

RESEARCHING ENERGY EFFICIENCY FOR EUROPEAN HISTORIC URBAN DISTRICTS



The EFFESUS project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement no. 314678



Presentation overview

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Content

- **Project overview and context**
- **Aims and activities**
- **Question and answers**



Project details

Title	EFFESUS
Acronym	ENERGY EFFICIENCY FOR EU HISTORIC DISTRICTS SUSTAINABILITY
Project period	September 2012 to August 2016
Overall cost	6.8 mio. €
EU contribution	5 mio. €
EU instrument	Seventh Framework Programme for research, technological development and demonstration



Project partners

Project coordinator **Tecnalia (Spain)**
Scientific & technical **Fraunhofer-Gesellschaft**
coordinator **(Germany)**

23 partners from 13 European countries

12 languages

7 case studies in historic cities across Europe





Project partners



- Research establishments
- Small & medium sized enterprises (SMEs)
- Commercial companies
- Public bodies
- Universities



Project context

- *Historic urban districts are an integral, important part of European cultural identity and heritage.*

Improving their energy efficiency will help to protect this heritage for future generations.

- *Historic urban district, in the context of EFFESUS, means a significant grouping of old buildings, built before 1945 and representative of the period of their construction or history.*

The buildings do not necessarily have to be protected by heritage legislation.

Genoa, Italy, an EFFESUS case study city





Project objectives

- 1. Technological development**
- 2. Decision Support System**
- 3. Demonstrations**
- 4. Training and awareness**



Technological development

EFFESUS develops new and adapted technologies and systems which are cost-effective and technically and visually suitable for use in historic buildings and urban districts.

- Aerogel insulation products
- Secondary window solutions
- Thermal insulating mortars
- Radiant reflective coating
- Intelligent energy management systems adapted particularly for historic buildings
- Systems for energy generation from renewable sources for installation in historic urban districts





Decision Support System

A software tool to help make informed decisions about improvement measures suitable for historic urban districts.

The decision making will be supported by

- **Multiscale spatial data model**
- **Categorisation of historic urban districts**
- **Repositories of energy efficiency solutions**

EFFESUS will collate data on

- **Existing building stock** and its energy use and heritage significance
- **Local climatic conditions** including regional climate change predictions
- **Economic, life-cycle and technical assessments** of improvement measures



Heritage Impact Assessment of the Decision Support System

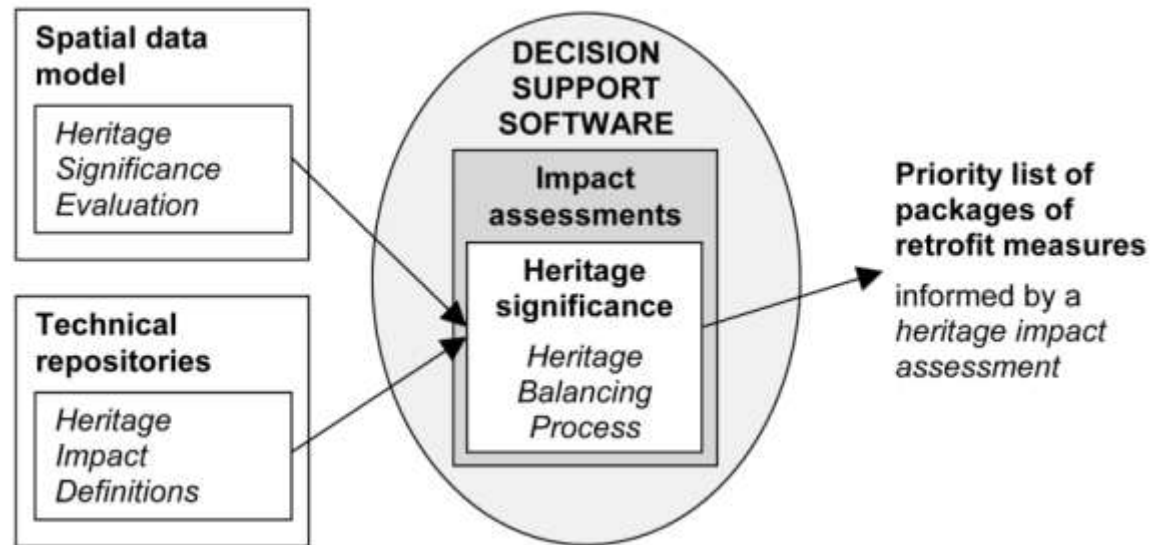
One of six module to assess the impacts of retrofit measures on historic buildings and districts

More details available soon in

***The Historic Environment:
Policy and Practice***

Spring 2014 special issue

Maney Publishing





Demonstrations

EFFESUS will demonstrate in seven case studies the applicability of its technological developments and the suitability of its software tool.

The case studies are located in seven historic cities of very different building traditions, climatic conditions and cultural contexts.

- Bamberg, Germany
- Budapest, Hungary
- Genoa, Italy
- Glasgow, United Kingdom
- Istanbul, Turkey
- Santiago de Compostela, Spain
- Visby, Sweden

Istanbul, Turkey, an EFFESUS case study city





Training and awareness

EFFESUS will engage with as large an audience as possible using a variety of activities and media:

- ***Project website***
- ***Digital newsletter***
- ***Articles and paper in journals, magazines and books***
- ***Scientific conferences, congresses and seminars***
- ***Active stakeholder dialogue***
- ***Training course for students and advanced training for construction and heritage professionals***
- ***Participation in international trade fairs concerned with building conservation, energy efficiency retrofit and conservation***





Thank you

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www.fffesus.eu

www.historic-scotland.gov.uk/fffesus



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Image: Santiago de Compostela, Spain, an EFFESUS case study city

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