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INTERIM REPORT //

HERIWELL – Cultural Heritage as a Source of Societal Well-being in European Regions

Methodology and preliminary results

Interim report // April 2021

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Abbreviations

AT	Austria
BE	Belgium
BG	Bulgaria
CBA	Cost and benefit analysis
CCI	Cultural and creative industries
CCS	Cultural and creative sectors
CH	Cultural Heritage
CoE	Council of Europe
CPA	Cluster principal component analysis
CY	Cyprus
CZ	Czechia
DCH	Digital cultural heritage
DE	Germany
DG EAC	Directorate-General for Education and Culture
DK	Denmark
EAFRD	European Agricultural and Rural Development Fund
EC	European Commission
ECoC	European Capitals of Culture
EE	Estonia
EGMUS	European Group on Museum Statistics
ERDF	European Regional Development Fund
ESF	European Social Fund
ESIF	European Structural and Investment Funds
ESPON	European Territorial Observatory Network
ESPON EGTC	ESPON European Grouping of Territorial Cooperation
EU	European Union
ES	Spain
EU-SILC	European Union Statistics on Income and Living Conditions
ETC	European Territorial Cooperation
FI	Finland
FR	France
GDP	Gross domestic product
GR	Greece
HERIWELL	Short name for the ESPON project 'Cultural Heritage as a Source of Societal Well-being in European Regions'
HR	Croatia
HU	Hungary
ICH	Intangible cultural heritage
ICT	Information, communication and technology
IE	Ireland
IS	Iceland
IT	Italy
JPI	Joint Programming Initiative
LGBTQ	Lesbian, gay, bisexual, transgender and questioning (or queer)
LI	Liechtenstein
LT	Lithuania
LU	Luxembourg
LV	Latvia
MANN	National Archaeological Museum of Naples
MCH	Material cultural heritage
MS	Member States
MT	Malta
NEET	Not in education, employment or training

NL	Netherlands
NO	Norway
NUTS	Nomenclature of Territorial Units for Statistics
OECD	Organisation for Economic Co-operation and Development
OP	Operational programme
PL	Poland
PT	Portugal
RO	Romania
SDGs	Sustainable Development Goals
SE	Sweden
SI	Slovenia
SK	Slovakia
SWB	Societal well-being
TCH	Tangible cultural heritage
TO	Thematic objective
ToC	Theory of change
UCH	UNESCO Cultural Heritage
UIS	UNESCO Institute for Statistics
UN	United Nations
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UOE	UNESCO OECD Eurostat

Executive summary

This methodological report represents the second delivery of the HERIWELL project. It aims to introduce the methodological framework that the HERIWELL Consortium proposes to adopt for assessing and possibly measure the relation between cultural heritage (CH) and the different dimensions of societal well-being (SWB) and to present some preliminary examples of its application.

The assessment strategy: a multimethod approach to assess the contribution of cultural heritage to societal well-being

The proposed methodological approach moves from the conceptual approach and the hypotheses on how cultural heritage impacts on societal well-being developed in the Theory of Change presented in the Inception Report and discussed with cultural heritage stakeholders in a deliberative event held between December 2020 and January 2021 (see Annex 9). The assessment approach combines three main sets of methodologies:

1. **Global assessment** aiming to unveil and explain linkages between all forms of cultural heritage and societal well-being at pan-European level. In order to explain the relation between cultural heritage and societal well-being, the global assessment will use quantitative and qualitative methodologies based on available information and data (including big data) and fieldwork:

    - The quantitative methodologies include a multivariate statistical and econometric analysis (cluster, principal component, and regression analyses) of available comparable Eurostat indicators, and testing the possibility to use big data (e.g. Wikipedia) extending the approach proposed by Eurostat. The analysis is meant to assess and possibly measure the relation between Tangible Cultural Heritage (TCH) and societal well-being at pan-European level (ESPON countries).
    - The qualitative methodology is meant to analyse the relation between Intangible CH and some dimensions of societal well-being, on the basis of a content analysis of the UNESCO lists of Intangible CH.
    - Fieldwork involves a cross-country population survey in eight European countries (Belgium, Czechia, Germany, Ireland, Italy, Norway, Poland and Spain), in order to identify the individual perceptions on the relation between all forms of cultural heritage and societal well-being and the changes occurred in the use of cultural heritage in the Covid-19 pandemic.

2. **Local assessment**, aiming to further detail the analysis by pointing out not only the linkages between the various forms of cultural heritage and societal well-being, but also how and why these linkages occur and who benefits most from them. To this end, the analysis will rely on extrapolative case studies, using both quantitative and qualitative methodologies based on desk analysis of available documents, literature, available statistical data and big data, and fieldwork (interviews, workshops, focus groups, etc.). Case studies will be carried out in the survey countries mentioned previously. Big data analysis on a subset of cultural heritage objects at local level will complement some of the case studies.

3. **Assessment of EU investments in cultural heritage,** aiming to reveal the relation between tangible, intangible and digital cultural heritage and societal well-being in EU investments. The analysis of EU investments will be carried out through:

    - quantitative analysis: correlation analysis between EU investments (i.e. European structural and investment funds - ESIF - and Creative Europe) in cultural heritage and societal well-being;
    - qualitative analysis: desk and fieldwork (i.e. interviews, workshop) analysis of European Capitals of Culture (ECoC) deliberatively using cultural heritage in their investment programme.

The proposed multimethod approach allows the Consortium to tackle three main challenges raised in the literature and the deliberative event:

i. *Development of a measurable and comparable operational definition of cultural heritage encompassing all its dimensions* – tangible cultural heritage, intangible heritage and digital heritage

– which are commonly accepted by stakeholders and measurable with available data, and comparable across countries and over time.

The multimethod approach proposed by the Consortium provides a balance between the need for operationalisation and for underlying the multifaceted, changing and value-based nature of cultural heritage through the adoption of a method-based definition of cultural heritage.

While the analyses at pan-European level will use an operational definition of cultural heritage focusing on tangible cultural heritage, the other set of methodologies will rely on a broader definition of cultural heritage, either considering all forms of cultural heritage (as in the cross-country survey, the case studies, and the ECoC meta assessment) or specific subsets of cultural heritage endowments (e.g. the content analysis of intangible heritage included in UNESCO lists).

When it comes to the measurement of cultural heritage with available and comparable data, other challenges arise, such as the limited availability of comparable data on the size of national heritage in ESPON countries. To address these challenges, the proposed pan-European quantitative analyses will rely on both official sources of data (e.g. Eurostat) and big data analysis of cultural heritage.

ii. *Definition and description of the structure of the relationship between cultural heritage and societal well-being, which is strongly affected by the specificity of the actions taken and target audience*

As pointed out in the literature and in the HERIWELL deliberative event, the relationship between cultural heritage and societal well-being is complex to unveil, because: i) it is strongly influenced by the variables impacting on the different dimensions of societal well-being; ii) the ways in which impacts occur and are transferred depend on the measures adopted in different contexts to valorise cultural heritage and support its use, and on the target audience (i.e. individual or community); iii) the societal well-being dimensions are interconnected and there are limited data on the quality of life and societal cohesion dimensions of well-being.

The use of a multimethod approach sheds light on the various dimensions of societal well-being at different levels (macro – society, and micro – specific groups, individuals) that would be difficult to grasp otherwise. The aggregate pan-European analysis considers the contribution of tangible cultural heritage to well-being at societal level. The cross-country survey provides information on individual perceptions on the contribution of cultural heritage (in all its forms) to individual and societal well-being. The extrapolative case studies shed light on micro impacts (e.g. community engagement, sense of belonging) that the statistical analyses at the aggregate level cannot capture in detail, and on the mechanisms that favour this contribution. Extrapolative case studies can also provide information on impacts of cultural heritage that occur jointly (e.g. social exclusion experiments of museums can produce both social inclusion and health and happiness of participants), which are more difficult to unveil through the other methods.

In addition, the multimethod design allows us to better understand the bidirectional relation between cultural heritage and societal well-being: i.e. on the one hand the fact that cultural heritage enhancement measures tend to target specific audiences and, on the other hand, the fact that the selected target must have the capacity to grasp that impulse.

iii. *Interconnected nature of the outcomes in the relation between cultural heritage and the societal well-being dimensions*

While the theory of change has tried to define the impacts of cultural heritage on the different societal well-being sub-dimensions (quality of life, societal cohesion and material conditions), debates with cultural heritage stakeholders have pointed out that this distinction is more theoretical than practical. Hence, their assessment is difficult. Furthermore, the focus on one dimension or another might not capture the full contribution of cultural heritage to societal well-being.

The picture does not change much when it comes to subdomains: community awareness, civic cohesion and sense of belonging (societal cohesion) trigger almost an equal interest for further research among stakeholders, as do education and skills, knowledge and research, and quality and sustainability of the environment (quality of life). The adoption of a multimethod design allows us to triangulate data from different sources to uncover impacts for all these sub-dimensions.

Methodologies for a pan-European assessment of cultural heritage and societal well-being

i. Quantitative aggregate analysis, including big data analysis, to measure the relations between cultural heritage and societal well-being through time and among ESPON countries

The aggregated quantitative analysis will be delivered in several steps:

a) Identification of an operational definition of tangible cultural heritage and societal well-being. Identification and selection of cultural heritage and societal well-being indicators comparable across countries and over time (at NUTS 1 and 2 level) collected by Eurostat and other international sources (e.g., Culture Statistics, European Union Statistics on Income and Living conditions – EU-SILC, United Nations Sustainable Development Goals indicators).

To cope with the previously mentioned challenges on the definition of tangible cultural heritage in quantitative measurements of the impact of cultural heritage on societal well-being, for the operational definition of tangible cultural heritage the HERIWELL Consortium proposes to adopt two main approaches:

- An approach based on stock indicators of tangible cultural heritage, including the share of buildings built before a certain date, e.g. 1919 as in the ESPON Heritage project; the number of cultural sites inscribed in the UNESCO World Heritage List; the number of the European Heritage Label sites.

- An approach based on flow or demand indicators including the number of museums and their visitors; the number of Wikipedia queries (daily, weekly, monthly, etc.) for selected components of tangible cultural heritage as indicator of the attractiveness of cultural sites; public expenditure in cultural services (Eurostat comparable data) complemented by expenditure in cultural heritage (Heritage Compendium); employment in the cultural sector.

For the operational definition of societal well-being, the consortium proposes to use the following sustainable development indicators and the indicators on quality of life included in the ad hoc module of the EU-SILC survey:

- Overall life satisfaction, satisfaction with personal relationships, good health, tertiary education, adult participation in learning, early school leaving (quality of life);

- Trust in the legal system, trust in others, people having someone to rely on in case of need, poverty risk, Not in Employment Education and Training (NEET) rate (societal cohesion);

- Gross Domestic Product per capita, employment gap, total public investment (material conditions).

Even though these indicators do not perfectly match the societal well-being dimensions included in the theory of change, they allow the Consortium to have access to harmonised data on societal well-being for up to 31 European countries (the EU27 Member States, Iceland, Norway, Switzerland and the United Kingdom). As previously mentioned, the societal well-being dimensions that cannot be considered in the pan-European aggregated quantitative analysis (due to lack of homogenous data) will be explored through the other methodologies proposed within the HERIWELL assessment programme.

b) Exploring the correlations among the indicators selected using multivariate statistical methods (cluster and principal components analysis – PCA) to identify the main drivers to be used in the regression analysis.

A cluster and principal component analysis has been used in the first phase of assessment for: identifying variables/indicators capable of capturing some of the fundamental relations hypothesised by the theory of change; reduce the number of variables to be considered in the regression analyses. To this end, a wide list of indicators has been tested in the cluster and principal components analysis.

c) <u>Identification and estimation of core cross-country regressions</u> using the main drivers of PCA indicators with the latest available data;

From a general point of view, the relationship between sustainable well-being and culture might be defined by a generic function: Yit=f(Xit), where the index i refers to the ESPON countries, while t refers to the years for which the selected indicators are available. This relationship allows us to define if, and with what intensity, tangible cultural heritage and cultural indicators contribute to determining the life satisfaction in a country.

In a first application, the Consortium proposes to define Y (dependent variable) as overall societal well-being or life satisfaction. The definition of the X variables and indicators will result from a process of identification of the main drivers on the social, economic and cultural dimensions, including tangible cultural heritage. Following this approach, we propose an exploratory analysis of a subset of Sustainable Development Goals indicators related to the social and economic dimensions of societal well-being, together with indicators related to the cultural statistics integrated with other indicators of tangible cultural heritage, such as: the number of visitors to the five most famous tangible cultural heritage sites in each country, the percentage of state-owned museums, the percentage of historical buildings, the 'popularity' index of a select subset of tangible cultural heritage, and public expenditure on heritage.

d) <u>Testing the use of Wikipedia data as a proxy to 'value' the cultural heritage stock</u> (Wikipedia popularity) in core regressions for a sample of countries/regions (starting from the UNESCO list);

Big data will be used to complement comparable data available on cultural heritage, following the Eurostat approach in the 'Pilot Project on Big Data' (https://ec.europa.eu/eurostat/web/experimental-statistics/world-heritage-sites). Queries on the main sites or browsers regarding the components of tangible cultural heritage for a country are used as an indicator of their popularity and virtual demand. Several big data sources have been analysed in this phase of the research (i.e. TripAdvisor, Google trends, Wikipedia). Wikipedia has been deemed the most suitable big data source for the HERIWELL project as it provides absolute values, it can provide information on both tourists and residents, and it is not likely to be self-referential. An initial test of the use of Wikipedia data has been carried out on two Italian sites. The analysis shows that it is possible to derive meaningful information to be used for a sample of countries/regions (starting from the UNESCO lists) in the pan-European regression analysis, and also at the local level to complement some of the case studies.

e) <u>Extending the regression analysis on time (panel) and territorial levels</u> (from NUTS1 to NUTS2).

In the next step of the project, the regression model will be extended over time and at the NUTS2 level, depending on available data.

Preliminary results of the cluster and principal component analysis

The preliminary <u>correlation and cluster analysis</u> carried out on a subset of tangible cultural heritage and societal well-being indicators shows that:

- there is a strong correlation both within the set of indicators used to measure the levels of 'quality of life' and the set of indicators used to measure the impact of culture on 'material conditions'. This result leads us to believe that in future developments of the research the number of indicators to be considered can be reduced without losing relevant information.

- there is also a strong correlation between some of the indicators introduced to measure the quality of life (life satisfaction) and social cohesion (trust), with those used to approximate both the impact of culture on material conditions (total employment in cultural and creative sectors) and the level of sectoral innovation processes (internet purchase of book). The economic strength of the cultural sector, together with the innovations taking place in the forms of cultural consumption, seem to have a significant influence on the societal well-being variables of a social and subjective nature.

- social exclusion – measured by the indicators of poverty and the Not in Education, Employment and Training rate (neither in employment nor in education or training) – is negatively correlated with the proxy indicators of quality of life, as expected. Together with the cultural indicators, the economic and social conditions and the role of the state return a positive correlation.

Furthermore, the preliminary results of the <u>principal component analysis</u> show that the education level is one of the driving forces of participation and cohesion, while income levels, together with innovative forms of cultural consumption, support life satisfaction.

When it comes to <u>big data analysis</u>, the preliminary application on Pompeii and the Colosseum shows a significant relationship between the use of devices and the tourist attractiveness of a monument or archaeological area; the time series analysis also shows the effects of the Covid-19 pandemic on the use of these sites. Even though these are preliminary results of a highly experimental analysis, they confirm the feasibility and relevance of carrying out specific analyses using Wikipedia data in the HERIWELL context.

ii. Content based analysis to describe the relations between intangible cultural heritage and societal well-being at pan-European level

Due to the scarcity of quantitative data on intangible cultural heritage at pan-European level, a content analysis of the intangible cultural heritage UNESCO lists represents an opportunity to shed light on the relations between intangible cultural heritage and societal well-being at pan-European level. The analysis has assessed the descriptions presented for 146 nominations available in 26 ESPON countries.

The main steps of the analysis include:

- a definition of intangible cultural heritage and societal well-being: to capture the multifaceted nature of intangible cultural heritage and societal well-being, the content analysis adopted the general definition of both intangible cultural heritage and societal well-being proposed in the HERIWELL Inception report;

- a definition of a set of identifying descriptors (based mainly on the subcategories listed in the theory of change and on the list of priority stakeholder groups set in the Conceptual Framework);

- a text analysis of semi-standardised documents on factual intangible cultural heritage manifestations in ESPON countries (inscriptions in the UNESCO lists) according to the selected descriptors;

- an analysis and interpretation of the territorial distribution of intangible cultural heritage manifestations and their relevance for key HERIWELL categories of societal well-being.

The **preliminary results of this analysis** show that intangible cultural heritage activities related to the 'active engagement of the population, dedicated communities or minorities in safeguarding intangible cultural heritage' figure at the top of UNESCO intangible cultural heritage typologies (50 % of the overall analysed ICH) almost on par with 'different forms of supportive engagement provided by heritage communities' (49 %). Conversely, traditional crafts do not figure on top of the ranking – which may be different in countries outside Europe.

The analysis also reveals that intangible cultural heritage is mostly locally or regionally based (73 % of the overall analysed ICH), which means that impacts will occur mostly at these levels, confirming the territorial level of societal well-being impacts of intangible cultural heritage.

Coherently with the territorial level of intangible cultural heritage, residents are the most relevant beneficiaries of intangible cultural heritage (75 %) and related societal well-being impacts, followed by heritage/culture professionals (52 %). Minorities or migrants seem to be a rather limited category benefitting from ICH (5 %).

When it comes to the societal well-being dimensions related to intangible cultural heritage, although many activities refer to different societal well-being dimensions, overall the dimensions of societal cohesion and quality of life are the most relevant: 55 % of the analysed intangible cultural heritage refers to societal cohesion (as defined in the HERIWELL theory of change), while 51 % to quality of life. Material conditions are less relevant in this relation (44 % of the analysed intangible cultural heritage), except that professional job opportunities seem to be on the increase in Europe.

These results merit further, more detailed investigations, including at national and regional levels.

Considering the potential of this analysis and the fact that stakeholders' consultations pointed out that there is not a clear division between tangible cultural heritage, intangible cultural heritage and digital cultural heritage, the consortium proposes to test a **similar methodology** taking as a reference the **Cultural Routes Programme**.

Survey on a representative sample of the adult population in eight ESPON countries

To analyse the relation between cultural heritage in all its manifestations (tangible, intangible and digital) and the individual well-being, with focus on the Covid-19 context, the Consortium is going to undertake a survey on a sample of 8 500 people representative of the population of eight ESPON countries: Belgium, Czechia Germany, Ireland, Italy, Norway, Poland and Spain.

The HERIWELL survey aims to shed light on: the typologies of cultural heritage users (e.g. consumers, active users, not users); the barriers to access cultural heritage; the impacts of Covid-19 on individuals' view of cultural heritage and their expected cultural heritage consumption once the pandemic is overcome; people's perceptions on heritage-related quality of life, societal cohesion and material conditions aspects. The analysis of the responses will be carried out through the use of univariate and bivariate statistical analysis.

Methodologies for the assessment of cultural heritage and societal well-being at the local level

Two different methodologies are proposed to uncover the contribution of cultural heritage to societal well-being at local level.

i.   Case studies

Case studies will be conducted in the same countries of the survey to be able to integrate macro and micro level information and explain the contribution of cultural heritage to societal well-being.

The case studies are meant to: collect more fine-grained information on the impacts of cultural heritage at the local level; test empirical methods of impact assessment; provide policy-relevant insights on how specific results have been achieved (mechanism); and provide evidence on the linkages between cultural heritage and societal well-being for policymakers and stakeholders in the cultural heritage field in order to strengthen the positive expected impact of cultural heritage on societal well-being at the local level.

The case study approach will thus have to provide an answer to the following main research questions:

- What kind of change in the societal well-being dimensions can be detected related to the cultural heritage considered in the case study? How can it be measured?

- Why has the impact been generated?

- What lessons can be learned for policymakers and cultural heritage stakeholders?

To this end we propose to adopt an extrapolative design (Barzelay, 2007). This approach is particularly useful when effects depend on case-specific situational or contextual factors, as it is the case of cultural heritage whose societal well-being impacts are strongly dependent on the 'target' (both in terms of social groups and sites). However, the extrapolative design allows to narrow down the design problem in order to devise locally feasible elements that would intentionally activate the desired causal process, and that could thus be transferred to other contexts. The extrapolative design will focus on context features, policy features, project and policy outcomes, and the mechanisms that trigger specific policy outcomes in the societal well-being domain.

As unit of analysis we consider exemplary practices, to explore the *reasons why* their results (in terms of societal well-being) occurred. Exemplary practices will be selected among those proposed by the HERIWELL country experts, in international databases and by the HERIWELL Network of stakeholders. Exemplary practices will be selected using various criteria: location in one of the case study countries; coverage of various types of cultural heritage and societal well-being; variety among the types of policies promoted; availability of qualitative and quantitative data on impacts. Furthermore, to unveil the multifaceted nature of the relation between CH and societal well-being, case studies will adopt the broad definitions of cultural heritage and societal well-being presented in the Conceptual Report.

The pilot case study features the Archaeological Museum of Naples (MANN), one of the 500 Italian national museums. The MANN Museum tackles different forms of cultural heritage: tangible and digital (through the development of the Father and Son videogame), and through its initiatives it also aims to contribute to different forms of societal well-being: quality of life (in particular knowledge and research about the past), societal cohesion (in particular, enhanced community engagement and integration of minorities and enhanced community awareness, civic cohesion and sense of belonging).

