D2.5 Report on heritage-led innovation and diplomacy

Task 2.4 Evaluate and test existing heritage-led innovation and diplomacy

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Main author/Contact person: Aziliz Vandesande aziliz.vandesande@kuleuven.be

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Introduction

This report on heritage-led innovation and diplomacy (D2.5) is the outcome of Task 2.4 in ILUCIDARE: Evaluate and test existing heritage-led innovation and diplomacy mechanisms. Herewith, it is important to mention that D2.5, and thus this report is a fixed deliverable.

Throughout the ILUCIDARE project, these finding will be further developed into more end-user oriented results (Milestone November 2019) and finally an operational version (May 2021). This will be achieved by conducting a pan-EU survey on heritage-led innovation and diplomacy mechanisms, conducting a set of focus groups and co-creation ateliers, as well as the constant feedback on the results during the different face-to-face initiatives and capacity building actions. These updated versions of the report will feed into the ILUCIDARE Innovation Handbook (D5.1), ILUCIDARE Diplomacy Toolbox (D5.2) and Starters-kit for ILUCIDARE Innovation Handbook and Diplomacy Toolbox (D5.4), which will be finalized in November 2021.

This document is sub-divided in two main sections: (1) heritage-led innovation and (2) heritage-led diplomacy, consolidating the theoretical and top-down research which has been conducted during the "mapping phase" of ILUCIDARE.

Both sections follow a similar structure: They start with a theoretical analysis of existing research and literature on the topics innovation and diplomacy before linking them to the field of cultural heritage. Following, a working definition of heritage-led innovation and heritage-led diplomacy is presented. These working definition are pivotal throughout ILUCIDARE and serve as common ground for the different face-to-face initiatives and capacity building actions. In addition, the results of a first expert mapping by the research teams of heritage-led innovation and heritage-led diplomacy cases in EU are presented. Next, analysis models for understanding the mechanisms behind heritage-led innovation and heritage-led diplomacy are defined based on an elaborate retrospective analysis of existing models and approaches in different relevant research fields. Finally, a first application of these analysis models is presented, which leads to an initial understanding of the mechanisms and indicators behind heritage-led innovation and heritage-led diplomacy.

Table of contents

Cultural heritage – ILUCIDARE understanding and working definition 6

1. The scope of cultural heritage, and its development and broadening 6

2. Democratisation of heritage 7

3. "Trivialisation" of heritage 7

4. Dissonance 7

5. The scope of cultural heritage in international documents 7

References 8

Heritage-led innovation 10

I. Innovation 10

1. Working definition 10

2. Types of innovation 11

3. Temporal and geographical considerations 12

II. Heritage-led innovation 15

1. ILUCIDARE working definition of heritage-led innovation 15

1.1 Heritage-driven innovation 16

1.2 Assimilation of innovation 16

1.3 Heritage as resource 17

2. Analysis of heritage-led innovations in Europe 18

2.1 First analysis and evaluation of heritage-led innovations in Europe 18

2.2 Mapping tool explained 18

2.3 Data analysis of heritage-led innovations in Europe 20

2.4 Observations on heritage-led innovations in Europe 23

III. Towards a model to analyse heritage-led innovations 23

1. Heritage specificities: intangible values, interdisciplinarity and governance 24

3. Back to basics 26

4. Variation, selection, retention 28

4.1 Variation 29

4.2 Selection 30

4.3 Retention 31

5. Innovation explained 32
5. Quasi-evolutionary model for socio-technical change 33
5.1 Analytical levels 33
5.2 Multi-Level Perspective 36
5.3 The Multi-Level Perspective for heritage-led innovations: case study of the Flemish Region built heritage sector 37
IV. Towards categories to analyse heritage-led innovation mechanisms 43
1. Categories of innovation mechanisms 44
2. Heritage-led innovation mechanisms 46
V. Measuring heritage-led innovation: evaluation criteria and indicators 48
References 51

Heritage-led diplomacy 57
1. Key terms for introducing heritage-led diplomacy 57
1.1 Diplomacy 57
1.2 Public diplomacy 59
1.3 Science diplomacy 64
1.4 Cultural diplomacy 66
1.5 Additional comments 68
2. Heritage-led diplomacy 68
2.1 Heritage in diplomacy vs. heritage-driven diplomacy 69
2.1.1 Heritage in diplomacy 69
2.1.2 Heritage-driven diplomacy 71
2.2 Nature of heritage diplomacy 72
2.2.1 Heritage on location 72
2.2.2 Heritage "own origin" 73
2.2.3 Shared past 74
3. Data analysis of first mapping on heritage-led diplomacy in Europe 77
3.1 Approach and methodology 77
3.2 Initial data analysis 79
3.2.1 Position and nature of heritage 79
3.2.2 Stakeholders 79

3.2.3 Geographical coverage 80
3.2.4 Types of Activities 81
4. Towards a model to analyse heritage-led diplomacy mechanisms 81
4.1 Categories of diplomacy mechanisms 81
4.2 Heritage-led diplomacy mechanisms 82
5.Measuring heritage-led diplomacy 86
References 87

Cultural heritage – ILUCIDARE understanding and working definition

For the purpose of the ILUCIDARE project and in order to better reach its goals, cultural heritage is treated as an amalgamation of diverse tangible, intangible, and digital resources from the past that can be meaningfully and purposefully used in the present. This approach is also compatible with the definitions adopted by international bodies, such as UNESCO or the EU, as well as most academic approaches to the phenomenon in question.

While being aware of the discourse on the relations, and in many cases indivisibility of cultural and natural heritage, as well as a long and intimate relationship between peoples and their natural environment, ILUCIDARE research does not deal with natural heritage as defined by UNESCO (1972) (natural features, geological and physiographical formations and delineated areas that constitute the habitat of threatened species of animals and plants and natural sites of value from the point of view of science, conservation or natural beauty). However, it does include the concept of cultural landscape as a combined work of nature and man (UNESCO 1992), be it "a landscape designed and created intentionally by man", "organically evolved landscape" or "associative cultural landscape."

ILUCIDARE approach to cultural heritage

Cultural heritage consists of the man-made resources accrued from the past in all forms and aspects – tangible, intangible, and digital (both born digital and digitised), which embody or represent cultural heritage values.

It includes, but is not limited to, physical and immaterial relics of the past such as monuments, sites, works of art, knowledge and expressions of human creativity, collections conserved and managed by public and private bodies, as well as skills, cultural practices , cultural landscapes, folk memory, mythology, and literary tropes.

It originates from the interaction between people themselves and places through time. As such it represents consensus on recognised values important to a given society (or group). The term is constantly evolving.

1. The scope of cultural heritage, and its development and broadening

Cultural heritage is a term used in both academic and political discourse, as well as in everyday life. However, it tends to be understood differently depending on a context; also due to the fact that it contains diverse and heterogenous elements and is often interlocked with such abstract ideas as "memory," "tradition", and "culture."

The broadest approach would suggest that "heritage denotes everything we suppose has been handed down to us from the past" (Lowenthal 2005). However, despite some common assumptions, it is not a static term as opposed to monument, which is commonly associated with the term heritage that is legally protected. The approach rather acknowledge the process of transforming our inheritance, be it tangible or intangible, physical or digital, into "experiences in and for the present". It is, as Ashworth further claims, "an outcome, a condition deliberately created in response to current political, social, or economic needs" (Ashworth 2011). Therefore, as Howard (2003) remarked, "not everything is heritage, but anything could

become heritage" depending on one's present choices and needs. Cultural heritage objects or practices, therefore, refer to those objects or practices for which at a certain moment and within a given context, cultural heritage values have been assigned and are recognized by (a group or) society.

"Our current understanding of cultural heritage has gone well beyond its static 19th-century definition as a monument and freed itself from the tight corset of national myths, prejudices, and stereotypes" (Purchla 2013) and it still evolving. Some of the most evident recent trends that impact the understanding of cultural heritage are briefly addressed below.

2. Democratisation of heritage

Over the last few decades the term "cultural heritage" has become increasingly democratised, giving voice and authority to decide what heritage is also to its direct users. Traditional models, such as the Authorised Heritage Discourse, would consider heritage the domain of experts, who take decisions at the highest level and within the framework of the given legal system. At present, however, one sees a democratization of heritage, where the voice of the public has become increasingly audible in the decision-making process. Heritage that is subject to legal protection is by no means the only heritage available as cultural heritage identified by local communities or minorities , for example, can be of equal importance (Kowalski 2013).

3. "Trivialisation" of heritage

The evolution of the meaning of heritage has also led to embracing elements of our past that have been previously excluded from its definition. Characteristics such as individuality, originality, and uniqueness, strongly associated with heritage, have lost their importance. Instead, ordinary and everyday items – even those mass-produced – have started to be perceived as heritage. Another crucial trend in the discussion of cultural heritage is the broadening of its scope: not only to embrace its intangible aspects but also extend the very meaning of intangible heritage beyond the cultural traditions and folklore to lifestyles, ways of organising social and economic life, etc. This can be well illustrated by the "Beer Culture" in Belgium, and "Ideas and Practices of Organizing Shared Interests in Collectives" in Germany, both inscribed into the UNESCO World Intangible Cultural Heritage List in 2016.

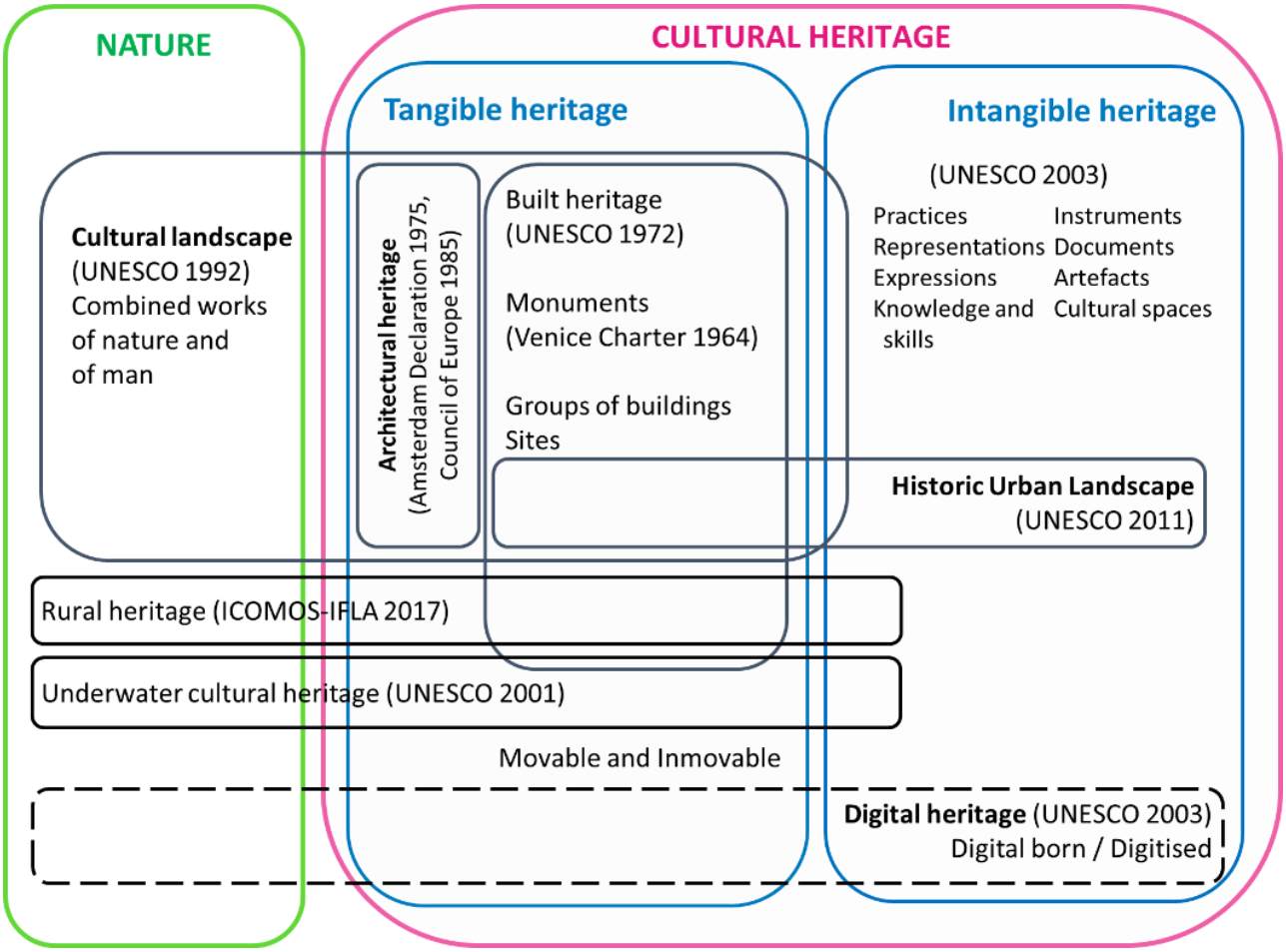
4. Dissonance

It is vital to emphasize that cultural heritage is "not necessarily what is positively valued as beautiful, rare, old or embodying noble values" (Macdonald 2018). What contemporary societies need to acknowledge is also humankind's negative and painful inheritance, such as concentration camps or sites of deportation. This leads to defining a new category of heritage, the so-called "dissonant heritage". It denotes elements of inheritance that find no owners and/or incur rejection, disagreement, or exclusion from the main heritage narrative. Tunbridge and Ashworth (1996) further sub-categorised this type of heritage into "non-conforming heritage" (not in harmony with a given vision or meaning of heritage element), "disinherited heritage" (with no heirs to claim, protect, and use it), "heritage of atrocity" (referring to events, people, places that remain "dark spots" in human history and would rather be forgotten), as well as "distorted heritage" (exclusionary, largely deforming the past for current purposes).

5. The scope of cultural heritage in international documents

Reflection on heritage is the domain of international institutions and organisations specialising in the matters of culture, education, and monument conservation and archaeology. Starting with the Venice Charter of 1964, which broadened the definition of what can be considered a monument, through a number of UNESCO conventions and charters that dealt with protection of yet another type or aspect of heritage, to the *Conclusions on cultural heritage as a strategic resource for a sustainable Europe* by Education, Youth, Culture and Sport Council (20 May 2014), heritage has been changing its scope and meaning. Digital transformation has also added an additional layer to the definition of heritage dividing its nature into physical and digitised or born-digital.

The following figure illustrates the broad scope of cultural heritage supported by a selection of globally recognised international documents defining different aspects of cultural heritage.



Schematic representation 1. Categorization of cultural heritage and the key international documents

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Heritage-led innovation

I. Innovation

Innovation is a complex and multifaceted concept, that has been a topic of interest for researchers, policymakers as well as firms, organisations and institutions. Each stakeholder has their own motivation to assess innovation in their respective sectors and forecast developments in technology, but over time also in markets or even in society. While innovation has a long research tradition in many different sectors, there is currently no generally accepted definition.

Based on existing interpretations of the topic, it is however possible to draft a working definition based on reoccurring criteria and requirements. In addition, this section will touch upon the different types of innovation, going beyond new products and product performance to include also models, networks and experiences. Finally, the link is made with two reoccurring pints of discussion during the evidence based research process: temporal and geographical considerations of an innovation.

1. Working definition

Within the context of organisational and management research, innovation can be defined as the implementation of a new idea or method that results in an improvement. Based on the innovation definitions listed in *table 1*, the key components for innovation can be defined as:

Image 1: key components for innovation considered within ILUCIDARE

Howard and Sheth (1969)	Any new element brought to the buyer, whether or not new to the organization
Utterback (1971)	An invention which has reached market introduction in the case of a new product, or first used in a production process, in the case of a process innovation
Trist (1978)	formation and growth of technologies and services as 'configurations that work', fulfilling a function within society
Damanpour and Evan (1984)	Broad utility concept defined in various ways to reflect a specific requirement and characteristic of a particular study
Simmonds (1986)	New ideas that consist of: new products and services, new use of existing products, new markets for existing products or new marketing methods

Freeman and Perez (1988)	'match' between the new technology and the system of social management of the economy – 'or regime of regulation'
Twiss (1989)	a process that combines science, technology, economics and management, as it is to achieve novelty and extends from the emergence of the idea to its commercialization in the form of production, exchange, consumption
Mokyr (1990)	The environment into which the seeds are sown is, of course, the main determinant of whether they will sprout
Damanpour (1991)	Development and adoption of new ideas by a firm
Evans (1991)	The ability to discover new relationships, of seeing things from new perspectives and to form new combinations from existing concepts
Akrich (1992)	The market as a socially constituted selective environment which favors the survival specific innovations
Henderson and Lentz (1995)	Implementation of innovative ideas
Nohria and Gulati (1996)	Any policy, structure, method, process, product or market opportunity that the manager of a working business unit should perceive as new
Afuah (1998)	New knowledge incorporated in products, processes, and services. Innovation is classified according to technological, market, and administrative/organizational characteristics
Van de Ven et al. (1999)	The process of developing and implementing a new idea
Loasby (1999)	knowledge growth mechanisms and innovations are tested within markets and accepted, rejected or redeveloped
Boer and During (2001)	Creating a new association (combination) product market-technology-organization
Knox (2002)	A process that provides added value and a degree of novelty to the organization, suppliers and customers, developing new procedures, solutions, products and services and new ways of marketing
Johansson (2004)	a term used throughout various industries to describe innovations that happens when disciplines and ideas intersect
Kelly (2005)	innovation is the implementation of a new idea that results in an improvement
Grin (2008)	Human actors produce new variations by using the routines, knowledge and skills gained over time and applying what works best for them in certain environments
Tidd and Bessant (2009)	a process of turning opportunity into new ideas and of putting these into widely used practice
Schilling (2013)	The practical implementation of an idea into a new device or process
Oslo Manual (OECD and Eurostat 2018)	Both an activity and the outcome of the activity: An innovation is a new or improved product or process (or combination thereof) that differs significantly from the unit's previous products or processes and that has been made available to potential users (product) or brought into use by the unit (process).

Table 1: selection of studies from different research fields which aim to define innovation

2. Types of innovation

Research, policy and practice tends to focus on new products and product performance, which has led to a large focus on R&D investment as the sole ingredient for innovation. However, there are different types of innovations which are either directly related to products or can be stand alone in different sectors. The following list of types of innovation is based on Keeley et al. (2013) and will be elaborated on in the second version of this innovation handbook based on the mapping results of the Pan-European survey on heritage-led innovation.

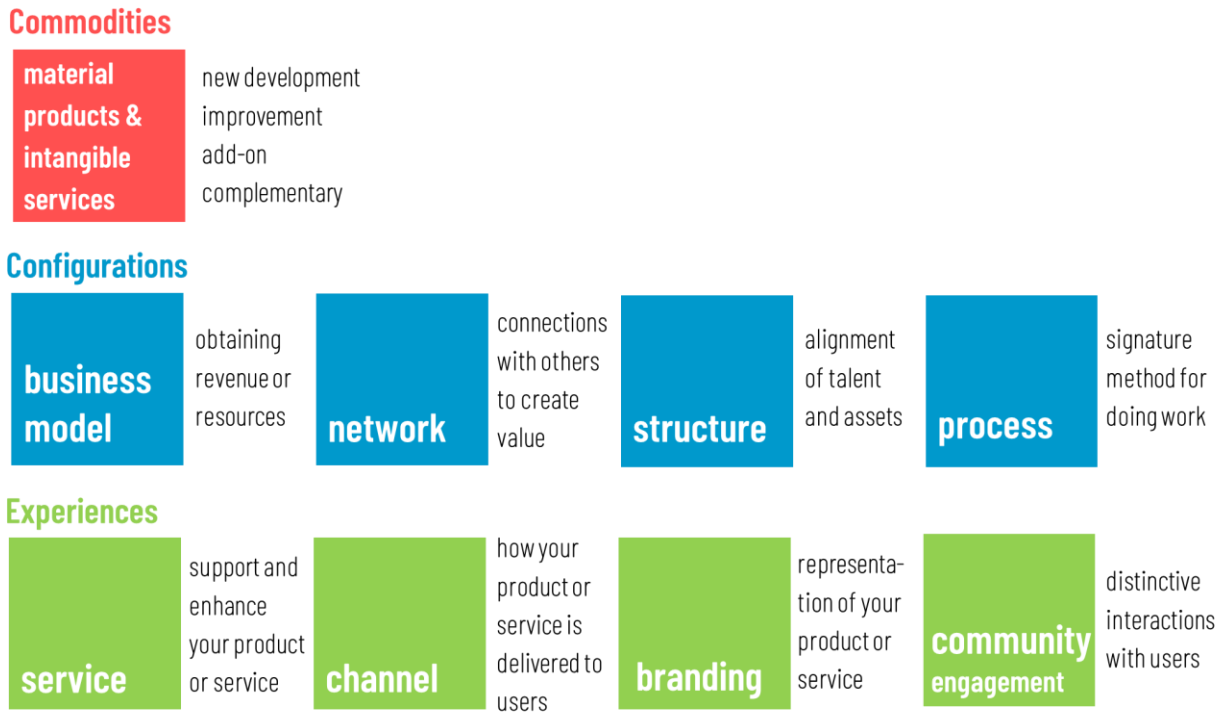


Image 2: types of innovation addressed in ILUCIDARE, based on Keeley et al. (2013) and will be elaborated on in the second version of this innovation handbook

3. Temporal and geographical considerations

Diffusion of innovations is a theory that analyses the rate at which new ideas and innovations spread. The foundations of research on diffusion of innovations come from Everett Rogers, a professor of rural sociology. In 1962 he published a synthesized research from over 508 diffusion studies across the fields that initially influenced the theory: anthropology, early sociology, rural sociology, education, industrial sociology and medical sociology (Rogers 1962). Rogers' seminal work in this field has been further developed over the past 50 years (e.g. Eveland 1986, Godin 2006, Peres 2010, Wejnert 2002, Wisdom et al. 2014). In addition, Rogers' methodological models have expanded into and been influenced by other methodological disciplines such as social network analysis and communication (Valente 1996, Easley and Kleinberg 2010).

Rogers graphically summarized the innovation-diffusion process as the logistic growth in market share as a product is developed and then diffused. Underlying this notion is a normal distribution of innovators, early and late adopters, and then the final adopters (so called "laggards"). In the context of transformative research, this process can be seen as the method through which an idea is created by one person or a small number of individuals, followed by a small number of early adopters who actively refine and develop it, after which the idea diffuses to other researchers. Finally, the idea gains credence and is applied by the majority of researchers in the field. The remaining "laggards" adopt the transformative research paradigm late in the game, for want of information, lack of capacity to implement, or due to initial intellectual resistance. In the arena of academic research, an important part of this process would be the communication of both the existence of a new research paradigm and knowledge about how to

successfully apply it oneself. No matter how appealing an idea or technology might be, if it cannot be applied by potential adopters due to complexity or capital costs, it is unlikely to be transformative. In the case of "pure" research, the equivalent of market share for a transformative idea might be the number of peer-reviewed publications, citations, and doctoral students, among others.

