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1. Executive summary

This deliverable, D4.3, describes the "draft participatory framework for sustainable management, conservation and use of European coastal and maritime cultural landscapes" of the PERICLES project as part of WP4. It provides a synthesis, based on the tasks carried out in WP4 and in other WPs. The draft framework describes a step-by-step approach to identifying and addressing potential threats to coastal and maritime cultural heritage (CMCH) to serve the aim of managing risks.

The draft framework emphasizes the participatory nature of conducting a risk assessment in the context of managing CMCH. A two-layer design is applied, that is, firstly, to provide examples of methods and tools that facilitate participation of stakeholders throughout the assessment process. The so-called second layer refers to understanding risk assessment as a social process, which is far more dynamic than a systematic, step-by-step process can capture. The draft framework therefore provides questions for reflection, and stipulates the need to acknowledge that it consists of dynamic iterative loops.

This is a draft framework, as such it is living document that will be developed alongside the project. The framework will be applied and tested in demonstrations in the case regions, thereby further developed by all project partners, and eventually transformed into Deliverable 4.4, the final framework. The draft framework is now designed for use by the project partners, yet further discussions should address how the framework can be used by a broader audience. Also, further work also includes joint elaborations on the ways in which how it relates to the development of project's overarching conceptual model ("PERICLES Compass") .

2. Introduction

This report (D4.3) provides a draft risk assessment framework, bringing together work carried out in the previous tasks defined for work package 4 (WP4), but also from other tasks including T3.3, T5.1, T6.1 and various tasks related to WP2. D4.3 directly addresses one of the main objectives of PERICLES: to provide a comprehensive, participatory framework for sustainable management, conservation and use of European coastal and maritime cultural landscapes, which integrates knowledge across local, spatial, environmental, social and economic aspects of CMCH. This report presents a ***draft*** framework, and will be applied and tested in demonstrations in the case regions, thereby further developed by all consortium partners, and eventually transformed into Deliverable 4.4, the final framework.

Broadly speaking, a risk assessment is part of a management strategy, particularly to identify and address, reduce and or eliminate potential threats. A risk assessment allows for sharing information about risks, and relates to the coordination of a management process. A risk assessment framework generally includes guidelines to identify key actors (both who's affected and those in control) and steers towards prioritization of risks and defining related risk-management measures. Thus it answers questions such as: what and/or who is at risk? What might happen? How could this happen? How serious and how likely is it that this would happens? If this happens, can it be managed, if so how and by whom? And: who has what adaptive capacities, how can these been strengthened, and how can the overall resilience of heritage at risk be improved?

The design of the PERICLES participatory risk assessment framework for sustainable management, conservation and use of coastal and maritime cultural heritage (CMCH) is in line with this general approach, yet it has two important, distinctive characteristics.

First, the PERICLES framework puts emphasis on risks on CMCH which explicitly refers to the tangible and the intangible, and we employ a particular understanding of risks, as stipulated in our review of threats to CH and risk management strategies (see D4.1). Based on this review, we state that, in light of CMCH, threats can be categorized under environmental risks and human-made risks, whereas it is key to highlight that the latter also includes threats such as the loss of meaning or heritage mismanagement (see D4.1 and D4.2; an overview of the identified threats has been included in Annex A and Annex B). Because threats like loss of meaning and heritage mismanagement are taken in, prioritization of risks, and defining risk management strategies, will for a large part depend on how space, place and identity are, individually and socially, constructed, as these three elements are key to

how people and communities see and understand heritage but also can tell more about how they connect with and around heritage (see internal T2.3 report, and D2.3/Ounanian et al, under review). People may form, what we coined, "a community of meaning", which "consists of a diversity of stakeholders who share a concern, in this case regarding the development of sustainable practices of CMCH, and who define and develop these practices of CMCH by dealing with and referring to the constraining conditions, which threaten CMCH. By giving meaning to CMCH, actors within a community of meaning (re)define space and place, originating from and resulting in different identities and meanings of CMCH. Furthermore, identity along with space and place enlighten the discussion on management of CMCH because they enable a closer examination of inclusion and exclusion in connection to CH, its designation, and the importance of context in transformative processes." (D2.3). Hence, meaning and management are intertwined already, even if only heritage experts start to think and talk about risks to CMCH and communities of meanings are excluded from these discussions.

Second, and directly linked to the above, the framework's name has "participatory" as adjective, stressing the overall normative stance taken by the PERICLES consortium partners that participation by communities of meanings is a key prerequisite to come to sustainable management, conservation and use of CMCH. Consequently, the risk assessment framework should facilitate a well-thought and systematic involvement of the broad range of actors concerned with the CMCH at risk, so they can take part in identifying risks and defining management measures. This emphasis on participation has lead us to develop a "two layered" design for the PERICLES risk assessment framework. The first layer is to ensure that participation is anchored in the assessment methodology itself: participation means that there is a need to clearly define the who and the how in engagement. We used the work conducted in WP3, WP4, WP5 and WP6 to provide here a set of methods and tools that enable stakeholder identification and foster participation. Annex C provides some examples, and the review conducted in D.4.1 adds to this, which in this report is captured by an overview of the natural and human-man major threats to cultural heritage as well as a references different mitigation and risk management strategies in action (Annex B). For this report, it is important to be aware of the social dynamics and context of the case and understand the processes behind risk and mitigation strategies. By doing so, it can guide the user to find appropriate approaches when developing a participatory assessment of the risk and management of heritage in coastal areas.

