

DELIVERABLE 1.1.4

GUIDELINES FOR SMOOTH GREEN NODES DEVELOPMENT

FINAL

03.2021





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1. Introduction: aim and focus of the analysis

The purpose of this deliverable is to provide an “easy to use” guidelines for the definition of the Regional action plans to future development of INTER-Green-Nodes (Output T1.2) with a specific focus on three aspects:

- coherence with European, national, regional planning documents,
- strategies for accessing funding opportunities.
- identification of general administrative framework to foster the investment.

Despite the complexity of the regulation and funding schemes, these guidelines have been proposed as a “check list” with the aim to provide a “step-based approach” to support the decision makers in the project implementation. The output of the following step-based approach is a matrix that will provide the decision makers a synoptic view of all the project phases.

The guidelines developed in this report have been built on the basis of the project activities carried out within the WP1 and specifically related to the activities 1.1.1, 1.1.2 and 1.1.3. As defined within WP1, Activity 1.1. is focused on investigating and presenting the policy framework and scoping of funding opportunities enabling the development of green, intermodal, last mile freight transport in urban areas and their broader implications.

Deliverables of Activity 1.1 provide insights related to the three main factors supporting the elaboration of the guidelines included in the report. First, a survey of policy initiatives has been carried out in order to outline how project partners exploit the chances connected to the Ten-T policies and related funding programs at the different territorial levels. Second, an analysis of funding opportunities has been carried out to outline how actors interested in promoting green nodes can promote and fund their projects within the EU framework. Third, twelve best practices have been collected to further explore the relationship between funding opportunities, governance solutions and partnership implemented; best practices have been identified specifically oriented to implement innovative forms for managing and financing green last mile logistics.

The present deliverable is organized as follows:

- three sections containing insights of the three deliverables have been presented.
- a section presenting and analyzing the guidelines outlined.



2. Insights from D.1.1.1

The deliverable 1.1.1 “Survey of policy initiatives” mapped the experiences of the Intergreen nodes’ Consortium by interviewing project’s partners. Six partners were interviewed on their implementations of Ten-T found: port of Venice, Berlin, Rostock, Budapest, Koper and Interporto of Bologna. The survey was launched in October 2019 and it focused on (i) participation in CEF projects, (ii) partnerships activated and (iii) relationships with national government to access to CEF funds:

- The results showed how the Intergreen nodes’s approach and use of CEF funding is heterogeneous. All nodes demonstrated to be active in developing project, even if not all have been involved in CEF projects.
- The funds have been used to support (1) infrastructure development, (2) increase knowledge base or (3) enhance demonstration or pilots. The projects have been implemented within established local, national or international networks.
- Spatial proximity is a key driver for long-term relationships and facilitate projects development and management. In order to access to the funds. the project’s partners interact with the national authorities (e.g. ministry of Transport).
- The projects were included in the national policy framework and coordinated with the local and regional authorities. The port of Berlin was even included in bottom-up projects by research institutions.

3. Insights from D.1.1.2

The second deliverable assessed the funding opportunities for the deployment of Intergreen nodes. Main insights from this activity are:

- The EU’s multiannual financial framework (MFF) for 2021-2027 will be aligned to the European Green Deal program and this will impact on funding criteria and opportunities.
- Three are the possible sources of funding for Integreen Nodes program: The CEF, the Horizon Europe and the Interreg VI. First, the main instrument for EU to invest on transport infrastructures is the CEF. The access to CEF’s funding has three preconditions: (1) projects must contribute to at least two TEN-T objectives, (2) concern the core or comprehensive network and (3) be economically sustainable and demonstrate European added value.

(1) CEF Funds

- The funding for the period 2014-2020 were available for Studies and Woks with a financial support of 50% for studies and from 20% to 40% for works (works as on inland waterways and port, development of multimodal logistics platforms, supporting new technologies).
- The CEF funds, for the period 2021-2027, will be aligned with the broader Green Deal of the European Commission to support the transition to a carbon neutral economy and making transport connected, sustainable, inclusive and secure. The 60% of the budget would go to the development of basic infrastructures and the 40% to the modernization of existing network (e.g., alternative fuels, multimodality and innovation).