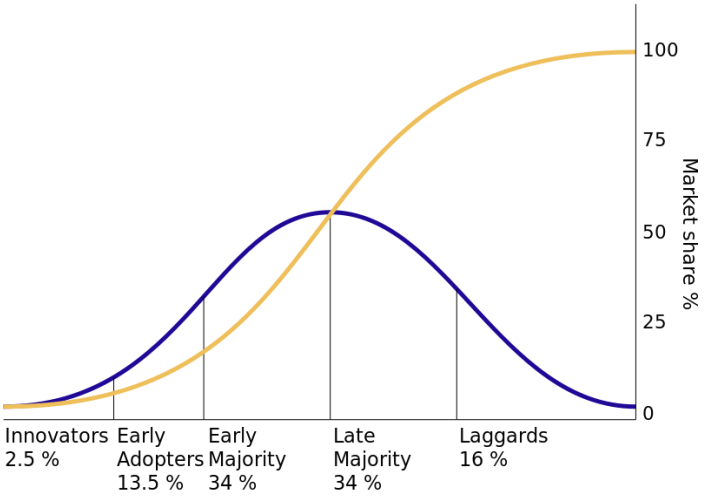


Image 3: The diffusion of innovations according to Rogers (1962). With successive groups of consumers adopting an innovation (blue), which will eventually reach saturation in the market share (yellow).

The research of Rogers indicated that not everyone will immediately adopt a disruptive idea or innovation, despite if it has benefits or not. He identified the following categories of adopters and their characteristics:

- Innovators (2.5%) – Innovators are the first individuals to adopt an innovation. Innovators are willing to take risks, youngest in age, have the highest social class, have great financial lucidity, very social and have closest contact to scientific sources and interaction with other innovators. Risk tolerance has them adopting technologies which may ultimately fail. Financial resources help absorb these failures;
- Early Adopters (13.5%) – This is the second fastest category of individuals who adopt an innovation. These individuals have the highest degree of opinion leadership among the other adopter categories. Early adopters are typically younger in age, have a higher social status, have more financial lucidity, advanced education, and are more socially forward than late adopters. More discrete in adoption choices than innovators. Realize judicious choice of adoption will help them maintain central communication position;
- Early Majority (34%) – Individuals in this category adopt an innovation after a varying degree of time. This time of adoption is significantly longer than the innovators and early adopters. Early Majority tend to be slower in the adoption process, have above average social status, contact with early adopters, and seldom hold positions of opinion leadership in a system;
- Late Majority (34%) – Individuals in this category will adopt an innovation after the average member of the society. These individuals approach an innovation with a high degree of skepticism and after the majority of society has adopted the innovation. Late Majority are typically skeptical

about an innovation, have below average social status, very little financial lucidity, in contact with others in late majority and early majority, very little opinion leadership;

- Laggards (16%) – Individuals in this category are the last to adopt an innovation. Unlike some of the previous categories, individuals in this category show little to no opinion leadership. These individuals typically have an aversion to change-agents and tend to be advanced in age. Laggards typically tend to be focused on "traditions", likely to have lowest social status, lowest financial fluidity, be oldest of all other adopters, in contact with only family and close friends, very little to no opinion leadership (Rogers 1962: 282-284).

Rogers defines diffusion as the process though which an innovation is communicated over time among participants in a social system. The main elements which influence this process remain until today key elements in diffusion research:

- Adopters are the minimal unit of analysis. In most studies, adopters are individuals, but can also be organisations, clusters within social networks or countries (Meyer 2014);
- Communication channels allow the transfer of information from one unit to the other. Communication patterns or capabilities must be established between parties as a minimum for diffusion to occur (Ghoshal and Bartlett 1988);
- The passage of time is necessary for innovations to be adopted, they are rarely adopted instantaneously (Eveland 1986);
- The social system is the combination of external influences (mass media, governmental mandates, pressure groups) and internal influences. There are many roles in a social system, and their combination represents the total influences on a potential adopter (Gilardi 2010).

Herewith, it is important to stress that time is considered one of the four essential elements of diffusion, even though it is not often explicitly taken into account in behavioral research. The time dimension is involved in diffusion in: (1) the innovation decision process by which an individual passes from first knowledge of an innovation through its adoption or rejection, (2) the innovativeness of an individual or other unit of adoption—that is, the relative earliness/lateness with which an innovation is adopted—compared with other members of a system, and (3) an innovation's rate of adoption in a system, usually measured as the number of members of the system that adopt the innovation in a given time period (Rogers 1962: 20).

Although time as a variable in diffusion research is one of its strengths, the measurement of time as a dimension has been criticized. Rogers states that "Time is one of the main methodological enemies in studying a process like diffusion. By definition, an innovation diffuses through time. It might seem a simple enough matter to obtain data from respondents about the time at which they decided to adopt an innovation, but it is not" (1962: 113). Appropriate methodologies to assess the time dimension of an innovation include repeated field experiments, longitudinal panel studies, use of archival records and (4) case studies of the innovation process with data from multiple respondents. While these methodologies can provide "moving pictures, rather than still photos" of the innovation process, they are very time consuming to apply (Rogers 1962: 114). In addition, it should be taken into account that rejection, discontinuance, and re-invention frequently occur during the diffusion of an innovation, which makes it difficult to assess individual's perceptions of an innovation.

II. Heritage-led innovation

Increasingly, heritage is placed at the center of networks, projects and initiatives that focus on innovation, create new ideas and methods or implement actions aimed at improving local conditions. Simultaneously, there is more and easy access to information on novel methods to preserve heritage and new approaches to enhance the interaction between heritage and society at large.

This boost in information and heritage-led initiatives, at present driven a.o. by European policy and incentives, is a positive development within the current socio-economic climate. However, within this diverse array of networks, projects and initiatives, the topic of heritage-led innovation is still treated as a kind of 'black box' in which all gathered outcomes and information are stored.

In order to collect, analyse and report on heritage-led innovations and related activities in different countries and sectors, at different geographic scales and for actors of different sizes and nature, that developed and implemented a wide range of new goods or services, there is a strong need for working definition that is sufficiently objective, as well as a logical analysis framework that enables the comparison of data and can apply common reference points for heritage-led innovation (new knowledge, value creation, implementation).

1. ILUCIDARE working definition of heritage-led innovation

Heritage-led innovation is the implementation of a new idea involving heritage that results in an improvement. The basis of the innovation process is new knowledge, which is often an intersecting of disciplines and ideas. The aim of the innovation is creating value or improving existing conditions. The innovation needs to be implemented, put into use or made available for others to use. The success of an innovation is determined by the market or larger society, which decide whether an idea or vision is truly new and whether it is an improvement against the current situation (Vandesande 2017).

Heritage-led innovation is not a static concept which restricts its focus to new products and product performance, which in the past has led to a strong focus on R&D investments as the sole ingredient for innovation. Based on a systemic mapping and analysis of heritage-led innovations, ***different innovation types*** were defined: (1) business models, (2) networks and connections with others to create value, (3) alignment of talent and assets, (4) signature processes and methods, (5) new commodities: material products, intangible services and paradigms, (6) improvement or new feature of commodity, (7) service: enhancement of services that support a commodity, (8) channel: how a commodity is delivered to users, (9) branding: representation of a commodity, (10) stakeholder engagement: distinctive interactions with users.

Heritage-led innovation is not a 'black box' in which all types of innovation can be stored without any reference point on reference points new knowledge, value creation or implementation. ***Three categories of heritage-led innovation*** are defined to gradually move away from the comforts of defining everything new as a generic innovation. The categories take into account the diverse roles heritage can play in an innovation and its interaction with different sectors. Considering the purpose of the working definition, it was opted to place heritage as the central component in the innovation process and the working definition. The three categories of heritage-led innovation are:

1.1 Heritage-driven innovation

Heritage demands specific approaches or solutions, due to the uniqueness of its values or the specificity of its materials, construction techniques or basic characteristics. Innovations to meet these specific needs are developed either within the heritage sector or by other sectors and create a spill-over effect to other sectors. Examples include:

Commodity-product innovation

InnovaConcrete is a H2020 project aimed at preserving concrete-based momuments of the 20th century. The project develops products and techniques which encompass multifunctional impregnation treatments (with improved super-hydrophobic performance, and able to produce calcium silicate hydrates), cementitious coatings containing inorganic nanotubes, portable atmospheric plasma devices and self-healing impregnation treatments. The InnovaConcrete applies its products are applied in relevant environments and provides guides and a decision-support system for concrete conservation to enable wider use. The innovation is essential for actors within the heritage sector, but also has a large spill-over possibility to the larger construction sector and companies involved in waterproofing natural and artificial materials.

Business model and stakeholder engagement innovation

The “adopt a monument innovation” in Pirkanmaa, Finland was initiated by a local research and education actor and encourages citizens to ‘adopt’ monuments, to care for them and return them to use. As caretakers of these monuments, they contribute to raising awareness in the local communities about their heritage by researching the history of the site. The project is a creative way to actively involve local inhabitants in the care and preservation of local heritage and helps to encourage the protection of unprotected buildings. As the monuments, often left vacant for many years, are restored, their visibility within their communities and their value is re-established. The innovation can serve as an example for other historic areas in Europe.

1.2 Assimilation of innovation

Actors in the heritage sector apply innovations from other fields and sectors to heritage resources to generate knowledge, enhance decision-making or support their management. Innovations are developed for the specific needs of the heritage sectors and have a lower spill-over effect to other sectors. Examples include:

Commodity-product innovation	
	SiMAX is a software system developed by Signtime that combines several existing ICT technologies: a real-time 3D-engine, animation/clip exporter, animation builder, a "learning" database, a clip database, a sign database, a translation engine based on statistical methods, a translator interface, an emotion editor, and a video converter. The aim of SiMAX is to develop a quicker and more affordable solution for translation into sign language by using an animated avatar. Signtime translated different content into sign language, e.g. websites of public authorities, institutions and companies, movies, package leaflets of medicines, teaching material etc. Within the H2020 ARCHES project, SiMAX is further adapted to the special requirements of museums and is currently being tested with artworks of several museums. The innovation is the software SiMAX itself, which can significantly decreases translation cost and can be used for a wide variety of applications, including heritage, and is likely have a spill-over effect to different sectors.
Service, channel and branding innovation	
	The Hidden City in Plzen, Czech Republic developed a new way of showing an ordinary city to visitors. Their idea was that learning about everyday life, which is made of people's stories and memories, can be best conveyed by people who live there. The local government and public administration, in collaboration with civil actors and civil society used the established method of neighborhood walks and applied it to Plzen, which gives visitors a unique opportunity to discover the city through stories narrated by Pilsen citizens. The walks introduce both the history and presence of various places and take visitors away from the city center, to residents and places off the beaten track. The innovation can serve as an example for other historic areas in Europe.

1.3 Heritage as resource

Specific heritage resources or a wider universal understanding of heritage generates new ideas, is the basis for innovation processes or kick-starts new interdisciplinary and cross-sectoral collaborations leading to innovation. The innovation does not imply making heritage marketable (e.g. products with prints of iconic heritage), but is based on the values or the knowledge embedded in heritage resources. Examples include:

Commodity-product innovation, business model, networks, alignment of talent and assets, branding	
	FOLKK is a Serbian social business initiative founded by the Nova Iskra Design Incubator ltd, that connects masters of traditional crafts with emerging designers across the Balkans to create high-quality handcrafted products. The aim of FOLKK is to preserve centuries-long legacy of craftsmanship of the Balkan artisans and to provide craftsman in rural communities with a steady income, increase the confidence in their profession and the quality of life. FOLKK provides the locally designed and manufactured products worldwide visibility through an online platform. The local and regional economies with people on the social margins are

	supported by means of a creative approach that is rooted in a heritage-led design-thinking process.
Commodity-paradigm innovation, networks, branding, stakeholder engagement	
	The Heart for people's cafes is an innovation driven by civil actors and society. The innovation started as an initiative to demonstrate the importance and value of the "People's Cafés" in Flanders and Brussels, both as central venues for social encounters, as well as components of cultural heritage that combine tangible and intangible elements in a unique way. Despite these qualities, the "People's Cafés" are closing and disappearing at a fast pace. Through large scale research and an awareness-raising campaign, a new narrative was developed. The press, individuals and organisations responded to the message and developed their own initiatives to secure the future of the remaining "People's Cafés".

2. Analysis of heritage-led innovations in Europe

2.1 First analysis and evaluation of heritage-led innovations in Europe

The first phase of evidence based-research on heritage-led innovations in Europe aggregates, analyses and evaluates existing case studies into a comprehensive systemic framework. The data collection was performed by the ILUCIDARE researchers through an online mapping tool created in a cloud-based software as a service (SAAS). The main reason for selecting this SAAS is its capacity to conduct ad hoc data analysis, sample selection and bias elimination. On the one hand this allows making simple queries in the complete set of collected data which facilitate the proposed analysis. On the other hand, this provides a digital database of the collected European best practices.

2.2 Mapping tool explained

The mapping tool is structured according to the ILUCIDARE working definition of heritage-led innovation. Herewith the mapping tool combines the different sub-components of the working definition with the PESTLE (Political, Economic, Social, Technical, Legal, Ecological) components, to enable a systemic mapping and understanding of heritage-led innovations in Europe. This implies that the evidence-based research is in a sense pioneering, as heritage-led innovations are analysed and evaluated in a broader perspective and more consistent framework in comparison to other researches.

The online mapping tool can be accessed through:
https://www.surveymonkey.com/r/ILUCIDARE_INNOVATION

The structure for the first mapping tool (for the first research phase) consists of:

1. Title (optional)
2. Short description (max. 2000 characters)
3. Innovation components - new knowledge
   - □ local knowledge
   - □ knowledge for heritage sector
   - □ knowledge beyond heritage sector

4. Innovation components - improvement or value creation

- □ for heritage resources / sector
- □ for other sector(s) (please specify)

5. Innovation components - implementation

- □ put into use
- □ made available for others to use
- □ Other (please specify)

6. heritage-led innovation category

- □ Heritage-driven innovation
- □ Assimilation of innovation
- □ Heritage as resource

7. PESTLE category

- □ Political innovation
- □ Economic innovation
- □ Social innovation
- □ Technical Innovation
- □ Legal innovation
- □ Ecological innovation

8. Type of innovation

- □ business model
- □ network: and connections with others to create value
- □ structure: alignment of talent and assets
- □ process: signature processes and methods
- □ new commodities: material products
- □ new commodities: intangible services
- □ new commodities: paradigms / narratives
- □ improved commodities
- □ service: enhancement of services that support a commodity
- □ channel: how a commodity is delivered to users
- □ branding: representation of a commodity
- □ stakeholder engagement: distinctive interactions with users

9. initiator

- □ Government/public administration
- □ Businesses
- □ Civil society/NGOs
- □ Research/Education
- □ specify if possible (max. 100 characters)

10. main actor

- □ Government/public administration

- □ Businesses
- □ Civil society/NGOs
- □ Research/Education
- □ specify if possible (max. 100 characters)

11. geographic location: country name(s)

12. territorial scope

- □ Rural
- □ Village
- □ Town
- □ City
- □ Region
- □ Country
- □ Other (please specify)

13. Innovation components - spill-over potential

- □ spill-over / example to similar heritage assets
- □ spill-over to heritage sector
- □ spill-over beyond heritage sector

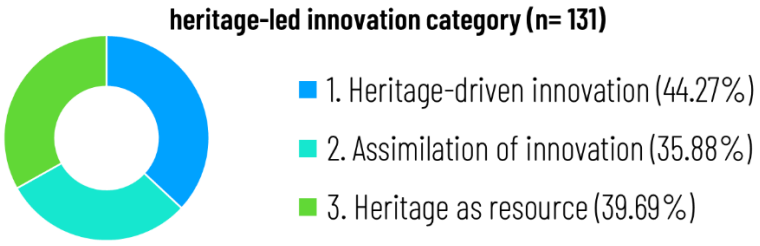
14. start date: year

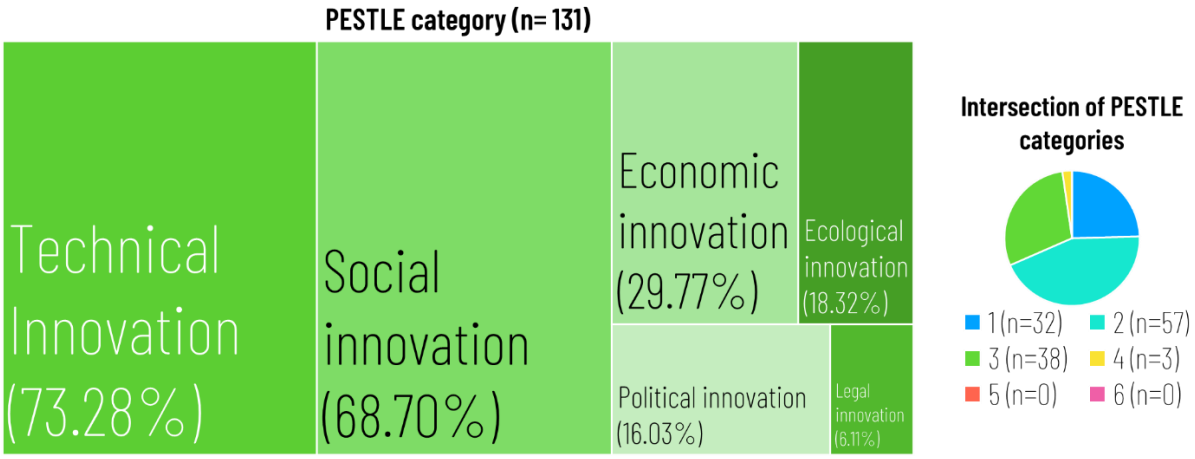
15. references

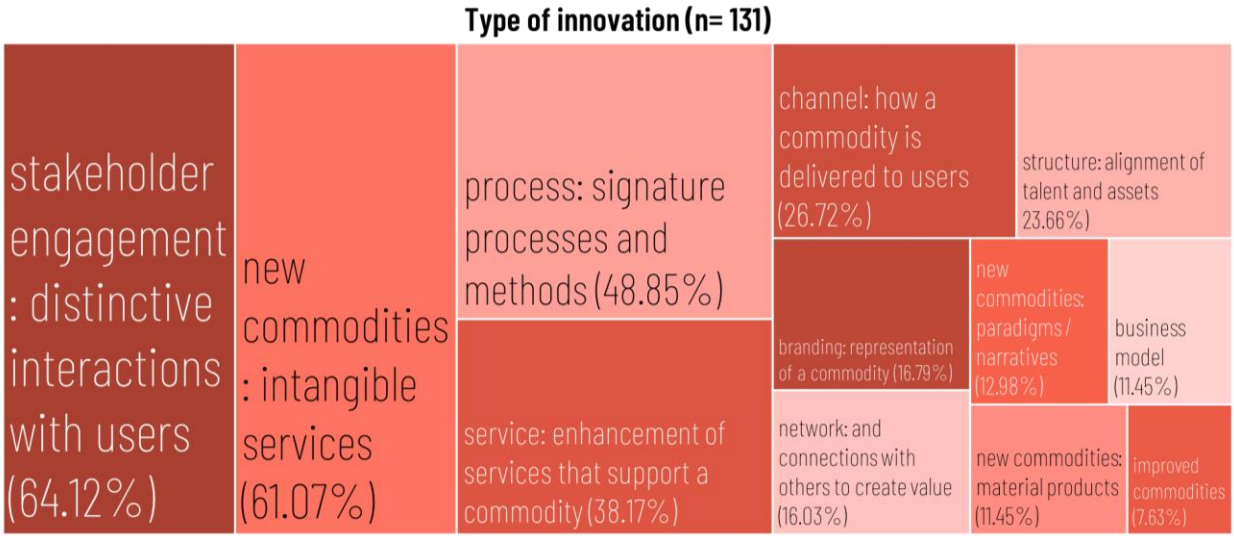
2.3 Data analysis of heritage-led innovations in Europe

Below is an overview of the data analysis of the first mapping phase on heritage-led innovations in Europe, visualised according to mapping categories, ∑ responses and percentage.

Disclaimer: the ILUCIDARE does not claim that this mapping is absolute or complete. Logically any outcome of this mapping approach is random, as it depends on the quality of research conducted, time spent looking for examples, the visibility of the cases studies (also language issues), etc. The main aim was to gain a first set of tendencies and check if these are aligned with our assumptions. These findings will serve as the foundation to design the larger pan-EU mapping of heritage-led innovation case studies and thus it is crucial to already have a first indication of gaps and re-occurring patterns.


heritage-led innovation category (n= 131)
1. Heritage-driven innovation (44.27%)
2. Assimilation of innovation (35.88%)
3. Heritage as resource (39.69%)


PESTLE category (n= 131)
Technical Innovation (73.28%)
Social innovation (68.70%)
Economic innovation (29.77%)
Ecological innovation (18.32%)
Political innovation (16.03%)
Legal innovation (6.11%)
Intersection of PESTLE categories
1 (n=32)
2 (n=57)
3 (n=38)
4 (n=3)
5 (n=0)
6 (n=0)


Type of innovation (n= 131)
stakeholder engagement: distinctive interactions with users (64.12%)
new commodities: intangible services (61.07%)
process: signature processes and methods (48.85%)
service: enhancement of services that support a commodity (38.17%)
channel: how a commodity is delivered to users (26.72%)
structure: alignment of talent and assets 23.66%)
branding: representation of a commodity (16.79%)
new commodities: paradigms / narratives (12.98%)
business model (11.45%)
network: and connections with others to create value (16.03%)
new commodities: material products (11.45%)
improved commodities (7.63%)

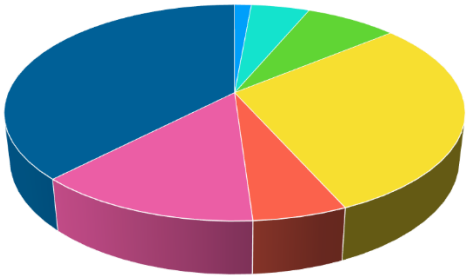
initiator (n= 130)

- Government/public administration (19.23%)
- Businesses (12.31%)
- Civil society/NGOs (26.92%)
- Research/Education (47.69%)

main actor (n= 131)

- Government/public administration (18.32%)
- Businesses (22.90%)
- Civil society/NGOs (35.78%)
- Research/Education (45.80%)

territorial scope (n= 131)



- Rural (1.53%)
- Village (5.34%)
- Town (8.40%)
- City (32.06%)
- Region (6.11%)
- Country (14.50%)
- Other (41.22%)

Innovation components - implementation (n= 130)

- put into use (84,62%)
- made available for others to use (38.46%)
- Other (60.77%)

Innovation components - improvement or value creation (n= 130)

= better preservation of heritage assets
= community creation, local heritage appreciation

Innovation components - spill-over potential (n= 130)

- spill-over / example to similar heritage assets (87.69%)
- spill-over to heritage sector (83.85%)
- spill-over beyond heritage sector (25.38%)

2.4 Observations on heritage-led innovations in Europe

- The 3 heritage-led innovation categories are very well balanced. The assumption was to find mainly assimilations. This can be directly related to the ongoing discussion on temporal and geographical boundaries of heritage-led innovation (see section I.3);
- Technological over social heritage-led innovations: not expected. This is likely due to the high range of ICT / digital media innovations related to visitor experiences, but also community creation and involvement in heritage documentation and management;
- As expected there is low number of tangible products and a clear majority of innovations related to the more intangible services related to heritage;
- The pan-European should be clear about what business models are: ILUCIDARE feels that heritage-led innovations should not include touristic attractions based on historic places or marketing campaigns run by widely recognized brands such as Zara.
- The main initiator of heritage-led innovations are research / education actors, while the main actor who further carries the innovation are civil society actors. In comparison to archetype innovations in other sectors, both the initiator and main actor actively seek collaboration and discussion with other actor groups.
- Most heritage-led innovations occurred on a small scale through bottom up initiatives vs. there are less heritage-led innovations that have a spill-over effect across sectors and geographical borders. The latter are mostly larger funded projects with better visibility which include several countries from the beginning onwards.
- Cities are a more common location to find innovations than rural areas, villages or towns. On the other hand, the main geographical source of innovations found during the first mapping phase is on EU or international scale. This is most likely due to the financial incentives behind these project and the easy visibility that comes with it. It is expected that the pan-European survey will bring more clarity and diversity into these findings.
- Innovation components - implementation: the cases comply with the basic criteria that the innovation is not just an idea and should be at least tested or implemented.
- Value creation is mostly for heritage sector: most noted (descriptive) improvements are in terms of the preservation of heritage assets, community creation, local heritage appreciation.
- Most spill-overs to other sectors: tourism and education. Interesting to learn about spill over to other potential sectors: individual examples of gaming industry, real estate sector, construction sector.

