Recommendations from Core and Fellow Pilots as a key management element for present/future restoration actions

Deliverable 5.3

31/10/23

WP5

Lead beneficiary: International Union for Conservation of Nature

Author/s: Pilar Marín[1], Natalia Cagide[2], Amine Kabbaj[1]

1. International Union for Conservation of Nature
2. Cagide Consulting S.L.

REST-COAST

Large Scale RESToration of COASTal Ecosystems through Rivers to Sea Connectivity

D5.3 Recommendations from Core and Fellow Pilots as a key management element for present/future restoration actions

Prepared under contract from the European Commission
Grant agreement No. 101037097
EU Horizon 2020 Coordination and Support Action

Project acronym:	**REST-COAST**
Project full title:	**Large Scale RESToration of COASTal Ecosystems through Rivers to Sea Connectivity**
Start of the project:	01.10.2021
Duration:	54 months
Project coordinator:	Prof. Agustín Sánchez-Arcilla, Universitat Politècnica De Catalunya (UPC)
Type:	Restoring biodiversity and ecosystem services
Call:	H2020-LC-GD-2020-3
Deliverable title	Recommendations from Core and Fellow Pilots as a key management element for present/future restoration actions
Deliverable n°	D5.3
Nature of the deliverable:	Report
Dissemination level:	Public
WP responsible:	WP5, D5.3
Lead beneficiary:	International Union for Conservation of Nature
Citation:	Marín, P., Cagide, N., Kabbaj, A. (2023). Recommendations from Core and Fellow Pilots as a key management element for present/future restoration actions. Deliverable D5.3. EU Horizon 2020 REST-COAST Project, Grant agreement No 101037097
Due date of deliverable:	Month n°18
Actual submission date:	Month n°24

Deliverable status:

Version	Status	Date	Author(s)
1.1	Draft	31/10/2023	Pilar Marín (IUCN) Natalia Cagide (Cagide Consulting S.L.) Amine Kabbaj (IUCN)

The content of this deliverable does not necessarily reflect the official opinions of the European Commission or other institutions of the European Union.

D5.3 Recommendations from Core and Fellow Pilots as a key management element for present/future restoration actions

Table of Contents

D5.3 Recommendations from Core and Fellow Pilots as a key management element for present/future restoration actions

Preface

The REST-COAST Project (Large scale RESToration of COASTal ecosystems through rivers to sea connectivity) is an EU Horizon 2020 research project (Grant agreement No. 101037097) whose overall goal is to address with effective and innovative tools the key challenges faced by coastal ecosystem restoration across Europe. The approach chosen for this project will deliver a highly interdisciplinary contribution, with the demonstration of improved practices and techniques for hands-on ecosystem restoration across several pilot sites, supported by the co-design of innovative governance and financial arrangements, as well as an effective strategy for the dissemination of results.

This document D5.3 embraces recommendations obtained from the development of the *Report mapping the governance status quo in pilot sites* (D5.1, Aljinović 2022) and the *Roadmap for Governance Transformation Strategies and Criteria for Effective Coastal Restoration Programmes at Pilot Sites* (D5.2, Marín and Cagide 2023), as part of the Work Package 5 (WP5) deliverables and milestones. Additionally, key outcomes regarding governance from other WPs have been also considered (e.g., WP1). Its focus is on assessing the ramifications of the proposed governance approaches/scenarios (the "what if?" future visions), and it will be used as a major management element to, among other things, disclose uncertainties for future developments. This will help advance the goal of creating and enabling a socioeconomic climate conducive to transformative and restoration-supportive governance that better integrates policies and mechanisms for large-scale coastal restoration.

Summary

Deliverable 5.3 has been crafted to review and discuss the proposed roadmaps in D5.2 for transforming governance strategies at the Pilot Sites. Its primary goal is to improve the governance criteria required for successful restoration programme implementation at each location and identifying potential risks. This report aims to provide advice on how to govern effectively while managing natural resources, and to evaluate what the potential outcomes could be.

List of abbreviations

ESS	Ecosystem Services
EU	European Union
REST-COAST	RESToration of COASTal Ecosystems through Rivers-to-Sea Connectivity Project
QST	Quick Scan Tool
WP	Work Package

D5.3 Recommendations from Core and Fellow Pilots as a key management element for present/future restoration actions

1 Introduction

Deliverable 5.2 *Roadmap for Governance Transformation Strategies and Criteria for Effective Coastal Restoration Programmes at Pilot Sites* (Marín and Cagide, 2023), provided contextual information and a framework for natural resource governance, specifically focusing on the REST-COAST. It also emphasized the importance of understanding legal frameworks, policies, and managerial protocols relevant to the project highlighted the need for inclusive processes and active stakeholder participation in decision-making. Through a comprehensive analysis of the pilot sites, strengths, weaknesses, opportunities, and threats were identified, then measures to enhance each aspect of the REST-COAST governance criteria were prescribed. The analysis revealed five recurring common topics that have a significant impact on governance for the Pilot Sites, which are:

1. **Stakeholder engagement and collaboration**: This area emphasizes the importance of involving stakeholders in the decision-making process and fostering collaboration among them.
2. **Administrative and bureaucratic challenges**: This topic addresses the challenges related to administrative processes and bureaucratic procedures that may hinder effective governance.
3. **Data and information gaps**: This item highlights the need for accurate and comprehensive data and information to support decision-making and governance practices.
4. **Public interest and communication**: This topic emphasizes the importance of effectively communicating with the public and ensuring their interests are considered in governance processes.
5. **Site-specific challenges**: These are focused on the unique challenges faced by each pilot site and the need to address them in the governance framework.

In the end, D5.2 provided strategic roadmaps and actionable items to address the identified needs at each Pilot Site, aiming to improve governance systems by enhancing the different governance criteria defined.

On the other hand, it should be also underlined that according to the survey carried out under Deliverable 1.2 "*Technical report on barriers and enablers for coastal restoration upscaling: A multi-level perspective*" (Ibáñez *et al.*, 2023), governance appeared indisputably as the top perceived barrier category (74%) in the overall REST-COAST project, against Financial (19%) or Technical (7%) barriers (see Figure 1). Additionally, the survey also showed that governance barriers were relatively common and important in the practice of coastal restoration, as factors that can hamper restoration's success. On top of that "*Dealing with socioeconomic needs*", "*Lack of integrated approach*" and "*Lack of convergence in stakeholders' interests*" seemed to be the most relevant and frequent governance barriers (see Figure 2). Bureaucracy, short-term policies, social engagement among others were also identified as relevant factors which limit restoration activities. These facts justify the need to address actions and recommendations from WP5 not only to solve the issues around governance but also as a priority to better frame future outcomes and actions from other closely related WPs (e.g., business plans under WP3).

