



Circular models Leveraging Investments
in Cultural heritage adaptive reuse



D1.4

Database of best practices



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





HORIZON 2020

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Call H2020-SC5-2017-OneStageB submitted for H2020-SC5-22-2017 / 07 Mar 2017

Deliverable D1.4

Database of best practices

Version 1.0

Due date: 31/12/2018
Submission date: 12/08/2019
Deliverable leader: IRISS CNR
Type Websites, patents filling, etc.
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Abstract

This Deliverable presents the Database of best practices of cultural heritage adaptive reuse, which includes information on 126 cultural heritage adaptive reuse projects from European countries collected by the CLIC project partners and stakeholders.

The aim of this Database is to make data of the CLIC research Findable, Accessible, Interoperable and Reusable (FAIR) ensuring it is soundly managed. It has been designed to be intuitive and user-friendly.

The Database is structured into five main sections: Homepage, list of all Projects, selection of specific groups of projects through the Query, Instructions for use, Authors and Acknowledgments.

General information is provided on the adaptive reuse projects and their location, their structural characteristics and management aspects, their uses / functions, and it includes aggregated data on 31 different aspects of cultural heritage adaptive reuse in the perspective of the circular economy.

Different functions are available for end-users to search and visualize data on the cultural heritage adaptive reuse projects collected:

Single project visualization, reporting specific data for each project:

- project description including information on country, localization;
- specific characteristics such as construction period, adaptive reuse period, state of conservation, vacancy, cultural significance, typology;
- aspects related to governance, management and financing, such as ownership, managing body, management structure, funding source, barriers and bottlenecks, investment;
- information on the uses / functions active in the building / site / landscape.

Selection of projects and visualization of aggregated data on circularity assessment (Query) based on specific characteristics:

- EU geographical regions, with selection options: Central-Northern Europe, Eastern Europe, Southern Europe
- Typology, with selection options: Religious, Civil / Residential, Military, Productive / Industrial / Commercial, Leisure, Other
- Ownership before, with selection options: Public, Private, Ecclesiastical, Other
- Managing body, with selection options: Public, Private non-profit, Private for profit, Public-Private-Partnership, Mixed
- Funding, with selection options: Public, Private Foundation, Private Donations, Owner's investment, Manager's investment, Crowdfunding campaign, Other

The Database allows to visualize aggregated data on 31 different aspects of circularity in the adaptive reuse of cultural heritage. They include, for example, information on energy efficiency, water recovery and materials reuse, information on the conservation of the cultural value of the building / site / landscape through the adaptive reuse intervention, as well as information on the economic, social, cultural, and environmental impacts generated by the adaptive reuse project in the local context.

All data were collected and threatened in compliance with GDPR. No personal data of respondents can be accessible. Additional information and data can be requested for research uses contacting the CLIC Coordinator.

Partners involved in the document

Due to changes in the organization of the Work Package 1 (CLIC General Assembly of 28th March 2019), the responsibility of this Deliverable passed from TU/e to IRISS CNR. Both partners collaborated for the realization of this Database. TU/e provided the first draft version of the Database in MySQL. IRISS CNR designed and realized the Database as described in this document.

All partners have been involved in collecting and filling-in the data on cultural heritage adaptive reuse practices that are included in this Database (see Deliverable D1.3 Report: Survey on best practices of cultural heritage adaptive reuse).

Participant No	Participant organization name	Short Name	Check if involved
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3	GROUPE ICHEC - ISC SAINT-LOUIS - ISFSC	ICHEC	
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7	UNIVERZA V NOVI GORICI	ETCAEH	
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10	ICLEI EUROPEAN SECRETARIAT GMBH	ICLEI	
11	FACILITYLIVE OPCO SRL	FacilityLive	
12	VASTRA GOTALANDS LANS LANDSTING	VGR	
13	GRAD RIJEKA-GRADSKO VIJECE	RIJ	
14	COMUNE DI SALERNO	SA	
15	STICHTING PAKHUIS DE ZWIJGER	PAK	

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1 Description of the Project

The overarching goal of CLIC trans-disciplinary research project is to identify evaluation tools to test, implement, validate and share innovative "circular" financing, business and governance models for systemic adaptive reuse of cultural heritage and landscape, demonstrating the economic, social, environmental convenience, in terms of long lasting economic, cultural and environmental wealth.

The characteristics of cultural heritage and landscape pose significant challenges for its governance. Cultural heritage is a "common good", which enjoyment cannot be denied to citizens, although many buildings and landscape structures are privately owned. Furthermore, the large economic resources needed for recovery and maintenance of heritage goods are rarely available to the private owner, often charged of the additional cost of non-use due to limited degree of transformation allowed. The existing governance arrangements currently involve limited stakeholders concerning for the historic, aesthetic or religious sociocultural values, severely restricting the use of the heritage properties, and charge the central government of conservation costs. The approach of regulatory and planning tools throughout European countries has been to preserve cultural heritage by preventing transformation of buildings or areas having historic-cultural significance.

"The current monument-based, full protection, and government-financed approach that restricts the use of protected properties and relies almost entirely on public funds is incapable of tackling the vast urban heritage of most communities and of sustaining conservation efforts in the long term" (Rojas, 2016). To turn cultural heritage and landscape into a resource, instead of a cost for the community, the structures of authority, institutions and financial arrangements should be adjusted to ensure larger stakeholders' involvement in decision-making, attract private investments and facilitate cooperation between community actors, public institutions, property owners, informal users and producers (Rojas, 2016). The risk is that without financing channels the decay of European heritage and landscape will increase, until its irreversible loss.

Flexible, transparent and inclusive tools to manage change are required to leverage the potential of cultural heritage for Europe, fostering adaptive reuse of cultural heritage / landscape. Tools for management of change should consider costs and benefits at the local level and for all stakeholders, including future generations, and should take into account the cultural, social, environmental and economic costs of disrepair through neglect, compared to the benefits obtained through diverse scenarios of transformation / integrated conservation.

Costs and values of cultural heritage adaptive reuse have to be compared in a multidimensional space: the relationship between costs and "complex values" influences the willingness to invest in the functional recovery of cultural heritage and landscape. Therefore, it is necessary to clarify what is intended for the value of cultural heritage. The higher the perceived value for potential actors, the higher the willingness to take the risk of investment. This "complex value" of cultural heritage depends on the intrinsic characteristics, but also from extrinsic (context) characters.

Investment costs are related to the materials, technologies and techniques to be used to preserve the cultural value of the heritage / landscape, and to maintenance / management / operating costs. The willingness to invest, the same value done, increases with the reduction of costs. Then, the social cost of abandonment – and eventual irreversible loss of heritage – must be included in the investment choice.

The investment gap in cultural heritage and landscape regeneration can be addressed through careful evaluation of costs, complex values and impacts of adaptive reuse, providing critical evidence

of the wealth of jobs, social, cultural, environmental and economic returns on the investment in cultural heritage.

1.1 CLIC Specific objectives

The scopes of CLIC project will be achieved through a set of specific, measurable, achievable, realistic and time-constrained (SMART) specific objectives:

Objective 1 – To synthesize existing knowledge on best practices of cultural heritage adaptive reuse making it accessible to researchers, policy makers, entrepreneurs and civil society organizations, also with direct dialogue with their promoters;

Objective 2 – To provide a holistic ex-post evaluation of the economic, social, cultural and environmental impacts of cultural heritage adaptive reuse, stressing on the importance of appropriate conservation and maintenance approaches able to highlight the integrity and authenticity of heritage;

Objective 3 – To provide EU-wide participated policy guidelines to overcome existing cultural, social, economic, institutional, legal, regulatory and administrative barriers and bottlenecks for cultural heritage systemic adaptive reuse;

Objective 4 – To develop and test innovative governance models and a set of evidence-based, participative, usable, scalable and replicable decision support evaluation tools to improve policy and management options/choices on cultural heritage systemic adaptive reuse, in the perspective of the circular economy;

Objective 5 – To analyse hybrid financing and business models that promote circularity through shared value creation, and assess their feasibility, bankability and robustness for cultural heritage adaptive reuse;

Objective 6 – To validate the CLIC circular financing, business and governance practical tools in 4 European cities / territories representative of different geographic, historic, cultural and political contexts;

Objective 7 – To contribute to operationalise the management change of the cultural landscape also in implementing the UNESCO Recommendation on Historic Urban Landscape;

Objective 8 – To re-connect fragmented landscapes, through functions, infrastructures, visual relations at macro and micro scale;

Objective 9 – To design and implement a stakeholders-oriented Knowledge and Information Hub to make tools and information accessible, useful and usable and test them with policy-makers, entrepreneurs, investment funds and civil society organizations;

Objective 10 – To contribute to the creation of new jobs and skills in the circular economy through cultural heritage adaptive reuse, boosting startups and sustainable hybrid businesses and empowering local communities and stakeholders through public-private-social cooperation models.

