Donostia – San Sebastián
Smart Strategy

San Sebastian, 2nd October 2018

donostia smart
SMART KLUSTERRA
CLÚSTER SMART
SMART CITY CLUSTER

FOMENTO DE SAN SEBASTIÁN: Donostia Smart Cluster

AREAS OF ACTIVITY

- SECTOR OBSERVATORY
- COMMUNICATION
- INFRAESTRUCTURE

donostia smart
SMART KLUSTERRA
CLÚSTER SMART
SMART CITY CLUSTER

- IMPROVED COMPETITIVINESS
- CITY PROJECTS

PARTICIPATORY FORUM

SMART DONOSTIA

CITY PROJECTS

donostia smart
SMART KLUSTERRA
CLÚSTER SMART
SMART CITY CLUSTER

FOMENTO DE SAN SEBASTIÁN: DONOSTIA SMART CITY

CITY PROJECTS

Bioclimatic buildings

enertic SMARTBUILDING

iSare Smart energy microgrid

iSare

STEEP

SEVENTH FRAMEWORK PROGRAMME

Smart City Plan

Smart City Plan 2016-2020

REPLICATE

This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under Grant Agreement Nº 691735

REPLICATE (H2020-EU)

Lighthouse project for 2016-2020:

- Districts with zero or very low energy consumption.
- Sustainable urban mobility.
- Integrated infrastructur

SmartKalea

Pilot smart city implementation project along Calle Mayor, in the Old Town, in the district of Altza, etc., carried out along with shops, citizens and local companies.

smartkalea
Donostia-San Sebastián

Network: EIP-SCC

European Innovation Partnership on Smart Cities and Communities.

- Policy & regulations/ Integrated planning

donostia smart
SMART KLUSTERRA
CLÚSTER SMART
SMART CITY CLUSTER

DONOSTIA SMART CITY: Smart City Plan

STEEP

Systems Thinking for Efficient Energy Planning

European Project: San Sebastián, Bristol, Florence.

www.smartsteep.eu

STEEP

SEVENTH FRAMEWORK PROGRAMME

Local government departments and 187 individuals involved from companies, universities and R&D centres, as well as other government agents and citizens

DONOSTIA SMART CITY: Smart City Plan

Action Plan 2016-2020: 30 projects.

CRONOGRAMA DE TAREAS

	2015	2016	2017	2018	2019	2020
Eje de aprovechamiento de otros recursos						
S1. Gestión inteligente de las aguas pluviales y residuales						
S2. Educametering						
S3. Ekorrek – Recogida ecológica y sostenible						
S4. Donosti-clima						
Eje de Energía						
E1. Agencia de Desarrollo Energético municipal						
E2. Calefacción comunitaria por biomasa DH TXOMIN						
E3. Banca rota energética						
E4. Rehabilitación energética del parque edificatorio municipal						
E5. Argiserbi						
Eje de Movilidad urbana sostenible						
M1. Ekobus						
M2. Translabel						
M3. Última milla de mercancías en zonas reguladas						
M4. Karga tú						
M5. Proelek						
M6. Plataforma de movilidad intermodal						
M7. Regula Moto						
Eje de Tecnologías Integradoras						
TI1. Proactive Sense						
TI2. Conectividad 360						
TI3. Plataforma de Gestión Smart						

Proyecto M2:	**TRANSLABEL**				
Eje:	Movilidad Urbana Sostenible	**Reto:**	Electrificación del transporte	**Objetivo Estratégico:** **Línea de Acción:**	Mejora de los servicios de distribución de mercancías Impulsar la utilización de vehículos de reparto limpio
Objetivos:	Crear un certificado medioambiental de reparto de mercancías e incentivar la certificación de empresas del sector mediante ventajas fiscales, o con mayores impuestos municipales a los vehículos más contaminantes.				
Beneficios:	Aumento de la eficiencia energética del transporte de mercancías. Reconocimiento y publicidad de empresas de transporte ambientalmente responsables. Mejora del servicio y de la salud de los ciudadanos, con menos emisiones, ruido de ciudad y mejor calidad del aire			**Dificultades:**	Baja probabilidad de implantación por pequeñas empresas de transporte (familiares), a no ser que se opte por un proceso de certificación simple y la incentivación económica sea atractiva.
Coste:	70.000 €	**Financiación:**	Presupuesto interno del Ayuntamiento		
Liderazgo y Participantes:	Líder: Ayuntamiento, Dirección de Movilidad Participantes: Instituto Vasco de Logística y Movilidad Sostenible (por su liderazgo del Programa Ecostars Euskadi 2011-2014, programa europeo que fomentaba el uso de vehículos de transporte de mercancías y pasajeros más eficiente y menos contaminante al proporcionar reconocimiento, orientación y asesoramiento a las empresas con flotas de vehículos de transporte); IHOBE (por haber creado el Sistema de Gestión Ambiental Ekoscan); empresas de reparto de mercancías; consultoras				

