

WP3.1 FRAMESPORT ICT Platform – Methodology and Implementation

Final version of 16/03/2021

D.3.1

Project Full Title	Framework initiative fostering the sustainable development of Adriatic small ports
Project Acronym	FRAMESPORT
Project ID	10253074
Project Website	https://www.italy-croatia.eu/web/framesport
Priority Axis	3
Specific Objective	3.1
Work Package	3
Work Package title	FRAMESPORT ICT Platform – Methodology and Implementation
Deliverable Nr.	3.1
Status	Draft/Revised /Final
Partner in charge	Corila supported by Unipd
Dissemination Level	Public/ Partnership

ACKNOWLEDGEMENT

The work described in this document was supported by the INTERREG V-A IT-HR CBC Programme - “Strategic” Subsidy Contract - Project: “Framework initiative fostering the sustainable development of Adriatic small ports, FRAMESPORT” (Project ID: 10253074).

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1. Introduction

The FRAMESPORT project has the aim to create a coordinated initiative to support the sustainable development of the small ports of the Adriatic basin in a strategic perspective. Therefore, the objective is to turn small ports into a proactive driver of the socio-economic development of this coastal area. This strategic goal requires a multifaced and interdisciplinary approach, including both the adoption of concrete pilot projects as well as identification of priority themes to be promoted within the overall strategy. These actions are going to be performed adopting a bottom-up approach, involving local and national stakeholders since the beginning of the project. Also, the various project partners have been selected to guarantee a wide territorial cover. Their aim is to address the planning and management topics, the business models implementation, the enhancement of training and competence, as well as the development of Information and Communication Technologies (ICT) tools and services. In addition, they are going to develop an ICT platform that collects and systematizes the key data on small ports in order to use this information to drive sustainable development. The portal is going to work as a bridge between the two sides of the Adriatic basin, the Italian and Croatian one. In this way, it is possible to create a more consistent and united network of small ports, businesses and institutions, and align their sustainable performance, infrastructure and policies in order to favour their development and growth.

The Work Package (WP) 3 represents the core technical activity of the FRAMESPORT project. In fact, it has the aim to create the aforementioned ICT platform, or portal, and define a common strategic approach to support the adoption of better practices to boost sustainable development. The WP3 is therefore accompanying the whole evolution of FRAMESPORT project, being the backbone of the platform collecting information on small ports infrastructures and on their potentialities. A comprehensive survey is going to be performed to grasp the status quo of the Adriatic basin and its small ports, and collect the data required to run the platform in an adequate manner. These data are going to be collected in a database that is going to be updated regularly to permit a continuous development of the area. These information are also going to be valuable to outline the action plan to promote sustainable development in the area.

The WP3 is also an umbrella activity that allows to launching the WP4 and WP5 activities. In particular, the WP4 has the objective of defining the general picture of the small port phenomenon. Thus, it is going to deliver a wide set of data fundamental to populate the database of the FRAMESPORT platform and identifying the best practices and initiatives that are characterising small ports. These activities also have the aim of discuss and define the priority themes and, consequently, the actions to be promoted at an upper level. Therefore, it is going to contribute to the definition

of the FRAMESPORT strategy for sustainable development. In regards to WP5, this is the practical side of the project. Pilot projects are going to be performed to test technical solutions and experimental initiatives to identify new or alternative paths to solve current challenges as well as to move small ports towards a sustainable development. The pilot projects are going to use the data contained in the FRAMESPORT portal's database, thus ensuring the full interoperability and scalability of data and actions. Furthermore, the WP5 aims at identifying the relevant horizontal themes and priorities which are going to be transferred to the upper level of discussion in WP4. In this way, these information are going to be translated into actions and, consequently, used as backbone of the overall FRAMESPORT strategy delivered in WP3.