Objective 11 – To contribute to the monitoring and implementation of SDGs (especially Target 11.4) and the New Urban Agenda, creating operational synergies with global initiatives of UN-Habitat, UNESCO/ICOMOS and the World Urban Campaign.

All partners have wide experience in developing and testing CLIC proposed tools, ensuring the effective and time-constrained achievement of all the above-mentioned specific goals. The integration of sectorial knowledge, tools and methods will be achieved through a trans-disciplinary

approach promoting partners and stakeholders' cooperation, co-creation of knowledge and co-delivery of outcomes.

The expected impacts of the project are the following:

- Validation of integrated approaches and strategies for cultural heritage adaptive re-use, comprising innovative finance with high leverage capacity, business models and institutional and governance arrangements that foster multi-stakeholder involvement, citizens' and communities' engagement and empowerment;
- New investments and market opportunities in adaptive re-use of cultural heritage, also stimulating the creation of start-ups;
- An enabling context for the development and wide deployment of new technologies, techniques and expertise enhancing industrial competitiveness and contributing to economic growth, new skills and jobs;
- Innovative adaptive re-use models that are culturally, socially and economically inclusive;
- Contribution to implementing the Sustainable Development Goals (SDGs) (Goals 1, 15, 11 particularly) and the United Nations New Urban Agenda.

2 Introduction

The Database on best practices of cultural heritage adaptive reuse was developed starting from data collected through the CLIC Survey on cultural heritage adaptive reuse, available at: www.clicproject.eu/survey.

It contains data on 126 projects of cultural heritage adaptive reuse from European countries. It provides general information on the adaptive reuse project and its location, its structural characteristics and management aspects, its uses / functions, and includes aggregated data on different potential impacts of cultural heritage adaptive reuse in the perspective of the circular economy.

According to the Open Data Research Pilot (see Deliverable D7.1 – Section 3.1 “Open Access to Research Data in Horizon2020”) through this Database the data collected through the CLIC Survey are made “available to third parties to access, mine, exploit, reproduce and disseminate (free of charge for any user)”.

Accessible presentation and query of data is ensured to “make their research data Findable, Accessible, Interoperable and Reusable (FAIR) ensuring it is soundly managed”.

The Database is available at the link: <http://140.164.42.97/clicapp/> and will be included in the CLIC website www.clicproject.eu.

This Database is a key deliverable of the CLIC project, linked to the Milestone n.1 “Best practice analysis completed”.

2.1 Document structure

This document is structured as follows:

Section 3 briefly presents the CLIC Survey, which is described in detail in the Deliverable D1.3 Report: Survey on best practices of cultural heritage adaptive reuse. In this section it is briefly described the data collection form and the procedure of data cleaning and recoding which was preliminary to the development of the online Database.

Section 4 describes the online Database design, features and functions, including the following sections:

- Homepage
- List of all projects
- Projects search and circularity
- Instructions for use
- Authors and Acknowledgments

Section 5 describes the technical aspects of the Database.

Section 6 describes how the Database was developed in compliance with Open Data Research Pilot, aspects on personal data protection and compliance with GDPR.

3 The CLIC Survey

The **CLIC methodological approach** is based on the analysis of empirical evidence to explore whether and how the experiences of cultural heritage adaptive reuse have been able to turn abandoned heritage / landscape assets into a resource for new jobs, wellbeing, health, social cohesion, regional competitiveness and environmental regeneration – as advocated by all international policy documents and scientific literature.

The aim of the **CLIC Survey** was to collect a large and detailed set of information on cultural heritage adaptive reuse practices (also mentioned here as “projects”), including heritage main characteristics (e.g. functional typology, localization, level of protection), overall costs / investments and the cultural, economic, social and environmental impacts generated in the local contexts.

The CLIC Survey was structured into different **sections** through an online survey tool developed by CLIC Partner Facility Live with the support of CLIC Partner TU/e for the development of the first test version of the Survey (launched in October 2018). The test phase highlighted issues related to lack of completeness of the data provided, as well as difficulties in collecting data on a sufficient number of projects. Based on the test phase results and feedbacks collected from respondents, IRISS CNR developed the second and revised version of the CLIC Survey (January 2019), which was implemented again in the online Survey tool by Facility Live. A pool of CLIC Partners as experts in different disciplines was involved in structuring the second version of the Survey, particularly regarding management and financial models, as well as the Assessment on Circularity section. All CLIC Partners were involved in **data collection**, engaging and interviewing stakeholders to fill-in a sufficient number of practices, ensuring relevant and reliable information. Between March and April 2019 more than 130 cultural heritage adaptive reuse practices were collected in the CLIC Database. A final selection of 126 complete projects was included in the database.

The CLIC Survey was structured into three main parts:

- **Characteristics** of the cultural heritage building / site / landscape and its ownership and management model;
- **New uses / functions** activated through the adaptive reuse;
- **Assessment on Circularity** – based on 31 questions to assess the level of achievement of theoretically grounded circularity goals by the existing practices.

The structure of the **CLIC online Survey tool** was implemented by CLIC Partner **Facility Live** and it is fully detailed in the ***Deliverable D1.3 Report: Survey on best practices of cultural heritage adaptive reuse***.

The specific sections of the CLIC Survey were designed to introduce the respondent to the concept of circular economy in cultural heritage adaptive reuse, and guide him to fill-in the information through an appealing and user-friendly online tool providing clear and effective user experience.

Data were cleaned and recoded before creating the Database of best practices, as explained in the Deliverable D1.3. The CLIC Survey remains available at the link: www.clicproject.eu/survey to eventually collect additional cultural heritage adaptive reuse practices and enrich the data set.

4 Online Database

This section describes the online Database design, features and functions, including the following sections:

- Homepage
- List of all projects
- Projects search and circularity
- Instructions for use
- Authors and Acknowledgments

Below the description of each section.

4.1 Homepage

This is the landing page of the online Database, which provides general information on the CLIC project and particularly on the aim of the Survey and Database. The CLIC logo, as well as the EU logo with information on the Horizon 2020 funding and the logo of the European Year of Cultural Heritage 2018 are highlighted. From the homepage, all other sections can be reached through the upper bar containing the titles of the other sections. The following text is presented:

"CLIC "Circular models Leveraging Investments in Cultural heritage adaptive reuse" is a Horizon 2020 research and innovation project on innovative governance, financing and business models for cultural heritage adaptive reuse in the perspective of the Circular Economy.

Adaptive reuse refers to the process of giving "new life to old buildings", reusing an old site, building or landscape area with new uses / functions responding to contemporary needs. The adaptive reuse of cultural heritage represents a sustainable strategy to conserve cultural values and regenerate the historic urban landscapes, stimulating local economies and jobs creation and enhancing local identity and wellbeing.

Circular Economy is defined as a regenerative economic model inspired by the circular processes of nature, which aims to eliminate wastes and other negative environmental impacts of production and consumption, while generating jobs and economic growth, as well as other positive social impacts.

The adaptive reuse of cultural heritage contributes to the implementation of the circular economy and circular cities, reducing urban / landscape "wastes" and re-generating economic, environmental and social resources. It contributes to the **humanization** of cities towards the implementation of the New Urban Agenda.

The first phase of the research identified a number of experiences of cultural heritage adaptive reuse that are described in this Database as "Projects".

The aim of this Database is to make accessible the information on cultural heritage adaptive reuse projects collected within the CLIC research.

This Database contains information on 126 projects of cultural heritage adaptive reuse from European countries, provided by respondents to the CLIC Survey. It presents general information on the adaptive reuse project and its location, its structural characteristics and

management aspects, and its uses / functions. The Database includes also aggregated data on different potential impacts of cultural heritage adaptive reuse in the perspective of the circular economy.

Through this Database, you can consult [information on single projects](#) and you can select specific groups of projects (Query) according to their characteristics: **EU geographical area** in which they are located, **typology** of the heritage building / site / landscape, type of **owner** before the adaptive reuse intervention (public, private, ecclesiastical, other), type of **managing body** (public, private for profit, private non-profit, public-private-partnership, mixed), and type of **funding** (public, private foundation, private donations, owner's investment, manager's investment, crowdfunding campaign, other).

Through the [Query](#) tool, you can access **aggregated data on 31 different aspects of circularity in the adaptive reuse of cultural heritage**. See the section "[Instructions for use](#)" for more details on how to access and interpret the information provided.