The analysis is ongoing. Preliminary results show the contribution of digital cultural heritage to gender equality. While over half of the museum visitors (in person) are men, the situation is reversed when it comes to the use of digital cultural heritage where women take the lead (63 % female on Facebook; 51.45 % on YouTube). Facebook and Instagram data also show that the museum maintains strong local roots, with most of the followers located in the Campania region. Facebook and Instagram data (April 2021) also show that over half of the MANN's followers are aged between 25 and 44 years. These data account for the effectiveness of the accessibility strategy of the Museum, prompted by the 2016−19 Strategic Plan. However, the degree in which these results had an impact (i.e., fostered a change) in societal well-being requires a further reflection that will be undertaken in the next phase of the project.

ii.   Big data analysis al local level

The HERIWELL Consortium will use big data (e.g. Wikipedia) at local level in connection to the case study analysis, following and extending the approach proposed by Eurostat, to take into consideration not only the number of pages consulted daily in the online encyclopaedia, but also how their number changes over time as the language and device used change. This dynamic analysis allows us to analyse, even if in a 'fuzzy' and experimental way, both the profile of the potential site user and the changes that have occurred in the relationships between a cultural heritage and its 'virtual' audience.

As anticipated, this extended analysis was tested in two cases studies (the Colosseum and Pompeii) to identify if, through the changes in the consultation of the Wikipedia pages, it is possible to grasp the impacts of the Covid-19 pandemic on the use of these tangible cultural heritage sites.

The results of the analysis show a significant relationship between the use of devices and the tourist attractiveness of a monument or archaeological area. In a more touristic city, like Rome, and for a very popular monument (the Colosseum), the use of mobile devices and English is significantly more diffused than in the case of Pompeii. Using Wikipedia data during the pre-Covid and the Covid periods, the analysis also shows a sharp decrease in the use of mobile devices during the Covid period and an upturn after the end of the first lockdown. When comparing the use of Wikipedia with other social networks (e.g. Facebook, Instagram), emerges that, while access increased on the other social network channels, it decreased on Wikipedia. We can hypothesise that Wikipedia users have a more cognitive aim, while those of social networks a more emotional one.

Even though these are preliminary results of a highly experimental analysis, they confirm the feasibility and relevance of carrying out specific analyses using Wikipedia data in the HERIWELL context. In the next phase of the study the methodology will be fine-tuned to obtain additional information on CH and SWB at local level, in the case studies.

Methodologies for assessing the contribution of EU investments in cultural heritage to societal well-being

The HERIWELL project includes also a specific analysis of the effects of European investments in CH on societal well-being. In the first phase of the research the Consortium narrowed down the analysis, with focus on European Structural and Investment Funds (in particular European Regional Development Fund - ERDF) funding, Creative Europe and the European Capitals of Culture programme.

As in the case of global and local-level analyses, the Consortium proposes to use a mixed methodology approach, involving quantitative and qualitative approaches.

i.   Explorative analysis of the relation between European Structural and Investment Funds and Creative Europe investments in CH and SWB indicators

The analysis of the relation between European Structural and Investment Funds allocations on cultural heritage and societal well-being has been based on the following steps:

- The adoption of an operational definition of ESIF investments in cultural heritage, according to available data and indicators. In this phase, European Regional Development Fund allocations in tangible cultural heritage have been considered, as they are specifically codified by the European Regional Development Fund Managing Authorities under codes 94 and 95.

- The adoption of an operational definition of societal well-being. Several indicators, available at regional level, have been identified as proxies of the three societal well-being dimensions identified in the HERIWELL Conceptual Framework.

- A correlation analysis considering on one side the cumulate planned allocations 2014–2020 in CH in term of (i) incidence % of CH over total ERDF planned allocations, and (ii) allocations per inhabitants, and, on the other sides, each SWB indicator in term of: (i) latest available data, (ii) average for the 2014–2019 period, and (iii) change between 2014 and 2019.

- A desk analysis of national open data using keywords in order to extend the analysis to the European Social Fund (ESF) and the European Agricultural and Rural Development Fund (EARDF), as well as to identify other European Regional Development Fund interventions eventually classified under other codes. The operational definition of cultural heritage will thus be further fine-tuned in the next phases of the research based on the results of this analysis.

The preliminary results of the analysis show a low level of correlation between European Regional Development Fund allocations on cultural heritage (codes 94 and 95) and societal well-being indicators, although the correlation results are compatible with a positive relation between cultural heritage and societal well-being. The recognition on national open data using keywords, shows that, while for ESF and ERDF information is available in most of the EU MSs, less information is available regarding the EAFRD. The assessment carried out for Italy, where a complete database is available with information for each financed project, shows that many ERDF and ESF projects dealing with CH are often classified by Managing Authorities under other codes, besides the codes 94 and 95.

As for the Creative Europe Programme, a content analysis will be applied in order to identify the potential relations between cultural heritage and societal well-being. An initial application of the analysis revealed over 100 projects out of 3,352 that focus on at least one societal well-being dimension. Unfortunately, data available on the EACEA platform do not provide the disaggregated information on the amount received by each partner of the projects, but only the expected amount of resources for the overall project activities. The Consortium is verifying the availability of accessing the financial data with EACEA. The preliminary results of this analysis will be presented in the next delivery.

ii.   Qualitative meta assessment of the evaluations of the European Capitals of Culture

The European Capitals of Culture (ECoC) initiative focuses on promoting and celebrating Europe's rich cultural diversity and heritages, mutual understanding and intercultural dialogue, as well as on putting cities at the centre of cultural life across Europe. The initiative includes interventions both in culture and cultural heritage.

In order to provide insights on the relation between cultural heritage and societal well-being at the local level the Consortium will conduct a qualitative meta-analysis of ECoC purposely using cultural heritage in their investment programme, based on the desk analysis of ex post evaluations reports and fieldwork (i.e. interviews and workshop with representatives of ECoC). The analysis will allow the Consortium to group outcomes identified along the impact categories deployed in the HERIWELL theory of change and, to the extent possible, to provide explanations on triggering factors of these impacts. Data collected from the evaluation will be integrated with interviews with representatives of European Capitals of Culture. One potential limit may be represented by the fact that data on long-term outcomes might not be available, as the ex post evaluation process is conducted briefly after the end of the nomination period. Nevertheless, from a methodological point of view this information, together with that derived from the case study analysis, will feed the final HERIWELL theory of change to show how outputs and intermediary outcomes connect to long-term ones.

The HERIWELL outreach strategy

The HERIWELL project outreach strategy aims to discuss, promote and disseminate the project and its methodology and results among policymakers and stakeholders in order to enhance the work and capitalise on the project results.

In order to achieve these aims the **HERIWELL Network** was created (a broad community made of institutions, academics, civil society and professionals), and specific events (workshops, seminars etc.) have been set up to discuss and disseminate the results of the project.

Several events have been organised in this period, involving both the HERIWELL Network and the team of country experts. A **workshop targeted to the team of country experts was organised on 13 November** to debate on potential impacts of cultural heritage on societal well-being; differences in the contribution of

the various forms of cultural heritage to societal well-being; measurement of the impact of cultural heritage on societal well-being. The event involved 15 country experts, from 13 countries.

The members of the **HERIWELL Network** were invited to the HERIWELL **Deliberative Event**, a participatory initiative, targeting different audiences, with the goal of discussing and validating the main concepts and approach of the HERIWELL project. The deliberative event was organised online and included three rounds of discussions (15–17 December, 26 January). Overall, 51 HERIWELL Network members participated in the discussions.

In addition, a 'social storm' was organised in March 2021 to disseminate the current findings of the project.

Members of the HERIWELL research team also participated in a several international and EU conferences and seminars on the topic.

As far as the **next phase of the outreach activities** are concerned, several other events will be organised throughout the project (e.g. capacity-building training, workshops in the case study areas, final conference). In addition, members of the research team will continue to participate in future conferences and other events.

Introduction

This methodological report presents the HERIWELL proposed approach to assess and measure the relation between CH and SWB, as well as some preliminary examples of application.

Moving from the conceptual approach and the hypotheses on how cultural heritage impacts on societal well-being (i.e. theory of change) developed in the HERIWELL Conceptual Report[1], the report starts in Chapter 1 with the presentation of the overall proposed multi-method approach

The proposed methodologies of analysis (and associated operational definitions of CH and SWB) are presented in detail in Chapters 2 (global, pan European methodologies) and 3 (local methodologies), with some preliminary examples of application reported in Annexes.

Chapter 4 presents the proposed methodologies for the analysis of the contribution of EU programmes supporting cultural heritage to societal well-being, with focus on the role of ESIF funds, the Creative Europe and the Capital of Culture programmes. Here too the proposed methodology strongly depends on the type of data available.

Finally, Chapter 5 illustrates the HERIWELL outreach strategy, as well as the actions undertaken in the report period and those proposed for the next project's phases.

Ten Annexes complete the report, with details on the preliminary applications of the propose methodologies. Annex 1 provides an overview of the main difficulties faced in the definition of CH, in particular of TCH. Annexes 2, 3 and 4 focus on the methodology and preliminary results of the pan-European analysis. Annex 2 includes the methodology and results of the quantitative analysis of the relationship between TCH and the different dimensions of SWB; annex 3 those of the qualitative analysis focussed on ICH; and annex 4 the questionnaire of the HERIWELL survey that will be submitted in the next phase of the research. Annexes 5 and 6 detail the methodology and some preliminary results of the local-level analysis: i.e. the case studies (annex 5), and the big data analysis on two archaeological sites (annex 6). Annex 7 and 8 include the methodology and some preliminary results of the analysis of the ESIF investments in CH and their relation to SWB. Annex 9 provides insights on the conclusions of the HERIWELL deliberative event. Annex 10 includes an updated version of the mapping of CH and of its relation with SWB in the national literature and policies included in the HERIWELL Conceptual Report.

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[1] https://www.espon.eu/HERIWELL

1 The proposed approach for the analysis of the contribution of cultural heritage to societal well-being

This chapter introduces the HERIWELL proposed assessment programme, detailed in Chapters 2, 3 and 4.

As illustrated in figure 1.1. below, the approach proposed for the analysis of the relation between CH and SWB involves different methodologies, which can be grouped according to type and level of assessment into three main blocks.

The first block includes three quantitative and qualitative proposed methodologies for the assessment of the relation between CH and SWB at the aggregate level in the pan - European analysis, each one focussing on a specific dimension of CH and/or social well-being. The quantitative multi-variate analysis is meant to analyse and possibly measure the relationship between Tangible Cultural Heritage (TCH) and different dimensions of societal well-being on the basis available comparable data and Big Data based on Wikipedia accesses. The second proposed and tested methodology is a qualitative content analysis to assess the relationship between Intangible cultural heritage (ICH) and societal well-being on the basis of the UNESCO list. As a third methodology, we propose to carry out a cross – country population survey in 8 ESPON countries to detect individual perceptions of the relation considering all forms of cultural heritage (tangible, intangible, digital) and the changes in the use of cultural heritage determined by the Covid-19 pandemic.

The second block considers the relationship at the local level, with a methodology based on case studies, complemented in some cases with the use of Big Data (Wikipedia). The case studies are meant to investigate the mechanisms linking CH (in all its forms) to societal well-being at the local level and explaining why the observed results occur, in order to derive policy indications. The application of the Big Data analysis in some of the case studies will complement the analysis providing inputs on the differences in the use of specific CH objects between local communities and tourists and the changes in use determined by the Covid-19 pandemic.

The third block is focused on the assessment of the effects of EU investments in CH on SWB on the basis of both quantitative and qualitative methodologies. The analysis considers the ESI funds, the Creative Europe programme and the European Capital of Culture programme.

Figure 1.1 The HERIWELL programme in a nutshell

Methodology		Aims
Global level	**Quantitative pan-European and big data analysis** (cluster, correlation, regression, etc.)	Estimate the relation between **tangible cultural heritage and societal well-being** (i.e. quality of life, societal cohesion and material conditions), based on **available comparable Eurostat data and big data** (e.g. Wikipedia consultations of a selection of the most visited sites in a number of ESPON countries).
	Qualitative content analyses	Investigate the relation between **intangible cultural heritage** projects (according to the UNESCO list) and **societal well-being** (i.e. quality of life, societal cohesion and material conditions). Investigate linkages between mixed **cultural heritage** (Cultural Routes and European Capitals of Culture) and **societal well-being** (i.e. quality of life, societal cohesion and material conditions).
	HERIWELL cross-country survey to population in eight EU MSs	Grasp **individual perceptions** on the relation between **tangible, intangible and digital cultural heritage and societal well-being** (i.e. quality of life, societal cohesion and material conditions) in BE, CZ, ES, DE, IE, IT, NO and PL. Capture the **impacts of a "forced" virtual use of cultural heritage** during the Covid-19 pandemic.
Local level	**Case studies analysis**	Investigate in depth the impacts and the mechanisms linking **tangible, intangible and digital cultural heritage and societal well-being** (with focus on quality of life and societal cohesion) at local level. Investigate why the observed results occurred **to derive policy-relevant insights**.
	Big data analysis in some of the case studies	Complement some of the case study analysis with examples of how **big data** (Wikipedia consultations for a specific CH object) can be used for the analysis.
Analysis of EU investments in CH	**Correlation analysis of the relation between EU investments in CH and societal well-being**	Analyse the correlation between ESIF and Creative Europe investments in tangible, intangible and digital cultural heritage and societal well-being (i.e. quality of life, societal cohesion and material conditions).
	ECoC meta assessment	Shed light on ECoC's objectives and results in the field of CH in European Capitals of Culture and their links with the societal well-being (i.e. quality of life, societal cohesion and material conditions).

Source: author's elaboration

The proposed multi-method approach allows us to address the main challenges highlighted by the literature on the relationship between CH and SWB and in the HERIWELL deliberative event (see Annex 9).

The first challenge refers to the *development of a definition of CH encompassing all its dimensions,* tangible (TCH), intangible (ICH) and digital (DCH), which is commonly accepted by stakeholders and is measurable with available data and comparable across countries and over time.

Box 1.1 Challenges in deriving a comparable and measurable definition of CH

What constitutes cultural heritage is still an open issue among stakeholders in the field, as unveiled by the HERIWELL deliberative event. The HERIWELL project adopts a broad definition of CH that builds on the Faro Convention, and the work of the EU JPI initiative and UNESCO. This is in line with the suggestion of CH stakeholders to define CH broadly and to take into consideration its dynamic and value-based nature. As this may entail difficulties when it comes to measuring its impacts, especially at pan-European level and through quantitative analyses, CH stakeholders acknowledge the need for an operational definition for quantitative analyses.

CH encompasses several categories of heritage. In the HERIWELL Delivery 1, accepting the definition proposed by UNESCO, these categories were grouped into three subsets: tangible, intangible and digital CH. Despite the fact that these three dimensions of heritage are widely acknowledged in the literature (cf. Kiliszek 2020) and policy frameworks (e.g. the UNESCO glossary), participants in the debate underline that this division focuses on the 'object' of CH, instead of on its value.

The difficulties in the quantitative measurement of CH impacts brought about by a wide definition of CH, imposes the individuation of an operational definition which allows it to be measured and compared across countries and over time.

Most ESPON countries, taking as a reference the 'national heritage community', measure the size of their national heritage by counting the objects that constitute their CH by typology in order to create an inventory of the protected heritage. This measurement is based on the strong assumption that quite different objects (in relation to history, function, size, etc.) can be added as they all have one characteristic in common: that of being part of the cultural heritage of a given community. These lists are however not comparable both within and across countries, being selected with different criteria.

To overcome this assumption, several methods and techniques have been proposed, both in the literature and in case studies, to define and identify a weight system able to make homogeneous the different types of objects that compose CH. For example, the UK DCMS proposes to value, and not just count, the heritage assets using the methodologies developed in the Social Cost Benefit Analysis , while Eurostat, in experimental statistics, proposes not only to count the number of sites registered in each country in the World Heritage List, but to value them according to their popularity or cultural consumption using Wikipedia page views as a weight .

In the search for a **balance between the need for operationalising CH and for underlying its broad meaning**, the HERIWELL research team proposes to **adopt a methodology-driven definition** (i.e. a definition based on the type and purpose of the methodology adopted). The proposed multi-method approach allows us: i) to adopt measurable and comparable proxies for CH (a set of indicators including BIG DATA) in the pan - European cluster and correlation analyses; ii) to consider specific subsets of CH endowments in the BIG DATA analysis, the case studies, and the content analysis of UNESCO intangible cultural heritage; and finally, iii) to consider the broader definition of CH in the HERIWELL survey.

The second challenge refers to the *definition and description of the structure of the relationship between CH and SWB and the mechanisms characterising this relation,* which are strongly affected by the specificity of the actions taken and target audience, and cannot be measured by resorting to a single and undifferentiated method of analysis, because:

- the relationship between CH and SWB is strongly influenced by many intervening variables affecting the different dimensions of SWB;

- there are different ways in which CH impacts are generated and transferred, depending on whether the target is a single individual or a community, and across different individuals or communities;

- the interconnected nature of the SWB dimensions and the limited data on these dimensions. Generally, only data relating to the material conditions of communities are available.

Therefore, the complexity of the relationship between CH and SWB cannot be unveiled through the use of a single methodology. Indeed, the hypothesis underlying the HERIWELL theory of change (ToC) represented in Figure 1.2 below is that CH, through diversified intermediation processes, directly determines one or more of the impacts/relationships (positive or negative) that are considered 'generative' of SWB. The ToC, identifying a multiplicity of relationships between CH and SWB, clearly shows the need to use different

tools and methods in order to unveil all the impacts that CH can generate on the different aspects of SWB. The aggregate pan-European analysis will allow us to grasp some of the potential impacts of CH on SWB, the societal ones and those of a certain quantitative (or qualitative) dimension, while the more subjective ones, affecting specific social groups, can be better analysed and grasped through the assessment of specific cases at the local level.

Figure 1.2 A theory of change for achieving societal well-being through CH

Resources, inputs: • Human resources, skills, competencies, funding, technologies…	**Intervening factors:** Historical and economic events, crisis (e.g., Covid-19), other policies, etc

| **Cultural heritage (CH) assets:**
Tangible (TCH)
Intangible (ICH)
Other (eg. Digital) | **Programs, policies, initiatives:**
• Regulation
• Conservation and preservation (incl.digitization)
• Public and private management
• Deliberation and stakeholder management
• Physical or sensorial accessibility (incl. ICH practices and festivals), audience development
• Education and training
• Integration with sectoral policies
• Research
• Communication and promotion
• Participatory governance of heritage
• Risk assesment and mitigation
• Evaluation | **Outputs:**
• Conservation and adaptative re-use
• Heritage engagement and participation, volunteering experiences
• Access: visits, tours, virtual experiences
• Commodities and services subject to intellectual property
• Information systems
• Development and preservation of skills
• Research and learning outputs | **Short term and long term outcomes (changes):**
'Quality of life'
• Growth in happiness and life satisfaction
• Improvements in eudaimonic conditions and health rates
• Improvements in education levels and empowerment in adults' capacities, including digital skills
• Higher levels of knowledge and research
• Improved quality and sustainability of environment (vs: congestion, overcrowding, gentrification)

'Societal cohesion'
• Enhanced community engagement, volunteering and charitable giving
• Strengthened place identity and symbolic representation
• Enhanced community awareness, civic cohesion and sense of belonging (vs. contested or dissonant heritage)
• Integration and inclusion of minorities, migrants and other disadvantaged groups, social inclusion, inclusive growth
• Trust (in communities, institutions…)

'Material conditions'
• Territorial attractiveness (talents, tourists) and branding
• Growth in jobs and earnings (e.g. culture professions, tourism, creative sectors)
• Growth (or reduction) of property prices and housing conditions |

Source: HERIWELL Conceptual Report, https://www.espon.eu/HERIWELL

The need to use different methods of analysis also derives from another characteristic that often occurs in the relationship between CH and some categories of SWB, i.e. it being a **two-way** relation. An impact is generated and occurs if two conditions are simultaneously fulfilled: on the one hand, a CH enhancement measure is activated by pointing at one (or more) specific targets and, on the other hand, the target selected must have the capacity to grasp that impulse. The presence of two-way relationships in the identification and assessment of impacts emerges with some evidence when analysing, for example, the impacts of policies activated by museums to increase the identity of local communities. These measures generally produce quite different impacts if they are targeted on an adult audience or on primary school pupils. The difference in impacts is even greater if migrants are also involved. In many cases this means that impacts do not depend on the quantity or quality of CH, but instead on the *objectives* and *how* some of its components are used (by policies/programmes/projects). For example, the works of art exhibited in hospitals to support the health of the hospitalised or the activities of some museums targeted at groups of immigrants.

Furthermore, some impacts could occur jointly. For example, the assessments of the outcomes of social inclusion experiments in museums do not usually consider their possible effects on the health or happiness of participants. In addition, often the assessments available are not repeated over time, and therefore we do not know if a social inclusion project produces structural effects in the medium- or long-term.

For all these reasons, it is difficult to assess and measure the complexity of the relationship between CH and SWB at an aggregate, pan-European level only. In general, many of the impacts that we have identified through the ToC (especially those relating to societal inclusion and quality of life) are so micro that it is impossible to detect them at aggregate level, even when applying the most sensitive of econometric models

to the available data[2]. In analytical terms, the richness and complexity of relationships can be better examined, described and evaluated for specific cases at the local level. Only at this level of analysis it is possible to identify and describe the mechanisms that have generated the analysed impacts (positive and replicable, or negative and non-replicable) between the type of CH, enhancement actions activated, and impacts expected and actually achieved.

A third challenge refers to *the interconnected nature of the outcomes of the relation between CH and the SWB* dimensions represented in the ToC (i.e. quality of life, societal cohesion, material conditions).

From a purely theoretical point of view, the potential impacts of CH on SWB are different according to the three SWB dimensions identified in the HERIWELL ToC. In other words, the ways in which CH impacts on the personal, individual sphere of life (quality of life) are different from those that influence the societal cohesion dimension or those that affect the economic dimension[3]. In addition, the three SWB dimensions include different sub-dimensions. For example, under the label 'quality of life', the impacts on health, happiness or knowledge are put together, but each of these has been identified and verified in targeted 'experiments' in the literature, with the use of specific evaluation tools, allowing the detection of specific impacts.

