



CIRCULAR MODELS LEVERAGING INVESTMENTS IN CULTURAL HERITAGE ADAPTIVE REUSE

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Decision support system for adaptive reuse of CULTURAL HERITAGE

Simona Panaro and Alessio Ishizaka



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 776758



UNIVERSITY OF
PORTSMOUTH

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- 2. About the CLIC Decision Support System**
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1. About the CLIC project



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Cultural Heritage

is an expression of the ways of living developed by a community and passed on from generation to generation, including customs, practices, places, objects, artistic expressions and values

Adaptive Reuse

is a process of reusing an old site or building for a purpose other than which it was built or designed for

Circular Economy

is an economy that balances economic development with environmental and resources protection (Regenerate; Share; Optimize; Loop; Virtualize, and Exchange)



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Purpose

Supporting the public sector to identify “circular” financing, **business and governance models** for systemic adaptive reuse of cultural heritage and landscape

Proposal

Designing, developing and validating a **decision support system** for the public administrations

Study cases

Salerno (Italy), Rijeka (Croatia), and Västra Götaland Region (Sweden)



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Partners

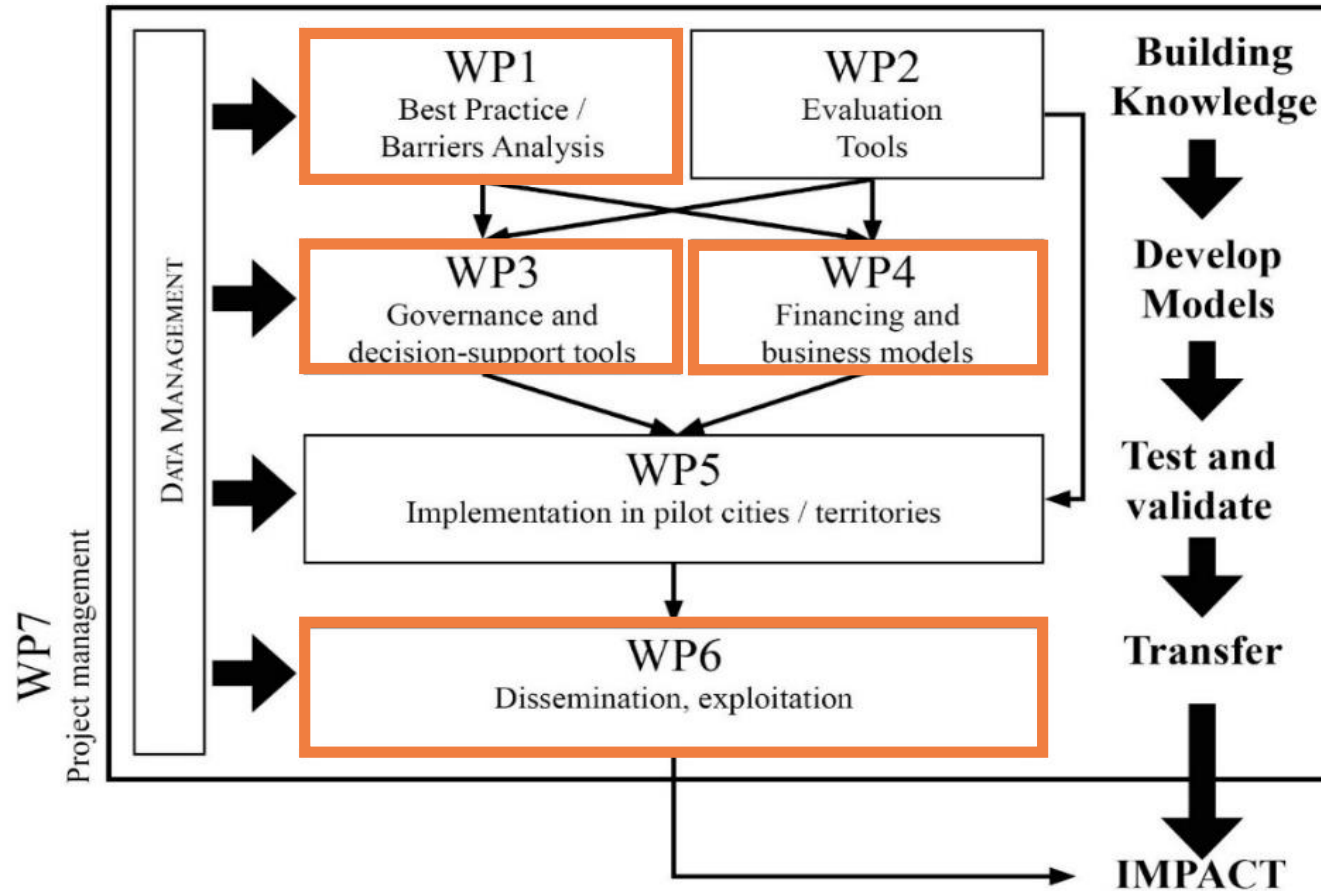
- Institute for Research on Innovation and Services for Development (IRISS), National Research Council (Italy)
- Uppsala University (Sweden)
- ICHEC Brussels Management School (Belgium)
- University College London (UK)
- Eindhoven University of Technology TU/e (The Netherlands)
- **University of Portsmouth, Business School** (UK)
- University of Nova Gorica (Slovenia)
- Vienna University of Economics and Business, Institute for Ecological Economics (Austria)
- Robert Zajonc Institute for Social Studies, University of Warsaw (Poland)
- ICLEI - Local Governments for Sustainability (Germany)
- FacilityLive (Italy)
- **Västra Götalands Regionen** (Sweden)
- **Rijeka** (Croatia)
- **Salerno** (Italy)
- Pakhuis de Zwijger Foundation (The Netherlands)