Start exploring cultural heritage adaptive reuse practices!

If you want to add another project you can use the CLIC Survey form available here: www.clicproject.eu/survey

If you want to signale any additional information, missing data or other eventual issues using this Database, please write to: info@clicproject.eu



Figure 1 – CLIC online Database - Homepage

4.2 List of all projects

This section presents the list of all 126 projects included in the Database and provides a specific webpage with the information on every project.

The projects included are:

1. St. Martin's Chapel in Stari Brod, Croatia
2. Dr. Barner's Sanatorium, Germany
3. H-Farm, Italy
4. Botanical Garden of National Palace of Queluz, Portugal
5. Cavallerizza Reale, Italy
6. Casino Urban Culture Centre, Romania
7. Victoria Baths, UK
8. Simonsland, Sweden
9. Castle Ryn, Poland
10. Boulingrin Central Market Hall in Reims, France
11. Simonsland, Sweden
12. Trädgårdens skola, Sweden
13. Inredia, Sweden
14. Brewhouse, Sweden
15. Le BRASS Centre Culturel de Forest, Belgium
16. Train World Museum, Belgium
17. Riot studio, Italy
18. Tour à Plomb, Belgium
19. Casino Palace, Poland
20. Ecomuseum in Lanckorona, Poland
21. Zamek Culture Centre, Poland
22. Fondazione Armonie d'Arte, Italy
23. Pakhuis de Zwijger, Netherlands
24. Bastion of the Grand Master's Palace, Rhodes, Greece
25. Casa Morra - Archivio d'Arte Contemporanea, Italy
26. Museo Hermann Nitsch, Italy
27. Giardino della Minerva, Italy
28. Pianofabriek, Belgium
29. De Hoorn, Belgium
30. San Sebastiano Monte dei Morti Living Lab, Italy
31. Hal 5, Belgium
32. Atlas building, Netherlands
33. Meelfabriek Leiden, Netherlands
34. Molino Stucky, Italy
35. Alden Biesen, Belgium
36. Van Nelle Fabriek, Netherlands
37. Center urbane kulture Kino Šiška, Slovenia
38. Tallinn Town Hall, Estonia
39. Omeriye Ottoman Baths, Cyprus
40. I cappuccini, Italy
41. Kulturni dom spanski borci, Slovenia
42. Ri-Hub, Croatia
43. Fort Vechten, Netherlands
44. El mercat del born, Spain
45. Bauska Fortress, Latvia
46. Convento dell'incontro, Villa Magna, Bagno a Ripoli, Italy
47. Antico Mercato, Siracusa, Italy
48. Liubavas Manor Watermill Museum, Lithuania
49. Former Royal Stables in Villa Favorita, Italy
50. Rila Monastery, Bulgaria
51. Fort Monostor, Hungary
52. Sumenlinna, Finland
53. Švicarija - Hotel Tivoli, Slovenia
54. Stara trznica, Slovakia
55. Hotel Katajanokka, Finland
56. STERNTHAL Mansion, Slovenia
57. Castle Ljubljana, Slovenia
58. Vetrinje Town Mansion, Slovenia
59. Geofort, Netherlands
60. Pousada Santa Maria do Bouro, Portugal
61. Cascina Roccafranca, Italy
62. Mercato Sonato, Italy
63. Kalklidan - The lime barn, Sweden
64. Lesczynski Manor: Elderly Healthcare & Residencies, Poland
65. Convent Carmen, Spain
66. Battersea Arts Centre - performing arts centre, UK
67. LocHal Library, Netherlands
68. De Lakfabriek, Netherlands
69. Franz Kafka Society Center, Austria
70. House of Vans, UK

71. 14 | 15 Baťa Institute, Czechia
72. 2nd Chance - Waking up the sleeping Giants, Italy
73. Creative space co-creation, Lithuania
74. C Mine, Belgium
75. Grand Hornu, Belgium
76. Jægersborg Water Tower, Denmark
77. Caballero Fabriek, Netherlands
78. Zeche Zollverein, Germany
79. Spirito Santo Palazzo Storico, Croatia
80. Scuola Holden, Italy
81. Lanthieri Manor, Slovenia
82. Albergo Diffuso Zoncolan, Italy
83. Open Jazdów, Poland
84. Zitadelle Spandau, Germany
85. Fort K'lijk - Fort bij Krommeniedijk, Netherlands
86. Škratelj Homestead - Slovene Cinemateque museum, Slovenia
87. Fort Bakkerskil, Netherlands
88. Fort Resort Beemster, Netherlands
89. Locanda Rosa Rosae, Italy
90. Lichttoren Eindhoven, Netherlands
91. Gasometer City, Austria
92. Mercato Centrale San Lorenzo, Italy
93. Kinsterina Hotel, Greece
94. Dynamo - la Velostazione di Bologna, Italy
95. FabLab Bologna, Italy
96. Kilowatt, Italy
97. Dominicanenkerk Maastricht, Netherlands
98. San Teodoro Experience, Italy
99. Catacombe di Napoli, Italy
100. Le Scalze, Italy
101. Hotwalls Studios, UK
102. Made in Cloister, Italy
103. L'Asilo, Italy
104. Co-housing Santa Chiara, Italy
105. Fabbrica delle E/Binaria, Italy
106. Certosa 1515, Italy
107. Oasi di Cavoretto, Italy
108. Jacobuskerk Utrecht, Netherlands
109. Boonker Rijeka, Croatia
110. Faro of Capo d'Orso, Italy
111. Olive groves of the town of Cres, Croatia
112. Adopt a terrace in the Brenta River Valley, Italy
113. Ex-military hospital, Naples, Urbact 2nd chance, Italy
114. The Bank of Materials Porto, Portugal
115. Palacio Do Raio, Portugal
116. Oporto Tourist Apartments, Portugal
117. Adega Cooperativa Da Ventosa, Portugal
118. Hotel Cais De Santarem, Portugal
119. Mercado Da Ribeira, Portugal
120. Lanificio25 headquarter of regeneration project, Italy
121. Vetrinjski dvor, Maribor, Slovenia
122. Spazio Kor, Italy
123. ReDock La Junquera, Spain
124. Palazzo Innovazione, Italy
125. Pfefferwerk, Germany
126. Villa Campolieto, Italy

The projects data are then presented through a specific webpage dedicate to each of them for the visualization of the following specific information. All data fields are described in brackets. These descriptions are available by click on the single field to clarify its meaning, and also in the online Database tool in the section “Instructions for use”.

Data of single projects are presented in the following way¹:

¹ This section is not available for n. 20 projects that are characterized by private ownership and only private funding. For these projects, the sentence “Waiting for consent to publication of data” is shown in the section of description of the single project. Specific authorization to the publication of the information related to these projects has been requested in order to make available the data of private structures, as far as possible.

Project description

Project Id [This is an automatic Identification number generated by the CLIC survey tool]

Project Name [Project Name]

Description [General description of the cultural heritage and adaptive reuse project]

Description of the economic, social and environmental impacts of the project [Brief description of the economic, social and environmental impacts of the project from the point of view of respondents to the CLIC Survey]

Weblinks [Additional sources for more information]

Country [Country]

Localization [Specific localization of the project – answer options are: urban, (historic centre, urban centre and periphery) and peri-urban, rural, coastal or mountain]

City size [Size of the city in which the project is located]

Characteristics of the cultural heritage building/site/landscapes

Construction period [Period of construction of the oldest part of the building / site / landscape elements]

Adaptive reuse period [Period of realization of the adaptive reuse intervention]

State of conservation [State of conservation of the heritage building / site / landscape before the adaptive reuse intervention]

Vacancy before [State of use of the heritage before the adaptive reuse intervention]

Vacancy after [State of use of the heritage after the adaptive reuse intervention]

Cultural significance [Level of protection of cultural heritage or recognition of its value by the local community]

Typologies [Typology of the original building / site / landscape]

Governance, management and financing

Ownership before [Type of owner before the adaptive reuse intervention]

Ownership after [Type of owner after the adaptive reuse intervention]

Managing body [Type of managing body]

Management structure [How the building / site / landscape is managed]

Funding [How the adaptive reuse has been funded]

Barriers and bottlenecks [Barriers and constraints experienced in the realization of the adaptive reuse intervention]

Total investment [Approximate amount of the investment realized]

Uses / functions

This section shows which specific uses / functions are active in the building / site / landscape.