While the ToC tries to order them on the basis of previous measurements carried out through different methodologies, debates with stakeholders in the cultural heritage field have shown the tangled nature of societal well-being dimensions, which makes their separate assessment quite difficult. For instance, according to stakeholders involved in the HERIWELL deliberative event, while education and digital skills can represent an outcome of CH (if specific initiatives are activated to support them), at the same time they can also represent a factor that contributes to increased participation in CH (the more educated people are, the higher is their participation in CH). Stakeholders' suggestion to analyse jointly the various dimensions of well-being due to their interconnected nature, is also reflected in the stakeholders' answers to the question regarding the SWB areas on which the project should focus: mainly societal cohesion (13.8 %) and quality of life (13.6 %), while material conditions were considered less relevant for the HERIWELL project (5.7 %). Furthermore, when it comes to sub-dimensions of SWB three main areas of interest for further analysis emerge from CH stakeholders involved in the HERIWELL Deliberative event (Figure 1.2). The first area includes: community awareness, civic cohesion and sense of belonging (societal cohesion, indicated by 16% of stakeholders), and education and skills, including digital skills and digitisation (quality of life, indicated by 14%). The second one includes Community engagement, volunteering and charitable giving (societal cohesion, indicated by 10% of stakeholders), knowledge and research, and quality and sustainability of the environment (quality of life, both indicated by 10%). The third area involves: happiness and life satisfaction (quality of life, indicated by 9%), place identity and symbolic representation (societal cohesion, indicated by 8%) and territorial attractiveness and branding (material conditions, indicated by 7%). The remaining dimensions were indicated by lower shares of stakeholders. Many of these indicators are among those considered in the ESPON Quality of life Project (ESPON, 2021).

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[2] Current research on well-being as 'quality of life' has been derived from two general perspectives: the hedonic approach, which focuses on happiness and defines well-being in terms of pleasure attainment and pain avoidance; and the eudaimonic approach, which focuses on meaning and self-realisation, and defines well-being in terms of the degree to which a person is fully functioning. (Richard M. Ryan and Edward L. Deci (2001), On Happiness and Human Potentials: A Review of Research on Hedonic and Eudaimonic Well-being, *Annual Review of Psychology*). These aspects of well-being can, by their nature, be analysed only on the basis of 'micro' analysis by directly analysing (measuring) the reactions of the subjects involved in the experiment. It is no coincidence that the studies carried out are generally made up of 'laboratory analyses' carried out by clinical psychologists. ('Moment-to-moment measures of experiences', study of the reaction of groups of individuals to the choice of an alternative, etc.) (see, Daniel Kahneman, Ed Diener, and Norbert Schwarz (Editors), (1999), *Well-Being: The Foundations of Hedonic Psychology*. New York, Russell Sage Foundation.

[3] It is for this reason that impacts must be 'measured' using specific tools: for example, the indicators that define the 'quality of life' or the 'societal cohesion' of Eurostat are detected through specific surveys repeated at predefined deadlines with a shared structure among the 27 countries. Unfortunately, in the 'beyond the GDP' approaches, the easiest impact to grasp is the economic one.

Figure 1.3 Indications of CH stakeholders involved in the deliberative event on societal well-being areas to be further analysed (% of stakeholders indicating each dimension)
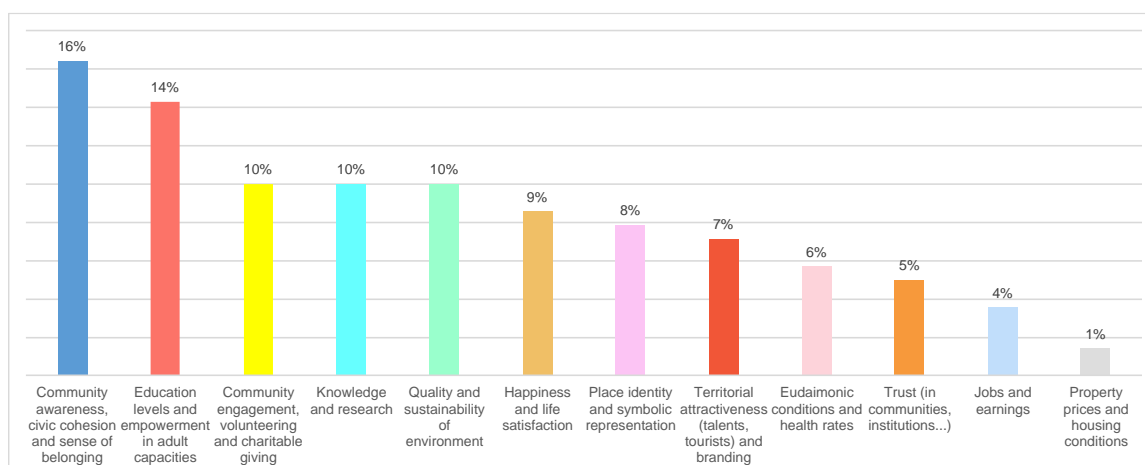
Source: Author's elaboration on the answers of CH stakeholders involved in the HERIWELL deliberative event

2 The assessment programme: the pan-European methodologies

This chapter illustrates the proposed assessment programme for the global or aggregate level (pan-European) analysis, describing the methodologies and the associated CH and SWB operational definitions. Preliminary examples of the applications of these methodologies are presented in Annex 2.

All the proposed approaches present challenges that should not be underestimated.

The quantitative aggregate analysis of the relation between TCH and SWB is strongly dependent on the choice of the proxy variables, which, in turn, is strongly influenced by the availability of comparable, consistent and coherent data at European level.

The content analysis of the relation between Intangible CH and societal well-being is strongly dependent of the available projects' descriptions and on the capacity of the key words selected to intercept the searched dimensions in the respective texts.

As to the proposed HERIWELL survey, given the limited time and resources available, it covers eight European countries and cannot be repeated. However, in order to detect some changes over time, the survey has been designed with some questions equal to those used in the Special Eurobarometer 466: Cultural Heritage.

2.1 Quantitative pan - European analyses

Measurement systems capable of quantifying (i.e. attributing a sign and numerical value) the relationship between TCH and SWB have to address the challenges and constraints described in the previous chapter these challenges do not exclude the possibility to use quantitative estimation models, although they strongly limit the type of societal impacts that can be analysed.

In order to proceed with the application of quantitative causal models, the proposed research programme is based on the following research steps:

- Identify operational definitions and indicators for TCH and SWB at NUTS 1 and NUTS 2 levels and over time, based on available comparable data that can be considered significant approximations of our dependent and independent variables.

- Explore the correlations among the indicators selected using multivariate methods (cluster and principal components analysis (PCA)) to identify the main drivers to be used in the regression analysis. This exercise will reduce the large number of variables that could be taken into account into a smaller number, more easily manageable and able to help us interpret the most relevant aspects of the relationship between TCH and SWB.

- Identify and estimate core cross-country regressions using the main drivers of cluster and PCA indicators. This activity will also involve testing the use of Wikipedia data as a proxy to 'value' the TCH stock (using Wikipedia popularity) in core regressions for a sample of countries/regions (starting from the UNESCO list).

- Extend the benchmark model of the previous phase over time and geographical dimensions (NUTS2), depending on available data and indicators.

The following sections present the definition of TCH and SWB, the methodology tested and the preliminary results of the aggregate quantitative analysis, while further details on the preliminary test results are presented in Annex 2.

2.1.1 The operational definition and indicators for TCH

An 'operational' definition of TCH and its relations with the various dimensions of SWB requires the implementation of an iterative process that can specify and reformulate the theoretical definitions of Delivery 1 starting from the information (quantitative and qualitative) available, in order to measure, albeit in an approximate way, the size and dynamics of the variables involved.

As illustrated below, this iterative process has already been partially tested by selecting some TCH indicators, analysing their quality and comparability across countries and testing, through a multivariate analysis, their correlations with SWB indicators.

The aim of this process is to arrive at a **definition of TCH that is measurable, based on the qualitative or quantitative information available**. The challenges related to a measurable and comparable definition of TCH have been described in the previous chapter.

Having to proceed with the formulation of a pan - European methodology allowing a territorial analysis of the impacts of cultural heritage associated with SWB, it is also necessary to identify measurement systems that are applicable and provide comparable results across different countries.

Tangible cultural heritage conceptually is a stock, a set of objects of various kinds selected by a community on the basis of their specific identity criteria and owned in a given time.

As anticipated in Chapter 1, in many countries these objects are counted to create an inventory of their protected heritage; however, they are not evaluated because of the difficulty that this further operation poses. Differences in selection criteria across countries imply that the information available on the number of objects that make up their stock is not immediately comparable.

In addition, TCH is a relatively stable stock over time, even if the production of culture takes place year after year. This stability depends on the fact that in many countries an object can only become part of the TCH after a certain number of years have passed since its realisation.

To approximate the size of this stock, and to make a comparison between the cultural endowments of the ESPON countries possible and meaningful, two different approaches can be proposed. These approaches have so far been only partially tested, because they require further analytical insights and more detailed data collection.

A first approach is based on stock indicators, e.g. the stock of historic buildings present in a country at a certain date and/or the number of sites inscribed on the UNESCO list, or in the European Heritage Label. All these indicators must be normalised, for example according to the size of the population, to make them comparable across countries.

A second approach uses the "rents" and demands generated by TCH assets, as often happens in the valuation of private assets, to derive the different TCH endowment across countries. We can assume as a rent generated by a TCH asset, the economic revenues produced, the demand flows attracted, and the identity values generated.

The two approaches do not exclude each other and can be considered in order to compare the different results achieved.

More specifically, the indicators that can be used for the first approach are presented in Table 2.1 and discussed below.

Table 2.1 Indicators of TCH

Indicator of TCH	Description	Data source	Comment
TCH stock indicators			
Historic buildings	Share of buildings built before a certain date (for example, 1919)	Eurostat Census Hub	Good overall proxy for the stock of TCH, however: - Only 14 countries are covered by census data in Eurostat; - It also includes poor quality buildings; - In some EU countries many historical buildings were destroyed during WW2 (e.g. Germany).
UNESCO World Heritage List	Number of cultural sites inscribed in the UNESCO World Heritage List	UNESCO World Heritage List	- It represents a share of the CH of a country selected on the basis of specific criteria; - Data are not directly comparable across countries; - It is possible to use BIG DATA (popularity indicators) to make them comparable.
European Heritage Label	Number of sites selected for their symbolic value, the role they have played in European history and activities they offer	Eurostat Culture statistics	- It represents a share of the CH of a country selected on the basis of specific criteria; - Data are not directly comparable across countries; - It is possible to use BIG DATA (popularity indicators) to make them comparable.
TCH flow indicators			
Museums' visitors	Number of museums and their visitors	European Group on Museum Statistics (EGMUS)	- Different definitions of museums across countries; - Different data collected across countries to describe their museums.
Popularity or cultural consumption of cultural sites	Number of queries (daily, weekly, monthly, etc.) in the main web sites or browsers concerning some selected components of the TCH of a country, as indicator of the different attractiveness of the cultural sites	Wikipedia, Trip Advisor, Google Trends	- The subset of TCH to be analysed must be defined a priori. - Wikipedia is preferred to *Google Trends* and *Trip Advisor* because: it provides absolute values of accesses; its pages are generally consulted by both tourists and residents; it is not likely to be 'self-referential' (see TripAdvisor).
Public expenditure on culture	Public expenditure for cultural services Public expenditure on heritage	Eurostat Cultural Statistics Compendium on cultural heritage and trends (Public Funding)	- A composite indicator could be used considering: public expenditure for cultural services (Eurostat) and public expenditure for Heritage (Compendium).
Employment in the culture sector	Employment in the cultural sector Employment in heritage related activities	Eurostat Cultural Statistics	- Employment in heritage-related activities is more targeted for the analysis. However, the more general indicator of employment in the cultural sector was preferred, given the interdependence between the activities of the heritage sector and those of other cultural activities (for example communication or digitisation). -

Source: author's elaboration

Historic buildings. *Purpose*: The share of buildings built before a certain date (for example, 1919) can be used as a proxy of a country's TCH stock and be compared across countries. This approach has been used in the ESPON HERITAGE project.[4] *Data source*: Eurostat Census Hub. *Comment:* The data is available for 14 countries; in some cases, the data refers to 1915. Besides the limited number of countries, another drawback in the use of this indicator refers to the fact that buildings' construction was particularly strong at the beginning of the last century in those countries characterised by a rapid industrial growth. Therefore, there is a risk that a high percentage of historic buildings is so poor that it is not included in the TCH of a country. In addition, in many countries the Second World War destroyed a significant portion of this building heritage; for example, the data on buildings before 1919 for Germany is not available on the Eurostat database.

Sites registered on the UNESCO list or in possession of the European Label. These are significant components of TCH of a country inscribed in the UNESCO – World Heritage List sites (as they constitute 'cultural and natural heritage ... considered to be of outstanding value to humanity') or they are in possession of the European Label (as are milestones in the creation of today's Europe). These two lists give the numbers of sites selected on the basis of specific criteria. However, the number of sites cannot be considered neither indicators of the quality of a country's CH nor a proxy of their size. To make the number of sites registered in the World Heritage List comparable, Eurostat evaluate the demands through BIG DATA (see below). The same methodology could be used to make the sites that have the European Label comparable, although our evaluation refers to TCH in the ESPON countries and not just in the EU ones.

The indicators that can be used for the second approach are:

- ***Museums' visitors***. *Purpose*: to compare the CH of the different countries (in this case approximated by the number of museums and their visitors) on the basis of its attractiveness to both domestic and tourist demand *Source*: European Group on Museum Statistics (EGMUS). *Comment* 'European museums play an important role in showing the richness and diversity of cultures. In order to use museum resources effectively, a common understanding is needed. What is considered a museum in Spain may not be seen as such in Hungary or Finland. In addition, the set of data Slovenia collects to describe its museums might be different from such a set collected in Belgium. It is more than only a question of words; it is a question of ideas and conceptions too.'(https://www.egmus.eu/en/about_egmus/)

- ***Popularity values using BIG DATA***. *Purpose*: the queries in the main sites or browsers concerning some components (appropriately selected) of the TCH of a country, are used as an indicator of their popularity, of their virtual demand. Virtual consumption is a growing type of cultural consumption, which has acquired greater importance during the pandemic, and increasingly provides an indicator of the different attractiveness of the cultural sites that characterise the CH of a country. Big data has already been used for these purposes. For example, online visits on Wikipedia for the UNESCO World Heritage Sites are considered by Eurostat 'as a measure of popularity of the sites or a measure of "cultural consumption" of world heritage. They are relevant to, for example, culture statistics and regional statistics. Possible analyses are, for example, the comparison between several sites and the evolution over time' (https://ec.europa.eu/eurostat/web/experimental-statistics/world-heritage-sites). *TripAdvisor* is used in *The Cultural and Creative Cities Monitor. 2019 Edition* (ANNEX II) to determine the 'Points of historical, cultural and or artistic interest, such as architectural buildings, religious sites, monuments and statues, churches and cathedrals, bridges, towers and fountains' located in 190 cities in 30 European countries (the EU-28 plus Norway and Switzerland) that the survey takes into consideration. The clicks of visitors on Google are used by Google Trends to provide data on how the demand for a particular cultural site has changed over a certain period. *Source*: *Google, Wikipedia. TripAdvisor. Comment*: All these sources need to have a subset of the CH to be analysed defined a priori in order to be used: for example, the most 'important' sites of a country: for Eurostat they are UNESCO sites, for The Cultural and Creative Cities Monitor they are the urban sites most cited by *TripAdvisor* users, for *Google Trends* the site is selected to find out how the

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[4] VVA, KEA European Affairs (2019). Material Cultural Heritage as a Strategic Territorial Development Resource: Mapping Impacts Through a Set of Common European Socio-economic Indicators, https://www.espon.eu/cultural-heritage

number of clicks from a particular geographical area has changed. Among the different sources mentioned, *Google Trends* does not provide the absolute values of the clicks but only the variations which does not seem particularly useful in determining the 'size' of CH demand for a comparison between countries. *TripAdvisor* provides the absolute values of the queries but may be self-referential because the App user will visit those 'points of historical, cultural and or artistic interest … 'that have received a 'high' evaluation from previous users. *Wikipedia* provides the absolute values; its pages are generally consulted by both tourists and residents and is not likely to be self-referential. According to the Community survey on ICT usage in households and by individuals, in 2015, 45 % of individuals 16 to 74 years old living in the EU consulted wikis to obtain knowledge (e.g. Wikipedia). This was 66 % for individuals among those 16 to 24 years old (Eurostat, Pilot Project on Big Data). For these reasons, and because it has already been used in this way by Eurostat, it seems to us the best source for evaluating the virtual demand for a defined set of objects characterising the CH of a country. This set should in any case be selected on an objective basis (for example the five most visited sites in real or virtual terms in each country) or subjective (leaving the choice to experts) and used as a representative indicator of TCH in the countries considered.

- **Public expenditure on culture.** *Purpose*: Even though with caution, the indicator on public expenditure on culture can be considered as a proxy of the 'identity value' generated by CH, assuming that expenditure will be higher in countries where the dimension of cultural heritage is more consistent, and where the 'identity relationship' between the community and CH is stronger. That is, a stronger relationship encourages higher levels of spending for its protection. *Source*: Eurostat, Compendium on cultural heritage and trends (Public Funding – Expenditure per sector). *Comment*: Eurostat data on *public expenditure for cultural services*, and among these those for '*operation or support of facilities for cultural pursuits* (libraries, museums, art galleries, theatres, exhibition halls, monuments, historic houses and sites, zoological and botanical gardens, aquaria, arboreta, and so on)'. These data will be used as a reference, given the homogeneity of the sources. Other sources (Compendium on cultural heritage and trends) provide, for many of the ESPON countries, the public expenditure directly destined for heritage. But it is a non-homogeneous database because in some cases it refers to the total public expenditure, and in others only to that of the central state. For this reason, it will define an indicator that takes into account the two data sources. Heritage expenditure is an important indicator for detecting the 'size' of CH and will be better measured when UIS-UNESCO make available the data relating to the SDG Indicator 11.4.1 (Survey on cultural and natural heritage expenditure). UNESCO[5] highlights the difficulty of detecting these data and for this reason it is not yet available.

- *Sectoral employment.* *Purpose*: Given the interdependence between the activities of the heritage sector and those of other cultural sectors (for example communication), the size of employment in the culture sector can be considered causally related to the size of the CH and to the expenditure (public and private) incurred to preserve and enhance it. *Source*: Eurostat. *Comment*: this indicator can also be considered as an impact of CH. The correlation analysis to be conducted will help to understand whether this indicator should be considered an independent or dependent variable.

It is not currently possible to derive a composite indicator of TCH for the ESPON countries based on the stock and flow indicators listed above, because some of these indicators are not recorded or not comparable across countries. In the continuation of the research, we could calculate, on an experimental basis, a composite indicator for some territorial areas; for example, in some ESPON regions for which the data series are complete and homogeneous. The purpose of the experiment would be to measure the convenience of adopting such an indicator considering the balance between costs (the information to be treated) and benefits (the significance of the results obtained).

2.1.2   The operational definition and indicators for SWB

The **definition of SWB** adopted for the aggregated quantitative analysis stems from two considerations:

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[5] UNESCO (2019). Culture 2030 indicators, https://unesdoc.unesco.org/ark:/48223/pf0000371562, p. 36

- the need for an operational definition that can overcome the challenges discussed in the previous chapter;

- the stakeholders' suggestion to analyse jointly the various dimensions of well-being due to their interconnected nature, also reflected in the stakeholders' answers to the question regarding the SWB areas on which the project should focus – mainly societal cohesion (13.8 %) and quality of life (13.6 %), while material conditions were considered less relevant for the HERIWELL project (5.7 %). Furthermore, as previously mentioned in chapter 1, when it comes to sub-dimension of SWB three main areas of interest for further analysis emerge from debates with CH stakeholders involved in the HERIWELL deliberative event to rearrange and compact some of the sub-dimensions of well-being.

Moving from the SWB general definition proposed in the HERIWELL ToC, we have considered the interplay between these dimensions and available data. Although some data sources provide harmonised data across countries (Ortiz-Ospina and Roser 2013, the Gallup experience), defining a framework suitable to analyse the relationship of cultural heritage and well-being is an open challenge.

At this stage of the project, we propose to use the indicators drawn from two different platforms available in the Eurostat's database: the sustainable development indicators[6], and the indicators on quality of life included in the ad hoc module of the EU-SILC survey that, every five years, monitors EU citizens' Quality of Life (Eurostat, 2018). This allows us to have access to harmonised data for up to 31 European countries (the EU27 Member states, Iceland, Norway, Switzerland, and the United Kingdom), depending on the considered indicator. The final selection of variables has been based on a series of tests, described in Annex 2.1.

Table 2.2 below presents the main SWB dimensions of the ToC and the proxies identified for each of them.

The matching between the available indicators and those needed to measure the main SWB dimensions of the ToC, is not always perfect for many reasons. For example, many indicators used in the quantitative analysis are based on the EU-SILC data according to the definition of 'quality of life' used in the survey, which is broader than that given in the ToC. Also, the meaning of the SDG indicators in the sustainability sphere are often not perfectly matching the meaning they assume in the SWB framework adopted in the ToC. However, this not always perfect matching has no effect in this phase of our assessment programme because we are not yet applying techniques and methods to identify 'causality' relationships between different variables.

Table 2.2 Operational definition of SWB adopted for the aggregated quantitative analysis

SWB dimensions included in the ToC	Variables used as proxies	Source
Quality of life	Overall life satisfaction	EU-SILC
	Satisfaction with personal relationships	EU-SILC
	Good health	SDG – Goal 3
	Tertiary education	SDG – Goal 4
	Adult participation in learning	SDG – Goal 4
	Early school leaving	SDG– Goal 4
Societal cohesion	Trust in the legal system	EU-SILC
	Trust in others	EU-SILC
	Persons having someone to rely on in case of need	EU-SILC

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[6] The UN Sustainable Development Goals (SDGs) offer a detailed dashboard of goals, targets and indicators that could be related to overall measures of sustainable well-being to motivate and guide the process of global societal change. Starting from this strong relationship between SDGs and well-being a Sustainable Wellbeing Index (SWI) was derived and the two dashboards could work together in 'a comprehensive systems dynamics model that can track stocks and flows' Costanza et al. (2016), Modelling and measuring sustainable wellbeing in connection with the UN Sustainable Development Goals, *Ecological Economics* 130, 350–355.

