

Funded Projects under Horizon 2020

Secure, clean and efficient energy

Smart Cities and Communities

Work Programme 2016-2017

Source: CORDIS – Community Research and Development Information Service (European Commission)
(http://cordis.europa.eu/projects/home_en.html)

Funding and Tender Opportunities Portal (European Commission)
(<https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/projects-results>)

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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 2016 and 2017.

The data used in this document was extracted from the websites *CORDIS - Information Service* and the *Funding and Tender Opportunities Portal*. More data is available on those websites.

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Topic SCC-01 – Projects

Topic: SCC-1-2016-2017	Acronym: IRIS
Call: H2020-SCC-2017	Type of Action: IA
Title: Integrated and Replicable Solutions for Co-Creation in Sustainable Cities	
Starting date: 01.10.2017	End date: 30.09.2022
Total Cost: 20,704,012.76 €	EU max. contribution: 17,996,569.05 €
Coordinator: GEMEENTE UTRECHT	
Participants: <ul style="list-style-type: none"> ▪ STICHTING BO-EX 91 ▪ KONINKLIJKE KPN NV ▪ STEDIN NETBEHEER BV ▪ PARKHUIS LOMBOK ▪ ENECO ZAKELIJK BV ▪ QBUZZ B.V. ▪ UNIVERSITEIT UTRECHT ▪ STICHTING HOGESCHOOL VOOR DE KUNSTEN UTRECHT ▪ METROPOLE NICE COTE D'AZUR ▪ UNIVERSITE DE NICE SOPHIA ANTIPOLIS ▪ ELECTRICITE DE FRANCE ▪ ENEDIS ▪ CENTRE SCIENTIFIQUE ET TECHNIQUE DU BATIMENT ▪ VEOLIA INNOVE ▪ COTE D'AZUR HABITAT ▪ NEXIMMO 96 ▪ VU LOG ▪ GOTEBORGS KOMMUN ▪ JOHANNEBERG SCIENCE PARK ▪ CHALMERS TEKNISKA HOEGSKOLA AB ▪ METRY AB ▪ HSB GOTEBORG EK FOR ▪ RIKSBYGGEN EKONOMISK FORENING ▪ AKADEMISKA HUS AKTIEBOLAG ▪ TRIVECTOR TRAFFIC AB ▪ TYRENS AB ▪ VAASAN KAUPUNKI ▪ OY MERINOVA AB ▪ VAASAN YLIOPISTO ▪ MINICIPALITY OF ALEXANDROUPOLIS ▪ ENERGY HIVE SYSTADA ▪ EPICHEIRISEON ENERGEIAS KAI FYSIKON PORON ANATOLIKIS MAKEDONIAS KAI THRAKIS ▪ AYUNTAMIENTO DE SANTA CRUZ DE TENERIFE ▪ ASOCIACION CLUSTER CONSTRUCCION SOSTENIBLE ▪ MUNICIPIUL FOCSANI ▪ UNIVERSITATEA POLITEHNICA DIN BUCURESTI ▪ INSTITUTUL NATIONAL DE CERCETARE-DEZVOLTARE PENTRU ENERGIE ICEMENERG-BUCURESTI ▪ ETHNIKO KENTRO EREVNAS KAI TECHNOLOGIKIS ANAPTYXIS ▪ IMCG SWEDEN AB ▪ RISE RESEARCH INSTITUTES OF SWEDEN AB ▪ EUROPEAN SCIENCE COMMUNICATION INSTITUTE (ESCI) GGMBH ▪ VRIJE UNIVERSITEIT BRUSSEL ▪ CIVITY BV 	
Countries: NL;FR;SE;FI;GR;ES;RO;DE;BE	

Objectives:

The IRIS project supports the Lighthouse cities of Utrecht (NL), Göteborg (SE) and Nice Côte d'Azur (FR) and their Follower cities Vaasa (FI), Alexandroupolis (GR), Santa Cruz de Tenerife (ES), and Focsani (RO) to address their urgent need to deliver energy and mobility services in their cities that are cheaper, better accessible, reliable, and that contribute to a better and more sustainable urban quality of life.

By demonstrating smart solutions that integrate energy, mobility and ict, rooted in a City Innovation Platform, IRIS quantifies their value, and connects interests of many different stakeholders in innovative business models, allowing for upscale and replication of integrated solutions for sustainable cities across Europe and world-wide.