III. Towards a model to analyse heritage-led innovations

The observed boost in the availability of information and heritage-led initiatives is a positive development within the current socio-economic climate. However, while gradually new theories for sustainable alternatives are surfacing, in practice examples of heritage-led innovation appear to remain mostly limited

to local and small scale initiatives. The aim of this section is therefore to define a logical analysis framework that enables the comparison of data and with common reference points for heritage-led innovation (e.g. new knowledge, value creation, implementation).

Throughout different approaches to understand innovation, researchers and professionals have aimed to develop a coherent framework for analyzing innovation processes. Already in an early phase, Freeman and Perez aimed to answer the question 'how can the thousands of inventions and innovations which are introduced every month and every year be reduced to some kind of pattern amendable to generalization and analysis?' (1988: 45).

The research conducted in this section combines methods such as grounded theory and critical discourse analysis to define a working definition and analysis model for heritage-led innovation. Herewith the key challenge will be going beyond the traditional focus of the innovation research field on technological end-uses and product performance, in order to identify the most suitable approach to analyze and activate heritage-led innovation. The research presents a chronological analysis of different relevant fields, including but not limited to Darwinian metaphysics, evolutionary economics, organizational management and sociology (sociotechnical theories). This retrospective analysis will indicate how the theories on innovation have evolved over time and have now also become highly relevant for / open to the heritage sector, not in the least to understand how heritage-led innovations can be replicated. The analysis will include linkages to key concepts (and evolutions) in the heritage discourse, going beyond the traditional interpretation of heritage and its management.

The analysis model can be applied to different case studies to identify specific findings and starting points for wider operationalization and long-term effects of specific heritage-led innovations. These findings are mainly related to the role of initiators / main actors in the innovation process, the scale of operation, the type of new knowledge generated and spill-over potential.

1. Heritage specificities: intangible values, interdisciplinarity and governance

Preserving and managing heritage and historic rural or urban areas has always been and is increasingly more a complex process. Different characteristics of heritage contribute to this complexity. Firstly, heritage values have always been the rationale underlying for its preservation and management, implying that the benefits of its maintenance are often intangible and difficult to capture in conventional terms (McLoughlin et al. 2006) and that non-market forces are equally important for change. At the same time heritage is inherently linked with diverse sectors with economic, social, cultural and even environmental impact (CHCfE consortium 2015). Therefore, the sector is based on interdisciplinary approaches and is constantly subjected to policy and societal changes.

Secondly, the heritage sector has a long tradition of being largely depended on public funding (Pickard 2009) which in most cases is combined with an immense bureaucracy. In addition, heritage preservation and management require professional and expert interventions, which initially led to a very top-down approach in the sector. Since the 1990s, community participation and local empowerment have gained importance in the sector and are now systematically associated with heritage preservation efforts (Vandesande and Van Balen 2015). These components have led to a sector which is characterised by established governance networks, which possess specific assets such as established service networks,

experience with large-scale operations, specialised routines, access to heritage owner-managers and useful complementary services. In contrast to the traditional focus on use and distribution or demand and supply, the heritage sector, is defined by a complex governance framework, a long tradition of routines and skills of individuals.

2. Analysis model suitable for heritage-led innovations

In line with its long research tradition, various assessment, mapping and monitoring techniques and methods have been developed to assess and analyse innovation processes. Widely used approaches include expert based aggregated evaluations of technology, statistical techniques or ecological inspired equations to model and predict non-linear innovation trends(Leydesdorff and Van den Besselaar 1994). These analyses can range from simple tree-diagrams (Durand 1992) to complex techno-metric or morphological methods (Foray and Grübler 1990). Within these existing frameworks applied by policymakers and organisations, markets are often the locus of innovation in an open society or system (Vandesande 2017).

However, keeping in mind that heritage assets are part of a sector where impacts are often intangible and difficult to capture in conventional terms, innovations cannot be analysed from a purely quantitative perspective. In order to provide a model to analyse innovations in the heritage sector and understand ow they can be up-scaled, basic concepts and specific developments in the research field have to be clarified.

Various schools of economic thought differ in their approach to positioning innovations as an explanatory variable. Neoclassical economics is mainly situated in the field of micro-economics and has an instrumental approach, thus assuming that innovations will appear in response to market demands (Coombs et al. 1987). Models and theories related with micro-economics focus on the decision-making processes of individual actors in a market and entrepreneurial research investigates innovation opportunities within present market dynamics (Shone 2001). While these models indicate innovation opportunities in terms of market activities, e.g. correlations between demand growth rates and new businesses or the link between supply-driven opportunities and changes in technology, their scope is too narrow to address the complex built heritage governance framework.

In contrast, the field of evolutionary economics focusses on the innovation in itself, discontinuities in the innovation process and long-wave economic cycles. Thereby, the term economic cycle refers to fluctuations in economic activity that are caused by periods of rapid growth alternated by stagnation or recession (O'Sullivan and Steven 2003). In this context, Schumpeter is often considered one of the first economists to model the innovation process as a driver of economic development (Loorbach 2007). Due to his work, 'The Theory of Economic Development' (1934), he is still today considered one of the most influential economists of the 20th century. According to Schumpeter, economic development originates through a dynamic competition between optimisation and innovation. He refers to this innovation as creative destruction, 'a process of industrial mutation that incessantly revolutionizes the economic structure from within, incessantly destroying the old one, incessantly creating a new one' (1942: 82-83). In this sense, Schumpeter's relationships with the ideas of other economists were quite complex. In contrast to the neoclassical micro-economic tradition, he argued that the dynamic fluctuation between optimisation and innovation shows a cyclical pattern and that excluding innovations or innovative activities leads to stagnation in development (Tanning et al. 2013). In his search for recurring cyclical

patterns in economy, he followed the ideas of Kondratieff (1925) who modeled the existence of 54 year macro-economic cycles. Nevertheless, Schumpeter envisaged more dynamic economic cycles and placed the *Unternehmergeist* or entrepreneur-spirit central in his theory. Although questions have been raised concerning the predictive capability of a cyclical model (Mowery and Rosenberg 1979), the main message of the Kondratieff and Schumpeter period is that innovations are dynamic and induce a non-linear path of economic growth.

In view of preventing an economic depression similar to that of the 1930s, the 1950s and 1960s were characterized by an economic policy based on Keynes' theories (1963) which focus on smaller fluctuations and assume the ability of governments to regulate the economic cycle. This entailed various short-term public sector responses, in particular monetary and fiscal policy actions, to stabilise the economic cycle rather than incorporating the long-term context to sustain stable growth. This specific approach is less relevant for understanding how heritage-led innovations can be up-scales, as identifying how an innovation is actually operationalised requires more longitudinal research on how markets change over time (Clydesdale 2011). Moreover, most Keynesian macro-economic modeling are limited to quantitative analyses, whereas Schumpeter insisted on the crucial importance of qualitative and empirical aspects (Freeman and Perez 1988).

With these basic concepts in mind, it is opted to elaborate on economics of technological change within the Schumpeter and Kondratieff tradition. This is based on the following considerations. Firstly, the aim of the research is to enable long-term sustainable innovations for the heritage sector and to move away from the traditional various short-term public sector responses and assumption that only public government can regulate the economic cycle. In line with the main message of economics of technological change, the focus is rather on innovations which are dynamic and induce a non-linear paths of growth. Herewith, 'technological' should not be interpreted in the strict sense of the word. In their often quoted work on technological change, Rip and Kemp (1998) define technology as 'configurations that work', or heterogeneous elements that make up technologies and services. Similar to innovations in the heritage sector, these services only function because they fulfil a function in society, they entail routines and behavioural patterns. Secondly, economic theory on change exists at several different levels of abstraction. Nelson and Winter (1982) have highlighted the difference between 'appreciative' and 'formal' theory. The latter is an abstract approach, often in the form of a mathematical model. Whereas the heritage sector is closer linked to intangible impacts, appreciative models which are mostly descriptive, closer to empirical details and open to logical exploration and manipulation are the most suitable approach. Keynesian macro-economic modeling are limited to quantitative analyses, whereas Schumpeter insisted on the crucial importance of qualitative and empirical aspects (Freeman and Perez 1988).

3. Back to basics

The renewed interest in the Schumpeterian theory of economic cycles and long-wave theories is associated with the 1970s period of economic stagnation in the Western world and the reduced world economy growth in the 1980s, putting an end to the general post-World War II economic boom (Elliot 1985). Two distinct economic research fields were developed during this period that are especially relevant for heritage-led innovations.

The first, deals with an ***historical approach to the analysis of industrial and technological development***. It concerns a research field with an economic background, but which differs from traditional approaches by its historical perspective and emphasising 'the unevenness of the development process, its discontinuities and qualitative shifts' (Williams and Edge 1996: 871). The approach can be related to the research tradition of socio-technical theory, which aims to a theoretical basis to design technological and sociological patterns for organisations or particular types of production systems. However, in the early 1960s this scope was considerably widened due to the ground-breaking research of Emery (1978) who linked the research field to dynamic systems theory (Forrester 1969, 1971). Consequently, sociotechnical systems theory became a research field with a consistent methodological framework and common conceptual language. However, the most encompassing and important impact is the evolution towards a larger application scale. Thereby the aim is analysing long-term innovation and economic activity patterns and clarifying shifting techno-economic paradigms. In the 1980s post-Schumpeter and Kondratieff period, this tendency is represented by historical research on macro-innovations and the data collected by long-wave analysts like Freeman and Perez who stated that 'certain types of technical change – or changes in the 'techno-economic paradigm', have such widespread consequences for all economic sectors that their diffusion is accompanied by a major structural crisis of adjustment, in which social and institutional changes are necessary to bring about a better 'match' between the new technology and the system of social management of the economy – 'or regime of regulation'' (Freeman and Perez 1988: 38). This concept of regime of regulation is specifically relevant the heritage sector, considering its complex governance framework.

The second research field, ***evolutionary economics***, is key in any discussion on the economics of technological change. It analyses and models transformation processes for firms, institutions, industries or larger identifiable patterns and systems through the actions of diverse agents based on the evolutionary methodology framework of Darwin (Shiozawa 2004). The latter is commonly referred to as the universal selection theory or Darwinian metaphysics and entails various approaches that implement the theory of Darwin outside the original biological evolution domain. Following its relatively long history in the field of economics, the application of an evolutionary approach in economics is well represented in research. Nevertheless, the most influential work in this area undoubtedly remains the Nelson and Winter model, developed during the 1980s post-Schumpeter and Kondratieff period (Metcalfe and Canter 2003). In the standard reference work 'An evolutionary theory of economic change' they argue that their evolutionary theory of an organization is more encompassing than the traditional view of describing firm behaviour solely in terms of optimisation (Nelson and Winter 1982). In contrast to neo-classical economics, this evolutionary theory does not rely on equilibrium analysis, i.e. optimal equilibrium between sellers and demand behaviour in a particular market (Sanchez and Heene 2003). The starting point of Nelson and Winter's evolutionary theory are cognitive routines or skills, implying both skills in an organisational context and the capacity to understand an organisation's internal operation and external environment dynamics. Thereby, the authors introduce organisational memory as the storage of an organisation's operational knowledge that is constructed by cognitive routines, which in turn reside in the knowledge and skills of individuals within organisations. Codifications of this knowledge occurs through the process of 'remembering by doing' or exercising routines. During the following decade this section

became a key citation in the subsequent literature on organisational learning (to name some: Cohen et al. 1996, Grant 1996, Knott and McKelvey 1999).

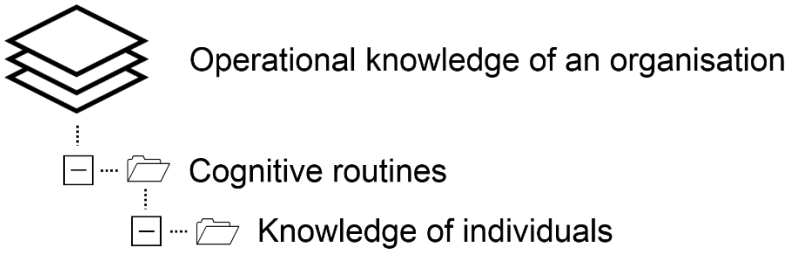


Image 4: The nested layers of organisational memory. Vandesande (2017), based on Nelson and Winter (1982).

The starting point of Nelson and Winter's evolutionary theory are cognitive routines or skills, implying both skills in an organisational context and the capacity to understand an organisation's internal operation and external environment dynamics. Thereby, the authors introduce organisational memory as the storage of an organisation's operational knowledge that is constructed by cognitive routines, which in turn reside in the knowledge and skills of individuals within organisations. As previously indicated, these cognitive routines and skills of individuals are key within the built heritage sector, through the strong dependence on professional and expert interventions aimed at preservation and management. This concept of knowledge is central in evolutionary economics. The aim is to analyse knowledge growth mechanisms and understand how innovations are tested within markets and accepted, rejected or redeveloped (Loasby 1999). Thereby, evolution is understood as endogenous change in an open system. In the framework of Darwinian metaphysics, these innovations are analysed through 3 fundamental processes that generate a process of ongoing adaptive change: variation, selection and retention.

4. Variation, selection, retention

This concept of knowledge is central in evolutionary economics. The aim is to analyse knowledge growth mechanisms and understand how innovations are tested within markets and accepted, rejected or redeveloped (Loasby 1999). Thereby, evolution is understood as endogenous change in an open system. In the framework of Darwinian metaphysics, these innovations are analysed through 3 fundamental processes that generate a process of ongoing adaptive change: variation, selection and retention. In essence, variation generates new innovations which are tested in the selection environment. Selected innovations are then reproduced and imitated throughout the system, resulting in the retention. However, evolutionary economics do not entail evolution by natural selection in a strictly Darwinian sense. The interpretation of these 3 processes and their level of interaction are shortly defined below.

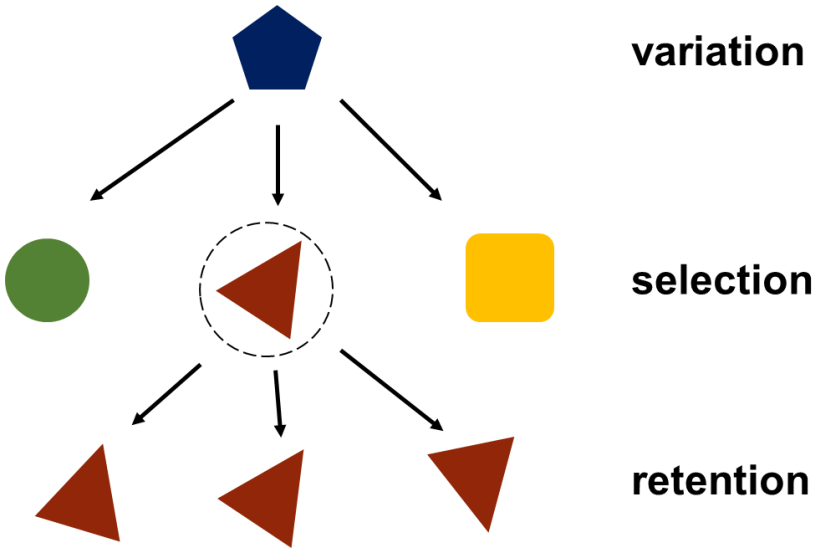


Image 5: simplified view of the Darwinian metaphysics framework (Vandesande 2018)

4.1 Variation

Within an economic context, evolution is the algorithmic process by which knowledge grows and evolves. Thereby, capital is knowledge in an operational form, skills are knowledge in a tacit form and profit results from the coordination of specialised knowledge (Potts 2000). Examples of knowledge structures are commodities in markets and their characteristics, the preferences and routines of agents and the capacities of organisations or entire systems (Dopfer et al. 2004). Within their evolutionary theory, Nelson and Winter put forth cognitive routines, knowledge and skills as the economic equivalent of genes. They argue that in the search for improvement through innovative or imitative solutions, organisations abandon or replace their least efficient and effective routines, which leads to new technologies and services.

In contrast to the Darwinian principle of natural selection based on random variation, evolutionary economics follows the Lamarkian principle of directed variation which entails variation resulting from anticipation (Hodgson 2001). Herewith, existing exogenous factors and empirical evidence play a central role. Human actors produce new variations by using the routines, knowledge and skills gained over time and applying what works best for them in certain environments (Grin 2008). As a result, there is a large body of research on variation and the development of new technologies and services in evolutionary economics, to name some: learning within firms (Bocken et al. 2013), organisational routines and knowledge management (Pentland et al. 2012), which clarify that the growth of knowledge is related to the level of organisation and possibilities of exchange within a system.

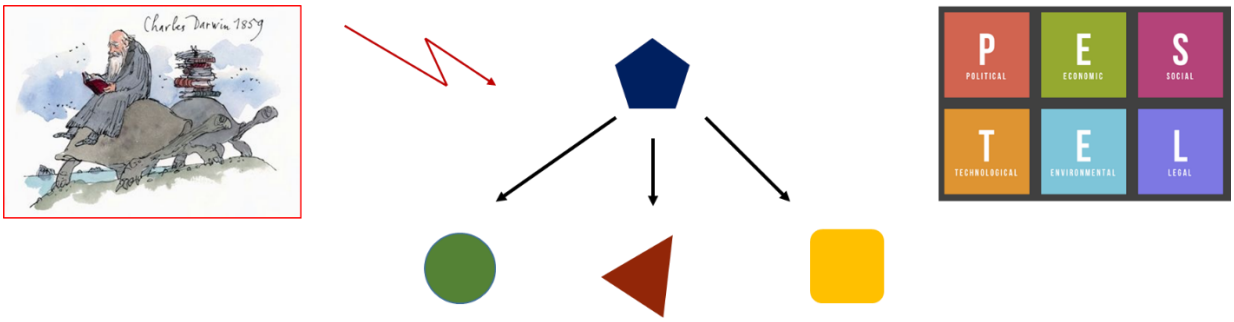


Image 6: Darwinian principle of random variation vs. the Lamarkian principle of directed variation based on different exogenous factors (PESTLE) (based on Vandesande 2018)

On the other hand, evolutionary economics does accept that biological evolution does not solely include small mutations in species. Hence, a basic distinction is made between small and large innovations. Herewith, small innovations can be explained by standard economic concepts as they respond to market shifts and institutional incentives. On the other hand, large innovations do not respond to standard variables but present an interruption in the evolutionary process as they entail a discontinuity from existing technologies and services (Mokyr 1990a).

4.2 Selection

Several evolutionary economists follow the geneticist Goldschmidt and refer to these macro innovations as 'hopeful monstrosities' (Mokyr 1990b, Steil et al. 2002, Schot and Geels 2008). The innovations are considered hopeful because they entail possible technical and functional optimisations. However, they have low early performance characteristics and cannot readily compete with established technology, services and cognitive routines. This implies that the environment in which macro-innovations evolve into apt technologies or services necessitate specific conditions. More specific, innovations require exogenous changes in the existing system to enable a temporary window of opportunity. 'The environment into which the seeds are sown is, of course, the main determinant of whether they will sprout' (Mokyr 1990b: 299, quoted in Schot and Geels 2007). This in itself is a very interesting and relevant approach for this research. However, a note should be made on the range of this approach. During the late 1970s and early 1980s evolutionary economics was characterized by a technological imperative and economic paradigm. Initially, Nelson and Winter put forth profitability as the main driver for variation in their modelling work and assumed that technological change was inevitable. Thus, the selection environment was interpreted as market mechanisms and institutional factors that structure knowledge growth (Potts 2001). During the late 1980s this approach was criticised as the selection environment became more and more understood as a versatile system where multiple criteria and social requirements are at hand. It became accepted that early evolutionary economists took technology for granted – 'treated it as a given' (Williams and Edge 1996: 868) and only aimed to assess its social impacts. Although the argument has been raised that sociology should become more effectively engaged with market mechanisms (MacKenzie 1992), evolutionary economists also started to conceive the market as a socially constituted selective environment which favors the survival specific innovations (Anderson 1988, Basalla 1988, Akrich 1992).

Image 7: Selection characteristics within Darwinian metaphysics vs. evolutionary economics (based on Vandesande 2018)

Furthermore, Metcalfe also noted that the lack of analysing the demand side in the evolution process is 'an unfortunate feature of the Schumpeterian legacy that consumers are assigned too passive a role in the innovation process' (2001:44). Observing that there are no established markets for macro-innovations, evolutionary economics rather assumes a co-evolution of innovations, markets and user preferences. This implies that selection does not just dismiss ineffective innovations, but is a creative process in which technologies and services are gradually improved according to the needs from diverse stakeholders in the process (Coombs et al. 2001). As stated by Schot and Geels, 'we should not confuse 'optimal' with what 'survives'' (2007: 607), as there is no exact definition of optimal and the evolution process is directed by the present requirements of the selection environment.

4.3 Retention

Aligning a new technology or service with markets and user preferences does however not imply a complete innovation. After the variation and selection process, the new technology or service becomes part of what Nelson and Winter referred to as the technical regime, a set of rules that guides the scientific community in using specific heuristics, strategies and objectives. They argue that regimes are determined by cognitive routines and that they act as an underlying retention structure within the innovation process. Based on simulation methods, they demonstrate that specific routine conditions provide more sustainable and competitive advantages than other routines for adopting new technologies and services (Barney 2001). In this sense, routines aligned with new technology or service are a source of stability and contribute to the innovation survival.

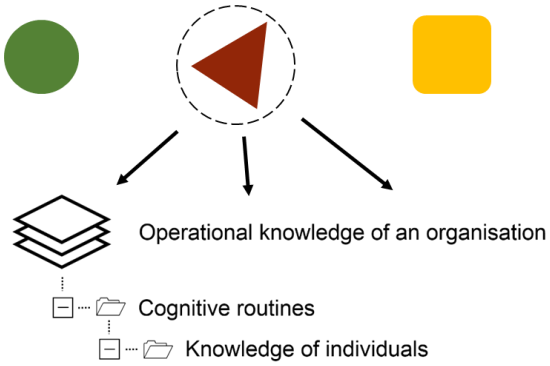


Image 8: the knowledge base of existing regimes plays an important role in the retention of the innovation (based on Vandesande 2018)

However, handing down innovation genes through routine is not sufficient, retention only occurs when an entire new regime emerges. Users shape new technologies and services but also have to integrate new technologies in their practices, organisations and routines (Lie and Sørensen 1996) which eventually leads

to 'domestication' (Silverstone et al. 1992). This entrenchment in the knowledge base and socio-technical structure of existing regimes results in the retention of the innovation. This process can also be referred to as a 'lock-in' mechanism (David 1975), which implies stabilisation through institutional commitments, infrastructure and maintenance networks, common discourse and power relations or even user consumer lifestyles and preferences (Unruh 2000). Whereas this implies that the regime structure is key in innovations, its characteristics and role will be elaborated further on in this handbook.