	Poverty risk	SDG – Goal 1
	NEET rate	SDG – Goal 8
Material conditions	GDP per capita	SDG – Goal 8
	Employment gap	SDG – Goal 7
	Public investment (total)	SDG – Goal 9

Source: author's elaboration

2.1.3   The estimation model and preliminary results

The proposed methodology is based on two main steps:

1. The first step explores the correlations among indicators using cluster and principal components analysis (PCA), in order to identify the main drivers to be used in the regression analysis.

2. The second step is the identification and estimation of core cross-country regressions using the main drivers of cluster and PCA indicators.

2.1.3.1   The Cluster and PCA analysis

The methodologies proposed in the HERIWELL Conceptual Report[7] (cluster analysis complemented with a principal component analysis – PCA) have been extended by introducing a greater number of indicators, and excluding those that did not add significant information to the analysis. The purpose of these descriptive analyses is thus twofold:

- Identify variables/indicators capable of capturing some of the fundamental relationships hypothesised in the ToC model.

- Reduce the number of variables in order to apply analyses and methodologies capable of detecting the 'shape' of the causal relationships between the variables of interest.

In order to test the proposed methodology, the cluster analysis and PCA have been carried out at NUTS1 level for a subset of indicators. This methodological choice was not only due to the need to search for correlations between variables, but also to reduce their number in order to arrive at the identification of any causal relationships.

Another reason is related to the fact that the used SWB indicators and the results obtained, can build a bridge between those SWB analyses that do not take into consideration 'cultural capital' (OECD), and those based on the sustainability approach, where culture is considered only for its transversal effect on other determinants of sustainable development, as shown in Figure 2.2. below.

The definitions of well-being adopted by the OECD approach and the definition of the 17 goals of sustainable development are the result of an 'intersubjective agreement'. This is derived both from consultations and experts (Nobel laureates or researchers) sharing, and from the use of a political process involving experts, NGOs and political representatives. Following the agreement on the definitions of the variables determining well-being or sustainability, the 'technicians' proceeded to identify the appropriate indicators. The cluster analysis is meant to assess whether there are correlations between the indicators of well-being and of sustainable development, and what is their sign and intensity. This could be already an important result.

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[7] https://www.espon.eu/HERIWELL

Figure 2.1 Thematic Indicators for Culture in the 2030 Agenda
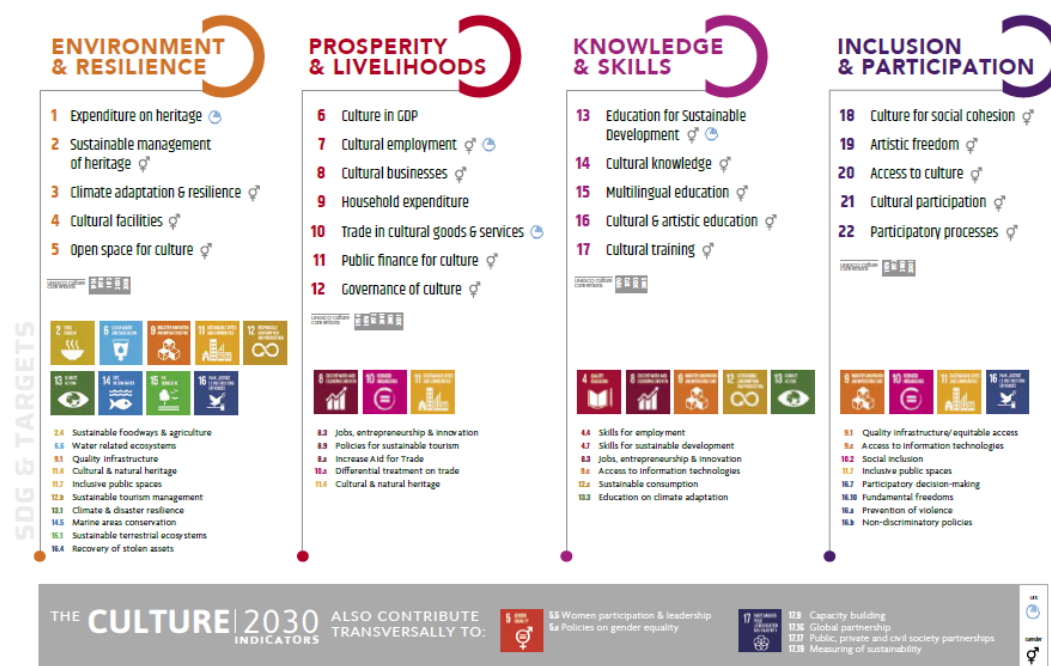
Source: UNESCO (2019). Culture 2030 indicators, https://unesdoc.unesco.org/ark:/48223/pf0000371562

At this stage of the HERIWELL project, we propose a cross-sectional analysis (see ANNEX 2) based on a database with indicators for 31 European countries (EU27, Iceland, Norway, Switzerland, United Kingdom) drawn from three different platforms available on the Eurostat database: culture, sustainable development and the ad hoc module of the EU-SILC survey that, every five years, monitors the quality of life of EU citizens (Eurostat, 2018).

In the previous paragraphs it has been shown that it is possible to use a vast set of indicators to estimate, on the one hand, the independent variable TCH and, on the other hand, the impacts of this variable on SWB indicators. In this first approach, the indicators used for TCH are only a subset of those previously described (for example, no information relating to the stock of historical buildings was used given the limited number of countries for which data are available). Those relating to the cultural sector as a whole have been used to identify further potential correlations between the cultural sector and the SWB.

To identify further potential correlations, the number of cultural variables used in the cluster analysis has been further expanded, compared to those described so far, using most of the indicators that Eurostat makes available for ESPON countries.

To consider not only the number but also the skills of employment in the cultural sector, other indicators were taken into consideration in the cluster, such as: the 'Share of young employment on CCS' and 'High level of education employment in CCS'. In addition, the capacity of remain in the market of private and public organisations in the heritage sector was compared with those of other cultural activities, using as indicators: the 'Survival rate in two years of libraries, archives, museums' and the 'Survival rate in two years of specialised design activities'. To grasp, even if partially, the changes taking place in cultural consumption, the 'Internet purchase for book' indicator was used as a proxy. To take into account the external dependence of national cultural sectors, the 'Import of cultural activity' indicator was introduced.

The following table shows all the indicators used in the cluster analysis. Among the cultural indicators, those that were previously proposed as a possible proxy of CH are only the top four. In the subsequent analysis, the dashboard of the indicators relating to CH will be completed and included in the multivariate analysis.

Table 2.3 Cluster analysis: The set of indicators

Culture		SWB	
1	Museum visitors	1	Poverty risk
2	Museum number	2	Good health
3	Public expenditure on culture	3	Early school leaving
4	Total employment on CCS	4	Tertiary education
5	Share of young employment on CCS	5	Adult participation in learning
6	High level of education employment in CCS	6	Employment gap
7	Survival rate in 2 years in libraries, archives, museums	7	GDP per capita
8	Survival rate in 2 years in specialised design activities	8	NEET
9	Import of cultural activity	9	Public investment (total)
10	Internet purchase for book	10	Satisfaction with personal relationships
		11	Overall life satisfaction
		12	Trust in the legal system
		13	Person having someone to rely in case of need
		14	Trust in others

Source: author's elaboration

The main **preliminary results** of the cluster analysis obtained for the 31 countries analysed can be summarised as follows:

- there is a strong correlation both within the set of indicators used to measure the levels of 'quality of life' and the set of indicators used to measure the impact of culture on 'material conditions'. This result leads us to believe that in future developments of the research the number of indicators to be considered can be reduced without losing relevant information.

- there is also a strong correlation between some of the indicators introduced to measure the quality of life (life satisfaction) and social cohesion (trust), with those used to approximate both the impact of culture on material conditions (total employment in CCS) and the level of sectoral innovation processes (internet purchase of book). The economic strength of the cultural sector, together with the innovations taking place in the forms of cultural consumption, seem to have a significant influence on the SWB variables of a social and subjective nature.

- social exclusion – measured by the indicators of poverty and the NEET rate (neither in employment nor in education or training) – is negatively correlated with the proxy indicators of quality of life, as expected. Together with the cultural indicators, the economic and social conditions and the role of the state return a positive correlation.

The principal component analysis sheds more insights on the relationship between the indicators showing at least two different associations:

- one among trust, tertiary education, adult participation and public investment;
- the other with life satisfaction, internet purchase of book and GDP per capita.

Based on these latter evidences, it could be argued that 'education levels' are one of the driving forces of participation and cohesion, while income levels, together with innovative forms of cultural consumption, support life satisfaction.

2.1.3.2 The cross country regressions analysis: a first approach

HERIWELL aims to explore the interplay among well-being, sustainability and culture looking deeply into the impact of the different measures available for tangible cultural heritage (TCH).

From a general point of view, the relationship between sustainable well-being and culture might be defined by a generic function:

$$Y_{it}=f(X_{it})$$

where the index i refers to the ESPON countries, while t refers to the years for which the selected indicators are available. The information availability is expected to shape the methodology to be used: a cross-country benchmark regression will be estimated first, while panel data and time series models will be later estimated on a subset of indicators available over the years.

This generic representation requires, as a first step, the identification of the dependent variable, Y, and of the independent ones (X). In a first application, Y could be defined as a measure of life satisfaction, such as the indicator provided by EU-SILC survey or by Gallup. The need to use this variable is in line with the literature on the topic of well-being (see for example Bjørnskov et al., 2008).

The definition of the X variables and indicators will result from a process of identification of the main drivers on the social, economic and cultural dimensions, including TCH. Following this approach, we propose an exploratory analysis of a subset of SDG indicators related to the social and economic dimensions of SWB, together with indicators related to the cultural statistics integrated with other indicators of TCH such as, for instance: the number of visitors to the five most famous TCH sites in each country, the percentage of state-owned museums, the percentage of historical buildings, the 'popularity' index of a select subset of TCH and public expenditure on heritage. In other words, this relationship allows us to define if, and with what intensity, TCH and cultural indicators contribute to determining the life satisfaction in a country.

On the basis of the data available so far[8] it is possible to proceed with a regression analysis on a limited number of variables, selected on the results stem from the multivariate analysis.

After the selection process of the social and economic indicators, our approach for the estimation of the interplay of SWB and culture runs in two steps.

Firstly, we consider as dependent variable the overall life satisfaction (LF), an available indicator necessary to approximate the SWB, while as independent variables we propose, as first hypothesis[9], a selection of three different ones that belongs to social and economic dimension:

- One related to human capital, for example tertiary education (TE) or adult participation (AP) in learning.
- One related to deprivation such as poverty risk (PR) or NEET;
- One referring to the economic dimension such as GDP per capita (GDP_PC);

The main purpose of the first step is to identify the impact of the social and economic indicators on Life satisfaction on the basis of a cross-section analysis applied to all those countries for which data are available:

$$LF_i = \beta_0 + \beta_1*(TE/AP)_i + \beta_2*(PR/NEET)_i + \beta_3*(GDP\_PC)_i + \varepsilon_i \qquad (1)$$

Results from the estimation are expected to provide insight into the relationship of LF with social and economic dimension allowing for the definition of a weighting scheme, represented by β_1, β_2 and β_3 in order to calculate a composite indicator for SWB:

$$SWB_i = \alpha_1*(TE/AP)_i + \alpha_2*(PR/NEET)_i + \alpha_3*(GDP\_PC)_i$$

Having derived a composite indicator for SWB, in the second step we will investigate the interplay with the cultural dimension represent by three different dimensions:

- One related to employment in cultural and creative sectors (E_CCS);
- One on public expenditure on culture/heritage (PEC);
- One on TCH measured either in terms of stock (CH_mus) or in terms of visitors (CH_vis) or in terms of BIG DATA based on Wikipedia.

The final equation will be:

$$SWB_i = \gamma_0 + \beta_1*(E\_CCS)_i + \gamma_2*(PEC)_I + \gamma_3*(TCH\_mus/TCH\_vis \text{ or } CH \text{ Wikipedia})_I \varepsilon_i$$
$$(2)$$

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[8] For example, the data on museums are available only for 18 countries while those on the number of the dwellings built before 1920, available on Eurostat Census Hub, is available but only for 14 countries.

[9] This first set of variables could be expanded by adding, for example, those relating to social capital.

It is important to underline that the process related to multivariate analysis and the two steps regression will run in an iterative way stopping when the results will be coherent and statistically significant in all the steps.

Once the cross-country estimation will be finalized, the model based on equation (1) and (2) will be extended over time and geographical dimensions (NUTS2) depending on the available data.

2.2 Content analyses: a pan-European analysis of ICH and mixed CH

This section provides insights on the use of a content analysis methodology[10] for the assessment of the relations between ICH and mixed CH, and the three dimensions of SWB. The paragraphs below introduce the methodological approach and present initial results of the analysis, while Annex 3 provides more details.

Before explaining the methodological approach and preliminary results of the evaluation, it is useful to clarify the definitions (ICH and SWB) that are used in the analysis of linkages between ICH and mixed CH, and SWB. While a specific – more basic – operational definition is adopted for ICH in the content analysis of the UNESCO lists, mixed tangible CH uses the general definition of TCH and ICH provided in Chapter 1. As for SWB, the HERIWELL definition (i.e. quality of life, societal cohesion and material conditions) is used for analysing the relations between ICH and mixed CH, and SWB.[11]

2.2.1 Defining intangible heritage for a pan-European analysis: an operational approach

In order to identify robust relationships between CH and SWB in European regions, recognised ICH manifestations in ESPON countries should be seriously considered. This is due to four facts:

1. As already explained in the HERIWELL Conceptual Report (2020) ICH lives from, and further develops through, the experience, practical involvement and motivation of diverse social groups, communities or, in some cases, individuals who, as the bearers or holders of ICH manifestations, determine their societal value. In other words: **societal effects, values and modifications are an inherent part of ICH-related activities**, many of which have direct connections to categories of well-being.

2. **ICH is internationally recognised as worthy to be safeguarded**: With its 2003 *Convention for the Safeguarding of the Intangible Cultural Heritage*, UNESCO provided the basis for three annually updated lists of protected ICH manifestations[12]:

   - the *Representative List of the Intangible Cultural Heritage of Humanity*
   - the *List of Intangible Cultural Heritage in Need of Urgent Safeguarding*
   - the *Register of Good Safeguarding Practices*

3. **The ICH manifestations inscribed in these lists are well documented in a semi-standardised way** (structured nomination forms, descriptions and inventories, pictures, official certifications, etc.); this facilitates comparative ICH investigations based on empirical evidence of relevance for the HERIWELL concept. The information contained in these dossiers enables test evaluations in the form of structured content analyses to catch, in particular:

   a. types of evidence-based ICH activities in the UNESCO lists;

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[10] Content analysis refers to an analysis of texts and documents that seeks to quantify the content in a systematic and replicable way, using predetermined categories (Bryman, 2012).

[11] Note: Comparisons of the below results with other studies or surveys, including the 2017 Eurobarometer, are methodologically problematic because definitions are not identical (e.g. they encompass both TCH and ICH). In contrast, future interregional comparisons <u>within a country</u>, based on harmonised criteria and indicators, may provide relevant data for evidence-based CH policymaking.

[12] https://ich.unesco.org/en/lists

    b. territorial distribution of ICH manifestations in ESPON countries;

    c. relevance of ICH inscriptions for key HERIWELL categories of SWB;

    d. stakeholders or communities as bearers or promoters of ICH.

4. There are also **medium-term perspectives** for this approach. Additional evaluations could later be conducted based on **inventories of ICH practices that are officially recognised by national or regional/local authorities** in most of the ESPON countries, or at least documented in an inventory kept by public agencies or scientific and cultural bodies or networks. While they are not yet transnationally harmonised in the same way as the UNESCO lists, content analyses conducted in further evaluations could at least count on basic descriptions of ICH manifestations and their origins as well as of main ICH bearers (or 'heritage communities') involved. Since a large majority of recognised ICH activities are known to have a regional or local focus, this could further **enhance the knowledge of specific regional CH impacts on SWB.**

When it comes to societal well-being, the analysis of ICH uses the general definition: i.e. societal well-being refers to the quality of life, societal cohesion and material conditions (for further details see the HERIWELL Inception report[13]).

2.2.2 Methodology and results of a preliminary application

What follows is the synthesis of the results of a preliminary assessment, based on a content analysis of ICH traditions and activities registered by UNESCO in ESPON countries that could serve as a methodological test for the HERIWELL project and future fact-finding exercises in European regions.

The assessment was carried out in January 2021 by the ERICarts Institute on the projects descriptions provided on the application forms. A total of 146 nominations from 28 ESPON countries have been included in the exercise, whose design and results can potentially inspire later ICH evaluations of national, regional or domain-specific ICH lists in ESPON countries.

The test evaluation adopts a four-step approach:

- defining ICH and SWB: to capture the multifaceted nature of ICH and SWB, the content analysis adopted the general definition of both ICH and SWB proposed by the Consortium in the HERIWELL Conceptual Framework (see Section 1.1);

- defining a set of identifying descriptors (based mainly on the subcategories listed in the ToC and on the list of priority stakeholder groups set in the Conceptual Framework);

- text analysis of semi-standardised documents on factual ICH manifestations in ESPON countries (inscriptions in the UNESCO lists) according to the selected descriptors;

- analysis and interpretation of the territorial distribution of ICH manifestations and their relevance for key HERIWELL categories of SWB.

Detailed results of this evaluation of ICH manifestations recognised by UNESCO in ESPON countries can be found in Annex 3. All of the following data are based on this evaluation of 146 cases.

As shown in the figure below, the **type of ICH** that figures at the top of the assessed UNESCO ICH lists is the one involving the active engagement of the population, dedicated communities or minorities in safeguarding ICH. Festivities and traditional arts activities are nearly on a par with different forms of supportive engagement provided by 'heritage communities'. Traditional crafts do not figure at the top of the ranking. However, this may result from shifting skills involving the preparation of traditional food and beverages – in Europe often regarded as a matter for highly specialised professionals – into a separate category.

Figure 2.2: Types of evidence-based ICH activities in Europe (ESPON countries; N = 146 cases)
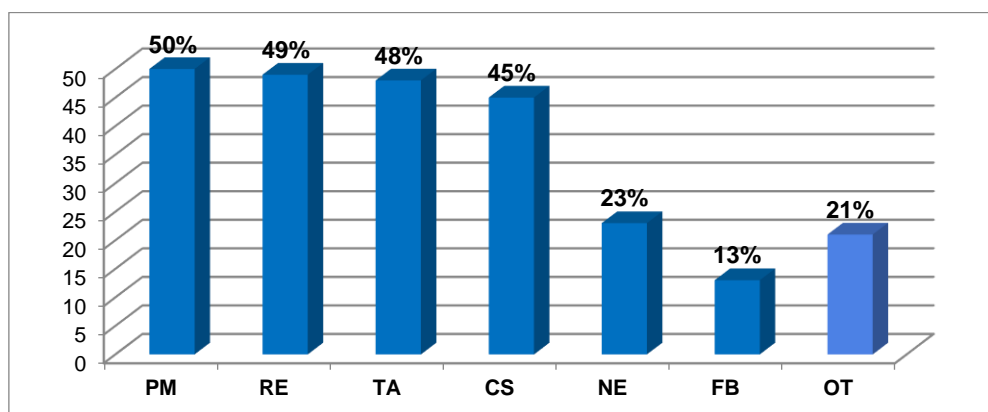

Legend: PM = Active engagement of the population, dedicated communities or minorities in safeguarding ICH; RE = Rituals / festive events / religious celebrations; TA = Traditional arts (music, theatre, dance etc.) and oral expressions; CS = Crafts skills and their transmission / early industrial practices; NE = Nature-related traditions / Environmental care; FB = Food and beverage traditions and/or related agricultural practices; OT = Other ICH functions, values and activities (e.g. events of high importance for cultural tourism; Involvement of, or inspiration to, contemporary artists).

NOTE: Education or training are not a separate category here, since they are relevant in all studied items.

Source: Author, based on data of UNESCO ICH lists

As to the **territorial distribution of ICH**, roughly 75% of UNESCO's ICH nominations in ESPON countries can be found in local or regional settings, the former slightly ahead. In a few cases, regional traditions reach beyond national borders. These results confirm the strong community ties and regional diversity of ICH. In contrast, national or transnational nominations each account for only about 10% of ICH cases.

Figure 2.3: Territorial distribution in UNESCO ICH lists (ESPON countries)[14]
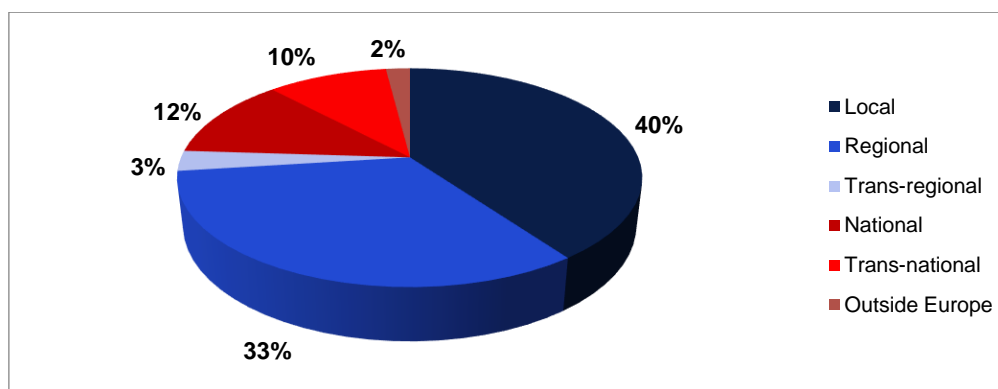
Source: Author, based on UNESCO ICH lists

The analysis of the **relation between ICH and SWB** confirms that the SWB dimensions impacted by ICH are interconnected. ICH manifestations are often multidimensional (on average one-and a half of the three categories are relevant in one inscription in the UNESCO lists). The assessment suggests that on the one hand, societal effects could play the largest role in ICH-related activities. For example, participation in performing arts ensembles or shared collective experiences during festivities and other events can help to forge stronger ties between different groups in the population. On the other hand, descriptions provided on

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[14] **Local**: counties, cities, villages and their vicinities, valleys, etc. **Regional**: Regions and connected larger areas in a country, islands, etc. **Transregional**: Regions connected across national borders. **National**: Reported ICH manifestations are relevant in the whole country or at least in main parts of it. **Transnational**: Several (in most cases neighbouring) countries share ICH traditions and practices. **Outside Europe**: Territories of ESPON countries (here: France) situated outside the European continent.

the application forms frequently underline that safeguarding ICH-related traditional practices requires respect, efforts to individually transmit knowledge and motivations as well as intergenerational support in families.

