



Project co-financed by the European Regional Development Fund

A project labelled by the UfM



ESMARTCITY

Enabling Smarter City in the MED Area through Networking



Countries:

Bosnia and Herzegovina, France, Greece, Italy, Portugal, Spain

Target Groups:

Local and Regional Authorities, Infrastructure, Public Service Providers and SMEs

Theme:

Smart Cities

Keywords:

Smart Cities, Smart Buildings, Smart Public Lighting, Digitalisation, Open Data, Green Procurement and Circular Economy

Starting and Ending Dates:

February 2018 - July 2020

ESMARTCITY is about enhancing innovation ecosystems and applying the Smart City concept in Mediterranean cities by making use of digital and energy-saving technologies.

The project targets the “Quadruple Helix” of stakeholders (citizens, companies, academia and public authorities) to improve service provision to citizens, boost energy efficiency and reduce urban environmental impacts. **ESMARTCITY**’s pilot tests involved 43 public buildings in 3 countries to enhance their energy efficiency and 4

public lighting networks in 4 countries to improve their smart public lighting. Results showed that the payback time for these energy efficient building pilots is 3,75 years, while satisfaction and acceptance of smart city lighting amounted to 80% of interviewed citizens.

The project produced a “[Green Paper on Innovation Policy Change](#)” with recommendations for policymakers, and supported capacity-building among SMEs and policy stakeholders to spur open innovation in cities.

ESMARTCITY strives to have a significant and lasting impact on energy efficiency in cities, protecting the environment and fighting climate change, while enhancing citizens’ quality of life through innovative new services.

ESMARTCITY Pilot Projects



Challenges

Digitalisation is an ongoing socio-technical transition in our world. Digital innovations can contribute to making urban environments more liveable, but they can also be disruptive and bring new challenges, trade-offs and hidden costs. In order to

reap their benefits, cities must be proactive and act together with public and private urban stakeholders. A key challenge for local governments is acquiring the digital skills and organisational capacities to cope with the rapid pace of change.

Solutions

The **ESMARTCITY** project:

- upgraded existing innovation clusters in the projects by applying the Smart City concept
- informed more efficient MED territorial policies to support the innovation capacities of city ecosystems
- organised networking activities for Smart City quadruple helix actors within its innovation clusters

ESMARTCITY also conducted pilot tests in intelligent urban districts to increase the energy efficiency of buildings, make public lighting smarter and match existing technologies with end users' needs.

Recommendations

Pilot testing is an efficient way to demonstrate the feasibility of the smart and circular city concepts. To this end, policymakers must receive training (especially on green public procurement and life cycle cost calculation) to further build their capacity on Smart City themes. In parallel, SMEs must also be increasingly involved in and receive training on open and urban innovation ecosystems in order to provide new urban infrastructure and open data services. In general, ESMARTCITY found that an open innovation platform would ease the tran-

sition to Smarter Cities in Europe. At the policy level, the project recommends that national strategies facilitate digitalisation and that green smart public buildings and smart public lighting be included in national and regional funding schemes. R&D has a crucial role to play in the development of new green products and services. Green public procurement is an important instrument to support the emergence of Smart Cities: such funding mechanisms must be implemented within public procurement to support innovation.

Green Growth and the EU Green Deal

ESMARTCITY's efforts to boost energy efficiency and develop smart energy systems support the transition to a green economy within the framework of the EU Green Deal. Its [Green Paper on Innovation Policy Change](#)'s policy recommendations support the Green Deal's

energy objectives: mandating a Regional Strategy for Green and Circular Economy, promoting Green Public Procurement and applying Life Cycle Cost calculation methods, and developing National Action Plans for Green Public Procurement and Life Cycle Cost tools.

Partners:



The InterregMED Green Growth Community

Green Growth is a thematic community that promotes sustainable development in the Mediterranean within the framework of the Interreg Med Programme. It supports the sound management of natural resources by enhancing cross-sectoral innovation practices through an integrated, territorially-based cooperation approach.