5. Innovation explained

Innovation and economics of change can be studied in a variety of ways, from and historical perspective to a Darwinian metaphysics framework. Herewith, the importance of a dynamic and long-term evolution process, behavioural characteristics, as well as stability and change in a systems regime was illustrated. In this context, the optimal selection, replication and variation process have been widely discussed in evolutionary economics. Although early economists already incorporated evolutionary thoughts in their theory, only in the 1990s models such as directed variation, selection environment and co-evolution were explicitly used to develop an all-encompassing theory of innovation. This was a direct consequence of the 1980s critique that the market was not just a purely economic entity, but a socially constructed and selective environment which favours specific new technologies and services. However, despite these newly found models, evolutionary economics did not yet clarify how Lamarckian variation actually operates and how this is linked to the selection and retention process (Geels 2002). In addition, it was observed that the selection environment entails more than socially constructed markets and user preferences (Hard 1993). More specific, these observations came from the field of sociology.

Within sociology, ***sociotechnical theories*** focus on the formation and growth of technologies and services as 'configurations that work', fulfilling a function within society. Thereby, the pioneering sociotechnical research by Trist entailed a change in the traditional understanding of organisations. Following the reasoning of Emery (1978), Trist no longer differentiated a purely technical perspective from social entities but urged to relate the social and technical systems together (Trist 1978). During the 1990s qualitative shift occurred in which technology was no longer understood as linked to a local social system, but a global socio-cognitive system in itself (Stankiewicz 1992). Following Schumpeter, entrepreneurs were still given a key role, however, this was elaborated with an interest in the dynamics of more diverse actors outside the obvious firm and organization stakeholders. Influenced by actor-network theory, sociotechnical change is interpreted as a recomposition of social and technical elements in which shifting assemblies actors can provide stability (Callon et al. 1992, Mangematin and Callon 1995). Because the context in which the innovation takes place is not a priori defined, this approach is considered flexible. However, due to the lack of a methodological structure, researchers fall back on case studies and 'heroic storylines' (Geels 2002: 1263) of the innovation. Another research path in the field of sociology that has been dealing with evolutionary economics and innovation no such storyline can be followed, namely the ***quasi-evolutionary model*** developed by Van den Belt and Rip (1987), Schot (1992), Rip and Kemp (1998). The approach follows Nelson and Winter by focusing on the innovation process rather than the formation and growth of technologies and services and presents a specific interest as they no longer separate the variation and selection process, thus 'quasi-evolutionary'. Arguing that both processes are guided by existing regimes which are an outcome of former innovations, they introduce the concept of niches or

local practices at the micro-level where new technologies and services are formed. They perceived this niche as a 'nexus' which can become institutionalized through labs or networks and which should be protected to increase the survival of the innovation while the existing regime changes (Van den Belt & Rip 1987). Over time, the innovation can be partially incorporated by the existing regime and even transform the sociotechnical landscape (Rip and Kemp 1998). Thereby, sociotechnical landscapes are derived from the punctuated equilibrium perspective developed by technology management scholars. In the tradition of long-wave theories, they argue that innovations are a long-term evolutionary process of relatively stable changes, punctuated or interrupted by periods of radical change (Anderson and Tushman 1990, Mokyr 1990b).

Both approaches accept that the overall pattern of innovation is coevolution. However, as their main focus entails firms and organisations, this coevolution process is mostly analysed on an empirical micro-level of demand and supply. Considering new technologies and services as the main topic of research, coevolution becomes a much more complex phenomenon whereby changes in one component in a system trigger changes in other components. Moreover, during the 1990s relatively little attention was given to empirical research and economic modelling of long-term and large-scale innovations. Within large technical systems research, a wider perspective is applied to understand how innovations emerge – but not their transformation (Summerton 1994). Further, in the field of business and management some empirical case studies with a long-term and multi-phase perspective on innovation have been developed, though largely focused on industry and product innovation (Abernathy and Utterback 1978, Utterback 1994).

5. Quasi-evolutionary model for socio-technical change

Following the 1990s developments in this research field, a closely related group of economists developed a quasi-evolutionary model for socio-technical change. They have been strongly influenced by former evolutionary approaches which they reinterpreted in a model that analyses emerging innovations and the transition to new regime systems (Loorbach 2007). The model, commonly referred to as multi-level perspective (MLP) was articulated particularly in The Netherlands by Schot (1992) and Geels (2002). Geels (2007) defines the quasi-evolutionary model or MLP as a middle-range theory that structures overall dynamic patterns in socio-technical change. This implies that the MLP deals with concrete phenomena within socio-technical transitions rather than abstract entities like a system and aims to specify relationships between empirical research and well-founded concepts into analytical models rather than proposing elaborate frameworks with numerous theories. Within this research it is interesting to note that the MLP or quasi-evolutionary model for socio-technical change can be applied through elaborate single case studies by identifying reoccurring patterns (Geels and Schot 2007: 414). Following, elements in the MLP models will be highlighted, albeit selectively, to provide a structure that demonstrates how new technologies and services can drive innovation of an existing regime through the persistent creation of new niches.

5.1 Analytical levels

The analytical model applies well-founded concepts from evolutionary economics, sociotechnical and quasi-evolutionary approaches, as well as structuration theory which deals with the effect of existing lock-in mechanisms and regimes on systems (Geels 2004). The MLP interprets socio-technical transitions as

non-linear, dynamic processes that result from the interaction between 3 analytical levels: regimes, landscape and niches.

5.1.1 Regime

As correctly stated by Schot and Geels (2007), the technical regime is often underestimated in the work of Nelson and Winter (1982). Although their concept of cognitive routines found resonance in organisational learning research, the theory of a regime which defines the knowledge environment where problem-solving activities take place was mostly picked up by other evolutionary economists who interpreted it among others as a 'technological paradigm' (Dosi 1982) or 'techno-economic paradigm' (Freeman & Perez 1988). They understood the regime as 'the rule-set or grammar embedded in a complex of engineering practices, production process technologies, product characteristics, skills and procedures, ways of handling relevant artefacts and persons, ways of defining problems; all of them embedded in institutions and infrastructures' (Rip and Kemp 1998: 338). Regimes are coordinated by innovators and 'researchers with different beliefs attempt to sway each other with respect to these routines' (Garud and Rappa 1994: 347, quoted in Geels and Schot 2011). During the 1990s, influenced by multi-actor theory within sociotechnical research, this widely embedded hard and soft knowledge base was redefined as a sociotechnical (ST) regime. Thereby, innovation trajectories are not solely influenced by technical innovators, but also users, policy makers, civil society and other social groups.

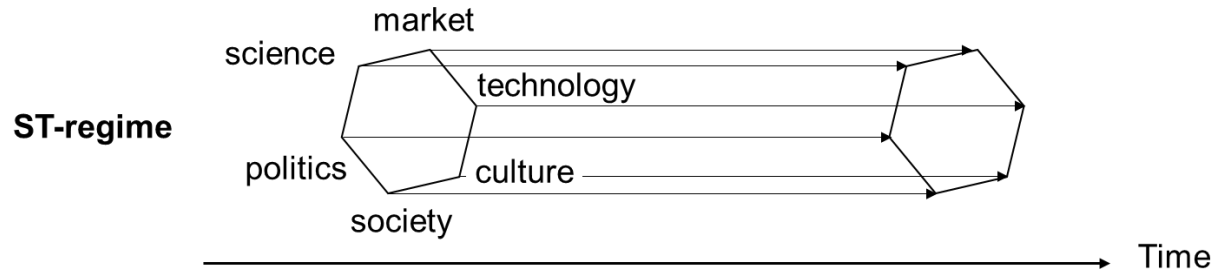


Image 9: regime based on the sub-regimes of Freeman and Louça (2001), Vandesande (2017)

Within the MLP model, regimes establish stability within systems. Whereas existing regimes intrinsically entail lock-in mechanisms, innovation can only take place through small adjustments. These consecutive incremental innovations accumulating into stable trajectories, thus a stable dynamic. As previously noted, in evolutionary economic terms the regimes therefore acts as a selection and retention mechanism or 'deep structure' (Geels 2002). Moreover, these stable innovation trajectories do not only occur through technology, but also through services and dynamics in political, scientific, market and cultural dimensions. Thereby, every dimension has its own dynamics, coordinated by different 'sub-regimes' which also co-evolve with each other (Geels 2004). Within analysing a specific innovation case study, these sub-regimes can be determined according to different frameworks. For example, the PESTLE (political, economic, social, technological, legal and ecological factors) framework which are used to describe macro-environmental factors in strategic management. However, within this research, sociotechnical changes will be analysed according to the framework followed by Freeman and Louça (2001) who defined science, technology, economy, politics, and culture as 5 interacting sub-systems within their evolutionary approach. They state that their approach differentiates from other evolutionary economists as 'it attaches

greater importance to science and general culture' and it does not attempt to assign primacy in causal relationships to any of the sub-systems at this level of the analysis (Freeman and Louça 2001: 124-125).

5.1.2 Landscape

The analytical landscape level can be situated in the context of the previously noted Kondratieff model and punctuated equilibrium perspective, but also has similarities with the 'longue durée' (Geels 2011). The latter was conceived by the Braudel when writing La Méditerranée (1966), in which he emphasized that history is a the long-term process and that events occur according a path that is rarely deviated from (Alvarez et al. 2011). Moreover, events and actions that take place within the analytical landscape level do not occur in a technical and material vacuum that sustains society. Within the MLP the this analytical level is similar to the regime as it is also denoted as landscape and a set of deep structural trends which contain a set of heterogeneous factors. However, in contrast to routines that define innovations within different social groups, the landscape entails an exogenous entity that introduces external factors to innovation trajectories. Changes within the landscape level occur at a slower pace, but have a radical effects within the innovation process. landscape changes can create a temporary window of opportunity for implementing innovations in the existing regimes (Geels 2002). From the section on sociotechnical transition trajectories, it will become clear that change can be initiated by actors and users who no longer adhere to the rules and routines of the prevailing regime.

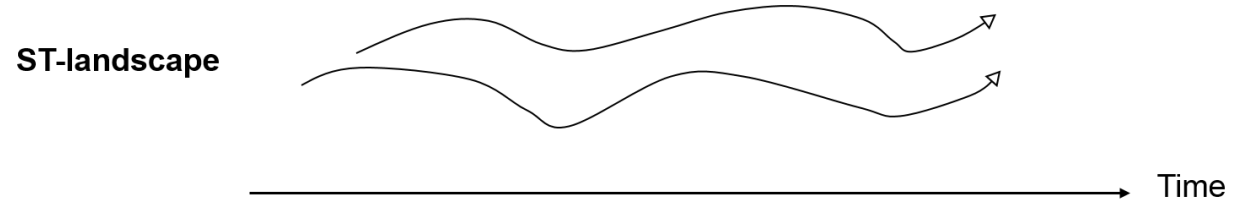


Image 10: landscape based on Geels 2002

5.1.3 Niche

Niches or local practices at the micro-level where new technologies and services are formed, were already present in the original quasi-evolutionary model developed by Rip and Kemp (1998). Because of low early performance characteristics, innovations are often unable to fit within existing regimes. Niches are crucial for transitions as they provide spaces where the new technology and services can be further developed (Malerba and Orsenigo 1993). Therefore, niches should not be interpreted as fringe markets where the existing regime is inefficient and innovations can be introduced. In line with evolutionary niches in biology, they are protected spaces that provide locations for learning processes (Law & Callon 1988). Not every local sociotechnical experiment should however be referred as a niche, they only take place when a group of actors with shared views and routines hopes that their innovation becomes and aligned and used within the regime or even replace it. (Raven and Verbong 2007). In their literature review on innovation through niches, Kemp et al. (1998), Schot and Geels (2008, 2011:28) distinguish three core processes in niche development: (1) the articulation and adjustment of expectations or visions to attract interest and funding from external actors, (2) social network building to expand the innovation resource base, (3) learning and capacity building processes in different sub-regimes.

Image 11: Niches based on Geels 2002

5.2 Multi-Level Perspective

The foundation of MLP is that transition trajectories and consequent innovations are the result of interactions between the different analytical levels. Changes in the landscape level or internal regime tensions destabilise the existing regime, thus creating a windows of opportunity for innovations which have been developed in niches. The innovation reaches its stable configuration or 'dominant design' when the variety of new technology or service becomes more precise and widely accepted. Niches gain an internal momentum when networks become larger and related learning processes are aligned. In this process innovations can gradually stabilise into a new regime.

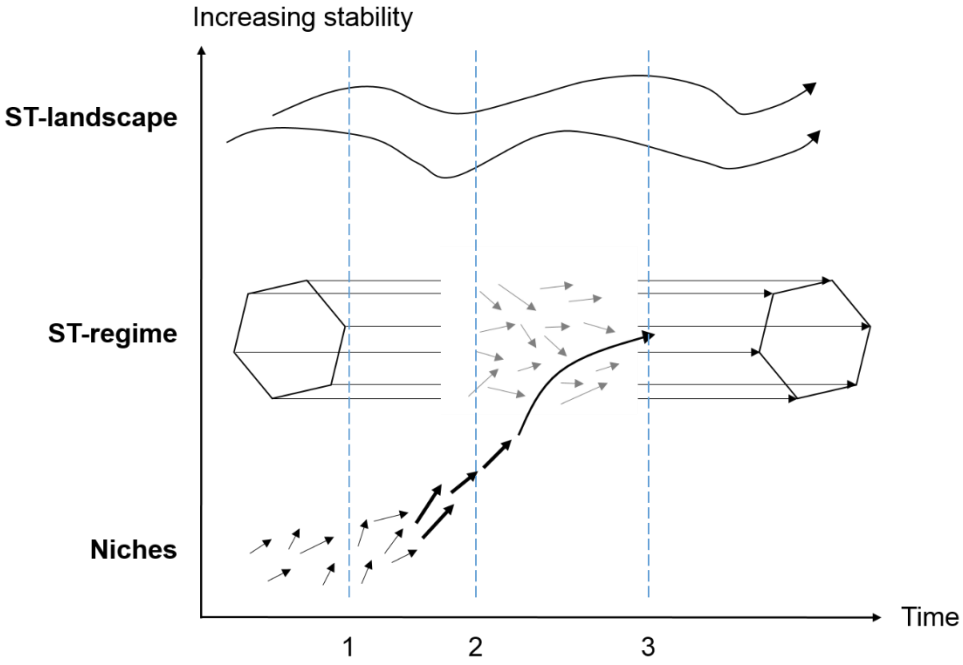


Image 12: MLP showing the different stage in the innovation process: 1) dynamically stable regime, 2) changes in the landscape level or internal regime tensions destabilise the existing regime and create a window of opportunity for a dominant niche, 3) stabilization into a new regime. Based on Geels (2002: 1263)

Herewith, the system approach towards innovation should be stressed. Every analytical level has its own heterogeneous rules and actors, which are more aligned and stable in the higher levels. Rather than a nested hierarchy, these levels relate to each other as 'derived concepts' whereby the regime is of primary interest and the niche and landscape levels are defined in relation to the regime (Geels 2005). As a result,

transition trajectories are never a purely demand-pull or science-push, process (Shove and Walker 2007). Another important implication of the MLP's systems approach is circular causality. There is no single driver in the innovation process, but several dynamics in multiple dimensions which connect and strengthen or weaken each other (Geels 2011). Finally, the MLP introduces intervals and adaptations in the unfolding of socio-technical transitions that require a long-term perspective (Foray and Freeman 1993).

5.3 The Multi-Level Perspective for heritage-led innovations: case study of the Flemish Region built heritage sector

The quasi-evolutionary model for socio-technical change and MLP case studies provide useful insights on (re)directing change. Given that the MLP can be applied through elaborate single case studies and 'can be used by anyone in any particular context' (Loorbach 2007: 79), it is a valuable model and sound empirical approach to analyse innovation patterns and dynamics of change related to heritage.

In contrast to a retrospective approach, the aim of this section is to combine the MLP with contemporary empirical data collection to demonstrate ongoing changes, pressures and opportunities for change towards more sustainable approaches. This combined method is applied on a single case-study tailored to the characteristics of the built heritage sector, whereby the analytical levels are based on the principles of subsidiarity. This implies that the regime level is analysed on the level of nation-states, while international and European developments are landscape considered as developments and small scale initiatives as niche innovations.

The selected case study for which the MLP combined with contemporary empirical data is Belgium, and more specifically the Flemish Region in the north of Belgium which is one of the competent built heritage authorities in this Federal State. The Flemish region is selected as case study, because from the 1990s onwards several new strategies and innovations oriented towards cross-sectoral collaborations and preventive approaches were implemented, but these were never upscaled to the regime.

The initial built heritage conservation development in Belgium, and in extension the Flemish Region, is analogous to experiences elsewhere in Western Europe, i.e. from the industrial period and a nationalistic overtone in the 19th c. towards an increasingly more scientific approach during the 20th c. Given the scope of this research paper, it is not possible to describe today's sector in detail. Indicative of its scope are is the officially established inventory of the Flemish Heritage Agency, which sets the number of built heritage structures or objects in the Flemish region at ca. 101.827, alongside of ca. 73.600 protected buildings, implying a vast amount of built heritage owners-managers who deal with practical issues concerning the maintenance of their properties. A study commissioned by the Flemish government aimed at mapping the socio-economic return of built heritage in Flanders indicates that the built heritage sector has a considerable return on investment. In 2009 a total investment of about 125 million euro of public resources were invested in different sectors that benefit the maintenance and preservation of built heritage, whereby the total added value of the economic activity related to the built heritage sector was estimated at 900 million euro (De Baerdemaeker et al. 2009).

Methods and materials of the single case study design

The methodology consists of a single case study design with multiple analysis units. This enables a research strategy that focusses both on larger strategies and separate sub-unit analyses which jointly

provide a more detailed understanding of the overall case study. The case study and its sub-units are designed as a functional analysis, not aiming at an exhaustive analysis but 'saturation' (Eriksson and Emmelin 2013), thus aiming at rich data in which no new topics and patterns rise.

Table 2: Case study design based on Rowley (2002)

	Single case study design	Multiple case study design
Holistic (single unit)		
Embedded (multiple units)	x	

The sub-units are subdivided in 2 theoretical inductive analyses focussing on retrospective and contemporary landscape and regime developments and 2 empirical deductive analyses targeting specific components of the current built heritage preservation and management practice in the Flemish Region.

The 1st study sub-unit focusses on the landscape level and is based on a previous Critical Discourse Analysis (CDA) research on international and European developments that influenced the built heritage sector (CHCfE consortium 2015, Vandesande and Van Balen 2015, 2018). The 2nd case study sub-unit analyses the Flemish Region regime with a focus on specific sub-regime changes in relation to the built heritage sector. The research entails an inductive analysis is based on triangulated evidence originating from CDA, a theoretical sampling of secondary literature and a focus group with representatives from the sector on the larger and operational context. Next to the theoretical retrospective perspective, this method enables the analysis of a 'configuration that works' and ongoing mechanisms in relation to cross-sectoral collaborations and preventive approaches.

Table 3: overview the different case study sub-units which form the basis of the MLP

1990s - today	**Landscape**	**Regime**	**Niche**	**Niche**
Focus	International and European developments	Political, economic, social sub-regime	Local case studies	Maintenance market
Method	Critical Discourse Analysis	Critical Discourse Analysis and grounded theory	Empirical research and grounded theory	Empirical research and grounded theory

The next 2 sub-units of the case study aim to identify niches as crucial components in developing a MLP framework and potential transition trajectories. In contrast to the traditional focus of the MLP on use and distribution, the analysis focusses on the demand and supply side as well as the governance framework as crucial components of the built heritage sector. The scope of the 3rd case study sub-unit is are local case studies of cross-sectoral collaborations and preventive approaches on the level of cities and city-regions, which are analysed based on open-ended expert interviews with representatives of local governments and local media sources. The case studies were selected based on their diversity in terms of geography, scale, organisational context and built heritage representation to explore different ongoing tendencies within local governance. The 4th case study sub-unit aims to analyse ongoing changes within the built heritage maintenance sector, as indication of preventive conservation approaches, whereby the

opinions of contractors and built heritage owner-managers are considered the basis of the empirical research process. The data sources include a survey among contractors specialised in built heritage and open-ended interviews with representatives of local governments, the construction industry and built heritage owner-managers.

The empirical data collection, including focus groups, open-ended interviews and surveys, took place in the period 2014-2015. The outcomes of the theoretical inductive analysis and verbatim transcripts of the data collection were analysed by line-by-line coding to enable an understanding of the complex data. By means of organising and grouping the codes into reoccurring patterns, the overall case study conclusions are structured between the 3 analytical levels of the MLP. In order to provide a relevant and clear overview of the complex data analysis (Vandesande 2017), it is opted to solely retain the observations which entail key points within the MLP research logic.

Observations of the single case study design

The beginning of the 1990s was characterised by a powerful, centralised approach resulting in the rapid development of a built heritage governance. Moreover, wider stability within the sector came from the growing demand for a professional approach towards built heritage conservation and restoration, the related origination of professionally organised restoration specific education and research, the shift from a conservation to an actual management approach, new social networks within the regime and shared normative rules in the sector which followed internationally developed concepts. Despite this positive development, the Flemish Region still had to cope with a backlog in the restoration of built heritage objects due to the long-lived lack of financial resources.

Contemporary international and European policies, put forth built heritage as an economic, social and intellectual resource for local communities and the need to engage local actors. In Flanders, the implementation of this dynamic was largely supported by the King Baudouin Foundation (KBF), an independent public interest foundation that works in Belgium and at European and international level. The foundation, established in 1976, supports social goals with KBF capital, support from the National Lottery and private or corporate funds. In addition to existing heritage initiatives and organisations, four new associations were set up to broaden the carrying capacity of built heritage in the Flemish Region. specifically, this entailed the Flemish Center for Craft and Restoration as a permanent coordination centre for linking training institutes, restoration companies and research centres, the “Vlaamse Contactcommissie Monumentenzorg” as a common forum for built heritage associations and “Erfgoed Vlaanderen” to assist in the preservation problems of built heritage for which the owner could not guarantee the management. The 4th organisation was Monumentenwacht Vlaanderen (MOWA), founded in 1991 following the Dutch Monumentenwacht model, with the aim of giving public and private owners easy and affordable access to preventive conservation approaches.

In order to deal with a backlog in restoring built heritage assets, the Flemish Region political sub-regime starts considering preventive approaches equivalent to curative restoration in pursuing an appropriate state of conservation for legally protected built heritage. Next to changes in legislation and subsidy framework by the Flemish Region, also provincial and municipal governments started to adopt preventive conservation incentives. Consequently, the preventive conservation rationale gradually entered different sub-regimes in a relatively short period between the early 1990s and mid-2000s.

In addition, specific innovations in the social sub-regime were very important for the wider implementation of new cross-sectoral and preventive conservation approaches. Although seemingly unrelated to built heritage, the early 1990s welfare state reform in Belgium had a large impact on contemporary practices. Pressures on the social security system led to the introduction of employment strategies which took into account that a large low-skilled and / or long-term unemployed groups needs additional support too function in a normal working situation. In practice, this led to the "jeugdwerkgarantieplan" (JWGP), a specific plan that ran from 1993 to 1995 and which aimed at guaranteeing one year of work experience for unemployed youngsters and thus increasing their value on the labour market. In 1993 MOWA was specifically asked by the Flemish Minister responsible for built heritage to act as a project promotor in a JWGP, which led to a project with high success rate because it was conceived as a social work experience project, rather than pure financial benefit. This MOWA-JWGP initiative represents 2 very important tendencies for the regime. On one hand, a wide range of actors observed the added value of the synergy between long-term unemployed and built heritage. On the other hand, as the KBF was closely involved and invested resources in the anticipated MOWA-JWGP pre-funding problems, the organisations network was considerably enlarged to include various training and education projects and local built heritage organisations. These are not just interesting patterns, but also consequential for the breakthrough of new networks between actors in different sub-regimes, i.e. social welfare and employment.