D5.3 Recommendations from Core and Fellow Pilots as a key management element for present/future restoration actions

Therefore, Roadmaps from D5.2 along with Recommendations to be provided in this Deliverable, are intended to drive changes in governance to achieve the required transformation of the initial governance framework. They will provide guidance on proficiently governing while managing natural resources in order to meet the Key Performance Indicator Contributions (KPI-C) set by the project regarding "***Transformations in Pilot local/national governance***". Both deliverables will contribute to the collective understanding of good governance practices in coastal restoration projects, serving for outscaling and upscaling actions.
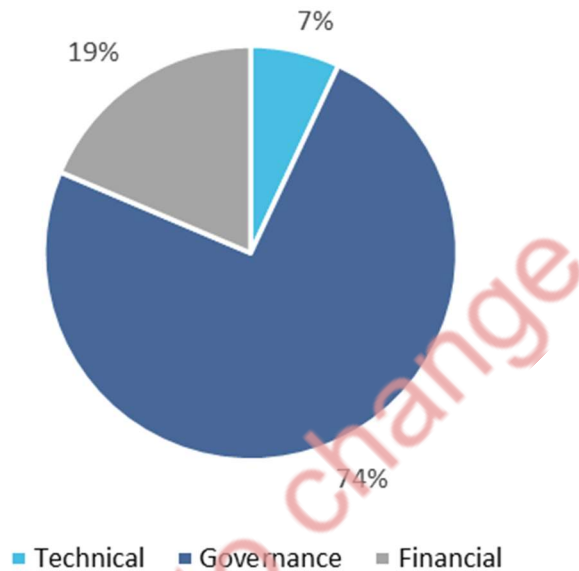

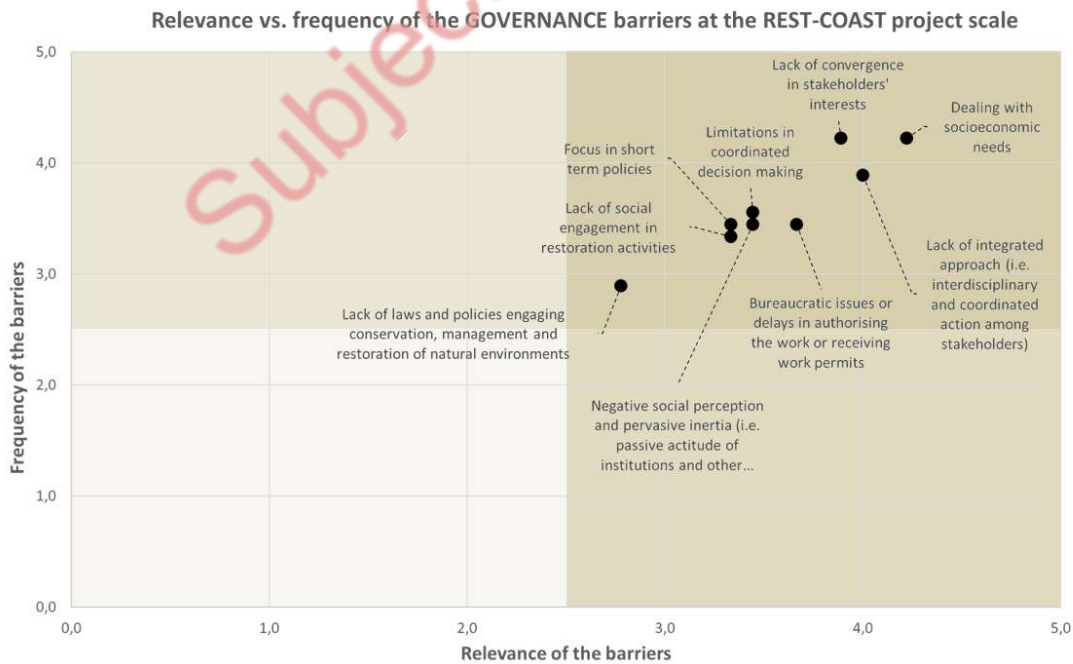**Figure 1. REST-COAST main barrier categories. Source: Ibáñez *et al.*, 2023.**

Figure 2. Relevance *vs.* Frequency of governance barriers at REST-COAST project scale. Source: Ibáñez *et al.*, 2023.

6

2 Assessment of Previous Recommendations

Deliverable 5.1 "*Report mapping the governance status quo in pilot sites*" provided an overview of the governance structures and challenges in the nine REST-COAST Pilot Sites at the project's beginning. The aim of this report was to identify critical governance barriers for large-scale restoration and conservation efforts and to develop a preparatory roadmap for future planning. The Pilot Sites were requested to incorporate indicators of progress in their assessments, such as regular meetings with governance bodies and annual reports. These indicators would serve as a measure of the Site's ability to adapt and examine the evolving social, economic, and cultural context, emphasizing the importance of justifying the chosen scores and identifying potential barriers to success that may hinder the fulfilment of the REST-COAST governance criteria.

Additionally, the report included preliminary recommendations (see Annex 1), actions and next steps that should be taken to reach good governance criteria ratings. These actionable steps were crucial for the Pilot Sites to make progress towards their restoration goals. The report also highlighted the significance of that first self-assessment conducted for future evaluations given the relevance of the information included regarding governance structures, main policies relevant to restoration actions, or challenges and limiting factors.

Recommendations made in that report aimed to facilitate the next steps in WP5. While the specific recommendations are not mentioned in the given context for each Pilot Site, they were expected to provide guidance on many governance aspects to start overcoming constraints. With these recommendations, the report served as a baseline for a transformative governance since it laid the foundation for developing an evolving planning tool that would enable a more detailed analysis and the creation of an action plan with indicators of progress, barriers, and priorities.

During the efforts carried out in preparation of D5.2 and D5.3 all Pilot sites were contacted, and one-on-one interviews were conducted. Despite these meetings were fundamentally aiming at a SWOT analysis to identify key enablers and barriers associated with the Pilots, it additionally involved reviews of previously submitted self-assessments from D5.1 to figure out about the feasibility of measures proposed. Furthermore, in-person and online workshops were conducted to set the basis of governance in the REST-COAST project, share lessons learned, as well as discovering the connections with other WPs. Therefore, all the related previous recommendations were reviewed during these meetings to encompass any status changes that might have occurred at the Pilot Sites.