To achieve this, IRIS works along five Transition Tracks based on common challenges, encompassing 16 integrated solutions that cities can mix and match according to their characteristics and district specific needs. Track 1, 2 and 3 enhance energy efficiency and utilize grid flexibility by balancing supply and demand dynamically and by 2nd life battery and V2G storage, to allow increase of renewable energy production and roll-out of e-cars and e-buses. Track 4 supports this by data sharing, a common architecture, use of standards, and governance practices accelerating innovation, standardisation and implementation of affordable smart applications. Track 5 integrates interdisciplinary citizen engagement and co-creation in Tracks 1 to 4, connecting the needs of end-users with those of other stakeholders, in further support of innovative business models.

The expected impacts of IRIS are an open innovation ecosystem motivating citizens to act as prosumers; more effective urban planning and governance of integrated solutions; exploitation of validated innovative business models based on multi-stakeholder collaboration; more stable, secure and affordable energy and mobility services for citizens, with improved air quality.

Topic: SCC-1-2016-2017	Acronym: MAtchUP
Call: H2020-SCC-2017	Type of Action: IA
Title: MAtximizing the UPscaling and replication potential of high level urban transformation strategies	
Starting date: 01.10.2017	End date: 30.09.2022
Total Cost: 19,472,388.00 €	EU max. contribution: 17,418,339.00 €
Coordinator: AYUNTAMIENTO DE VALENCIA	
Participants:	
<ul style="list-style-type: none"> ▪ FUNDACION DE LA COMUNITAT VALENCIANA PARA LA PROMOCION ESTRATEGICA EL DESARROLLO Y LA INNOVACION URBANA ▪ WITRAC COMUNICACIONES INTELIGENTES SL ▪ UNIVERSITAT POLITECNICA DE VALENCIA ▪ ETRA INVESTIGACION Y DESARROLLO SA ▪ ASOCIACION INSTITUTO TECNOLOGICO DE LA ENERGIA ▪ SENIOR EUROPA SOCIEDAD LIMITADA ▪ LANDESHAUPTSTADT DRESDEN ▪ DREWAG STADTWERKE DRESDEN GMBH ▪ DRESDNER VERKEHRSBETRIEBE AG ▪ WOHNBAU NORDWEST GMBH ▪ FRAUNHOFER GESELLSCHAFT ZUR FOERDERUNG DER ANGEWANDTEN FORSCHUNG E.V. ▪ TECHNISCHE UNIVERSITAET DRESDEN 	<ul style="list-style-type: none"> ▪ ANTALYA METROPOLITAN MUNICIPALITY ▪ Sampas Bilisim Ve Iletisim Sistemleri Sanayi Ve Ticaret A.S. ▪ DE SURDURULEBILIR ENERJİ VE İNSAAT SANAYİ TİCARET LIMITED SİRKETİ ▪ ANTEPE İNSAAT VE TİCARET ANONİM SİRKETİ ▪ TRAFİK ARASTIRMA YONETİM SIMULASYON İNSAAT MUSAVİRLİK PROJE VE TİCARET ANONİM SİRKETİ ▪ AKDENİZ UNIVERSITY ▪ Teknologian tutkimuskeskus VTT Oy ▪ FUNDACION CARTIF ▪ UNIVERSITA COMMERCIALE LUIGI BOCCONI ▪ FONDAZIONE ICONS ▪ FUNDACION TECNALIA RESEARCH & INNOVATION ▪ HERZLIYA MUNICIPALITY ▪ STAD OOSTENDE ▪ CITY OF SKOPJE ▪ KERAVAN KAUPUNKI
Countries: ES;DE;TR;FI;IT;IL;BE;MK	

Objectives:

MAtchUP project aims at strengthening the planning processes for urban transformation, consolidating the benefits of deploying large scale demonstration projects of innovative technologies in the energy, mobility and ICT sectors, by means of substantially improved models for replication and upscaling, based on impacts evaluation, and ensuring the bankability of the solutions by means of innovative business models, which lead to achieve real deployment further than the pilots carried out in the lighthouse cities. With this, it is sought a high penetration of the validated technologies in those cities less prepared to adopt very innovative solutions and formalize it in a standard commitment, accompanied by capacity building strategies, to guarantee at least medium term implementation.