These new linkages are further operationalised, as reflected in mid-1990s budget drafts of the Flemish government which state that resources for protection of built heritage are indeed necessary to maintain the quality of our surroundings but also important for the employment sector. However, on the landscape level the world economy is hit by a series of crises and recessions, causing a shift towards instrumentalisation whereby the public sector actions focus on economically built heritage justifies investments. Although the link between social welfare, employment and built heritage fits in this instrumentalisation of the sector, the main focus of the regime gradually shifted from small maintenance works to the larger economic impact of the restauration sector. Initially, several initiatives arise in this context, mostly carried by the Flemish Center for Craft and Restoration. However, in 2000, the subsides for this organisation come to an end and the political sub-regime decides not to prolong its operations as the expected results advanced to slow and the entire built heritage NPOs structure in Flanders changed. Initially, the Flemish Center for Craft and Restoration's function and mission become integrated into the Flemish Agency for built heritage. Due to a persistent shortage of resources, the Flemish Government is faced with limited operational and policy space. Initiatives remain limited to short-term projects and focus on restauration quality oriented initiatives but entirely drops the link with social welfare.

On the other hand, the added value of cross-sectoral partnerships between employment and built heritage also resulted in applications on a more local level. Throughout the 2000s local actors introduced new organisational service models and even roles, namely intermuncipal monument maintenance teams funded by provincial authorities and NPO maintenance teams funded on city scale as social-ecological organisations. While the Flemish Government gradually moved away from a focus on preventive conservation and cross-sectoral collaboration approaches, these new mechanisms on local level were maintained and new separate initiatives started to appear. Thereby continued precarious financial situation and increased responsibilities in terms of built heritage management given by the Flemish Region

are creating a direct need for local innovations. Indicative are the provincial maintenance premiums continue to exist separately from the Flemish Government and a rural municipal government which implements an entirely new mechanism by offering a free membership to MOWA for all protected built heritage owner-managers and a reimbursement for the inspection costs, on condition that the applicants demonstrate that urgent works listed in the MOWA reports are implemented. This link with preventive conservation approaches at local level ensures that there are more initiatives that respond to cross-sectoral collaborations. The various maintenance teams at the provincial and municipal levels that were initiated in the course of the 2000s remain and new services appear completely outside of the sector but which nonetheless target built heritage maintenance. These include 'leerwerkbedrijven' or apprenticeship companies are successors of the social welfare mechanism, social economy enterprises and local initiatives that successfully establish their vision for social employment partnerships with the support of European funds.

Multi-level perspective of the single case study design

Based on the observations of the 4 case study sub-units, an informed MLP model is developed which illustrates the development of innovations towards preventive approaches and cross-sectoral collaborations, ongoing changes, pressures, risks and opportunities for change. Herewith, relevant developments on the landscape and niche level, are combined and linked with the results of the built heritage sector analysis. This broad analysis suggest that the change towards specific innovations was not directly linked to previous changes in the regime, but probably benefitted from the newly regionalised governance structure and long-lived a backlog in maintaining and restoring built heritage assets. On the other hand, the breakthrough was embedded in a larger change process. Social welfare changes and specific niche developments assisted in the operationalisation process. However, the analysis demonstrates that were it not solely local actors, nor the needs of the sector, nor external developments that provided sufficient triggers, but rather a combination. In that sense, the KBF and local actors were important, but also took advantage of the available opportunities and evolved in line with ongoing pressures. New initiatives among actors were more socially defined niches rather than built heritage related and deviated from the mainstream governance direction.

As can be observed from the MLP model, trajectories were non-linear, encountered set-backs and gained new interest:

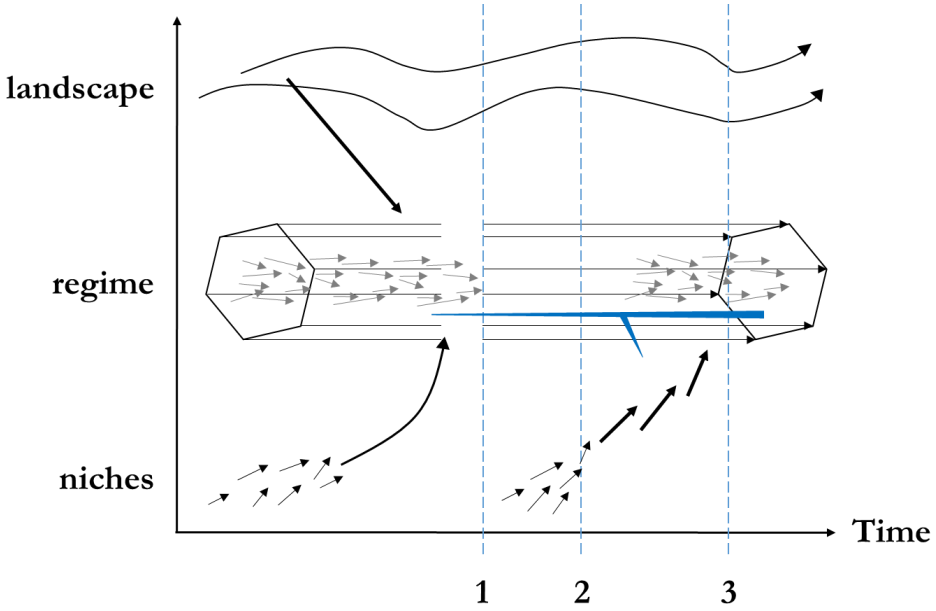


Figure 13: MLP model of innovations towards preventive conservation and cross-sectoral collaborations in the Flemish Region built heritage sector

(1) The regime is stable due to a professionalisation within the sector and social networks with shared normative rules, but susceptible to change due to different landscape developments, internal reorganisations due to the regionalisation process and long-lived restoration back-log. This proved a good ground for innovation as the regime welcomed innovations while one main niche was pushing change. Specific new initiatives followed a reconfiguration path whereby innovations were even incorporated in the regime, namely MOWA and maintenance premiums.

(2) These innovations did not yet change the architecture of the regime and due to new landscape developments the political sub-regime and skill building niches gradually moves away from the preventive conservation approach. However, MOWA continues to exist with support of the Flemish Region, allowing the organisation to build experience and take on a larger role in the regime, a.o. by means of further integrating its service in the cognitive framework of different actors in the regime, inducing awareness among built heritage owner-managers and demonstrating the demand side of the maintenance market.

(3) Following a set-back within the regime, several preventive conservation oriented and cross-sectoral collaboration niches are maintained or created from a direct demand on a local scale. These initiatives are sometimes linked with governance sub-regime supported actors or originate as independent enterprises, but are all increasingly related directly to social economy and closer to societal-end functions.

Conclusion of the single case study design

From the 1990s onwards the regime in the Flemish Region adopted several initiatives towards preventive conservation and cross-sectoral collaborations. The analysis demonstrated that most of these experiments lived a short life as the expected results advanced too slowly, the entire built heritage NPO structure changes throughout the 2000s and a sustained resource shortage of the Flemish Region budget

appropriation for built heritage. On the other hand, ongoing innovations on the local level indicate the need and interest in cross-sectoral and preventive conservation oriented niches.

The empirical data collection demonstrated that while there is interest of different actors in the Flemish Region of innovations towards preventive conservation and cross-sectoral approaches, they all have their own contemporary barriers in developing changes, with the market, (organisational) culture, governance and societal-end functions being the most pressing.

Whereas the local initiatives offer a possible direction towards more sustainable management of built heritage assets. Despite the usefulness of these new services and enterprises, the analysed local niches remain geographically or organisationally concentrated, they have not yet proven their long-term effectiveness and the current regime is not susceptible to inter-regime collaborations. Their impact is partially due to their mostly very independent character, but the innovations are not disruptive or known to the current regime.

Currently, these niches are foremost options that promise change, but which are not all bound to become applied in the future. The case study indicates two mechanisms that can influence this transition. Firstly, as the organisational culture and governance of the sector is characterised by established actors, SMEs and NPOs with firm service networks and specialised routines, it is difficult to break their strong market position. Although actors in this established network will probably not become the initial pioneers of innovations, their involvement and support could accelerate the development or even breakthrough of niches. As observed, the involvement of an organisation such as KBF can play a crucial role in this upscaling process, by offering support to the current local networks in the form of organisational freedom, clustering of different niches that are all affected by the same pressures, investing in learning processes that optimise the operation of current niches or commissioning analyses of current niches in relation to ongoing landscape pressures on the regime. Secondly, organisations such as MOWA can stimulate a specific change in cognitive routines of involved actors. As observed from the analysis, its long-term role of providing a preventive conservation rationale within the regime is generating more opportunities for other pathways than were unforeseen and unintended at its origination.

IV. Towards categories to analyse heritage-led innovation mechanisms

The quasi-evolutionary model for socio-technical change is a valuable addition to the Rip and Kemp model, as it highlights ongoing processes at the regime and landscape level. Nevertheless, while capturing the overall nature of a transition trajectory, the MLP model should be read as a transition archetype rather than an all-encompassing model.

Different variables can influence the innovation process, e.g. range of selection pressures, speed of technological discontinuity emergence, magnitude of development required before innovations can compete with existing technologies and services, levels of demand pull and science push, rate of innovation or the expected outcome of different groups in society (Vandesande 2017). Moreover, it has been noted that the unfolding innovation process can be divided into different phases, e.g. emergence, take-off, acceleration and stabilisation (Rotmans et al. 2001).

Therefore, the aim of this section is to categorise differences in innovation processes and define which mechanisms can be used to operationalise new ideas. Herewith, it is important to keeping in mind that

innovations start as niches, thus options that promise change but which are not all bound to become applied in the future. In order to gain an optimal understanding of the innovation process, it was therefore opted to base the categories of innovation mechanisms on long-term innovation case studies which entail more dynamics and insights then avalanche innovations.

1. Categories of innovation mechanisms

Within the theory itself, different key points can be identified that raise questions about the standardisation of an innovation. The dynamic process, interactions between different analytical levels and incremental innovations at the regime level all point to differentiated innovation patterns. This assumption was confirmed by analysing and structuring 20 different MLP applications and long-term innovation case studies according to the 5 'sensitising categories' developed by Van de Ven and Angle (1989) (*table x*). The initial aim of these categories developed by Van de Ven and Angle was to provide innovation managers and researchers with 'a core set of constructs to guide and unify different field studies of innovation and gather 'rich' longitudinal data on these concepts' (Van de Ven and Poole 1990: 317). Whereas the researchers are experts in the field of process research, the term 'sensitising' refers to the motivation and coordination of actors and users in developing and implementing new ideas. Within this research, the framework is used to categorise the identified differences between the transition archetype and the 20 long-term innovation case studies analysed during the research process.

Table 4: Differences between the transition archetype and long-term innovation case studies, structured within the process research grid-categorisation by Van de Ven and Angle (1989: 11)

Innovation categories	Transition archetype	Long-term innovation case studies
Ideas	From one specific idea to an operational innovation	Ideas are subjected to reinterpretation, profiling and adjustments.
		- cascade dynamics: macro-innovations that are developed through a series of (non-related) micro-innovations (Summerton 1994) - socio-cognitive evolution and learning algorithms (Geels and Raven 2007) - redefining initial radical ideas in context of regime (Verbong and Geels 2007)
Actors	Innovators in niches and their relation with relevant actors	Roles and institutional ties of all innovators and actors are dynamic and can evolve or even disengage
		- role of pioneers and the strategic alliances in different sectors (Rothaermel 2001) - producer-initiated process (van Driel and Schot 2005) - actors interpretation of a specific idea (Elzen et al. 2011)
Transactions	Innovator communities in niches or firms developing ideas into technologies and services	Expanding and contracting networks through engaging transactions with exogenous actors
		- completely new social groups that enable innovation (Geels 2002) - innovations through network destabilisation (Marvin and Perry 2004)

		- co-evolving actor networks (Geels 2005b)
Context	regimes and landscapes provide opportunities and constraints	Dynamic open-system boundaries where different regimes and landscapes can correspond
		- interaction between systems (Braun and Joerges 1994) - crossing regimes enabling innovation through integration (Robischon 1994, Geels 2007) - multiple regime interactions (Konrad et al. 2008)
Outcomes	Orientation towards final result and new stable regime	Open-ended boundaries can imply intermediate, multiple in-process, spinoff or integration results
		- one innovation's outcome can be the momentum of another or the springboard for new markets (Freeman and Perez 1988) - competition between old and new technology or service is replaced by a symbiosis (Pitorius and Utterback 1997) - innovation adds-on knowledge and rides along with old technology or service (Geels 2006)
Process	Dynamic sequence of different stages towards operational innovation	Multiple, divergent, parallel and sometimes related processes
		- specific change within larger transformation process (Ginsberg and Bucholtz 1990) - evolution over revolution: radical innovation is analysed as a stepwise process and series of adaptations in regime (Van den Ende and Kemp 1999) - regular change within the regime (Siggelkow 2002) - innovation gradually infiltrates regime (Smith 2006)

The different innovation case studies were found to bring about many deviating – and above all unique – patterns. The general MLP pattern whereby niches enter the regime is present in every case study. However, as can be observed, different variables can influence the pattern, e.g. range of selection pressures, speed of technological discontinuity emergence, magnitude of development required before innovations can compete with existing technologies and services, levels of demand pull and science push, rate of innovation or the expected outcome of different groups in society. Moreover, it has been noted that the unfolding innovation process can be divided into different phases, e.g. emergence, take-off, acceleration and stabilisation (Rotmans et al. 2001).

Accepting that every innovation is unique implies a logical leap, but what does this imply for the MLP research methodology? Questions on the empirical soundness have been raised due to its complexity, broad unit of analysis, qualitative data usage and difficulty to pinpoint boundaries (Genus and Coles 2008). Although these arguments are recognised within the research process, their impact should be placed in a broader perspective. Keeping in mind the intrinsic link with open system thinking, the MLP is aimed more at networked systems research rather than solely rigorous quantitative data gathering analysis and replication. The empirical research of processes in complex, dynamic and networked systems implies dynamics like imprinting, path dependence, clustering and interaction, bifurcations, tipping points and thresholds, internal feedback loops and time delays (Senge 1990, Vergne and Durand 2010). These mechanisms directly influence the innovation process and induce a very complex ontology for which no

ready-made research approach is at hand, since 'most current scientific methods are not particularly well suited for research on change and development processes' (Poole et al. 2002: 4). This ontology-methodology balance does however not necessitate a radical compromise. Based on the examples indicated above, it can be stated that the MLP and its structural patterns hold for various innovation case studies. Thereby, the model has proven to be ***a highly qualitative research framework rooted in Darwinian metaphysics, actor-network theory, sociotechnical research and large technical systems research.*** Without reducing its research scope to the pitfall of formal theory, scientifically sound methods like comparative and nested case studies (Chong and Graham 2013), variation theory (Poole et al. 2000) and network analysis (Newman et al. 2006, Westaby 2012) can be applied. While the basic requirements of each innovation case study are – as in every scientific research – quality of data collection, critical interpretation of results and a well-founded conclusion, the MLP can be used and operationalised differently according to the type of innovation, focus of the researchers and the data collection methods. In short, 'the MLP should not be reduced to a mechanical procedure by forcing it into a variance theory straightjacket. The research of complex phenomena such as transitions cannot be reduced to the application of methodological procedures and will always contain elements of creative interpretation' (Geels 2011: 36).

2. Heritage-led innovation mechanisms

Innovation categories	Innovation archetype	Heritage-led innovations in Europe (Based on mapping outcome: will be elaborated after pan-European mapping)
Ideas	From one specific idea to an operational innovation	Needs form different actors (from different disciplines) are translated in one joint idea or vision
		- socio-cognitive evolution based on needs and possibilities of heritage assets ***Example:*** *Traditional Farm Buildings Grant Scheme as part of the Rural Environmental Protection Scheme in Ireland's Rural Development Programme 2007-2013 – Collaboration of the department of Agriculture, Food and the marine with the Heritage Council. Wildlife preservation through restoration of traditional buildings in rural areas* - redefining initial ideas to joint narrative ***Example:*** *Tarvisium Goioisa, Trevisio, Italy - long-term project that aims primarily at preserving and securing painted plaster, thanks to the contribution of the community, public and private institutions. The focal point is the development of a sensitive and conscientious mentality, regarding the protection of its artistic assets, in a spirit of collective "mutual aid", felt by the small provincial city as far as international organizations.*
Actors	Innovators in niches and their relation with relevant actors	Team of innovators
		- Actors interpretation of a specific idea ***Example:*** *ArchAIDE – app designed by the ArchAIDE project aims to improve the practice of pottery recognition in archaeology, using the latest automatic image recognition technology. The app is designed to optimise and economise the process of pottery identification, making knowledge accessible wherever archaeologists are working*
		Actors collaborate with other sectors to gain more resources
		- cross-sectoral collaborations (upstream approach) ***Example:*** *Obnovme si svoj dom / Let's restore our home (Slovakia) – collaboration between Ministry of labour, social affairs and family and the Ministry of culture for the preservation of the built heritage through inclusion of unemployed*

		Roles and institutional ties of actors are dynamic and can evolve
		- stakeholder engagement: distinctive interactions with users (is even a "type of innovation") ***Example:*** *Cabbage Field, Kaunas, Lithuania - Community art as a tool to reevaluate uncomfortable heritage and establish urban regeneration while enhancing of the community feeling* ***Example:*** *Hôtel du Nord, Marseille, France - collection of smaller local initiatives create the conditions for various local actors to come together and to take action against the discrimination and poverty that affects certain neighbourhoods around Marseille*
Transactions	Innovator communities in niches or firms developing ideas into technologies and services	Creating and expanding networks by communication and raising awareness
		- new groups of interest that endorse / carry innovation ***Example:*** *Adopt a monument - citizens to 'adopt' monuments, to care for them and return them to use. As caretakers of these monuments, they contribute to raising awareness in the local communities about their heritage by researching the history of the site.* - innovations through network stabilisation ***Example:*** *Limousin-Aubusson crafts, France - Limousin has a fragile economy composed mainly of small and medium sized enterprises. The number of weavers is failing sharply and there has been no sign of a revival from the younger generation. In 2010, an international hub / network of tapestry and woven art was created to develop and promote Aubusson tapestry in terms of training, promotion, development and innovation.*
		Idea is developed into technologies and services by co-creation among different actors
		- quadruple helix innovations ***Example:*** *Balatoncsicso, Hungary - experimental project of involving small local communities to restore the Roman Catholic parish building of Balatoncsicsó with the involvement of 5 villages of Nivegyvalley. The new functions and social enterprises of the building were designed during active participation workshops with a wide array of experts, local entrepreneurs, civil organizations and inhabitants.*
Context	regimes and landscapes provide opportunities and constraints	Dynamic boundaries where different regimes and landscapes can correspond
		- interaction between systems ***Example:*** *SiMAX is a software system that provides a quicker and more affordable solution for translation into sign language by using an animated avatar. The structure of the technical basis of the avatar system is the result of the interaction with museum stakeholders to understand their special requirements* - crossing regimes / enabling innovation through integration of production, consumption and governance ***Example:*** *Brozeit, Leschatal, Austria - focuses on the cultural sustainability and the manifold agricultural and manual practices of the cultivation and processing of grains and the production of bread. This dynamic process of transfer and application of local knowledge and practice, as well as the meaning of these living traditions for the local community, lies at the center of the innovation.*
Outcomes	Orientation towards final result and new stable regime	Intermediate, symbiosis or integration of results
		- competition between old and new approach to preserving heritage is replaced by a symbiosis

		Example: *Casa & Bottega, Fontecchio, Italy* - Damaged by the 2009 earthquake, Fontecchio and its small community are facing the need to reconstruct their community. The local government, associations and facilitators created a symbiosis between physical and social reconstruction, focusing on civic education, citizen participation, care for the landscape, re-use of cultural heritage for economic development, resettlement and social cohesion. - innovation adds-on knowledge and rides along with old technology or service ***Example:*** *NANOMATCH - Consolidants for stones and stone-like materials to improve the resistance and durability of historic materials. The products are based on alkaline earth alkoxides with a great potential for the development of nanostructured materials, thanks to their high versatility of metal functionalisation.*
Process	Dynamic sequence of different stages towards operational innovation	Parallel processes, gradual innovations - evolution over revolution: radical innovation is analysed as a stepwise process and series of adaptations in regime ***Example:*** *Nicosia Master Plan Project - collaboration between the two major communities of Nicosia, Greek Cypriots and Turkish Cypriots. Gradual development of masterplan based on mirror initiatives and pilot projects on both sides of the city (urban pilots, surveys, studies for emergency support of buildings, restoration proposals)* - innovation gradually infiltrates regime ***Example:*** *FarmCultural Park, Favara, Italy - a rural depopulated area is turned step-by-step into an open air art gallery and exhibition space and has now gained an international outlook. The project has brought a whole new breath of life to Favara, previously known mostly for its general decrepitude and for having one of Italy's highest unemployment rates. Several elderly local women, who had clung to their homes in the semi-abandoned town centre, now live amongst the exhibition spaces, happy to have company and to once again reside in a neighbourhood that is safe and alive. Meanwhile, a growing number of local youth have come to volunteer at the project.*

V. Measuring heritage-led innovation: evaluation criteria and indicators

macro indicators - measuring impact of heritage-led innovation on regime level
Enhanced preservation of heritage and optimal use of its innovation potential for sustainable development – New products and services with an innovative approach to heritage-led development; – New products and services developed in Europe for sustainable development based on heritage assets; – Employment rate in knowledge-intensive heritage activities; – Trade in knowledge-based heritage products and services; – Number of innovative heritage oriented SMEs; – Reduced regulatory and economic barriers; – Intensity of local competition; – Growth of local service industry (especially where it used to be very small); – Growth of local artisanal industry (focusing on small production) ***Emergence of a (global) market for heritage-led sustainable innovation, through EU-wide evidence and increased awareness among investors, practitioners and the public*** – Start-ups or spin-offs of specialized heritage asset management consultants

<table>
<tr><td colspan="2">
– Start-ups of specialized heritage consortia (based on performance contracts);
– Increases of business assignments for heritage oriented consultants;
– Increase of heritage based service and software sales;
– Integration of heritage in training, policy, and research;
– New products and services developed for heritage-led sustainable development;
– Growth of local service industry (especially where it used to be very small);
– Newly mobilised investments for heritage assets;
– Local governance capacities benefitting heritage assets
</td></tr>
<tr><td colspan="2">micro indicators - measuring impact of heritage-led innovation on niche level</td></tr>
<tr><td colspan="2">Checklist for heritage-led innovation niches</td></tr>
<tr><td colspan="2">
□ New knowledge is used to create the innovation
□ The goal of the innovation is value creation or improving the current situation
□ The innovation is implemented or at least tested
□ The innovation is made available to others
□ The innovation has an impact on society or market (professionals)
</td></tr>
<tr><td>feasibility of niche innovation: evaluation and indicators
This section will be updated in line with the results of D3.9: Overview report on regulatory, economic and technical barriers for CH-led development in Europe</td><td>impact of niche innovation: evaluation and indicators
This section will be updated in line with the results of the milestone Pan-European survey and will feed the end-user version innovation and diplomacy handbook</td></tr>
<tr><td>Political feasibility
– Regulatory standards: Product or service approval / cross-border trade
– Political commitment of relevant stakeholders and end-users

Economic feasibility
– Fits within wider strategy of organization, sector or heritage value chain
– Synergy potential with existing products and services
– Cost-benefit balance of start-up costs
– Market size: market is as wide as anticipated and the innovation receives sufficient interest from end-users
– Market entry: level of difficulty to bring the product to the user group
– Favourable fiscal climate

Social feasibility
– Internal barriers: level of acceptance by local (heritage) communities
– Fits within wider strategy and policy of a community</td><td>Level of value creation or improvement of current situation
– Number of people / percentage of respondents stating positive impact of innovation

Level of testing or implementation
– Number of people / percentage of respondents impacted / affected by the innovation

Level of accessibility to others
– Number of people / percentage of respondents stating being able to access knowledge and use the innovation

Level of impact on / attractiveness to political and governance institutions
– Number of people / percentage of respondents reporting increased credibility of the government’s commitment to heritage-based policies
– Number of people / percentage of respondents reporting increased quality</td></tr>
</table>

– Differences in ethnicity, race or religion Technical feasibility – Level of skills and technologies of main initiator or actor – Different technology by competing actors – Replicability of good practices Environmental feasibility – favourable climatic conditions – availability of natural resources – topographic conditions – geographic conditions Legal feasibility – compliance with ethical standards – availability of legal powers to implement a particular measure – level of ability of local authorities	and speeds at which decisions are made in relation to heritage-led development – Number of people / percentage of respondents reporting increased quality of policy formulation Level of impact on / attractiveness to (target) market – Number of people / percentage of respondents stating increased mobilised investment for heritage due to the innovation – Number of people / percentage of respondents reporting trends of local sustainable development due to the innovation Level of impact on / attractiveness to society – Number of people / percentage of respondents indicating empowerment of individuals and societies to act out of their own initiative and interests due to the innovation – Number of people / percentage of respondents indicating stating positive development of civic engagement and social cohesion due to the innovation Level of impact on technology, knowledge and capacity – Increase in experience and good practiced in relation to heritage – Increased trade in knowledge-based heritage products and services – Increased employment rate in knowledge-intensive heritage activities – Number of new products and services developed in Europe for heritage-led innovation Level of impact on environment – Number of people / percentage of respondents indicating stating positive impact on environment (e.g. biodiversity) due to the innovation

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Heritage-led diplomacy

1. Key terms for introducing heritage-led diplomacy

The discussion about the potential and role of heritage within the area of diplomacy needs to commence with defining key terms and areas related to diplomacy (for the definition of cultural heritage see previous sections). The term "diplomacy" depicts a broad phenomenon – as diplomacy covers vast topics, from security to international dialogue, - whose understanding and scope tends to evolve over time. For the purpose of the ILUCIDARE project the main focus here will be put on defining four key diplomacy disciplines most relevant for the project's heritage scope: diplomacy itself, public diplomacy, cultural diplomacy and science diplomacy.

