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1. Introduction

The goal of the SoPHIA's Work Package 1 (WP1,) is to produce an extensive review of the research literature and related policies in the 4 domains (social, cultural, environmental, economic) and identify gaps and problems related to the impact assessment and quality of interventions related to the 4 domains (D 1.1 and D 1.2). The outcomes represent the basis for creating a cross-domain, or otherwise referred to a holistic impact assessment model draft (D1.3) to be tested on case studies' analysis and other activities within Work Package 2.

D1.2 builds upon the findings of D1.1 by mapping gaps and shortcomings (par. 2) and by further articulating the analysis of the methods used in specific domain (par 3.1, 3.2, 3.3, 3.4), as well as in more than one domain (par 3.5), and the cross-domains methods (3.6), for a better understanding of the problems related to the current approaches. Moreover, it adopts a critical point of view on the review undertaken to synthesize the findings towards the formulation of a holistic impact assessment draft.

To facilitate the connection between the literature review and the impact assessment draft model, D1.2 focuses on the relationship between the objectives of interventions on cultural heritage, the identification of their expected or desired impacts and the assessment of these impacts (par 4). This analysis is based on the three sources used in Sophia's literature review: policy documents, academic and administrative reports, and social platforms.

Paragraph 5 presents the analytical concept used as a theoretical base for SoPHIA's impact assessment model draft.

Finally, main findings and open questions (par 6) are reported. Moreover, it focuses on the Advisory Board members and Stakeholders' feedback and comments on the main findings and considerations presented in this report.

2. Emerging gaps and shortcomings

D1.1, the first deliverable of the SoPHIA project, featured the recent literature on assessing the impact of cultural heritage interventions across the cultural, social, economic, and environmental domains. Research was based on academic resources, current policies, and regulations - both EU and non-EU -, as well as social platforms. The research identified three main categories of shortcomings that are common to all domains, which are represented in Figure 1. The diagram offers an overview of these shortcomings that are depicted with three different colors:

- yellow color represents the problems connected to the lack of a shared definition of Cultural Heritage (CH);
- orange color corresponds to issues related to lack of public involvement;
- purple color stands for single domain's shortcomings or gaps related to IA methods.

This chapter summarises the three categories shown in the diagram in an attempt to highlight the major gaps of IA processes.

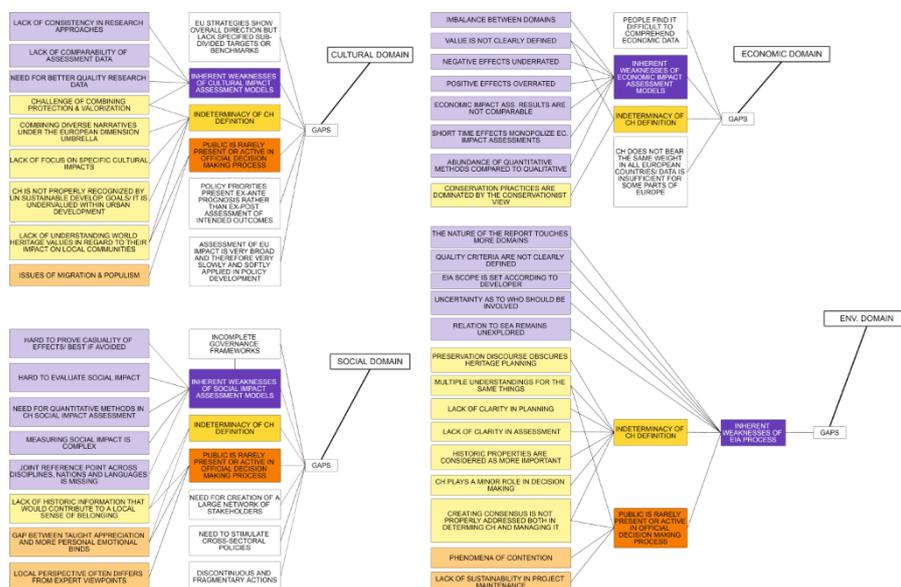


Figure 1 illustrates the gaps retrieved in D1.1 for each domain.

a) GENERAL LACK OF A CLEAR DEFINITION OF CULTURAL HERITAGE

The discussion on how to define cultural heritage (CH) remains open, since it presents different characteristics according to the domain it refers to. This lack of a common definition creates uncertainty that may lead to confusion and several other problems.

As showed in the diagram above (fig 1), the literature review carried out in D 1.1 presents evidence of this issue, which is recurrent in 'the CH discourse'. Although we recognize the importance of this topic, our report (D 1.2) will not focus on deepening it, since it is not central to our analysis.

b) OVERALL ABSENCE, OR INSUFFICIENT INVOLVEMENT OF THE PUBLIC

Lack of public involvement is the first major problem regarding CH Impact Assessment, and it is recurrent in the different domains. Civic engagement and/or active involvement are often severely underestimated during IA processes. In fact, despite several policy imperatives advocating for public opinion integration, formal IA processes have failed to integrate the public in the decision-making processes in a consistent manner. Inclusion, engagement, and active participation have yet to be conquered as they are most usually dealt with as a contractual obligation rather than an indispensable condition to ensure longevity. This is why open calls are mostly informative instead of instrumental and it also explains why the timeframe available for consultation is often too short. Moreover, the timing of the consultation should be reconsidered: in fact, the public is called upon very late in the decision-making process when the margin for change has become quite limited. What is more, the information shared with the public is often too technical and those who have no relevant scientific expertise are inevitably left out.

Determining who should be involved in an IA process is often unclear, as well as identifying the stakeholders of a project. Thus, the experts' perspective overrides the expertise of those who are more likely to be affected by the intervention. All the while, the heritage community interested in a project may not necessarily be local. This often leads to lack of consensus and, at times, it may even lead to phenomena of contention. Furthermore, heritage can be intrinsically dissonant at the basic level of the community and conflicts can potentially manifest between different social groups of the same community. IA processes make no clear provision for how to incorporate divergent perspectives or establish process of negotiation. This, in turn, jeopardises the sustainability of projects long after their implementation and increases the gap between taught appreciation and the more personal emotional bonds of the local community. It also fails to efficiently relate projects regarding CH interventions to a local or regional scale, making decisions look discontinuous or fragmentary.

The independent initiatives -either individual or collective- mediated through the numerous social platforms examined in D1.1 attest to the public's demand for the decentralization of power and the citizens' need to reclaim their rights, and to be able to have a say in CH management. Despite them being a rather informal expression of public will and the many difficulties maintaining an online community entails, these voluntary and amateur endeavors have often succeeded in establishing a dialogue with their community and have at times been openly supported by both local authorities and EU agents. The EU has also endorsed the practice of consulting local social groups through the use of centrally managed social platforms; however, these platforms have a limited

impact on the decision-making on CH interventions and their monitoring and assessing process.

c) VARIOUS GAPS AND SHORTCOMINGS PER DOMAIN

Gaps and shortcomings related to single domains have been summarized in the PPT presentations used by partners during the Athens' Virtual Workshop (AVW) on June 25th.

Hereby the main gaps are reported, as they were identified by the Consortium throughout the literature review for D 1.1, and through collective reflection, as a result of the Athens' Virtual Workshop process. In the following list we exclusively consider gaps related to the current level of impact assessments.

CULTURAL DOMAIN

- Consciousness about Conflicting Interpretations
- Exclusion of Themes and Values of Local Population Groups
- Ignorance of the sensitive nature of the relationships between local cultures
- Considering "Authorized Heritage Discourses"
- Relation to issues of globalization, migration & populism

ECONOMIC DOMAIN

- CH value not uniquely measurable in monetary terms
- Negative effects tend to be underrated (e.g. Greffe, 2004)
- Positive effects can be overrated (e.g. Gibson et al., 2010)
- No comparability due to the context (Bowitz & Ibenhalt, 2009)
- Short-terminism (Langen and Garcia, 2009; Palmer 2004)
- Quantitative vs qualitative methods
- Prevalence of economic assessment even in multi-domain methods (e.g. Gomes and Librero-Cano, 2018)

ENVIRONMENTAL DOMAIN

- Quality criteria are not clearly defined
- EIA scope is set according to the developer
- Uncertainty related to whom should be involved
- The assessment report involves more than one domain
- Relation to Strategic Environmental Assessment (SEA) remains unexplored

SOCIAL DOMAIN

- Common gap between expert values or knowledge, and the peoples' everyday perspective on local and regional environments
- Need to consider how various stakeholders, not least the public, perceive and value urban and regional environments as cultural heritage from their own perspectives
- Making sure that the diversity of tools matches the diversity of values that have been identified

- Choosing experts and professionals with a capacity to understand and accept the methodologies and viewpoints of others
- Incomplete governance frameworks
- Inflexible rules for protection
- Insufficient capacity building
- Deficit in data and lack of concrete measures.

3 Analysis and evaluation of Impact Assessment Methods per Domain

One of the main aims of SoPHIA's deliverable D1.1 was to examine the Impact Assessment (IA) processes that are currently employed in the four domains (Cultural, Social, Economic & Environmental) regarding their ability to incorporate policy objectives and to address each domain's imperatives in relevance to CH interventions or events.

The plurality of Impact Assessment (IA) methods that characterizes all four domains (as retrieved in D1.1) activated a vivid discourse among partners that related to their exact nature (methods vs tools) and their contribution to IA processes. In order to best describe and systemize this information, SoPHIA partners made use of an excel chart (Annex I). The created taxonomy offered valuable insights to all four domains IA methods.

This part of D1.2 aims primarily at highlighting the main IA methods that are pertinent to each domain, as well as a few cross-domain IA methods recovered from D1.1 that are considered to be benchmarks in regard to SoPHIA's key objective to create a holistic IA model.

In this chapter, the reader is presented with these methods' essential characteristics; their ability to assess specific impacts; their relevance to all domains as well as their benefits and shortcomings. The analysis is followed by the description of more recently developed, hybrid or experimental models of IA that aim to address more than one domain issues in a single, unified process.

3.1 CULTURAL DOMAIN - Cultural Impact Assessment (CIA)

Methods and techniques have progressively developed over the years to assess the impact of interventions or development projects on our economy, ecology, and society. On the other hand, methods to evaluate the impact of these projects on cultural domain are not yet well established.

This deficiency is related to the fact that culture is a relatively new dimension of public policy, not yet fully integrated into government policies around the world (Partal and Dunphy, 2016).

The first attempts of developing approaches aimed at measuring cultural impact of innovation projects date back to the late 80s. These attempts are evaluation processes known as **Cultural Impact Assessment (CIA)**. The literature defines CIA such as:

“a process of evaluating the likely impacts of a proposed development on the way of life of a particular group or community of people, with full involvement of this group or community of people and possibly undertaken by this group or community of people. A CIA will generally address the impacts, both beneficial and adverse, of a proposed

development that may affect, for example, the values, belief systems, customary laws, language(s), customs, economy, relationships with the local environment and particular species, social organization and traditions of the affected community" (*International Network for Cultural Diversity's Working Group on CIA in Partal and Dunphy, 2016*).

With reference to IA practices, the CIAs have largely been practiced in the last 20 years for the purpose of understanding impacts of projects or interventions on indigenous communities with specific topics including cultural heritage, resource management, property and state property boundaries, conservation of landscapes (Gibson et al, 2008; 2011).

Gibson et al. highlight that CIA consider both tangible and intangible elements coherently with a largely accepted definition of culture. It includes "not only stones and bones" but also spiritual beliefs, language, traditional knowledge, oral history, and inter-generational relationship patterns (Partal and Dunphy, 2016). Because of its features, CIA has been documented in countries where there are indigenous population, as New Zealand, Australia, Canada, and Africa (Partal and Dunphy, 2016).

The literature states that CIA is frequently used in association with other IA approaches (especially EIA and SIA). However, it is generally used in a subordinate role and as a subsidiary part of environmental and social impact assessments of development projects.

Moreover, CIA is also being used in the cultural sector with a different and unrelated function (Partal and Dunphy, 2016). In fact, in this context, CIA is mostly an assessment of impacts related to cultural heritage interventions and it is used to measure the "value" of cultural initiatives or interventions. Therefore, in the cultural sector, CIA is often used to assessment the impact of cultural heritage interventions not only on the cultural, but also on social, economic, and environmental domains (Partal and Dunphy, 2016).

Using CIA may lead to confusion because of lack of a shared and univocal definition of "culture" and "cultural impact". Thus, it is important to specify to which of the two above-mentioned approaches we are referring to.

3.2 SOCIAL DOMAIN - Social Impact Assessment (SIA)

The Literature Review points out to a variety of assessment tools and methods used to meet the needs of social impact assessment. Within the context of analysing social effects of investment in cultural heritage, **Social Impact Assessment (SIA)** is considered to be the most comprehensive one. According to Frank Vanclay, SIA is best understood as "*an umbrella or overarching framework that embodies the evaluation of all impacts on humans and on all the ways in which people and communities interact with their socio-cultural, economic and biophysical surroundings*" (2003, p. 7). SIA addresses all aspects associated with managing social issues (Vanclay, 2019).

Assessing social impact involves monitoring changes to people's way of life, their culture, their community, their political systems, their environment, health and well-being, personal and property rights, their fears and aspirations, etc. (IAIA, 2015). These changes can potentially manifest both at an individual and at a collective level (family/household; circle of friends; a government agency; community/society in general) and they can be experienced in a perceptual or cognitive or even corporeal (bodily, physical) manner.

The process of SIA considers a wide range of different impacts relevant for cultural heritage projects such as benefit sharing; community development, engagement and resilience; empowerment; immigration and the inclusion of the more vulnerable groups; livelihood restoration; local content and procurement; project induced displacement and resettlement; psycho-social impacts; social closure, function, inclusion, investment, license to operate, performance; stakeholder engagement; and standard issues such as identifying social impacts and designing mitigation.

SIA covers a wide variety of tasks (IAIA, 2015, p. 4) specifically associated with the interaction between a project and its local communities. According to The Review of SIA (Takyi, 2014) the stages in conducting a SIA include:

- The description of proposed project (scoping);
- Data collection and the establishment of a baseline approach;
- The assessment and evaluation of cumulative social effects;
- The formulation of alternatives;
- The development of a mitigation plan and course of action

The SIA process is based on the use of the cause-effect model backed by a variety of data collection and supporting measuring and assessment tools for understanding citizens of a certain community ascribe value and how this affects development decisions. These usually include expert opinion surveys, community consultations through public meetings, focus groups and key-informant interviews, visioning, Delphi, and other group processes (de la Torre, 2002), some of which thoroughly described in Annex I.

In order to facilitate SIA implementation and for the sake of clarifying the process and ensuring of inclusion of a wide circle of stakeholders **a Social Impact Management Plan (SIMP) and a Stakeholder Engagement Plan (SEP) are needed.** SIMP in particular, outlines the strategies that need to be undertaken during the phases of a SIA process: it aims at monitoring, reporting, evaluating, reviewing and proactively responding to change, while providing an integrated set of actions and procedures that help manage the social issues raised by the project. Adaptive management is thus ensured as an important factor in managing social impacts. SIMPs are nowadays increasingly required by governments and investors in large-scale projects with expected significant social impact on local and regional communities.

SIA implementation (Takyi, 2014) depends on a well-organized consultation process. In this regard, SEP determines the steps that should be followed in the process of including the stakeholders, while also ensuring strong public

participation in decision making processes from the very beginning for the consideration of new investments with significant impact on community.

The main benefit of SIA's is its potential to identify precious local knowledge to inform project decisions and to reduce costs caused by poor decisions. Whereas much information can be gained from analytical assessment tools such as technical surveys and model predictions, these cannot substitute what SIA offers: the lived experience of local people; their situated knowledge and ultimately their support for community project interventions or events related to cultural heritage. Furthermore, SIA can assist in the assessment of local employment and supply base (IAIA, 2015). The active participation of knowledgeable citizens can have an enormous impact on the reduction of transport costs, logistics and inventory and it can help reduce supply chain inefficiencies. To sum up, the involvement of a wider public during SIA process provides new knowledge; establishes trust between parties; enables project acceptance by the local community and thus ensures future sustainability.

During the 50 years since its original establishment, SIA has been further developed and amended and its practice has improved over time (Vanclay, 2019). **However, there are still a number of issues that need to be addressed, especially those concerning the management of complex social phenomena such as corruption, rent seeking, elite capture, speculation and opportunist behaviour (ibid).** In order to conduct a SIA efficiently, a genuine community engagement is necessary – i.e. meaningful interaction and good faith dialogue, while the ability to influence decision-making must be guaranteed to all interested parties. Despite the rhetoric of independence, SIAs are typically commissioned by the proponent and therefore they run the risk of impact assessment consultants' co-optation; bias in the selection of identifiers that should be monitored; a low involvement of local stakeholders; bias in the selection of focus groups' members and most importantly, bias in interpreting and analysing the results, etc.

3.3 ECONOMIC DOMAIN - Cost Benefit Analysis (CBA) & Contingent Valuation Method (CVM)

Investment decisions need to be informed by evidence-based, objective, and verifiable assessments. Cost-Benefit Analysis (CBA) is a method that allows the assessment of economic value against the cost of a decision, project, or policy. This is why the Commission has been continuously promoting the use of CBA for major infrastructure projects above €50 million (EU, 2015)¹.

