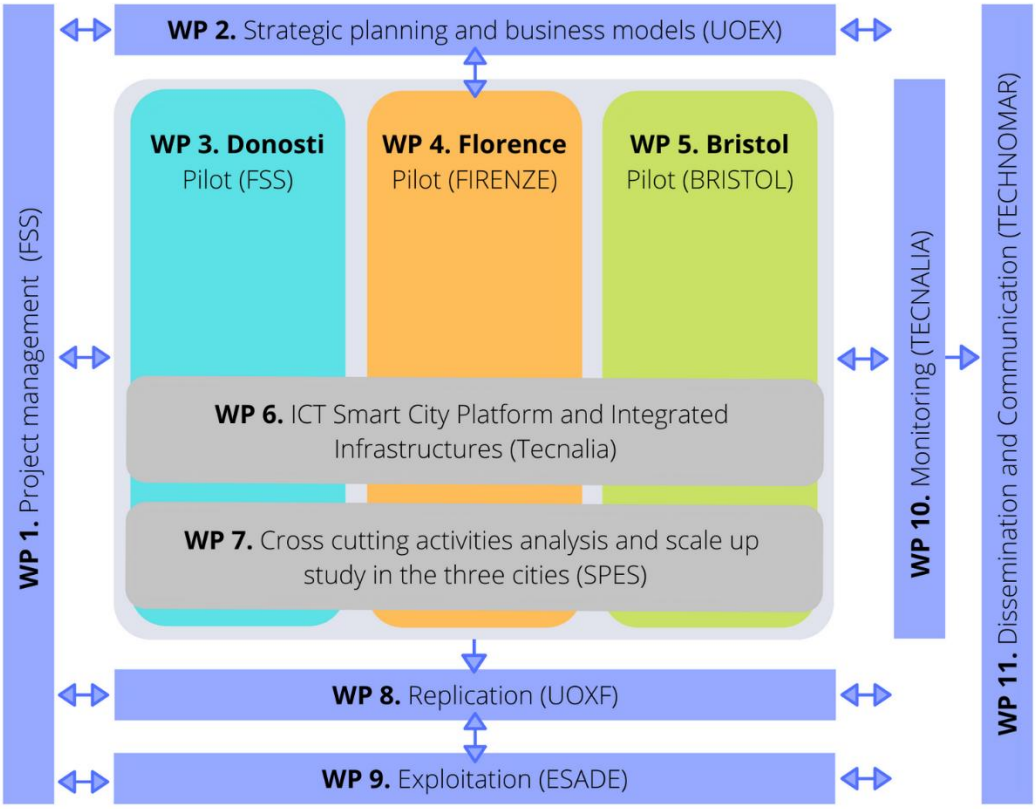
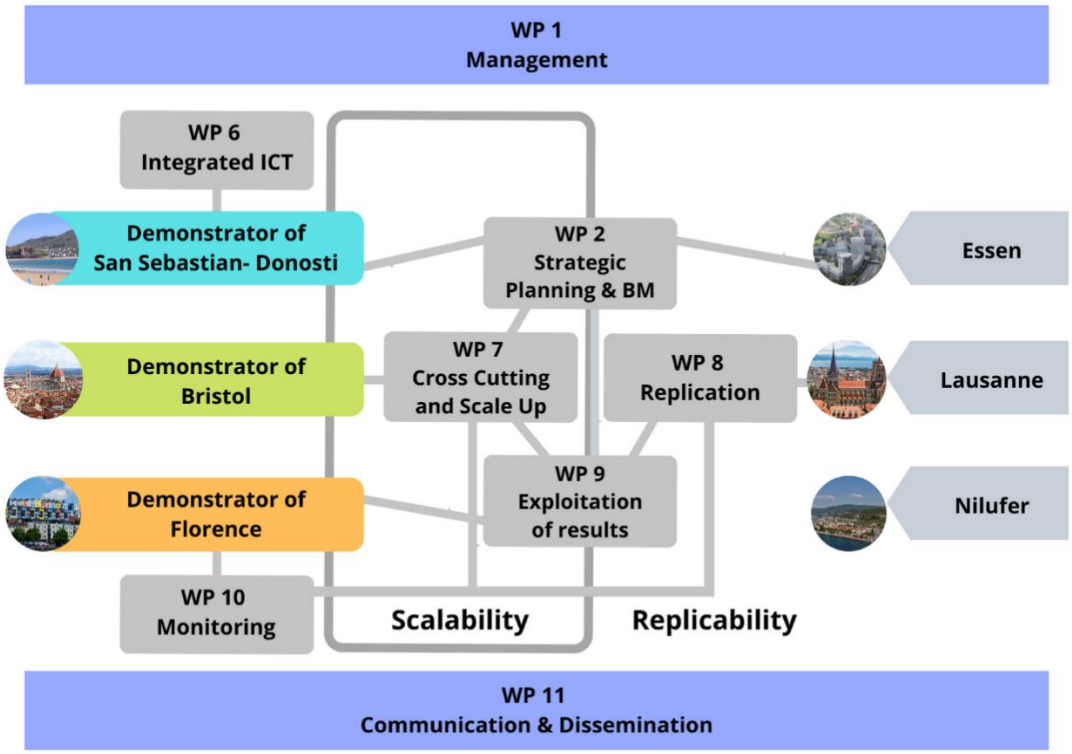
CROSS CUTTING ACTIVITIES