2. Objective

The WP3 has two main objectives. The first one is to create an ICT platform, or portal, that is going to include the main data related to small ports and the various stakeholders of the Adriatic basin. The second is to delineate, according to this information, a strategy to promote the sustainable development of the area. In particular, the WP3.1 aims at designing the portal and, therefore, define its structure, data requirement, features and functionalities. The WP3.2 is then related to the implementation of the platform. A tender is going to be organised to choose the IT company that is going to take care of the development and set-up of the portal. The WP3.3 has the objective on outlining a sustainable development strategy for small-ports and the Adriatic basin. The information contained in the platform and the data collected from the WP4 and WP5 are going to provide the foundation of the strategic framework. Finally, the WP3.4 is the delivery of the aforementioned strategy. The main stakeholders of the Adriatic basin are going to be involved promote an adequate understanding of how to implement these action plan for sustainable development.

This document depicts the outcome of the activities of the WP3.1. Therefore, it is going to focus on the steps that lead to the definition of the FRAMESPORT portal.

The final objective of the WP3.1 is creating an efficient, useful and appealing IT platform. The projects partners wanted to create a portal that would be useful to all the stakeholders involved in the project. Therefore, this platform has not only the aim of presenting the network of small ports and organisations of the Adriatic basin but also to support their sustainable development. Thus, sections to present the various small ports and local businesses/institutions were included as well as sections about best practices, performance monitoring and improvement, pilot project and their outcome, business continuity, and regulations. In this way, it was possible not only to create a

platform were all the stakeholders of the Adriatic basin are adequately presented to the public and potential clients, but also an IT tool that could provide an efficient and effecting monitoring and improvement of the sustainable performances of these actors. This double objective was chosen to overcome the problem of a limited participation to the project by the various stakeholders of the area. Providing the opportunity to gain visibility and attract customers, together with the one of improving economic, social and environmental performances, was assumed to be an effective strategy to attract as many Italian and Croatian stakeholders as possible.

Achieving this double objective requires collecting an adequate amount of data and constantly update them. A desk research and literature review on small ports, marinas and their sustainable development provided a solid background to gather all the required information (see the Methodology section below). In relation to the portal's data update, two strategies are going to be adopted. The first one is establishing partnerships with associations that can provide updated data on a daily basis (e.g. weather forecast and potentially dangerous meteorological phenomenon). The second one is involving the various stakeholders that can interact with the platform. They have the opportunity, according to their role and related permissions, to update the information contained in the portal (D.3.2.1 – FRAMESPORT ICT Platform→PRIVATE AREA). In this way, the various actors are capable of maintaining the platform's data constantly updated. However, there is the issue related to the validity and reliability of these information. For this reason, a third part is going to take care of the data validation in order to guarantee that only trustworthy and updated information are going to be displayed in the portal (D.3.2.1 – FRAMESPORT ICT Platform→PRIVATE AREA→Third Party). In this manner, also sensible information, such as the one related to sustainable performance monitoring and best practices, are assured to be valid and reliable, and it is possible to prevent the risk of jeopardising the creation of an effective action plan to drive sustainable development due to the lack of trustworthy and transparent data.

Another aim of the WP3 is supporting the creation and implementation of pilot projects. The data contained in the platform are going to be fundamental to scope, perform and monitor these initiatives. Furthermore, there are going to be two sections in the portal dedicated to pilot project. The former is going to be publicly available and aims at presenting the various initiatives, their progress status and outcomes (D.3.2.1 – FRAMESPORT ICT Platform→PUBLIC AREA→About Us→Knowledge and Experience→Pilot Projects). In this way, all the people that interact with the portal can grasp the pragmatic approach of the FRAMESPORT project. The latter is going to be in the private section of the portal and has the objective of containing the tools for management and innovation of small ports that are going to be the output of the various pilots (D.3.2.1 – FRAMESPORT ICT Platform→PRIVATE AREA→Tools for management and innovation of small ports).

These tools are providing a practical support to overcome some of the challenges related to the sustainable development of the Adriatic basin. Therefore, all the experiences, lesson learnt and tools related to the various pilot projects are going to be available to the stakeholders that need them. This fact is also going to be beneficial to the project partners that are going to have valuable data and know-how to delineate the strategy for the sustainable development of the area.