The need for a so-called second layer is due to our understanding of a risk assessment, or any policy process aimed to support participatory CHCM management, as inherently a social process. This already becomes clear in the conceptualization of communities of meaning, but even more in what we have called "communities of participation" (See D2.3). Communities of meaning feed into one or different communities of participation to swing into action to manage, conserve and/or use CMCH. A

community of participation refers to the governance setting of CMCH where particular processes of inclusion and exclusion are at play which mark the (possible) involvement of actors (D2.3). Drawing on our review of participatory and deliberative governance theories (T2.5, see D2.5), we argued that "participation and deliberation in communities of participation are not powerless games" (D2.3). Questions on distribution of resources and the positioning of actors, need or calls for transparency and accountability, legitimacy related to indirect and direct participation, complexity of social and political linkages, and the like, thus affect policy processes (including risk assessments). However, this acknowledgment means that the process of the risk assessment becomes much more "messy", while a methodological focus requires a structured approach, to ensure its reliability and validity. In balancing the methodological and the social in a risk assessment, we have chosen to present the draft framework by following the methodological phases of a risk assessment, so to take the step-by-step approach as the backbone for the framework. The first layer will become visible because in each stage we highlight examples of participatory methods which can be useful to harness stakeholder engagement. However, to incorporate our realization of a second layer to this participatory framework, we address the implications of/for social dynamics linked to the assessors' engagement with the community of participation separately, by providing guidelines for reflection.

Before moving to the next Chapter, in which the draft framework is presented, we want to make an initial reference to the way this draft risk assessment framework relates to the PERICLES Compass (Figure 1, see D2.4). The PERICLES Compass is our conceptual model, born in a consortium meeting in York (February 2019), and is still in development. We have been able to refine it in each consortium meeting (Den Helder/Texel April 2019; Paris, October 2019) and plan to continue these discussions in upcoming meetings (Brussels, January 2020; Aveiro, April 2020). Because of the ongoing discussions, the linkages between the PERICLES Compass and the (draft) risk assessment framework are therefore not elaborated on in this report, but will surely be addressed in future reports.

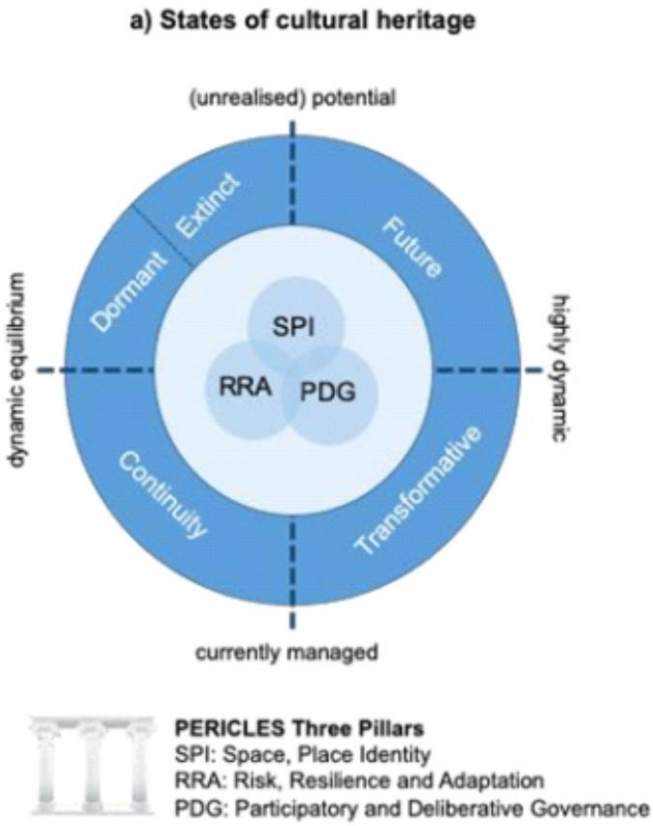
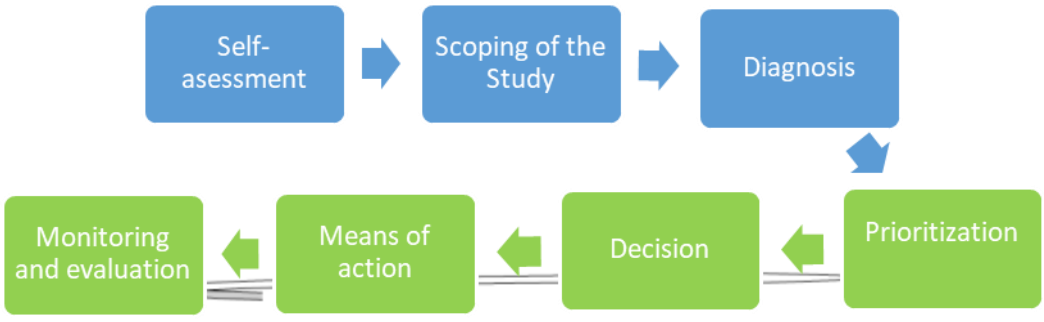


Figure 1:The PERICLES Compass: conceptual model under development (Figure derived from D2.4)

3. Draft risk assessment framework

The draft risk assessment framework is to be used for internal purposes within the PERICLES consortium, to be applied in at least one demonstration per case region. The users for now are thus the consortium partners, while the final framework might be targeted at a broader group of users (in line with PERICLES thinking, these users are not just policy makers or heritage managers, but could potentially be any member, or members of a community of meaning and/or participation).