This implies that the societal cohesion and the quality of life dimensions are strongly related to ICH. As shown in the figure below, the differences between societal cohesion and quality of life in the relation with ICH are not significant. This also **confirms** the **findings** of the **HERIWELL deliberative event**, according to which even though **societal cohesion** seems to be slightly more related to ICH, it **should be analysed in connection with the quality of life** that represents an equally important SWB dimension touched upon by CH.

A more surprising result of the assessment is the strong position of the category 'material conditions'. It stems mainly from opportunities for full or semi-professionals and businesses in the context of ICH manifestations. What used to be voluntary work or family engagement in the past is now sometimes, at least in part, delivered by craft workshops or service providers and their employees.

Figure 2.4: Relevance of UNESCO's ICH Lists for key HERIWELL categories
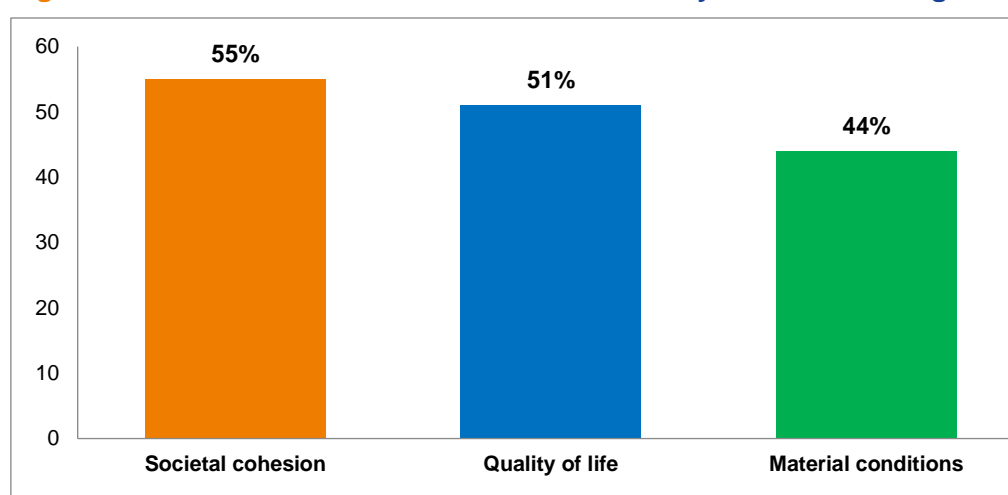
Legend: Societal cohesion (e.g. equality, community participation, integration); quality of life (e.g. sense of place, aesthetic satisfaction; educational benefits); material conditions (e.g. professional opportunities, housing)
Source: Author, based on UNESCO ICH lists

One of the objectives of the HERIWELL project has been to determine whether 'disparities exist between societal impacts of cultural heritage for different groups of stakeholders' (particularly as regards residents, tourists, minorities and migrants, but potentially also arts and heritage professionals). Until now, this objective has been particularly difficult to answer with the available empirical evidence, due to the absence of truly comparable data. As hinted at the start of our exercise, this deficit can partly be overcome by finding out who are **the bearers of ICH – heritage communities and sometimes also individuals – as well as involved societal groups**. The UNESCO lists provide the basis for such an analysis, because of specific requirements on the application forms. The figure below presents a summary of the assessment for this question.

Figure 2.5: Groups of main ICH stakeholders
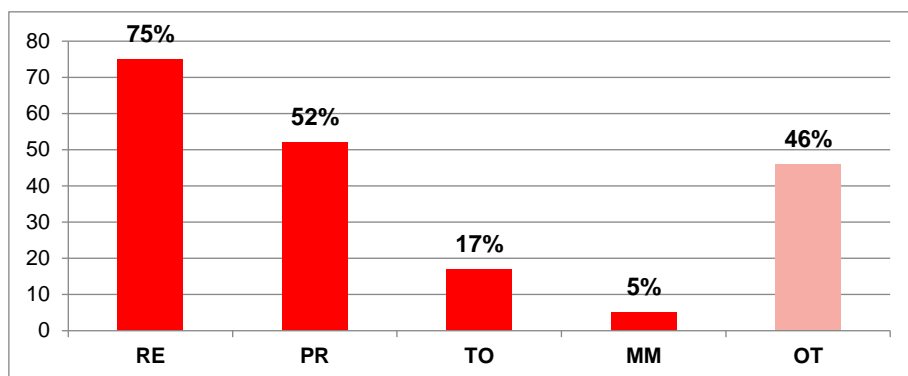
Legend: RE = Residents; PR = Heritage/cultural professionals; TO = Tourists; MM = Minorities or migrants; OT = Other stakeholders (strongly represented in this category are professionals dealing with animals, such as shepherds or horse breeders; other professionals e.g. in gastronomy; specialised shops and trade; religious believers and clergy)

Source: Author, based on UNESCO ICH lists

Residents are the main group among the 146 UNESCO cases whose societal well-being may be affected by ICH. This could be due to the fact that local and regional ICH dominates UNESCO lists (see Figure 2.5). The second largest group are heritage/cultural professionals. Definitely less relevant in ICH manifestations are cultural tourists and minorities, which relates to some of the previous results. The category 'other stakeholders' (OT) is important, because it seems to reinforce findings mentioned in the figure above: professionals involved in different types of ICH activities are frequently identified as stakeholders in the UNESCO dossiers (in 25% of all cases).

The above assessment of the UNESCO ICH lists and the detailed figures presented in Annex 3 provide fairly detailed empirical insights into the ICH and SWB domains, the territorial distribution and main stakeholders of ICH manifestations. The results are largely interconnected, which suggests reliability. Also, the relevance of ICH for key HERIWELL SWB categories can be established in this context. These results merit further, more detailed investigations, including on national and regional levels.

2.2.3   Mixed tangible and intangible CH manifestations: a basis for further research

During the deliberative events, some specialists pointed to the fact that often a clear boundary between tangible and intangible CH cannot be set as these categories may be interlinked. The *Council of Europe Cultural Routes* programme, based on thematic, organisational and network criteria, could probably be considered in this respect and may be relevant for the HERIWELL operational CH definitions.

The Cultural Routes programme highlights only transnational itineraries, which explains the location of the signs in Map 2.1. Sites and traditions included in the routes always stretch across different countries – most of them are located in south-west and central Europe.

The Cultural Routes programme officially addresses both TCH and ICH. In many cases, both categories apply. To be eligible for a nomination and to maintain this status, routes have to achieve positive results in at least five fields of action[15] – and these fields are closely related to several HERIWELL SWB categories:

1.   cooperation in research and development;

2.   enhancement of the memory, history and European heritage;

3.   cultural and educational exchanges of young Europeans;

4.   contemporary cultural and artistic practice;

5.   cultural tourism and sustainable cultural development.

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[15] Council of Europe, CM/Res (2013)67, II. List of priority fields of action.

Efforts on the part of the organisers to achieve such results are regularly monitored by independent experts nominated by the Institut Européen des Itinéraires Culturels in Luxembourg. The reports of these evaluations as well as the nomination documents could be a basis for future content analyses.

Map 2.1: Number of sites of the CoE 'Cultural Routes' programme
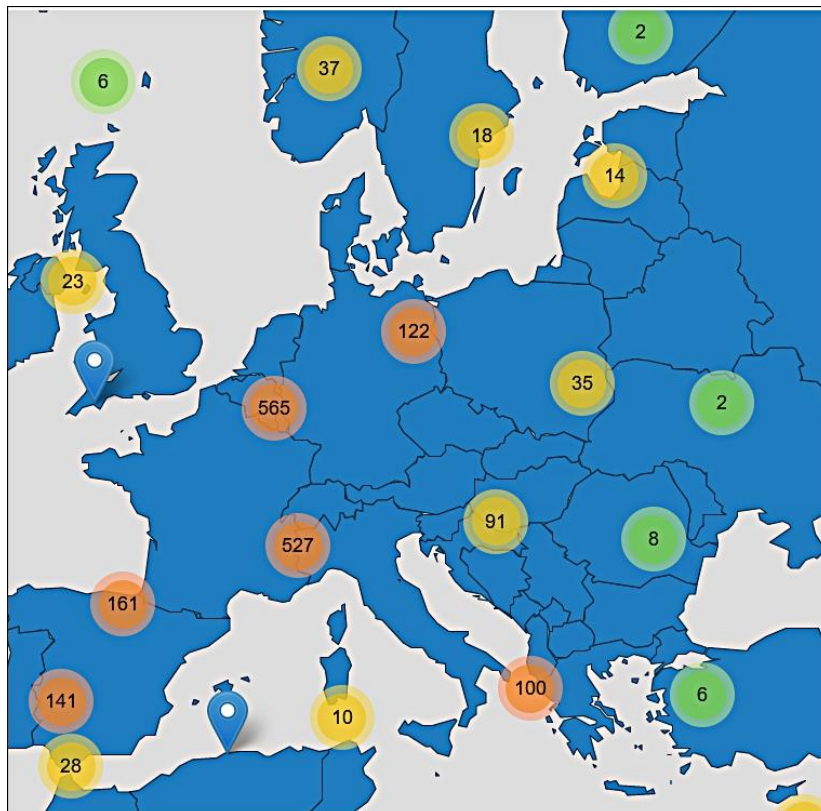
Source: https://www.coe.int/en/web/cultural-routes/cultural-routes-database-main-page

2.3   The relation between CH and individual perceptions of well-being: the HERIWELL survey

2.3.1   Aims and target groups

The HERIWELL survey stems from the intention to take into account the Covid-19 issue, as an emerging issue that affects citizens' behaviour towards cultural heritage and culture in general. The HERIWELL survey thus aims to investigate people's perceptions on the impact of CH on SWB both in general and in the context of Covid-19. In detail, the main objectives of the HERIWELL survey are:

- Stratify respondents into 'consumers' or 'active' CH users and those not interested.
- Identify barriers that prevent or discourage the use of CH.
- Show the impacts of Covid-19 on people's view of CH and their future practice once the pandemic is gone.
- Identify the impacts of Covid-19 on people's use of digitised heritage-related content on the internet and in social media.
- Identify different views regarding heritage-related quality of life, societal cohesion and material conditions aspects.

As agreed with ESPON EGTC, the survey will be carried out in the following countries: Belgium, Czechia Germany, Ireland, Italy, Norway, Poland and Spain. The survey will be submitted to a sample of 8,500 citizens aged over 18 years from these countries and representative of the countries' population. This will ensure a representative quota according to age and gender for each country.

2.3.2   Methodology

The HERIWELL consortium proposes the use of a cross-sectional survey (i.e. the information is collected from a sample at one point in time). To address, in particular, the challenge of replicability of surveys, some of the questions and potential answers included in the HERIWELL survey have been inspired by the Eurobarometer 466 of 2017.

The questionnaire is based exclusively on closed-ended questions (see Annex 4). This choice was driven especially by the fact that the survey will be submitted online. From the experience of the Consortium, when submitted online, closed-ended questions have a higher potential rate of responses compared to open-ended questions.

To grasp the complexity of the relationship between CH and SWB, the HERIWELL survey adopts the broad definition of both CH and SWB (see Inception report[16]). Thus, the survey will allow the consortium to collect people's perceptions on TCH, ICH and DCH as well as on all dimensions of SWB.

In one of the questions, the use of the Likert[17] scale will allow us to uncover degrees of opinions of the survey sample with regards to the linkages between cultural heritage and well-being.

Both univariate[18] and bivariate[19] statistical analysis of the survey responses will be used to understand the relations between CH and SWB at the individual level. This will unveil differences in respondents' perceptions according to their social and demographic characteristics and geographical provenience, as well as on their level of participation in CH (e.g. 'consumers', 'active' CH users and non-users). In analysing people's perception of the relation between CH and SWB during the Covid-19 period, the analysis will also take into consideration various context factors, e.g. Covid measures in the CH field, digitalisation level of the country and level of digital skills of the population.

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[16] https://www.espon.eu/sites/default/files/attachments/ESPON%20HERIWELL%20Inception%20Report.pdf

[17] It allows individuals to express how much they agree or disagree with a statement.

[18] It refers to the analysis of one variable at a time. It will include frequency tables, diagrams, etc. (Bryman, 2012).

[19] It refers to the analysis of two variables at a time to see whether there is any relation between the two variables. It will include contingency tables, diagrams, etc. (Bryman, 2012).

3 The local level assessment programme

3.1 Analysing the mechanism linking CH to well-being: the HERIWELL case studies

To assess cultural heritage impacts on societal well-being at the local level, the HERIWELL project will complement the analysis based on a quantitative analysis, with the results of eight case studies. Case studies aim to:

- collect more fine-grained information on the impacts of cultural heritage at the local level;

- test empirical methods of impact assessment;

- provide policy-relevant insights on how specific results have been achieved, and how to learn from them.

To collect additional information on how heritage impacts on societal well-being in the context of Covid-19, ideally case study information should be integrated with the information derived from the HERIWELL survey on population (Annex 4). Thus, case studies and the survey should be conducted in the same countries.

The country selection for selecting case studies was carried out based on the following criteria:

- geographical coverage of all ESPON areas;

- coverage of both EU and non-EU countries that are part of the ESPON programmes;

- coverage of a large part of the ESPON countries' population – different levels of GDP and cultural heritage resources.

Moreover, the selection has been aimed at selecting at least some of the countries already included in the heritage project[20]. Based on these criteria the following countries were selected: Czechia, Belgium, Germany, Norway, Ireland, Italy, Poland and Spain.

Table 3.1: Overview of countries proposed for the survey and case studies

Country		Population 1 January 2019 and % of EU population	GDP at market prices 2019 in euro[21]	TCH and ICH listed in UNESCO (2019)	ERDF investments in CH (2014−2020)
1. **Ireland**	Western	4 904 240 1 %	72 260	2 TCH, 3 ICH	38 m
2. **Germany**	Western and central	83 019 213 16.2 %	41 510	46 TCH, 4 ICH	191.6 m
3. **Belgium**	Western and central	11 455 519 2.2 %	41 200	13 TCH, 13 ICH	47.2 m
4. **Poland**	Central	37 972 812 7.4 %	13 780	15 TCH, 1 ICH	1.188 bn
5. **Norway**	Northern, non-EU	5 328 212 1 %	67 370	7 TCH, 2 ICH	-
6. **Italy**	Southern	60 359 546 11.8 %	29 660	55 TCH, 12 ICH	1.199 bn
7. **Spain**	Southern	46 937 060 9.1 %	26 430	46 TCH, 19 ICH	491 m
8. **Czechia**	Eastern	10 649 800 2.1 %	20 990	14 TCH, 6 ICH	480.3 m

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[20] The geographical scope of the heritage study includes Austria, Brussels, Flanders, Italy, the Netherlands, Norway, Portugal, Romania, Slovakia, Slovenia and Sweden

[21] https://ec.europa.eu/eurostat/databrowser/view/tec00001/default/table?lang=en

Source: author's elaboration on EUROSTAT data

Within these countries, case studies will be selected among the *exemplary practices* derived from multiple sources (e.g. mapping of country experts, HERIWELL deliberative event, literature review). The list of exemplary practices collected up until now, which will be used for drafting a proposal of case studies, is included in Annex 10.

3.1.1   Methodology

The case studies aim at two main goals:

- to collect more fine-grained information on the impacts of cultural heritage at the local level, and to test empirical methods of impact assessment;

- to provide policy-relevant insights into how specific results have been achieved, and how to learn from them.

The proposed approach will serve both to test impact assessment methodologies and to provide useful insights for policymakers and practitioners willing to design cultural interventions with a societal well-being added value.

The **unit of analysis** of case studies will be ***exemplary practices*** (different types of initiatives, comprising programmes, policies and projects), centred on a cultural heritage resource in one of the selected European countries, deemed to contribute to different types of societal well-being. It is worth noting that we are referring to outstanding practices in the sense that the case studies will not address overall best practices, which often leverage on specific characteristics or resources difficult to replicate in other contexts. Rather, the focus on exemplary practices aims at identifying strategies and political choices that contributed to societal well-being results, to explore the *reasons why* those results occurred. The latter goal is aimed at producing insights and lessons for policymakers interested in fostering societal well-being through cultural heritage resources and policies.

The eight exemplary practices will be selected among a selection of experiences derived from different sources: from the information provided by the HERIWELL country experts[22], from the analysis of databases of good practices (such as the Creative Europe projects database, the UNESCO list of case studies on local development[23] and others), and from the findings of the outreach activities with HERIWELL supporting partners.

The main criteria for the selection of case studies will be the following:

- experiences located in one of the eight countries selected, i.e. Czechia, Belgium, Germany, Norway, Ireland, Italy, Poland and Spain;

- experiences focusing on a tangible, intangible, digital and mixed cultural heritage resource, offering a strong connection with one of the identified dimensions of SWB (quality of life, in particular impact on knowledge and empowerment; societal cohesion and material conditions);

- experiences that already offer a relevant evidence to be analyses (in this sense, initial or promising practices will not be selected);

- variety among the types of policies promoted (e.g. digitalisation, accessibility and bottom-up participation) and of the targeted population (e.g. local community, tourists and minorities).

The methodology for case studies is articulated into two main parts. The first one is more descriptive in nature and aims to identify the dimension(s) of societal well-being tackled by the selected exemplary practice, and to apply or develop specific research strategies to assess the results achieved in a given period of time. This part aims at answering the question **'what kind of change in the SWB dimensions can be detected related to the CH considered in the case study? How can it be measured?'** In analysing SWB

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[22] The list has been included in the HERIWELL Conceptual Report, Annexes, Table 1.3.

[23] UNESCO (2016). *Culture: urban future. Global report on culture for sustainable urban development.* http://openarchive.icomos.org/id/eprint/1816/1/245999e.pdf

dimensions, particular attention will be paid to gender equality and diversity, as transversal elements of all SWB dimensions (i.e. societal cohesion, quality of life and material conditions).

The second one is more explanatory in nature and aims at describing the contextual elements, the policies and the mechanisms that are most connected to the achievement of the results we are interested in. This second part aims at answering the question **'why has the impact been generated?'**

To provide an answer to these questions, case studies will rely on general definitions of CH (tangible, intangible and digital) and SWB to capture the multifaceted nature of the linkages between CH and SWB.

The proposed methodology for case studies couples quantitative and qualitative methods and comes in two main logical, even though not chronological, parts. The first part refers to the identification of the impacts of relevant cultural heritage-related interventions to the different dimensions of societal well-being. The second part refers to the identification, based on a policy analysis approach, of the elements of the case history that are conducive to the results and impacts achieved. The analysis and quantification of impacts will be undertaken through a variety of methodologies of appreciation, selected within the local level methodology, while the qualitative analysis of the policies will be realised through the heuristic of extrapolation.

Through the preliminary desk analysis and interviews, the researcher understands that the main impact of a cultural heritage-related initiative entails a number of elements. An example is the enhancement of participation in education for students at risk of social exclusion or school dropout. Through existing data or fieldwork some data are collected identifying the degree of improvement of indicators of students' attendance, knowledge or awareness. Through the extrapolation approach, the researcher will describe the characteristics of the policy and their context that are relevant in the explanation of the results and impacts achieved. The explanatory mechanism(s) of these results is also highlighted, such as the motivating power deriving from untraditional, immersive learning tools.

Barzelay (2007) has called this heuristic *learning from second-hand experience*, or **extrapolation**. Extrapolation is called for (among other circumstances) when actors believe that replicating models will not generate the same effects in their undertaking because of differences in situational or contextual factors. Under an extrapolation-based design, actors would narrow down the design problem to devise locally feasible elements that would intentionally activate a causal process such as the one evident in the functioning of the design exemplar. This method derives from the realist approach to evaluation proposed by Pawson[24], even though it focuses more on the role of policy features as a way to purposively produce change. The extrapolative case studies have a very practical, policy-oriented goal. The main aspiration of this approach is to provide actors with information that will help them to design policies better. The elements of an extrapolative case study as we understand them (Melloni, Pesce, Vasilescu 2016[25]) are:

- context features such as institutions, rules and historical events, explaining the motivations of the CH-related intervention and its worth for the societal well-being;

- policy features – characteristics of the CH-related intervention and the implementation process, and SWB dimension addressed;

- mechanisms triggering specific policy outcomes in the SWB domain;

- project and policy outcomes – with particular reference to changes in the actors' behaviours congruent with the policy goal. This implies a preliminary identification of the success (or failure) elements of the analysed policy intervention.

The above-mentioned elements will guide the preparation of the template for case studies and the guiding questions for country experts. The following table resumes some preliminary questions characterising the extrapolative method:

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[24] Pawson R., and Tilley N. (1997). *Realistic Evaluation.* London, Sage.

[25] Melloni, E., Pesce, F., and Vasilescu, C. (2016). Are social mechanisms usable and useful in evaluation research? *Evaluation,* 22(2), 209–227.

Table 3.2: **Guiding questions conducting the analysis of cultural heritage case studies**

Dimension	Questions	What we would search for
Outcomes	What specific changes (if any) were produced in the behaviour of which actors? Which dimension(s) of societal well-being are entailed (quality of life, societal cohesion, material conditions)? Which types of beneficiaries are most affected (e.g. tourists, residents, minorities)?	Modifications in some actors' behaviour related to societal well-being dimensions, which would not have happened spontaneously.
Mechanisms	Which mechanisms (if any) fostered the change in people's behaviours, in terms of growth or reduction, quality of life, societal cohesion or material condition levels?	Implicit or explicit motivations that turned into a change of behaviour.
Project features	Which element of the project/intervention triggered the mechanisms and favoured the achievement of outstanding results?	Elements of the intervention that triggered the mechanism (e.g. participatory activities, communication, digitalisation).
Context features	What were the problems and opportunities of the institutional environment? What resources were available?	Elements of the context (institutions, rules, historical events), usually not modifiable by the policy, explaining the framework for the action and its constraints.