Residential	Museum exhibition	Coworking spaces
Cohousing	Research	Workshop spaces
Hotel accommodation	Cultural events	Living Lab
BnbHostel accommodation	Theatre	Fab Lab
Commercial units	Conferences	Creative Hub
Wellness centres	Social uses	Artist residencies
Restaurant	Community Hubs	Materials bank
Cafe	Incubator	Repair Cafe
Public library	Cultural and Creative Industries hub	Bike sharing place
Gardens	Innovative startups hub	Sports facilities
Education	Circular economy enterprises hub	Other uses

These uses derive from the original list of uses / functions provided in the CLIC Survey form. Some projects reported “Other uses” which are in some cases explained in detail.

4.3 Projects search and circularity assessment

This section provides a search tool (query) to identify groups of projects based on five main characteristics. After selecting specific (or all) projects, aggregated data on 31 aspects of circularity in the adaptive reuse of cultural heritage are calculated and presented to the user. Below the detail of organization of the queries, their functioning and results.

4.3.1 Projects search

Projects can be selected according to:

EU geographical regions, with selection options:

- ☐ Central-Northern Europe
- ☐ Eastern Europe
- ☐ Southern Europe

Typology, with selection options:

- ☐ Religious

- ☐ Civil / Residential
- ☐ Military
- ☐ Productive / Industrial / Commercial
- ☐ Leisure
- ☐ Other

Ownership, with selection options:

- ☐ Public
- ☐ Private
- ☐ Ecclesiastical
- ☐ Other

Managing body, with selection options:

- ☐ Public
- ☐ Private non-profit
- ☐ Private for profit
- ☐ Public-Private-Partnership
- ☐ Mixed

Funding, with selection options:

- ☐ Public
- ☐ Private Foundation
- ☐ Private Donations
- ☐ Owner's investment
- ☐ Manager's investment
- ☐ Crowdfunding campaign
- ☐ Other

The five query fields are related through "AND" function, while the categories under each of the selection options are related through "OR" function, allowing to select projects with different characteristics into one query.

Some examples of Query:

It is possible to select the projects located in the EU geographical region "Eastern Europe". The query selects only the projects which have all these characteristics. In this case, 28 projects are retrieved.

It is possible to select the projects that were owned by private bodies or ecclesiastical bodies before the adaptive reuse by selecting Ownership before "Private" OR "Ecclesiastical". The query selects only the projects which have all these characteristics. In this case, 41 projects are retrieved.

It is possible to select the EU geographical region "Southern Europe" AND Typology "Religious" OR "Military". The query selects only the projects which have all these characteristics. In this case, 27 projects are retrieved.

It is possible to select the Funding "Public" AND the Managing body "Private non-profit" OR "Private for profit" OR "Public-Private-Partnership". The query selects only the projects which have all these characteristics. In this case, 13 projects are retrieved.

It is possible to select the EU geographical region "Central-Northern Europe" AND the Typology "Productive / Industrial / Commercial" AND the Ownership before "Public" OR "Private", AND the Managing body "Public" AND Funding "Public". The query selects only the projects which have all these characteristics. In this case, 4 projects are retrieved.

If the selection does not retrieve any project, it means that there is no project with the selected characteristics in the database.

If the user does not select any option of query, all 126 projects will be retrieved.

4.3.2 Aggregated data on Circularity Assessment

Aggregated data on the CLIC Survey section "Assessment on Circularity" is presented after query of a group of projects (or all projects). Aggregated answers for the 31 questions of the CLIC Survey questionnaire are calculated based on the selection of projects. They represent 31 different aspects of circularity in the adaptive reuse of cultural heritage, considering the internal structure and management of the heritage building / site / landscape, and the economic, social, cultural, and environmental impacts generated in the local context.

The answers are based on five answer options provided in the CLIC Survey tool: "No", "I don't know", and "Yes". The "Yes" answer could be specified into "Yes scarce", "Yes moderately" and "Yes highly". Thus, the final data are presented considering the following answer options:

- Yes highly
- Yes moderately
- Yes scarce
- No
- I don't know

The 31 aspects of circularity considered are described in the following Table, with the associated questions of the CLIC Survey questionnaire.

Table 1 – Aspects of circularity in the adaptive reuse of cultural heritage

Aspects of circularity	Associated question in the CLIC Survey questionnaire
	CULTURAL VALUES CONSERVATION / ENHANCEMENT
	The reuse process has contributed to:
Conservation of heritage values	1. Conservation / enhancement of tangible and intangible heritage values (historic, architectural and artistic values; local skills, techniques and knowledge) - avoiding loss of authenticity and integrity
Awareness for cultural heritage	2. Awareness raise for cultural heritage
Awareness for circular economy	3. Awareness raise for circular economy

Aspects of circularity	Associated question in the CLIC Survey questionnaire
	CIRCULARITY OF CONSERVATION INTERVENTIONS (in terms of circular metabolism at the micro scale)
	The technical choices of adaptive reuse are able to reduce resource consumption and negative environmental impacts. Specify whether and how the reuse process contributed to implement circular metabolisms:
Low energy consumption systems	4. Realization of low energy consumption systems
Renewable energy sources	5. Implementation of renewable energy sources
Water storage and reuse systems	6. Implementation of water storage and reuse systems
Traditional / bio / reuse materials	7. Use of local traditional materials, bio-materials and/or reuse materials
Reduction of construction waste	8. Reduction of construction waste to landfill
Increase of green spaces	9. Recovery/increase of green spaces and/or Nature Based Solutions (avoiding loss of biodiversity)
	CIRCULARITY OF OUTCOMES COMING FROM REUSE INITIATIVES
	Impacts in the area due to increased attractiveness
	The reuse process has contributed to:
Enhance jobs creation	10. Enhance jobs creation (avoiding loss of local jobs)
Attract innovative start-ups	11. Attract innovative start-ups and companies (e.g. digital, Artificial Intelligence, industry 4.0, Internet of Things, robotics, pharmaceutical research, innovative technologies, science and art research)
Attract creative industries	12. Attract cultural and creative industries (craft, design, architecture, film, music, fashion)
Attract new commercial activities	13. Attract new commercial activities (accommodation facilities, bars and restaurants, shops, services)
Attract cultural visitors	14. Attract cultural visitors (avoiding mass tourism, "AirB&b effect": displacement of the residents in favour of short-term tourists)
Attract new residents	15. Attract new residents in the area
Quality of public spaces	16. Enhancement of quality of public spaces
Increase real estate values	17. Increase real estate values in the area (avoiding gentrification in the area)
	Impacts on social inclusion, wellbeing and health
	The reuse process has contributed to:
Enhance safety in the area	18. Enhance safety in the area
Enhance place attachment	19. Enhance place attachment and local identity
Enhance social cohesion	20. Enhance social cohesion (social cohesion is defined as the willingness of members of a society to cooperate with each other in order to survive and prosper)
Enhance inclusion of marginalized groups	21. Enhance the inclusion of marginalized groups such as elderly, low income groups, migrants
Enhance landscape visual quality	22. Enhance the landscape visual quality of the area
Enhance heritage community	23. Create/enhance a heritage community (that according to the FARO Convention consists of people who value specific aspects of cultural heritage which they wish, within the framework of public action, to sustain and transmit to future generations)
Enhance cultural activities	24. Increase/enhance cultural activities and events, increasing also citizens' participation
Enhance people's wellbeing	25. Enhance people's wellbeing
Enhance people's health	26. Enhance people's health (psychological and/or physical)
	Business, financing and governance model

Aspects of circularity	Associated question in the CLIC Survey questionnaire
	The reuse management model has the following characteristics:
Financially self-sustainable	27. It is financially self-sustainable
Generates revenue flows	28. It generates diverse revenue flows
Third sector involved	29. The third sector (e.g. NGOs, Foundations, Ethical banks, Social Enterprises, Associations, civil society organizations) has been involved in partnerships/cooperation, stimulating new local investments
Different stakeholders involved	30. Different stakeholders have been involved in decision making processes (avoiding social conflict)
Profits are reinvested	31. Profits - if any - are reinvested to fund more local oriented initiatives and/or other heritage initiatives

The answers given to the above questions represent the perception of respondents with respect to particular aspects of circularity in the adaptive reuse of cultural heritage. Therefore, only aggregated data are shown through the query tool.

4.4 Instructions for use

This section includes information on the use of the Database and meaning of different sections, labels and data included. The instructions given to users are reported below.

This Database includes information on cultural heritage adaptive reuse projects. This Database has been designed to be intuitive and user-friendly. Please read also the following instructions to access all information included and get the most from the data.

Single project visualization

You can access data on single projects by clicking on the icon nearby the project description.

The list of all projects can be seen in the section "Projects". You can search the single projects browsing the pages.

The following data is reported for single projects:

- project description including information on country, localization;
- specific characteristics such as construction period, adaptive reuse period, state of conservation, vacancy, cultural significance, typology;
- aspects related to governance, management and financing, such as ownership, managing body, management structure, funding source, barriers and bottlenecks, investment;
- information on the uses / functions active in the building / site / landscape.