Descripción de las Tareas:

- Establecimiento de un convenio de colaboración con, al menos, 2 empresas del sector para la implantación de la certificación (experiencia piloto)
- Diseño de la metodología de certificación:
  - Definición del objeto, alcance y requisitos de certificación. Identificación de los aspectos medioambientales, requisitos legales de aplicación e indicadores de comportamiento y evaluación
  - Definición del sistema de evaluación/certificación: periodicidad y alcance de las auditorías / Definición de la entidad de certificación
  - Elaboración de una guía de aplicación
  - Publicidad. Establecimiento de un registro de empresas certificadas
- Definición del sistema de incentivación (beneficios fiscales, ayudas económicas a las propias empresas, subvención económica a los usuarios de empresas certificadas, etc.). Estudio de la aplicación del mismo sistema de incentivación al taxi eléctrico (mediante medidas como la bonificación al impuesto de circulación, facilitación de la homologación y reducción de tasas de transmisión de licencias)

Cronograma de las Tareas:	2015	2016	2017	2018	2019	2020
1. - Establecimiento de un convenio de colaboración						
2. - Diseño de la metodología de certificación						
3. - Definición del sistema de incentivación						

donostia smart
SMART KLUSTERRA
CLÚSTER SMART
SMART CITY CLUSTER

REPLICATE Project

GOALS

REPLICATE

REnaissance of **PL**aces with **I**nnovative **C**itizenship **A**nd **Te**chnology.

VISION

To increase the quality of life for citizens across Europe by demonstrating the impact of innovative technologies used to co-create Smart City services with citizens, and prove the optimal process for replicating successes within cities and across cities.

SCC1 SMART CITIES LIGHTHOUSE

CALL FOR: SCC-01-2015 - Smart Cities and Communities solutions integrating energy, transport and ICT in lighthouse projects (large-scale model projects).

REPLICATE Project

SUMMARY

Coordinator Fomento de San Sebastián (38 partners).

- 3 lighthouse cities: San Sebastián, Florencia, Bristol.
- 3 follower cities: Essen, Lausana, Nilüfer.
- 2 observer cities: Bogotá, Guangzhou.

Budget

- 29.3 million €.

5 years (60 months)

- Y1-Y2-Y3 Implementation.
- Y4-Y5 Monitoring.
- Starting date: 01/02/2016

Donostia-San Sebastián, Florence and Bristol had worked together before, until 2015, in the context of the STEEP Project: Systems Thinking for Efficient Energy Planning

REPLICATE

This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under Grant Agreement Nº 691735

donostia smart
SMART KLUSTERRA
CLÚSTER SMART
SMART CITY CLUSTER

REPLICATE Project

PARTNERS

www.replicate-project.eu

info@replicate-project.eu

@ReplicateEU

REPLICATE

This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under Grant Agreement Nº 691735

REPLICATE Project

Urumea Riverside District

OVERVIEW

District close to zero emissions: district branding in sustainability.

- Residential area (Txomin, Antzieta, Martutene) + Industrial park (Polígono 27) + Nature park (Ametzagaina).
- Surface area: 200 hectares.
- Industrial park: 350 companies + 4500 people.
- Nature park: carbon reservoir.

Comprehensive strategy for a smart district

To improve transition to smart city in three areas:

- Energy efficiency.
- Sustainable mobility.
- ICT & infrastructure.

"Development and validation of a business model for a sustainable city to be replicated in other towns and districts"

donostia smart
SMART KLUSTERRA
CLÚSTER SMART
SMART CITY CLUSTER

REPLICATE Project

Urumea Riverside District

OVERVIEW

REPLICATE

This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under Grant Agreement Nº 691735

REPLICATE Project

Urumea Riverside District

MAIN ACTIVITIES

Energy efficiency

- **Building Retrofitting** in 156 dweelings and 34 commercial premises distributed along 10 doorways. The retrofitting includes: façade, roof and ground floor insulation, window replacement and connection to DH

- **District heating system**: Service to more than 1500 new properties + 156 existing houses.

  7400kW power plant with two 1400kW biomass boilers. Environmental impact: reduction of 35% in primary energy (90% renewable energy). CO2 emissions reduced by 85%.

  Service owned by Fomento de San Sebastián.

- **Demand Side Platform:** consumption monitoring to promote sustainable behaviour. Provide recommendations for a more efficient energetic use.

REPLICATE Project

Urumea Riverside District

MAIN ACTIVITIES

Sustainable mobility

- **Electric buses:** 2 full electric + 2 hybrid electric buses in line 26, connecting the district to the city centre. No noise and zero emissions.