- Two category of actions will be eligible for funding:
 - a. “Actions relating to efficient, interconnected, interoperable and multimodal networks for the development of railway, road, inland waterway and maritime infrastructure”,
 - b. “Actions relating to smart, interoperable, sustainable, multimodal, inclusive, accessible, safe and secure mobility”

(2) H2020 Funds

- Another source for funding is the Horizon program which supports research and innovation activities within the EU. The Horizon 2020 program (€74.828 million) had three pillars: (i) excellent science; (ii) industrial leadership; (iii) social challenges. The new Horizon Europe program will have greater resources for €100.000 million and the three pillars have been partially modified in: (i) Excellent science, (ii) Global challenges and European industrial competitiveness, (iii) Innovative Europe.
- These funds have specific targets to be updated through the program time and two missions are of particular interest for Intergreen Nodes: “Adaptation to climate change including societal transformation” and “Climate-neutral and smart cities”.

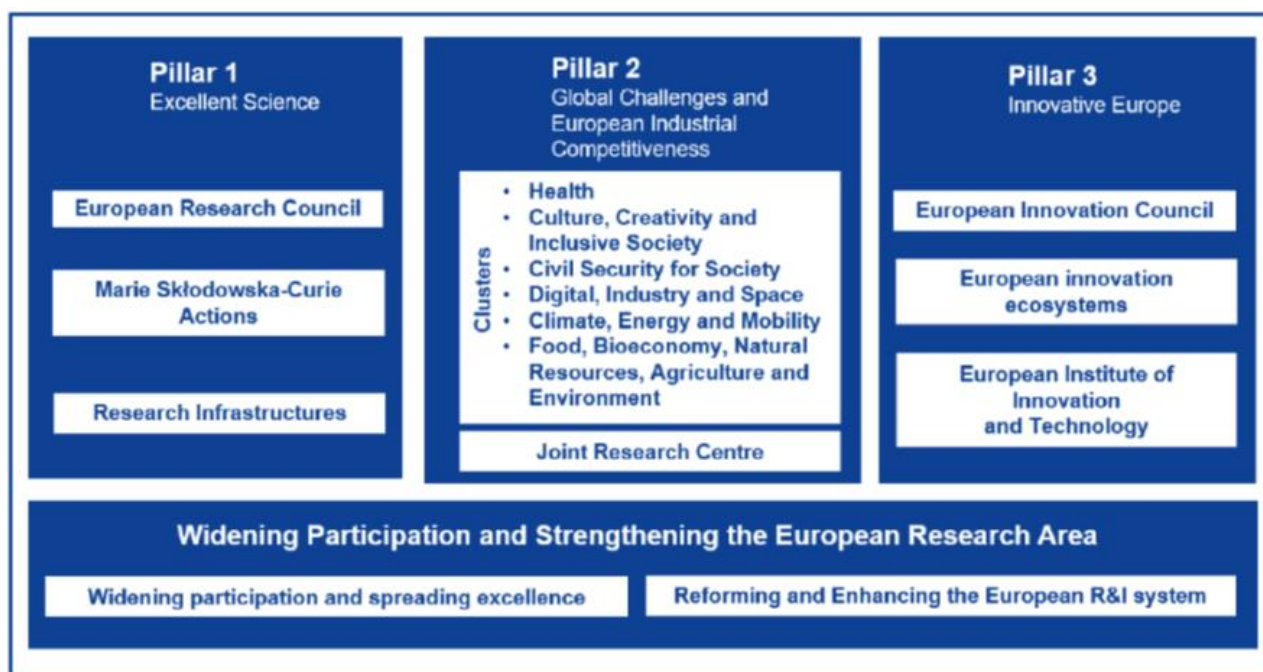


Figure n1: map of funding opportunities

(3) Interreg VI Funds

- The Interreg is the Eu program for the development of territorial cooperation, part of the European Regional Investment Fund that promote the EU’s cohesion. The forthcoming Interreg VI will have five pillars: (1) Cross-border-cooperation focus on land borders; (2) Transnational and maritime cooperation with added maritime cooperation; (3) Outermost region cooperation; (4) Interregional cooperation, (5) Interregional innovation investments.

- Concluding, the Just Transition Fund is the new mechanisms through which the European Commission should support the regions which will be more affected by the efforts to reduce greenhouse gas emissions. The main condition for eligibility is the identification as most affected regions and the implementation of a just transition plan. In order to greening the nodes the JTF can be a resource for investment in order to development of new technologies and infrastructures for affordable clean energy, emissions reduction, renewable energy.