All in all, the feedback provided on the preliminary recommendations was positive and constructive. There were some Pilot sites that in view of the alignment with recommendations given and considering the needs and status of their projects, had no additional feedback or comments to the recommendations after their review, therefore they agreed that the initial set of recommendations provided were generally feasible. However, there were several comments that deserve to be highlighted. Specifically, the feedback from the Foros Bay Pilot Site, that identified concerns regarding the acknowledgement that every stakeholder to the Pilot is made aware (and is supportive of) the application of NbS at the restoration sites. They mentioned that regional/local authorities suffer irregular and insufficient funding, which hinders long-term management and

monitoring activities, and that the NGOs rely predominantly on European-funded projects to manage activities they perform in the protected areas. On this topic, they pointed out that ad-hoc management style and irregular allocation of funds/external funding prevents long-term planning, implementation and monitoring. There was also an expression of concern regarding the lack of leverage to influence the willingness to secure the support and full collaboration of relevant stakeholders, especially those in the administration (a concern expressed by other Pilot sites as well such as Arcachon Bay).

Image 1. Interactive Pilot session during the in-person governance workshop at the REST-COAST annual meeting in Gdansk (Poland), September 2023.

The consideration of local realities and the cultural context, given that often the focus of active engagement is set on professional (environmental experts) and social (citizens, users, nature lovers etc.) groups, can easily directly or indirectly impact the management practices/issues set at each site (e.g., Nahal Dahlia and Foros Bay). Discussions on scattered stakeholder frameworks which follow at times uncoordinated strategies and that struggle to collaborate together efficiently was also discussed across several sites, such as Sicily Mediterranean Island, Vistula Lagoon, Arcachon Bay, or Wadden Sea. In the case of Venice Lagoon, they offered feedback also pointing out that the focus on stakeholder engagement goes both ways between the local stakeholders and the scientific community, who can all learn a lot from one and other (using both for the public outreach and not relying exclusively on the scientific community to provide the data and outreach to enhance the communication on the benefits of the restoration actions). They also provided the feedback that

D5.3 Recommendations from Core and Fellow Pilots as a key management element for present/future restoration actions

the support of data exchange among different institutions driving a positive change in sharing and disseminating information and knowledge about the Site could be beneficial, an idea which has recurred across multiple actions and recommendations made to enhance the governance frameworks at all the Sites.

3 Recommendations Developed

The structure of the roadmaps established in D5.2 were formulated with details identifying three (3) common steps to take across all the sites followed by specific actions established for each Pilot Site to build and drive transformative natural resource governance systems. These common steps across all the pilot sites consisted in:

- Step 1 (Baseline vs Goals): Initial phase of analysis of the baseline conditions and current status of the sites, as well as their alignment with the Pilot Site's goals and vision.

- Step 2 (Road mapping and Strategic Thinking): Strategic thinking and road mapping for governance improvement planning and transformation, which can be divided into three common areas of change action: identification of multi-level governance systems, policy transformations, and collaboration/engagement with stakeholders.

- Step 3 (Rollout Driving Change): The initial common roadmap is broken down further, with specific actionable steps specified on a Pilot Site basis to drive transformative governance and criteria improvement planning at each location within its specific context and given the specific barriers it faces.

From these three common steps, along with the specific action items set up in the governance roadmaps for the Pilot Sites and considering outcomes from assessing initial recommendations, the following key recommendations are formulated, and have been grouped into three key areas of work:

1. Establishment of a Transformative Governance Framework
2. Action Plan Development
3. Participation, Communications, and Outreach

Recommendations are thoroughly described as follows:

1. ESTABLISHMENT OF A TRANSFORMATIVE GOVERNANCE FRAMEWORK

RECOMMENDATION 1. **Progressive improvement of restoration governance criteria**.

To be achieved by applying the recommendations for criteria improvement identified in D5.2 (Section 2.2), and by regularly reviewing and updating them in response to changing conditions at the Pilot Sites and integrating best practices from successful restoration projects and lessons-learnt from core and fellow Pilot Sites. The measurement, monitoring, and improvement of these criteria will serve as progress towards meeting the most favourable governance status following

the evaluation of the Pilot Site governance framework conducted in Milestone 5.3 (see Figure 3). To achieve progressive and consistent improvement in the governance criteria metrics is crucial in order to meet the REST-COAST project goals, and to drive transformative change through the governance framework at each Pilot Site. Given this, it is not surprising that this effort and objective applies to all the governance criteria, and the use and application of the tools provided via the deliverables D5.2, M5.3, and this D5.3 are key in order to achieve its intent.
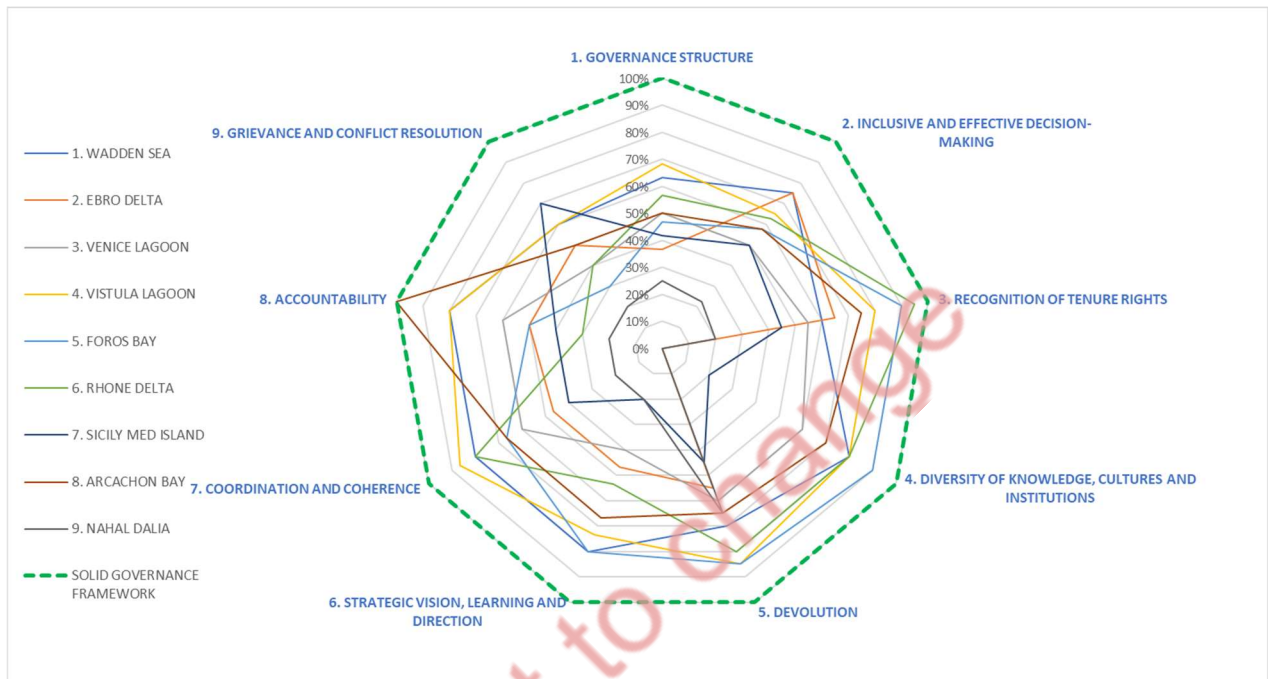