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Work Packages





2. About the CLIC Decision Support System



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Decision support system

is an information system that **supports decision-making activities**, helping the people making decisions about problems that cannot be easily specified in advance

Decision problem

In the CLIC project, the problem regards the **adaptive reuse of cultural heritage** from the perspective of the circular economy.

Decision process

- **Learning process**, where **different prospectives** can be considered
- Decision regards the choices between **diverse and alternative actions**
- Actions are implemented according to specific **criteria and indicators**



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Features of decision support system

- Considering the **several aspects** of the problem
- Analysing **qualitative, quantitative, and geographic** data
- Supporting the **interaction of actors**
- Collecting **preference** information and supplying **results** in an easy and understandable way
- Considering the **interactions** between the different aspects or elements of the problem



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Steps

2.1 Identifying the issues of the decision problem

- **Typology of alternatives**
- Framework of criteria and indicators to evaluate the alternatives
- **Actors involved**

2.2 Designing the methodology

- **Definition of the mathematical approach**
- **Prototype of the decision support system**
- **Pilot test**

2.3 Real world applications

- Collection of preference information
- **Implementation of decision support system**
- Presentation and discussion of the results with the actors



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Salerno **Problem**



Description

3 large **historical buildings** in the high part of the historical city centre

Important buildings for the history of the cities, but they are now **abandoned**

Objective: to define a sustainable strategy of these sites according to **social use** and **financial** constraints

Rijeka **Problem**



Description

- 2 Buildings of the industrial heritage
- 1 Historic ship

The city will be **European Capital of Culture** in 2020. The city is improving the cultural offer

Objective: to define a sustainable strategy of these sites post Rijeka 2020



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Västra Götaland **Problem**



Description

5 Buildings of the industrial heritage in 5 different cities

The region wants to improve the cultural offer

Objective: to define a strategy that reuse these buildings together



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Questions

- How can a decision support system really take into account the **local issues** and the **stakeholders' expectations**?
- How is it possible to integrate the **experts' knowledge** and the **local knowledge** in order to improve or start local processes of reuse?
- How can we **optimize the resources** and make a decision about all these buildings together?
- How can we take into account the **synergies** or **constraints** between the new uses and the context?



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Integration of different approach

- **Multi-objective approach** for considering different points of views and objectives
- **Interactive approach** for involving different stakeholders in the whole process, supporting the identification of shared decisions
- **Portfolio decision analysis approach** for considering each new use/project as a part of a unique program
- **Prioritization approach** for defining the priority among many uses/projects



The logo for CLIC, featuring the letters 'C', 'L', 'I', and 'C' in a stylized, white, sans-serif font. The letters are slightly shadowed or have a 3D effect. The background is a solid orange color with a pattern of lighter orange diamonds that tapers from the top right towards the bottom left.

CLIC.

3. Conclusion



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Features of the methodology

- To stimulate the **cooperation between different actors**, reducing conflicts
- To integrate **different methods and tools**
- To adapt to the different **complex problems**
- To consider **projects as interlinked** and not isolated
- To monitor the **impacts** of the actions in the **urban context**
- To deal with **uncertain conditions**



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CULIC

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THANKS FOR YOUR ATTENTION!!!

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simona.panaro@port.ac.uk
alessio.ishizaka@port.ac.uk



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