CBA is a systematic approach that can estimate the strengths and weaknesses of different alternatives. It is based on a set of predetermined project objectives,

¹ **Guide to Cost-Benefit Analysis of Investment Projects**, *Economic appraisal tool for Cohesion Policy 2014-2020* available at https://ec.europa.eu/regional_policy/sources/docgener/studies/pdf/cba_guide.pdf

giving a monetary value to all the positive (benefits) and negative (costs) effects of the intervention. These values are discounted and then summed in order to calculate a net total benefit. The project overall performance is measured by indicators, namely the Economic Net Present Value (ENPV), expressed in monetary values, and the Economic Rate of Return (ERR), allowing comparability and ranking for competing projects or alternatives. To sum up, CBA is typically a microeconomic approach enabling the assessment of the project's impact on society as a whole via the calculation of economic performance indicators.

One of the major strengths of this method 's major strengths lies in the fact that it monetizes various parameters, thus allowing the comparisons among the different options. However, not all impacts of an intervention in the CH field can be comprehensibly assessed and translated in monetary terms. The benefits of cultural heritage conservation are often intangible or only imperfectly reflected in market transactions. This raises the questions of how the benefits of these activities are to be measured, so that they might be incorporated into CBA (Pagiola, 1996).

What is more, in dealing with cultural heritage, one often encounters sites or artifacts that should be conserved at all costs, because of their uniqueness or transcendent significance. In such cases, the appropriate approach to the analysis is one of cost-effectiveness rather than cost-benefit (Nijkamp, 2012).

Contingent Valuation Method (CVM) is an economic method used for estimating individual as well as collective preferences related to non-market and publicly owned goods. Preferences are estimated on the basis of the questionnaire technique.

Cultural goods are highly charged with intangible values linked to their aesthetic or symbolic content and therefore, market mechanisms and pricing are not appropriate techniques for fully capturing their value. Thus, with respect to the assessment of cultural heritage interventions, economists have tried to develop techniques that could measure the non-use value of cultural heritage.

Among these, the Contingent Valuation Method (CVM) is prevalent (Baez and Herrero, 2011). CVM entails asking consumers, under hypothetical conditions, how much they would be willing to pay in order to maintain the intangible benefits they enjoy from a particular heritage item, or how much compensation they would be willing to accept for the loss of those benefits (del Barrio et al., 2012). In other words, individuals are asked to disclose their willingness to pay (WTP) for the benefits received from a change in the supply of the cultural good or alternatively for their willingness to accept (WTA) compensations due to possible losses caused by the intervention. In economic terms, the CVM is linked to the function of individual preferences (Mitchell and Carson, 1989). Thus, the basic theoretical framework of CVM considers an individual's utility function, and the associated WTP of individuals who express a change from q_0 to q_1 caused by the hypothetical intervention on cultural heritage, formalized as follows (Báez and Herrero, 2011) in the following equation:

$$WTP(q) = e(p, q_0, u^*) - e(p, q_1, u^*)$$

where the function u is dependent upon market goods, x , and on a level of supply of a public good, q . Individuals minimize expenses p_x subject to a given value of a utility function $u = u^*(x, q)$, such that the expense function is expressed as $e = e(p, q_0, u^*)$, where q_0 is the current value of the public good.

One of the major benefits of using CVM is that it allows the measuring of non-use values, which would otherwise be very hard to estimate and thus, to provide a comprehensive measure of total economic value. Moreover, it is also possible to take the time variable into consideration, as CVM can include valuation of future goods and services. Moreover, the use of surveys allows the collection of relevant socioeconomic and attitudinal data on the respondents that could be relevant for understanding the variables influencing social preferences and choices. In addition, it is also possible to estimate hypothetical changes and their impact before they have taken place, also unlocking the use of participative approach to decision-making.

Limitations of the CVM run the risk that results are affected by numerous sources of bias in survey design and implementation as preferences for non-use values tend to be less stable. In addition, a rigorous implementation of CVM requires quite a **high budget and it is time consuming**.

Beyond cost-benefits: Multi-Criteria Analysis (MCA)

Several authors pointed out the limits of CBA to settle controversial issues, in the presence of conflicting visions and different priorities and interests (Las Casas 1992).

"Even if it is not applied widely to cultural sector, MCA is currently used in environmental and economic cases, where social and cultural elements are included. MCA and CBA have been combined with other approaches to cope with the CBA's weakness in reflecting stakeholders' knowledge in the evaluation process of projects" (Alessandro Leon, SoPHIA' stakeholder).

The Multi-Criteria Analysis (MCA) includes a series of techniques, with the aim of providing an overall ordering of options from the most to the least favorable. MCA helps decision makers in choosing among alternatives, characterized by different and non-uniform decision variables, trying to overcome limits related to the monetization of externalities (for example environmental ones), or to the use of utility as the criterion for measuring social well-being.

MCA is an evaluation technique that tries to rationalize the process of choice by optimizing a vector of multiple criteria, weighed according to the priorities declared by the decision makers. It combines in a single evaluation both those criteria which are quantifiable in monetary terms, and those non-economic criteria which are measurable in physical or qualitative terms (the information can be encoded with the most suitable metric to correctly express its meaning; values are subsequently normalized through specific value functions). MCA also

allows to pay attention to the physical space of the impact, through the association of values to georeferenced geographical maps.

3. 4 ENVIRONMENTAL DOMAIN - Environmental Impact Assessment (EIA)

The Environmental Impact Assessment model (EIA) differs from most IA models since it is a legal directive that outlines the standards but also the procedures for environmental impact assessment across Europe. In fact, ever since 1985, EIAs in Europe are regulated by EU directives (EU2011; EU2014).

EIA is presented as "a process – usually of a regulatory nature – that involves the identification, prediction, evaluation and mitigation of the environmental and other impacts associated with development proposals and policies, plans and programmes" (Macintosh, 2010). EIA applies to projects² and focuses on the effects of a particular proposal improving the breadth and depth of the information available to proponents and decision-makers (EU2017a; EU2017b; EU2017c). The Strategic Environmental Assessment (SEA) Directive was later established (2001) to capture the cumulative impacts of multiple actions that can have adverse effects on the environment following a process very similar to EIA. SEA complements EIA and supports participation and consultation of relevant public authorities as well as all levels of society, therefore strengthening cooperation, increasing transparency in decision making and ensuring coherence between different policies. Both EIA and SEA are structured approaches aimed at more environmentally sensitive decisions and improved integration of projects into their environmental and social setting with increased accountability. However, EIA and SEA interrelation remains underexplored and, in many cases, the two processes may overlap.

Both EIA and SEA involve a multistage process: screening; scoping; alternatives; baseline conditions; EIS preparation; review and monitoring (Teller & Bond, 2002). **Among their many advantages they offer improved project design; informed decision-making; increased accountability and transparency during their development process, while also contributing to projects' sustainability and ultimately to the overall quality of life.**

The assessment of the environmental impact of any project with regard to CH is subject to European regulation and the Directive 2011/92/EU (partially amended in 2014 with Directive 2014/52/EU). The Directive considers the Environmental Impact Assessment (EIA) process to be compulsory for some types of projects only, while allowing Member States to decide on their own whether a project should be subject to assessment on the basis of the significance of its environmental effects. In this light, Annex III of the Directive offers the baseline selection criteria for Member States' choices. The second section ("location of projects") clearly identifies landscapes of historical, cultural or archaeological significance to be environmentally sensitive and therefore most likely subject to

² 'Projects' are defined as: the execution of construction works or of other installations or schemes, other interventions in the natural surroundings and landscape including those involving the extraction of mineral resources [Art1 (2)].

assessment. Thus, EIA offers opportunity for expansion of its terms of reference to include more concretely impacts on cultural heritage. At the same, also the UNESCO Report on Culture 2030 Indicators (2019), suggests that EIA should integrate impact assessment on cultural heritage even more (point 90). However, a series of shortcomings have been noted.

Many of these shortcomings are related to the indeterminacy of cultural heritage. Although experts have not agreed on a univocal definition of CH yet, two important, yet also conflicting, perspectives have been found. One privileges monumentality and grand scale; the other focuses on the relationship among people, objective, places, and memories, and it claims that "for every tangible object there is also an intangible heritage" (Harrison, 2011). The two opposing views significantly impact the understanding of how CH sites should be treated: the first view, -supported mostly by archaeologists and historians- advocates preservation and conservation (Braithwaite et al., 2001); whereas the second calls for heritage planning marking a shift from the object to the process (Ashworth, 2011, Patiwael; Groote; Vanclay, 2018).

Another major stream of shortcomings emerges from often limited public consultation. One of the main motives behind the 2014 amendment (Directive 2014/52/EU) lays on strengthening public access to information and on increasing transparency. In this regard, the Directive dictates that timely environmental information should be accessible in electronic format (art. 18), that Member States must introduce laws that meet the Directive's objectives in regard to public consultation (art. 24), and that competent authorities should take into account all the information provided by both developer and public (art. 23). However, EIA first stage (screening) is exclusively handled by competent authorities; unsolicited comments from other sources may be taken into account as a gesture of good administrative practice, but this is not mandatory (art 29). EIA scope is therefore set according to the developer and there is uncertainty as to who else should be involved in the process of evaluation. Public consultation usually occurs only after the second EIA stage (scoping) where much of the information must derive from discussions with outside organizations including local authorities, government bodies, interest groups and local communities, however, not all Member States favor public participation equally. Outcomes of scoping process ought to be published, but by then it is usually too late for the public to play an active role in the decision-making process. Furthermore, the - often very strict- temporal limits of consultation processes hardly guarantee a democratic public dialogue; all the while format and language of technical sheets are usually too difficult to read by a scientifically less equipped audience. Mandatory non-technical descriptions imposed by the Directive are limited to using generic phrasing to support the project and not for questioning its validity. Lack of consensus in determining and managing CH has often led to phenomena of contention while also jeopardizing the projects' sustainability.

Another weak point in EIA processes is their significance in relation to socio-economic impact assessment particularly for projects involving economic growth such as tourism (Harrison, 2011). There is a hierarchical distinction

between the impact of any new development whereas social and **economic benefits are considered more important than the environmental ones** (Devlin & Yap, 2008). Therefore, projected economic gains tend to prevail despite well demonstrated environmental risks in vulnerable areas. This emergent trend endangers CH especially considering the recent recession, over-tourism, urbanization growth and climate change. Despite their urgency, these matters remain unresolved.

3. 5 ATTEMPTS TO CREATE SYNERGIES BETWEEN METHODS: TWO RECENT EXAMPLES

In order to find methods able to assess impacts on more than one domain, integrations between previous single-domain methods have recently been experimented.

- **3.5.1 ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT (ESIA):**

EIA is also known to lend its structure and content to a blended model known as the Environmental and Social Impact Assessment (ESIA) model that attempts to integrate EIA and SIA in a single process where social and environmental impacts of projects or initiatives are equally valued. ESIA is widely applied by multilateral donors, international agencies, private or global lending institutions and international agencies to guide funding decisions on development projects (Dendena, 2015). Although it is widely applied, ESIA is much less analysed in the literature than EIA. Differentiation between ESIA and EIA is flowing and again depends on the definition of "environment."

ESIA main aim is to establish a robust understanding of the existing environment and social setting, identify the potential impacts on the environment and equally the local communities, and ensure that the design, implementation, operation and subsequent decommissioning of the development is carried out in a way which minimizes adverse impacts on the environment and affected communities and at the same time maximizes potential benefits (WBCSD, 2015). The approach is in line with the principle of sustainable development, as stated for instance at the UN Conference on Environment and Development (UNCED 1992, "Rio Earth Summit) and the IFC performance standards on environmental and social sustainability: the assessment and management of environmental and social risks and impacts; labour and working conditions; resource efficiency and pollution prevention; community health, safety and security; land acquisition and involuntary resettlement; biodiversity conservation and sustainable management of living natural resources; indigenous peoples and cultural heritage (IFC, 2012).

ESIA appears as a promising tool as based on an integrated assessment of the multifaceted impact of projects, programs and policy initiatives. The overall process of an ESIA includes seven key process elements: project

screening & scoping of assessment; examination of alternatives; stakeholder identification & gathering of baseline data; impact identification & analysis; generation of measures & actions; significance of impacts & evaluation of residual impacts and finally, documentation of the assessment process (Therivel and Wood, 2017).

The method is characterized by early involvement of all stakeholders leading to increased stakeholder commitment, increased transparency and accountability. It responds to the need of capturing the complex and strong interrelationship linking land and society. It also gives opportunities to measure and manage local conflicts. Early involvement of all stakeholders leads to higher levels of ownership and engagement in the process. There are, however, potential risks for later objections during planning applications.

- **3.5.2 SOCIAL AND ECONOMIC IMPACT ASSESSMENT (SEIA)**

A similar blended assessment model that has been recovered during the Literature Review research is the Social and Economic Impact Assessment (SEIA) model. SEIA is "a useful tool to help understand the potential range of impacts of a proposed change, and the likely responses of those impacted if the change occurs" (Australian Government Department of the Environment and Heritage, 2005). It assesses impacts of a wide range of types of change, and therefore it applies at a certain degree to the environmental domain as well (ibid). SEIA uses appropriate indicators to assess the impacts and proposes appropriate methods for data collection. It can help design impact mitigation strategies to minimise negative and maximise positive impacts of any change (ibid). Within SEIAs, there are many opportunities for stakeholder engagement. Though it can be executed as purely technical assessment in which community involvement does not occur, the inclusion of stakeholders' views holds great benefits throughout the whole SEIA.

While the specific tools used in each SEIA may vary, they generally involve some or all of the following steps (Taylor, Bryan and Goodrich, 1995): scoping the nature and boundaries of the impact assessment; profiling current impacts of the activity being examined, including the historical context or current status; formulating alternatives, in which alternative 'impact' scenarios are developed; projecting and estimating effects of different impact scenarios; monitoring actual impacts; mitigation and management of impacts; evaluation of the impact assessment process.

A socio-economic impact assessment weighs the socio-economic cost against the socio-economic benefit. An integrated approach can provide a comprehensive and cost-effective outcome, providing information on potential economic impacts as well as important social values attached to the activity which inform likely attitudes and responses to the proposed change. The challenge, however, is addressing the potential difficulty in data collection in order to comprehensively cover the relevant issues.

3.6 HERITAGE IMPACT ASSESSMENT (HIA)

Heritage Impact Assessment (HIA) is a methodology widely adopted at the international level in the urban and infrastructural field. It is used to assess the impact of territorial or infrastructural development projects on world cultural heritage sites. UNESCO and ICOMOS (2011) uses HIA as a mean for preventing adverse impact on CH of Outstanding Universal Value (OUV).

In fact, HIA is a statement or document that outlines the historic or archaeological significance of a building or landscape within its wider setting. It is used to safeguard heritage sites from the adverse impacts of proposed projects as well as to recommend effective mitigation measures to create the balance between preservation and development. The process follows the application of a 9-point scoring scale of severity of the impacts that development would have on the site.

The existing strength of the HIA is the strong focus on procedure. It also increases objectivity related to individual assessments and makes long term improvements.

HIA is currently focused on the preservation of world heritage but has potential to be expanded to include wider cultural impacts as well as economic, social, and environmental impacts (Patiwael, Groote & Vanclay, 2019).

HIAs are sometimes accused of being neither directly tied to OUV attributes nor objective. Moreover, their increased budgetary and time requirements can be an obstacle to their implementation.

3.7 IMPACTS 08: AN INNOVATIVE CROSS-DOMAIN IA METHOD

There are not many examples of cross-domain holistic models to assess CH that have demonstrated to be successful. Nevertheless, **Impacts 08** stands out for its evaluation of the Liverpool European Capital of Culture that has progressively began the model for assessing ECOs (Garcia et al. 2008, 2010).

What this approach opted for was an in-depth analysis of the city's context in order to provide adequate regeneration measures. These were particularly important and carefully selected for providing the city with a better position on a local, national, and internationally rank, not just for the events linked to the ECoC, but for the city as a whole in general. In order to do so, Impacts 08 created a holistic approach that goes beyond quantitative indicators and makes the lived experiences of residents in the event host city a crucial point of its research.

Impacts 08 approach took on what many assessments left out and the 'soft indicators,' such as social media and personal narratives, using a multi-method, longitudinal analysis of press content, face-to-face interviews, small survey, and focus groups with representatives of cultural/political/business groups (Garcia et al. 2008, 2010). Moreover, by placing the residents' opinion at the epicenter of

the analysis, desirable and non-desirable effects were also taken into account. The method focused mainly on five areas:

- cultural access and participation;
- economy and tourism;
- cultural vibrancy and sustainability;
- image and perception;
- the governance and delivery processes.

These objectives coincide with the European Commission recommendations on the ECoC outputs as well.

Impacts 08's evaluation procedure began at an early stage of the project and continued—beyond the ECoC's year itself. In fact, ECoC's program has developed a praxis of planning, monitoring and (short term and medium term) evaluating expected impacts. Moreover, in order to build networks that will exist even after the ECoC itself, partnerships on a local, national and international levels are encouraged.

Impacts 08's Policy Group was involved as a leading partner in the European Capitals of Culture Policy Group because of its hard work in creating a broad research framework and for the vast amount of research, data, analysis and publications produced.

There are, however, some shortcomings. Impacts 08 analysis cannot foresee how the situation will develop in the following years and, thus, if the ECoC's benefits were only temporary. More attention should also be given to sustainable development as well. Although visitors and tourism play a crucial role in the evaluation process, it is important not to focus entirely on these features and present a real holistic approach. In this regard, the report lacks direct mention to environmental repercussions, dwelling mostly on notions of well-being, but on more environmentally related key issues. Moreover, in order for the method to report a realistic impact assessment, objectives should be chosen and set wisely. Setting "easy wins" or unattainable goals may compromise the evaluation procedure.