4. Insights from D.1.1.3

The activity T1.1.3 aims at investigating the solutions and initiatives developed by transport infrastructures and specifically oriented to implement innovative forms for managing and financing green last mile logistics. The analysis mapped the relevant European best practices, with a specific focus on funding and stakeholder engagement. This study supports the InterGreen project by showing possible alternative institutional and funding schemes, that can be implemented for increasing multimodal environmentally and friendly transport solutions.

12 best practices have been selected, focusing on funding mix, innovative decision-making process, innovative and effective public partnership, public-private schemes. For each best practice three main information are provided: Contract scheme, funding, project description.



Figure n2: selected best practices (1)

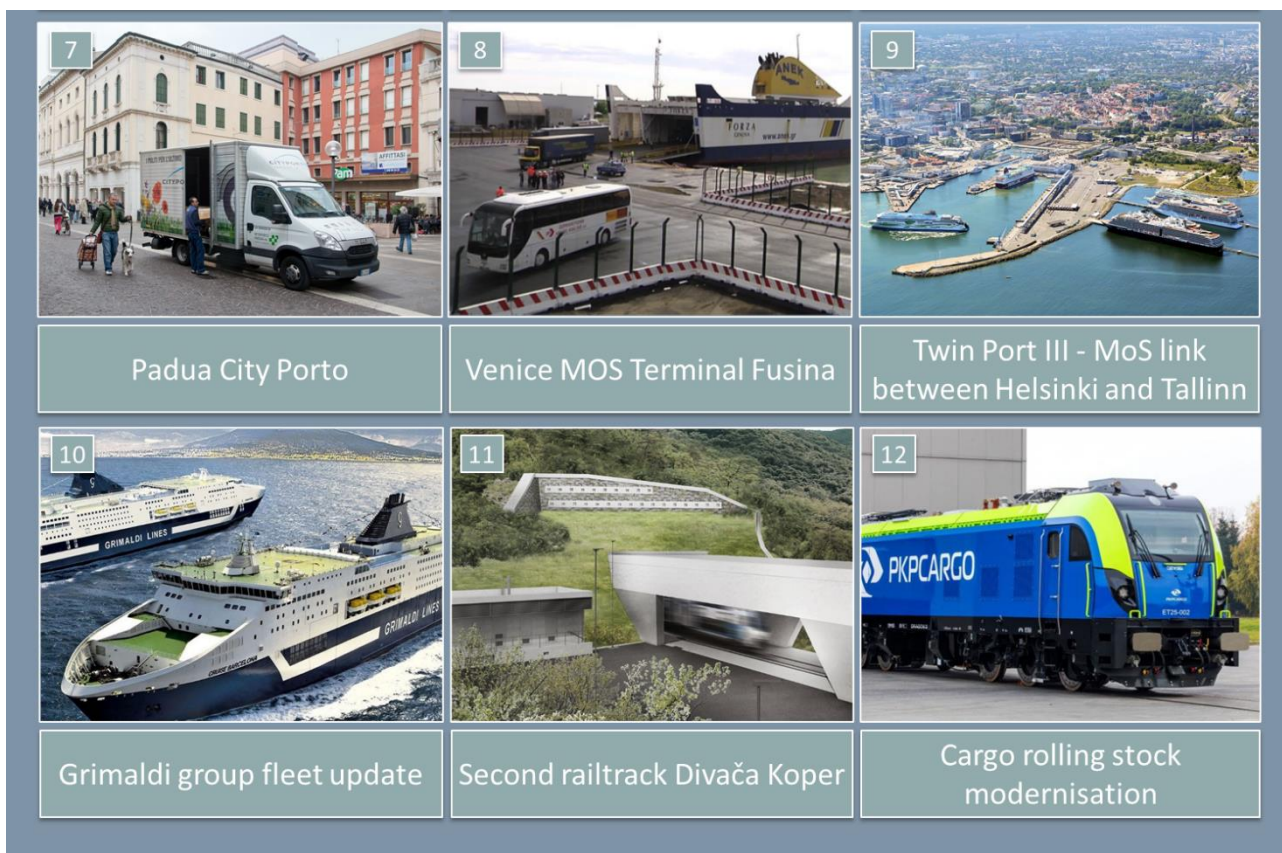


Figure n3: selected best practices (2)