This draft framework provides guidelines of the phases and processes, with methods and tools, to assist the assessment of risks, the evaluation of the state of heritage and the processes towards a sustainable use and management of heritage in a participatory way. A risk assessment is here presented as a process of two main phases that consist of multiple steps (see flow chart). The first phase includes three steps: a) to self-assess the level of knowledge of the assessor in the actual topic; b) to scope and study the context and definition of risks, heritage at stake, actors and legal frameworks; and c) to evaluate risk, value and knowledge with stakeholders. All steps of the first phase link up to the so-called “second layer”, so to understand framing the social dynamics and general societal context. The second phase is focused on the process when risks to CMCH is already considered. In this phase, a series of steps takes place through participatory approaches, to: a) prioritize; b) decide; c) define means of action to sustainably manage, conserve or use the CMCH; and d) to monitor and evaluate.



Flowchart of the methodological steps for the PERICLES participatory risk assessment framework

It is important to highlight two points: even though represented as a flowchart, the assessment process is not necessarily linear. As stipulated in the introduction, understanding the context of CMCH under research, and the social and political dynamics is crucial for an evaluation of the current state of heritage and participation processes. Considering such process of increasing insights or knowledge creation as an iterative loop in the assessment process highlights the dynamics which also creates multiple entry points in the process to support participation at different moment by different actors. These dynamic iterative loops are a key point to consider in developing the draft framework into the final framework which might target a broader group of users.

A second point concerns the wide range of recommended methods and tools, of which most can be used in more than one step, and even in both phases with due consideration that some of the methods and tools have different purposes at different stages. It is important then to understand the specific contribution of the methods and tools to the assessment process and search for optimal alignment. One example is the Visual Problem Approach (VPA) which is included as a PERICLES tool, yet it is a methodology on its own. This draft framework for risk assessment is partly inspired by VPA work, as can be recognised by the VPA phases of scoping, consultation and action, which have been converted to the two phases of the PERICLES framework (See Annex D). Other tools or methods reviewed for use in the PERICLES project do not have a pre-set and explicit attention to the question on how to deal with risks. Interviews, participatory workshops or digital tools such as geo mapping or portal for citizen engagement are examples of such tools. A list of methods and tools with further details can be found in Annex C, this list will be complemented during the testing of the framework.

3.1 Phase 1. Understanding of the current state of the heritage

The general aim of the first phase of the framework is to gather information to create a deep understanding of the risks in relation to the heritage of study, as well as the social context and political dynamics in the region of study. The phase is presented in a way as a data collection process where different methods and tools can be used. This first phase of the framework unfolds in three different steps: self- assessment, scope and diagnosis.

3.1.1 Self-assessment

The first step consists in doing a self-assessment about one-self's knowledge in the subject where one-self may refer to an individual or to a group. It is an exercise that aims to acknowledge biases and

assumptions and be (come) aware of the actual level of knowledge in regards of the case of the study.

Tools and methods

A way through this step is to take a blank sheet and start writing down answers to questions such as: What do I know about the heritage that is studied? How did I obtain this knowledge? What are the main risks coming to my mind? Who do I think are most affected? Who do I think are in control? What do I know about these actors? To further articulate an epistemological positioning it could be of help to use plural knowledges.

It might be tempting to skip this step because it might seem a too basic exercise, and assessors are often supposed to be only led by "objective information". A self-assessment is however necessary and effective because it serves to put the assessor at a starting point before collecting more information and being involved in participatory processes.

Reflection: A self-assessment is to bring to the fore knowledge and assumptions that are implicit. The questions assessors asked themselves are to be accompanied by questions on one's biases and positioning: how do I feel about the heritage (e.g. closely connected, or not interesting)? What do I think about the risks identified (urgent, important, or minor)? What is my position vis-à-vis the affected actors? And vis-à-vis those in control?

3.1.2 Scoping of the study

Scoping of the study is the second basic step aiming to explore and study the global context and identify all relevant data sources available. For this step in the framework, tools and methods should be selected which support to:

a) Create a relevant inventory;

b) Define existing pressures and their dynamics;

c) Identify institutions (administration, elected officials, decision-makers and manager) involved in the issue of heritage preservation and risk;

d) Identify regulations on risk and on heritage, legal framework and identification of planning documents.

Tools and methods

For this particular step of the first phase, different options are possible. The draft framework does not prioritize one method or tool, although some have already been successfully used in one or more of the case regions, and can be considered good practices to be included as suggestions for this step.

For creating a relevant inventory (a): desk research and literature review are good ways to collect data and information that serves well the case at hand. It is also important to know what information and data can help, but is missing, to provide more details on the characteristics and categories of heritage within the region, the history and meanings.

When it comes to defining existing pressures and their dynamics (b), it is important to explore what elements of possible threats as mentioned in Annex A might play a role. The categories and definitions of risks from D.4.1 serves well to distinct for instance what is an environmental or a human-caused threat in a particular region case. Although it is not meant to define in detail the risks and the understanding of risks, it helps to have context on what the possible risks are, if combined with the inventory as discussed above, section (a).

Another important part when scoping, is to know who is involved in heritage preservation, risk management and use (c). In this case, mapping stakeholders and knowing what are their power and interest in relation to preserving and using heritage can be of interest. All PERICLES partners have already carried out a stakeholder mapping exercise to look for those who might be involved for each region. As a practical tool, a table to insert all the stakeholders that can be spotted in the region helps to simplify the task and to gain an overview (derived from T6.1, D6.1; see Annex E). At this point it is important to realise that the stakeholder mapping can be biased and stepping back to the self-assessment might enrich the process. The categorisation of stakeholders in relation to power and interest might change in further phases of this framework as the involvement and the working dynamics increases.