Source: Melloni, Pesce, Vasilescu (2016). Are social mechanisms usable and useful in evaluation research? *Evaluation*. Volume: 22 issue: 2, pages 209–227

A specific methodological element is the **mechanisms** that make tools work. Mechanisms are defined as the causal explanations of why the context features combined with process features shape the behaviours of some policy actors and trigger some kind of change. A vast sociological literature makes use of the concept of mechanisms. In this context, mechanisms are used for their learning potential, thanks to their relative general application. A list of mechanisms, which we have collected in previous studies[26] dealing with this method and that will be used as a first reference for country experts to analyse their projects, is included in Annex 5.

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[26] Such as, IRS et al. (2016) Ex post evaluation 2007–2013: Work Package IX, Culture and Tourism (DG Regio); IRS et al. (2017) *ESPON Geography of New Employment Dynamics in Europe*.

Table 3.3: Template for the case studies

Template for the case studies
Introduction. Short description of the role of the cultural heritage-related exemplary practice in fostering societal well-being. Methodology used for the analysis.
The context features. The context of the exemplary practice, in terms of availability of cultural heritage resources, main policies and initiatives promoted (including EU funding) and actors involved; the societal well-being levels compared to the country and EU levels.
The policy features. History and general description of the cultural heritage resource under analysis, main target audience and number of visitors; the policy elements and processes aimed at promoting a specific dimension of societal well-being.
The mechanisms. Implicit or explicit motivations that turned into a change of behaviour of targeted beneficiaries.
The results achieved. Identification and quantification of the main societal well-being results achieved by the exemplary practice.
Lessons learned. The final chapter summarises the main points of the case study, its strengths and weaknesses, and the lessons for achieving similar results in different contexts.

Source: author's elaboration

The research strategy will entail different approaches and tools:

- a literature review regarding the case;
- analysis of indicators referring to relevant CH-related and SWB-related dimensions (centrally collected by the HERIWELL research team);
- interviews and focus group to key policymakers and stakeholders;
- other research tools to be developed according to the specific SWB dimension tackled by the case (data from the HERIWELL survey of population will also be used).

The findings of the eight case studies will be analysed to collect general lessons for policymakers interested in fostering specific societal changes through CH policies.

The HERIWELL research team is undertaking a **pilot case study** to test the methodology and research tools, and to provide country experts with an example of how to conduct and draft the study in the other seven cases.

3.1.2   The MANN pilot case study: state of affairs

The MANN museum has been selected as a pilot case study according to the following criteria:

- It is located in Italy (i.e. a country covered by the HERIWELL survey of population) and is the beneficiary of a large amount of ESIF investments (EUR 39 859 275.71).
- It tackles various types of CH (mainly tangible and digital).
- It aims to tackle various SWB dimensions (societal cohesion and quality of life), through various policies (digitalisation, accessibility, education measures, etc.). The museum strategy aims to strengthen the relation with the local communities, often vulnerable from a social and economic point of view, as well as to enhance the inclusion of minorities through specific projects. The museum has also a policy promoting the full accessibility to its collections for the residents, with unlimited access to the museum, and also for the wider community through enhanced digital accessibility. The museum has also developed specific educational and digital policies. The museum developed the video game *Father and Son*, the first video game in the world published by an archaeological museum: screen after screen, it takes the audience in an adventure that, using as a cornerstone the MANN's collections and its rooms, works as a bridge between different historical eras.

- The results achieved by the Museum's strategic plan. Among the areas of SWB impact identified by the HERIWELL project, three of them appear most relevant to this case:
  - o higher levels of knowledge and research about the past, to be achieved through a stronger level of cultural activities fostered via different channels including digitisation, and fostering dialogue and critical thinking about the past;
  - o enhanced community engagement, equal opportunities and integration of minorities, to be achieved through partnerships and bottom-up projects involving different types of citizens – with particular attention to the city's most deprived neighbourhoods, minorities, disabled people and youngsters at risk of social exclusion;
  - o enhanced community awareness, civic cohesion and sense of belonging, to be achieved via openness to the city, permeability to the city's social life, and through the strengthening of partnerships with the cultural and community stakeholders.

In this phase of the project, the case study analysis focused on:

- the desk analysis of the main programming, performance results and other documents of the MANN museum;

- interviews with the management of the museum to gather data on the initiatives carried out by the museum and their results;

- the analysis of the social networks data in terms of origin, gender and age of the followers;
- the definition of the collaboration between the museum and the research team in the next phase of the case study.

More details on the MANN case study are provided in Annex 5.

3.2 Big data analysis: a new experimental application

As specified in Chapter 1, the HERIWELL consortium proposes to experiment in the use of the Wikipedia big data not only for the quantitative analysis at pan-European level, but also for the local-level analysis. For example, in case studies in which no other information is available to determine the CH demand and its dynamics, or in order to estimate the effects of the Covid-19 pandemic on the relationships between CH sites and their (virtual) public.

As already mentioned, the approach follows the methodology proposed and applied by Eurostat in the Pilot Project on Big Data[27], **extended to take into consideration not only the number of pages consulted daily in the online encyclopaedia, but also how their number changes over time as the language and device used change**. This dynamic analysis allows us to analyse, even if in a 'fuzzy' and experimental way, both the identikit of the potential site user and the changes that have occurred in the relationships between a CH object and its 'virtual' audience. This extension is particularly interesting, because it allows us to grasp the changes that have occurred in the relationships between CH and its audience during the Covid-19 pandemic.

The following pages (and Annex 6 for details) illustrate the results of a first experiment on the use of these data and the approach for comparing two very popular Italian archaeological parks: the Colosseum and Pompeii[28]. Both sites are registered on the World List, but present a significant difference in localisation. The

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[27] Eurostat provides information on European cultural heritage, with data derived from a range of external sources outside the official statistics as a *descriptive* measure of the CH of the countries. These external sources are: the UNESCO World Heritage List; the UNESCO Representative List of the Intangible Cultural Heritage of Humanity; the UNESCO List of Intangible Cultural Heritage in Need of Urgent Safeguarding; the UNESCO Register of Good Safeguarding Practices; the European Heritage Label (part of the European Commission's (EC's) framework programme titled 'Creative Europe'); the European Capitals of Culture (also part of the Creative Europe programme); the European Group on Museum Statistics (EGMUS); the special Eurobarometer survey on cultural heritage that was conducted in September–October 2017. Using Wikipedia, Eurostat shows how it is possible to transform a descriptive analysis (World Heritage List) into comparable data.

[28] In 2020 the online visits to Wikipedia for Pompeii amounted to approximately 1.7 million and for the Colosseum approximately 2.1 million.

first is located in the downtown area of the capital city, alongside other important cultural attractions; the second is located on the edge of a metropolitan area and is the main, if not the only, tourist attraction in its area.

To analyse the popularity dynamics of these two sites and refer them to different user groups, it was necessary to make some (strong) assumptions.

The first is that the language used in the query could help to distinguish the origin of the user. In this first analysis, we have considered the Wikipedia queries using two languages: Italian (the national language) and English. The hypothesis is that the pages visited on *it.wikipedia.org* approximate the popularity of the two monuments for the Italian community (i.e. assuming that an Italian interrogates Wikipedia in Italian or a German in German and so on), while the pages consulted on *en.wikipedia.org* could approximate the popularity of the Colosseum and Pompeii for tourists. In this case, the assumption is that Wikipedia in English is mainly used by those who belong to other nationalities.

The Wikipedia user was then distinguished on the basis of the main device used for connection: desktop or mobile device. The difference in the devices used was considered significant on the basis of the following hypothesis: those who use the mobile device are, in many cases, 'real' users of the site and query the Wikipedia page to be 'guided' during their visit, while those using a desktop are more likely to search for other purposes[29].

A quite innovative statistical treatment of the daily data drawn from Wikipedia allowed us to capture the trend (annual and weekly) of the queries. The availability of long series of data allowed us to investigate how the number of queries of the Wikipedia pages, in relation to the devices used, changed due to Covid-19 pandemic.

The initial results of this analysis show the added value that can be obtained from further analysis of the data provided in Wikipedia.

There is a significant relationship between the use of devices, and the tourist attractiveness of a territory and a monument. In a more touristic city (Rome has 34 million tourists against the 14 million in Naples) and for a more visited monument (the Colosseum attracts about twice the number of visitors as Pompeii), the use of mobile devices in English is significantly more widespread (see Figure 3.1). The same figure shows that during the lockdown the query of Wikipedia pages (in English) decreased with an upturn after the lockdown and the more acute phase of the pandemic, based on the expectation that the worst period was behind.

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[29] This hypothesis is based on an initial analysis of some of the data made available by Eurostat. For example, the level and dynamics of those who proceed with online purchases of travel and holiday accommodation, or are looking for information about education, training or course offers, and other information on internet uses and users (https://ec.europa.eu/eurostat/web/digital-economy-and-society/data/database).

Figure 3.1: Trend component of daily visits for Pompei and the Colosseum: mobile devices on English Wikipedia
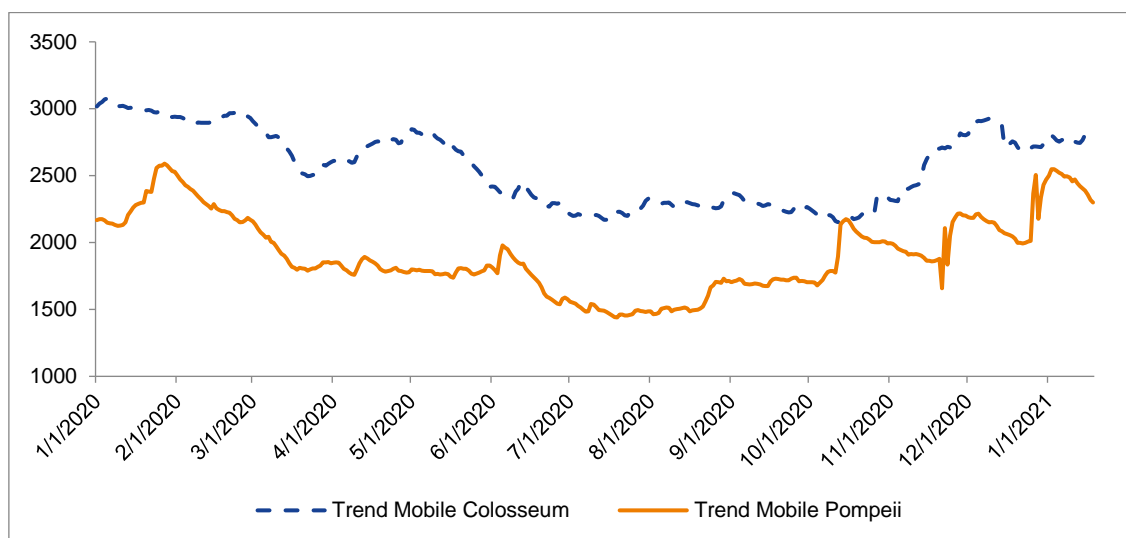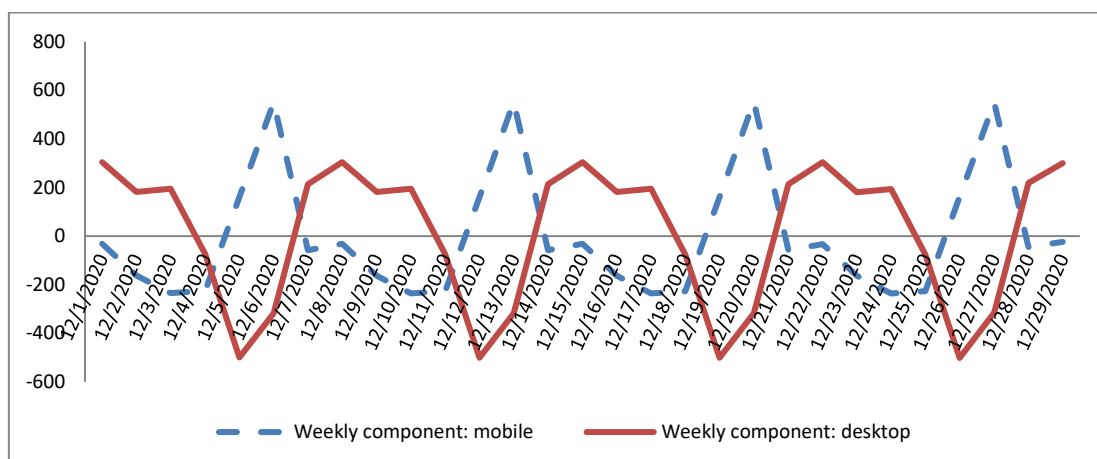

Source: Author's elaboration on Wikipedia data

The results obtained so far also show that the use of Wikipedia is quite different from that of so-called social networks (Instagram, Facebook, YouTube, etc.). While all the available data show that during the lockdown the number of users (and feedback) on the museums' social networks increased, the same phenomenon does not seem to have occurred for the consultation of Wikipedia pages. Indeed, the trend component in Figure 3.2 shows that from the end of January to the end of March the number of hits on the site recorded a sharp decline. Also considering the strong recovery after mid-July, especially among mobile users, we can assume that those who consult Wikipedia have a more cognitive goal, while the users of social networks have a more emotional goal.

Figure 3.2: Trend component of daily visit for Pompeii: mobile and desktop on English Wikipedia
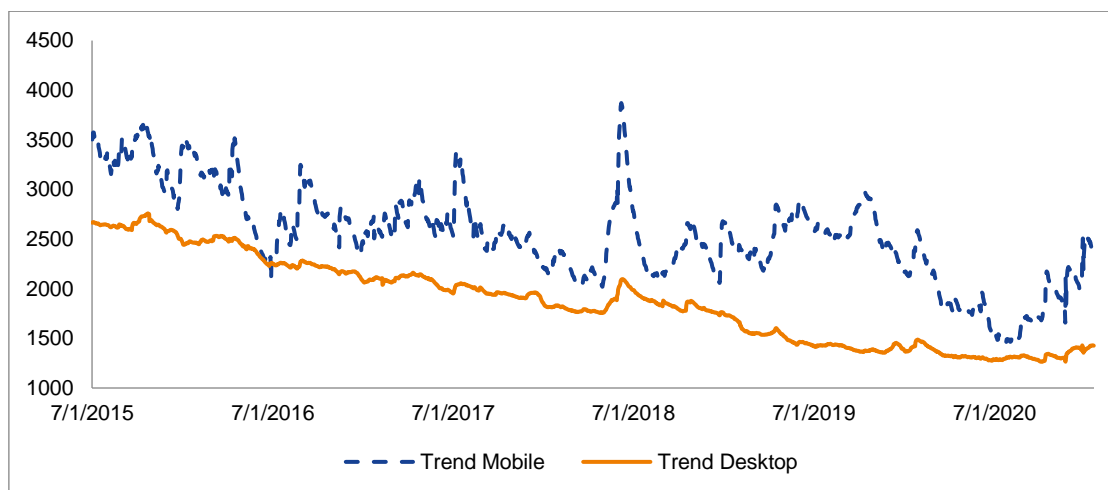
Source: Author's elaboration on Wikipedia data

The decomposition of the time series on a weekly basis allows the identification of an important difference in the device used to consult the Wikipedia pages. Focusing on the Pompeii entry for Wikipedia in English, the weekly seasonal component shows (see Figure 3.3 relating to the four weeks of December 2020) a specular behaviour for the desktop and mobile component. The desktop component has a peak of hits at the beginning of the week while the mobile component presents a peak at the weekend. In general, these behavioural differences confirm the importance of taking into consideration the type of device used to query Wikipedia to better describe the social characteristics of users.

Figure 3.3: Weekly component of daily visit for Pompeii: mobile and desktop on English Wikipedia

Source: Author's elaboration on Wikipedia data

With all the precautions for interpreting partial data so far considered in this experimental in-depth analysis, the results achieved seem to confirm some of the assumptions. These have prompted us to carry out a further and more disaggregated analysis of the Wikipedia data: the possibility of distinguishing some characteristics of users on the basis of the language or device used.

4 The contribution of EU funded cultural heritage to societal well-being: a framework of analysis

4.1 Societal well-being and CH in ESIF: methodology and preliminary results

As anticipated in the Conceptual Report, ERDF is the main direct source of EU funding for investments in CH.

According to data in the Open Cohesion Categorisation system[30], about EUR 6.7 billion of ERDF funds (equivalent to 3.4 % of total allocated ERDF funds) have been invested up to 2020 in the sector of culture in the 2014—2020 programming period. In particular, as shown in Figure 4.1, **the largest part of these funds is allocated to CH**: about EUR 4.866 million under the specific investment field 94 *Protection, development and promotion of public cultural and heritage assets* (72 %), and EUR 499 million (8 %) under the intervention field 95 *Development and promotion of public cultural and heritage services*. An additional EUR 67 million has been allocated to the intervention field related to cultural heritage under the IPAE fund for territorial cooperation.

Figure 4.1: Distribution of total planned allocations by intervention fields related to the cultural sector in the EU – euro and % – cumulative 2014–2020
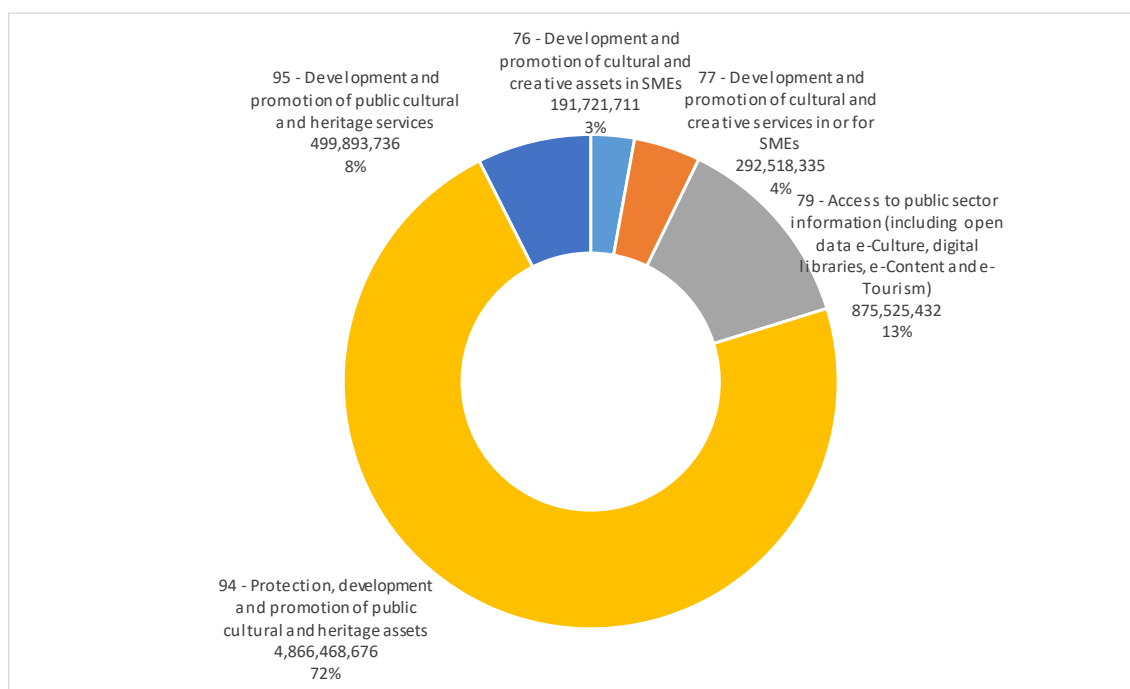
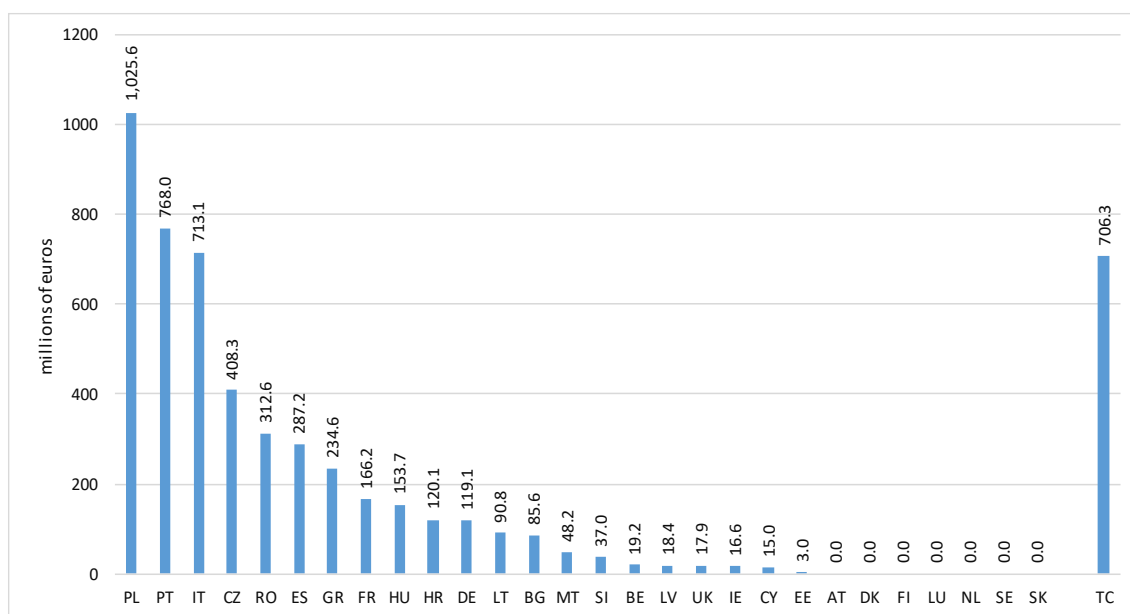Source: HERIWELL elaboration on Open Cohesion data

Allocations related to CH are reported by 21 MSs, while no specific allocations on CH are present in AT, DK, LU and NL.