Descriptions of each data field is shown by clicking on the specific label.

Query: Selection of projects based on specific characteristics

You can select specific groups of projects based on the following characteristics:

EU geographical regions, with selection options: Central-Northern Europe, Eastern Europe, Southern Europe

Typology, with selection options: Religious, Civil / Residential, Military, Productive / Industrial / Commercial, Leisure, Other

Ownership, with selection options: Public, Private, Ecclesiastical, Other

Managing body, with selection options: Public, Private non-profit, Private for profit, Public-Private-Partnership, Ecclesiastical

Funding, with selection options: Public, Private Foundation, Private Donations, Owner's investment, Manager's investment, Crowdfunding campaign, Other

If your selection does not retrieve any project, it means that there is no project with the selected characteristics in the Database.

If you don't select any option of query, all 126 projects will be retrieved.

Some examples of query:

It is possible to select the projects located in the EU geographical region "Eastern Europe". The query selects only the projects with have all these characteristics. In this case, 28 projects are retrieved.

It is possible to select the projects that were owned by private bodies or ecclesiastical bodies before the adaptive reuse by selecting Ownership before "Private" OR "Ecclesiastica" The query selects only the projects with have all these characteristics. In this case, 41 projects are retrieved.

It is possible to select the EU geographical region "Southern Europe" AND Typology "Religious" OR "Military". The query selects only the projects with have all these characteristics. In this case, 27 projects are retrieved.

It is possible to select the Funding "Public" AND the Managing body "Private non-profit" OR "Private for profit" OR "Public-Private-Partnership". The query selects only the projects with have all these characteristics. In this case, 13 projects are retrieved.

It is possible to select the EU geographical region "Central-Northern Europe" AND the Typology "Productive / Industrial / Commercial" AND the Ownership before "Public" OR "Private", AND the Managing body "Public" AND Funding "Public". The query selects only the projects with have all these characteristics. In this case, 4 projects are retrieved.

If your selection does not retrieve any project, it means that there is no project with the selected characteristics in the database.

If you don't select any option of query, all 126 projects will be retrieved.

Aggregated data on circularity assessment

This Database contains also specific data on 31 different aspects of circularity in the adaptive reuse of cultural heritage.

They include, for example, information on energy efficiency, water recovery and materials reuse, information on the conservation of the cultural value of the building / site / landscape through the

adaptive reuse intervention, as well as information on the economic, social, cultural, and environmental impacts generated by the adaptive reuse project in the local context.

The information is based on the perception of respondents with respect to 31 specific questions on particular aspects of circularity in the adaptive reuse of cultural heritage.

Data are organized into five possible answers given by respondents:

- Yes highly – if the adaptive reuse highly contributed to the specific aspect of circularity
- Yes moderately – if the adaptive reuse moderately contributed to the specific aspect of circularity
- Yes scarce – if the adaptive reuse contributed, but with lower intensity, to the specific aspect of circularity
- No – if the adaptive reuse has not contributed at all to the specific aspect of circularity
- I don't know – if the information on the specific aspect was not available to the respondent

You can access aggregated data on groups of projects through the Query tool.

Once you query the Database, just scroll-down to the end of the page to see the aggregated data for the different aspects of circularity.

Below you find detailed information on what is represented by the 31 questions on circularity in the adaptive reuse of cultural heritage.

A. CULTURAL VALUES CONSERVATION / ENHANCEMENT

The reuse process has contributed to:

1. Conservation / enhancement of tangible and intangible heritage values (historic, architectural and artistic values; local skills, techniques and knowledge) - avoiding loss of authenticity and integrity
2. Awareness raise for cultural heritage
3. Awareness raise for circular economy

B. CIRCULARITY OF CONSERVATION INTERVENTIONS (in terms of circular metabolism at the micro scale)

The technical choices of adaptive reuse are able to reduce resource consumption and negative environmental impacts. Specify whether and how the reuse process contributed to implement circular metabolisms:

4. Realization of low energy consumption systems
5. Implementation of renewable energy sources
6. Implementation of water storage and reuse systems
7. Use of local traditional materials, bio-materials and/or reuse materials
8. Reduction of construction waste to landfill

9. Recovery/increase of green spaces and/or Nature Based Solutions (avoiding loss of biodiversity)

C. CIRCULARITY OF OUTCOMES COMING FROM REUSE INITIATIVES

C.1. Impacts in the area due to increased attractiveness. The reuse process has contributed to:

10. Enhance jobs creation (avoiding loss of local jobs)

11. Attract innovative start-ups and companies (e.g. digital, Artificial Intelligence, industry 4.0, Internet of Things, robotics, pharmaceutical research, innovative technologies, science and art research)

12. Attract cultural and creative industries (craft, design, architecture, film, music, fashion)

13. Attract new commercial activities (accommodation facilities, bars and restaurants, shops, services)

14. Attract cultural visitors (avoiding mass tourism, "AirB&b effect": displacement of the residents in favour of short-term tourists)

15. Attract new residents in the area

16. Enhancement of quality of public spaces

17. Increase real estate values in the area (avoiding gentrification in the area)

C.2. Impacts on social inclusion, wellbeing and health. The reuse process has contributed to:

18. Enhance safety in the area

19. Enhance place attachment and local identity

20. Enhance social cohesion (social cohesion is defined as the willingness of members of a society to cooperate with each other in order to survive and prosper)

21. Enhance the inclusion of marginalized groups such as elderly, low income groups, migrants

22. Enhance the landscape visual quality of the area

23. Create/enhance a heritage community (that according to the FARO Convention consists of people who value specific aspects of cultural heritage which they wish, within the framework of public action, to sustain and transmit to future generations)

24. Increase/enhance cultural activities and events, increasing also citizens' participation

25. Enhance people's wellbeing

26. Enhance people's health (psychological and/or physical)

D. BUSINESS, FINANCING AND GOVERNANCE MODEL

The reuse management model has the following characteristics:

27. It is financially self-sustainable

28. It generates diverse revenue flows

29. The third sector (e.g. NGOs, Foundations, Ethical banks, Social Enterprises, Associations, civil society organizations) has been involved in partnerships/cooperation, stimulating new local investments

30. Different stakeholders have been involved in decision making processes (avoiding social conflict)

31. Profits - if any - are reinvested to fund more local oriented initiatives and/or other heritage initiatives

Additional information and data request

Additional information and data can be requested for research uses contacting the CLIC Coordinator at: info@clicproject.eu

4.5 Authors and Acknowledgments

In this section, the authors of this Database are reported, as well as the acknowledgments to stakeholder organizations which provided data on specific projects. The section reports the following information.

CNR IRISS (Institute for Research on Innovation and Services for Development, National Research Council, Italy) designed and developed this Database of cultural heritage adaptive reuse practices.

We are pleased to acknowledge the contribution of Eindhoven University of Technology ([TU/e](https://www.tue.nl)) in the development of the Database in the initial stages.

We also acknowledge the contribution of [Facility Live](https://www.facilitylive.com) for the realization of the CLIC Survey online tool for data collection.

Additional projects can be included using the online Survey form at this link: www.clicproject.eu/survey

The data included in this Database is the result of a collaborative work between CLIC project partners and stakeholders. We are pleased to acknowledge the contribution of the following organizations in the realization of this Database.