The expected results will be achieved working in parallel in demonstration and upscaling/replication levels, so the lighthouse cities (Valencia-Spain, Dresden-Germany and Antalya-Turkey) and followers (Ostend-Belgium, Herzliya-Israel, Skopje-FYROM and Kerava-Finland) will assume a huge commitment in this project in order to:

- deploy innovative solutions in the energy, mobility and ICT sectors with a strong monitoring program to validate all of them,
- develop very rigorous upscaling and replication plans that will be the basis to update at least the SEAPs/SECAPs, that are the major standard commitment at European level that a city can assume in terms of city transformation, and other existing city plans as Sustainable Mobility Plans or Digital Agendas.

Topic: SCC-1-2016-2017	Acronym: mySMARTLife
Call: H2020-SCC-2016	Type of Action: IA
Title: Smart Transition of EU cities towards a new concept of smart Life and Economy	
Starting date: 01.12.2016	End date: 30.11.2021
Total Cost: 21,724,074.75 €	EU max. contribution: 18,656,102.41 €
Coordinator: FUNDACION CARTIF	
Participants:	
<ul style="list-style-type: none"> ▪ Nantes Métropole ▪ ENGIE ▪ ASSOCIATION POUR LA RECHERCHE ET LE DEVELOPPEMENT DES METHODES ET PROCESSUS INDUSTRIELS ▪ CENTRE D ETUDES ET D EXPERTISE SUR LES RISQUES L ENVIRONNEMENT LA MOBILITE ET L AMENAGEMENT ▪ ENEDIS ▪ FREIE UND HANSESTADT HAMBURG ▪ HAFENCITY UNIVERSITAT HAMBURG ▪ HOCHSCHULE FUR ANGEWANDTE WISSENSCHAFTEN HAMBURG ▪ VOLKSWAGEN AG ▪ T-SYSTEMS INTERNATIONAL GMBH 	<ul style="list-style-type: none"> ▪ KONSALT GESELLSCHAFT FUR STADT UNDREGIONALANALYSEN UND PROJEKTENTWICKLUNG MBH ▪ ENERGIENETZ HAMBURG EG ▪ HELSINGIN KAUPUNKI ▪ FORUM VIRIUM HELSINKI OY ▪ Teknologian tutkimuskeskus VTT Oy ▪ HELEN OY ▪ FOURDEG OY ▪ SALUSFIN OY ▪ METROPOLIA ▪ AMMATTIKORKEAKOULU OY ▪ STEINBEIS INNOVATION GMBH ▪ FUNDACION TECNALIA ▪ RESEARCH & INNOVATION ▪ NOBATEK INEF 4 ▪ FUNDACION ESADE ▪ MIASTO BYDGOSZCZ ▪ OBSHTINA VARNA ▪ GRAD RIJEKA-GRADSKO VIJECE ▪ AYUNTAMIENTO DE PALENCIA
Countries: ES;FR;DE;FI;PL;BG;HR	

Objectives:

mySMARTLife project aims at the development of an Urban Transformation Strategy to support cities in the definition of transition models, as a suitable path to reach high level of excellence in its development process, addressing the main city challenges and progressing to the smart people and smart economy concepts.

The main instrument to achieve this very ambitious strategy will be the definition of the Advanced Urban Planning, consisting of an integrated approach of the planned city interventions on the basis of a rigorous impact assessment, an active citizen engagement in the decision-making process and a structured business approach, from the city business model perspective, to the economic framework for big companies and local SMEs and Start-Ups.

Nantes (France), Hamburg (Germany) and Helsinki (Finland) are the lighthouse cities and Varna (Bulgaria), Bydgoszcz (Poland), Rijeka (Croatia) and Palencia (Spain) the followers. All of them will be involved in the overall project development assuming different and complementary roles. Energy and Climate mitigation plans in the lighthouse cities are completely compliant with the objectives of Covenant of Mayors initiative, as it is reflected; first regarding the early participation of the cities in Covenant of Mayors and second, considering the ambition of their SEAPs, that were submitted, evaluated, approved and are monitored by Covenant of Mayors. Aligned with these objectives, the commitment of the lighthouses is the deployment of a big set of large scale interventions and at least two years of data collection to make a depth analysis of the results, calculating standard KPIs, evaluating the associated impacts and disseminating the results. Followers will be very close to this demonstration, collaborating in the definition and deployment, analysing the problem from the point of view of their own city challenges and extracting knowledge, best practices and lessons learnt for a further replication.