The community supports its projects in communicating and capitalising on their results to increase their impact at the policy level and ensure their potential transfer into other territories.

Visit our website:

green-growth.interreg-med.eu

Join the Green Growth Capitalisation Platform:
interregmedgreengrowth.eu

Further Information:

ESMARTCITY Website:

esmartcity.interreg-med.eu

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ESMARTCITY

Type of the result:

- Protocol: action plan/ policy recommendation
- Guidelines
- Methodology

Language(s) in which the result is developed:

- Smart City Protocol: English
- Green Paper: English, Greek, Italian, French, Bosnian, Spanish, Portuguese
- Lessons learned: English and Spanish
- Methodology: English

What is the most appropriate level for its use/ implementation?

Local, regional and national

DESCRIPTION OF THE RESULTS

[Smart City Protocol for the adaptation of Green Paper on Innovation Policy Change](#)

The Smart City Protocol is an action plan for local and regional public stakeholders to implement Esmartcity Policy Recommendations in the implementation phase of the POR FESR programme. The Protocol capitalises on the Green Paper for Innovation Policy Change, and can be used by EU member states that participated in the Esmartcity project.

The Green Paper for Innovation Policy Change details Esmartcity's policy proposals for partner territories. It provides recorded and systematised knowledge on relevant topics such as digitalisation, open data, and green procurement, while presenting good practices from Esmartcity's implementation, and from across Europe.

[Lessons learned on Enhancing Innovation through the Smart City concept](#)

The aim is to develop training guidelines about developing, testing and assessing the Esmartcity intervention strategies for enhancing innovation ecosystems through the smart city concept. The guidelines are used for capacity building with policy stakeholders.

[Methodology for Testing](#)

The result presents a methodology for evaluating pilot interventions related to the smart city paradigm, and more specifically the themes of smart energy-efficient buildings and smart public lighting, according to a set of indicators (cost, performance, technical, social).



PROJECT IMPLEMENTATION AND EVALUATION BY END-USERS

The Smart City Protocol also identifies specific priority investment areas in Esmartcity partner countries. The result has been implemented by regional stakeholders that are partners of the Esmartcity consortium. The project is in the process of having the Smart

City Protocol accepted and adopted by a range of stakeholders in the partner countries. The testing methodology has been implemented and testing in Esmartcity's multinational pilot testing involving four public lighting networks and five public building groups.

WHAT IS THE TRANSFER POTENTIAL?

The results builds on the ERDF – CF and aims to influence local and regional programmes, and funding mechanisms. There is a need for capacity building with local/regional stakeholder, so that they are able to enforce the policy recommendations.

The transferring methodology used in the project is based on the SECI Model Knowledge Creation Spiral that deals with the concepts of explicit and tacit knowledge, and proposes four ways to combine and convert between them: Socialisation, externalisation, combination, and internalisation. Furthermore, with reference to the involvement of target groups in the project and transfer of project results to them, the project has followed the power-interest grid approach detailed in its communication strategy, identifying four target groups to manage closely, keep satisfied, and to keep informed.

WHAT IS THE PROJECT REPLICABILITY?

All the results are ready to be implemented. The Smart City Protocol details an action plan for the adoption of Esmartcity policy recommendations by regional and local stakeholders, with reference to influencing local and regional funding mechanisms and operational programmes in the 2021-2027 programming period. The Protocol offers ready-to-use replicable material for stakeholders both in partner countries and in other EU member states.

The testing methodology is replicable and can be directly transferred to other areas of the programme. It refers to the energy efficiency framework to promote the reduction of energy consumption and costs in buildings and lighting, and to decrease of the greenhouse gas emissions in cities.

WHAT CHALLENGES MAY ARISE?

The Smart City Protocol may experience difficulty accessing regional/national funding instruments. The cost of training experts and accessing policy stakeholder may also be a challenge.

It is important to estimate the necessary investment costs, that have a short payback time (less than four years for public buildings).