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[30] ESIF 2014–2020: EUR allocation by main categorisation codes by fund. Open Cohesion, Updated: 28 January 2021. https://cohesiondata.ec.europa.eu/2014-2020/ESIF-2014-2020-categorisation-ERDF-ESF-CF-planned/9fpg-67a4.

When it comes specifically to CH investments (cod_94 and cod_95), available data show the following (Figures 4.2, 4.3 and Map 4.1):

- MSs with the highest allocations (absolute amount) are PL (EUR 1.026 billion), PT (EUR 768 m), IT (EUR 713 million), CZ (EUR 408 million) and RO (EUR 313 million).

- MSs with the highest incidence of CH allocations over total ERDF allocations are MT (14.2 %), PT (7 %) and CY (5 %) compared to 2.7 % of the EU average; in Poland and Italy, CH accounts for 2.5 % and 3.3 % of total ERDF allocations respectively.

- Regions with the highest incidence in CH allocations over total ERDF allocations are: Centro, PT (17.2 % − EUR 312 million); Alentejo, PT (14.6 % − EUR 132 million); Valle d'Aosta, IT (14.4 % − EUR 5 million); Ionian Islands, EL (14.3 % − EUR 19 million); Malta (14.2 % − EUR 48 million); Limousin, FR (10 % − EUR 13 million); South Aegean, EL (9.2 % − EUR 5 million); Continental Greece, EL (9.1 % − EUR 6 million); Umbria, IT (9 % − EUR 19 million); Nord-Pas-de-Calais, FR (8.9 % − EUR 60 million); Région de Bruxelles-Capitale, BE (8.2 % − EUR 8 million) and Norte, PT (8.1 % − EUR 229 million).

- Portuguese regions also show the highest level of allocations per inhabitant: the CH allocation per capita is more than €100 in Alentejo (€183), the Autonomous Region of the Azores (€147), Centro (€147); also Malta and the Ionian Islands, EL register high levels of per capita allocations for CH, at €104 and €92 respectively.

Figure 4.2: Total planned allocations in intervention fields related to CH in EU by country – millions of euro, cumulative 2014–2020
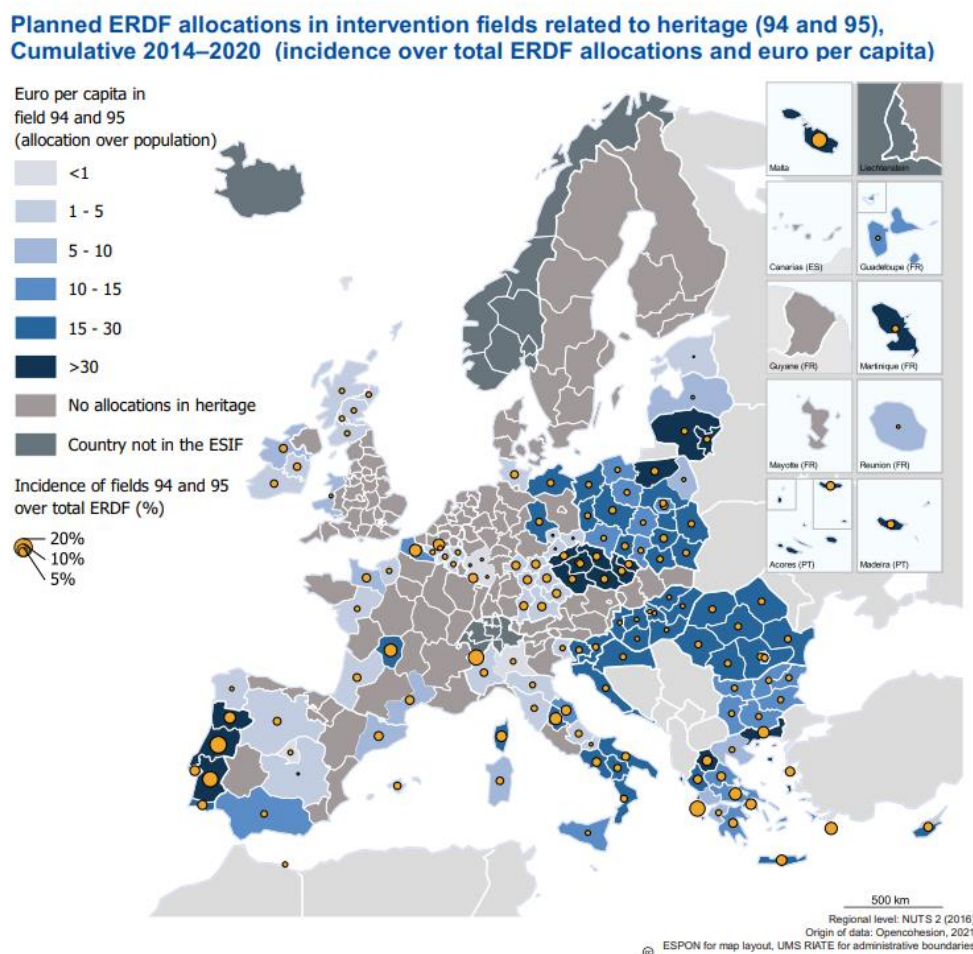

Source: HERIWELL elaboration on Open Cohesion data - TC = Territorial Cooperation.

Figure 4.3: Planned allocations in intervention fields related to CH in EU by country – incidence percentage over total ERDF allocations, cumulative 2014–2020
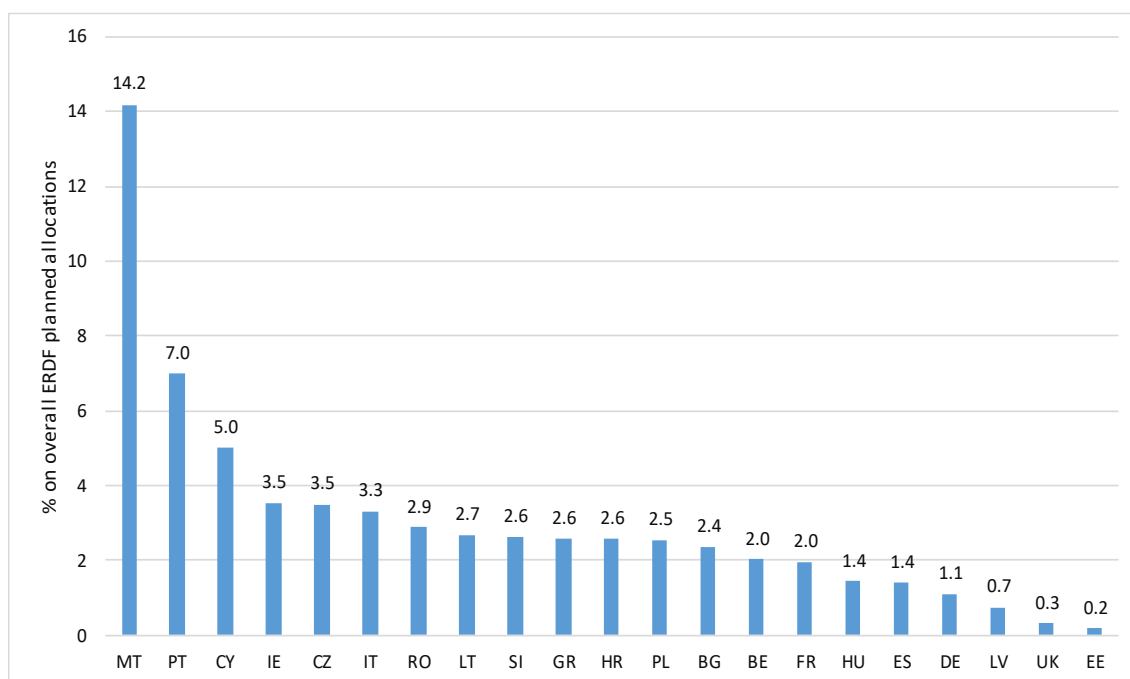
Source: HERIWELL elaboration on Open Cohesion data

Map 4.1: Planned ERDF allocation in intervention fields related to heritage (94 and 95), Cumulative 2014–2020 (incidence of total ERDF allocations, % and euro per capita)

Source: HERIWELL elaboration on Open Cohesion and Eurostat data.
Note: NUTS 0 for AT, BG, CZ, DK, FI, HR, HU, RO, SI; NUTS 1 for BE, DE, NL, UK; NUTS 2 all other MSs.

To assess the contribution of ESIF to WB, we propose to adopt a quali-quantitive approach.

The first methodological step is an explorative correlation analysis between the ERDF investment in CH (94 + 95) and SWB indicators. Correlation is a statistical measure that expresses the linear relationship between two variables (changing together at a constant rate) and it is widely used to describe simple relationships without any cause and effect implications.

We consider the available Eurostat indicators referring to the three SWB dimensions defined in the ToC presented in the Conceptual Report. The final choice of indicators also considers the availability at NUTS 2 level and the territorial and time coverage. The preliminary choice of indicators to be considered for the correlation analysis is presented in Table 4.1[31].

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[31] For details see Table 7.1 in Annex 7

Table 4.1: Preliminary list of indicators to be considered for the correlation analysis

Dimension	Subdimension	Indicator	Description
Quality of life	Education and skills, including digital skills	Tertiary education	Distribution of the population by educational level. There are four levels based on ISCED (International Standard Classification of Education) 2011: Tertiary education comprises levels 5 to 8
		Early school-leaving	% of the population aged 18–24 with at most lower secondary education and not in further education or training
		Adult participation in learning	% of the population aged 25–64 participating in education or training activities in the last 4 weeks
	Health	Good health	Proportion of people who assessed their health as very good or good when answering the question on self-perceived health ('How is your health in general?')
		Life expectancy	Life expectancy at birth is the mean number of years that a newborn child can expect to live if subjected throughout their life to the current mortality conditions
	Knowledge and research	R&D expenditure	Expenditure on R&D as % of GDP
Societal cohesion	Community engagement, volunteering, charitable giving, civicness	Active citizenship	Share of people who claimed they had participated in any of the following activities: activities in a political party or local interest group; public consultation; peaceful protest or demonstration, including signing a petition; writing a letter to a politician or to the media (voting in an election excluded)
		Freedom over life choices	Share of respondents answering satisfied to the question, 'Are you satisfied or dissatisfied with your freedom to choose what you do with your life?'
		Job opportunities Index	Share of respondents who think it is a good time to find a job in the city or area where they live
		Making friends	Percentage of people who claimed to be satisfied with their opportunities to meet people and make friends
		Volunteering	Percentage of people who claimed they participated in voluntary activities (formal or informal)
	Equal opportunities and empowerment	People at risk of poverty or social exclusion	This indicator corresponds to the sum of persons who are: at risk of poverty or severely materially deprived or living in households with very low work intensity
		Deprivation rate	The material deprivation rate is an indicator in EU-SILC that expresses the inability to afford some items considered by most people to be desirable or even necessary to lead an adequate life. The indicator distinguishes between individuals who cannot afford a certain good or service, and those who do not have this good or service for another reason, e.g. because they do not want or do not need it. Severe material deprivation rate is defined as the enforced inability to pay for at least four of the deprivation items
		NEET rate (15–29)	Percentage of the population of a given age group and sex who is not employed and not involved in further education or training
		Employment gap	Gender gap (M–F) in employment rates 20–64
Material conditions		Employment rate	Percentage of employed people
		Per capita nominal GDP	

Source: Author's elaboration

A Correlation analysis has been carried out, considering on one side the cumulate planned allocations 2014–2020 in CH in terms of: (i) incidence % of CH over total ERDF planned allocations, and (ii) allocations per inhabitants, and, on the other side, each SWB indicator in terms of (i) latest available data, (ii) the average 2014–2019 period and (iii) change between 2014 and 2019.

Table 4.2 (and Maps in Annex 7) present the preliminary results of the analysis of correlations, showing a general low level of correlation between ERDF allocations in CH and the SWB indicators, even if the correlation signs show a positive relationship between CH allocations and SWB. These preliminary results reflect the complexity of the relationship and the difficulty of grasping it at macro level, as discussed in Chapter 1.

Among Quality of Life indicators, ERDF allocations in CH are positively correlated with the tertiary education attainment indicator and the adult participation in lifelong learning indicator, while the correlation is negative with the Public Expenditure in R&D indicator.

Looking at the Societal Cohesion dimensions, ERDF allocations in CH are positively correlated with indicators of freedom over life choices, job opportunities, making friends and volunteering, while a higher incidence of ERDF allocations in CH is associated to lower poverty risks, severe deprivation, and inequality (NEET rate and the employment gender gap).

Table 4.2: Preliminary results of the correlation analysis (Pearson correlation coefficient[32])

SWB dimension	CH allocations	2019	Average 2014–2019	Change 2019–2014
Quality of life	*Tertiary education 30–34*			
	Allocation %	0.26	0.29	0.18
	Per capita	0.25	0.29	0.21
	Early school leavers 18–24			
	%	−0.04	−0.11	−0.27
	Per capita	-0.12	−0.18	−0.23
	Adult partecipation in LLL 25–64			
	%	0.35	0.36	0.04
	Per capita	0.29	0.30	0.02
	*Good Health**			
	%	0.19		
	Per capita	0.41		
	*Life_Expecatncy**			
	%	0.04		
	Per capita	0.21		
	*R&D expenditure **			
	%	−0.12		
	Per capita	-0.13		
Social cohesion	*Active citizenship*			
	%	−0.12		
	Per capita	−0.13		
	Freedom over life choices			

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[32] This is a measure of linear correlation between two sets of data. It is the covariance of two variables, divided by the product of their standard deviations; it is essentially a normalised measurement of the covariance, such that the result always has a value between −1 and 1.

Given a pair of random variables , the formula for ρ is:

$$\rho_{X,Y} = \frac{\text{cov}(X,Y)}{\sigma_X \sigma_Y}$$

where:

cov is the covariance

σ_X: is the standard deviation of x

σ_Y: is the standard deviation of y

SWB dimension	CH allocations	2019	Average 2014–2019	Change 2019–2014
	%	0.31		
	Per capita	0.10		
	Job opportunities			
	%	0.25		
	Per capita	0.13		
	Making friends			
	%	0.16		
	Per capita	0.20		
	Volunteering			
	%	0.31		
	Per capita	0.25		
	Institution quality index			
	%	0.35		
	Per capita	0.30		
	People at risk of poverty rate (%)			
	%		−0.22	
	Per capita		−0.19	
	Severe material deprivation rate			
	%	−0.30	−0.29	−0.28
	Per capita	−0.24	−0.23	−0.42
	NEET rate 15–29			
	%	−0.25	−0.30	−0.31
	Per capita	−0.19	−0.22	−0.24
	Employment gap			
	%	−0.32	−0.29	0.16
	Per capita	−0.24	−0.21	0.08
Material conditions	*Employment rate*			
	%	0.24	0.28	0.32
	Per capita	0.15	0.20	0.40
	GDP per capita			
	%	−0.31	−0.33	0.04
	Per capita	−0.40	−0.41	−0.02

Source: Authors' elaboration on different sources (see Table 7.1 in Annex).

As highlighted in the Conceptual Report, in the categorisation system used for recording the interventions funded by ERDF, only two categories are specifically relating to cultural heritage, and managing authorities classify interventions discretionally. Thus, even though some interventions may regard cultural heritage, they may be classified under other categories or financed under another ESIF fund (e.g. ESF and EAFRD).

The second methodological step to analyse the ESIF contribution to SWB **is to conduct a mapping at national level of the open data available on projects** (in terms of number of projects and financial investment) **funded under ESF and EAFRD**. This is used to individuate, through the use of keywords, the presence of projects addressing CH and SWB. The specific objective of this assessment is to derive the total number of projects and investments in CH at national (and regional level) in the 2014–2020 programme period.

To identify the projects foreseeing CH investments in national open databases, we propose a search using multiple keywords to extract the list of projects potentially dealing with the topics of the HERIWELL research.

Annex 8.2 presents the first evidence of the recognition conducted by country experts on national databases available in their countries. The recognition shows that, while for ESF and ERDF information is available in most of the EU MSs, less information is available regarding the EAFRD.

A more detailed assessment has been carried out for **Italy**, where a complete database is available with information for each financed project.

The analysis of the Italian database shows that 1 829 projects related to cultural heritage have been financed in the 2014–2020 programming period for a total amount of EUR 1.474 billion, almost twice the amount recorded by the Open Cohesion Database for codes 94 and 95. This result shows that many projects dealing with CH are also classified by Managing Authorities under other codes, besides the codes 94 and 95. As expected, these projects have been funded both under ERDF and ESF.

The additional ERDF projects and allocations related to cultural heritage found with this exercise have been classified by Managing Authorities in intervention fields: 062 – Technology transfer and university-enterprise cooperation primarily benefiting SMEs; 063 – Cluster support and business networks primarily benefiting SMEs; 091 – Development and promotion of the tourism potential of natural areas; 085 – Protection and enhancement of biodiversity, nature protection and green infrastructure; 075 – Development and promotion of tourism services in or for SMEs.

The CH-related projects found under the ESF are classified in intervention fields related to education, and in particular the intervention field targeted to the reduction and prevention of early school-leaving and the promotion of equal access to good quality education (intervention field 115); to improve the labour market relevance of education and training systems, facilitating the transition from education to work (intervention field 118); and for capacity building for all stakeholders delivering education, lifelong learning, training and employment, and social policies (intervention field 120).

Figure 4.4: Italy: Distribution of projects and EU allocations related to *Patrimonio culturale* [cultural heritage] by fund (number of projects and planned EU allocations)
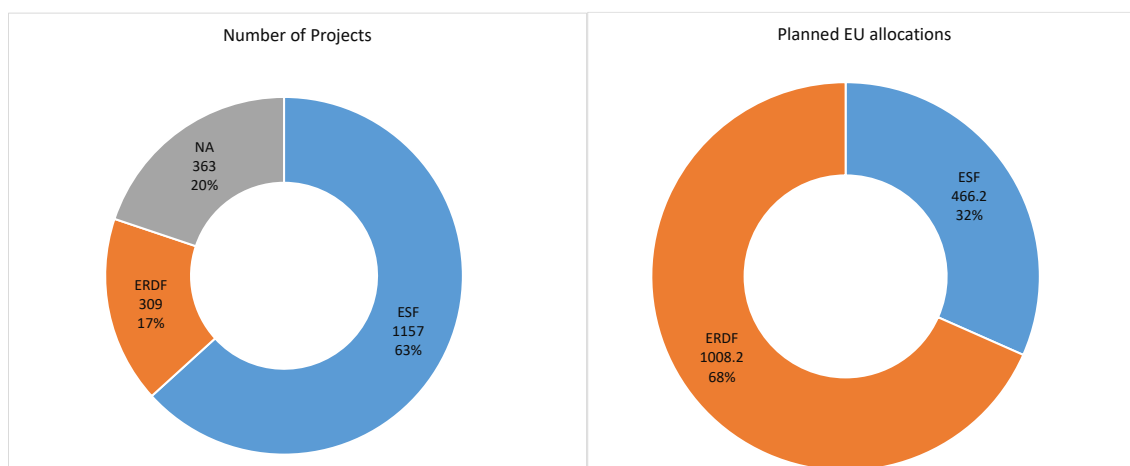
Source: Authors' elaboration on Open Cohesion Data

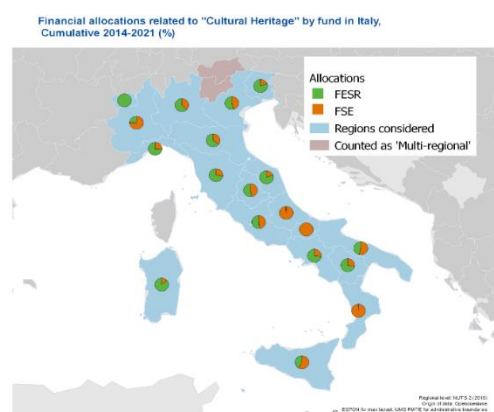**Figure 4.5: Italy: financial allocations related to CH by fund**
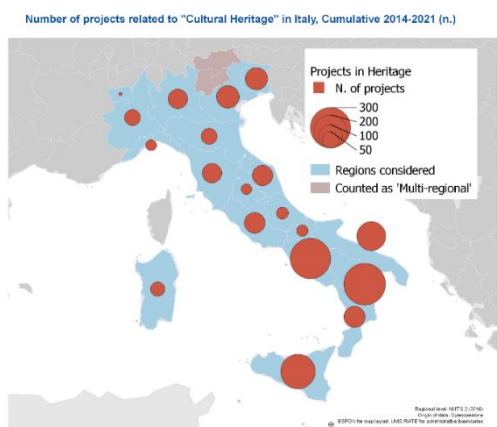
The third step to detect the contribution of ESIF to SWB will be carried out at micro level in the case studies.

The final results of the recognition will be presented in Delivery 3.

Figure 4.6: Italy: number of projects related to CH

Source: Authors' elaboration on Open Cohesion Data

4.2 Societal well-being and CH in the European Capitals of Culture: a proposal for analysing impacts

The European Capitals of Culture (ECoC) initiative aims at promoting and celebrating Europe's rich cultural diversity and heritages, mutual understanding and intercultural dialogue, and to put cities at the centre of cultural life across Europe. The European Capitals of Culture receive various types of funding, including EU funds: e.g. national funding, ESIF funding and Creative Europe funding (such as the Melina Mercouri Prize).

The initiative includes several types of interventions, among which is the refurbishment and valorisation of cultural heritage (e.g. museums and historical buildings). According to a study on the topic, ECoC has proved to be capable of generating noticeable impacts in the host cities. Despite its results, the analysis of the contribution of CH investments to societal well-being is hindered by the limited comparable quantitative data on its effects. The evaluation reports available for the 2007–2015 period only contain narrative information and lack a comparison of the results achieved with the *ex ante* situation.

However, in order to identify possible positive societal impacts of the European Capital of Culture initiative, a **qualitative meta-analysis** can be provided. This can be done on the basis of the available data and information included the ECoC evaluation reports, which cover the ECoC financed in the period from 2014 to 2019. The awarded ECoCs are two cities for each year, resulting in twelve cities for the considered period[33].