Impacts 08 method is relevant for SoPHIA project since it presents a holistic approach by including cross-domain indicators of impacts. In fact, Impacts 08 created a holistic approach that goes beyond quantitative indicators and makes the lived experiences of residents in the event host city a crucial point of its research. Moreover, it measured the impact of culture-led regeneration program-to ensure a positive reposition of the city on a national and international level; recognize the role of the arts and culture in making cities better places to live, work and visit; create a legacy of long-term growth and sustainability for the city cultural sector; encourage more visitors and finally, encourage and increase participation in cultural activities (Garcia et al. 2008, 2010).

4 The Relationship among Goals, Impacts and Assessment

In order to discuss upon impact assessment methods, it is important to start investigating the objectives, since desired or expected impacts derive from the objectives of interventions on cultural heritage.

This paragraph goes through the relationship between the objectives of policies' interventions on cultural heritage, the identification of their expected or desired impacts and the assessment of these impacts.

This relation can be examined on different levels of impact assessment analysis. In particular:

- At a *macro level* which refers to intervention policies on cultural heritage developed within the supranational context, as for the European community and / or other international bodies (e.g. European framework for action on CH - 2019; UNESCO);
- At a *meso level* which refers to investments programs on cultural heritage funded by European's structural funds during each five-year planning period, which are strongly connected with the European macro level policies on cultural heritage (e.g. European Structural and Investment Funds (ESIF) and National and Operational at Programs - NOP-);
- At a *micro level* which refers to investment projects on cultural heritage carried out at local level, using the resources made available by European and national programs (e.g. the recovery and enhancement of the Reggia di Venaria in Turin - Italy -).

In its research progress (see deliverable D1.1), SoPHIA's Consortium referred to the following references:

- A. Policies
- B. Reports
- C. Social platforms

We are going to briefly explain each source by describing its main characteristics and shortcomings.

A. Policies

Policy documents establish the strategic framework for cultural action.

Within these policy documents, goals are described as macro objectives or general objectives (otherwise called *themes* or *pillars*). Macro objectives

presented in some policy documents are the basis for creating programs, agendas, initiatives that will be implemented in structured programs.

According to the European Court of Auditors (2020), in order to maximize interventions' effects and achieving their goals it is essential that strategic frameworks are clearly defined, that realistic objectives are set and that strategies (macro level) and laws on interventions' funds and (meso level) are interconnected.

A. In this deliverable we analyse the relationship referring to three policy documents: European Year for Culture heritage -EYCH-(2018); European framework for action on CH (2019); 2030 Unesco Agenda for culture (2019) (see table 1).

Policy gaps:

- At the European level, there are several strategic frameworks that characterize Europe's action towards culture. This is a source of complexity that might be confusing.
- Except some rare cases (e.g. ECOC program), policy documents do not analyze impacts. Thus, the documents do not indicate how to measure impact assessment and, even when they do so, they are inadequate to measure the interventions 'outcomes.
- Policy documents are linked to the political priorities of the historical moment in which they have been built. The SoPHIA project takes place in a very peculiar moment: on a side, we are approaching the end of the current European program; on the other, the Covid-19 pandemic has dramatically changed stakeholders' priorities. Therefore, although it is crucial to analyze what has been done so far, we believe that we should focus our research also on what is going to happen in the next future.

Tab 1 The relationship between Objectives- expected Impact in the policy documents

Policies	Objectives (Pillars / Themes)	Subthemes Lines/Areas of action	Impact Domains
European Year for Culture heritage (2018)	ENGAGEMENT	Shared heritage Heritage at school: kids and parents' engagement Youth for heritage All for heritage	Social Cultural Economic
	SUSTAINABILITY	Tourism and Heritage Heritage in transition	Economic Environmental Social
	PROTECTION	Heritage at risk Cherishing heritage	Environmental
	INNOVATION	Heritage-related skills Science for heritage	Social Economic
European	INCLUSIVE (INCLUSION)	EU Engage the wider public	Social

framework for action on CH (2019)		Engaging and empowering the younger generations Breaking barriers to access	
	SUSTAINABLE (SUSTAINABILITY)	EU Regenerating cities and regions Smart restoration and adaptive re-use of heritage buildings Improving policies and practices on sustainable cultural tourism	Social Economic
	RESILIENT (RESILIENCE)	EU Fight against the illicit trafficking of cultural goods Raising the quality of physical interventions on cultural heritage Protect cultural heritage against natural disasters and climate change	Environmental Cultural
	INNOVATIVE (INNOVATION)	EU Technological tools for innovation on cultural heritage Looking at social innovation by reinforcing the role of civil society in CH governance Boosting cultural heritage competences	Social Cultural
	STRONGER PARTNERSHIP	GLOBAL Reinforce cultural heritage cooperation	Social Economic
2030 Unesco Agenda for culture (2019)	ENVIRONMENT & RESILIENCE	& Expenditure on heritage Sustainable management of heritage Climate adaptation & resilience Cultural facilities Open space for culture	Environmental Social Cultural
	PROSPERITY & LIVELIHOODS	Culture in GDP Cultural employment Cultural businesses Household expenditure Trade in cultural goods & services Public finance for culture Governance of culture	Economic Social Cultural
	KNOWLEDGE & SKILLS	Education for Sustainable Development Cultural knowledge Multilingual education Cultural & artistic education Cultural training	Cultural Social Economic
	INCLUSION & PARTICIPATION	Culture for social cohesion Artistic freedom Access to culture Cultural participation	Social Environmental

Source: Reports mentioned in the first column. Our adaptation.

B. Reports

There are several documents that reconstruct the relationship between objectives, expected outcomes and assessment of the impacts deriving from interventions funded by European funds.

These documents are elaborated by a variety of organizations with different aims: administrative, technical, and scientific research. Among these, the periodic investigations on national and European level made by the Court of Auditors are particularly useful.

In order to deepening the topics that we are exploring in this deliverable we would like to draw attention to two important documents that on our opinion introduced new perspectives.

b1) Cultural Heritage Counts for Europe

Amid the most recent research reports regarding the European level, we selected Cultural Heritage for Counts for Europe (CHCfE), since it represents a sum of the reports on the impact of cultural heritage's interventions. We believe that the following topics are particularly remarkable:

- CHCfE sheds light on how to scrutinize the link between (policies, projects, initiatives) objectives and impact.
- Starting from the concept of "impact", CHCfE analyzes interventions in terms of positive and negative impacts. Therefore, it is important to underline that there is always someone that benefits from or, on the other hand, is excluded by interventions on cultural heritage.
- CHCfE carries out an impact-objective analysis at the project, case study and initiative level (that is micro level analysis).
- CHCfE highlights recurring elements among projects and it identifies subdomain.

As regard this latter point, the 221 studies collected in the CHCfE project, through a specific survey and about 540 additional studies analyzed, provide wide-ranging evidence of the economic, social, cultural and environmental impact of cultural heritage in the European Union. CHCfE grouped these recurring topics and trends of the studies into nine European-oriented "subdomains", intended as part of Cultural, Social, Environmental and Economic domains. The overlay with the "key findings" proposed in the CHCfE report confirms that each subdomain can also be seen as a potential objective for CH interventions (see table 2).

CHCfE main gaps are:

- the subdomain presented in CHCfE are strictly related to the case studies analyzed in the report and therefore they are contingent upon their historical context.
- Moreover, the CHCfE report doesn't propose an operational framework in order to perform the impact assessment.

Table 2: The relationship between objectives (subdomains) and the impact domains proposed by CHCfE (2015)

Objectives (Sub-domains of topics and trends)	Key roles that could be played by CH (CHCfE's key findings)	Impact Domains
Regional Attractiveness and Competitive Advantage	(1) Cultural heritage is a key component and contributor to the attractiveness of Europe's regions, cities, towns, and rural areas in terms of private sector inward investment, developing cultural creative quarters and attracting talents and footloose businesses — thereby enhancing regional competitiveness both within Europe and globally.	Economic, Environmental, Cultural
Return on investment, tax revenues,	(5) Cultural heritage has a track record on providing a good return on investment and is a significant generator of tax revenue for public authorities both from the economic activities of heritage-related sectors and indirectly through spillover from heritage-oriented projects leading to further investment.	Economic
Labour market	(3) Cultural heritage is a significant creator of jobs across Europe, covering a wide range of types of job and skill levels: from conservation-related construction, repair, and maintenance through cultural tourism, to small and medium-sized enterprises (SMEs) and start-ups, often in the creative industries.	Social, Economic
Social cohesion and community participation	(10) Cultural heritage combines many of the above-mentioned positive impacts to build social capital and helps deliver social cohesion in communities across Europe, providing a framework for participation and engagement as well as fostering integration.	Social
Education, skills, knowledge	(9) Cultural heritage provides an essential stimulus to education and lifelong learning, including a better	Cultural, Social, Economic

	understanding of history as well as feelings of civic pride and belonging, and fosters cooperation and personal development.	
Identity creation	(2) Cultural heritage provides European countries and regions with a unique identity that creates compelling city narratives providing the basis for effective marketing strategies aimed at developing cultural tourism and attracting investment	Cultural, Social
Environmental sustainability	(7) Cultural heritage is a part of the solution to Europe's climate change challenges, for example through the protection and revitalisation of the huge, embedded energy in the historic building stock.	Environmental
Aesthetic of a place and Image creation	Symbolic value is one of the vaguest categories of impact but at the same time it is the most frequently mentioned. Key monuments in historic cities often become landmarks widely exploited by local promotion offices, tour operators and marketing specialists. (*)	Cultural
Built heritage and real estate market	From a real estate economic perspective, the value of a building lies in its being a source of revenue. (*)	Economic
	(4) Cultural heritage is an important source of creativity and innovation, generating new ideas and solutions to problems, and creating innovative services — ranging from digitisation of cultural assets to exploiting the cutting-edge virtual reality technologies — with the aim of interpreting historic environments and buildings and making them accessible to citizens and visitors	
	(6) Cultural heritage is a catalyst for sustainable heritage-led regeneration.	

	<p>(8) Cultural heritage contributes to the quality of life, providing character and ambience to neighbourhoods, towns and regions across Europe and making them popular places to live, work in and visit — attractive to residents, tourists and the representatives of creative class alike.</p>	
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(*) Not referred to “key findings”.

Source: CHCfE (2015). Our adaptation

b2) ICOMOS quality principles

Another document that deserves particular attention is the recent report prepared by a group of experts assembled by ICOMOS, under the mandate of the European Commission and in the framework of the flagship EU Initiative of the European Year of Cultural Heritage 2018, that provides guidance on quality principles for all stakeholders directly or indirectly engaged in EU-funded heritage conservation and management. The importance of this document for the purposes of our analysis is that the ICOMOS document introduces a new perspective for the analysis of the relationship between the objectives of the interventions and the desired or expected impacts by focusing attention not only on the outcome of the interventions but mainly on the quality requirements of the interventions' process that must be respected to guarantee the achievement of the desired impacts.

The adoption of quality measures is proposed by raising awareness and strengthening the implementation of conservation principles and standards at every stage of a project, from conception to completion. Therefore, the report sums up seven “quality principles and selection criteria for interventions” that can be seen as “key questions” that decision makers should ask themselves to assess the quality of proposed projects with a potential impact on cultural heritage, and to determine whether such projects are worthy of EU or other funding. There are different types of projects: small and large, public and private, expensive and low-cost, with direct and indirect impact on cultural heritage. The first three quality principles of the evaluation tool are heritage-based and should be assessed by decision makers responsible for cultural heritage; the following two principles are process-related and may also be assessed by decision makers responsible for the overall process; the two remaining principles require an assessment by both types of decision makers.

The main gaps of the ICOMOS report are:

- In the ICOMOS report the relationship between quality principles of interventions' process and expected impact is not clearly defined.

- Moreover, ICOMOS report doesn't propose introduce operational framework in order to perform the impact assessment.

Table 3: The quality requirements of CH interventions' process

Quality requirements and selection criteria for interventions' process on CH	Key questions for the decision-makers
KNOWLEDGE-BASED	Conduct research and surveys first of all
PUBLIC BENEFIT	Keep in mind your responsibility towards future generations
COMPATIBILITY	Keep the "spirit of place", Authenticity, Respect
PROPORTIONALITY	Do as much as necessary but as little as possible
DISCERNMENT	Call upon skills and experience
SUSTAINABILITY	Make it last (maintenance/post-project management)
GOOD GOVERNANCE	Process as a part of the possible success

Source: ICOMOS report (2019)

C. Social platforms

The SoPHIA project has introduced social platforms analysis in its literature review. Social platforms are increasingly been used as a tool for communicating and disseminating information on Cultural heritage interventions, as well as a tool for involving a larger audience.

Social platforms can play a significant role in promoting new objectives and raise the awareness the attention of police makers with respect to the creation of shared values, mutual respect towards diversity, more inclusive narratives as well as the sharing of new ideas, research findings, best practice in CH management and interventions. In order to present a comprehensive study on goals related to CH interventions, it is important to include the themes coming from the debate among stakeholders and other practitioners (see fig 2). SoPHIA aims at creating new themes in its social platform.

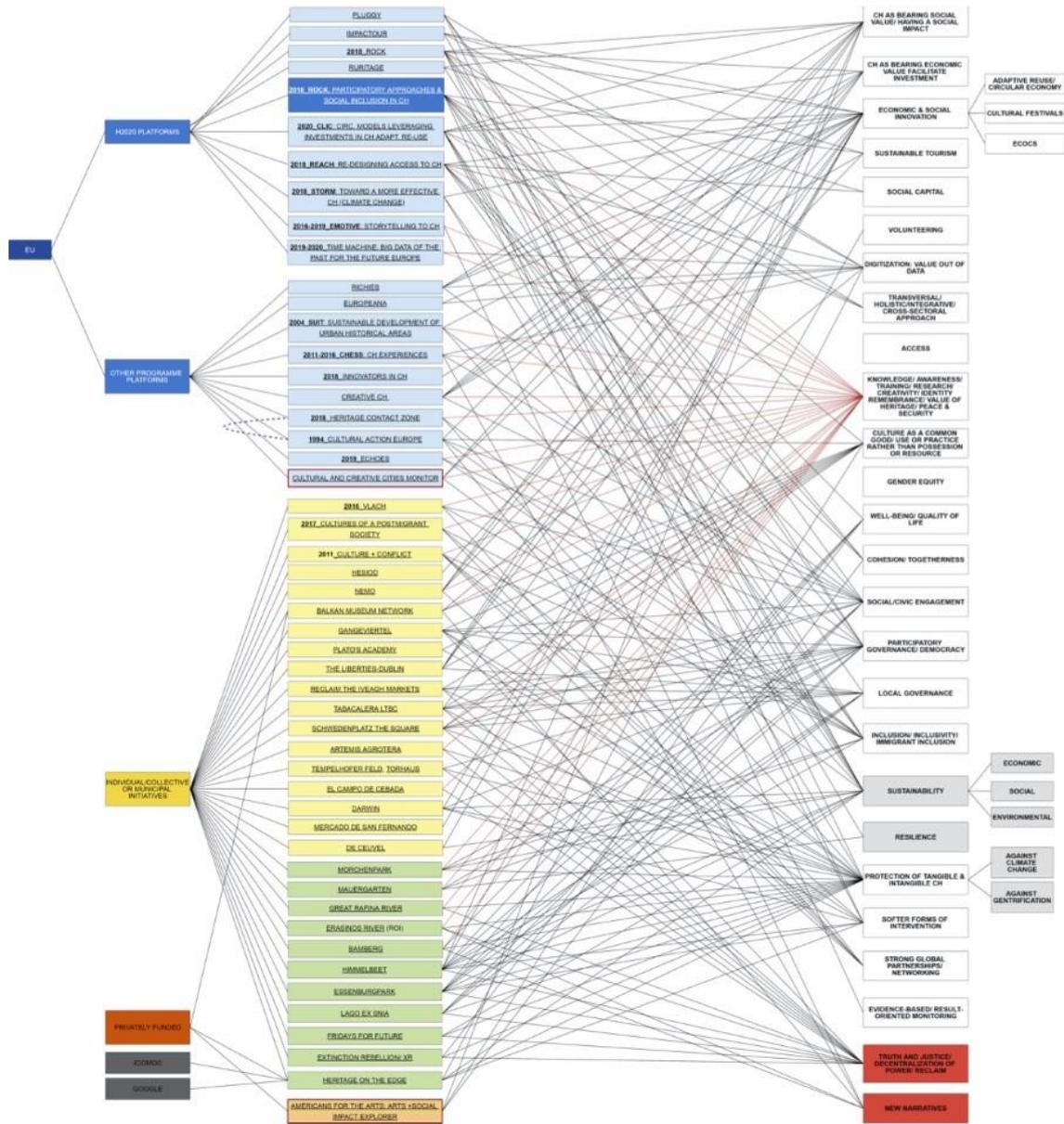


Figure 2: Chart illustrates the objectives retrieved from the D1.1 Social Platforms' analysis.

5 SoPHIA's analytical concept

SoPHIA's D 1.2 is understood as an intermediate stage between D 1.1 and D 1.3. Therefore, its aim is to provide the essential elements to elaborate an impact assessment model draft.

This model draft is based on an analytical concept that has been elaborated to include the different perspectives retrieved from the literature review and our personal experience as researchers.