1.1 Diplomacy

The English word "diplomacy" was introduced in the end of the 18th century by Edmund Burke (1796); it was based on the French word "diplomate", which back then was referring to an individual authorized to lead conversations on behalf of the state. One of the most common definitions of diplomacy belongs to an English diplomat Sir Harold George Nicolson (1963), who, following the definition of the Oxford English Dictionary, identified diplomacy as the "management of international relations by negotiation; the method by which these relations are adjusted and managed by ambassadors and envoys; the business or art of the diplomatist." This approach is supported also by more recent claims by Geoffrey R. Berridge (2015, 1) for whom "diplomacy is an important way to develop foreign policy. Its chief purpose is to enable states to secure the objectives of their foreign policies without resort to force, propaganda or law. It achieves its mainly by communication between professional diplomatic agents and other officials designed to secure agreements." This is a conservative way of analysing diplomatic action that in the contemporary, very complex, world might not always be the most appropriate for discussing the way external relations of a country function.

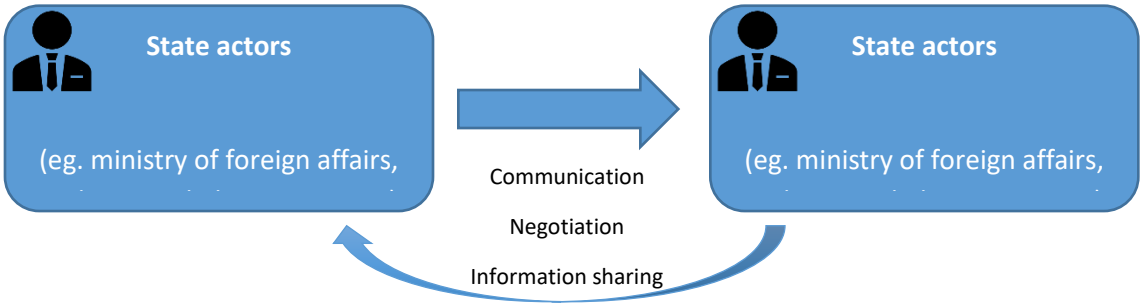

Figure 1: Classical approach to the diplomatic action. Source: own, based on literature review.

Already Berridge (2015, 2) himself points out that contemporary "diplomacy is not merely what professional diplomatic agents do. It is carried out by other officials and private persons under the directions of officials". An even broader view on the term is presented by Lee and Hocking (2011) who define diplomacy as "a means of connecting individuals, groups, societies, economies and states to build and manage social relations in domestic and systemic environments." They argue that orthodox definitions of diplomacy are tied to the realist school of international relations, which at the moment is

more often contested by those authors who do not accept the state as the exclusive unit of diplomatic analysis and who I their work employ analytical models from constructivist, postmodern and critical IR theory (ibid). What unites these new approaches is the acceptance of the fact that it is not only the sovereign state and its agencies who conduct diplomatic activities – but also non-state actors (a similar idea is put forward by Cull (2009) and his distinction between old and new public diplomacy - see below).

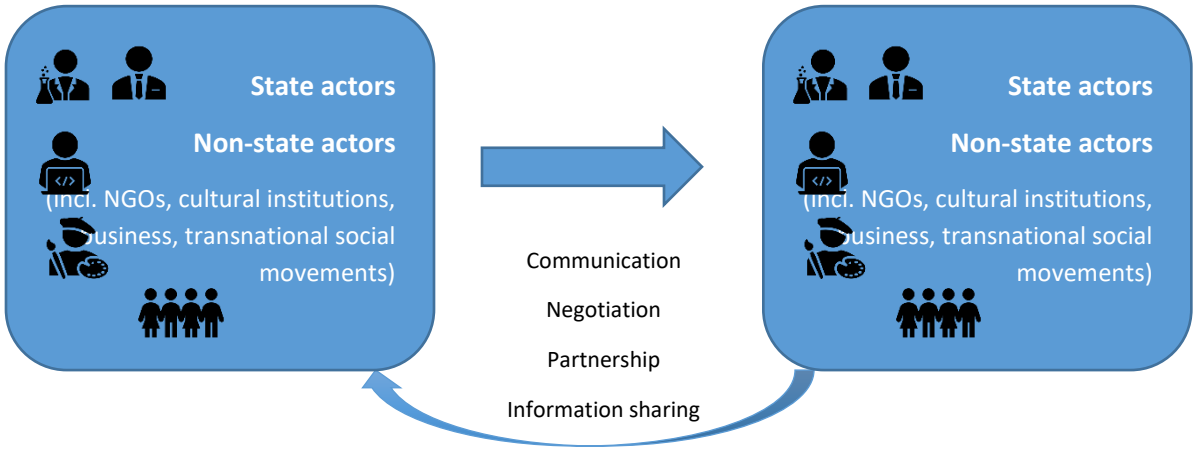

Figure 2. New approach to the diplomatic action. *Source: own, based on literature review.*

Consequently, Lee and Hocking outline two broad approaches to the theory of diplomacy – a set of state-based political processes and a set of network-based political processes (ibid). The first approach is quite narrow and relies only on the foreign relations run by foreign ministries and their agendas abroad (eg. embassies). The second, however, includes also new public and private actors and emphasizes changes (such as globalisation or regionalisation) in the international system that increases complexity of social, economic and political context of diplomacy. This two perspectives align also with "statist" and "globalist" perspectives, where the latter claims diminished significance of the state and the patterns of intergovernmental relations surrounding it and an increased role of non-state actors (NSAs) (Hocking et al. 2012). However, Hocking et al. (2012) propose to embrace both approaches, rather than "zero-sum interpretations of relationships between the state and NSAs", coining a new term "integrative diplomacy" which acknowledges the importance of the state diplomatic actions but does not overlook the changes in the environments it operates and the new actors active in the field. It is claimed to capture "challenges confronting policy makers in an era of crowded agendas and increasingly dense patterns of communication (10)." As they argue (20), this complexity is made of several different overlapping patterns, including:

- Intergovermenal level – as viewed by the traditional approach to diplomacy described above;
- Multi-layered pattered – where the diplomatic action happens both on the governmental and non-governmental level as well international organisations level;
- Private level – diplomacy is conducted by non-state actors with little governmental participation;
- Loose couplings pattern of unstructured diplomacy.

The ILUCIDARE project adopts the definitions referring to diplomacy in its broader sense as they seem optimal for the detailed and complex theoretical analyses of the relations between cultural heritage and diplomacy and practical applications as mandated by the project. To cover the whole spectrum of theoretical approaches and practical implementations of diplomacy projects, the integrative diplomacy approach, with state and network-based perspectives to diplomacy will be employed in the ILUCIDARE analysis.

1.2 Public diplomacy

Once the term diplomacy have been discussed, an even broader one (in terms of, i.a. actors involved) – public diplomacy – seems crucial to analyze and understand the role of heritage in diplomacy. The most visible distinction of public diplomacy, as compared with diplomacy as such, is the target group. Diplomacy, in its more traditional definition, is mainly directed at official agents of a sovereign state, while, public diplomacy is intended to communicate with foreign public. The idea as such is not new. Through the human history attempts to promote a country and its image not only to the decision-makers in other countries but to their inhabitants are clearly visible (with the invention of print being a milestone). This communication can be seen in a number of ways. The traditional one entails official, state-centered government-to-publics interaction that is linked to a state's foreign policy outcomes (McPhail, 2011: 89). New public diplomacy looks at a more varied spectrum of actors, objectives and tools used.

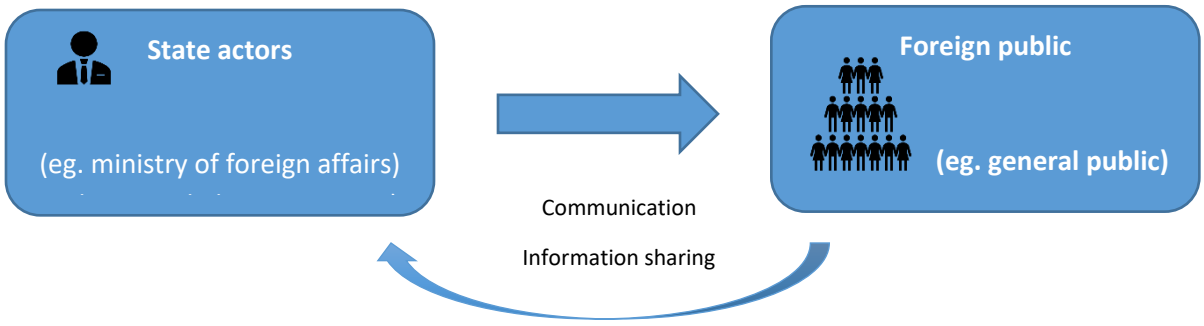

Figure 3. Old public diplomacy. Source: own, based on literature review.

While standard diplomacy can be described as the ways in which government leaders officially communicate with each other at the highest levels, public diplomacy, by contrast, focuses on the ways in which a country, multilateral organizations or other actors active in the international sphere communicate with their counterparts in other societies. These newly acknowledged actors include non-governmental organisations, cultural institutions, business, social movements and even individuals.

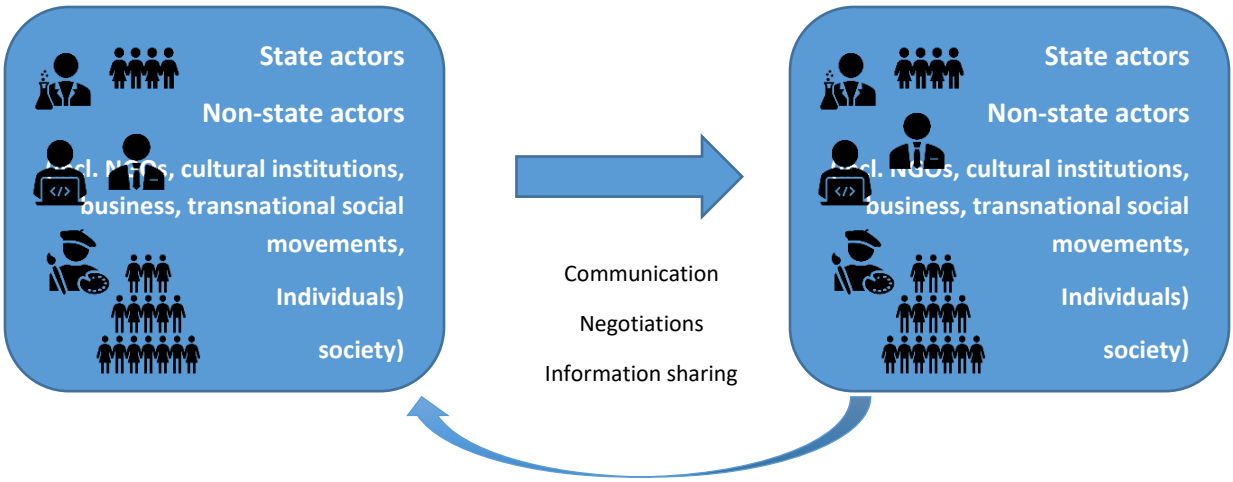

Figure 4. New public diplomacy. Source: own, based on literature review.

Agreeing that there are new actors being recognized as important players in diplomacy, a concept of norm entrepreneurship (Vadura 2015) in diplomacy can be invoked, in particular one of its key actors – epistemic communities. They are defined as "networks of experts who persuade others of their shared norms and policy goals by virtue of their professional knowledge" (Cross 2018). Their importance in diplomacy lies in the shared expertise not a quest to influence policy, as is the case with many other actors. Moreover, their action is crucial in translating knowledge into power. As an example Cross (ibid) presents the role of the EU in shaping global climate policy and environmental governance. She states that through UN-EU policy linkages, European scientific experts have been able to shape United Nations' climate policy, and that the EU's diplomatic efforts directly led to the formation of the 2015 United Nations Paris Climate Agreement. The value of the epistemic community here, as Cross claims (ibid) was laying the basis for signing the international agreement by mainstreaming the climate issue and incorporating it into development policies domestically in third countries

Public diplomacy might be taken as a metaphor for the democratization of diplomacy with a number of various actors playing a role in the area of international relations that once was restricted only to governments (Melissen 2011). Melissen (2011, 19) points out to three forms of public diplomacy that seem to have appeared and gained importance over the last years: public-private partnerships between government and business; citizen diplomacy and the domestic dimension of public diplomacy.

In that sense public diplomacy is very often analysed through a broader term, i.e. *soft power*. The term, coined by Joseph S. Nye back in the 1980s, is defined as "the ability to obtain preferred outcomes by attraction and persuasion rather than coercion and payment. It arises from the attractiveness of a country's culture, political ideals, and policies" (Nye 2004, x). Public diplomacy is often seen as a tool for soft power (e.g. Nye 2008). Bátora (2005, 4) explicitly states that "public diplomacy comprises all activities by state and non-state actors that contribute to the maintenance and promotion of a country's soft power."

According to the EU definition, public diplomacy refers to the process "whereby a country [or an entity] seeks to build trust and understanding by engaging with a broader foreign public beyond the governmental relations that, customarily, have been the focus of diplomatic effort" (Culture in EU External

Relations, 2014). Nowadays the "beyond the governmental relations" factor has gained on importance. Government agencies carry out public diplomacy increasingly in tandem with non-governmental and trans-national entities, who have their own agendas for domestic and international affairs. The latter might partner with a governmental institution at one time, and, in other times, stay opposed to it pursuing their own interests. Nicholas J. Cull refers to it as to the new public diplomacy and lists seven dominant characteristics that differentiate the old public diplomacy from the new approach (Cull, 2009, 12-14), which are quoted in Figure 5 below.

The main difference between the traditional diplomacy and the public diplomacy is that the former includes relations between international actors and their attempts to manage the international environment, while the latter is seen as a way of managing international environment through engagement with a foreign public, be it a massive audience or individuals influential in a given society. This engagement may also entail interaction and even changing the approach on the side of the country running the diplomacy. Involvement of non-state actors, use of new media and technology, blurred division between domestic and international news, networking instead of propaganda, openness towards dialogue with various stakeholders groups and focus on relationship building - they all lead to an efficient management of the international environment in the new public diplomacy approach. The aim of managing the international environment, remains unchanged, however the means to reach it have been redefined. Such an approach is also in accordance with Lee and Hocking's division between state-based diplomacy vs. network-based diplomacy, mentioned above.

Table 1. The Old Public Diplomacy and the New Public Diplomacy (Cull 2009, 14)

	Dominant Characteristics	Old public diplomacy	New public diplomacy
1	Identity of international actor	State	State and non-state
2	Technological environment	Shortwave radio Print newspapers Landline telephones	Satellite, Internet, Real-time news Mobile telephones
3	Media environment	Clear line between domestic and international news sphere	Blurring of international and domestic news sphere
4	Source of approach	Outgrowth of policy advocacy & propaganda theory	Outgrowth of corporate branding & network theory
5	Terminology	"International image" "Prestige"	"Soft power" "Nation Brand"
6	Structure of role	Top down, actor to foreign peoples	Horizontal, facilitated by actor

7	Nature of role	Targeted messaging	Relationship-building
8	Overall aim	The management of the international environment	The management of the international environment

Analysis of approaches towards public diplomacy done by Cull (2009) result in the a list of elements that usually are present in the diplomacy conducted by states. At times some of these elements may dominate a state's approach to its diplomacy as presented in Figure 6. The author emphasises here that the first one listed, Listening, is the key element to the successful diplomacy in every kind of approach, followed by balancing, financing and implementing all of these elements to achieve their synergy. It has to be noted that psychological warfare is treated in this taxonomy as a parallel activity as it usually is placed outside the most conceptualizations of public diplomacy, although it does share some of its goals and tools.

Table 2. Basic Taxonomy of Public Diplomacy & PsyWar (Cull 2009, 15)

	Type of Public Diplomacy	Sample Activities	State in which this form of Public Diplomacy has been salient
I	**Listening** (collecting and collating data about publics and their opinions overseas and using that data to redirect policy or wider public diplomacy approach accordingly)	Targeted polling	Switzerland
II	**Advocacy** (undertaking an international communication activity to actively promote a particular policy, idea or an actor's general interests in the minds of a foreign public)	Embassy press relations	USA
III	**Cultural diplomacy** (making cultural resources and achievements of a country known overseas and/or facilitating cultural transmission abroad)	State-funded international art tour	France
IV	**Exchange diplomacy** (sending its citizens overseas and reciprocally accepting citizens from overseas for a period of study and/or acculturation)	Two-way academic exchange	Japan

V	**International broadcasting** (using the technologies of radio, television and Internet to engage with foreign publics)	Foreign language short-wave radio broadcasting	Britain
	PsyWar (use of communication to achieve an objective in wartime, usually through communication with the enemy's public)	Desinformation	USSR

Since public diplomacy is in a way an intentional and conscious attempt to manage international political communication that includes the activity both of state and non-state actors, it can be seen as a form of international political communication (Ociepka 2013, 81). If so, one must take into consideration that contemporary international communication is no more a hierarchical process but it is rather build on network society model with non-state actors acquiring resources and tools previously reserved only for the state. In a public diplomacy described as a network, a state can still play an important, coordinating or initiating, role, but not a dominant anymore. Moreover, this network characteristic is not only important to consider on the sender side of the communication process but also on the receiver side, where the public targeted by public diplomacy is also organised as a network; it is also how opinion-forming process takes place.

If public diplomacy is a mean of communication that has a certain international goal, is it different from propaganda? Although in particular cases, it might be difficult to set a clear division between the two, the basic difference between public diplomacy and propaganda lies in the symmetry of mutual benefits. While propaganda is focused on the interests of the sender (of the message), and often uses manipulation or refers to violence, public diplomacy is aimed at mutual benefits and building relations. Of course, it also might depend by the definition of propaganda. Cull (2009) notes that public diplomacy may become propaganda if used for an immoral purpose. And "in the morally neutral sense in which propaganda is simply mass persuasion, there is an obvious overlap" (23).

Public diplomacy might also have some interrelations with public relations. In fact for some authors, they both seek similar objectives and use similar tools (Signitzer & Coombs 2002). What joints these both terms together is the image of a given country and its residents. This somewhat narrow approach to public diplomacy reduces it to disseminating and promoting goals of a government of a given country abroad. In this sense public diplomacy is then subordinated to the creation of a national brand.

Media are important element of the soft power puzzle of many states with the US and Great Britain, having the advantage of contemporary lingua franca (English), as primary examples here. This phenomenon includes information media, such as the CNN, the first 24 hour television or the BBC, seen as a benchmark of television quality around the globe, as well as the Hollywood, HBO or Netflix productions. The latter examples can be treated as carriers and promoters of emotions and information about the American lifestyle that gained a certain level of appreciation around the globe, even in the

countries which not necessarily support American politics. It must be stressed here that products of popular culture became important in creating countries' images and are often treated as tools for public cultural diplomacy.

Classic example of one-direction public diplomacy tool is the so called international broadcasting. Voice of America, Radio Free Europe remain the well-known examples of radio programmes broadcasted abroad, at the same time functioning as basic tools in the times of the cold war era. Now the same role has been taken over by the internet, life streaming, multilingual portals. Radio and television have not ceased to be important, they however evolved (online platforms combined with info portals and social media, VOD). States still support local media, including radio stations in the areas of conflict, it is part of the development aid directed at, for example, African countries (Ociepka 2013, s. 188). The importance of social media can neither be underestimated here.

1.3 Science diplomacy

Among other types of public diplomacy (*The SAGE Handbook of Diplomacy* lists more than a dozen types – e.g. religion diplomacy, city diplomacy, citizen diplomacy, celebrity diplomacy, and digital diplomacy [2016]) several sub-types (also known as branches or specialisations) with their respective objectives, activities, mechanisms, and challenges might be seen as particularly relevant to cultural heritage-led diplomacy, which remains of central interest to the ILUCIDARE project. The present section will briefly address two of the themes, namely science diplomacy and cultural diplomacy, which seem to share a number of characteristics with the heritage-led diplomacy.