Finally, it is of key importance to know the regulations, legal frameworks and policy and strategic documents (d), as to understand the context, to know what has been done and by whom. In this

sense, we can make use of the table developed for the critical policy analysis in T5.1 (D5.1; see Annex F). This table provides a set of questions that guides identifying and analysing the policies, actors and legal frameworks of the case.

After compiling the information for these four sections, the assessor should have a workable overview of context and knowledge. However, the previous processes are often perceived as expert-based approaches that usually researchers take when exploring a case. It is an option to include more bottom-up approaches in this phase, and include tools and methods such as posting online requests to gather ideas about important threats, a workshop to map stakeholders, or interviews to feed the questions linked to the critical policy analysis. This means reaching out to the communities of meaning, which then also demands for a good explanation of the purpose of the assessment.

Reflection: the social dynamics while scoping the study have to be considered. In this step, we want to answer questions such as: What is the heritage? What are the risks? Who is involved? What has been done? What are the institutional and policy frameworks? Step 3.1.1 can be mainly a deductive process with less participation. However, establishing contact at this phase with the mapped stakeholders could help in obtaining deeper understanding.

3.1.3 Diagnosis

The last step of the first phase of the framework aims to compile all obtained information and elaborate a diagnosis of the risks and value of the heritage in the region case in cooperation with stakeholders. In this step, the participatory approach is essential in terms of including all types of knowledge but also to look for social dynamics and diverse interests. While analysing and evaluating risks and value, a selection of heritage might come up from what the stakeholders think is at risk and needs to be a matter of discussion.

For the diagnosis, there are multiple approaches when it comes to assess risk. It can be that the list of risks is already provided, so the assessment follows a more deductive approach (see D4.2 for the Portugal case on 4.2) or can be the case that the risks are identified in a more inductive or iterative exercise with the stakeholders (see D4.2 for the France case). Selection of the approach depends on the region and the particular case, and/or on the disciplinary focus or methodological preference of

the assessor. However, this draft framework encourages co-identifying risks with stakeholders as a way to gather more local and specific context of the risks and create trust. So, the overall and shared aim of this step is to:

a) Identify and define risks of the heritage by combining scientific and academic knowledge, operational knowledge and expertise, local knowledge;

b) Define the value of the heritage of interest;

c) Identify the overlaps or commonalities and gaps in risk assessment between different groups.

Tools and methods

Identifying and defining risks of the heritage (a) with several stakeholders representing different organisations and sectors can be challenging. However, there are methods and tools that allow us to provide a space for participation, involvement and make use the different types of knowledge. In this sense, this draft framework highlights the use of the participatory workshops as a method where different tools can be used. Within the workshops, tools such as the VPA, Risk Analysis and SWOT Analysis (D.3.3) are useful for the section (a) of this step but also can help already to see how the risks are understood. This could also be a way to look for social dynamics and power/interest relations. Other methods are possible, most evidently are interviews (D.3.3). Apart from engaging physically, there are also digital tools that can provide new ways of participation. The PERICLES mapping portal or the izi.TRAVEL (D3.3.) might prove to be good examples on how stakeholders can digitally include their knowledge and understanding of the risks (yet this is to be tested, and to reflect on in the final assessment framework).

While identifying the value of the heritage tools for economic valuation need to be balanced with tools for intangible values. Interviews and narrative approaches (D3.3) can help to better understand the value of heritage. It is important in this sense to see how stakeholders talk about heritage and perceive what terms are used and what are the characteristics of heritage that are mentioned the most or prioritized.

Finally, it is important at this step to identify and understand the possible gaps between the different groups (c) when it comes to understand and evaluate risks and value of heritage. Even if the knowledge sources are different, the gaps might not be very large and some commonalities might appear, as we have seen in D4.2 that the knowledge gaps between experts and non-experts are not substantial in the cases in France and Portugal.

Reflection: it is important to highlight that the definition and identification of risks also serves as a way to understand what kind of heritage elements are selected and by whom. This should already provide a preliminary list of heritage elements that can be used in the second phase but also what conflicts of interest lie behind. T4.2 showed that, at least in the assessed cases, the gap between expert and local knowledge is small. Yet even if the gap would be different, when thinking about social dynamics, it is important to understand the relation between these groups and consider them both as equally important members of (yet perhaps different) communities of meaning and/or participations.

3.2 Phase 2. Participatory approach for risk assessments for sustainable management, conservation, and use of CMCH

The second phase of the framework aims to guide through the different steps of managing and using heritage at risk, once they are defined and evaluated. In this phase, the draft framework encourages participation in every step, from the processes of making a selection and an actual intervention, named demos within the PERICLES consortium and provide feedback. The steps of the second phase are: 1) prioritization; 2) decision; 3) definition of means of action, adaptation and resilience; and 4) monitoring and evaluation.

Reflection: **In this second phase, it is important to realize that different actors might find themselves at different steps when the assessor comes in, so some decisions and actions might have already been made, even unknowingly by part of, or all the actors involved. Although the second phase is meant to look at consultation processes and actions, scoping and reflection should still be part of the assessment or at least considered as new events and social processes might arise while assessing the second phase. Hence, constant reflection of representativeness, transparency, accountability and power should be employed in each of the following steps.**

3.2.1 Prioritization

The goal of the first step is to prioritize actions which then are to be implemented, based on the outcomes of phase one.

Tools and methods

Two main methods for prioritization are workshops and interviews, as identified in our initial tool review (see D3.3) Participatory workshops are places of exchanges which allow stakeholders to conduct collaborative reflection and propose means of action. Different methods of animation can be implemented such small discussion groups, post-it workshops, in a way to allow all participants to express their opinion freely. Interviews allow for conversations in which the interviewer tries to get a deeper insight into the values and interests of the interviewee, so to understand better what kind of prioritization is expressed.