SoPHIA's approach to impact assessment is based upon three axes:

I. **PEOPLE**: the multi-stakeholder's perspective.

II. **DOMAINS**: an inter-dimensional view that considers the positive and negative externalities that occur within and between the four domains.

III. **TIME**: a longitudinal perspective, which considers the *ex-ante*, *in-itinere*, and *ex-post* impact assessment.

The three axes of people, domains, and time represent essential elements for creating a holistic impact assessment model.

SoPHIA's principles and their implications are outlined below.

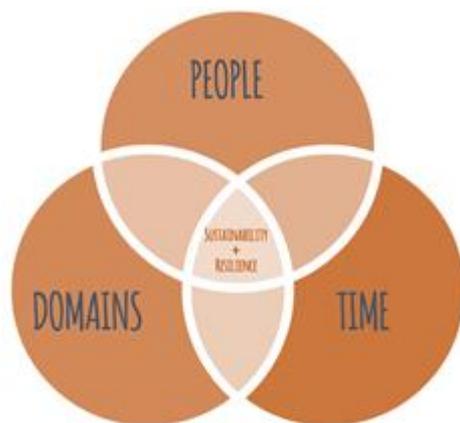


Figure 3 The three axes for a holistic impact assessment model: people, domains, time

People: the multi-stakeholders' perspective

A stakeholder is an individual, group, or organization that has a direct or indirect interest in a particular initiative or organization (i.e. government or non-governmental organizations, communities of interests, professionals, citizens). Having a multi-stakeholder perspective on a holistic model for cultural heritage impact assessment guarantees not only legitimacy but also its sustainability across all domains and it better reflects a set of interests rather than a single source of validation. The following is a tentative list of the main stakeholders involved:

- policy makers at different levels (regional, national, EU).
- local communities (to guarantee the construction of a shared heritage under an inclusive, and participatory perspective).
- youth and future generations (to take into account the issues of legacy and responsibility).
- civil society organisations and networks.
- other implicated groups and populations on a case-by-case basis, not included above.

Domains: the inter-dimensional perspective

Relevant studies have highlighted the potential interrelations between the four domains (McLoughlin et al., 2006; Yung & Chan, 2012; Gielen et al., 2014; CHCfE Consortium, 2015), as well as unintended consequences of cultural interventions (e.g. Harris & Ogbonna, 2002)⁷.

As mentioned already, methods that are sponsored and widely applied at the European level, such as the Environmental impact assessments (EIA) and Heritage Impact Assessments (HIA) fall short in their capacity to capture the multi-dimensional nature and significance of a cultural intervention. EIA is considered to neglect the interaction between attributes and “cumulative impacts and incremental changes” (ICOMOS, 2011)⁸. Indeed, current EIA tools are mostly one-dimensional, and are not causally linked with the cultural dimension of impact.

Therefore, there is a unanimous plea for a more global and objective assessment approach to assist monitoring cultural heritage properties, causally linked to their cultural significance.

Time: the longitudinal perspective

Matarasso and Landry (1999)⁹ point out that the impact of a project is related to its outputs and outcomes. Nevertheless, in opposition to the outcomes of a project, the impact may change over time, as subsequent events unfold. A planned impact should be measured ex ante, while an unplanned impact can be reconstructed only ex post. And that poses additional questions about the appropriate time horizons for an evaluation. Often, impacts are conceived as unexpected, i.e. unrelated to any targeted planning activities. Positive or

negative impacts alike tend to be treated as surprises rather than as the expected effects or consequences of specific actions taken on specific impact areas expressly with the purpose of inducing a specific change. Thus, when referring to time, we are talking about the development of a longitudinal assessment method. Initially, this occurs at the planning stage of new developments that may impact heritage. Then, there is the post-development evaluation assessing the impact of a heritage-related infrastructural development at the local area. Moreover, there is the long-lasting impact of such developments, after the investment has been carried out, which in the end determines its sustainability.

6 Main findings and open questions

In this paragraph, we report Advisory Board members and Stakeholders' feedback³ on the main findings and considerations presented in this report.

The lack of a univocal **definition of CH** represents an important shortcoming reported both in D 1.1 and D 1.2. In fact, the lack of a clear and shared definition creates uncertainty that may lead to confusion and several research problems. In this regard we have received different opinions.

On a side, Evinc Dogan thinks that finding a univocal definition of CH is not central to project's analysis. In fact, she believes that this would mean undervaluing CH itself, since it is strongly connected to identity and values more than definitions. On the other side, Pat Cooke claims that the findings of a project on CH assessment will be built on quicksand, unless or until a definition of CH is presented. Nevertheless, he wonders whether a stable definition of CH is even feasible.

SoPHIA's Consortium has always recognized the complexity of this topic and the impossibility to come up with a shared position in presenting the project's findings.

According to our research, **public involvement** represents a major issue regarding CH impact assessment, as it recurs in the different domains. In fact, there is clear evidence that the public involvement is lacking almost everywhere in Europe, but the reasons why this happens are several and unclear. Among them our stakeholders and Abs have highlighted the following:

- Time: the CH identification is a process that take place in the long term. Asking people about cultural goods is not always possible, mostly when the cultural good is new, when it is highly innovative, when it is non-standard (Alessandro Leon).
- Divergent opinions and split public opinion: Pat Cook underlines that often, within a community, there may be different opinions on the outcomes from interventions on CH and in fact, there rarely exists a univocal answer/consensus around CH interventions. In most cases, stakeholders express conflicting interests, therefore the method through which all stakeholders are heard, and their different voices and opinions are mediated are crucial.

³ We take the opportunity to thank Elena Borin, Pat Cook, Evinc Dogan, Hanna Lamsa, Alessandro Leon, and Rob Mark, our fellow AB members and Stakeholders, that shared their valuable feedback on these issues with us.

Another important reflection had been raised by Pat Cooke, who wonders if it is always necessary to involve the public on CH investment's decisions. On this regard, Alessandro Leon affirms that there are many instances that the public participation is important and compulsory, some quantitative and qualitative measure are possible (CVM) and appropriate. Nevertheless, the result is often unpredictable, and the failure is a possible and consistent outcome.

Pat Cooke considers public involvement as intrinsically positive but, in certain cases, due to the nature and the complexity involved in heritage management, it may represent a challenge for laypersons. The final verdict may need to be defined primarily by experts, since they are well informed, and they have a clear understanding of all factors at play.

Moreover, it is important to keep in mind that politics plays a crucial role: in fact, participation may turn into a mere pretext to justify a predetermined action (Pat Cooke).

We should finally consider the mechanisms used to implement the participation itself:

- The clear identification of stakeholders and parties addressed in public involvement processes and all deliberations, and their appropriate acknowledgement is essential (Pat Cooke).
- Attentive and meticulously organized processes for facilitating dialogue, and for eliciting appropriate and well-informed responses are of paramount importance (Rob Mark and Pat Cooke).
- Accountability is critical, otherwise the public feels disillusioned, and any involvement could lead to dissent, aggravation, and other counter-effects (Rob Mark and Pat Cooke).
- Methods employed for decision-making are essential. All the above point to a non-existent as yet or, not adequately prescribed protocol for public participation (Rob Mark and Pat Cooke).

Finally, we received some Abs and stakeholders' comments on the **characteristics of an innovative holistic impact assessment model**.

According to Elena Borin, it is crucial to focus on linking policies, governance, and management models by involving stakeholders and governance bodies. In fact, it is important to include not only citizens but also stakeholders. Working with a diverse group of stakeholders will turn the model more inclusive and effective. Moreover, by implementing the time perspective, the IA model should reflect the interpretation of CH as a process rather than a snapshot of a specific moment.

Hanna Lamsa reminds us that SoPHIA project should not create universal guidelines applicable in various situations/contexts. Instead, it should clarify for

whom and for what specific purposes the model has been created. We believe that EU policy makers should use our model as guidelines for evaluating interventions on CH, through a holistic impact assessment method.

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ANNEX 1

Please find the chart reporting the impact assessment methods per domain.

CULTURAL DOMAIN			
	1	2	3
Official name of the method	Most Significance Change (MSC)	Critical Discourse Analysis (CDA)	Rapid Ethnographic Assessment Procedure (REAP)
Synthetic description of the assessed phenomena	MSC aims at assessing what the actors involved in a project or intervention consider the most significant change that such project or intervention has brought about.	CDA involves a Critical analysis of heritage discourse looking at dimensions of power.	REAP is a package of methods to describe fully the way of life common to a group.
Domain impact (social, economic cultural, environmental)	Cultural, Environmental, Economic	Culture: Cultural Policy, Heritage Sector	Cultural
Planned/unplanned, desirable/non desirable	All	All	Planned
Areas of the impact (spot, local, regional, sectoral, etc.)	Project impact on local community	All	Local; Regional
Description of the approach: purely quantitative/purely qualitative, mixed	Qualitative	Qualitative	Mixed but majority qualitative
Main assessment tools: e.g. narratives/stories/cases, indicators/physical data/economic data, comparisons, standards, benchmarks, etc.	Narratives/stories collected through individual interviews and focus groups.	Critical textual analysis: National heritage policy, Local heritage policy; In depth interviews.	Interview; Observation; Documentary search techniques.
Information sources (e.g.: internal, external, third-parties, independent, etc.)	Internal	Independent	Internal
Outputs (i.e.: reports, indexes, rankings, maps, etc.)	Reports	Reports	Reports
Actors and governance (participatory/technical, etc).	Participatory - self assessment	Self-reflective research focusing on social and discourse structure from the perspective of the group at the centre of a social problem.	Participatory
Succinct description of how the method works	Participatory monitoring and evaluation. It involves the collection and selection of stories of change, produced by programme or project stakeholders.	Textual and social analysis taking account of productive power along with its uses and abuses. Where the researcher takes a position on a social problem.	Grand tour interviewing; Follow-up interviewing; Participant observation; Primary documentation/ Eyewitness reports and official papers.
Relevant examples of application	International cooperation	Academic	Tourism, Military Reconnaissance, Development
Benefits	Open mind	Accounts for uses and abuses of power in the defining and application of heritage policy; provides a nuanced and critical approach; assumes heritage is not 'neutral.'	Participatory and takes the position of the community group; Timely and cost-effective.
Shortcomings	Time consuming, no standard available.	Requires the author to take a political position; therefore can be read as less 'neutral.'	Requires buy-in and understanding of process by community; Tends to represent only a snapshot in time rather than whole project timeframe.

CULTURAL DOMAIN			
	4	5	6
Official name of the method	Participatory Mapping	Expert Analysis	Contingent Valuation
Synthetic description of the assessed phenomena	Participatory mapping is map production undertaken by communities to show information that is relevant and important to their needs and is mainly for their use. Participatory mapping produces maps which depict local knowledge and information.	Collection and formal treatment of opinion of expert.	CV is a method of estimating the value that a person or household places on a good.
Domain impact (social, economic cultural, environmental)	Land Development impacts on culture; Economic; Environmental; Social	All	All
Planned/unplanned, desirable/non desirable	Planned	Planned	Planned
Areas of the impact (spot, local, regional, sectoral, etc.)	National; NGO	Local; Regional; National; Sectoral	Local; Regional; National; Sectoral
Description of the approach: purely quantitative/purely qualitative, mixed	Mixed	Qualitative	Quantitative & Qualitative
Main assessment tools: e.g. narratives/stories/cases, indicators/physical data/economic data, comparisons, standards, benchmarks, etc.	Map production through open, inclusive process.	Expert interviews; Informant interviews	Surveys of a sample group of individuals; In person interviews
Information sources (e.g.: internal, external, third-parties, independent, etc.)	Internal	Internal and external	External
Outputs (i.e.: reports, indexes, rankings, maps, etc.)	Map	Reports	Reports
Actors and governance (participatory/technical, etc).	Participatory - involves the whole community.	Technical experts	Participatory
Succinct description of how the method works	Partnership with local organisations, training local people to monitor and map and update data.	Series of interviews with experts from within the organisation, stakeholders and area specific expertise.	Survey of participants on their preferences for a good or service. Or their willingness to accept, forego or tolerate a change.
Relevant examples of application	Forestlink: real-time monitoring of forest development and movement of peoples	ECoC evaluations, Tourism evaluations, etc.	Environmental Impact, Cultural impact of events, Tourism Impact, Urban Development
Benefits	Its participatory character as it takes the position of the community group.	Quick way to obtain specific and expert information; High level insights	Good for measuring willingness to pay for goods with market monetary value such as travel, ticket prices.
Shortcomings	Requires buy-in and understanding of process by community; Reliability of data.	Bias: internal view through strategic selection of experts can create positivist results; It does not capture impact on community	Accuracy issues related to stated preferences; mainly only captures willingness to pay.

CULTURAL DOMAIN			
	7	8	9
Official name of the method	Transtheoretical Model TTM (stages of Change Model)	Narrative Reviews	Randomised Controlled Trials RCT
Synthetic description of the assessed phenomena	Model to analyse intentional behavior changes; Based on behavioural theory, has its origins in health studies; Applied originally to prediction of smoking behaviour. Biopsychosocial model to conceptualise the process of intentional behaviour change.	A more or less systematic way of collecting and synthesizing previous research.	A practical procedure carried out in order to test the validity of a hypothesis. There is usually a control group, and an independent variable, i. e. that the experimenter manipulates, assumed to have a direct effect on the dependent variable, i.e. the outcome of the experiment.
Domain impact (social, economic cultural, environmental)	Cultural; Social	All	All
Planned/unplanned, desirable/non desirable	Planned	Planned and desirable	Planned; Desirable or undesirable
Areas of the impact (spot, local, regional, sectoral, etc.)	Personal; Local	All	All
Description of the approach: purely quantitative/purely qualitative, mixed	Mixed	Qualitative	Mainly quantitative
Main assessment tools: e.g. narratives/stories/cases, indicators/physical data/economic data, comparisons, standards, benchmarks, etc.	Reports	Review articles; Review Reports	Measurable indicators or data
Information sources (e.g.: internal, external, third-parties, independent, etc.)	Internal	Variable	Variable
Outputs (i.e.: reports, indexes, rankings, maps, etc.)	Reports	Reports	Articles or Reports
Actors and governance (participatory/technical, etc).	Health studies especially therapy, but has been adapted to the domain of culture in some studies to measure/monitor changes in behavioural culture.	Academic	Participatory or Technical
Succinct description of how the method works	A longitudinal study of stages of change in a subject group.	All relevant pieces of research in a field are read, summarised, and principal ideas and theories presented and discussed.	An independent variable (the cause) is manipulated and the dependent variable (the effect) is measured; any extraneous variables are controlled, usually in a controlled setting, e.g. a lab.
Relevant examples of application	Health studies and therapy settings; In Cultural Domain mainly in arts and health, and participatory arts.	Applied across many contexts	
Benefits	Can monitor progression to stages of change over a time period and not just a particular moment in time.	A literature review can address complex research questions, while highlighting the state-of-the-art, links between theories and researchers and obvious gaps in knowledge.	Objective; Replicable
Shortcomings	While progression through the Stages of Change can occur in a linear fashion, a nonlinear progression is common.	A literature review usually does not include novel theories or ideas. It may be considered the foundation for further, more original work.	The results can be determined or influenced by confounding variables, extraneous variables that cannot be controlled. The experimenter can influence the outcome, at subconscious level.

CULTURAL DOMAIN			
	10	11	12
Official name of the method	Cohort Studies	Time-series Studies	Case Studies
Synthetic description of the assessed phenomena	Analysis of a group of subjects with shared characteristics.	Studies in which periodic measurements are taken before, during, and after a certain intervention, to reach conclusions about the effect of the intervention.	Approach that uses multiple sources of data and methods and according to main authors (such as Yin) can grasp/ analyse open social processes and illustrate a particular social context or phenomenon.
Domain impact (social, economic cultural, environmental)	All	All	All
Planned/unplanned, desirable/non desirable	Planned; Desirable	Planned; Desirable	Planned; Unplanned
Areas of the impact (spot, local, regional, sectoral, etc.)	Mixed	Variable	All
Description of the approach: purely quantitative/purely qualitative, mixed	Mixed	Quantitative	Mixed
Main assessment tools: e.g. narratives/stories/cases, indicators/physical data/economic data, comparisons, standards, benchmarks, etc.	Indicators; Data	Surveys; Measurable data	Various social science methods
Information sources (e.g.: internal, external, third-parties, independent, etc.)	Variable	Variable	Internal
Outputs (i.e.: reports, indexes, rankings, maps, etc.)	Report ranking; Map	Reports; Articles; Indexes	Reports
Actors and governance (participatory/technical, etc).	Variable	Variable	Participatory
Succinct description of how the method works	It is a longitudinal study. Participants are followed over time, to document changes in their characteristics or behaviours.	Studies in which periodic measurements are taken before, during, and after a certain intervention, to reach conclusions about the effect of the intervention.	In assessment processes case studies are used to document and analyze implementation processes. Case study research assumes that examining the context and other complex conditions related to case(s) are integral to understanding the case.
Relevant examples of application		Impact 08 report	Studies on local, regional, etc programmes; on ECOC; etc.
Benefits	This method allows to gather superior data, and a more holistic view of individuals or circumstances.	This method is suitable to access both short- and long-term effects of the intervention.	Multi-perspective on a case of intervention.
Shortcomings	This method does not allow to control variables; it can be expensive and time-consuming.	It requires a massive amount of data, not always easy to obtain.	Requires various data sources.