Different cross cutting workpackages are active to bring added value to the project and implement a collaborative way of working.





STRATEGIC PLANNING AND BUSINESS MODELS

The main objective is for the three lighthouse cities and the three follower cities to have, at the end of the project, fully optimised Smart City Business Models that can be demonstrated and validated according to the needs of the interested people and that prove to be replicable beyond the financing of SCC1.

TRANSFERRING STEEP METHODOLOGY TO FOLLOWER CITIES

The aim was to give, to the follower cities (Essen, Nilufer and Lausanne), the tools to define, select and engage stakeholders that collaborate in the preparation of their smart city strategies and replication plans.

In this task the STEEP Methodology has been transferred to the follower cities.

Workshops were done to enable follower cities to adopt the same approach to smart city planning as the Lighthouse cities.

BUSINESS MODELS IN LIGHTHOUSE CITIES

This task analysed the different models and possibilities, and the key elements that the three cities (San Sebastián, Florence and Bristol) took into account to select and work with their models.

The task provided a tool called City Model Canvas (CMC) to reflect how smart city solutions create and deliver value to their residents.

ANALYSING LEARNING FROM PILOT'S INITIAL BUSINESS PLAN FOR EXTENSION BEYOND SCC1 FUNDING

Definition of the process for the initial analysis for learning from pilot's initial business plans for extension beyond SCC01 funding.

Put in place of the process for the analysis of learning from pilots in the 3 lighthouse cities, via workshops and interviews.

VALIDATING REPLICABILITY CITY BUSINESS MODELS

This task uses feedback from replication trials with follower cities to make a final determination of the effectiveness of the business models that have been developed as well as the process of developing them.

INTEGRATED INFRASTRUCTURES – ICT PLATFORM

The main objective was to develop new sustainable and cost-effective services to citizens and public administrations providing integrated infrastructures that improve efficiencies in the use of municipal public resources and the delivery of public services in the area of urban mobility, energy, transport, ICT and data management.

ICT PLATFORM REQUIREMENTS AND ARCHITECTURE DESIGN

The main objective of this task was to analyse main technical requirements for ICT Smart City Platform and design a common infrastructure capable of gathering different software systems and integrates diverse data from each municipality's IT system, in order to create new mechanisms and services in the areas of energy, mobility, lightning, citizen participation and Open-Government.

INFRASTRUCTURE FOR SMART DATA

The task was divided into the following subtasks: existing deployments, new required infrastructures, M2M platform capillary network and Smart Data Analytics.