Figure 3. Governance status for all Pilot Sites from Milestone 5.3.

RECOMMENDATION 2.   Decrease barriers and establish long-term commitments from stakeholders.

To enhance coastal restoration upscaling and effect transformative governance at Pilot Sites, several strategic interventions are recommended, as further described in D5.2. Foremost, it is crucial to widen stakeholder engagement, specifically targeting the younger generations of stakeholders, to foster improved relationships and stakeholder diversity (creating partnerships, promoting transparency, and building mechanisms for ongoing stakeholder involvement). This can be enhanced by amplifying the frequency of meetings and by increasing the visibility of an outreach programme. A common dialogue across all stakeholders is vital, as is the promotion of transparency, cooperation, and clearly defined joint goals. If any governance reforms are unfeasible (for example, opposed changes that face strong opposition or are logistically challenging to implement), they should be revisited and possibly minimised. In such cases, it is crucial to engage in open dialogues with stakeholders to explore alternative solutions or phased approaches, emphasizing on flexibility and adaptability to ensure that even in challenging circumstances, progress can still be made toward achieving the overarching goals. The management approach should be more inclusive, welcoming additional stakeholders for

sustainable cooperation. Furthermore, the establishment of a local stakeholder network, connecting scientists, NGOs, and trade associations, is pivotal, ensuring they remain aligned with broader European and international knowledge bases. To leverage substantial resources, the engagement of stakeholders is essential, potentially through economically beneficial joint initiatives. Advocating for regulatory adjustments that mandate the involvement of the scientific community in coastal activities can also be beneficial, as well as applying anti-corruption measures, comprehensive participation platforms, and the mitigation of power imbalances further underpin this holistic approach to transformative coastal restoration governance.

It is important to note that one of the primary goals of the REST-COAST project is to overcome restoration barriers. It also includes social barriers based on competing interests or perceptions of development, resource exploitation, and environmental conservation. To that end, the formation of Coastal Restoration Platforms (CORE-PLATs) is critical for confronting the current governance system while encouraging stakeholder participation and co-development. The CORE-PLATs framework assists with identifying and involving relevant stakeholders, as well as incorporating their knowledge through a co-development process, and it is critical for implementing hands-on coastal restoration at the nine REST-COAST Pilots and defining the approach for its upscaling (see Deliverable 1.2 Ibáñez *et al.*, 2023).

RECOMMENDATION 3. Identifying opportunities to drive transformative change in local/regional/national policy measures and grasp the policy context that may feed into the existing and upcoming European regulatory framework.

To advance transformative change in line with EU regulation championing coastal restoration, it is crucial to refine restoration governance criteria and remove barriers identified in previous deliverables, while ensuring sustained stakeholder commitment (link to Recommendations 1 and 2). Engaging with national and regional officers regarding EU climate change adaptation regulations, establishing local coastal restoration contracts, and heightening awareness among regional decision-makers are pivotal. If possible, it would be also beneficial to establish communication channels with EU officials through participation in projects, conferences, etc., and to both participate in public consultations and to facilitate outreach events, at any level, that might provide presence and feedback that could help identify opportunities to drive transformative change in policy measures, as well as understand the policy context feeding into the European regulatory framework. Public events can foster knowledge sharing, while dialogues grounded in successful restoration case studies can facilitate collaborations. Multi-tier stakeholder engagement is essential, especially bolstering local community representation in decision-making. Integration of restoration practices into existing policy structures requires robust and targeted relationships with administrative officials at any level (local, subnational, national, regional or international). All these strategies should be perceived within the context of the European Green Deal, ensuring a holistic approach to coastal restoration.

The recommended approach to grasp the policy context and identify opportunities that may contribute to the existing and upcoming European regulatory framework is to collaboratively

develop and execute a strategic and transformative governance action plan. It should be formulated at Pilot Site level in close collaboration with stakeholders. Additionally, stakeholder engagement and involvement on this identification of policy opportunities, may play a crucial role in gaining credibility and trust, which is highly relevant for successful upscaling outcomes.

2. ACTION PLAN DEVELOPMENT

RECOMMENDATION 4.   Action Plan development to establish mechanisms to overcome the lack of coordination and clarify mandates and competencies regarding restoration actions at sites.