CLIC project partners:

CNR IRISS, Naples, Italy

University of Nova Gorica, Nova Gorica, Slovenia

Uppsala University, Uppsala, Sweden

ICHEC Brussels Management School, Brussels, Belgium

University College London, London, UK

Eindhoven University of Technology, Eindhoven, The Netherlands

University of Portsmouth, Portsmouth Business School, Portsmouth, UK

Vienna University of Economics and Business, Institute for Ecological Economics, Vienna, Austria

University of Warsaw, Robert Zajonc Institute for Social Studies, Warsaw, Poland

ICLEI - Local Governments for Sustainability, Freiburg, Germany

Västra Götalandsregionen, Gothenburg, Sweden

Rijeka municipality, Rijeka, Croatia

Salerno municipality, Salerno, Italy

Pakhuis de Zwijger Foundation, Amsterdam, The Netherlands

Stakeholders:

Agenzia del Demanio, (National Agency for Public Goods), Italy

Associazione Adotta un terrazzamento in Canale di Brenta APS, Italy

Associazione CRAFT, Asti, Italy

Carlo Rendano Association, Naples, Italy

Collettivo BLAM, Salerno, Italy

Comune di Bologna, Bologna, Italy

Comune di Napoli, Naples, Italy

Comunità Parco Quartieri Spagnoli, Naples, Italy

DiArc, Università degli Studi di Napoli Federico II, Naples, Italy

Fondazione Armonie d'Arte, Borgia, Italy

Fondazione Ente Ville Vesuviane, Ercolano, Italy

Fondazione Morra, Naples, Italy

Giardino della Minerva, Salerno, Italy

La Sapienza Università di Roma, Rome, Italy

Narodni dom Maribor, Maribor, Slovenia

Palazzo Innovazione, Salerno, Italy

Pfefferwerk Stiftung, Berlin, Germany

Politecnico di Torino, Turin, Italy

Riot studio, Naples, Italy



Suomenlinna governing body, Helsinki, Finland

Università di Padova, Dipartimento di Scienze Storiche, Geografiche e dell'Antichità, Padua, Italy

X Why / Agency of Understanding, Vilnius, Lithuania

If you want to report additional acknowledgments, please contact us at info@clicproject.eu

5 Technical aspects of the Database

The Database was created in MySQL and the tables have the myISAM format but can easily be converted to INNODB. Transcoding tables were widely used to avoid data redundancy. The Database was uploaded to a server with linux Ubuntu operating system. The total number of tables in Database is 33 (See [Annex 1 – List of Tables included in the Database](#)).

All tables are linked to others by primary or foreign keys. The main table is Project, that have one primary key the field project and several foreign keys that are: country, location_type, location_size, construction_period, conservation_state, management_type, and investment_size.

The Project table is linked by primary key project to the followings tables: ProjectBarrier, ProjectFundingSource, ProjectImage, ProjectManagingBody, ProjectOwnership, ProjectResidentDecisionType, ProjectSignificance, ProjectSocial, ProjectStatement, ProjectTypology, ProjectUse, ProjectVacancy.

The tables ProjectImage and ProjectSocial are both linked to table Project by primary key project.

The table Contry is linked to table Project by primary key country and is linked to table Area by foreign key area.

The table Location_type is linked to table Project by foreign key location_type.

The table Location_size is linked to table Project by foreign key location_size.

The table Costrution_period is linked to table Project by foreign key costruction_period.

The table Conservation_state is linked to table Project by foreign key conservation_state.

The table Management_type is linked to table Project by foreign key management_type.

The table Investment_size is linked to table Project by foreign key investment_size.

The table ProjectTypology is linked to table Project by primary key project and is linked to table Typology by foreign key typology.

The table Project Managing_body is linked to table Project by primary key project and is linked to table Managing_body by foreign key managing_body.

The table ProjectResidentDecisionType is linked to table Project by primary key project and is linked to table ResidentDecisionType by foreign key resident_decision_type.

The table ProjectFundingSource is linked to table Project by primary key project and is linked to table FundingSource by foreign key funding_source.

The table ProjectBarrier is linked to table Project by primary key project and is linked to table Barrier by foreign key barrier.

The table ProjectStatement is linked to table Project by primary key project and is linked to table Statement by foreign key statement.

The table ProjectSignificance is linked to table Project by primary key project and is linked to table Significance by foreign key significance.

The table ProjectUse is linked to table Project by primary key project and is linked to table Use_f by foreign key Use_f.

The table ProjectOwnership is linked to table Project by primary key project and is linked to table Ownership by foreign keys owner_before and owner_after.

The table ProjectVacancy is linked to table Project by primary key project and is linked to table Vacancy by foreign keys vacancy_before and vacancy_after.

Finally, the table Projectstable was built by off-line processing and aggregations.

6 Compliance with Open Data Research Pilot and GDPR

This Database of cultural heritage adaptive reuse practices is realized in compliance with Open Data Research Pilot. No personal data of respondents to the CLIC Survey is available, in compliance with European data protection regulation (GDPR). Only data of “objective” nature are reported in the Database. However, some ‘free-text’ fields such as description of the projects and descriptions of options of answer “other” have been filled-in by respondents and are visualized in the Database. Respondents were informed that some parts of the data collected could be published, and a specific Informed Consent Form has been signed online in the registration procedure of the CLIC Survey. All requirements for data management, protection and sharing are thus fulfilled through the CLIC Database of cultural heritage adaptive reuse practices.

Open Data Research Pilot (ODRP)

According to the Deliverable D7.4 “Data Management Plan” of the CLIC project, Section 4.3 “Data sharing: making data openly accessible, interoperable and data re-use”, data have been made accessible through this Database.

Moreover, according to the Deliverable D7.3 “Open Data Research Pilot” of the CLIC project, the Section 3.2. “Open access to research data” specifies that:

“Beneficiaries must make their research data Findable, Accessible, Interoperable and Reusable (FAIR) ensuring it is soundly managed”

“Regarding the digital research data generated in the action (‘data’), the beneficiaries must:

(a) deposit in a research data repository and take measures to make it possible for third parties to access, mine, exploit, reproduce and disseminate — free of charge for any user — the following:

(i) the data, including associated metadata, needed to validate the results presented in scientific publications as soon as possible;

(ii) other data, including associated metadata, as specified and within the deadlines laid down in the ‘data management plan’ (see Annex 1);

(b) provide information — via the repository — about tools and instruments at the disposal of the beneficiaries and necessary for validating the results (and — where possible — provide the tools and instruments themselves)”.

This Database allows that all requirements of ODRP are fulfilled. Users are able to visualize and make use of the data generated by the CLIC research (in line with GDPR requirements as well). Original data can be requested for research purposed by contacting the CLIC Coordinator as specified in the instructions for use.

Compliance with GDPR

A specific Informed Consent Form was developed to collect the information on cultural heritage adaptive reuse projects, in compliance with GDPR. The Informed Consent Form used is specified in the Deliverable D8.1 – “POD Requirement No.1”, Section 3.2.2.1 “Online Survey of best practices” and related Sections 3.3.4 and 3.3.5.

The publication of data of single projects which have characteristics of private ownership and only private funding is waiting for a specific consent from private bodies.

7 Acronyms

[APC]	[Author Processing Changes]
[API]	[Application Programming Interface]
[CC]	[Creative Commons]
[DMP]	[Data Management Plan]
[DOI]	[Digital Objective Identifier]
[DS]	[Data Sets]
[FAIR]	[Findable, Accessible, Interoperable and Reusable]
[GA]	[Grant Agreement]
[HUL]	[Historic Urban Landscape]
[OpenAIRE]	[Open Access Infrastructure for Research in Europe]
[ORDP]	[Open Data Research Pilot]
[PC]	[Project Coordinator]
[PM]	[Project Manager]
[PMT]	[Project Management Team]
[SDGs]	[Sustainable Development Goals]
[SR]	[Scientific Responsible]
[WP]	[Work Packages]