Topic: SCC-1-2016-2017	Acronym: Ruggedised
Call: H2020-SCC-2016	Type of Action: IA
Title: Rotterdam, Umea and Glasgow: Generating Exemplar Districts In Sustainable Energy Deployment	
Starting date: 01.11.2016	End date: 31.10.2021
Total Cost: 19,562,868.38 €	EU max. contribution: 17,692,858.41 €
Coordinator: GEMEENTE ROTTERDAM	
Participants:	
<ul style="list-style-type: none"> ▪ UMEA KOMMUN ▪ GLASGOW CITY COUNCIL ▪ RISE RESEARCH INSTITUTES OF SWEDEN AB ▪ ISTITUTO DI STUDI PER L'INTEGRAZIONE DEI SISTEMI (I.S.I.S) - SOCIETA'COOPERATIVA ▪ AIT AUSTRIAN INSTITUTE OF TECHNOLOGY GMBH ▪ NEDERLANDSE ORGANISATIE VOOR TOEGEPAST NATUURWETENSCHAPPELIJK ONDERZOEK TNO ▪ ICLEI EUROPEAN SECRETARIAT GMBH (ICLEI EUROPASEKRETARIAT GMBH)* ▪ ERASMUS UNIVERSITEIT ROTTERDAM ▪ UMEA UNIVERSITET ▪ UNIVERSITY OF STRATHCLYDE ▪ VYSOKE UCENI TECHNICKE V BRNE ▪ STATUTARNI MESTO BRNO ▪ COMUNE DI PARMA ▪ GDANSK MIASTO NA PRAWACH POWIATU 	<ul style="list-style-type: none"> ▪ Ballast Nedam Bouw & Ontwikkeling Holding B.V. ▪ ROTTERDAMSE ELEKTRISCHE TRAM NV ▪ ENECO ZAKELIJK BV ▪ KONINKLIJKE KPN NV ▪ AKADEMISKA HUS AKTIEBOLAG ▪ VASTERBOTTENS LANS LANDSTING ▪ UMEA ENERGI AKTIEBOLAG ▪ UMEA PARKERINGS AKTIEBOLAG ▪ SCOTTISH GOVERNMENT ▪ SP POWER SYSTEMS LIMITED ▪ TENNENT CALEDONIAN BREWERIES UK LIMITED ▪ SIEMENS PLC ▪ PICTEC ▪ UNIRESEARCH BV ▪ INFOMOBILITY SPA ▪ FUTURE INSIGHT GROUP BV ▪ THE GLASGOW HOUSING ASSOCIATION LIMITED IPS ▪ GDANSKA INFRASTRUCTURA WODOCIAGOWO-KANALIZACYJNA SP ZOO ▪ RISE ACREO AB
Countries: NL;SE;IT;AT;DE;UK;CZ;PL	

Objectives:

The RUGGEDISED project will create urban spaces powered by secure, affordable and clean energy, smart electro-mobility, smart tools and services. The overall aims are:

1. Improving the quality of life of the citizens, by offering the citizens a clean, safe, attractive, inclusive and affordable living environment.
2. Reducing the environmental impacts of activities, by achieving a significant reduction of CO₂ emissions, a major increase in the investment and usage of RES and an increase in the deployment of electric vehicles.
3. Creating a stimulating environment for sustainable economic development, by generating more sustainable jobs, stimulating community involvement in smart solutions and to boost start-up and existing companies to exploit the opportunities of the green digital economy and Internet of Things.

To achieve the aims, a key innovation challenge in all three lighthouse cities of RUGGEDISED is to arrange successful combinations of integrated smart solutions for energy and e-mobility (enabled by ICT platforms and open data protocols) and business models with the right incentives for stakeholders to invest and participate in a smart society. Specific challenges relevant for the lighthouse cities are:

- to manage peak load variation in thermal and electrical energy supply and demand;
- to develop appropriate cooperation structures and business models for exchange of energy;
- to develop Smart City (open) data platforms and energy management systems

RUGGEDISED has derived 10 specific objectives and planned 32 smart solutions to meet the challenges. The development of solutions in the lighthouse cities is not the primary goal of the project, but a necessary means to find the right incentives and to create validated business cases to enable large scale deployment and replication of solutions. Three follower cities Brno, Parma and Gdansk have selected 27 smart follower solutions to follow the lighthouse cities and to prepare for implementation in the future.