CULTURAL DOMAIN	
	13
Official name of the method	Cultural Mapping (CM)
Synthetic description of the assessed phenomena	Cultural mapping attempts to make visible the ways local stories, practices, relationships, memories, and rituals constitute places as meaningful locations.
Domain impact (social, economic cultural, environmental)	Cultural sustainability, community development and urban planning,
Planned/unplanned, desirable/non desirable	Planned
Areas of the impact (spot, local, regional, sectoral, etc.)	Local
Description of the approach: purely quantitative/purely qualitative, mixed	Mainly qualitative but also quantitative
Main assessment tools: e.g. narratives/stories/cases, indicators/physical data/economic data, comparisons, standards, benchmarks, etc.	Community based participatory data collection of narratives, stories, cases, focus groups with community representatives, interviews with locals with specific local expertise, data applied to GIS geographical information systems.
Information sources (e.g.: internal, external, third-parties, independent, etc.)	Usually external, or third party but also internal
Outputs (i.e.: reports, indexes, rankings, maps, etc.)	Text reports; Maps
Actors and governance (participatory/technical, etc).	Participatory
Succinct description of how the method works	CM captures local culture. It widens the traditional indicators of cultural activity; it is highly participatory and rewarding for the participants. Site visits are usual and involve field study capturing stories, narratives and available literature sources. A comprehensive view of cultural resources can be stored and the documented data can serve as invaluable information for the development of national strategies that engage in accurate and sensitive analysis of people, places, and environments. The process of cultural mapping has also involved digital spatial frameworks involving citizen science inviting participants to share and upload information.
Relevant examples of application	Urban planning; Cultural sustainability; Community development/sustainability
Benefits	Adaptability to different cases, multi-perspective, highly participatory, rewarding for local community, expands from a narrow definition of culture to a wider anthropological one focused on 'ways of living/being.' This allows for cross domain values to be noted. Also, addresses notions of authorship and agency of participants.
Shortcomings	Potential to be resource heavy depending on the scale of the environment being mapped. Because it is cross disciplinary in scope it is difficult for researchers with specialism to adapt to if they have not worked with it before. There can be an issue of data quality because it is such an open process.

CULTURAL DOMAIN	
	14
Official name of the method	Cultural Impact Assessment CIA
Synthetic description of the assessed phenomena	Approach of documenting cultural values, interests and associations with an area or a resource, and the potential impacts of a proposed activity on these.
Domain impact (social, economic cultural, environmental)	Cultural; Environmental
Planned/unplanned, desirable/non desirable	Planned
Areas of the impact (spot, local, regional, sectoral, etc.)	Local; Regional
Description of the approach: purely quantitative/purely qualitative, mixed	Mixed
Main assessment tools: e.g. narratives/stories/cases, indicators/physical data/economic data, comparisons, standards, benchmarks, etc.	Indicators
Information sources (e.g.: internal, external, third-parties, independent, etc.)	Internal; External
Outputs (i.e.: reports, indexes, rankings, maps, etc.)	Reports
Actors and governance (participatory/technical, etc).	Participatory
Succinct description of how the method works	<p>CIA has been mainly used to understand the impact of development processes on indigenous communities; Partial identifies two articles that included systems of measurement of cultural impact; Gibson et al. (2011) schema "includes a developed list of cultural components, goals and indicators; recommendations for types of data required to ensure relevant indicators; suggestions for assessing impact in the absence of relevant research; factors to consider when determining cultural impact significance; and strategies to mitigate cultural impact and enhance cultural resilience; James (2014) offers a CIA schema that is entirely different. he proposes 'principles, protocols, indicators and tools for a cultural impact assessment process' (2014, p. 4) to be usable by cities and local governments of all types. This schema is based on the Circles of Sustainability model developed by the UN Global Compact Cities Programme and Metropolis, and currently being used by cities around the world to measure progress on complex issues. James' article was commissioned by United Cities and Local Government (UCLG)'s Committee on Culture to address the dearth of CIA resources for local governments.</p>
Relevant examples of application	Indigenous cultures
Benefits	Assessment method concretely used concerning the question of "cultural impact."
Shortcomings	'Culture' and 'cultural impact' are infrequently defined, leading to the problem of measuring something that has a lack of explication; also because it is heavily reliant on qualitative data from oral histories this may present associated high costs as well as reliability as fact mixed with anecdote. Qualitative data also has limitations within the cultural area, since cultural differences between information provider and researchers may lead to misinterpretations.

SOCIAL DOMAIN			
	1	2	3
<i>Official name of the method</i>	Most Significant Change MSC	Rapid Ethnographic Assessment Procedure (REAP)	Participatory mapping
Synthetic description of the assessed phenomena	MSC aims at assessing what the actors involved in a project or intervention consider the most significant change that such project or intervention has brought about.	Technique used to examine and analyse the relation between local communities and park lands, which can be applied as well in case of the interconnection between communities and heritage sites.	A cartographic practice (often digital) used to examine the relationships between people and the surrounding landscape, it makes use of sketch mapping, participatory 3D modelling, GPS and geographic information system (GIS).
Domain impact (social, economic cultural, environmental)	Cultural; Environmental; Economic	All	All
Planned/unplanned, desirable/non desirable	All	All	All
Areas of the impact (spot, local, regional, sectoral, etc.)	Project	Local; Project	Local; Project
Description of the approach: purely quantitative/purely qualitative, mixed	Qualitative	Qualitative	Qualitative
Main assessment tools: e.g. narratives/stories/cases, indicators/physical data/economic data, comparisons, standards, benchmarks, etc.	Narratives; Stories	Semi-structured interview; Expert interview; Community focus group	Data; Maps; Digital maps (online platform and tools); Map legend (i.e. the key to reading the map)
Information sources (e.g.: internal, external, third-parties, independent, etc.)	Internal	Internal; External; Third-parties	Internal; External; Third-parties
Outputs (i.e.: reports, indexes, rankings, maps, etc.)	Reports	Reports; Analysis; Mapping	Maps; Stories – data for social research
Actors and governance (participatory/technical, etc).	Participatory; Self-assessment	Community members; Experts; Participatory data collection analysis	Participatory; Local community; NGOs or other actors engaged
Succinct description of how the method works	MSC technique involves the collection and selection of stories of change, produced by programme or project stakeholders.	REAP is a rapid participatory qualitative research technique for quickly gathering social, cultural, and behavioral data. Less than 100 interviews are usually sufficient.	PM draws on local people's knowledge, enabling participants to create visual and non-visual data to explore social problems, opportunities and questions.
Relevant examples of application	International cooperation	Independence National Park in Philadelphia	Mappiness (UK); Community 21 (UK); Big Neighbourhood Data (UK); Planning for Real: creating 3D models to aid community consultation (UK)
Benefits	Open mind	Helpful in context-sensitive IA research, particularly when time and money are limited; retaining the contextual detail; with an often multidisciplinary team, different data collection elements can unfold simultaneously with frequent and intense interaction among team members.	Promotes the collective intelligence of people, participation, community networks, democratisation of networks. Its outputs can provide valuable information for companies that want to reach clients or to create business.
Shortcomings	Time-consuming, no standard available.	New research questions might emerge in the process; given the rapid pace (often a four month or less time frame) of the data collection and the multiple researchers, construct validity can be an issue – but is solved by triangulation and multidisciplinary.	The risk for local participants is that their collective intelligence is taken advantage of, for example where solutions developed locally by local people are taken and sold for profit. There are questions about how to protect local and collaborative information while openly sharing it.

SOCIAL DOMAIN		
	4	5
Official name of the method	Cultural mapping	Grounded Theory
Synthetic description of the assessed phenomena	The technique of participatory cultural mapping refers to a research tool to holistically understand the cultural assets of a place based on the local knowledge of the people.	Inductive tool revealing information on cultural valuation processes, based on interviews and participant observations.
Domain impact (social, economic cultural, environmental)	Social; Cultural	All
Planned/unplanned, desirable/non desirable	All	All
Areas of the impact (spot, local, regional, sectoral, etc.)	Local; Project	All
Description of the approach: purely quantitative/purely qualitative, mixed	Qualitative	Qualitative
Main assessment tools: e.g. narratives/stories/cases, indicators/physical data/economic data, comparisons, standards, benchmarks, etc.	Data; Maps, Digital maps (online platform and tools), map legend (i.e. the key to reading the map). Cultural mapping goes beyond strict cartography to include not only land, but also other cultural resources and information recorded by alternative techniques.	Sampling techniques (representative samples); Data generation and/or collection and data analysis (any type of data – observations, records, reports, visual, surveys, interviews, etc.); Various stages of coding; Comparative analysis; Theoretical sampling
Information sources (e.g.: internal, external, third-parties, independent, etc.)	Internal; External; Third-parties	Internal; External; Third-parties
Outputs (i.e.: reports, indexes, rankings, maps, etc.)	Maps and personal stories as a by-product; while creating their map, the group may deliberate over how to best represent the place in question. This can lead to rich and sometimes surprising data for social research.	Theories which are grounded in data are the final result of the process.
Actors and governance (participatory/technical, etc).	Participatory; Local community; Supporting organisations including governments; NGOs or other actors	Participatory; Highly adaptable
Succinct description of how the method works	Cultural mapping is a cartographic practice used to document local cultural tangible and intangible resources. It involves a community identifying and documenting local cultural resources. It encompasses a wide range of techniques and activities from community-based participatory data collection and management to sophisticated mapping using GIS (Geographic Information Systems).	GT is the discovery of emerging patterns in data and the generation of theories from data. It is a research tool which enables to seek out and conceptualise the latent social patterns and structures of an area of interest through the process of constant comparison.
Relevant examples of application	Lia Ghilardi –Local DNA Mapping projects (https://www.liaghilardi.com/); Culture Map Malta – the interactive online database	Daengbuppha, J. (2006) GT to model visitor experiences at three World Heritage Sites in Thailand.
Benefits	Valuable for the management of protected areas; Can ensure full understanding, participation and consent of local communities; Makes visible the ways local stories, practices, relationships, memories, and rituals constitute places as meaningful locations.	Avoids making assumptions; Identifies the situated nature of knowledge, as well as the contingent nature of practice; Acknowledges areas of conflict; Adapts readily to studies of diverse phenomena. Can respond and change as conditions that affect behavior change.
Shortcomings	Mapping as such does not ensure the full understanding and/or consent of the locals. What counts are the approach, the process, and good practice (including obtaining prior informed consent to implement the mapping exercise); attention must be paid to issues of ethics, the safety of communities and the protection of intellectual property rights.	It obscures the researcher's considerable agency in data construction and interpretation. GT tends to produce large amounts of data, often difficult to manage. Researchers need to be skillful in using grounded theory methods. There are no standard rules to follow for the identification of categories.

SOCIAL DOMAIN		
	6	7
Official name of the method	Ethnography	Participatory Action Research (PAR)
Synthetic description of the assessed phenomena	Method employing interviews and participant observations to reveal data on the cultural values associated with heritage.	It is an approach to research in communities that emphasizes participation and action. It seeks to understand the world by trying to change it, collaboratively and following reflection. PAR emphasizes collective inquiry and experimentation grounded in experience and social history.
Domain impact (social, economic cultural, environmental)	Social; Cultural; Environmental	All
Planned/unplanned, desirable/non desirable	All	All
Areas of the impact (spot, local, regional, sectoral, etc.)	All	All
Description of the approach: purely quantitative/purely qualitative, mixed	Both	Both
Main assessment tools: e.g. narratives/stories/cases, indicators/physical data/economic data, comparisons, standards, benchmarks, etc.	It involves engaging in extensive field work where data collection is mainly by interviews, symbols, artifacts, observations, and many other sources of data. It relies on information-gathering activities such as interviews, oral histories, observation, and recording of the characteristics of material culture.	Photovoice; Fishbone diagrams; Asset mapping
Information sources (e.g.: internal, external, third-parties, independent, etc.)	Internal; External	Internal; External
Outputs (i.e.: reports, indexes, rankings, maps, etc.)	Reports	Reports
Actors and governance (participatory/technical, etc).	Participatory	Participatory
Succinct description of how the method works	Procedures for conducting ethnography: identify and locate a culture-sharing group to study; select cultural themes, issues or theories to study about the group; for studying cultural concepts, determine which type of ethnography to use; should collect information in the context or setting where the group works or lives; from the many sources collected, the ethnographer analyzes the data for a description of the culture-sharing group, themes that emerge from the group and an overall interpretation; forge a working set of rules or generalizations as to how the culture-sharing group works as the final product of this analysis.	PAR practitioners make a concerted effort to integrate three basic aspects of their work: participation (life in society and democracy), action (engagement with experience and history), and research (soundness in thought and the growth of knowledge). Action unites, organically, with research and collective processes of self-investigation.
Relevant examples of application	Hutchinson, E. Researching Forums in Online Ethnography: Practice and Ethics. 2014 ; Vodeb, K. & Medarić, Z. Local Community Perceptions of Tourism Impacts on The Slovenian Coast. 2013	
Benefits	Field-based; personalized; multifactorial; iholistic – it is conducted so as to yield the fullest possible portrait of the group under study; it can also be used in other methodological frameworks, for instance, an action research program of study where one of the goals is to change and improve the situation. With a number of particular information gathering tools at hand, e. seems well suited as an approach to eliciting heritage values.	
Shortcomings	It requires a long-term commitment i.e. it is conducted by a researcher who intends to interact with people they are studying for an extended period of time. The exact time frame can vary from several weeks to a year or more. Deep expertise is required.	

SOCIAL DOMAIN			
	8	9	10
Official name of the method	Interactive Community Forum	Social Innovation Biographies (SIB)	Expert analysis (e.g. Delphi method, stakeholders analysis)
Synthetic description of the assessed phenomena	It seeks community members' judgments of social impacts resulting from project alternatives in an EIA. The method employs a participant-driven description of the social system along with a set of community constructs to guide in the identification of anticipated social impacts.	SIBs are a valuable methodology to reflect the evolutionary character of the dynamics of the social initiatives' innovation processes in deepening the understanding of development paths, knowledge trajectories and stakeholder interactions at the micro-level.	Method relying on the knowledge and experience of experts in the field, obtained for example by conducting expert interviews.
Domain impact (social, economic cultural, environmental)	Social; Environmental	All	All
Planned/unplanned, desirable/non desirable	All	All	
Areas of the impact (spot, local, regional, sectoral, etc.)	Local; Regional	All	Local
Description of the approach: purely quantitative/purely qualitative, mixed	Qualitative	Qualitative	Qualitative
Main assessment tools: e.g. narratives/stories/cases, indicators/physical data/economic data, comparisons, standards, benchmarks, etc.	Group Discussion	Desk research; Narrative interviews; Semi-structured interviews; Egocentric network analysis; Triangulation as a step-by-step approach.	Structured & written questionnaires to which panelists are asked to answer anonymously. Responses are summarised and reported back to panelists who have the opportunity to revise their judgments.
Information sources (e.g.: internal, external, third-parties, independent, etc.)		Internal; External	Internal; External; Third-parties
Outputs (i.e.: reports, indexes, rankings, maps, etc.)	Protocol	Reports; Factsheets	Reports
Actors and governance (participatory/technical, etc).	NGO; Governmental bodies	Participatory	Non-participatory method
Succinct description of how the method works		Fieldwork; Narrative interviews with central actors in the innovation process of the concrete social innovation cases; Findings stored in an SIB factsheet for qualitative analysis.	Surveys and analyses are guided by interviews with a small sample of historic environment and place making experts.
Relevant examples of application		SIMPACT - Impact of Social Innovation in Europe through Economic Underpinnings	
Benefits		SIBs allow to analyse social innovation cases and underlying processes in three dimensions: horizontally, vertically and comparatively. Besides its various advantages, SIBs also address methodological challenges related to the selection of critical cases, mobilising interviewees, securing the quantity and quality of information, overcoming selectiveness and reinforcing confidence.	A „reality check' exercise; experts knowledge; existing standards in the field.
Shortcomings			Views can vary; less common clarity over a link between the historic built environment and social capital.

SOCIAL DOMAIN			
	11	12	13
Official name of the method	Case studies	Multi-criteria analysis	Policy analysis
Synthetic description of the assessed phenomena	Method consisting in providing narrative examples to disseminate information on results of research.	Non-monetary evaluation method, takes into consideration the multiple dimensions of a decision problem. Project effects are addressed in their own dimensions and a weighing procedure is used to compare or assess the various project effects against each other.	Determining which of various alternative policies will most likely achieve a given set of goals in light of the relations between the policies and the goals.
Domain impact (social, economic cultural, environmental)	All	All	All
Planned/unplanned, desirable/non desirable			
Areas of the impact (spot, local, regional, sectoral, etc.)	Local; Regional		
Description of the approach: purely quantitative/purely qualitative, mixed	Qualitative	Qualitative non-participatory method + quantitative if combined with CBA	Qualitative
Main assessment tools: e.g. narratives/stories/cases, indicators/physical data/economic data, comparisons, standards, benchmarks, etc.	Cases; Narrative examples	Value trees; Performance matrix	
Information sources (e.g.: internal, external, third-parties, independent, etc.)	Internal; External	Internal; External	
Outputs (i.e.: reports, indexes, rankings, maps, etc.)	Reports	There are a whole variety of different MCA methods and supporting tools, responding to various a variety of problems (e.g. choice, ranking, classification) arising in impact.	Assessment or evaluations: some are aggregative, others not (or only partially so).
Actors and governance (participatory/technical, etc).	Non-participatory method	Non-participatory method	Non-participatory method
Succinct description of how the method works	AMION (2019): selection of case studies – a number of case studies were selected to assess the impact of heritage led regeneration. These were chosen to represent a range of projects in terms of their geographical location (including urban and rural) and size and type of investment.	MCA provides a systematic approach for supporting complex decisions according to pre-determined criteria and objectives. It is particularly suitable for complex decision problems that involve multiple and conflicting objectives and criteria. It identifies a single preferred alternative, ranks or short-lists possible alternatives.	Criteria; Goals & Attributes.
Relevant examples of application	Case studies present exemplary models e.g. how cultural heritage is integrated into local development etc.		
Benefits	Time consuming; results vary depending on the area of analysis at which the impacts are assessed.	Complementary approach to cost-benefit analysis (CBA); adequate in the case of the assessment of distinct alternatives to be decided on.	
Shortcomings	Level of satisfaction with social dialogue, distribution of incomes gathered from CH; Satisfaction with governance mechanisms; Number of workshops, round tables, focus groups organized and evaluated positively by the participants.	No insights as how actually to estimate non-use values; less effective when it comes to a broader societal scale.	