PAAS AND IAAS INFRASTRUCTURE

This task included the following subtasks: Smart Private Services, Smart Public Services, IaaS Layer and Audit Exhaustive data to define public accessibility, format and uses.

DESIGN AND IMPLEMENTATION OF OPEN DATA SEMANTIC STRUCTURE

Task focused on getting higher levels of interoperability between the different data providers.

DEFINITION OF THE SMART CITY SERVICES

Energy and mobility related services provision.

DEFINITION OF HIGH SPEED MOBILE NETWORK BASED ON POSTWIMAX TECHNOLOGY

Analyse different scenarios for each lighthouse city and studying the feasibility and deployment of high-efficiency wireless broadband high-efficiency network, that will be neutral and multiservice.

STANDARDIZATION AND SYNERGIES BETWEEN INTELLIGENT LIGHTING SYSTEMS AND SMART CITY PLATFORM

Standarization and search of synergies between different and vertical lightning systems and the ICT Smart City concept developed in this Work Package.

CROSS CUTTING ACTIVITIES ANALYSIS AND SCALE UP STUDY IN THE3 CITIES

The experience of the pilot actions is summarised providing materials for other tasks in the project and extending the pilot with a concrete replication plan at city or metropolitan level. The three cities have been workingtogether with SPES and technical partners after the common planning phase (FP7 STEEP Smart City Plans) and the consequent test realisation in the field (Replicate Pilotactions), to develop a scalability analysis of the interventions based on the concrete realisation results.

SETTING METHODOLOGY FOR THE PEER REVIEW

A standard template has been developed and completed for the three lighthouse cities to speak “the same language” and to exchange information about the innovative implementations on-going in their pilots.

ANALYSIS OF SPECIFIC CONTEXT

The national and local context of the pilot implementations and its evolution in terms of legal, economic, financial, social and environmental framework has been studied to define the possible influence on replication/extension.

CROSS CUTTING ANALYSIS OF THE DIFFERENT REALIZATION AND MANAGEMENT MODELS

The three pilot actions have beenanalysed in detail during and after the implementations to gatherinfo and lessons learnt from the technical as well as management point of view, developing SWOT analysis and possible scenarios about extension or replication in other contexts.

DESIGN OF IMPLEMENTATION ROADMAP IN LIGHTHOUSES CITIES

The three cities together with Spes have been working in the definition of a tailored replication plan integrated with their regulatory framework with a clear timeline, stakeholders analysis, adaptations and, for the short time replications, detailed outline with direct and indirect (test methodology on external costs) impact assessment.

REPLICATION

The objective is to analyse the replicability of the implemented solutions and the replication plans are being designed for the follower and other potential cities.

ASSESS THE "CRITICAL FACTORS" FOR REPLICABILITY, ADAPTABILITY AND SCALABILITY OF THE THREE FOLLOWER CITIES: ESSEN, NILUFER AND LAUSSANE

Each follower/fellow city determined specific composition of Critical Factors' Assessment.

It was oriented to assess the composition in each follower/fellow city regarding their starting point focusing on their technologic, logistic, relational, international, socio-cultural, sustainable, environmental, communitarian, social, political, institutional, democratic, legal, economic, financial, demographic, organisational, and territorial context.

This task was developed through Workshops:

- Lausanne on 6th June 2016 (M6)
- Essen on 3rd November 2016 (M10)
- Nilüfer on 29th November 2016 (M10)

DIAGNOSE THE "STAKEHOLDERS" NETWORK BEHAVIOUR' VIA INTERVIEWS AND FOCUS GROUPS IN THE FOLLOWER CITIES

An intensive fieldwork action research for identifying the unique set of specific stakeholders operating in each follower/fellow city.