Of the following tools, the first two can be used in both workshops and interviews, the third is to be used in a workshop and the CACTUS can be used for engaging digitally with stakeholders as well as part of workshops.

a) Mind-map

A mind-map is a tool to support dialogue between stakeholders through a visual representation of ideas and information in a schematic form. This method makes it possible to map and organize ideas from a central subject subdivided into main and secondary subjects. A mind map is structured way of visual documentation of a brainstorm session; this structure should not prevent participants from adding other associations, ideas and suggestions. A facilitator is often a very supportive function to bring mind maps alive and ensure the conversations remain focused.

b) Management scenarios

Management scenarios can be defined directly with stakeholders or proposed on the basis of the information gathered during the previous phase. The definition of management scenarios allows stakeholders to reflect on a specific and concrete case. Reflections can be carried out according to different degrees of investment: preservation > maintenance > restoration > rehabilitation > enhancement (see D3.3).

c) Serious game and mapping

A serious game is an educational tool which allows for raising awareness, informing and initiating/ facilitating interactions between stakeholders. The use of such tool allows to put into practice some scenarios and to envision potential consequences (societal, environmental, political) in a playful or hypothetical context. An example is the observation of consequences of applying certain management scenarios by simulating sea level rise (see D3.3). Having stakeholders to deal with information at hand, and to map a particular issue while cross-checking, can guide and inform them to reflect on the means of action to be implemented. Related are mapping exercises, such as cross-referencing vulnerability maps and making a cultural heritage inventory (see D3.3). When the game or the mapping is repeated, they allow initiating discussions on the means of actions to be implemented on the basis of their fictive experiences of serious-game or mapping.

d) CACTUS

The CACTUS is a particular tool developed by one of the consortium partners to help territorial authorities to wonder about the possibility of adaptation to climate change (see D3.3. and D4.2). CACTUS is structured around a set of questions gathered in “thematic fact sheets” formulated initially in a participatory meeting. It allows presenting territorial issues and stimulating reflection as well as different actions concerning a type of activity (fishing, agriculture, tourism, etc.) or space (marshes, gardens, forests, etc.) regarding climate changes or other type of risks. CACTUS, as it is using by PNRGM, makes several “thematic fact sheets” online available that include: a list of possible effects and consequences of climate change; a set of questions (non-exhaustive and evolving) that ask adaptation choices and social, economic, environmental and technical implications; feedback and good practices; and documentary and bibliographic resources. The thematic fact sheets are live documents and evolve thanks to the contribution of the users (municipalities, public administration, citizens, associations, etc). The initial questions of the “thematic fact sheet” “coastal risks" and "built maritime heritage". CACTUS is currently in French only available, prepared by PNRGM and PERICLES scientists, were used to open the discussions during the meeting organised the 21st of October 2020 at Locmariaquer town and submitted to the discussion. The aim was to improve them with the contribution of participants of the meeting (territorial authorities, citizens association and citizens) and support people to think about the future actions to preserve maritime heritage.

3.2.2 Decision

This step is as straightforward that it is about the actually decision on what are the most important

risks that need action, but at the same time, it is complex because it is when commitment, also in relation to resource allocation (time, money) becomes a main driver that either enables or hinders the progress in the process. Also, it is most of the times not clear who can make the final decision on policies or practices to develop and on resources or other requirements available, or this authority has not participated in the assessment process. However, while there is often a need to have state and territorial authorities on board, also non-state, voluntary groups can decide to act upon a prioritized risk. It is therefore important to recognize that various communities of meanings and participation can decide to act upon threats in various ways. This step is to articulate clearly what the decision is, and who has committed to advance the implementation, because that serves the next step of making an action plan.

Tools and methods

Tools and methods contribute to decision-making by offering a platform at which the decision can be taken. A participatory workshop can for example be designed in a way that the programme works towards a decision-making moment for the participants to voice their commitment and to swing into action to mitigate or eliminate a particular threat. In the case of Malta, this has been done in a workshop where the prioritization step was followed by discussions in small groups of people with the same vision on risks that need to be addressed, and ways to do so. This was then discussed in a plenary and noted down in a report which has been circulated to the participants with the invitation to respond.

Another tool to create a decision-making moment is a SWOT analysis (see D3.3). SWOT stands for Strengths, Weaknesses, Opportunities and Threats, and allows to reflect on the what are the implications of actually having to address the prioritized risks.

Once the case is selected through priority and decisions are made, it is possible to use a sheet to introduce the case of the study and include the objectives, and to be able clearly communicate the focus:

Subject: *Title of the subject of study (example: Collection and use of algae).*

Period/Time: *Period of interest (example: From the beginning of the 19th century to today).*

Space/Place: *Geographic footprint (example: Coastal areas of the Brittany coast).*

Objective: *Defines the heritage object and the associated risks (example: The recognition of seaweed harvesting as heritage can protect it from risks, such as loss of kelp forests and preserve local identity and know-how)*

3.2.3 Means of actions, adaptation and resilience

In PERICLES, specific actions are defined as demonstrations - which are interventions for adaptation and resilience. For any action, it is important having a reflection on the means (financial, technical, human, etc.) available to implement the management decision as defined in the previous step. The identification of these means enable the implementation of appropriate management scenarios. Different means of action can be implemented, as stipulated in D4.1 (Annex B provides more detail of the approaches):

- "preservation actions" by listing the CMCH in urban planning documents (see section 6.3 of D4.1: "A recording and relocated approach for archaeological site");
- "maintenance actions" through a management plan (see sections 6.1 and 6.4 of D4.1: "A preventive, predictive and proactive approach"; "A living heritage approach (or community-based approach)");
- "restoration actions" by restoring its original appearance (see section 6.5 of D4.1: "An adaptive management and scenario planning using geoinformatics");
- "rehabilitation actions" making possible a new use of the CMCH (see sections 6.2 and 6.6 of D4.1 "An adaptive reuse strategy"; "A sustainable tourism approach";
- "enhancement actions" to transmit knowledge and raise awareness of the importance of preserving the CMCH (see section 6.6 of D4.1 "A sustainable tourism approach").