Public-private partnership scheme and dynamics

- The best practices highlight the implementation of public-private co-operations, where only two practices included in the report are fully private or fully public. The public-private partnership has been implemented both for decision-making process and as innovative strategy for service development and funding (DBFO, Design-Build-Finance-Operate).
- The best practices highlight how it is crucial for the success of the initiatives implemented to build effective forms of cooperation among public institutions and private partners (firms with different specializations and role within the last mile logistics solutions developed), as demonstrated by the experience of the Padua City Port or the two projects promoted by the two ports of Venice (LNG strategy) and Rotterdam.
- Best practices show that in some projects the public-private partnership is characterizing the whole project since its beginning, while in other best practices the role of the public institution is driving the following involvement of private partners in the management of the logistics infrastructure. It is also important to highlight that best practices show often positive outcomes rooted in the national and international cooperation among ports as well as the positive opportunities for sustainability also at the urban level.



The role of the European framework

- Moreover, the co-operation has been developed within a European scheme, aiming at comparing the project with the European scenario in the definition of standards and demand analysis. The European framework becomes relevant to set the standards and have a point of reference (benchmarking) for the following investments activities. In one case (Venice MOS terminal Fusina) the EU framework - cooperation with another country - is relevant for increasing market quote and enhance sustainability at the terminal and urban level.
- Except for 2 best practices, in general most of the best practices identified show important orientation towards EU. It is evident how the development of last mile initiatives has to take into account the institutional and funding context of the European Union, as well as the practices already developed in other countries and regions.

Innovative funding mix

- From a funding opportunity perspective, Table 1 shows the variety of solutions that have been implemented, where not just one source of funding is predominant on the others: national funding and CEF (TEN-T) funding opportunities are used in most of the cases. Private and Interreg funding have been also used. Private loans are also used to sustain public investments.
- When considering for loans, BEI - the European Investment Bank - is often a provider for funding, stressing the relevance of the projects to be developed, also with large implications at the European level. It is interesting to note that also a fully private last mile initiative can be sustained by public funds, as the Grimaldi best practice highlights. In this case study a private company was able to get access to BEI funds, but also to have public funding support in the pre-investment phase. The column “Highlights” provides a short description of the innovative solutions characterizing each of the best practices.



CASE-STUDIES	 CONTRACT SCHEME	 EU COOPERATIVE APPROACH	 FINANCIAL APPROACH						 HIGHLIGHTS
			FUNDING			LOAN			
			NATIONAL	PRIVATE	INTERREG	CEF (ITEN)	PRIVATE	BEI	
1 Port of Venice LNG strategy	Private - Public approach for decision making process	YES, in planning stage for definition of standards and demand analysis		●	●	●	●	Cooperation among Public and Private since the very first stage of planning. Public provided general framework study and then private foster the investment	
2 OPS: onshore power supply in Baltic seaports (Aarhus, Copenhagen, Rostock, Stockholm, Helsinki)	Public for further private concession	YES, in planning stage for definition of standards and demand analysis	●			●		Cooperation among ports for definition of standard and planning of further services	
3 Piraeus port expansion	Public for further private concession	Partially. For international demand	●			●	●	National commitment supported by important BEI loan. No single project but wide master-planning	
4 Rotterdam Maasvlakte 2 Container Terminal	Public for further private concession	NO	●	●			●	Strong national commitment combined with important BEI loan.	
5 Spanish link mediterranean railways corridor	Public for further private concession of services	YES / Investment directly coordinated under EU framework	●			●		The project is part of wider EU approach, under the coordination of EU corridor coordinator. Project is insert on EU project workplan	
6 Baden-Wurttemberg regional rolling stock & Ertms	Public run by private operator	YES in planning stage for definition of standards and demand analysis	●				●	National commitment combined with relevant BEI loan finalized to further tender for the service provider	
7 Padua City Porto	Public- Private	YES in planning stage for demand analysis	●	●	●		●	Investment on last mile service. National and local funding applied both on soft infrastructures and management of service	
8 Venice MOS Terminal Fusina	Public-Private DBFO (Design-Build-Finance-Operate)	YES / Cooperation with other member states for market quote	●			●	●	Cooperation among Public/Private and financial mix of funding and loan. Cooperation among member states (Italy and Greece) for services implementation	
9 Twin Port III	Public and Private beneficiaries of EU Co-finance	YES / Key link of Motorways of the see. 2 countries involved	●	●		●		Cooperation among countries for development of efficient MOS line. Interaction Public /Private for integration port infrastructure-private vessels lines. Efficient fundraising of EU funds (CEF funds in linked steps)	
10 Grimaldi group fleet update	Full Private	YES in planning stage for definition of standards and demand analysis		●		●	●	Full private investment supported by BEI loan. Use of EU funding for preliminary stage and market analysis	
11 Second railtrack Divača Koper	Full Public	YES both for definition of standard, demand, building	●		●	●		European commitment to improve core port railways link	
12 Cargo Rolling Stock modernization	State-owned company	Partially just for standard	●	●			●	Cooperation among public and private with the control of state owned company preliminary to a focalized investment for the cargo company	