Outlining specific mandates and competencies associated with actions at the Site is paramount to enhance clarity and coordination in restoration initiatives, as well to have clearly defined the decision-making scale. Emphasis should be placed on mechanisms that bridge coordination gaps not only across various governance levels but also with stakeholders, thereby fostering a shared comprehension of priorities. In this sense, the establishment of CORE-PLATS is vital, ensuring a sustainable and continuous collaborative mix among principal stakeholders in Pilot Sites (Link to Recommendation 2). Advocacy towards sustainable methodologies is recommended, highlighting long-term advantages, leveraging exemplary EU practices (and beyond. To this end, the Deliverable 1.1, *Database on coastal restoration projects and performance*) can be used as reference tool. Also capitalising on the NGO community for effective dissemination of scientific developments and findings related to coastal restoration and successful outcomes of the work carried out at the Pilot Sites may provide an added value. Collectively, these strategies seek to bolster coordination and synergy among stakeholders in site-specific restoration endeavours. For the formulation of a site-specific transformative governance Action Plan, it is imperative first to discern the pertinent legal, policy, and managerial frameworks that delineate the strategic paradigm for natural resource governance at a Site, encompassing relevant regulations, policies, and practices while taking into account needs and requirements set by project stakeholders. Equally vital is the adoption of inclusive methodologies, actively soliciting stakeholder inputs for the co-creation and deployment of a strategic governance blueprint at the Pilot Site. When collaborative learning is planned with an understanding of the mental models used by stakeholders, it can reduce conflict, assist stakeholder groups in developing a sense of shared purpose, and make it easier to take measures to protect valued ecosystem services (ESS).[1] Conservation professionals and scientists rely on effective science communication at all stakeholder levels to value, manage, and sustain ESS, design stakeholder engagement processes, improve science communication, and facilitate interdisciplinary learning. Fostering collaborative partnerships and adaptive management approaches are examples of this (Feurt, 2017). This comprehensive process underscores the essence of grasping policy intricacies, pinpointing

---

[1] At REST-COAST level five main ESS have been considered: 1) Food provisioning; 2) Climate regulation; 3) Water purification; 4) Resistance to coastal erosion; and 5) Reduction of flooding risk.

avenues within current and emerging regulations, and nurturing stakeholder relations to ensure credible, trustworthy, and efficacious restoration results.

RECOMMENDATION 5.   Engage different sectors to apply more sustainable approaches by showcasing the long-term benefits of executing a strategic Action Plan at Pilot Site level in close collaboration with stakeholders.

To stimulate various sectors into adopting sustainable practices by illuminating their long-term benefits, a multi-faceted approach is paramount. Advocacy efforts should underscore best practices from the EU, enriched possibly with global exemplars. The scientific community's involvement can aid in evaluating and quantifying the economic merits of sustainability and ecological restoration efforts, potentially unlocking sectoral financial commitments and at the very least driving interest among stakeholders on the benefits of these endeavours. For a harmonised approach, it is vital to encompass this recommendation with clear roles and responsibilities concerning restoration, while complemented by mechanisms addressing coordination gaps (link to Recommendation 4). Knowledge exchange, built on successful case studies with restoration professionals, paired with bilateral dialogues with erstwhile non-collaborative entities like municipalities and key stakeholders (e.g., farmers, fishermen), can underscore the economic value of ecological health, linking environment quality to natural heritage. Offering multiple and diverse stakeholders clear and collaborative action steps would help to grasp the policy landscape and leverage regulatory opportunities. It would also ensure cohesive strategic governance forging stakeholder trust, which are integral to fostering sustainable restoration practices (especially at Pilot Site level).

The subsequent step also requires harmonising diverse stakeholder visions, even amidst conflicting interests, to foster unity. Optimising stakeholder management mechanisms will bolster coordination, ensuring efficient utilisation of available resources and may help when addressing and mitigating stakeholder conflicts, alongside facilitating coalition-building. This holistic approach, underscored by sustainable and adaptive practices, is pivotal to building trust, securing credibility, and achieving successful restoration results.

RECOMMENDATION 6.   Establish priorities for financial investments, key target groups, and sequencing of actions.

To ensure judicious financial investments and effective stakeholder engagement in coastal restoration efforts, it is imperative to follow Recommendation 1, allowing for a robust evaluation of restoration efficacy. In order to do this, emphasis should be placed on prioritising financial investments and discerning key target groups, alongside coherent action sequencing. Overcoming barriers and cultivating sustained commitments from stakeholders, particularly key target groups such as local communities, NGOs, and government entities, is of paramount importance. Financial allocations should strategically discern and rank endeavours and restoration actions based on immediate needs, therefore in alignment with the overall restoration goals (closely linked to governance criterion "Strategic Vision, learning and

direction"). Additionally, meticulous sequencing of actions is essential, distinguishing urgent actions from those planned for mid-term and long-term horizons within the area of governance for the project. To do so, all items identified for each site have been organised from high to low priority: the top of the lists being the highest priorities which can be implemented in the short-term (months)/mid-term (1-3 years), and the last being the lowest priority that can be implemented in the mid/long-term (3+ years) in order to provide insight into possible phasing and planning for the different actions (see Deliverable 5.2, Marín and Cagide 2023). In sum, these guidelines serve as a foundational blueprint for a transformative governance roadmap, marrying restoration objectives with prudent financial resource allocation and holistic stakeholder involvement.

3. PARTICIPATION, COMMUNICATIONS AND OUTREACH

RECOMMENDATION 7.   Involve the scientific community and key organizations in dissemination actions.

To involve the scientific community and key organizations (e.g., NGOs) in dissemination actions about good practice examples from around the EU (or beyond if available) and showcase the overall long-term benefits of applying sustainable approaches. This can be done by stimulating knowledge-sharing through public outreach events, integrating experts and stakeholders into the discussion, and using curated communication skills and techniques to adapt technical and scientific knowledge with language that is digestible by different stakeholder groups according to their needs. Collaborations and support with conflicting stakeholders should also be identified and leveraged.

RECOMMENDATION 8.   Emphasize the importance of stakeholder engagement, credibility, trust, and adopting sustainable and adaptive practices in natural resource governance for successful restoration and upscaling outcomes.

Stakeholder engagement plays a crucial role in gaining credibility and trust, and sustainable and adaptive practices are pivotal for successful restoration and upscaling outcomes. It is crucial for all restoration projects to develop close collaboration among stakeholders and regularly present assessments of social-ecological benefits derived from restoration activities. This includes transparently accounting for coastal natural capital within governance frameworks and utilizing numeric and predictive models (e.g., from WP2) to enhance credibility and attract technical expertise. Collaborative partnerships, adaptive management approaches, and capacity-building initiatives tailored to local contexts are also emphasized. Additionally, the establishment of CORE-PLATS as organized forums for diverse stakeholders is a REST-COAST valuable mean to promote increased socio-economic commitment and the provision of new tools and knowledge.

D5.3 Recommendations from Core and Fellow Pilots as a key management element for present/future restoration actions

RECOMMENDATION 9.   Engage stakeholders in committing funds by demonstrating economic benefits.