SOCIAL DOMAIN			
	14	15	16
Official name of the method	Social Return on Investment (SROI)	Social Rating	G4 Guidelines
Synthetic description of the assessed phenomena	SROI is an outcomes-based measurement tool that aims to quantify organisations' extra-financial outcomes – social, environmental or economic. Many adaptations and applications of the SROI tool have been created, such as: SROI (Social Value U.K.), SROI Calculator, the SROI Toolkit, and SROI Analysis.	Sponsored by M-CRIL this tool was crafted with the aim of assisting investors and donors in effectively using microfinance resources to achieve social, ethical and financial goals. It works as a complement to credit rating and can be use alone or alongside a credit rating.	Sponsored by M-CRIL this tool was crafted with the aim of assisting investors and donors in effectively using microfinance resources to achieve social, ethical and financial goals. It works as a complement to credit rating and can be use alone or alongside a credit rating.
Domain impact (social, economic cultural, environmental)	Social; Economic; Environmental	Social; Economic	
Planned/unplanned, desirable/non desirable			
Areas of the impact (spot, local, regional, sectoral, etc.)			
Description of the approach: purely quantitative/purely qualitative, mixed	Quantitative „accounting“ methodology		
Main assessment tools: e.g. narratives/stories/cases, indicators/physical data/economic data, comparisons, standards, benchmarks, etc.			
Information sources (e.g.: internal, external, third-parties, independent, etc.)			
Outputs (i.e.: reports, indexes, rankings, maps, etc.)	Compensatory or not (or partially so)		Launched as a free online tool
Actors and governance (participatory/technical, etc).	Companies	Microcredit donors and investors	
Succinct description of how the method works			
Relevant examples of application			
Benefits			
Shortcomings			

SOCIAL DOMAIN		
	17	18
Official name of the method	Principles for Responsible Investment (PRI) + The Value Driver Model	Human Impact + Profit (HIP) Scorecard
Synthetic description of the assessed phenomena	The PRI is the world's leading proponent of responsible investment. It works to understand the investment implications of environmental, social and governance (ESG) factors and to support its international network of investor signatories in incorporating these factors into their investment and ownership decisions.	A unique methodology to track, rate and rank investments' quantifiable impact on society – transforming traditional Wall Street views that “doing good” and “doing well” are incompatible.
Domain impact (social, economic cultural, environmental)	Social; Environmental; Corporate governance	All, especially Social & Environmental
Planned/unplanned, desirable/non desirable		All
Areas of the impact (spot, local, regional, sectoral, etc.)	All	Project; All
Description of the approach: purely quantitative/purely qualitative, mixed	Mixed	Mixed
Main assessment tools: e.g. narratives/stories/cases, indicators/physical data/economic data, comparisons, standards, benchmarks, etc.	Applying UN's 6 Principles that may better align investors with broader objectives of society.	Rating; Scores
Information sources (e.g.: internal, external, third-parties, independent, etc.)	Internal	Internal
Outputs (i.e.: reports, indexes, rankings, maps, etc.)	Implementing ESG (see description) integration techniques + metrics that illustrate how a sustainable business strategy contributes to overall performance of a company	Sustainability Statistics
Actors and governance (participatory/technical, etc).	Investors; NGOs	Business entrepreneur; Social entrepreneurs; Investors; Funds; Governments, agencies
Succinct description of how the method works	The Principles offer a menu of possible actions for incorporating environmental, social and corporate governance issues into investment practices across asset classes. Responsible investment is a process that must be tailored to fit each organisation's investment strategy, approach and resources.	HIP Investors chart human impact by looking at a company's human, social and environmental initiatives. The HIP Scorecard analyzes 30 metrics across five categories inspired by Maslow's hierarchy of needs: Health, Wealth, Earth, Equality and Trust. Each category maps to a specific business result, from innovative products to inspired people to (potentially) increased profits and a more improved planet.
Relevant examples of application	Cheuvreux, Citi, Société Générale and UBS	Walmart's \$4 generic drug program; ICICI Bank's micro-loans; Vestas's wind turbines.
Benefits	Successfully implementing sustainability principles is important to investment management and the security of long-term returns. Integrated approaches to estimating fair value point towards significantly improved valuation models that account for scarcity of resources, future regulatory directions and timeframe tensions.	Supports organizations which create social and env. benefits; it generates financial returns; it shows when a company does better in sustainability/ profitability.
Shortcomings	Fee or donation to the United Nations; Inability to integrate long-term responsible investment; In a PRI signatory survey last year, the majority of respondents identified investor short-termism as one of the most significant obstacles to a sustainable financial system.	Not free.

Official name of the method	GIIRS / B Rating System (Global Impact Investing Rating System)
Synthetic description of the assessed phenomena	A comprehensive and transparent system for assessing the social and environmental impact of companies and funds with a ratings and analytics approach. GIIRS Impact Rated funds have made a deep commitment to measuring their impact using a holistic, third-party set of standards, which allows for benchmarking, progress tracking, and comparison with other funds.
Domain impact (social, economic cultural, environmental)	Social; Environmental; Economic
Planned/unplanned, desirable/non desirable	All
Areas of the impact (spot, local, regional, sectoral, etc.)	All
Description of the approach: purely quantitative/purely qualitative, mixed	Mixed
Main assessment tools: e.g. narratives/stories/cases, indicators/physical data/economic data, comparisons, standards, benchmarks, etc.	Standardized impact metrics, rating, performance scores, benchmarking, progress tracking, and comparison. Data is self-reported by companies and reviewed by a third-party verification service provider, Deloitte & Touche, before a company can receive a rating.
Information sources (e.g.: internal, external, third-parties, independent, etc.)	Third-party review
Outputs (i.e.: reports, indexes, rankings, maps, etc.)	The final result is GIIRS rating and benchmarking which can allow the investor to understand a relative performance. A GIIRS Impact Rating includes an overall rating and impact area (Governance, Workers, Community, Environment) ratings as well as key performance indicators (KPIs) specific to the industry in which the company operates, geography, size and mission.
Actors and governance (participatory/technical, etc).	Governments and any other entities
Succinct description of how the method works	B Impact Assessment is a tool that allows impact investors allows to measure company"s overall social and environmental performance. B Impact Assessment does so by measuring impact of a business on all stakeholders through an online platform. B Lab also provides a comprehensive tool called B Analytics on the other provides a tool that automatically aggregates and analyzes B Impact Assessment data from the companies impact investors work with.
Relevant examples of application	Ben&Jerry's; Patagonia; Etsy
Benefits	B Impact Assessment is a good tool to understand relative company's governance, envir. and social policies. A stated goal of GIIRS is to drive capital to impact investments. The role GIIRS plays in this process is to provide a comprehensive, comparable and verified measure of positive social and environmental impact for funds and companies and an analytics platform.
Shortcomings	Reportedly, GIIRS rating provides a benchmarking, most investors find it difficult as it doesn't allow to understand a true created social impact or outcome (https://www.sopact.com/sdg-indicators).

Official name of the method	IRIS Metrics
Synthetic description of the assessed phenomena	IRIS is the catalog of generally accepted performance metrics that leading impact investors use to measure social, environmental, and financial success, evaluate deals, and grow the credibility of the impact investing industry. IRIS is used by hundreds of investors and thousands of companies to track and communicate performance.
Domain impact (social, economic cultural, environmental)	Social; Environmental; Economic
Planned/unplanned, desirable/non desirable	All
Areas of the impact (spot, local, regional, sectoral, etc.)	All
Description of the approach: purely quantitative/purely qualitative, mixed	IRIS includes quantitative metrics that help you measure multiple dimensions of your investees' social, environmental, and financial performance. IRIS also includes qualitative descriptors to help you put your investees' performance in context.
Main assessment tools: e.g. narratives/stories/cases, indicators/physical data/economic data, comparisons, standards, benchmarks, etc.	Standardized impact metrics; Indicators; Benchmarking
Information sources (e.g.: internal, external, third-parties, independent, etc.)	Internal; External
Outputs (i.e.: reports, indexes, rankings, maps, etc.)	Performance metrics; Measurable and comparable value
Actors and governance (participatory/technical, etc).	Intended for Impact investors as a free public good.
Succinct description of how the method works	IRIS is a catalog that measures the performance of an organization. It includes metrics tailored to specific sectors, as well as metrics that can be used by companies irrespective of their social or environmental goals and the sector and regions in which they work. In the IRIS catalog, there are metrics for: Financial performance, Operational performance, Product performance, Sector performance and Social and Environmental Objective performance.
Relevant examples of application	New Ventures Mexico, KL Felicitas, Accion - Frontier Investments Group, Interamerican Development Bank
Benefits	A free resource available online. IRIS is a useful resource for impact investors working around the world, in different sectors, and with a variety of social and environmental impact objectives. In using standardized metrics such as IRIS, a major benefit is the ability to aggregate impact information across diverse portfolios.
Shortcomings	IRIS does not address the other elements of creating an impact measurement program, including how to collect, analyze, or verify the resulting data. But, IRIS metrics can be used in conjunction with a range of tools and resources that do support these steps (GIIRS, SROI).

Official name of the method	Impact Value Chain (IVC) / Theory of Change
Synthetic description of the assessed phenomena	The measurement of social impact is based on a widely accepted flow system, variously known as the Impact Value Chain, Change Theory or Logical Model. The means (or causal chain) by which activities achieve outcomes, and use resources (inputs) in doing that, taking into account variables in the service delivery and the freedom of service-users to choose. It forms both a plan as to how the outcome is to be achieved, and an explanation of how it has occurred (explained after the event).
Domain impact (social, economic cultural, environmental)	All
Planned/unplanned, desirable/non desirable	All
Areas of the impact (spot, local, regional, sectoral, etc.)	All
Description of the approach: purely quantitative/purely qualitative, mixed	Both can be employed
Main assessment tools: e.g. narratives/stories/cases, indicators/physical data/economic data, comparisons, standards, benchmarks, etc.	A tool itself. Approaches that focus on discovering cost pros and cons include: Identifying activities; Rating the importance of each activity in providing value; Identifying the cost drivers; Identifying linkages and dependencies; Identifying cost reduction and value improvement opportunities. Approaches with a focus on finding differentiation include: Identifying activities that create; Identifying differentiation activities that improve customer value; Identifying the best opportunity for differentiation.
Information sources (e.g.: internal, external, third-parties, independent, etc.)	Internal; External
Outputs (i.e.: reports, indexes, rankings, maps, etc.)	Reports; Various. The overall goal of value chain analysis is to identify areas and activities that will benefit from change in order to improve profitability and efficiency.
Actors and governance (participatory/technical, etc).	
Succinct description of how the method works	This tool should be used to understand the social impact an organization is making. Organizations must consider their inputs (e.g. resources), their outputs (e.g. programs), and their outcomes (e.g. jobs created) to fully comprehend their ultimate impact (e.g. breaking poverty cycle). It focuses on analyzing the internal activities of a business in an effort to understand costs, locate the activities that add the most value, and differentiate from the competition. To develop an analysis, Porter's model outlines primary business functions as the basic areas and activities of inbound logistics, operations, outbound logistics, marketing and sales, and service. The model also identifies the discrete tasks found in the important support activities of firm infrastructure, human resources management, technology, and procurement.
Relevant examples of application	FedEx, The World Bank, United Nations, OECD, WTO, Nestlé, Starbucks, Walmart
Benefits	Identifying activities where you can quickly reduce cost, optimize effort, eliminate waste, and increase profitability. Analyzing activities also gives insights into elements that bring greater value to the end user. In addition to negotiations, creating a better experience, and finding opportunities to outsource, analysis may also advocate the need for greater or more expensive resources that increase product value, develop loyalty, or create differentiation from the competition.
Shortcomings	Value chain analysis is no simple feat. Some of the difficulties involve gathering data (which can be labor and time-intensive), identifying the tasks or functions that can add perceived or real value, and developing and deploying the plan. Additionally, it is not always easy to find appropriate information in order to break your value chain down into primary and supporting activities.

Official name of the method	Social Enterprise Balanced Scorecard (SEBS, or SBSC)
Synthetic description of the assessed phenomena	SEBS are a performance measurement tool for assessing whether operational activities are aligned with broader strategic objectives. They place the social goals of the organization at the top of the strategy, aligning social and economic interests while ensuring financial sustainability.
Domain impact (social, economic cultural, environmental)	Social; Economic
Planned/unplanned, desirable/non desirable	
Areas of the impact (spot, local, regional, sectoral, etc.)	All
Description of the approach: purely quantitative/purely qualitative, mixed	Mixed
Main assessment tools: e.g. narratives/stories/cases, indicators/physical data/economic data, comparisons, standards, benchmarks, etc.	The Balanced Scorecard (Kaplan and Norton 1996) is a performance measurement tool that uses a strategy map to connect an organisation's day-to-day processes to its organisational goals.
Information sources (e.g.: internal, external, third-parties, independent, etc.)	External; Internal
Outputs (i.e.: reports, indexes, rankings, maps, etc.)	
Actors and governance (participatory/technical, etc).	
Succinct description of how the method works	SEBS focuses on financial sustainability, external market impact, operational performance and mission. The external market impact includes customer satisfaction, market share, brand equity, community impact and return on development investment. Operational performance is judged by labour productivity, quality targets, employee satisfaction and employee turnover rate. Mission accomplishment is evaluated on the basis of new skills/tools developed, new contracts, long-term job sustainability, reduced welfare dependency and improved operations (Ryan 2017).
Relevant examples of application	In a study performed by Somers (2004) in the UK, SEBS were found to have the potential to communicate performance to internal and external stakeholders and present an opportunity to build credibility among investors, funders, customers, and stakeholders.
Benefits	Transparency and efficiency are crucial to maximise social value creation and impact. SEBS is useful tool to achieve them.
Shortcomings	Limitations of the existing Balanced Scorecard for social enterprises; it is limited in responding to the needs of social enterprises because it does not reconcile the tension that exists between generating additional social versus financial profit.

Official name of the method	Social Accounting and Audit (SAA)
Synthetic description of the assessed phenomena	SAA explores objectives and activities of an organisation in detail to build a full statement of everything done by the organisation which affects others; and also requires the organisation to articulate its Values.
Domain impact (social, economic cultural, environmental)	Social; Economic; Environmental
Planned/unplanned, desirable/non desirable	
Areas of the impact (spot, local, regional, sectoral, etc.)	All
Description of the approach: purely quantitative/purely qualitative, mixed	Quantitative & Qualitative
Main assessment tools: e.g. narratives/stories/cases, indicators/physical data/economic data, comparisons, standards, benchmarks, etc.	SAA encourages use of various social accounting planning tools, including: A modified impact map; Simple spreadsheet; Indicator tree.
Information sources (e.g.: internal, external, third-parties, independent, etc.)	Internal
Outputs (i.e.: reports, indexes, rankings, maps, etc.)	SAA requires outputs and outcomes to be demonstrated and reported, encouraging the use of actual financial indicators where available. SAA produces draft social accounts.
Actors and governance (participatory/technical, etc).	
Succinct description of how the method works	SAA requires all social accounts to be verified against the key principles through a tried and tested social audit process.
Relevant examples of application	
Benefits	Based on similar principles to SROI.
Shortcomings	Impact is demonstrated and reported but not necessarily measured. The social accounting method then puts these results into a report. An auditor then inspects the report. This measure may prove to be futile unless there is legislation put in place to make social auditing a compulsory activity for every organization that claims to have social impact.

Official name of the method	Social Impact Assessment (SIA)
Synthetic description of the assessed phenomena	A Social Impact Assessment is a process of research, planning and the management of social change or consequences (positive and negative, intended and unintended) arising from policies, plans, developments and projects.
Domain impact (social, economic cultural, environmental)	Economic; Social; Environmental
Planned/unplanned, desirable/non desirable	
Areas of the impact (spot, local, regional, sectoral, etc.)	
Description of the approach: purely quantitative/purely qualitative, mixed	Mixed
Main assessment tools: e.g. narratives/stories/cases, indicators/physical data/economic data, comparisons, standards, benchmarks, etc.	Routinely and frequently used methods and techniques include e.g. analogs, checklists, expert opinions, mass balances, matrices and qualitative/quantitative models; Overview of government legislation and policies.
Information sources (e.g.: internal, external, third-parties, independent, etc.)	Internal; External; Third-parties
Outputs (i.e.: reports, indexes, rankings, maps, etc.)	Reports
Actors and governance (participatory/technical, etc).	Participatory
Succinct description of how the method works	SIA derives from the environmental impact assessment (EIA) model. The main aims of this approach consist of making every business to generate and account for social impact.
Relevant examples of application	This assessment tool is used by the Global Social Venture Competition (GSVC) as a requirement for entrants in its competition for start-ups business and income-generating non-profits organizations.
Benefits	integrated assessment where biophysical and social impacts of projects, programs and policy initiatives, are equally acknowledged and evaluated.
Shortcomings	It still misses a proper scientific foundation as, to date, few scientific publications on the theoretical base, opportunities and limits of such an assessment process have been made available. Environmental Social Impact Assessment (ESIA), take a more integrated approach where equal weight is given to both the social and environmental impact assessments.