8 Annex 1 – List of Tables included in the Database

The following is the list of tables with field type.

```
TABLE `Answer` (  
  `answer` tinyint(4) NOT NULL DEFAULT '0',  
  `description` text COLLATE utf8_unicode_ci NOT NULL,  
  PRIMARY KEY (`answer`))  
  
TABLE `Area` (  
  `area` int(11) NOT NULL,  
  `description` text COLLATE utf8_unicode_ci NOT NULL,  
  PRIMARY KEY (`area`))  
  
TABLE `Barrier` (  
  `barrier` int(11) NOT NULL AUTO_INCREMENT,  
  `description` text COLLATE utf8_unicode_ci,  
  PRIMARY KEY (`barrier`))  
  
TABLE `Conservation_state` (  
  `conservation_state` int(11) NOT NULL,  
  `description` text COLLATE utf8_unicode_ci,  
  PRIMARY KEY (`conservation_state`))  
  
TABLE `Construction_period` (  
  `construction_period` int(11) NOT NULL,  
  `description` text COLLATE utf8_unicode_ci,  
  PRIMARY KEY (`construction_period`))  
  
TABLE `Country` (  
  `country` int(11) NOT NULL AUTO_INCREMENT,  
  `name` text COLLATE utf8_unicode_ci,  
  `short_name` text COLLATE utf8_unicode_ci,  
  `area` int(11) DEFAULT NULL,  
  PRIMARY KEY (`country`),  
  UNIQUE KEY `country` (`country`),  
  KEY `area` (`area`))  
  
TABLE `Funding_source` (  
  `funding_source` int(11) NOT NULL AUTO_INCREMENT,
```

```
`description` text COLLATE utf8_unicode_ci,  
PRIMARY KEY (`funding_source`))  
TABLE `Investment_size` (  
  `investment_size` int(11) NOT NULL,  
  `description` text COLLATE utf8_unicode_ci,  
  PRIMARY KEY (`investment_size`))  
TABLE `Location_size` (  
  `location_size` int(11) NOT NULL,  
  `description` text COLLATE utf8_unicode_ci,  
  PRIMARY KEY (`location_size`))  
TABLE `Location_type` (  
  `location_type` int(11) NOT NULL,  
  `description` text COLLATE utf8_unicode_ci,  
  PRIMARY KEY (`location_type`))  
TABLE `Management_type` (  
  `management_type` int(11) NOT NULL,  
  `description` text COLLATE utf8_unicode_ci,  
  PRIMARY KEY (`management_type`))  
TABLE `Managing_body` (  
  `managing_body` int(11) NOT NULL AUTO_INCREMENT,  
  `description` text COLLATE utf8_unicode_ci,  
  PRIMARY KEY (`managing_body`))  
TABLE `Ownership_type` (  
  `ownership_type` int(11) NOT NULL AUTO_INCREMENT,  
  `description` text COLLATE utf8_unicode_ci,  
  PRIMARY KEY (`ownership_type`))  
TABLE `Project` (  
  `project` int(11) NOT NULL,  
  `name` text COLLATE utf8_unicode_ci,  
  `description` text COLLATE utf8_unicode_ci,  
  `address` text COLLATE utf8_unicode_ci,  
  `latitude` double DEFAULT NULL,  
  `longitude` double DEFAULT NULL,
```



```

`country` int(11) DEFAULT NULL,
`administrative_area_level_1` text COLLATE utf8_unicode_ci,
`administrative_area_level_2` text COLLATE utf8_unicode_ci,
`locality` text COLLATE utf8_unicode_ci,
`postal_code` text COLLATE utf8_unicode_ci,
`location_type` int(11) DEFAULT NULL,
`location_size` int(11) DEFAULT NULL,
`best_practice_desc` text COLLATE utf8_unicode_ci,
`construction_period` int(11) DEFAULT NULL,
`reuse_construction_period` text COLLATE utf8_unicode_ci,
`conservation_state` int(11) DEFAULT NULL,
`surface_m2` int(11) DEFAULT NULL,
`ownership_name_before` text COLLATE utf8_unicode_ci,
`ownership_name_after` text COLLATE utf8_unicode_ci,
`management_type` int(11) DEFAULT NULL,
`manager_name` text COLLATE utf8_unicode_ci,
`number_enterprises` int(11) DEFAULT NULL,
`number_jobs` int(11) DEFAULT NULL,
`number_visitors` int(11) DEFAULT NULL,
`number_volunteers` int(11) DEFAULT NULL,
`annual_revenues` decimal(10,2) DEFAULT NULL,
`investment_size` varchar(255) COLLATE utf8_unicode_ci DEFAULT NULL,
`to_contact` tinyint(1) DEFAULT NULL,
`submitted` tinyint(1) DEFAULT NULL,
PRIMARY KEY (`project`),
KEY `country` (`country`),
KEY `location_type` (`location_type`),
KEY `location_size` (`location_size`),
KEY `construction_period` (`construction_period`),
KEY `conservation_state` (`conservation_state`),
KEY `management_type` (`management_type`),
KEY `investment_size` (`investment_size`))
TABLE `ProjectBarrier` (