Engaging stakeholders into financial commitment by illustrating the economic advantages is vital to champion sustainable methodologies in diverse sectors, underscoring the lasting benefits of such strategies. By presenting exemplary restoration projects from the EU and potentially broader regions, coupled with data-backed insights from the scientific community, the economic dividends of restoration can be underscored effectively. Furthermore, delineating restoration responsibilities and enhancing coordination mechanisms are essential. Exploring joint initiatives with sector-specific entities, highlighting long-term economic gains, can bolster their allegiance and financial contributions. These strategies are pivotal to effectively communicate the economic value of restoration endeavours and to entice stakeholder investments (further information developed - or to be developed - under WP3).

RECOMMENDATION 10.   Collaborate with entities, NGOs, academic and research institutions, and public/private sector organizations for knowledge sharing and outreach programming.

To enhance knowledge sharing and outreach within the area of coastal restoration, a multifaceted collaborative approach is essential. By sharing experiences and best practices, and actively participating in knowledge-centric platforms like workshops and conferences, there's scope for enriched sector-wide learning. Enlisting the scientific community ensures that evidence-driven strategies are at the forefront, while mitigating coordination challenges among stakeholders. By harnessing the capabilities of educational and research institution when cultivating enduring stakeholder networks, the restoration sector can thrive. Emphasising these collaborative partnerships underpins the strategy, fortifying its credibility and enhancing its efficacy.

Summing up, this three-step approach is recommended to effectively carry out transformative governance in restoration projects. First, regularly update the governance rules using feedback from Pilot Sites and lessons from successful projects. Next, to create a clear Action Plan that Pilot Sites can follow to improve natural resource governance. Finally, enhance communication efforts by involving key stakeholders and sharing information about the benefits of restoration with science-based arguments. This combined and strategic approach aims to update governance methods, simplify action steps, and boost communication for better restoration results.

The following Figure 4 and Table 1 identify the key REST-COAST governance criteria that would be impacted - but not limited - by each of these recommendations, aligning with the outcomes developed in deliverables D5.1, D5.2, and M5.3.

Specifically, the figure shows a radar diagram resulting from the REST-COAST governance criteria assessment (Milestone 5.3) and the average values (yellow dotted line) of each of these metrics across the Pilot Sites. It shows which recommendations are associated to each of these criteria. For example, recommendations 1 and 8 are related to the criterion "Recognition of tenure rights", a

D5.3 Recommendations from Core and Fellow Pilots as a key management element for present/future restoration actions

metric which on average the Pilot Sites scored a status of 65%. The graphic also displays the existing room for improvement till reaching a solid governance framework (green dotted line). This enhancement may come from implementing the recommendations provided above, which complements the initial recommendations from Deliverable 5.1, and also follows up from the Pilot Site Roadmaps (Deliverable 5.2).

Following the graph is Table 1, which cross-references all the recommendations to the REST-COAST governance criteria, identifying at a glance which ones are related – but not limited - to which governance criteria. Therefore, this way Pilot Sites can easily identify which criteria metrics improvement they are addressing when implementing each recommendation. To notice that Recommendation 1 would be quite relevant since touching all the governance criteria.
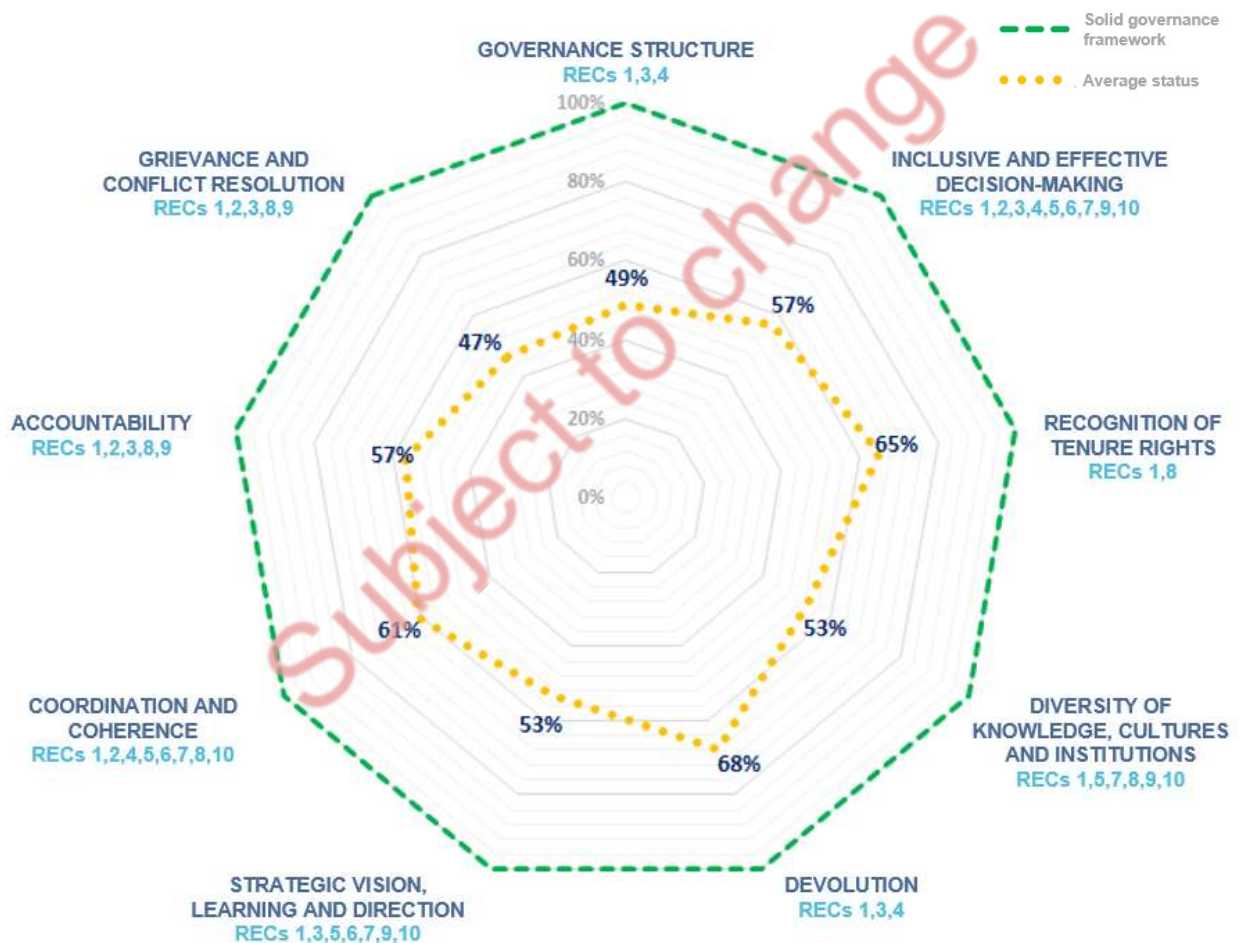

Figure 4. Recommendations *vs.* REST-COAST governance criteria and average performance status across all Pilot Sites.

