
<ul style="list-style-type: none"> ▪ CONCELLO DE SANTIAGO DE COMPOSTELA ▪ DIN DEUTSCHES INSTITUT FUER NORMUNG E.V. ▪ UNIVERSITAT ST GALLEN ▪ ENERGY CITIES/ENERGIE-CITES ASSOCIATION ▪ FRAUNHOFER GESELLSCHAFT ZUR FOERDERUNG DER ANGEWANDTEN FORSCHUNG E.V. ▪ OSTERREICHISCHE POST AG ▪ BWS GEMEINNUTZIGE ALLGEMEINE BAU-,WOHN UND SIEDLUNGSGENOSSENSCHAFT, REGISTRIERTE GENOSSENSCHAFT MIT BESCHRANKTER HAFTUNG ▪ MAGISTRAT DER STADT WIEN ▪ SPECTRUM MOBIL GMBH ▪ Wolfram Scholl ▪ LANDESHAUPTSTADT MUENCHEN ▪ TOSHIBA SYSTEMES FRANCE SAS ▪ METROPOLE DE LYON 	<ul style="list-style-type: none"> ▪ COMUNE DI VENEZIA ▪ MUNICIPALITY OF SOFIA ▪ ALGOE ▪ TECHNISCHE UNIVERSITAET MUENCHEN ▪ GOPA COM ▪ AIT AUSTRIAN INSTITUTE OF TECHNOLOGY GMBH ▪ SYCUBE INFORMATIONSTECHNOLOGIE GMBH ▪ SIEMENS AKTIENGESELLSCHAFT OESTERREICH ▪ KELAG WARME GMBH ▪ WIENER STADTWERKE HOLDING AG ▪ SECURITAS ALERT SERVICES GMBH ▪ SIEMENS AKTIENGESELLSCHAFT ▪ bettervest GmbH ▪ ENERTECH SARL ▪ ELECTRICITE RESEAU DISTRIBUTION FRANCE SA ▪ HESPUL ASSOCIATION
Countries: FR;AT;ES;IT;DE;CH;BE;BG	

Objectives:

SMARTER TOGETHER's overarching vision is to find the right balance between smart technologies and organizational/ governance dimensions in order to deliver smart and inclusive solutions and to improve citizen's quality of life.

SMARTER TOGETHER gather the European Lighthouse cities Lyon, Munich, Vienna, the Follower cities Santiago de Compostela, Sofia, Venice and Kyiv and Yokohama as observer cities bringing the perspective of East Europe and Asia. The cities are complemented by business partners from energy, mobility and ICT sectors, leading European research and academia organizations, european city network. From the various combinations of the different selected Light House areas, multiples opportunities to learn are offering.

SMARTER TOGETHER delivers 5 clusters of co-created, smart and integrated solutions: (1) Living labs for citizen engagement, (2) District heating and RES for low energy districts, (3) Holistic refurbishment for low energy districts addressing public and private housing, (4) Smart Data management platform and smart services (5) E-mobility solutions for sustainable mobility.

Expected results are: 1) >151,800 m2 of refurbished buildings, primarily housing estate with a 50-60 % average energy and CO2 reduction; 2) 14.6 MW of newly installed renewable capacity; 3) 10/15new e-mobility solutions for passengers and freight); 4) 1400 created jobs, 130 M€ investments, all deployed with support of integrated ICT solutions and in dialogue with the inhabitants.

Large-scale replication will be prepared; 1) in the Lighthouse cities; 2) the Follower cities, which already selected their target area; 3) A Club of 15-20 cities, associate to intensify its roll-out, ensuring a broad geographical and climate coverage. Commercial exploitation is enhanced by the development of new business models for widespread use by the stakeholders. Contributions to open data are expected to create business opportunities as well as inputs to standardization work.

Topic SCC-03- Projects

Topic: SCC-03-2015	Acronym: ESPRESSO
Call: H2020-SCC-2015	Type of Action: CSA
Title: Systemic standardisation approach to empower smart cities and communities	
Starting date: 01.01.2016	End date: 31.12.2017
Total Cost: 1,068,186.25 €	EU max. contribution: 1,059,912.50 €
Coordinator: OPEN GEOSPATIAL CONSORTIUM (EUROPE) LIMITED	
Participants: <ul style="list-style-type: none"> ▪ ATOS SPAIN SA ▪ GEMEENTE ROTTERDAM ▪ FRAUNHOFER GESELLSCHAFT ZUR FOERDERUNG DER ANGEWANDTEN FORSCHUNG E.V. ▪ ORDNANCE SURVEY LTD ▪ INTERNATIONALE VERENIGING VAN STEDEBOUWKUNDIGEN ▪ HUB INNOVAZIONE TRENINO S.C.A.R.L. ▪ TRILOGIS SRL ▪ INSTITUT EUROPEEN DES NORMES DE TELECOMMUNICATION ▪ BUILDING RESEARCH ESTABLISHMENT LTD ▪ Institute of Baltic Studies ▪ TECHNISCHE UNIVERSITAET KAISERSLAUTERN ▪ virtualcitySYSTEMS GmbH ▪ LOCALIDATA SL ▪ PRICEWATERHOUSECOOPERS ADVISORY SPA ▪ DIN DEUTSCHES INSTITUT FUER NORMUNG E.V. 	
Countries: DE;NL;IT;UK;ES;EE;FR	
Objectives: <p>systEmic Standardisation apPRoach to Empower Smart citieS and cOmmunities (ESPRESSO) focuses on the development of a conceptual Smart Cities Information Framework, which consists of a Smart City platform (the so-called Smart City enterprise application) and a number of data provision and processing services to integrate data, workflows, and processes in applications relevant for Smart Cities within a common framework. To build this framework, the project will identify relevant open standards, technologies, and information models that are currently in use or in development in the various sectors. It analyzes potential issues caused by gaps and overlaps across standards developed by the various standardization organizations and provides guidelines on how to effectively solve those issues. Particular emphasize will be put on common denominators in order to eventually allow for horizontal interoperability between the various sectors of a smart city. Though horizontal interoperability is out of scope for this project, emphasizing integration reference models as a key common denominator (e.g. in the form of multi-dimensional city models) already defines essential parts of the foundation for future levels of interoperability.</p>	



List of Calls Smart Cities and Communities

CALL: H2020-SCC-2015			
Deadline: 05.05.2015			
Topic	Title	Number of funded projects	Total EU-contribution [€]
SCC-01	Smart Cities and Communities solutions integrating energy, transport, ICT sectors through lighthouse (large scale demonstration - first of the kind) projects	4	102,352,325.46
SCC-03	Development of system standards for smart cities and communities solutions	1	1,059,912.50
Total		5	103,412,237.96



List of Abbreviations

Type of Actions

IA	Innovation Action
RIA	Research and Innovation Action
CSA	Coordination and Support Action

Topics

EE	Efficient Energy
LCE	Low Carbon Energy
SCC	Smart Cities and Communities
FCH	Fuel Cells and Hydrogen

Others

H2020	Horizon 2020
NCP	National Contact Point
PPP	Public Private Partnership
PDA	Project Development Assistance