```

```
`projectbarrier` int(11) NOT NULL AUTO_INCREMENT,  
`project` int(11) DEFAULT NULL,  
`barrier` int(11) DEFAULT NULL,  
PRIMARY KEY (`projectbarrier`),  
KEY `project` (`project`),  
KEY `barrier` (`barrier`))  
TABLE `ProjectFundingSource` (  
`projectfundingsource` int(11) NOT NULL AUTO_INCREMENT,  
`project` int(11) DEFAULT NULL,  
`funding_source` int(11) DEFAULT NULL,  
PRIMARY KEY (`projectfundingsource`),  
KEY `project` (`project`),  
KEY `funding_source` (`funding_source`))  
TABLE `ProjectImage` (  
`projectimage` int(11) NOT NULL AUTO_INCREMENT,  
`project` int(11) DEFAULT NULL,  
`image_url` text COLLATE utf8_unicode_ci,  
PRIMARY KEY (`projectimage`),  
KEY `project` (`project`))  
TABLE `ProjectManagingBody` (  
`projectmanagingbody` int(11) NOT NULL AUTO_INCREMENT,  
`project` int(11) DEFAULT NULL,  
`managing_body` int(11) DEFAULT NULL,  
PRIMARY KEY (`projectmanagingbody`),  
KEY `project` (`project`),  
KEY `managing_body` (`managing_body`))  
TABLE `ProjectOwnership` (  
`projectownership` int(11) NOT NULL AUTO_INCREMENT,  
`project` int(11) DEFAULT NULL,  
`owner_before` tinyint(1) DEFAULT NULL,  
`owner_after` tinyint(1) DEFAULT NULL,  
PRIMARY KEY (`projectownership`),  
KEY `project` (`project`))
```

```
TABLE `ProjectResidentDecisionType` (  
  `projectresidentdecisiontype` int(11) NOT NULL AUTO_INCREMENT,  
  `project` int(11) DEFAULT NULL,  
  `resident_decision_type` int(11) DEFAULT NULL,  
  PRIMARY KEY (`projectresidentdecisiontype`),  
  KEY `project` (`project`),  
  KEY `resident_decision_type` (`resident_decision_type`))  
TABLE `ProjectSignificance` (  
  `projectsignificance` int(11) NOT NULL AUTO_INCREMENT,  
  `project` int(11) DEFAULT NULL,  
  `significance` int(11) DEFAULT NULL,  
  PRIMARY KEY (`projectsignificance`),  
  KEY `project` (`project`),  
  KEY `significance` (`significance`))  
TABLE `ProjectSocial` (  
  `projectsocial` int(11) NOT NULL AUTO_INCREMENT,  
  `project` int(11) DEFAULT NULL,  
  `social` text COLLATE utf8_unicode_ci,  
  `account_name` text COLLATE utf8_unicode_ci,  
  `URL` text COLLATE utf8_unicode_ci,  
  PRIMARY KEY (`projectsocial`),  
  KEY `project` (`project`))  
CREATE TABLE `ProjectStatement` (  
  `projectstatement` int(11) NOT NULL AUTO_INCREMENT,  
  `project` int(11) DEFAULT NULL,  
  `statement` int(11) DEFAULT NULL,  
  `answer` tinyint(1) DEFAULT NULL,  
  `rating` int(11) DEFAULT NULL,  
  PRIMARY KEY (`projectstatement`),  
  KEY `project` (`project`),  
  KEY `statement` (`statement`))  
TABLE `ProjectTypology` (  
  `projecttypology` int(11) NOT NULL AUTO_INCREMENT,
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`project` int(11) DEFAULT NULL,
`typology` int(11) DEFAULT NULL,
PRIMARY KEY (`projecttypology`),
KEY `project` (`project`),
KEY `typology` (`typology`))
TABLE `ProjectUse` (
`projectuse` int(11) NOT NULL AUTO_INCREMENT,
`project` int(11) DEFAULT NULL,
`use_f` int(11) DEFAULT NULL,
`revenue` tinyint(1) DEFAULT NULL,
PRIMARY KEY (`projectuse`),
KEY `project` (`project`),
KEY `use_f` (`use_f`))
TABLE `ProjectVacancy` (
`projectvacancy` int(11) NOT NULL AUTO_INCREMENT,
`project` int(11) DEFAULT NULL,
`vacancy_before` tinyint(1) DEFAULT NULL,
`vacancy_after` tinyint(1) DEFAULT NULL,
PRIMARY KEY (`projectvacancy`),
KEY `project` (`project`))
TABLE `Resident_decision_type` (
`resident_decision_type` int(11) NOT NULL AUTO_INCREMENT,
`description` text COLLATE utf8_unicode_ci,
PRIMARY KEY (`resident_decision_type`))
TABLE `Significance` (
`significance` int(11) NOT NULL AUTO_INCREMENT,
`description` text COLLATE utf8_unicode_ci,
PRIMARY KEY (`significance`))
TABLE `Statement` (
`statement` int(11) NOT NULL,
`description` text COLLATE utf8_unicode_ci,
PRIMARY KEY (`statement`))
TABLE `Typology` (
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`typology` int(11) NOT NULL AUTO_INCREMENT,  
`description` text COLLATE utf8_unicode_ci,  
PRIMARY KEY (`typology`))  
TABLE `UseT` (  
`use_f` int(11) NOT NULL,  
`description` text COLLATE utf8_unicode_ci,  
PRIMARY KEY (`use_f`))  
TABLE `Vacancy` (  
`vacancy_type` int(11) NOT NULL,  
`description` text COLLATE utf8_unicode_ci,  
PRIMARY KEY (`vacancy_type`))  
  
TABLE `Projectstable` (  
`idProject` int(11) NOT NULL,  
`Name` varchar(50) NOT NULL,  
`Description` varchar(1000) NOT NULL,  
`Why_is_it_a_best_practice` varchar(1000) DEFAULT NULL,  
`Web_links` varchar(415) DEFAULT NULL,  
`Country` varchar(52) NOT NULL,  
`EU_geographical_regions` varchar(23) NOT NULL,  
`Localization_detailed` varchar(15) NOT NULL,  
`City_size` varchar(53) NOT NULL,  
`Construction_period` varchar(27) NOT NULL,  
`Adaptive_reuse_period` varchar(9) NOT NULL,  
`State_of_conservation` varchar(19) NOT NULL,  
`Vacancy_before` varchar(16) NOT NULL,  
`Vacancy_after` varchar(16) NOT NULL,  
`Cultural_significance` varchar(104) NOT NULL,  
`Typologies` varchar(83) NOT NULL,  
`CivilResidential` varchar(3) NOT NULL,  
`Religious` varchar(3) NOT NULL,  
`Military` varchar(3) NOT NULL,  
`ProductiveIndustrialCommercial` varchar(3) NOT NULL,
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`Leisure` varchar(3) NOT NULL,
`Other` varchar(3) NOT NULL,
`TOT_N TYPOLOGIES` int(11) NOT NULL,
`Size_sqm` varchar(6) NOT NULL,
`Ownership_before` varchar(13) NOT NULL,
`Ownership_after` varchar(13) NOT NULL,
`Management_structure` varchar(472) NOT NULL,
`Management_and_operation` varchar(19) NOT NULL,
`Managing_body` varchar(72) NOT NULL,
`Manager_Public` varchar(3) NOT NULL,
`Manager_Private_for_profit` varchar(3) NOT NULL,
`Manager_Private_non_profit` varchar(3) NOT NULL,
`Manager_PublicPrivatePartnership` varchar(3) NOT NULL,
`Manager_Mixed` varchar(3) NOT NULL,
`Manager` varchar(18) NOT NULL,
`Funding_full_answer` varchar(253) NOT NULL,
`Funding_PUBLIC` varchar(3) NOT NULL,
`Funding_Private_Foundation` varchar(3) NOT NULL,
`Funding_Private_Donations` varchar(3) NOT NULL,
`Funding_Owners_investment` varchar(3) NOT NULL,
`Funding_Managers_investment` varchar(3) NOT NULL,
`Funding_Crowdfunding_campaign` varchar(3) NOT NULL,
`Funding_Other` varchar(3) NOT NULL,
`Participation_full_answer` varchar(404) NOT NULL,
`Participation` varchar(19) NOT NULL,
`Barriers_and_bottlenecks` varchar(194) NOT NULL,
`Barr_Economic` varchar(3) NOT NULL,
`Barr_Regulatory` varchar(3) NOT NULL,
`Barr_Administrative` varchar(3) NOT NULL,
`Barr_Cultural` varchar(3) NOT NULL,
`Barr_Physical` varchar(3) NOT NULL,
`Barr_Other` varchar(3) NOT NULL,
`Barr_None` varchar(3) NOT NULL,

`Tot_Barriers` int(11) NOT NULL,
`N_ENTERPRISES` varchar(3) NOT NULL,
`N_JOBS` varchar(3) NOT NULL,
`N_VISITORS` varchar(7) NOT NULL,
`N_VOLUNTEERS` varchar(4) NOT NULL,
`ANNUAL_REVENUES` varchar(7) NOT NULL,
`total_investment` varchar(24) NOT NULL,
`Investment_size` varchar(23) NOT NULL,
`Abandoned` varchar(2) NOT NULL,
`Residential` varchar(3) NOT NULL,
`Cohousing` varchar(3) NOT NULL,
`Hotel_accommodation` varchar(3) NOT NULL,
`BnbHostel_accommodation` varchar(3) NOT NULL,
`Commercial_units` varchar(3) NOT NULL,
`Wellness_centres` varchar(3) NOT NULL,
`Restaurant` varchar(3) NOT NULL,
`Cafe` varchar(3) NOT NULL,
`Public_library` varchar(3) NOT NULL,
`Gardens` varchar(3) NOT NULL,
`Education` varchar(3) NOT NULL,
`Museum_exhibition` varchar(3) NOT NULL,
`Research` varchar(3) NOT NULL,
`Cultural_events` varchar(3) NOT NULL,
`Theatre` varchar(3) NOT NULL,
`Conferences` varchar(3) NOT NULL,
`Social_uses` varchar(3) NOT NULL,
`Community_Hubs` varchar(3) NOT NULL,
`Incubator` varchar(3) NOT NULL,
`Cultural_and_Creative_Industries_hub` varchar(3) NOT NULL,
`Innovative_startups_hub` varchar(3) NOT NULL,
`Circular_economy_enterprises_hub` varchar(3) NOT NULL,
`Coworking_spaces` varchar(3) NOT NULL,
`Workshop_spaces` varchar(3) NOT NULL,

`Living_Lab` varchar(3) NOT NULL,
`Fab_Lab` varchar(3) NOT NULL,
`Creative_Hub` varchar(3) NOT NULL,
`Artist_residencies` varchar(3) NOT NULL,
`Materials_bank` varchar(3) NOT NULL,
`Repair_Cafe` varchar(3) NOT NULL,
`Bike_sharing_place` varchar(3) NOT NULL,
`Sports_facilities` varchar(3) NOT NULL,
`Other_uses` varchar(3) NOT NULL,
`Conservation_of_heritage_values` varchar(14) NOT NULL,
`Awareness_for_cultural_heritage` varchar(14) NOT NULL,
`Awareness_for_circular_economy` varchar(14) NOT NULL,
`Low_energy_consumption_systems` varchar(14) NOT NULL,
`Renewable_energy_sources` varchar(14) NOT NULL,
`Water_storage_and_reuse_systems` varchar(14) NOT NULL,
`Traditional_bio_reuse_materials` varchar(14) NOT NULL,
`Reduction_of_construction_waste` varchar(14) NOT NULL,
`Increase_of_green_spaces` varchar(14) NOT NULL,
`Enhance_jobs_creation` varchar(14) NOT NULL,
`Attract_innovative_startups` varchar(14) NOT NULL,
`Attract_creative_industries` varchar(14) NOT NULL,
`Attract_new_commercial_activities` varchar(14) NOT NULL,
`Attract_cultural_visitors` varchar(14) NOT NULL,
`Attract_new_residents` varchar(14) NOT NULL,
`Quality_of_public_spaces` varchar(14) NOT NULL,
`Increase_real_estate_values` varchar(14) NOT NULL,
`Enhance_safety_in_the_area` varchar(14) NOT NULL,
`Enhance_place_attachment` varchar(14) NOT NULL,
`Enhance_social_cohesion` varchar(14) NOT NULL,
`Enhance_inclusion_of_marginalized_groups` varchar(14) NOT NULL,
`Enhance_landscape_visual_quality` varchar(14) NOT NULL,
`Enhance_heritage_community` varchar(14) NOT NULL,
`Enhance_cultural_activities` varchar(14) NOT NULL,


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`Enhance_peoples_wellbeing` varchar(14) NOT NULL,  
`Enhance_peoples_health` varchar(14) NOT NULL,  
`Financially_selfsustainable` varchar(14) NOT NULL,  
`Generates_revenue_flows` varchar(14) NOT NULL,  
`Third_sector_involved` varchar(14) NOT NULL,  
`Different_stakeholders_involved` varchar(14) NOT NULL,  
`Profits_are_reinvested` varchar(14) NOT NULL,  
`Circularity_performance` varchar(6) NOT NULL,  
`Cultural_value` varchar(6) NOT NULL,  
`Management_characteristics` varchar(6) NOT NULL,  
`Closed_metabolisms` varchar(6) NOT NULL,  
`Landscape_quality` varchar(6) NOT NULL,  
`Social_impact` varchar(6) NOT NULL,  
`Economic_spillovers` varchar(6) NOT NULL,  
`Circularity_performance_class` varchar(4) NOT NULL,  
`Cultural_value_class` varchar(4) NOT NULL,  
`Management_characteristics_class` varchar(4) NOT NULL,  
`Closed_metabolisms_class` varchar(4) NOT NULL,  
`Landscape_quality_class` varchar(4) NOT NULL,  
`Social_impact_class` varchar(4) NOT NULL,  
`Economic_spillovers_class` varchar(4) NOT NULL,  
PRIMARY KEY (`idProject`))
```