Table 1. Recommendations *vs.* REST-COAST governance criteria.

RECOMMENDATIONS	GOVERNANCE CRITERIA								
	CRITERIA 1 Governance structure	CRITERIA 2 Inclusive and effective decision-making	CRITERIA 3 Recognition of tenure rights	CRITERIA 4 Diversity of knowledge, cultures and institutions	CRITERIA 5 Devolution	CRITERIA 6 Strategic vision, learning and direction	CRITERIA 7 Coordination and coherence	CRITERIA 8 Accountability	CRITERIA 9 Grievance and conflict resolution
1. Progressive improvement of restoration governance criteria.	☑	☑	☑	☑	☑	☑	☑	☑	☑
2. Decrease barriers and establish long-term commitments from stakeholders.		☑					☑	☑	☑
3. Identifying opportunities to drive transformative change in local/regional/national policy measures and grasp the policy context that may feed into the existing and upcoming European regulatory framework.	☑	☑			☑	☑		☑	
4. Action Plan development to establish mechanisms to overcome the lack of coordination and clarify mandates and competencies regarding restoration actions at sites.	☑	☑			☑		☑		☑
5. Engage different sectors to apply more sustainable approaches by showcasing the long-term benefits of executing a strategic and transformative governance Action Plan at Pilot Site level in close collaboration with stakeholders.		☑		☑		☑	☑		
6. Establish priorities for financial investments, key target groups, and sequencing of actions.		☑				☑	☑		
7. Involve the scientific community and key organizations in dissemination actions.		☑		☑		☑	☑		
8. Emphasize the importance of stakeholder engagement, credibility, trust, and adopting sustainable and adaptive practices in natural resource governance for successful restoration and upscaling outcomes.			☑	☑			☑	☑	☑
9. Engage stakeholders in committing funds by demonstrating economic benefits.		☑		☑		☑		☑	
10. Collaborate with entities, NGOs, academic and research institutions, and public/private sector organizations for knowledge sharing and outreach programming.		☑		☑		☑	☑		☑

Colours key. ☐ corresponds to Recommendations Group 1 "Establishment of a Transformative Governance Framework", ☐ to Recommendations Group 2 "Action Plan Development" and ☐ to Recommendations Group 3 "Participation, Communications, and Outreach"

4 Potential Outcomes Expected

Applying the recommendations for driving transformative governance at the Pilot Sites could lead to several potential outcomes, including:

→ **Innovations and advancements in policy**: The pilot sites may introduce innovative approaches and advancements in policy to support coastal restoration practices. This could involve revising existing policies or developing new ones to align with environmental policies such as the EU Habitats Directive, EU Birds Directive, and the European Green Deal.

→ **Public consultations and stakeholder engagement**: The pilot sites may engage in public consultations and actively involve stakeholders in the decision-making process. This can enhance transparency, accountability, and participation in the project, leading to better-informed decisions and increased support from the community, while keeping stakeholders updated on ongoing policy processes.

→ **Improved governance frameworks**: The pilot sites will work towards improving their governance systems and criteria metrics. This includes developing a governance action plan with stakeholders, enhancing stakeholder management and communication, and promoting transparency and accountability within the project.

→ **Policy changes and restoration regulations support**: The improvements in governance frameworks at the Pilot Sites may contribute to driving gaining policy maker's attention on crucial matters related to coastal restoration, thus potentially pushing and advocating for supportive policy changes, including the potential support for the imminent EU restoration regulation process and its developments (e.g., potential National Plans) if finally adopted. This can create a favourable policy environment for coastal restoration practices.

→ **Continuous improvement and knowledge sharing**: The Pilot Sites will actively monitor and evaluate the effectiveness of the implemented reforms, identifying areas that require further attention. They will document progress, learn from experiences, and share lessons learned with other core and fellow Pilots and other initiatives. This will contribute to the collective understanding of good governance practices and enable continuous improvement in future coastal restoration projects.

→ **Effective Resource Allocation**: Prioritizing financial investments and key targeted sectors based on clear criteria can lead to more effective resource allocation. This ensures that in case of limited resources, they are directed towards actions with a meaningful impact on coastal restoration.

→ **Transparency and Accountability**: Improved governance frameworks often entail greater transparency and accountability. This can result in better monitoring of restoration activities, clearer reporting mechanisms, and a reduction in corruption risks, ultimately contributing to more efficient and trustworthy governance systems.

→ **Adaptive Management**: By actively monitoring and evaluating the effectiveness of reforms, pilot sites can embrace adaptive management practices. This means being able to adjust strategies and actions based on real-world outcomes, leading to continuous improvement in the effectiveness of coastal restoration efforts.

→ **Synergy Among Stakeholders**: Collaboration and coordination among diverse stakeholders can create synergies while sharing objectives and strategic long-term goals. This can lead to

D5.3 Recommendations from Core and Fellow Pilots as a key management element for present/future restoration actions

more harmonious and efficient restoration processes, reducing conflicts and enhancing overall project success.

→ **Cross-Sectoral Engagement**: Advocating for sustainable approaches in different sectors can lead to cross-sectoral engagement. When various industries recognize the long-term benefits of sustainable practices, they are likely to be more proactive in coastal restoration initiatives.

→ **Economic Benefits**: Demonstrating the economic advantages of restoration practices can attract financial commitments from stakeholders, either public or private. This funding can be used to support restoration efforts, creating a positive economic impact on local communities and economies that may spill over to surrounding areas.

→ **Improved Resilience**: Through better governance and strategic planning, pilot sites can enhance their resilience to environmental challenges. This can result in more robust and sustainable coastal ecosystems.

Overall, the application of these recommendations can lead to transformative changes in governance at the pilot sites, fostering sustainable coastal restoration practices and creating a positive impact on the environment and communities involved.