- **Public electric vehicles (EVs):** 4 EVs + 6 electric motorcycles in the municipal fleet.

- **Private EVs:** 12 electric taxis + 5 EVs in distribution fleet. 12 monitored EVs+ 20 monitored electric motorcycles for private use.

- Deployment of **charging infrastructure** in the city: gas stations, underground car parks, private garages.

- Development of **Smart City Mobility Platform** and advanced mobility services. Aggregate behaviour analysis in urban mobility

REPLICATE Project

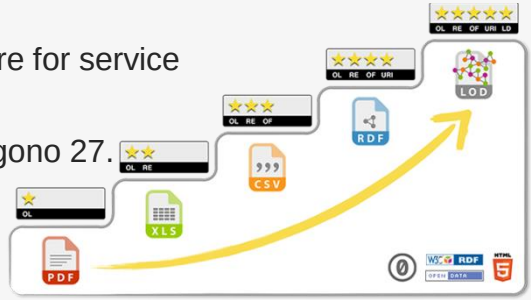
Urumea Riverside District

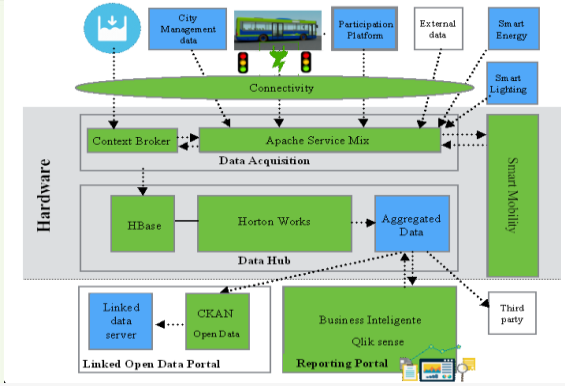
MAIN ACTIVITIES

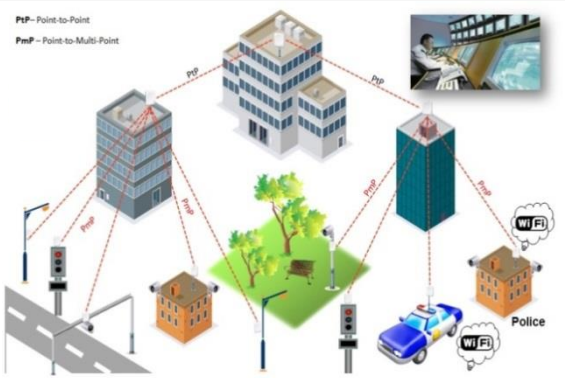
donostia smart
SMART KLUSTERRA
CLÚSTER SMART
SMART CITY CLUSTER

ICT & infrastructure

- Deployment of **Smart City Platform**, with integrated services.
- **Open Data and Citizen Participation** services.
- Deployment of **high-speed wireless mobile network** in the city. Basic FSS infrastructure for service support.
- Deployment of **Smart street lighting** in Polígono 27. Deployment of **IP services** in Polígono 27.







REPLICATE

This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under Grant Agreement Nº 691735

donostia smart
SMART KLUSTERRA
CLÚSTER SMART
SMART CITY CLUSTER

REPLICATE Project

Urumea Riverside District

LOCAL CONSORTIUM

DONOSTIA SAN SEBASTIAN

- donostiasustapena fomentosansebastián — DESARROLLO ECONÓMICO DE SAN SEBASTIÁN / DONOSTIAKO GARAPEN EKONOMIKOA / SAN SEBASTIAN ECONOMIC DEVELOPMENT
- DONOSTIA SAN SEBASTIÁN
- d·bus — COMPAÑÍA DEL TRANVÍA DE SAN SEBASTIÁN, S.A.
- tecnalia Inspiring Business
- IKUSI velatia
- euskaltel
- LEYCOLAN LUMINACIÓN Y CONTROL
- EUROHELP Consulting
- sistelec TELECOMUNICACIONES
- GIROA
- VEOLIA

▲ CROSS CUTTING ACTIVITIES ▲

- tecnalia Inspiring Business
- TECHNOMAR
- University of BRISTOL
- ESADE Business School
- zabala innovation consulting
- SPES CONSULTING
- UNIVERSITY OF OXFORD
- REPLICATE

This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under Grant Agreement Nº 691735

smartkalea
Donostia-San Sebastián

donostia smart
SMART KLUSTERRA
CLÚSTER SMART
SMART CITY CLUSTER

SmartKalea project

OVERVIEW

Pioneering project for **public-private partnership** integrating all the actors living together in a smart city: citizens, shops, technology companies and local government departments.