Figure 4.7: European Capitals of Culture: 2014–2019

2014		• Umeå (SE) • Riga (LV)
2015		• Mons (BE) • Pilsen (CZ)
2016		• San Sebastián (ES) • Wroclaw (PO)
2017		• Aarhus (DK) • Paphos (CI)
2018		• Valetta (MT) • Leeuwarden-Friesland (NL)
2019		• Matera (IT) • Plovdiv (BU)

Source: author's elaboration

The qualitative meta-analysis will shed light on ECoC's **objectives and results in the field of cultural heritage**, to the extent possible, **across** European Capitals of Culture in the considered period purposely foreseeing the valorisation of cultural heritage in their programmes (i.e. Umea, Riga, Mons, Wroclaw, Pafos, Valletta, Matera, Plovdiv) and to link them to the societal impacts dimensions as identified in the study theory of change (see Figure 1.1).

The qualitative meta-analysis will be carried out through the following two steps.

First of all, the analysis will start from the identification of the **overall financial resources received by the ECoC during the title year**, the **main events/actions/activities implemented**, with particular reference to cultural heritage, and the **principal results** reported in the results section of the report (see Table 4.3 below), to the extent possible limited to CH. Due to the narrative structure of the reports, the information will not always be available in terms of quantitative indicators. However, any available quantitative data will be documented in addition to qualitative descriptions.

Table 4.3: Template table 1 – Summary of events and results of ECoC

Year	City	Financial resources	Main events/activities	Main results reported

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[33] https://ec.europa.eu/programmes/creative-europe/evaluations_en

Secondly, information collected through desk analysis will be integrated with an interview to the organisation managing the European Capital of Culture programme.

Thirdly, the analysis will move from the HERIWELL **theory of change** to attribute data and information included in the ECoC evaluation reports in the theory of change boxes. We can move on from the assumption that the ECoC programme aims to preserve, valorise and make more accessible the specific cultural heritage assets (tangible and intangible) of each city. Following the lexicon introduced for the theory of change, the financial resources received and the title itself can be considered as the *resources and inputs*, while the main activities/events implemented can be the *programmes, policies and initiatives*. In a similar way, the results reported in the evaluation documents can be considered as the *outputs*.

On this basis, it would be possible to define an **evaluation framework** aimed to detect the short-term and long-term outcomes related to the three macro-dimensions of societal well-being: quality of life, societal cohesion and material conditions. For every macro-dimension, the activities and results of ECoC described in the reports will be integrated with the existing literature, to analyse the potential changes and achievements correlated with ECoC implementation. The evaluation framework will be made up of two sections: a schematic rating of impact of events/activities and results on subdimensions for societal well-being (shown in the template Table 4.4), and a qualitative assessment/explanation of the potentially societal impacts for each city, depending on social science theories, economic literature and related data.

Table 4.4: **Template – theory of change and ECoC**

| Year	City		Evaluation framework		
			Quality of life	**Societal cohesion**	**Material conditions**
		Rating on subdimensions by the HERIWELL core team (to be expressed on a numeric scale)	• Growth in happiness and life satisfaction • Improving contentment and eudaemonic • Improvements in education levels and empowerment in adults' capacities, including digital skills • Higher level of knowledge and research • Improved quality and sustainability of environment	• Enhanced community engagement, volunteering and charitable giving • Strengthened place identity and symbolic representation • Enhanced community awareness, civic cohesion and sense of belonging • Integration and inclusion of minorities, migrants and other disadvantaged groups, social inclusion, inclusive growth • Trust	• Territorial attractiveness and branding • Growth in jobs and earnings • Growth of property places and housing conditions
		Qualitative explanation of potential effects			

Source: author's elaboration

The conclusions will draw an **overview of how the dimensions and/or subdimensions are potentially valorised by the action of ECoC**, according to the information available on financing resources, events and activities implemented, and observed outputs. This analysis might lead to derive a linkage between the European Capital of Culture activities and improvements in overall societal well-being of involved communities, offering ground to further researches and studies on the topic.

Fourthly, the findings of the analysis will be validated and integrated through an online workshop with representatives of analysed European Capitals of Culture.

The applied methodology is described synthetically in the scheme below; the main sources to be analysed are included in the coloured squares.

Figure 4.8: Methodology for evaluation of European Capital of Culture programme in the framework of theory of change (proposal)
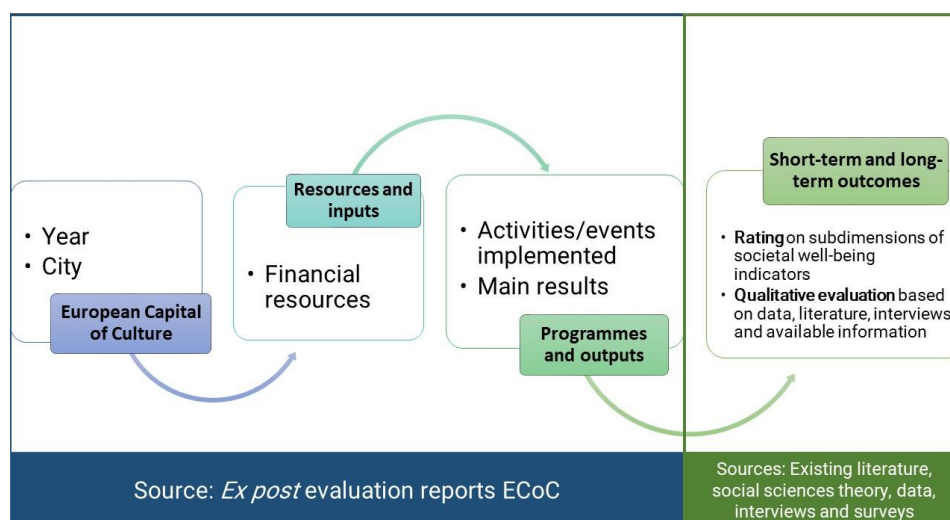
Source: author's elaboration

4.3   Societal well-being and CH in the 2014–2020 Creative Europe programme: a proposal of a methodology

The Creative Europe programme funds some special actions targeting CH. According to the Commission's mid-term evaluation of the Creative Europe programme, in the period 2014–2016 it delivered an estimated 4 200 activities, 89 % of which focused on common creation of artworks, and reached an estimated 8.83 million people. They contributed strongly to transnational mobility of creative and cultural players as well as enabled cooperation between EU and third-country cultural organisations.

Even though Creative Europe is a secondary source of funding for CH investments, as specified previously, it includes some special actions and regular funding that target CH and foster impacts on some dimensions of societal well-being. The official source of Creative Europe project results is the Creative Europe webpage. According to the database, 3 352 projects in the cultural and creative sectors have been funded in the programming period 2014–2020. However, the database does not provide any information on the investments by type of sector or topic (e.g. cultural heritage). Furthermore, the advance search tools do not allow a categorisation of projects according to their topic(s) or investment sectors. To identify projects foreseeing CH investments, a manual search using multiple keywords could be performed to extract a preliminary list of projects potentially dealing with the topic of the HERIWELL research.

For each project in the database, the following information is available: general theme, brief description of the project activities, leader, country of the leader, partners of the project, country of each partner and overall expected financing. Once the list of projects including the selected keywords has been extracted, researchers will operate data cleaning to avoid the inclusion of any projects not dealing with CH. For example, if the description of the project includes the sentence 'This project does not focus specifically on cultural heritage', the search with the key term 'cultural heritage' will include the project in the final extraction. The dataset resulting after the cleaning will correspond to the final list of the projects to be analysed.

With specific regard to financial information, that might be useful to strengthen the EU funds analysis, integrating the ESIF expenditure used up until now. However, data available on the platform do not provide the disaggregated information on the amount received by each partner of the projects, but only the expected amount of resources for the overall project activities. The consortium is verifying the availability of these data with EACEA

5 Disseminating the HERIWELL findings

5.1 Update of the outreach strategy

The HERIWELL (HW) project outreach strategy aims to discuss, promote and disseminate the project and its methodology and results among policymakers and stakeholders, to enhance the work and capitalise on the project results.

In particular, the project outreach strategy aims to encourage debate, exchange of ideas and networking between policymakers and stakeholders, and between them and the consortium team members. This includes:

- a European definition of 'societal impact of cultural heritage' favouring the proposal of a shared EU definition;

- cultural heritage and its potential impact on the quality of life and well-being;

- the importance of producing comparable socio-economic indicators on the impact of cultural heritage on society and individuals, especially at the local level (cities, rural areas and different types of regions);

- the role of EU funds in sustaining cultural heritage policies;

- digitalisation.

The strategy also aims to promote the value of European territorial evidence production among Member States' national, regional and local public administrations.

To achieve the set aims, HW identified a broad community – the so-called Consultation Group – and specific events (workshops, seminars etc.) to discuss and disseminate the results of the project.

The Consultation Group is made up of carefully selected, competent groups of stakeholders and aims to discuss the main steps of the research, with particular reference to the methodological framework. The main components of the Consultation Group are: the European Working Group, the Quality Board, the country and thematic experts, and the HERIWELL Network.

The European Working Group includes main public and private organisations dealing with cultural heritage. **Besides the members of the ESPON Project Support Teams (PST), it is composed of twenty-one representatives of the following institutional stakeholders:**

- Council of Europe CDCPP – Steering Committee for Culture, Heritage and Landscape;

- Culture Action Europe;

- Europa Nostra;

- European Commission – Expert Group on Cultural Heritage;

- EICR – European Institute of Cultural Routes;

- European Landowners Organization;

- Europeana;

- ICCROM – International Centre for the Study of the Preservation and Restoration of Cultural Property;

- ICOM International Council of Museums;

- Impactour project, University NOVA de Lisboa

- Interarts;

- JRC – Joint Research Centre;

- OECD – Joint project for cities/regions from OECD;

- European Commission – DG EAC;

- EAHTR – European Association of Historic Towns and Regions;

- UNESCO Regional Bureau for Science and Culture in Europe;

- University NOVA de Lisboa – Impactour project;

- Urban Agenda Partnership on Culture and Cultural Heritage

There are also three single experts working with the following institutions:

- Institute of Law Studies of the Polish Academy of Sciences;

- Italian Ministry of Culture;

- Institute of Cultural Capital, University of Liverpool.

Other experts from the European Commission (DG REGIO, DG CONNECT) and from Cultural Heritage in Action expressed their interest in the project research findings.

The **Quality Board** includes four high-level experts on cultural heritage, well-being and impact evaluation.

The **thematic experts** team includes high-level experts on the most relevant issues tackled by the project:

- cultural heritage territorial cooperation and governance;

- economics of cultural heritage;

- digitalisation of cultural heritage;

- legal issues of cultural heritage;

- cultural heritage policies in southern, eastern, central, western and northern Europe;

- creative industries;

- societal impact assessment of cultural heritage;

- sustainable development and quality of life;

- equal opportunities;

- EU Cohesion policy;

- labour market and migration.

The **country experts** team includes 28 experts, mostly senior, in cultural heritage and culture who are specialists for all the ESPON countries targeted by the project.

In the process of identifying a group of supporting partners (SP), 559 stakeholders from 31 countries were mapped. Several invitations to become members of the Supporting Group were sent to the stakeholders. Due to a broad engagement effort, the HERIWELL SP network is growing and currently includes 64 stakeholders from European projects, local governments, public CH institutions (e.g. UNESCO), museums, CH networks (private–public partnerships), NGOs/non-profit, private firm/consultancy and research centres/institutions. To favour stakeholders' active participation, the outreach strategy has been revised and all interested stakeholders are now combined in the renamed HERIWELL Network.

5.2 Outreach activities performed in the report period

Organisation of workshops and seminars

In this phase of the project, **country experts** were involved in the collection of data on cultural heritage and ESIF in ESPON countries, and in the discussion of the project framework and report topics. They were also involved in a **Special Workshop on 13 November** (see annex 9 for further details on the agenda, participants and findings), to debate on potential impacts of cultural heritage on societal well-being, differences in the contribution of the various forms of cultural heritage to societal well-being and measurement of the impact of cultural heritage on societal well-being. The event involved 15 country experts from 13 countries.

The members of the **EU Working Group** and the **Supporting Group** who accepted the invitation were involved in two rounds of discussions as part of a **deliberative event**. The deliberative event is a three-day

online participatory initiative targeting different audiences, with the goal of discussing and validating the main concepts and approach of the HERIWELL project.

The first two rounds of discussions took place 15/17 December, while the final round of discussions was organised on 26 January 2021, presenting the findings of the discussions. The two rounds of discussions aimed to collect stakeholders' opinions on the HERIWELL representation of the main concepts driving the research, namely:

- the definition of cultural heritage;
- the types of societal well-being dimensions related to cultural heritage;
- the most important and fruitful areas of societal well-being to focus the research.

The deliberative event also aimed to collect exemplary policies and practices promoting societal well-being through CH-related interventions.

The first round of discussion involved the HERIWELL Network and the country experts, and was held on 15 December. Twenty-three participants were involved in the debate, moderated by the HERIWELL project team (see annex 9 for further details on participants, agenda and findings).

The second round of discussion involved the Working Group and was held on 17 December. **Sixteen participants were involved in the debate, moderated by the HERIWELL project team** (see annex 9 for further details on participants, agenda and findings).

During these discussions, participants actively debated on the three main aspects of the HERIWELL research: the definition of CH, the definition of SWB and the most important SWB areas the research should focus on.

Concerning the HERIWELL definition of CH, participants mainly agreed upon the definition that the HERIWELL project chose (the Faro convention definition – 2005). They highlighted a few aspects to which attention should be paid in the analyses to be undertaken in the next phases of the research:

- the core role of the community in the CH discourse and definition process;
- the dynamic nature of the definition of CH, changing over time and varying across geographical space (e.g. territories);
- the alignment of the CH and SWB values (e.g. democracy – active participation, inclusion – and equality).

The final session of the two rounds of discussion focused on finding the most significant areas of societal well-being the research should focus on. From the debate it was agreed that both quality of life and societal cohesion are significant for the purposes of the HERIWELL research and that, considering their intertwined nature, they should be analysed jointly. Within the societal cohesion dimension, the 'Community awareness, civic cohesion and sense of belonging' subdimension was considered particularly significant. Within the quality of life dimension, the subdimension 'Education levels and empowerment in adults' capacities' was most often indicated as a relevant area of research to focus on in the analysis of the contribution of CH to SWB. Community engagement, volunteering and charitable giving within the societal cohesion dimension and knowledge and research and quality and sustainability of the environment within the quality of life dimension represent the second area of stakeholders' interest.

The final step of the deliberative event was held on 26 January and involved more than 30 stakeholders of the whole HERIWELL community – the Working Group, PST, the HERIWELL Network and country experts **team** (see annex 9 for further details on participants, agenda and findings).

The last round of discussions focused on sharing the conclusions of the previous two rounds of discussions and validating them with participants. A first conclusion of the deliberative event refers to the definition of cultural heritage. Participants in the deliberative event agreed with the need to adopt a broad definition, which should encompass the value and dynamic feature of CH at a general level, and narrower ones at operational level (i.e. focused on measurable dimensions of CH). As to SWB, participants pointed out the need to consider the interlinked nature of the three dimensions identified in the HERIWELL framework (i.e. quality of life, societal cohesion and material conditions), to focus on both outputs and outcomes, and on the territorial level and target groups of SWB outcomes.

The last round of discussions also tackled the issue of digitalisation as a way for enhancing accessibility of and participation in CH. While digitalisation represents an opportunity to increase accessibility of and participation in CH, participants underlined the need to pay attention to those that are left out (e.g. due to low digital skills, limited access to qualitative digital infrastructure), to addressing the risk of exclusion and discrimination and to the actors involved in the decisions about CH represented digitally.

Participation in conferences and seminars

On 24 November 2020 Victoria Ateca Amestoy, a member of the HERIWELL team, gave a keynote address at the IV Gijón Conference (online) on the Economics of Leisure, Culture and Sport, organised by the University of Oviedo: *Insights about Heritage Engagement and Subjective Wellbeing in Europe*. On 13 January 2021 she took part in the *Panel on the Measurement of Economic and Societal Impact of Cultural Heritage* in the webinar organised by the General Directorate of Cultural Heritage of the Region of Castilla y León https://jcyl-culturayturismo.es/events/casos-practicos-de-medicion-del-impacto-economico-y-social-del-patrimonio-cultural/

On 24 November 2020, Andreas Wiesand took part in the digital event *La mort a toujours un avenir – Cultures funéraires en mutation* [Death always has a future – Grave cultures in change], an online event by the Institut Pierre Werner and the University of Luxembourg (72 participants), with Prof. Dr Sonja Kmec (University of Luxembourg), Dr Mariske Westendorp (University of Groningen) and Dr Thorsten Benkel (University of Passau), moderator: Dr Thomas Kolnberger.

How can one commemorate the dead? Answers vary according to time, region and social background. Are traditional rituals and cemeteries still adapted to the needs of society in the twenty-first century? The emergence of new offerings (crematorium, souvenir gardens, forest cemeteries, Muslim square, etc.) is discussed and information about the international research project 'Cemeteries and crematoria as public spaces of belonging in Europe' provided. As well, sociological insights on the individualisation and differentiation of graves, including influences of the digitalisation and forms of remembrance of migrants and minorities are discussed: cemeteries react on societal changes.

As a participant in the debate, Andreas Wiesand asked the speakers with regard to the HERIWELL theme: to what extent can cemeteries be considered as heritage spaces in the wider sense that serve societal well-being needs? In the answers, the role of cemeteries as places of remembrance and their importance for social well-being that relate to us as a community (similar to digital offers) are highlighted, but also the problem that cemeteries are currently not a large societal theme.

On 27 November 2020 Andreas Wiesand took part in the online event *Digital Skills and Community Needs: Key Competences for Future Cultural Heritage Professionals*, organised by ENCATC members. Speakers were Elena Borin (Burgundy School of Business), Paolo Montemurro (Materahub), Emanuela Gasca (Fondazione Fitzcarraldo) and Anda Marinescu (National Institute for Cultural Research and Training, University of Bucharest).

Thirty-three participants debated on how to develop a transnational curriculum for cultural heritage professionals, focused on digital skills, transferable and transversal competences, soft skills and skills connected to 'experience tourism' in the field of cultural heritage. Research collected for this purpose by the EU Heritage project, including via four case studies, were presented. Ideas drawn from those – mostly pre-Covid – experiences focus on, for example, better community relations, cross-fertilisation with other societal sectors and how to foster the experience of tourism via digital means. During the debate, Andreas Wiesand had the chance to inform participants about the HERIWELL project.

Erica Melloni, Cristina Vasilescu, Victoria Ateca Amestoy and Flavia Barca took part in the *Digital Forum Urban Agenda for the EU* on 24–25 November 2020 organised by the German Federal Ministry of the Interior, Building and Community and the Italian National Governmental Agency for Territorial Cohesion.

Furthermore, Andreas Wiesand contributed to the Academic Workshop organised by the University of Florida Center for European Studies, in the panel on the *Human Dimension of Heritage in the EU* held online on 6 April 2021. The Center for European Studies is a federally funded Title VI National Resource Center supporting research, teaching and outreach in all areas of modern European Studies. CES is fortunate to house a Jean Monnet Center of Excellence through the Erasmus+ programme of the European Union.

A joint paper by Victoria Ateca Amestoy, Anna Villarroya and Andreas Wiesand entitled *Heritage Engagement and Subjective Well-being* was accepted to the call for papers of the *2021 Well-being Conference – Knowledge for Informed Decisions* that will be held online during the last quarter of 2021.

5.3 Preliminary results of the outreach strategy

After the initial difficulties, the Consultation Group has become a very effective tool for sharing and discussing the main themes of the project.

The debate held in meetings and workshops helped the HERIWELL team to refine the results of the research.

In particular, the results of the two seminars previously described highlight important concepts and aspects, enriching the HERIWELL definition of both CH and SWB. Furthermore, the seminars showed that, among all the relevant areas of societal well-being, experts working on CH agree on the significance of societal cohesion and quality of life (e.g. education) well-being dimensions identified within the HERIWELL framework.

The final deliberative event helped to summarise and share the suggestions coming from the two workshops and to open the discussion about the impact of digitalisation on culture and well-being.

The Working Group also proved to be a very significant tool for networks and alliances. Specifically, there are ongoing debates and exchanges on various issues with the following institutions and projects:

- Urban Agenda Partnership for Culture and Cultural Heritage;
- ICCROM International Centre for the Study of the Preservation and Restoration of Cultural Property;
- The UNCHARTED project (Horizon);
- SoPHIA – Social Platform for Holistic Impact Heritage Assessment (Horizon) https://cordis.europa.eu/project/id/870954
- Council of Europe (regarding the Faro Convention)

5.4 Future Outreach activities

As far as the next phase of the outreach activities is concerned, a new Working Group meeting is expected around July 2021. Other target groups will be involved in the project through networking, partnerships, exchange of documents, collective activities, specific one-to-one interaction, training events to be organised at local level through HW participation in conferences and other networks, and finally, through social networks and other media. In particular, a dissemination day was held on the 11th of March to share main results from Delivery one and to involve the project new stakeholders, reaching 30,053 CH stakeholders.

In general, the future steps of the project's outreach activities are:

- two dissemination days;
- three consultation events: a technical meeting and two online workshops with the HERIWELL community;
- dissemination and networking through dedicated emails and social platforms;
- three online webinars directed mainly to policymakers, stakeholders and practitioners to train them on how to assess the impact of cultural activities and how to design cultural activities in order to sustain societal well-being;
- national dissemination workshops in eight countries to present the results of the study;
- participation in ESPON, and academic and professional conferences and events;
- scientific publication;
- final conference.

Figure 5.1 Planning of outreach activities

	February 2021	March 2021	April 2021	May 2021	June 2021	July 2021	August 2021	September 2021	October 2021	November 2021	December 2021	January 2022	February 2022
HW events				Technical meeting		Workshop with HW network			Workshop with HW network				Final conference (March)
Dissemination and networking through dedicated e-mails	x				x			x					x
Social days		Dissemination day							Dissemination day				
National dissemination workshops (8)									x	x	x		
3 online training webinar					x				x			x	
Participation in ESPON and academic and porfessional													
Scientific publication													x (April)

Source: author's elaboration

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