ECONOMIC DOMAIN	
Official name of the method	Cost–benefit analysis (CBA)
Synthetic description of the assessed phenomena	Cost–benefit analysis (CBA) is a systematic approach for estimating the strengths and weaknesses of alternatives used to determine options which provide the best approach to achieving benefits while preserving savings. A CBA may be used to evaluate the economic value against the cost of a decision, project, or policy.
Domain impact (social, economic cultural, environmental)	Economic
Planned/unplanned, desirable/non desirable	Ex ante: Planned; Ex post: Planned & unplanned
Areas of the impact (spot, local, regional, sectoral, etc.)	All. It may be used to evaluate the value against the cost of a decision, project, or policy.
Description of the approach: purely quantitative/purely qualitative, mixed	Mixed
Main assessment tools: e.g. narratives/stories/cases, indicators/physical data/economic data, comparisons, standards, benchmarks, etc.	Economic/financial data. Benefits and costs in CBA are expressed in monetary terms and are adjusted for the time value of money; all flows of benefits and costs over time are expressed on a common basis in terms of their net present value, regardless of whether they are incurred at different times.
Information sources (e.g.: internal, external, third-parties, independent, etc.)	Internal; External
Outputs (i.e.: reports, indexes, rankings, maps, etc.)	Monetary evaluation; Reports
Actors and governance (participatory/technical, etc.)	Technical
Succinct description of how the method works	A generic cost–benefit analysis has the following steps: Define the goals and objectives of the action; List alternative actions; Select measurement(s) and measure all cost and benefit elements; Predict outcome of costs and benefits over the relevant time period; Convert all costs and benefits into a common currency; Apply discount rate; Calculate the net present value of actions under consideration; Perform sensitivity analysis; Adopt the recommended course of action.
Relevant examples of application	Valuing the Benefits of Investments in Cultural Heritage: The Historic Core of Split Pagliola, S. (1996). Economic analysis of investments in cultural heritage: Insights from environmental economics. World Bank, Washington, DC.
Benefits	The monetary parameter allow a comparison among the different options.
Shortcomings	The value/impact of an intervention in the CH field cannot be comprehensively assessed in monetary terms.

Official name of the method	Contingent valuation method
Synthetic description of the assessed phenomena	Contingent valuation is a survey-based economic technique for the valuation of non-market resources. While these resources do give people utility, certain aspects of them do not have a market price as they are not directly sold. The approach asks people to directly report their willingness to pay (WTP) to obtain a specified good, or willingness to accept (WTA) to give up a good, rather than inferring them from observed behaviours in regular market places. Many applications of the method deal with public goods. The Exxon Valdez oil spill in Prince William Sound was the first case where contingent valuation surveys were used in a quantitative assessment of damages. Use of the technique has spread from there.
Domain impact (social, economic cultural, environmental)	The technique has been widely used by government departments in the US when performing cost-benefit analysis of projects impacting, positively or negatively, on the environment.
Planned/unplanned, desirable/non desirable	Planned; Desirable/Undesirable
Areas of the impact (spot, local, regional, sectoral, etc.)	All
Description of the approach: purely quantitative/purely qualitative, mixed	Mixed
Main assessment tools: e.g. narratives/stories/cases, indicators/physical data/economic data, comparisons, standards, benchmarks, etc.	Survey
Information sources (e.g.: internal, external, third-parties, independent, etc.)	External
Outputs (i.e.: reports, indexes, rankings, maps, etc.)	Monetary Evaluation
Actors and governance (participatory/technical, etc).	Participatory
Succinct description of how the method works	The approach asks people to directly report their willingness to pay (WTP) to obtain a specified good, or willingness to accept (WTA) to give up a good, rather than inferring them from observed behaviours in regular market places. The majority of these studies pose willingness-to-pay questions using dichotomous choice approaches, asking the respondents whether or not they would purchase the specified commodity at the stated prices. This approach is nowadays preferred over alternative approaches, because it reduces the cognitive burden placed on the respondent, and mimics the behaviour of people in regular marketplaces.
Relevant examples of application	
Benefits	Contingent valuation has proven particularly useful when implemented alone or jointly with other valuation technique for non-market goods, such as the travel cost method or hedonic approaches. It remains the only technique capable of placing a value on commodities that have a large non-use component of value (Non-use values relate to the utility that a person experiences from knowing that a natural resource or amenity exists and may be experienced by other people or future generations, even though he/she has never visited it nor plans to).
Shortcomings	Critics of contingent valuation allege that the quality of stated preference data is inferior to observing revealed preferences, consider contingent valuation a "deeply flawed method" for valuing non-use goods and point at the possible biases affecting contingent valuation data.

Official name of the method	SROI - Social Return On Investments
Synthetic description of the assessed phenomena	SROI is applied for understanding, determining and managing the value of social, economic and environmental outcomes generated by an activity or organization. The SROI calculation procedure provides for the monetary assessment of the costs, benefits and possible negative consequences of an activity, accompanied by a report of the effects of the project (Zamagni, rivistaimpresasociale.it). SROI principles are: Involve stakeholders; Understand what changes; Value the things that matter to stakeholders; Only include what is material; Do not over-claim; Be transparent (explain clearly how you arrived at the answer, and nay uncertainties in your evidence or assumptions); Verify the results, based on good research principles (GECES, 31).
Domain impact (social, economic cultural, environmental)	Cross-domain, focussed on social
Planned/unplanned, desirable/non desirable	Both
Areas of the impact (spot, local, regional, sectoral, etc.)	Connected to the scale of project/activity; Mostly local
Description of the approach: purely quantitative/purely qualitative, mixed	Quantitative
Main assessment tools: e.g. narratives/stories/cases, indicators/physical data/economic data, comparisons, standards, benchmarks, etc.	Economic data (estimate of monetary value of inputs and outcomes). If a financial proxy is not available, other approaches are used for estimating values, such as contingent valuation, revealed preference, travel cost method.
Information sources (e.g.: internal, external, third-parties, independent, etc.)	Mostly internal
Outputs (i.e.: reports, indexes, rankings, maps, etc.)	Reports
Actors and governance (participatory/technical, etc).	Mixed
Succinct description of how the method works	Five relevant steps (after evaluation scoping): Stakeholders (Who contributes, who benefits/is affected); Inputs (investments, resources, ... for each stakeholders); Outputs (tangible results of actions); Outcomes (benefits and negative impacts for each stakeholders); SROI Calculation (total present value/total inputs); Assessment is made by putting a monetary value to input/outcomes through cost-price assessment ILM, HPM, TCM,.... value-price assessment CE).
Relevant examples of application	SROI can be applied for ex-ante assessment and also for ex-post evaluation.
Benefits	SROI is useful as a process of understanding and assessing the impact of a specific service and activities, both for internal and external audit (Nicholls et al., 2012; Rauscher et al., 2012); It "speaks for the intervention, and is embedded within it," being based on services/products provided to encourage their effectiveness and improvement (Geces, 32). Metrics give information useful for the public debate, to give evidence to relevant aspects and not to give the exact/comprehensive measure of the value. In the case of SROI: if I put public/private money into an initiative, I'm expecting to appreciate the monetary value of outcomes; SROI meaning lies more in the process of collecting information about actors, organizations, datas, ..., than in the final value of the indicator.
Shortcomings	On issues related to measuring culture's impact: "Francis Matarasso (1997, 2012) and Eleonora Belfiore (2006, Belfiore and Bennet, 2009) have questioned the very idea of measuring culture's impacts on society, both coming, despite their profound differences, to the conclusion that traditional quantitative approaches are not able to grasp the essential nature of those impacts"; "Montalto and Iglesias have recently (2014) stressed how culture's impacts are hardly quantified, isolated and evident in the short term." Dal Pozzolo (2015) warns: "successful impacts may be the result of very long incubation periods of continued investment and intervention ... Metrics," he suggests, "should be tailored ad hoc, to suit the appropriate size of the action to be evaluated." On technical criticality: Discretion in the choice and definition of indicators; Appreciation of the entirety of the factors that produce the impacts, leaving the decision to the interested parties who are consulted; the process of assigning monetary values to the results; furthermore, not all the value generated by the social enterprise can be monetized (Act social, 18); Despite the fact that giving a monetary value is an important means of homogenizing the evaluation and having a clear indicator, comparability between different SROI analyzes is difficult because each SROI establishes the perimeter of the evaluation, methodologies, proxies, stakeholders.

ECONOMIC DOMAIN	
	4
Official name of the method	Life Satisfaction Approach (LSA)
Synthetic description of the assessed phenomena	Life-satisfaction data can be used as an alternative means for estimating the monetary value of non-market factors that influence people's well-being. Once Eq. of the utility function has been estimated, the next step is to derive a monetary valuation of a change in the supply of cultural goods. It works as long as the life- satisfaction scores are a valid approximation for individual's utility.
Domain impact (social, economic cultural, environmental)	Economic; Cultural; Social
Planned/unplanned, desirable/non desirable	Economic evaluation based on life-satisfaction data is retrospective.
Areas of the impact (spot, local, regional, sectoral, etc.)	All
Description of the approach: purely quantitative/purely qualitative, mixed	Quantitative
Main assessment tools: e.g. narratives/stories/cases, indicators/physical data/economic data, comparisons, standards, benchmarks, etc.	Estimation of a life satisfaction function.
Information sources (e.g.: internal, external, third-parties, independent, etc.)	Third parties. Data is gathered through a survey.
Outputs (i.e.: reports, indexes, rankings, maps, etc.)	Monetary evaluation
Actors and governance (participatory/technical, etc).	Participatory
Succinct description of how the method works	The survey instrument used asked individuals both about their life satisfaction and their degree of participation and engagement with arts and cultural activities, besides of other socioeconomic and demographic characteristics of the respondents. Several questions about the consumption of cultural products and services were asked as the attendance of arts performances or exhibitions, the number of books read in the last year, the importance given to the protection of the cultural heritage, etc.
Relevant examples of application	Contemporary Art Archives and Collections of the Faculty of Fine Arts (CAAC) of the city of Cuenca, Spain.
Benefits	LSA proponents sustain that this approach has, at least, three important advantages over the CVM: (1) it is cognitively less demanding since it does not rely on the respondent's capacity of considering all the consequences of a proposed change in the provision of a public good, (2) it avoids strategic behaviour and other problems resulting from the hypothetical nature of the CVM surveys (Frey et al. 2009), and (3) it does not presume rational agents and the assumption of equilibrium in markets (Welsh 2006).
Shortcomings	The response scales used to measure life satisfaction differ in the number and wording of response options what could affect the degree of life satisfaction indicated by such words. Besides of limiting seriously the comparison. Impossibility of carrying out an ex- ante evaluation of a policy that has not yet been implemented.

Official name of the method	Environmental Impact Assessment (EIA)
Synthetic description of the assessed phenomena	It involves the identification, prediction, evaluation and mitigation of the environmental and other impacts associated with development proposals and policies, plans and programs.
Domain impact (social, economic cultural, environmental)	Environmental
Planned/unplanned, desirable/non desirable	Planned, depending on project type
Areas of the impact (spot, local, regional, sectoral, etc.)	Project; Local
Description of the approach: purely quantitative/purely qualitative, mixed	Mixed
Main assessment tools: e.g. narratives/stories/cases, indicators/physical data/economic data, comparisons, standards, benchmarks, etc.	Directive 2011/92/EU, partially amended in 2014 with DIRECTIVE 2014/52/EU_ANNEX IV (information required for the environmental impact assessment): Description of location; physical characteristics (demolition works & land-use requirements); main characteristics of the operational phase (energy demand & use; nature and quantity of materials and natural resources); type and quantity of expected residues and emissions; reasonable alternatives (along with a comparison of environmental effects); relevant aspects of the current state of the environment (baseline scenario) and an outline of the likely evolution; factors (as specified in Art 3.1) likely to be significantly affected by the project: population, human health, biodiversity, soil, erosion, water etc; the cumulation of effects with other approved projects; the impact on climate; technologies and substances used; forecasting methods or evidence used to identify and assess the significant effects on the environment including difficulties or uncertainty; the measures envisaged to avoid, prevent, reduce or, if possible, offset any identified significant adverse effects; the expected significant adverse effects; a non technical summary; a reference list detailing the sources.
Information sources (e.g.: internal, external, third-parties, independent, etc.)	General datasets; Biodiversity and climate change datasets; Water & Marine datasets Chemicals and industrial datasets Milieu Ltd; COWI A/S; Preparation of guidance documents for the implementation of EIA Directive (Directive 2011/92/EU as amended by 2014/52/EU).
Outputs (i.e.: reports, indexes, rankings, maps, etc.)	Mainly Reports: the outputs of the assessment are presented in the EIA Report which contains information regarding the project; the Baseline scenario; the likely significant effect of the project; the proposed Alternatives; the features and measures to mitigate adverse significant effects; as well as a Non-Technical Summary and any additional information specified in Annex IV of the EIA Directive. Charts
Actors and governance (participatory/technical, etc).	Project Developers and EIA practitioners; Competent Authorities/ Review Bodies; Consultees – the public and stakeholders; The Developer, or the expert(s) on his behalf, carries out the assessment.
Succinct description of how the method works	The number of steps varies: Teller & Bond (2002) distinguish between screening; scoping; alternatives; baseline conditions; EIS preparation; review and monitoring. Wood (2003) identifies 8 steps instead of 6: consideration of alternative means of achieving objectives; designing the selected proposal; determining whether an EIA is necessary in a particular case (screening); deciding on the topics to be covered in the EIA (scoping); preparing the EIA report (i.e., inter alia, describing the proposal and the environment affected by it and assessing the magnitude and significance of impacts); reviewing the EIA report to check its adequacy; making a decision on the proposal, using the EIA report and opinions expressed about it and finally, monitoring the impacts of the proposal if it is implemented.
Relevant examples of application	Application according to Appendixes I and II of the Directives, further dependent on Member States related legislation.
Benefits	EIA is mostly praised for democratizing governmental decision-making processes; promoting discursive models of decision-making and improving the breadth and depth of the information available to proponents and decision-makers (Macintosh, 2010). Although it is not a science, it uses many sciences (and engineering) in an integrated interdisciplinary manner, evaluating relationships as they occur in the world (Caldwell, 1988).
Shortcomings	Opportunities for effective public participation are restricted as well as the ability to address cumulative impacts as EIA limits an analysis in a stand-alone process which may be poorly related to the project cycle (Eccleston, 2011).

Official name of the method	Strategic Environmental Assessment (SEA)
Synthetic description of the assessed phenomena	Systematic decision-support process, tool or instrument used in order to identify, consider (take account), address (describe), integrate (include, incorporate), and/or assess (evaluate) the impacts, effects, consequences, considerations or issues regarding the environmental dimension (or related to environment) or to „triple bottom line“ and sustainability, arising from policies, plans and programs (PPPs), strategic and high-level decisions, actions, initiatives, proposals and its alternatives (options), in the earliest opportunity (during formulation and development of PPP, or in the stage of initiative/proposal), aiming to influence the decision-making as well as to reduce or mitigate negative impacts associated with it, directing to sustainability and sustainable development (Silva et al., 2014).
Domain impact (social, economic cultural, environmental)	Environmental
Planned/unplanned, desirable/non desirable	Planned
Areas of the impact (spot, local, regional, sectoral, etc.)	Regional
Description of the approach: purely quantitative/purely qualitative, mixed	Mixed
Main assessment tools: e.g. narratives/stories/cases, indicators/physical data/economic data, comparisons, standards, benchmarks, etc.	Data for each unit process within the systems boundary can be classified under major headings, including: energy inputs, raw material inputs, ancillary inputs, other physical inputs; products, co-products and waste; emissions to air, discharges to water and soil, and other environmental aspects. Data collection can be a resource-intensive process. Practical constraints on data collection should be considered in the scope and documented in the study report.
Information sources (e.g.: internal, external, third-parties, independent, etc.)	General datasets; Biodiversity and climate change datasets; Water & Marine datasets Chemicals and industrial datasets; Milieu Ltd; COWI A/S; Preparation of guidance documents for the implementation of SEA DIRECTIVE 2001/42/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL OF 27 June 2001 on the assessment of the effects of certain plans and programmes on the environment.
Outputs (i.e.: reports, indexes, rankings, maps, etc.)	Mainly Reports; Charts
Actors and governance (participatory/technical, etc).	Planning authority supported by relevant environmental authorities and other experts, temporary working groups.
Succinct description of how the method works	Determination of the application of the Directive; Screening; Scoping; Alternatives; Environmental report; Baseline reporting; Impact assessment; Monitoring and evaluation; Consultation.
Relevant examples of application	Member States report considerable differences in implementing SEA, and consequently coordinating with the EIA assessments. Member States choose quite diverse approaches to solve potential ineffectiveness (i.e. overlapping procedures/requirements between SEA and EIA), ranging from joint procedures in specific cases to informal coordination between the competent authorities.
Benefits	SEA integrates environmental consideration into decision making - and makes plans and programmes "greener"; it allows for participation and consultation of relevant public authorities which both qualify decision making and facilitates and strengthens cooperation between different (planning and environmental/health) authorities; it increases transparency in decision making due to involvement of all levels of society; it helps to comply with the requirements of specific environmental policy concerned, and to check the coherence with other environmental policies; it helps to distinguish what is relevant to environmental issues; the knowledge of the environmental stakes of a territory (and the sharing of this knowledge between the different actors of the territory).
Shortcomings	Some provisions of the SEA Directive may create powers rather than duties which are discretionary rather than mandatory; SEA experience is limited; the nature of problems reported by Member States are small compared to the profound nature of the SEA Directive.