Monitoring the progress achieved on these recommendations and tracking the effectiveness of implemented reforms using the governance metrics as a reference is critical to achieve the overall REST-COAST goals for Work Package 5. Regularly reviewing and adjusting the governance structure in response to changing circumstances and evolving governance requirements is key to document the development of these recommendations across the Pilot sites. Annual reporting, or revisions/updates to the Action Plan and Roadmaps with progress documentation could be a useful tool to consider. Additionally, the resources and experiences from core and fellow Pilot Sites and REST-COAST WPs and Partners are another important asset for monitoring and documenting developments, including the use of self-assessment tools such as the governance criteria self-assessment radar graphics (initially to be included as governance indicators in the QST, the Quick Scan Tool, which will be one of the outputs delivered by WP4). All together can provide an image on the feasibility to implement the recommendations and actions provided in D5.2 and D5.3.

5 Discussion

In order to carry out the recommendations made to build a transformative governance framework at the Pilot Sites, it is necessary to emphasize the importance of key aspects that are embedded in the governance criteria for each Pilot site.

The key recommendations which have the most recurrence across the governance criteria were related to the development of a close collaboration and relationship with stakeholders, and to regularly present assessments of social-ecological benefits derived from restoration activities. This includes transparently accounting for coastal natural capital within governance frameworks and utilizing numeric and predictive models to enhance credibility and attract technical expertise. It can be challenging given the complexities in developing numeric models for restoration outcomes and quantifiable metrics of positive restoration outcomes. These data and results can be powerful tools

for communication and stakeholder engagement, which plays a crucial role in gaining credibility and trust, and sustainable and adaptive practices are pivotal for successful restoration and upscaling outcomes. Additionally, collaborative partnerships and adaptive management approaches are necessary, and capacity-building initiatives tailored to local contexts and historical factors should be implemented. The establishment of an outreach/communications program bringing together diverse stakeholders, is also important for promoting increased socio-economic commitment through training and the provision of new tools and knowledge.

An important tool needed for a strategic and transformative governance is the development of an Action Plan formulated at the Pilot Site level in close collaboration with stakeholders, which can be challenging when the governance framework is not clearly defined. In these cases, it is important to understand that this should be a "living document" and throughout the life of the restoration project (going above and beyond by considering a long-term timeline and an upscaling perspective). By adopting an adaptive iterative approach to its application, it is possible to develop and align this document with the governance framework as it is developed. On the other hand, there may be cases where the governance framework is solidly fixed in place with little to no manoeuvrability, in which case the attention on the Action Plan can be more focused in the stakeholder management and outreach program for the project as described in the recommendations.

Another area of importance is understanding the policy context and identifying opportunities that may align with existing and upcoming national and European regulatory frameworks. This includes being actively up to date and involved in the regulatory requirements for the implementation of restoration efforts in coastal zones, in order to navigate the associated bureaucracy efficiently without impacting the schedule, budget, and/or initial goals of the planned restoration.

Overall, the key points to underline and areas to focus attention on in order to improve the governance basically include stakeholder engagement, addressing administrative challenges, filling data gaps, prioritizing public interest and communication, addressing site-specific challenges, and aligning with policy frameworks.

6 Acknowledgements

The authors extend their gratitude to all Pilot Site teams and Partners whose input and feedback have been invaluable to this endeavour.

7 References

Aljinović, B. 2022. Report mapping the governance status quo in pilot sites. Deliverable D5.1. EU Horizon 2020 REST-COAST Project, Grant agreement No 101037097

Feurt, C. 2017. How Collaborative Learning can be used to bridge science, management and policy to improve outcomes. Participant workbook for half day training CERF Conference, Nov 5, 2017, Providence RI. Wells National Estuarine Research Reserve, Wells Maine, 8 p.

D5.3 Recommendations from Core and Fellow Pilots as a key management element for present/future restoration actions

Ibáñez C, Alemany A, Bertomeu F, Frías S, Molero J, Merciai R, Puértolas L. 2023. Technical report on barriers and enablers for coastal restoration upscaling: A multi-level perspective. Deliverable D1.2. EU Horizon 2020 REST-COAST Project, Grant agreement No 101037097.

Marín P, Cagide N. 2023. Roadmap for governance transformation strategy and criteria for effective restoration programmes at the Pilots. Deliverable D5.2. EU Horizon 2020 REST-COAST Project, Grant agreement No 101037097

8 Annexes

Annex 1. Initial Recommendations from Deliverable 5.1. "*Report mapping the governance status-quo in Pilot Sites*".

- Clarify mandates and competencies with regards to restoration actions at your sites and work towards establishing mechanisms to overcome the lack of coordination at different governance levels and increase mutual understanding of priorities. Once you create the conditions for improved collaboration of all main stakeholders at the sites by establishing the CORE-PLATs, work to ensure the sustainability and continuity of this mechanism.
- When designing participatory activities, consider local realities and cultural context, as well as the need to balance your audience in terms of gender and representativity of minority groups (if relevant at your site).
- There is a clear need to increase awareness of restoration and NbS benefits among the local communities. Take action by planning and organising different events, roundtables and educational activities, as well as by creating and disseminating communication materials.
- Many sectors have a stake at your restoration site and have possibly been making active use of the natural resources and ecosystem services of the site and its surroundings for a long time. Advocate with them to apply more sustainable approaches in their actions at the site by showcasing the overall long-term benefits. Make use of good practice examples from around the EU and involve the scientific community in dissemination actions.
- As funding is a major constraint for large scale restoration, it could be worth the effort to gain the interest and commitment of sectoral actors as they might have more substantial resources available. Common initiatives, such joint package development, could increase the commitment if it shows economic benefits in the end.
- Make sure you are familiar with all policies that are relevant for restoration actions at your sites and identify entry points for restoration valorization, especially in reference to soft measures and nature-based solutions, as well for funding opportunities. For instance, the links with national and regional climate change plans and programs, as well as the EU Restoration Law, should be clearly and properly emphasized so that the contribution of your restoration action can be quantified and used as an argument for the need of long-term and large-scale restoration actions and improved governance at the site.
- For transboundary sites, there should be improved mechanisms of cooperation and harmonization of processes. Work towards establishing a mechanism, such as creating partnerships, that will allow designing and implementing joint actions, practicing learning exchanges and highlighting opportunities for mutual benefit and increased value for the site. Where these mechanisms already exist, more efforts should be put into maintaining them active over time and keeping the partners updated on any changes in policies or governance structure that might affect joint actions.
- Learn from and exchange with your REST-COAST peers, as there is a significant amount of experience and lessons learned already among the project partners, and while some issues and challenges might be specific for your site, many others are common and might have already been addressed effectively.