5. Guidelines for smooth green nodes development



5.1. IDENTIFY THE ACTION FIELDS


<div style="background-color: #1a3d4d; color: white; padding: 10px; text-align: center;"> <h3>STEP 1</h3> <h2>Identify the Action fields</h2> </div> <div style="text-align: center; margin-top: 20px;">  </div>	<p>GOAL & IMPLEMENTATION</p> <ul style="list-style-type: none"> • To define the actions' scope for the further investigation of funding opportunities and legal frameworks. • The suggestion is to think “<i>out of the box</i>” to identify creatively all the possible large-scale impacts of the investment. • identify the main objective, the location, and the correlation (links) with the other existing infrastructures. <p>OUTPUT</p> <ul style="list-style-type: none"> • To set the project's limits to identify the correct field of action and the preliminary project framework. • Outline of the Action Plan's impacts on social, environment, employment aspects.
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5.2. STAKEHOLDERS CONSULTATION


<div style="background-color: #1a3d4d; color: white; padding: 10px; text-align: center;"> <h3>STEP 2</h3> <h2>Stakeholders consultation</h2> </div> <div style="text-align: center; margin-top: 20px;">  </div>	<p>GOAL & IMPLEMENTATION</p> <ul style="list-style-type: none"> • Consultation could involve a wide spectrum of actors, all of them being concerned at several degrees and with different roles in the definition and subsequent implementation of strategies and activities. • Institutional actors representing the decision-making level will sit together with technical and trade stakeholders responsible for implementation processes. <p>OUTPUT</p>
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	<ul style="list-style-type: none"> Define a common baseline on the following aspects of the Action Plan: (1) Detailed challenges and opportunities of current scenario leading to the adoption of proposed measures and solutions; (2) technical features and impacts of the preliminary project framework; (3) Potential conflicts of interests while implementing actions (4) Coordination issues among plans at different levels (regional, metropolitan, local, etc.)
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5.3. SITE ANALYSIS

<div data-bbox="172 987 772 1431" style="border: 2px solid #003366; padding: 10px;"> <div style="background-color: #003366; color: white; text-align: center; padding: 5px;"> <p>STEP 3 Site analysis</p> </div>  </div>	<p>GOAL & IMPLEMENTATION</p> <ul style="list-style-type: none"> Analysis of project location must be conducted in the relation to: (1) main corridors, such as comprehensive or (2) core network. Other analysis has to be conducted in relation with further territorial layers and programs, i.e. SIC areas, Natura 2000, waterways, urban nodes, rural development areas, etc. <p>OUTPUT</p> <ul style="list-style-type: none"> Map of site's peculiarities to be matched further to the specific funding programs.
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5.4. COORDINATION WITH RELEVANT PLANS

<div data-bbox="172 360 772 577" style="background-color: #1a3d54; color: white; padding: 10px; text-align: center;"> <h3 style="margin: 0;">STEP 4</h3> <h2 style="margin: 0;">Coordination with relevant plans</h2> </div> <div data-bbox="172 577 772 806" style="text-align: center;">  </div>	<p>GOAL & IMPLEMENTATION</p> <ul style="list-style-type: none"> The planning coherence must be verified through the analysis of planning framework, masterplans, urban rules. <p>OUTPUT</p> <ul style="list-style-type: none"> Checklist of coherence with overall strategies at various territorial levels (local – e.g. SUMPs, regional, national, EU) and interdependent sectors (e.g. SEAPs, SECAPs, etc).
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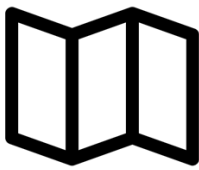
5.5. LOT FRACTION FOR FUNDING MIX