ENVIRONMENTAL DOMAIN	
	3
Official name of the method	Life Cycle Assessment (LCA)
Synthetic description of the assessed phenomena	Life Cycle Assessment (LCA) is a methodology based "on a holistic view of the production system and on a multiple approach of its environmental impact" (Settembre Blundo et al., 2014). It quantifies the resources consumed and the emissions released into the environment at all stages of the life-cycle of a product considering all stages of a production process to be interconnected (cradle to grave). LCA can potentially assist in the selection of relevant indicators of environmental performance (ISO 14040:2006) because it considers all attributes or aspects of the natural environment, human health and resources. By doing so within one study in a cross-media perspective, potential trade-offs can be identified and assessed. Economic and social aspects and impacts are, typically, outside the scope of the LCA. Other tools may be combined with LCA for more extensive assessments. The S-LCA method is one such example of enriching the LCA process with social indicators to represent culture and cultural impacts (Pizzirani et al, 2014).
Domain impact (social, economic cultural, environmental)	LCA considers all attributes or aspects of natural environment, human health and resources. By considering all attributes and aspects within one study in a cross-media perspective, potential trade-offs can be identified and assessed.
Planned/unplanned, desirable/non desirable	Planned
Areas of the impact (spot, local, regional, sectoral, etc.)	LCA addresses the environmental aspects and impacts of a product system. Economic and social aspects and impacts are, typically, outside the scope of the LCA. Other tools may be combined with LCA for more extensive assessments.
Description of the approach: purely quantitative/purely qualitative, mixed	Descriptive; Analytic; Mostly Quantitative. It is an iterative technique. The individual phases of an LCA use results of the other phases.
Main assessment tools: e.g. narratives/stories/cases, indicators/physical data/economic data, comparisons, standards, benchmarks, etc.	There is no scientific basis for reducing LCA results to a single overall score or number, since weighting requires value choices. Data for each unit process within the systems boundary can be classified under major headings, including: energy inputs, raw material inputs, ancillary inputs, other physical inputs; products, co-products and waste; emissions to air, discharges to water and soil, and other environmental aspects. Data collection can be a resource-intensive process. Practical constraints on data collection should be considered in the scope and documented in the study report.
Information sources (e.g.: internal, external, third-parties, independent, etc.)	Relevant indicators of environmental performance, including measurement techniques, and marketing (e.g. implementing an ecolabelling scheme, making an environmental claim, or producing an environmental product declaration).
Outputs (i.e.: reports, indexes, rankings, maps, etc.)	There are cases where the goal of an LCA can be satisfied by performing only an inventory analysis and an interpretation. This is usually referred to as an LCI study.
Actors and governance (participatory/technical, etc).	Industry decision-makers; Governments; NGOs
Succinct description of how the method works	There are four phases in an LCA study: the goal and scope definition phase; the inventory analysis phase; the impact assessment phase, and the interpretation phase. The scope, including the system boundary and level of detail, of an LCA depends on the subject and the intended use of the study. The depth and the breadth of LCA can differ considerably depending on the goal of a particular LCA. The life cycle inventory analysis phase (LCI phase) is the second phase of LCA. It is an inventory of input/output data with regard to the system being studied. It involves collection of the data necessary to meet the goals of the defined study. The life cycle impact assessment phase (LCIA) is the third phase of the LCA. The purpose of LCIA is to provide additional information to help assess a product system's LCI results so as to better understand their environmental significance. Life cycle interpretation is the final phase of the LCA procedure, in which the results of an LCI or an LCIA, or both, are summarized and discussed as a basis for conclusions, recommendations and decision-making in accordance with the goal and scope definition.
Relevant examples of application	Products; Systems
Benefits	LCA results may be useful inputs to a variety of decision-making processes: product development and improvement; strategic planning; public policy making; marketing; other.
Shortcomings	The recognition of culture in LCA is quite limited (Pizzirani et al, 2014). Economic and social aspects and impacts are, typically, outside the scope of the LCA.

Official name of the method	Socio-Economic Impact Assessment (SEIA)
Synthetic description of the assessed phenomena	SEIA is a useful tool to help understand the potential range of impacts of a proposed change, and the likely responses of those impacted if the change occurs. It can be used to assess impacts of a wide range of types of change, from a proposal to build a new freeway to a proposal to change access to a natural resource. It can help design impact mitigation strategies to minimise negative and maximise positive impacts of any change.
Domain impact (social, economic cultural, environmental)	Social; Economic; Environmental
Planned/unplanned, desirable/non desirable	All
Areas of the impact (spot, local, regional, sectoral, etc.)	All
Description of the approach: purely quantitative/purely qualitative, mixed	Quantitative & Qualitative
Main assessment tools: e.g. narratives/stories/cases, indicators/physical data/economic data, comparisons, standards, benchmarks, etc.	Appropriate indicators to assess the impacts; Appropriate methods for data collection
Information sources (e.g.: internal, external, third-parties, independent, etc.)	Internal; External
Outputs (i.e.: reports, indexes, rankings, maps, etc.)	Evaluated data; All types of use of the SEIA results, ranging from a better internal understanding of the socioeconomic impacts to publications, communicating to policy, and follow-up projects.
Actors and governance (participatory/technical, etc).	Within SEIAs, there are many opportunities for stakeholder engagement. Though it can be executed as purely technical assessment in which community involvement does not occur, the inclusion of stakeholders' views holds great benefits throughout the whole SEIA.
Succinct description of how the method works	While the specific methods used in each SEIA may vary, they generally involve some or all of the following steps: scoping the nature and boundaries of the impact assessment; profiling current impacts of the activity being examined, including the historical context or current status; formulating alternatives, in which alternative 'impact' scenarios are developed; projecting and estimating effects of different impact scenarios; monitoring actual impacts; mitigation and management of impacts; evaluation of the impact assessment process.
Relevant examples of application	EU LIFE Euro Large Carnivores project (WWF Germany); Marine Protected Areas in Australia.
Benefits	A socio-economic impact assessment weighs the socio-economic cost against the socio-economic benefit. An integrated approach can provide a comprehensive and cost effective outcome, providing information on potential economic impacts as well as important social values attached to the activity which inform likely attitudes and responses to the proposed change.
Shortcomings	Potential difficulty in data collection which can comprehensively cover the relevant issues.

ENVIRONMENTAL-SOCIAL DOMAINS	
Official name of the method	Environmental and Social Impact Assessment (ESIA)
Synthetic description of the assessed phenomena	Environmental and social Impact Assessment is an integration of EIA and SIA (Social Impact Assessment) where social and environmental impacts of projects or initiatives are equally valued. The purpose of the ESIA is to establish a robust understanding of the existing environment and social setting; identify the potential impacts on the environment and local communities (+ and -) and ensure that the design, implementation, operation and subsequent decommissioning of the development is carried out in such a way as to minimize adverse impacts on, and maximize potential benefits to, the environment and affected communities (WBCSD,2015).
Domain impact (social, economic cultural, environmental)	Environmental; Social
Planned/unplanned, desirable/non desirable	Planned
Areas of the impact (spot, local, regional, sectoral, etc.)	Project; Local; Regional
Description of the approach: purely quantitative/purely qualitative, mixed	Mixed
Main assessment tools: e.g. narratives/stories/cases, indicators/physical data/economic data, comparisons, standards, benchmarks, etc.	Environmental data & reports, (water, pollution etc.); Maps; Checklists; Flow charts; Networks; Statistical models (f.i.air pollution, water quality...); Local history reports.
Information sources (e.g.: internal, external, third-parties, independent, etc.)	ESIA refers explicitly to an ESIA coordinator who will ensure cross component consultation, regular assessment of the relative importance and impact of components, and possible conflicts of interest and distributional effect. ESIA's need to reflect IFC's environmental and social performance standards (IFC,2012), including 8 points: Assessment and management of environmental and social risks and impacts; Labor and working conditions; Resource efficiency and pollution prevention; Community health, safety and security; Land acquisition and involuntary resettlement; Biodiversity conservation and sustainable management of living natural resources; Indigenous peoples; Cultural heritage.
Outputs (i.e.: reports, indexes, rankings, maps, etc.)	Reports; Charts. ESIA report must be an integrated document in which relationships between components are clearly explained.
Actors and governance (participatory/technical, etc).	Competent authorities; Expert organisations; Communities; Local societies; Interest groups
Succinct description of how the method works	It includes 7 key process elements: Project screening & scoping of assessment; Examination of alternatives; Stakeholder identification & gathering of baseline data; Impact identification & analysis; Generation of measures & actions; Significance of impacts & evaluation of residual impacts and Documentation of the assessment process (Therivel and Wood, 2017).
Relevant examples of application	ESIA is especially used in projects associated global financial institutions (WB,IFC) also working with developing countries.
Benefits	ESIA appears as a promising tool as based on an integrated assessment of the multifaceted impact of projects, programs and policy initiatives. It responds to the need of capturing the complex and strong interrelationship linking land and society. It also gives opportunities to measure and manage local conflicts. It is a practical method widely applied in projects associated with financial institutions. Early involvements of all stakeholders also leads to higher levels of ownership and engagement in the process and reduces. potential risks for later objections during planning applications.
Shortcomings	Academic resources are still limited, the the term also seems not widely used in the EU, instead impact on society is stepwise integrated into EIA.

CROSS DOMAIN	
	1
Official name of the method	IMPACTS 08'
Synthetic description of the assessed phenomena	Impacts 08 wants to measure the impact of culture-led regeneration program in order to: Ensure a positive reposition of the city on a national and international level; Recognize the role of the arts and culture in making cities better places to live, work and visit; Create a legacy of long-term growth and sustainability for the city cultural sector; Encourage more visitors; Encourage and increase participation in cultural activities. These objectives coincide with the European Commission recommendations on the ECoC outputs.
Domain impact (social, economic cultural, environmental)	Cross-domain, focus on five areas: Cultural access and participation; Economy and tourism; Cultural vibrancy and sustainability; Image and perception; Governance and delivery process.
Planned/unplanned, desirable/non desirable	Both planned and unplanned impacts are reported. Moreover, being the residents' opinion a milestone in the analysis, desirable and non-desirable effects are also taken into account.
Areas of the impact (spot, local, regional, sectoral, etc.)	Local; National; International. Impacts 08 was first used for evaluating Liverpool's ECoC in 2008 but it is recommended for the evaluation in cultural events in general.
Description of the approach: purely quantitative/purely qualitative, mixed	Qualitative; Quantitative
Main assessment tools: e.g. narratives/stories/cases, indicators/physical data/economic data, comparisons, standards, benchmarks, etc.	Economic data; Number of visits; Audience and event size; Overnight stays in the city, region and beyond; Interviews; Surveys; Stories and narratives (both online and on local, national and international newspapers); Comparisons over the years; Indicators; Media impact analysis; Secondary data collected by partners and stakeholders.
Information sources (e.g.: internal, external, third-parties, independent, etc.)	Internal (Impact 08 researchers, project's partners and stakeholders) and External (mainly newspapers, enterprises database).
Outputs (i.e.: reports, indexes, rankings, maps, etc.)	Reports; Indexes.
Actors and governance (participatory/technical, etc.)	Impacts 08 is based on a participatory yet technical approach. In fact, it requires a dynamic and diverse board to evaluate the project status and ensure its implementation.
Succinct description of how the method works	<p>Evaluation period: Impacts 08 is a longitudinal impact analysis that covers from the (pre-)bid period to the ECoC year itself and beyond. Evaluation period may vary according to the project's goals.</p> <p>Institution of the board: the administrative and evaluation board should be established since an early stage of the project. Partnerships among research organizations, public and private sector are encouraged, although roles and responsibilities should be clearly defined.</p> <p>Type of evaluation: decisions concerning the type of evaluation to be undertaken should be made at an early stage of the project. This helps meeting the expected outcomes through a careful research plan and data collection.</p> <p>Data collection: quantitative and qualitative data should be collected throughout the project. It is important to ensure an in-dept context analysis in order to highlight the city's features and contextualize them in a broader analysis.</p> <p>Report: Impacts 08 provides a holistic method for analyzing data and indicators of the ECoC year to be transmitted to the European Commission by 31 December of the year following the year of the title.</p>
Relevant examples of application	Liverpool's ECoC; ECoCs.
Benefits	Impacts 08 is a holistic; longitudinal and long-term impact research approach that carries out an in-depth analysis of the city's context to provide adequate regeneration measures. It goes beyond usual quantitative indicators and makes the lived experiences of residents in the event host city a crucial point of its research. The evaluation procedure starts at an early stage of the project and goes beyond the ECoC's year itself. Partnerships on a local, national and international levels are encouraged in order to build networks that will exist even after the ECoC itself.
Shortcomings	Impacts 08 analysis cannot foresee how the situation will develop in the next years and, thus, if those ECoC's benefits were only temporary; More attention should be given to sustainable development; Visitors and tourism play a crucial role in the evaluation process: nevertheless, it is important not focus entirely on these features and present a holistic approach; Risk to set unattainable goals.

CROSS DOMAIN	
	2
Official name of the method	Heritage Impact Assessment (HIA)
Synthetic description of the assessed phenomena	Its main aim is to assess the impact of development projects or policies and prevent those that adversely impact on the attributes of OUV.
Domain impact (social, economic cultural, environmental)	
Planned/unplanned, desirable/non desirable	
Areas of the impact (spot, local, regional, sectoral, etc.)	Local; Regional
Description of the approach: purely quantitative/purely qualitative, mixed	Qualitative
Main assessment tools: e.g. narratives/stories/cases, indicators/physical data/economic data, comparisons, standards, benchmarks, etc.	State of the art techniques are possible in many countries, but in many others, the levels of skills, knowledge and resources are quite basic. This guidance attempts to be applicable to all situations. The skills required to do a HIA, using modern IT based and highly technical tools are only held by a limited number of people. These can be very helpful, particularly in complex situations, but HIA should not depend on them.
Information sources (e.g.: internal, external, third-parties, independent, etc.)	There are no agreed minimum standards for inventories, data review or condition surveys.
Outputs (i.e.: reports, indexes, rankings, maps, etc.)	Five sub-assessments: The protected urban areas (attributes & values/ also known as cultural significance assessment); The change agents (contexts/ factors affecting protected areas, threats or causes for the degradation of CH); The management practices (actions and tools); The impact assessment of the change agents on the protected urban areas; The effectiveness assessment of management practices applied to protected urban areas. The last two need the input from the three previous assessments.
Actors and governance (participatory/technical, etc).	Managers; Developers; Consultants; Decision-makers; WH Committee; States Parties.
Succinct description of how the method works	Stages of HIA: Initial development and design; Early consultation; Identify and recruit suitable organisations to undertake works; Establish study area; Establish scope of work; Collect data; Collate data; Characterise the heritage resource, especially in identifying attributes that convey OUV; Model and assess impacts, direct and indirect; Draft mitigation – avoid, reduce, rehabilitate or compensate; Draft report; Consultation; Moderate the assessment results and mitigation; Final reporting and illustration – to inform decisions; Mitigation Dissemination of results and knowledge gained. The “developer” is responsible for producing the scoping report. Its contents should include: An outline description of the proposed change or development, providing as much detail as is available at the time of writing; A summary of the conditions present on the site and its environs, based on information collated to that point in time; The Statement of Outstanding Universal Value Details of how alternatives to changes are being considered; Outline methodology and terms of reference for the HIA as a whole; The organisations/people consulted and to be consulted further. HIA offers a topic by topic assessment of the key impacts of the development. This should include: Details (as known) of the baseline conditions; Consideration of the potential effects of the development where overall impacts or effects are not considered to be significant, a justification of why they should be “scoped out” of the HIA; Where overall impacts are considered to be potentially significant, details of the baseline information to be collected (including methods and appropriate study areas), likely sensitive heritage receptors in particular those related to attributes of OUV and proposed survey and assessment methodology; A negotiated calendar covering the whole process, including deadlines for reporting and consultation.
Relevant examples of application	
Benefits	It increases objectivity related to individual assessments; It makes long term improvements; It better protects of OUV attributes; It supports a clearer understanding on the level of integrity of OUV attributes; It acknowledges and considers both substantive and procedural effectiveness; It offers greater legibility of the overall system and potential conflicts; It offers opportunities for increased dialogue and periodic revision of global targets.
Shortcomings	Inefficiency of HIA or similar practices of being “not clearly and directly tied to the attributes of OUV”; Lack of objectivity and completeness in HIAs; Involved stakeholders focus more on management compliance and less on management outcomes; Lack of enforcement routes; Lack of time; Lack of capacity; Lack of means to capitalize experience and knowledge gained from effectiveness assessment; Lack of political buy in from key stakeholders; Increased budgetary requirements; Lack of consensus on critical elements of effectiveness; Lack of funding; Adoption of reactive rather than preventive approach to conservation.