The success of implementation of such actions depends on various conditions which seem common sense, yet are easily overlooked. In programming the actions, it is helpful to make an action plan, because that makes it possible to set priorities for intervention and organize the actions that will be implemented. These actions are defined according to the territorial issues, the diagnostic carried out in phase 1, etc. The establishment of an action plan makes possible to identify project owners, define responsibilities, coordinate the monitoring of implementation, evaluate and organize financial and human resources, etc. Also, funding is important so seeking or securing funding is key (grant application, allocation of municipal budget, etc.). Good communication and information activities towards citizens (on risk prevention, mediation, guided tours, distribution of educational materials, etc.) to account for the intervention, but also to build a common sense of ownership, and to possibly get feedback that may improve the participation process. Moreover, experimentation is seen in the PERICLES project as a key prerequisite. Testing certain actions on a rather small or modest scale provides the opportunity to improve the action, and thereby likely increase good implementation and effectuation in the long term. Examples: organization of a mini-festival (e.g Malta, Brittany), promotion of local products or create digital tours (izi.TRAVEL).

3.2.4 Monitor and evaluation

As in any policy process, monitoring and evaluation are important to find out whether the developed actions are in tandem with the initial objectives set by actors at the beginning of the process. Monitoring refers to gathering data and information that will be useful for an in-depth investigation of each activity, whether it was helpful in achieving the aims. Management measures, actions, and experiments, can be adapted, changed or stopped, according to the evaluation and recommendation measures proposed. Monitoring of activities to mitigate or eliminate risks for CMCH can be done through different tools, yet much depends on the initial aim. For this draft assessment framework, the aim has been set by the consortium partners who have defined demonstrations, as has been described in the first sentence of this Chapter (showing a risk assessment is a circular process).

Tools and methods

a) Observatories.

Observatories can be established by territorial authorities, like state, universities, associations, etc. who aim to monitor the evolvement of a natural, social, physical or economic phenomenon or sites over time. Generally, an observatory maintains an extensive set of indicators at regional, national and international level. This can be made specific for a case, like for example, in the case of the observatory for cultural heritage in Brittany, refers to a tool set such as a CH atlas, georeferenced database and heritage diagnostics to provide quantitative and qualitative information, and allow for knowledge exchange between many diverse stakeholders.

b) Crowdsourcing (including Citizen Science)

Crowdsourcing allows non-scientific and non-professional stakeholders to participate in the acquisition of knowledge and data through an easily accessible and reproducible protocol. It is suited to the collection of long-term monitoring data by which citizens act as “voluntary sensors” to monitor large quantities of data. Monitoring activities might include status assessment, impact assessment and adaptive assessment.

c) Social Media Data Mining

Social media results in vast amounts of user-generated content on a daily basis and can be used to help understand social behavior or analyse social reactions around a risk mitigation initiatives or new ways of using heritage in coastal areas. It can help for instance to evaluate the appreciation of places by using the geo-tagged digital photos.

d) Interviews

Conducting interviews with the stakeholders or users of the heritage of study can also help as a way to evaluate the measures that have been taken in managing risk and use of heritage elements. It can also be for stakeholders a way to look backwards in the process and be a tool for reflection and feedback.

4. Conclusions and Outlook

This report presented the draft risk assessment framework, yet it is a living document that will be used, adapted, refined and revised through the application in the case regions. In its current state, it mainly relies on examples from the case regions of the partners contributing to the deliverable (WU, UBO) but in the final framework, all case regions will be represented. More and deep insights will be included as, by then, the demonstrations have been run through to the risk assessment framework.

The draft risk assessment framework provides a synthesis of the work on threats and risks to CMCH which has been conducted in previous work packages of the project, particularly in WP4, yet also in tasks related to other WPs. The conceptualization of communities of meaning and communities of participation have been used to set out the rationale of the framework. The ambition to develop a participatory framework has been translated into a two layered framework, whereas the focus on methodology has become leading, so presenting the risk assessment as a step-by-step approach in which methods and tools used in these steps are participatory in nature. The second layer represents our understanding that a risk assessment is a social process, in which phases and steps do not necessary form a linear process. In this draft framework, we have addressed this by providing guidelines for reflection on the social process and the socio-political context of the CMCH heritage in case.

The very next step is for the consortium to commonly derive at a way to report and communicate about the demo-specific risk assessment process, as to feed in the final PERICLES risk assessment framework. To facilitate this discussion, a demo sheet template will be developed and shared with the partners. Also, consortium discussions about the ways in which the framework can be used by a broader audience, and how it relates to the PERICLES Compass, are to be continued.