Despite the fact that the links between science/technology and diplomacy can be traced back to the Greco-Roman (Copeland 2016, 631) and Byzantine Empire (Guha Majumdar 2018, 1), it is the activity of the British biochemist, sinologist and historian Joseph Needham, the first science director of the UNESCO, and his memorandum on the International Science Co-operation Service announced during WWII (Needham 1944) that has been widely recognised as the beginning of science diplomacy (Guha Majumdar 2018, 1). In the years to follow, the objectives stipulated by UNESCO's Department of Natural Sciences in 1946, which included the creation of new forms of international scientific cooperation, networks of field science offices, and promotion of international implications of scientific discoveries among the general public (Finnemore 2001, 78), were independently addressed and developed by, among others, the famous Einstein-Russell memorandum of 1955, the Pugwash Conference and Movement (1957, and onwards), and NATO Science for Peace and Security Programme (1958). Today, scholars emphasise the fact that science diplomacy – defined as "a diplomatic technique by which S&T [science and technology] knowledge is freed from its rigid national and institutional enclosures, thereby releasing its potential to address directly the drivers of underdevelopment and insecurity" (Copeland 2016, 629) – is based on mutual reciprocity: while "science inform[s] and support[s] foreign policy objectives […] and improve[s] international relations", diplomacy is recognised as a means of "facilitate[ing] international scientific cooperation" (Guha Majumdar 2018, 2). What is more, three distinctive areas have been recognised within this category. As Daryl Copeland argues, they are: "informing foreign policy objectives with scientific advice (science in diplomacy); facilitating international science cooperation (diplomacy for science); and, using science cooperation to improve international relations between countries, regions or organizations (science for diplomacy)" (Copeland 2016 629). It also needs to be added that some

researchers (Copeland 2016, 630) differentiate between science diplomacy per se (direct relationship to state's interest and policy) and international scientific cooperation (commercially oriented, without state participation) – with the latter not being acknowledged as science diplomacy. Taking into account that current foreign policy of individual states increasingly relies on shared/global challenges whose solutions are dependent on scientific research (climate change, energy/food/water shortages, species extinction, epidemic threats, etc.) it is evident that scientific advice and cooperation should and is becoming more and more valued by policymakers.

López de San Román and Schunz outline the manner in which the European Union has diplomatic advantages to harness for the advancement of science diplomacy (López de San Román & Schunz, 2017) For these authors, the European Union's diplomatic assets as a normative power and as market power allow it to become a knowledge-based actor and also a partner in tackling global challenges (ibid) – essential for any actions undertaken in science diplomacy. Moreover, the authors state that the European Union is an effective mediator-integrator and also an optimal partner in mutually beneficial cooperation (ibid) – advantages for cross-fertilisation of efforts, and for giving innovative perspectives into ongoing challenges.

On the basis of selected existing research into science diplomacy (Copeland 2016, Łuszczuk 2017, Guha Majumdar 2018) and investigation of prominent science diplomacy bodies (e.g. Centre for Science Diplomacy, American Association for the Advancement of Science), one could formulate the following key points which might be relevant to cultural heritage and cultural heritage-led diplomacy:

- Science diplomacy actively contributes to positive branding and national image (e.g. specialisation of states with regard to a specific field of science);
- Science diplomacy uses neutral, non-ideological language and recognises science as the language of all humanity;
- Science is considered a means of building bridges;
- Production of scientific knowledge is linked with political agency;
- Science diplomacy promotes evidence-based policymaking;
- Science diplomacy might serve as an instrument of maintaining bi/multilateral relations in the time of tensions;
- Science diplomacy is future-oriented;
- Science diplomacy profits from the so-called "disaggregated model" – i.e. promotes the involvement on non-state entities;
- Science diplomacy depends on scientific community being both knowledgeable and empowered so as to influence policymakers.

Having in mind the project's understanding of cultural heritage (see the ILUCIDARE working definition of heritage), one could argue about a number of conceptual overlappings which exist between the two areas with regard to diplomacy. For example, both are understood as future-oriented and considered strategic instruments while facing common problems of humanity in the 21st century (see e.g. the definition of heritage by the Council of the European Union and widely-quoted understanding of the role of science by Nina Fedoroff (in: Coleman 2016, 629). Both rely on the universality of their respective languages and dependence on scientific/expert communities, while at the same time becoming more inclusive and open

to the processes of democratisation. In both cases one could observe state-based specialisations (e.g. biosecurity in case of New Zealand, reconstruction of historic cities in case of Poland/Central Europe). Oftentimes, they are also powerfully linked to a given political agenda (e.g. dissonant/difficult heritage), yet both are seen as instruments of building-bridges.

A valuable example of the alliance of cultural heritage-led and science diplomacy is the InsSciDE (Inventing a Shared Science Diplomacy for Europe) project, running parallelly to ILUCIDARE within the framework of Horizon 2020 (www.insscide.eu). It is based on a group of academics researching interactions between heritage and diplomacy with regard to shaping relationships among past and present-day foreign policy actors and scholars in Europe and in the Near East. The three case in Syria and Iraq, including the European Syrian archaeological mission of Tell Beydar, are used to investigate “the legacy of shared responsibility” between European and Near Eastern scientific and political actors. The main focus is on the Near Eastern archaeology which is seen both as a means to achieve “a common future rooted in a shared memory”, and to analyse if and how ongoing archaeological undertakings in conflict zones contribute to science diplomacy processes. The results of this project might turn out particularly useful for the identification of shared mechanism and tools between science and cultural heritage-led diplomacy.

1.4 Cultural diplomacy

Cultural diplomacy is the ”attempt to manage the international environment through making its cultural resources and achievements known overseas and/or facilitating cultural transmission abroad (Cull, 2009, 20). Institute for Cultural Diplomacy adds that using the exchange of ideas, values, culture and heritage is meant to strengthen relationships, enhance socio-cultural cooperation as well as to promote national interest (www.culturaldiplomacy.org).

Historically cultural diplomacy was linked to state’s policy to facilitate the export of its cultural products. States have always used culture as a mean to disseminate their own political, social, cultural and economic values, Franklin remarks (1965, 3). Brown (2016, 36) actually argues that our contemporary concepts and practices of cultural action stem from the development of nation states in 19th century Europe and vision of the world as built of nations, attributing all characteristics of a country to the expressions of the nation. Promoting arts, culture, heritage was promoting the nation.

Today it is more based on mutual dialogue and two-way relations. In the EU, the Joint Communication Towards an EU strategy for international cultural relations (2016) marked a new way of conceiving cultural diplomacy from “showcasing and promoting excellence of one country to a cultural diplomacy that is built on direct exchanges between people and organisations, on mutual learning and co-creation". The new approach considers establishing partnerships in targeted countries on an equal footing and taking up ideas from citizens and stakeholders rather than imposing views on a top-down approach.

It is interesting to note here that actually development of cultural diplomacy preceded public diplomacy with a visible increase in meaning during the cold war. Nowadays, however, the first is often seen as part of the latter.

It is generally agreed that the official history of cultural diplomacy started with the development of national institutes with the Alliance Française in 1883 being the first one. The founders of the Alliance were convinced that their main aim of teaching and promoting French language translated directly to the

influence and prestige of France (Brown 2016, 39). However, The Great Exhibition of the Works of Industry of All Nations in London in 1951, followed by two other in Paris (1889 and 1900), should not be forgotten in this context. At that time the stage of cultural diplomacy seemed to be dominated anyway by non-governmental actors who pursued nationalistic goals. Gienow-Hecht (2010) sees here a similarity to the current situation and actors active in the field. At the turn of 19th and 20th centuries the state had little influence over their actions as they did not see the point in investing or financing such actions and left them mainly to non-state actors. Elements of cultural diplomacy were included in the activity of ministries of foreign affairs after the First World War, followed by the first broadcasting abroad: Radio Moskva - 1929, Deutsche Welle - 1929, BBC World 1932, The Voice of America 1942. The cold war change the approach and states started to invest in their official cultural relations and diplomacy. The 9/11 was another important point the history of cultural diplomacy (Ociepka 2013, 148).

Quoting Düwell (2009) the following typology or a development trend of cultural diplomacy could be observed:

- Cultural diffusion - characteristic to early modern states, such the case of the British Empire influencing other societies with a model of "a British gentleman";
- Cultural self-interpretation'
- Cultural expansion - implemented, for example, in European colonial powers in colonies, or in Europe by Napoleon France; this type of relation does not result in conflicts as the receivers either accept the influence or are not aware of the dominant element in cultural narratives;
- Cultural propaganda - with a goal of domination over other nations (see Nazi Germany);where cultural diplomacy is totally subordinate to political aims;
- Cultural imperialism - influencing other states using culture; other states see the process as a threat to their own cultural identity;
- Culture and development - using culture for facilitating modernisation in developing countries.

While discussing cultural diplomacy one more issue needs to be address – that is its relation to intercultural relations. A straightforward distinction is made by Ien Ang, Yudhishthir Raj Isar & Phillip Mar (2015) who argue that what distinguishes cultural diplomacy from cultural relations is the fact that the first is a practice driven by government interest, while cultural relations are fueled by ideals and practiced mostly by non-state actors. The approach is based on Richard Arndt's theory which differs cultural relations that "grow naturally and organically, without government intervention" from "cultural diplomacy [that] can only be said to take place when formal diplomats, serving national governments, try to shape and channel this natural flow to advance national interests" (Arndt 2006, p. xviii). The above division has a clear stand, however analysis linked to the mapping and literature search desk performed under the ILUCIDARE project, proves that in practice, also on the EU level (see for example the Cultural Diplomacy Platform at https://www.cultureinexternalrelations.eu/), cultural diplomacy and cultural relations are used interchangeably.

Therefore, for the purpose of the project's goals, ILUCIDARE will again adopt the broader definition of cultural diplomacy. As long as an initiative will have a link to the state understood also as a greater, societal good it will be labeled as cultural diplomacy.

1.5 Additional comments

Further and detailed studies into various branches of public diplomacy might reveal tools, methods and conceptual framework which can be linked to cultural heritage and the role it might play in diplomacy. Since research into sub-categories of public diplomacy is, in many cases, still in its infancy (some scholars call it "anecdotal") a lot depends on the progress made in respective disciplines. Nevertheless, with regard to e.g. citizen (Conley Taler, Beyerinck 2016), city (Acuto 2016), and religion diplomacy (Wellman 2016), some problems/ statements/ observations prone to comparative analysis might already be identified, such as:

- Recognition of non-central and multi/polylateral diplomacy (e.g. a move beyond "sister cities" paradigm and inviting external actors interested in the urban agenda);
- Competition between transnational vs. national perspectives (e.g. the binary model of religion vs. faith diplomacy);
- Shared domains (e.g. tourism and global communication as major contributors to citizen diplomacy; cross-border issues);
- Shared conceptual frameworks (e.g. recognition of citizen diplomacy as predominantly cross-cultural interactions);
- Arrival of new paradigms (e.g. ecological realism in which anthropocentrism is substituted by ecocentrism);
- Applicability of existing models/types of relations (encounter, discovery and re-encounter relations).

2. Heritage-led diplomacy

Cultural heritage has always had its place in international relations and diplomacy. Its instrumental use can be spotted in gift exchanging rituals among monarchs (where many a time the subject of exchange was a piece of national movable heritage, as we might call it today) or in the multilateral debates about the cultural ownership and repatriation after Napoleonic Wars (Clarke 2018). It seems, however, that it was the foundation of UNESCO and, consequently, its numerous heritage conventions, that finally brought cultural heritage to the fore of diplomacy world and created yet another platform for negations and agreements. As Clarke emphasizes (ibid), culture heritage might be a very powerful tool of diplomacy as it refers to sense of identity and belonging of people, to history and culture that communities are founded upon. For years the main focus of analysing this sensible resource in the context of politics has been conflict, dissonance and contestation (Winter 2015, 998). The framework of heritage diplomacy, as seen by Winter (2015), enables us to perceive the problem differently and use the potential of heritage diplomacy to "read *critically* what is going on in the space of collaboration, excavate a broader political history of heritage and conservation, and shed light on those entanglements of the political and economic, national and international that have received less attention that they deserve." Certainly, cultural heritage has been included in the EU strategy for external relations. The European Framework for Action on Cultural Heritage with one of the objectives being strengthening cooperation on cultural heritage – seen

i.a. as safeguarding heritage, exchanging knowledge, capacity building and training (European Commission, 2016).

Traditionally, heritage diplomacy is embedded in the cultural diplomacy policies of a nation, but nowadays, it also relates strongly to science diplomacy. Following the definition of the new public diplomacy model, the network-based diplomacy paradigm, and integrative diplomacy model, heritage diplomacy should also be considered more broadly and include non-state actors as well as their ambitions and goals as a possible sphere of the international environment.

This is what, according to Winter (ibid) differentiates it from cultural diplomacy which "typically pivots around the projection or export of a particular cultural form as a mechanism of soft power." Amy Clarke (2018), however, argues that what differentiates heritage diplomacy from the cultural one is that it can

> Cultural heritage diplomacy is one of the sub-disciplines of public diplomacy which builds on the relevance of heritage for nations and communities to foster better, mutual understanding, international collaboration, exchanges, peace building, reconciliation, social cohesion, multicultural dialogue, positive image as well as human and socio-economic development.
>
> It relates to bi- and multi-directional cultural flows and exchanges, initiated by state and/or non-state actors to promote interests of a state/states, or broadly a given society (including local communities), and embraces sectors as diverse as architectural conservation, social development, digital heritage and post-disaster reconstruction (based on (Winter 2015, 1007)).

be "wielded in a top-down one-directional fashion that ignores or restricts mutual engagement." She also notes that heritage diplomacy is more focused on individual projects, time-limited partnerships (as well as high-level negotiations) whose recipients may not even be aware of an involvement of another country's actors conducting, for example, some conservation projects concerning their own heritage. In the ILUCIDARE project both approaches are taken into consideration while mapping and analysing examples of heritage diplomacy.

2.1 Heritage in diplomacy vs. heritage-driven diplomacy

Based on a literature review and analysis of heritage-led diplomacy initiatives from the end of World War Two onwards, it has become apparent that heritage diplomacy has been developing by following two main approaches, which follow the two main categories of heritage diplomacy identified by Winter (2015) referring to the position of heritage in the sphere diplomacy (*heritage in diplomacy* and *heritage as diplomacy*) and are very much in accordance with Cull's division between old and new public diplomacy. Another categorization model can be based on the nature of heritage, i.e. its affiliation to certain territory, history, etc.

2.1.1 Heritage in diplomacy

The first category refers to all state-led foreign policy initiatives that through the preservation and promotion of heritage act as political tools to reinforce the influence of specific powers in foreign countries, sometimes also as a tool for conflict resolution and recovery. It typically employs a top-down

approach characteristic for the old diplomacy model, using targeted messages and it is focused on building or sustaining the actors own, specific international image and prestige.

Heritage, perceived as an instrument allowing to achieve "bigger goals", is here included as part of the diplomatic processes and international cooperation and development frameworks, active since the Cold War period. This kind of diplomacy is primarily pursued by the states themselves or by international bodies and/or private foundations that represent single states or networks of countries with very specific political or economic interests. In this set-up heritage can be both the enabler and the product of diplomacy (Hyun-Kyung & Lee 2019, 144).

An example of this kind of diplomacy is, among others, represented by the cooperation for development actions of single states targeting cultural heritage conservation, both as part of the diplomatic sphere and as external actions set by major international actors willing to reinforce their position in the region.

In particular, two key concepts of heritage in diplomacy are the notions of development diplomacy, and humanitarian diplomacy. Development diplomacy could be defined as the "process of building a positive image abroad, bilateral relations and international role and position on the basis of aid transfers aimed at promoting development and wellbeing of developing countries" (Zielińska, 2016). Whittall (2009) defines humanitarian diplomacy as "the use of International Law and the humanitarian imperative as complimentary levers to facilitate the delivery of assistance or to promote the protection of civilians in a complex political emergency". The key differences between the two concepts is that humanitarian diplomacy implies immediate assistance given for a political crisis, conflict, or disaster, whereas development diplomacy implies assistance given over an extended period of time. Winter (2015) notes that heritage in diplomacy includes conservation aid and capacity building programs that involve initiatives such as technology transfer, the training of professionals and institute building.

Examples of heritage in diplomacy	
UNESCO United Nations Educational, Scientific and Cultural Organization	From 1957 to 1966, UNESCO engaged in a decade long project aimed at improving cultural relations, a project that generated transnational discourse over representation of East and West. The international context of this period was characterised by the process of decolonisation and the ongoing Cold War. Heritage related issues were on the agenda in order to find common ground between the power blocs despite the Cold War.

European Neighbourhood Policy	The vision for the European Neighbourhood Policy (ENP) is for the EU to "work with its Southern and Eastern Neighbours to foster stabilisation, security and prosperity, in line with the Global Strategy for the European Union's Foreign and Security Policy". Heritage in humanitarian missions is a component of the ENP policy, and recipient nations are located beyond potential EU enlargement process nations, stretching into the Middle East and North Africa (European Comission 2017).
European Union EXTERNAL ACTION	The European External Actions Service's counter-terror policy includes "enhancing cooperation with partner countries to combat the trafficking of cultural goods", as illicit trafficking of historical artefacts provides a major source of funding for terrorist groups (European Commission 2016.)

2.1.2 Heritage-driven diplomacy

In this case, heritage is positioned at the centre of the diplomatic process where heritage and the governance of culture become utilized in their broader political and economic relations and strategies. In that sense heritage-driven diplomacy is closer to the new diplomacy approach based on a dialogue and networking, and where heritage is considered as having a diplomatic value in its own. As such it can trigger broader economic and political relations and strategies, influence the political discourse and support building bridges among countries and as a tool for bilateral relations, transnational cooperation and foster reconciliation efforts, for example in post-disaster contexts.

Examples of heritage-driven diplomacy	
	Cultural heritage reconstruction in the Balkans as a security factor aiming at long-term stabilization and democratization of regions affected by war represents an emblematic example of heritage-driven diplomacy. In contexts affected by conflicts, heritage reconstruction supported by international actors going into a dialogue with local stakeholders triggers social cohesion and security and supports in rebuilding a national identity, trust, reconciliation, respect for

	different identities and "people to people" dialogue (2015/2649(RSP)**.**
	The Europeana 280 campaign was created in 2017 by the EC funded Europeana Foundation and partners, to demonstrate the shared European culture and heritage and to engage people in Europe's rich artistic history. The action brought together a digital collection, of more than 300 awe-inspiring paintings, drawings, photographs, posters, illustrations, sculptures and other objects which together tell a story of how Europe's art heritage has developed down the centuries. Europeana kicked off the campaign by inviting 28 Culture Ministries across Europe to work with their museums and galleries to deliver 10 high quality digitised artworks representing their country's contribution to Europe's art history. Also other onsite events were planned during the campaign to attract a bigger audience.
UNESCO-EU Cooperation in the Southern Mediterranean region	UNESCO-EU Cooperation in the Southern Mediterranean Region is an initiative which links EU and UN policies. The EU "supports UNESCO's Action plan to safeguard cultural heritage in Syria, Egypt and the Occupied Palestinian Territory (European Commission 2017).

2.2 Nature of heritage diplomacy

While keeping heritage as the main source of diplomatic value, the process potentially has three different natures depending on the position of the initiator of the action and taking into account a progressive release of the initiative from one specific area (or country) towards an international dimension of the heritage diplomacy initiative. As such, three main approaches were identified:

2.2.1 Heritage on location

The focus here is on heritage in a specific country being investigated, promoted or supported by international stakeholders. In this case, heritage is source-based, meaning that is related to the country of origin of the heritage itself.

	The KORU project in Turkey (2018-2020) works to develop the local capacity to protect the rich heritage in the southern cities of Mardin and Antakya where the local built heritage is at particular risk of decline and damage, through documenting buildings at risk, conserving historic heritage, developing heritage conservation skills among local communities, helping to implement a sustainability programme for historic sites. The initiative is funded through the British Council's Cultural Protection Fund and run with local and international partners.
	In 2013, based on a bilateral agreement between the Embassy of the Republic of Poland in Hanoi and the Monument Conservation Center in Hue, the renovation of one of the most valuable Vietnamese monuments, the tomb of Emperor Tu Duc in Hue, was made possible. Thanks to engagement of the Embassy, Polish art conservators ran a series of trainings to help prepare Vietnamese conservators for this assignment.
	WeAre#EuropeForCulture will deliver a series of pop-up exhibitions in 2019-20 in ten European countries to celebrate the diversity of European cultural heritage. Its main aim is to engage younger and older Europeans who do not usually get involved in cultural heritage. One of its specific objectives is to encourage individuals to share their own cultural heritage and get to know others', by participating in pop-up exhibitions, including by bringing personal items to display and helping with curation.

2.2.2 Heritage "own origin"

We speak of this type of diplomacy when heritage of a country or a smaller entity is presented outside the country's borders. This applies for instance, to the promotion of personalities that distinguished themselves in a specific field (e.g. musicians, writers, intellectuals, scientists, etc.) outside their country of origin. Although remaining country-dependent, this type of promotion breaches the borders of a country towards another country and supports multicultural dialogue.

Examples	
romania2019.eu	The Romanian EU Presidency was celebrated at BOZAR in Brussels with a whole range of concerts and artistic events, including some of the most distinguished Romanian musicians, artists and authors. For the first time an intense programme of cultural exchange aimed to bring together emerging artists from Belgium and Romania, to trigger dialogue, and to stimulate contemporary creation around old traditions.
Chopin 2010	Chopin 2010 - the celebrations of Fryderyk Chopin's 200th birth anniversary in 2010 organised worldwide by the Polish state. In total, 2600 artistic events took place in Poland and 3600 events took place abroad to celebrate the Chopin Year. Millions of people in Poland, Europe, Asia, both Americas and Australia met the composer and his music. As Waldemar Dąbrowski, chairman of the Chopin 2010 Celebrations Committee emphasised "It is going to be a unique time because Chopin is the most valuable treasure that we, the Poles, have in the top class of this Universe's accomplishments, a treasure we must manage with wisdom. Chopin does not need us, and it is not about promoting Chopin's music, certainly not in the world. We desperately need Chopin because we have to link the sense of contemporary Polishness to the excellence and merit constituted by his work and himself as one of the central figures of the Romantic period." Great majority of the events was run in collaboration with local institutions and artists which led to exchange of ideas and international artistic dialogue.

2.2.3 Shared past

It is based on the shift of governance and patrimony discourse from nation-states towards a notion of mutually shared transnational pasts. This increases the symbolic power heritage and material culture holds in diplomatic relations. The notion of a mutual, shared past moves heritage from being merely incorporated into existing or new diplomatic relations between states and countries towards becoming a mechanism for and of diplomacy in itself. In addition, the language of "shared heritage" has a power to depoliticize: "mutual, shared or common, [are] replacements for that riskier word, colonial" (Yapp 2016, 73).