- Pilot project with smart city developments to test and validate for **extension to other geographical areas**

CNIS Award 2017. Best public-private partnership project.

Awards received

SOC INFO 2015

CNIS 2 0 1 7 AWARD

Smart Cities Award 2015: *SOCINFO. Foundation*

SmartKalea project

smartkalea
Donostia-San Sebastián

donostia smart
SMART KLUSTERRA
CLÚSTER SMART
SMART CITY CLUSTER

PUBLIC-PRIVATE PARTNERSHIP MODEL

Integration of various **smart city** solutions in a single street, requiring small-scale coordination. The pilot project can be gradually extended to other parts of the city.

Revitalisation of shopping districts in the city.

SmartKalea project

smartkalea
Donostia-San Sebastián

donostia smart
SMART KLUSTERRA
CLÚSTER SMART
SMART CITY CLUSTER

ACTORS INVOLVED

donostia smart
SMART KLUSTERRA
CLÚSTER SMART
SMART CITY CLUSTER

Enea – CONSULTORÍA DE AUTOR EN SOSTENIBILIDAD – IRAUNKORTASUNERAKO AUTORE-AHOLKULA – www.eneaconsultoria.com
uhin
IDOM
diaycon sistemas
ARANCONTA – GESTIÓN Y SERVICIOS DE AGUA
mirakonta
Consultoria Operativa in-situ
iplay – www.iplaybcn.com
LEYCOLAN – LUMINACIÓN Y CONTROL
IKUSI velatia

SAN SEBASTIAN CITY COUNCIL

- ***Fomento de San Sebastián***
- *Departments: Environment , Infrastructures and Urban Services, Mobility, etc.*

BUSINESSES

Trader´s associations Commerce and restaurants

TECHNOLOGICAL LOCAL COMPANIES

CITIZENSHIP/ RESIDENTS

Cofinanciado por
Gipuzkoako Foru Aldundia – Departamento de Movilidad y Ordenación del Territorio
ORAIN GIPUZKOA
Finantzaketarekin

smartkalea
Donostia-San Sebastián

SmartKalea project

GOALS

To turn Donostia into a **smart city** with higher living standards and greater benefits for companies and shops thanks to widespread use of **ICT** and rational use of environmental and other resources.

To increase **energy and money savings** in households, shops/restaurants, and infrastructure.

To raise **awareness** and encourage **participation** among citizens and private actors.

To implement a governance model that results in better city management and greater coordination between and within government departments.

To create **business opportunities** for **shops/restaurants** and technology partners:

- Technology partners: smart city lab to test, validate and showcase products.
- Shops: support to business management improvement. Street as a unique shopping space.
- New business opportunities for companies and entrepreneurs

SmartKalea project

smartkalea
Donostia-San Sebastián

donostia smart
SMART KLUSTERRA
CLÚSTER SMART
SMART CITY CLUSTER

AREAS OF ACTIVITY

Energy efficiency in shops and households

Consumption monitoring + Individual consulting + ICT projects for smart cities.

- Power consumption monitoring platforms + smart water meters: Data monitoring.
- Advice on power saving: measures to be taken.
- Awareness raising in wise use of energy.
- Joint energy purchasing.
- Advice and training in ICTs for businesses: geomarketing, smart shopping, etc
- Geomarketing: business positioning and promotion of commerces through beacons.

Street sustainability - Infrastructure

- Call for smart business solutions.
- Smart street lighting.
- People counting and tracking.
- Smart solar charger.
- Street cleanning awarness through ICT.
- Public safety improvement with intelligent lighting in crosswalks.
- Connectivity and smart devices deployment.

Integrated information platform

- Smart online platform for real-time monitoring and system integration.
- Monitoring indicators and reports for improved city management.
- Open data and KPIs publication.

smartkalea
Donostia-San Sebastián

donostia smart
SMART KLUSTERRA
CLÚSTER SMART
SMART CITY CLUSTER

SmartKalea

Open data web:
http://www.fomentosansebastian.eus/smartkalea/en/monitoring

What do we measure?

Water consumption in households, shops, bars and restaurants that participate in **SmartKalea** is monitored using smart meters and platforms. The smart platform collects daily consumption data anonymously. The collected data are stored for later analysis.

Consumption monitoring can be used to improve efficiency in households and business premises, since consumption can be followed up continuously and measures can be implemented accordingly.

What would you like to measure?

- ○ Shop/Bar.Restaurant
- ◉ Households

Water consumption per capita in households

YESTERDAY	LAST WEEK
129,56 litres ↑ 9.5%	785,8 litres ↑ 9.3%
LAST MONTH	**YEAR**
3.196,43 litres ↓ 6%	41.070,07 litres ↓ 3.4%

Thank you

http://www.fomentosansebastian.eus/en/

fomentoss@donostia.eus