Annexes

ANNEX A. Table adapted from D4.1 and D4.2 on threats to coastal and maritime cultural heritage (CMCH)

Threats to CMCH		
Environmental threats	Climate change	Climate change (in general)
		Sea-level rise
		Coastal erosion
		Sea warming
		Flooding
	Natural disaster	Storm damage
		Natural disasters (e.g., earthquakes)
	Environment	UV and light
		Weathering and erosion
		Pests
		Incorrect temperature (too high)
		Relative humidity
Human caused threats	Cultural economy	Looting and theft
		Illicit trade
	Mismanagement	Accidental damage
		Vandalism
		Fire
		Pollutants
		Management measures
		Dissociation
		Ignorance
		On-site visitor pressures
	Development	Tourism
		Traffic
		Industrial decline
		Infrastructure
	Regulation	'McDonaldisation' of heritage
		Weak protection
		Governance (in general)

ANNEX B. Table adapted from D4.1 regarding sections within mitigation and risk strategies in action

Risk and management strategy in action	**Description**
A preventive, predictive and proactive approach	This approach consists of developing and adopting a preservation framework by using evaluation and analytical tools in order to achieve global sustainability in heritage sites or organisations with movable collections (such as museums, libraries and archives) by predicting and preventing damage and to assist with prioritization (3.2.1). In this case, different preservation assessment tools have been developed and implemented including: the Risk Assessment Tool, taking-stock and Benchmarks as well as Proactive Collaborative Conservation (ProCoCo).
An adaptive reuse strategy	This approach is characterized by the change in function of the building or site. Adaptive reuse presents three main approaches: typological, technological and strategic. The typological method concerns the building type that is being reuse, e.g. a church; (ii) the technological addresses specific technical issues required for the building or the site's reuse; and (iii) the strategic focuses on the process and strategies applied for reuse, such as adapting it to a new function, conversion or refurbishment
A recording and relocated approach for archaeological site	This action involves to excavate and record threaten archaeological sites and relocate the buildings. However, this mitigation measure may not be technically or financially applicable for all sites, but as noted earlier is becoming a more widespread method in high risk places where the threats are more immediate
A living heritage approach (or community-based approach)	The primary aim of the conservation approach is to maintain the continuity of the present community's association with a site, embrace change, but always ensuring the relevance of a site to present society. In this way, the core community is given a primary role in preservation, while the conservation professionals and the peripheral communities/broader community hold a supplementary role.
An adaptive management and scenario planning using geoinformatics	The aim of these methods is to determinate brief narratives of hypothetical future events, which will inform policy of possible circumstances, thus leading to the development of more resilient conservation policies in the face of future change. These narratives are extract by using geoinformatic tools which assist to make restoration decisions, provide structural monitoring, to create management and risk sttrategies as well as to identify hidden or undiscovered remains.
A sustainable tourism approach	Promote tourism, enhance visitor experiences and reduce damage in a sustainable manner. For example, 3D physical reproduction and Virtual and Augmented Reality,

Annex C. Examples of participatory methods and tools in a PERICLES risk assessment

Tool	**Designed for phase**	**Possible application in phase**	**Tested in case/demo**
Semi-structure interviews	Phase 1 – Scoping of the study Phase 1 – Diagnosis		Already tested in most of the Demos (related to T6.1, T5.1, T5.2 and T4.2)
Mapping	Phase 2 - Prioritization		Already tested in Demo B1
Workshops	Phase 1 - diagnosis Phase 2 - Prioritization	Phase 2 – means of actions & monitoring and evaluation	For phase 1: already tested in Demo B1 and M1
CACTUS	Phase 2 - Prioritization	Phase 1 (scoping of the study and diagnostic)	Already tested in Demo B1
Tools for economic valuation	Phase 1- Diagnosis	It might also be used in phase 2 (prioritization)	
Visual Appraisal Approach	Phase 1 (all steps)	Phase 2 (prioritization)	
SWOT Analysis	Phase 1 – Diagnosis	It can also be used in phase 2 (decision)	
Participatory mapping	Phase 2 – Prioritization		
Adaptive workshops	Phase 2 – Prioritization		Already tested in Demo M3
Izi.TRAVEL	Phase 2 – Means of action, resilience and adaptation	It can be also used in phase 2 (monitoring)	Will be applied to Demo M2
Crowdsourcing	Phase 2 – Monitoring and evaluation		
Social media data mining	Phase 2- Monitoring and evaluation		
To be complemented			

ANNEX D. Flow chart of the VPA activities, derived from working version PERICLES VPA