Examples	
CHOICE Cultural Heritage: Opportunity for Improving Civic Engagement	CHOICE has been developed and later implemented in the four Eastern Partnership countries: Armenia, Belarus, Moldova and Ukraine. Funded by the Eastern Partnership Civil Society Facility the project was mainly aimed at building the capacities and development of the non-government non-profit organisations and initiatives which are engaged in conservation, re-thinking and promotion of the cultural and historical heritage, in order to have their leaders involved in a debate onfuture policy regarding communities, state and the Eastern Partnership. Quite often the identical or similar tasks or issues proved to be momentous for the member countries. These, among others, included preservation of unique craft traditions and creative practices common for the region and the attitude to the Soviet legacy.
	Transnational Silk Road framed as a shared history of connectivity, exchange, and cultural encounters brings sites like Palmyra, Aleppo, Bosra, and Damascus in Syria, and Hatra, Erbil, and Mosul in Iraq—all of which were on the original Silk Road—into a narrative of cultural proximity with places like Xi'an and Dunhuang in China. These are historical connections that can be activated by governments in the region to aid the long-term stabilization of Iraq and Syria, with investments being made into reconstruction and the infrastructures of their former Silk Road cities. This can lead to the emergence of a political economy platform via the diplomatic and trade networks of the Silk Roads upon which an infrastructure of preservation diplomacy concerning a shared past can be built. [Critical note: the current China's Belt and Road Initiative (BRI) as diplomacy mechanism is not the best to implement the discourse of the Silk Road as a form of shared heritage. The aid industry is invariably configured in ways that give opportunities to institutions and businesses of the donor country. By implication then, it is likely the BRI cultural-aid cooperation schemes established over the coming years will be directed toward organizations located within Asia, and perhaps most frequently within China itself. Under BRI a number of network agencies and intergovernmental fora are being established, such as the "Silk Road Forum" and "Silk Road Think Tank Network," and there will be significant merit in raising the visibility of heritage preservation within these. An understanding of the cultural politics in play here is also required, though, in that a more

	proactive engagement in cultural aid by China also raises questions about new forms of coloniality. Both India and China are among those countries in Asia today strategically using the arena of cultural heritage to create zones of influence around ideas of civilization and a deep history that transcends their current national boundaries. BRI represents a powerful vehicle for a Sinocentric vision of the Silk Road and Eurasian history, one that is likely to be advanced by a cultural sector aid industry reaching out across the region over the coming years.]
EUNIC EU National Institutes for Culture	EUNIC Milan used fairy tales to bring European culture to children in Milan. The project was implemented through two actions. First by working with selected primary schools in Milan, encouraging teachers to work on different fairy tales with their class and developing specific curricula and teaching material around fairy tales. The best works were then presented at Bookcity, Milan's biggest event dedicated to literature, during a gathering for schools on the day that the book fair dedicates especially to them. The second action focused on working directly with children and their families during an interactive afternoon, delivered by professional educators, during the book fair.

Both heritage within diplomacy and heritage-driven diplomacy initiatives can be based on one of the three, but also two or all three combined natures of heritage depending on the action's scope (whether it refers to "own", shared or foreign heritage), and the ambitions of the actors involved in its implementation.

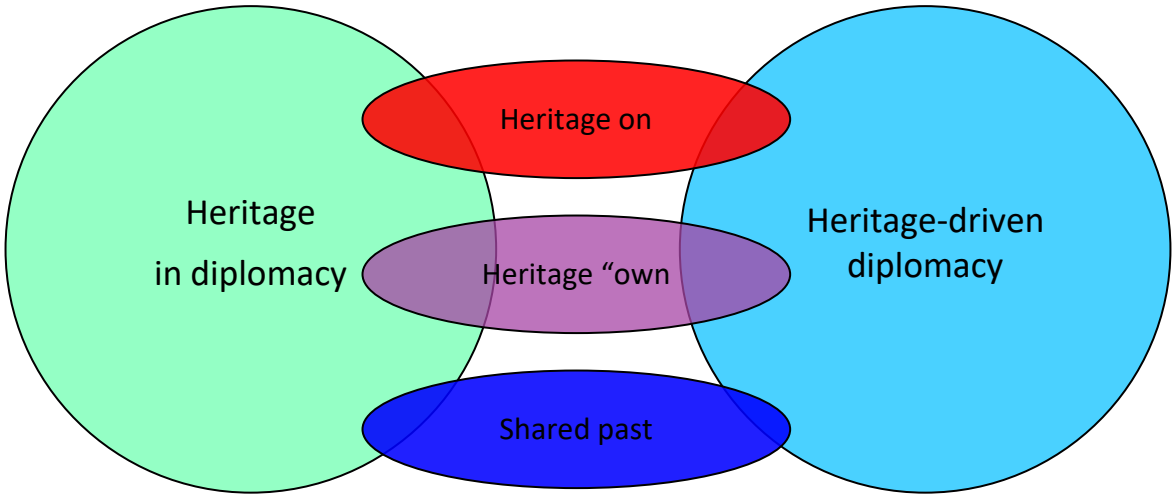

Figure 5. Nature of heritage usage in diplomacy vs intention of the use

3. Data analysis of first mapping on heritage-led diplomacy in Europe

3.1 Approach and methodology

The objective of the first mapping phase on heritage led-diplomacy was to set the ILUCIDARE research scene and to create a common understanding among project partners on the approach including definitions and successful case studies that would further support the data analysis process and would lead to creation of a practice-based toolkit on best practices and must-have elements relevant for various stakeholder groups working in the field related to heritage and diplomacy. The ambition was to collect a wide range of examples and mechanisms of heritage used by and in diplomacy.

The first mapping phase took place between March 10th – May 29th, 2019 and was based on an online survey consisting of 12 points. The mapping tool was structured according to the ILUCIDARE working definition of heritage-led diplomacy and included the above-described categories: *heritage on location*, *heritage "own origin"*, *shared past,* that were used to facilitate the analysis of the field of heritage diplomacy. The online mapping tool could be accessed at: https://www.surveymonkey.com/r/ILUCIDARE_DIPLOMACY

Table 3. The structure for the first mapping tool (for the first research phase):

1. Title (optional)
2. Short description (max. 2000 characters)
3. Category of heritage-led diplomacy
   - Heritage within diplomacy
   - Heritage driven diplomacy
4. Nature of heritage-led diplomacy
   - on-location
   - shared past
   - "own-origin"
5. define used mechanisms or tools (max. 1000 characters)
6. initiator
   - Supranational or intergovernmental organisation (EU institutions)
   - International organisation (UN, CoE)
   - Country (National government actors, central public administration)
   - Country (Public cultural/heritage institutions)
   - Countries (bilateral, multilateral)
   - National government actors
   - Regional and local government
   - Government/public administration
   - Businesses
   - Civil society/NGOs
   - Research/Education

- Other (please specify)

7. receiver location

- Africa
- Arab States
- Asia and the Pacific
- North America
- Latin America and the Caribbean
- Europe
- Country (bilateral, multilateral): name(s)

8. receiver actor

- Government/public administration
- Businesses
- Civil society/NGOs
- Regional/local communities
- Research/Education
- General public
- Other (please specify)

9. start date: year

10. end date: year

11. period

- 1950-1960
- 1960-1970
- 1970-1980
- 1980-1990
- 1990-2000
- 2000-2010
- 2010-today

12. references

26 international initiatives have been identified so far as exemplary and relevant for ILUCIDARE's research scope. The list is not exhaustive and will further grow but it already now gives an initial overview of types of actors involved and actions performed in heritage diplomacy within the EU ecosystem. Enriched with literature (theoretical analysis and strategic documents) it feeds into this report both in terms of providing theoretical background as well as patterns of elements and mechanisms.

During the mapping exercise, following the heritage diplomacy categorization included in the working definition, the analysis was focusing on two areas in which heritage can be employed in diplomacy. Based on the distinction between the old and new public diplomacy a special attention was paid to actions conducted by states directly but also forms of diplomacy outside and beyond political structures and non-state based forms of diplomacy.

3.2 Initial data analysis

The initial mapping helped to identify a variety of stakeholders and to capture types of activities and projects that go under the term of heritage diplomacy using the SurveyMonkey online tool.

3.2.1 Position and nature of heritage

The majority of initiatives mapped so far were implemented in the 21st century and represent the heritage driven diplomacy by putting heritage-related topics in the core of diplomatic actions. However, on the basis of literature (Winter, Null, etc.) referring also to older, post WWII diplomatic initiatives and strategies using heritage, it is worth underlining that still in the second half of the 20th century heritage issues were put in a diplomatic agenda to rather support a bigger, diplomatic case than to serve as a main case. The shift in approach with regard to the positioning of heritage in diplomacy that we have been witnessing in Europe has to do with the transition from old to new public diplomacy model.

Sometimes an initiative may also include aspects of both, heritage-driven and heritage within diplomacy. British Council's big anniversary *Shakespeare Lives* programme installed in 2016 to celebrate William Shakespeare as a writer for all people and nations on one hand was using the iconic author to create a positive image of Great Britain, on the other hand led to many creative, international partnerships that put Shakespeare's legacy in the centre of their actions.

The above-mentioned *Shakespeare Lives* project was built on the so called "own-origin" heritage. However it used it to engage all kinds of international actors, including contemporary artists to reinterpret it and showcase in a way appealing to the contemporary, local audiences, selecting activities so that they matched the interests of the potential receivers.

The categorization based on the nature of heritage used in diplomatic activities is not an exclusive one. Many initiatives are often based on a mix of two natures: "shared past" combined with either own-origin or local heritage. The shared past factor creates a space for a dialogue, allows partners to find common points of reference and thus makes the collaboration easier. There are however projects focused on all three categories, like the *European Young Heritage Professionals Forum* jointly organised in 2019 by UNESCO and EU, aimed at engaging youth for an inclusive and sustainable Europe. 28 young heritage professionals with diverse backgrounds to address for the first time both tangible heritage and intangible cultural heritage and to explore the potential synergies and challenges of their protection and safeguarding in the European context. It appears that projects focusing on capacity building, knowledge exchange and networking may indeed refer to all three categories of heritage's nature in diplomacy.

3.2.2 Stakeholders

The initiatives included in the mapping are established and organized by governmental (acting independently, eg. Goethe Institut or French Institute, or jointly with other governments, e.g. using EUNIC infrastructure), non-governmental (e.g. Europeana Foundation) or international organizations (e.g. UNESCO). Also nowadays more often diplomacy projects are launched by local or regional authorities, using their heritage to build their international visibility and to create partnerships based on shared past (e.g. under the European Capital of Culture programmes).

In line with the specificity of the new public diplomacy, the group of stakeholders actively engaged in the field has grown and become more inclusive. However, the state and various governmental institutions as well as international organisations supported by governments still play a special role in the diplomacy-related initiatives. Experienced in policy making and strategy setting processes governmental actors not only serve as leaders in the field. They also play a role of councilors for other stakeholders, they facilitate the work of others, and finally also act as funding bodies supporting implementation of projects created by NGO's or other expert organisations.

There are more and more initiatives to be recognised based on partnership between international stakeholders equipped with various expertise and skills, and professional networks supporting their actions and guaranteeing efficient dissemination of information. The top down approach characteristic for the traditional (old) diplomacy model is being often replaced by horizontal relationships between experts in their respective fields focused on capacity building and peer-knowledge exchange. The tutor-student model still exists but is based on mutual understanding and respect.

As the set-up of actors involved in heritage-led diplomacy actions tends to vary, so does the audience the respective actions are targeting. Many of the projects listed in the mapping invite the so called general public to participate in events, workshops or happenings in order to interest them in heritage, share specific knowledge, promote heritage itself or use heritage to achieve a different goal. Some of the projects, however, intentionally target very specific stakeholders groups - heritage experts or experts working in fields potentially relevant for heritage (tourism, education, research, marketing, technological partners, SME, etc.), local or regional communities, policy and opinion makers, civil society and founders. The right selection of project partners and targeted users has a primary impact on the final results, impact and sustainability.

3.2.3 Geographical coverage

It is interesting to note that from the initial mapping we've learned that in terms of geographical coverage, very often European diplomatic activities linked to heritage are implemented within Europe's borders. This may prove that heritage, especially shared heritage, is used to foster multicultural dialogue within the EU and other European countries, and facilitates wider collaboration. European Year of Cultural Heritage 2018 or House of European History might be a good example here. Also, European Union National Institutes for Culture (EUNIC) - a network of EU cultural institutes working in the field of cultural diplomacy, which operates in a format of local clusters, often uses this approach to jointly run successful and well-received projects. For instance, the *European Fairy Tales* project run by the EUNIC cluster in Milan used fairy tales to bring European culture to children in Milan. Through a number of parents and children workshops and by developing teaching resources with the teachers the organisers acquainted the participants with stories from all over Europe.

The high representation of European locations in the mapping may be also explained by the fact that more and more often diplomatic actions, both bilateral and multilateral, are performed in partnerships and envision events or activities taking place, and thus having impact on, both the locations of the initiators and receivers.

The mapping proved that European actors active in the field of heritage diplomacy (state and non-state) closely collaborate with partners from outside of Europe. The collaborations are either bilateral (e.g. British Council supporting land and monuments preservation works in Palestine or Turkey through a dedicated fund *Cultural and natural heritage: A tool for socio-economic development)* or multilateral (e.g. like the Asia-Europe Museums Meetings supported by the Asia-Europe Foundation ASEF).

3.2.4 Types of Activities

There are many types of actions that fall under the heritage-led diplomacy term, which proves how vast is the palette of possible initiative which translates into the potential of heritage to be even more closely integrated in diplomacy-related activities. From capacity building workshops, high profile conferences, rescue missions and preservation initiatives, to outreach activities supporting the value of heritage, used for various political, social or economic reasons.

Some of the initiatives are very large scale and are overarching – the example of this being Europeana 280 project with a broad aim as to "engage people in Europe's rich artistic history" and required collaboration of all EU countries on the ministerial level. Others focus on small communities and support very specific, yet relevant and very often long-term interventions - like the one UNESCO has been coordinating in the Congo Basin since 2000 in order to improve the conservation and the management of natural World Heritage sites.

Projects do not only refer to narrowly understood heritage like preservation of art, monuments or heritage sites but address common historical events, focus on international relations blossoming from heritage-related discussions. Some have at heart also natural heritage or even take into account projects including agricultural elements.

Some of the projects (e.g these supported by the British Council's Cultural Protection Fund) address directly the linkage between cultural/natural heritage and socio-economic development, partnerships with other sectors (e.g. ICT, tourism, business).

Some initiatives are more "policy-oriented" – such as the UNESCO Modern Heritage Program which aims at the development of international standards or practices; or the UNESCO "Water and Heritage" Conference that directly addresses policymakers in order to make the issue of water politically important.

Finally, the case of "Kreisau Initiative" shows that at times it may be that a whole institution is being developed to promote dialogue and help reconciliation process between nations that once were at war with each other. In other words – dialogue that happened in the past can be re-institutionalized to provide long lasting platform for international relations.

4. Towards a model to analyse heritage-led diplomacy mechanisms

4.1 Categories of diplomacy mechanisms

The theoretic approaches and various taxonomies and categorization models relevant from the perspective of the diplomacy domain, have been identified and analysed in the first chapter of this report. They mostly refer to public, cultural and science diplomacy, which heritage-led diplomacy is perceived to be connected with. Given the above, the mechanisms valid for the bigger domains containing heritage-

oriented diplomatic actions should be transferable to the latter as well. Basic taxonomies proposed, among others, by Cull (2009) and Duwell (2009) when analysed together and compared, focus mostly on:

- the stakeholders/actors and types of interactions and the nature of relationships between them,
- types of actions or activities adjusted to the initiative's specificity,
- ambition and the goal of the initiative,
- planned outcomes and impact it should achieve,
- media involvement in outreach and communication strategies
- technological support
- and finally funding models.

4.2 Heritage-led diplomacy mechanisms

The table below translates the above-listed mechanisms into heritage-led diplomacy mechanisms.

Mechanisms	Clarification	Examples
Actors/ Stakeholders	Types of stakeholders contributing to the creation and successful delivery of the initiative: partners, funders, policymakers, communicators, etc.; Stakeholders background and expertise: governmental and non-governmental actors, professional background, expertise and skills	➔ state-led initiatives *eg. EUNIC European Fairy Tales project co-run by various EU embassies and cultural institutes in Milan* ➔ non-state-led initiatives *WeAre#EuropeForCulture project initiated by Photoconsortium, a non for profit association whose purpose is the promotion and enhancement of the culture of photography and photographic heritage*
Interaction models	Types of interaction between the actors involved in the creation of an initiative themselves and between them and the initiative's audiences.	➔ top down interaction model *eg. the travelling exhibition: After the Great War: A New Europe 1918-1923 organised by a group of international curators and presented in various locations, without having local partners involved in the creation phase* ➔ horizontal interaction model: collaborations based on partnership, knowledge exchange, etc. *eg. 1 Asia-Europe Museum Network (ASEMUS) set up to foster dialogue and knowledge exchange between heritage professionals from Europe and Asia* *eg. 2 World Heritage Journeys in the*

		European Union - UNESCO platform for World Heritage and travel guiding its users to the most unique and authentic travel experiences, recommended by local experts and curated by National Geographic
Types of Activity/ Action	Sending experts and other relevant actors (including citizens) overseas and reciprocally accepting actors from overseas for a period of study, project implementation, capacity building and/or acquaintance with heritage	➔ initiatives focused on capacity building Research programmes, training courses, workshops and other teaching programmes focused on heritage knowledge exchange between international professionals ➔ initiatives focused on professional support International expeditions and missions run by heritage experts on foreign grounds to preserve, promote or further develop local or shared heritage. ➔ research and strategy-related initiatives initiated to generate change on a policy level
	Making heritage resources and achievements of a country known overseas and/or facilitating cultural/heritage-related transmission abroad	*Chopin 2010 or Shakespeare Lives projects promoting national heritage, and more broadly the respective state itself on the international arena*
	Undertaking an international communication activity to actively promote a particular heritage-related policy, idea or an actor's general interests in the minds of a foreign public and global policymakers versus use of heritage for propaganda	*eg. 1: EU European Year of Cultural Heritage 2018* *eg. 2: UNESCO' international outreach campaigns raising awareness on a certain topic and encouraging policymakers to discuss strategies and future activities*
Ambition/ Goal	Focusing on heritage as the main objective versus using heritage to obtain other (political, economic, social, propaganda) goals	➔ heritage in diplomacy: heritage used to obtain other goals *Eg. European Neighbourhood Policy includes heritage and culture activities to foster multicultural dialogue, discuss security and build sustainable relations between nations in the region* ➔ heritage-driven diplomacy: heritage as the main goal

		eg. UNESCO World Heritage Centre's action in the Congo Basin
Outcomes/ Impact	Management of the international environment, positioning of stakeholders, etc.	eg. UNESCO Modern Heritage Programme: launched for the identification, documentation and promotion of the built heritage of the 19th and 20th centuries, aims to establish a framework of conceptual thinking on the significance of this heritage, its preservation and some of the pivotal issues concerning identification and valorisation.
	Sustainability strategy (sustainable heritage and long-term collaboration models)	➔ initiatives with a short-term impact *eg. EUNIC Milan European Fairy Tales project* ➔ initiatives with a long-term impact and sustainable strategy leading to new collaborations, new developments, branding and visibility boost *eg. The KORU project includes various trainings for heritage professionals and teachers in the public and private sector; professional tourist guides as well as culture journalists to emphasise the leadership aspects of heritage-led urban regeneration and heritage management and create a lasting network involving local and international leaders as trainers.*
Outreach and Communication	Targeting specific audience and partners or broadly communicating information towards the general public	➔ initiatives targeted at general public *eg. Shakespeare Lives project of British Council targeting various user groups, mostly the general public* ➔ initiatives targeted at a specific user group *eg. UNESCO-EU European Young Heritage Professionals Forum 2019 that gathered your heritage professionals with an aim to create a network of dedicated experts that in the near future might lead the protection and promotion of cultural heritage.*
	Usage of classical media like radio,	➔ initiatives using media as a core

	television, Internet and new media, including social media to engage with foreign publics and specific stakeholder groups	element *eg. European Heritage Days organised to raise awareness about European heritage and heritage-related participation, use traditional and social media to reach out globally and locally to the general public.* ➔ initiatives not using media as core element *Eg. The Balkans' Memory – Preserving and Promoting Audiovisual Heritage project, as a training programme focuses on the capacity building and knowledge-exchange between a specific group of international experts. Though announced in media it does not aim at having big media coverage.*
Technology	Use of technological environment to support the actions and help achieve goals	➔ initiatives using new, cutting-edge technology to implement the action *eg. Europeana 280 campaign using digitised art pieces and VR technology to present to the general public the European cultural heritage* ➔ initiatives not using technology *eg. capacity building events, conferences, etc. UNESCO International Water Conference 'Heritage and Water' which does not use high-tech solutions per se, though is discussing them in various presentations*
Funding	Funding models	➔ state-funded initiatives *eg. initiatives funded from public money, including bilaterally (respective MFAs), multilaterally (EUNIC) or internationally (UNESCO, EU) initiated and funded activities* ➔ privately-funded initiatives *eg. initiatives funded by NGOs, private sponsors representing business or private individuals* ➔ crowdfunding *eg. initiatives funded by raising small amounts of money from a large number of people, usually using Internet*

5.Measuring heritage-led diplomacy

Selection of macro indicators
(measuring general impact of heritage-led diplomacy)

- Level of awareness of CH potential for diplomatic action
  - percentage of heritage-led diplomacy projects in an overall number of diplomacy projects)
- Increased credibility of the government's commitment to CH based policies
  - number of heritage-led collaborations and projects per year
- Ability of the government to formulate and implement sound policies that permit and promote CH sector development
  - number of heritage-led collaborations and projects per year
- Increase of experience and good practice exchanges with non-EU countries
  - number of exchanges with non-EU countries per year
- Increased CH-led development aid and cooperation
  - number of development aid and cooperation projects

Application of EU external policy instruments to heritage-led diplomacy

- Relative change in applying heritage-led policy initiatives in legislation of partner countries
  - level of application of trade policy for cultural heritage
  - level of application of economic policy to cultural heritage
- Relative change in knowledge transfers from EU to partner countries through heritage communities
  - transposition of knowledge and best practice in the field of cultural heritage from EU heritage communities to third country heritage communities
- Linkages with EU-UN policies
  - relative change in level of coordination between EU Member States in forming common positions pertaining to UNESCO policies
  - relative change in level of coordination between the EU and UN in cultural heritage-led diplomacy initiatives
- Heritage in humanitarian policies
  - relative change in level of cooperation between UN and EU cultural heritage-led humanitarian missions
  - relative change in level of convergence of objectives between UN and EU
  - relative change in level of cooperation for cultural heritage-led initiatives between EU, EU Member States, third party donors, third party institutions, third countries, NGOs, and epistemic communities

Selection of micro indicators
(analyzing concrete heritage-led diplomacy projects

Feasibility indicators **(what is needed to implement a heritage-led diplomacy project)**	**Impact indicators** **(what is the result and influence of a heritage-led diplomacy project)**

– Percentage of respondents declaring knowledge about the donor state – Percentage of respondents declaring positive attitude towards the donor state – Number of heritage-led diplomacy projects already implemented in the recipient country – Percentage of respondents declaring positive experience with the projects previously implemented – Level of diplomatic relations between the countries (number of state visits, number of agreements signed) – Number of foreign exchanges in the field of cultural heritage	– Number of new joint projects as a result of the heritage-led diplomacy project – Percentage of respondents declaring increased knowledge about the donor state in result of the project – Percentage of respondents declaring positive attitude towards the donor state in result of the project – Percentage of respondents declaring change of attitude towards the donor state in result of the project – Number of new joint state cultural and heritage initiatives (including state agreements) – Increase in the number of exported/imported goods and services – Number of new or improved opportunities for foreign exchange (programmes) for professionals, researchers, students – Number of people (or percentage of respondents) declaring new appreciation of one's own as well as shared heritage – Increase of the positive media coverage of the donor country in the recipient country – Number of traditional media pieces (articles, programmes) on the heritage-led diplomacy project – Number of social media pieces on heritage-led diplomacy project – Number of people (or percentage of respondents) declaring impacted/affected by the project – Percentage of respondents declaring in both countries declaring a shared perception of important global issues – Percentage of respondents declaring understanding of the other country's values – Size of investment in donor / recipient country

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