<div data-bbox="172 1290 772 1507" style="background-color: #1a3d54; color: white; padding: 10px; text-align: center;"> <h3 style="margin: 0;">STEP 5</h3> <h2 style="margin: 0;">Lot fraction for funding mix</h2> </div> <div data-bbox="172 1507 772 1736" style="text-align: center;">  </div>	<p>GOAL & IMPLEMENTATION</p> <ul style="list-style-type: none"> A project can often be split in lots/parts according to a set of criteria-, such as geographical, physical, thematical features, as well as for administrative or regulatory aspects. To split as much as possible the initiative can multiply the funding opportunities consistently with the goal and the territorial level considered. Attention should be paid also on the operational activities after the project implementation, such as all the needs for the correct maintenance and management. This topic is particularly relevant for specific finance schemes with private investors. <p>OUTPUT</p> <ul style="list-style-type: none"> Scheme of lot/part fractions to be matched to funding opportunities. Studies such as demand analyses or environmental impact analysis can easily be funded by interregional or cooperation
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	<p>projects, while design or construction phases can be funded by European or local initiatives (see Deliverable 1.1.2)</p>
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5.6. MAP OF THE FUNDING OPPORTUNITIES

<div style="background-color: #1a3d4d; color: white; padding: 10px; text-align: center;"> <h3>STEP 6</h3> <h2>Map of the funding opportunities</h2> </div> <div style="text-align: center; margin-top: 20px;">  </div>	<p>GOAL & IMPLEMENTATION</p> <ul style="list-style-type: none"> Based on the features identified in the previous steps, the proper funding opportunity can be identified. The process can be iterative for each lot of the project (please refer to the Deliverable T.1.1.2, which can effectively help to select all the opportunities). <p>OUTPUT</p> <ul style="list-style-type: none"> Map / Database of funding opportunities with main key features: type of funds, topics, eligibility, type of finance coverage, co-financing, period of application, rules for application
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5.7. FINANCIAL/ADMINISTRATIVE SCHEMES

<div style="background-color: #1a3d4d; color: white; padding: 10px; text-align: center;"> <h3>STEP 7</h3> <h2>Financial schemes</h2> </div> <div style="text-align: center; margin-top: 20px;">  </div>	<p>GOAL & IMPLEMENTATION</p> <ul style="list-style-type: none"> Increase the interaction among private and public subjects. As reference the project deliverable T.1.1.3 can be an effective help to go through some European best practices development with different funding and administrative /financial schemes. Public-private partnership could characterize the whole project since its beginning, while in other cases the public institution steers the following involvement of private partners in the
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	<p>management of the logistics infrastructure.</p> <p>OUTPUT</p> <ul style="list-style-type: none"> Financial schemes for the development, building and management phase.
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5.8. ACTION PLAN

<div data-bbox="172 855 772 1301" style="border: 2px solid #003366; padding: 10px;"> <div style="background-color: #003366; color: white; padding: 5px; text-align: center;"> <h3>STEP 8 Action Plan</h3> </div> <div style="text-align: center; padding: 20px;">  </div> </div>	<p>GOAL & IMPLEMENTATION</p> <ul style="list-style-type: none"> Link the outputs of all the previous steps with the scheme of the implementation lots, accompanied by financial opportunities for each lot and fields of action. <p>OUTPUT</p> <ul style="list-style-type: none"> A table reporting in row a short description for each lot and in column the estimated costs, funding opportunities and preliminary time schedule. The final row, as a sum of all the lots, reports the selected financial/administrative schemes that has been chosen for project building and management
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5.9. EVALUATION FRAMEWORK

<div data-bbox="172 499 772 943" style="border: 2px solid #003366; padding: 10px;"> <div style="background-color: #003366; color: white; padding: 5px; text-align: center;"> <h3 style="margin: 0;">STEP 9</h3> <h2 style="margin: 0;">Evaluation framework</h2> </div> <div style="text-align: center; margin-top: 20px;">  </div> </div>	<p>GOAL & IMPLEMENTATION</p> <ul style="list-style-type: none"> An evaluation framework is developed and discussed to holistically address and identify the sustainability targets and indicators of the proposed actions since the beginning. It should be emphasized that assessment relates to strategic planning and addresses measures of different types and levels of maturity. The Framework would follow a before/after (“as is” vs “to be” scenarios) assessment approach. <p>OUTPUT</p> <ul style="list-style-type: none"> Evaluation Plan for elaborating financial, socio-economic and environmental assessment using selected indicators
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