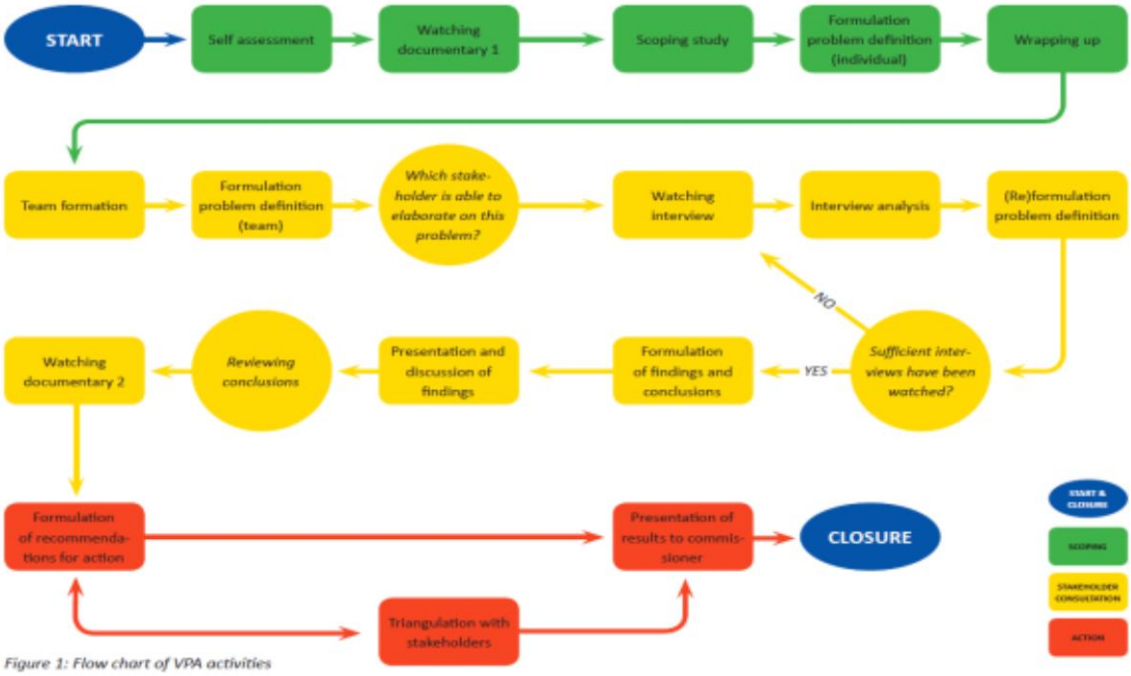


Figure 1: Flow chart of VPA activities

ANNEX E. Guidelines and template for stakeholders mapping, derived from D6.1

Stakeholder group:

Based on proposal text (pg 10) but modified slightly to give:

- Developers (whose actions may pose a risk to CH e.g. aquaculture, renewables, resource extraction, new marinas etc)
- Businesses and other actors exploiting CH (e.g. tourism businesses, artists etc)
- Individuals and groups with a specific interest in CH (heritage NGOs and practitioners, community heritage organisations, fisheries and crofting groups – included here as we are considering the CH component of fisheries in the project)
- Citizens and local communities (e.g. individuals, community development trusts, community groups etc)
- Policy makers and planners (national/ government advisory and statutory agencies with heritage remits, planners, national/ government advisory and statutory agencies with environmental remit where appropriate for landscape and seascapes and feeds in to planning)

Type

- Broad type of agency to give an overview of whether we are engaging government and non-government agencies adequately.
- Using non-government agencyas an umbrella term to include organisations, associations, trusts, federations etc, i.e. interest groups that are non-statutory and non-governmental.

Sector

Intended to give a quick overview of the different sectors that are being involved.

Interest, influence and power

Use of 5 levels: low, medium-low, medium, medium-high and high

Interest: used to denote interest in project. Rating is based on stakeholder response.

Power: Used to denote power to influence policy with respect to CH. Power to influence other policy (like fisheries) will not be considered for the purposes of this project.

Influence: Used to denote influence on project. Some suggested ratings below:

Engagement:

Types of engagement are:

- Through the **portal**: for SHs that you planned to engage through the portal
- **Communication/co-production**: Taking strategic and targeted measures for promoting the action itself and its results to a multitude of audiences, including the media and the public, and possibly engaging in a two-way exchange
- **Dissemination**: The public disclosure of the results by any appropriate means, including by scientific publications in any medium.
- **Exploitation**: The utilisation of results in further research activities other than those covered by the action concerned, or in developing, creating and marketing a product or process, or in creating and providing a service, or in standardisation activities
- **Interviews**: Added this as there was some mention as to whether people who were just interviewed were really engaged. It might be that few SHs are 'only' interviewed but will be good to see

Engagement with project	**Suggested influence level**
Uses outputs rather than informs project	Low
Gov body that uses outputs	Low
National/advisory/statutory bodies actively involved as stakeholders	High
Interest groups actively involved as stakeholders informing the project	High or Medium-high
Local authority actively involved (council etc)	High or Medium-high
Local information citizens	Medium-low
Organisations/interest groups that informproject	Medium

ANNEX F. Guidelines for critical policy analysis (sheet template with questions and guidelines), derived from D5.1

Concept	**Guidance**	**Name and full details of policy programme or relevant policy with dates, lead agencies and resources identified**
Who has a stake in the coast, marine policy specifically and related forms of tangible and intangible cultural heritage?	• Stakeholders can be organisations and actors with an interest in space, place and identity as they relate to cultural heritage. • These might be land use planning policies, tourism strategies, marine plans/zoning or specific development proposals for coastal sights. • However, alternative claims on heritage, (say by community groups left out of waterfront developments) or who prioritise specific tangible and intangible histories also need to be recognised and mapped.	**Stakeholders:** **Relevant policies identified (most recent or updated):**
In what arenas does discussion currently take place? What is the status-formal international, government-led (central, regional, local)? Informal governance (fuzzy) arenas and participatory networks?	• It will be especially important to look at the structures where debates about these strategies take place and decision reached. • Here, we are specifically interested in the role deliberative and participatory governance in shaping, monitoring or evaluating the policies above. • What are the relationships between central and local government. • Are there special governance structures and are they dominated by public, private, community or interests. • How are politicians represented on these structures?	
How is policy made; who leads, what information do these use and who has most influence?	• This component is about the methodology of policy and programme development. They might be highly regulated (zoning and development plans) or have a	

	campaigning focus by special interest (say heritage) groups. • How is the policy/programme monitored and specifically how is risk, resilience and adaptation understood (see task 4.1)?	
Through what policy discourses are problems identified, claims for policy attention prioritised, and information and new ideas filtered?	• Whose voice dominates the policy, is it diverse or does a dominant voice clearly exercise overall control?	.
How is agreement reached, how are such agreements expressed in terms of commitments and how is delivery monitored?	• How is the policy implemented and how are decisions, policies, programmes challenged and by whom? (regulatory tribunals such as planning appeals, formal or informal political channels, special interest groups).	