Topic: SCC-1-2016-2017	Acronym: STARDUST
Call: H2020-SCC-2017	Type of Action: IA
Title: HOLISTIC AND INTEGRATED URBAN MODEL FOR SMART CITIES	
Starting date: 01.10.2017	End date: 30.09.2022
Total Cost: 21,093,539.25 €	EU max. contribution: 17,939,998.85 €
Coordinator: FUNDACION CENER-CIEMAT	
Participants:	
<ul style="list-style-type: none"> ▪ AYUNTAMIENTO DE PAMPLONA ▪ TAMPEREEN KAUPUNKI ▪ COMUNE DI TRENTO ▪ DERRY CITY AND STRABANE DISTRICT COUNCIL ▪ DIMOS KOZANIS ▪ MESTO LITOMERICE ▪ ASOCIATIA DE DEZVOLTARE INTERCOMUNITARA ZONA METROPOLITANA - CLUJ ▪ Teknologian tutkimuskeskus VTT Oy ▪ ACCADEMIA EUROPEA DI BOLZANO ▪ FONDAZIONE BRUNO KESSLER ▪ Greenovate! Europe ▪ ZABALA INNOVATION CONSULTING, S.A. ▪ FONDAZIONE ICONS ▪ OFFICINAE VERDI GROUP SPA ▪ COMUNIDAD FORAL DE NAVARRA - GOBIERNO DE NAVARRA 	<ul style="list-style-type: none"> ▪ GAS NATURAL SDG SA ▪ NAVARRA DE SUELO Y VIVIENDA SA ▪ JOFEMAR. S.A. ▪ SOCIEDAD IBERICA DE CONSTRUCCIONES ELECTRICAS SA ▪ TAMPEREEN SAHKOLAITOS OY ▪ SKANSKA TALONRAKENNUS OY ▪ ENERMIX OY ▪ AURINKOTEKNO OY ▪ DOLOMITI ENERGIA HOLDING SPA ▪ ISTITUTO TRENTO PER L'EDILIZIA ABITATIVA S.P.A. ▪ DEDAGROUP PUBLIC SERVICES SRL ▪ DISTRETTO TECNOLOGICO TRENTO SCARL ▪ UNIVERSIDAD PUBLICA DE NAVARRA
Countries: ES;FI;IT;UK;GR;CZ;RO;BE	
Objectives:	
<p>STARDUST serves as smart connector bringing together advanced European cities and citizens of Pamplona (ES), Tampere (FI) and Trento (IT) - with the associated follower cities of Derry (UK), Kozani (GR) and Litomerice (CZ). These six cities, collaborating with relevant industrial partners, including a variety of innovative local SME, and supported by academia and research centres will demonstrate three lighthouse cities, deploy intelligent integration measures, test and validate technical solutions and innovative business models, and deliver blueprints for replication throughout Europe and abroad.</p> <p>The objective of STARDUST project is to pave the way towards the transformation of the carbon supplied cities into Smart, high efficient, intelligent and citizen oriented cities, developing urban technical green solutions and innovative business models, integrating the domains of buildings, mobility and efficient energy through ICT, testing and validating these solutions, enabling their fast roll out in the market .</p> <p>The core idea of the STARDUST project is the demonstration of different “innovation islands” as urban incubators of technological, social, regulatory and market solutions which, once validated, could contribute to this objective of transformation of our cities towards Smart Cities. The integrated approach of STARDUST is based in the combination of technological solutions with human being reflected in joint decision making, economic constraints, citizen’s governance, etc. The STARDUST Smart City concept has been designed to enhance the integration of all these aspects to define a new Urban Metabolism.</p>	

List of Calls Smart Cities and Communities

Topic	Title	Number of funded projects	Total EU-contribution [EUR]
SCC-01	Smart Cities and Communities lighthouse projects	5	89,703,867.72
Total		5	89,703,867.72

List of Abbreviations

Type of Action

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

Topics

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

Others

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