TO FOSTER A SHARING PARTICIPATIVE ENVIRONMENT BETWEEN PARTNERS AND THEIR URBAN SOLUTIONS BY NETWORKING INTENSIVE OPEN DATA SESSIONS AND EVENTS FOR LIGHTHOUSE AND FOLLOWER CITIES

The main activityentitled 'City-to-CityLearning Programme 2019' (#City2CityLearning) took placeduring 2019.Initially, prioritising and fostering a unique learning process through the interaction and conversations among a diverse set of stakeholders in the six Replicate cities through six Webinar Sessions.Consequently, sharing the whole content publicly available in open access under the license Creative Commons, for those agents interested in the content.

This experimental approach has resulted in a productive multidirectional conversational loop among stakeholders within the six cities". Thus, the City-to-City-Learning Programme has tried to put all cities at the same level to fostering a multidirectional learning process (https://smartcities-infosystem.eu/newsroom/news/replicate-city2citylearning).

CARRY OUT THE "REPLICATION AND ADAPTABILITY PLANS" FOR EACH CITY

Development of the replication and adaptability plans in the cities of Essen, Lausanne and Nilüfer.

EXPLOITATION OF RESULTS – INDUSTRIAL BUSINESS PLANS

ESADE Business School

The objective is to elaborate sectorial business analyses in order to provide industrial partners participatingin the pilots an overview of business opportunities will conduct a sectorial business analysis based on the market assessment methods.

METHODOLOGICAL DEVELOPMENT

A methodological framework was developed for analyzing business opportunities. A joint work with industrial partners took place combined with document analysis.

ELABORATION OF SECTORIAL BUSINESS ANALYSIS AND EXPLOITATION POTENTIAL FOR INDUSTRIAL PARTNERS PARTICIPATING IN THE PILOTS

A Sectorial Business analysis was carried out that included macro-environment analysis through the PESTEL tool, five forces sector analysis, market analysis and the Value Creation Ecosystem tool development for each intervention.

BUSINESS OPORTUNITY VALIDATION

A phase of validation among industrial partners in order to confirm their suitability and usefulness for companies that will have to exploit the outputs of REPLICATE.

Face-to-face meetings has been held in the three lighthouse cities with industrial partners.

MONITORING

The main objective is to elaborate and implement a monitoring methodology to be integrated in the general evaluation framework of the project.A yearly monitoring report gathering the main city level indicators and intervention indicators has been done since the 3rd year of the project.

SELECTION OF INDICATOR FRAMEWORKS FOR THE MONITORING PROGRAM AND BASELINE ANALYSIS

Starting from a general monitoring framework, an specific and individualized indicator framework was selected and designed for each city at two levels: the first level in relation to the technical performance of the interventionsand the second level city level.

ELABORATION OF THE MONITORING PROGRAMME AT PROJECT LEVEL

The monitoring programmeconsists of the definition of the necessary requirements of monitoring and metering for the indexes defined the development of a complete set of specifications for defining the controlling, monitoring and metering protocols, data gathering and the integration of all gathered data in a common monitoring platform.

MONITORING OF THE BUSINESS MODELS

Given that the conditions of implementation of the interventions correspond to the special or advantageous conditions of a financed European project, it is critical to evaluate the viability and performance of the business model associated to the intervention in real market conditions.The monitoring programme for business models is based on a survey-methodology developed within the project, and the objective is to evaluate the feasibility / viability of business models of each of the interventions of each city.

INTEGRATION AND TREATMENT OF GATHERED DATA IN A COMMON MONITORING PLATFORM

The platform integrates several KPIs of the monitoring programmes of the cities both at project level and at city level. It allows the visualization of those many key indicatorfor both the lighthouse cities, where the impact of the specific interventionsismonitored, and for the follower cities, where just the city level monitoring is assessed.

GUIDELINES FOR EX-ANTE IMPACT EVALUATION OF REPLICATION SCENARIOS

Based on the results and lessons learnt from the monitoring at project and city level on the lighthouse cities, some guidelines will be prepared for the follower cities on how evaluate impact of replication of different projects.