As we can understand from the previous paragraphs, the mission of the FRAMESPORT portal is becoming a fundamental tool to drive, in a proactive manner, the socio-economic development of the Adriatic basin. In fact, local companies and institutions are going to be supported in promoting their activities, enhancing their performances and becoming more sustainable, profitable and attractive. In this way, it is also possible to create a network of small ports, businesses and institutions that is consistent, resilient and sustainable and that can constitute a fundamental pillar of the Italian and Croatian economies.

The aforementioned mission of the portal is related to the second objective of the WP3, creating a strategic framework to drive the sustainable development of the Adriatic basin. In fact, the platform and the data contained in it are the backbone of this action plan. Moreover, the data and experience coming from WP4 and WP5 are going to be fundamental to achieve this objective. In fact, WP4 is providing information about the small ports phenomenon, its best practices and initiatives, and consequently delineating the actions that could be implemented on an upper level. WP5, is going to translate the platform's data into action by performing pilot projects to develop tools and methodologies to enhance and promote sustainable performances and practices among the various stakeholders involved in the FRAMESPORT project. Therefore, putting together the activities and outcomes of these three WP it is going to be possible to delineate an effective and efficient framework to move the Adriatic basin towards sustainability.

To sum up, the FRAMESPORT portal and project is going to create a bridge between the Italian and Croatian sides of the Adriatic sea. The network of small ports, businesses and institution is going to become more solid, resilient and sustainable. The infrastructure and services offered to the various stakeholder of the area are going to be improved and aligned, offering a better and more consistent set of benefits to the people visiting and working in these places. Sustainable practices and initiatives are going to be promoted and supported improving, as a consequence, the overall economic, environmental and social performances of the Adriatic basin. Policy-makers can also benefit from the FRAMESPORT portal and project. It is going to be possible to create policies that are better aligned to the needs of the stakeholder of both sides of the Adriatic basin thanks to the stronger and unified network of actors that is going to be created by the project.

3. Methodology

This chapter is describing the methodology that was adopted to create the portal and delineate its structure and functionality. The following list is presenting the methodological steps that have been performed to achieve this objective.

1. **Bibliography (WP3.1.1.1 & 3.1.1.3-bis):** Literature review on small ports, ports and their sustainable development, and international standards related to ports sustainability performance measurement. Several papers and documents from international certification bodies have been identified and analysed. These inputs were very valuable to grasp how to develop a portal that could monitor and improve the sustainable performances of small ports and coastal businesses.
2. **State-of the art (WP3.1.1.1):** Desktop analysis of about 60 portals related to small ports, coastal areas, maritime associations. International websites have been analysed with a focus on the Italian and Croatian ones. The portals identified were mainly related to small ports associations, relations between ports and policy makers, sea features, and tourist development. This research allowed understanding what is the state-of-the-art on IT platforms related to small ports.
3. **Classification (WP3.1.1.1):** Identification of the common and most important themes of the aforementioned platforms and classification in relation to their objective, themes and information. The main categories that have been identified were services of small ports, features of the coastal area, tourism development, relation with policy makers and sustainable development (see Figure 1). The classification allowed dividing the IT platforms according to their aim and, consequently, to understand what kind of information could potentially be presented in the portal.
4. **Goal and scope (WP3.1.2.7):** Definition of the objective of the FRAMESPORT portal and the features displayed in it. In particular, the portal has the aim of presenting and sponsoring the various stakeholders of the Adriatic basin, supporting their sustainable performances improvement, favouring the sharing of best practices and know-how, facilitating the conformity with the regulations, and providing valuable info and tools to tourists and clients.
5. **Characteristics and functionalities (WP3.1.2.7):** Extrapolation of the most relevant features that could be inserted in the FRAMESPORT portal according to the data obtained in the step 1, 2 and 3. It was decided to give the portal several functionalities. The first was to provide an overview of the FRAMESPORT project, its stakeholders and the latest update. Secondly, the portal has the aim

of providing info about the territory describing not only the characteristics of the sea but also presenting the various businesses, institutions, events and cultural sites of the area. In addition, the platform has the objective of supporting touristic activities, thus a tool to plan the itinerary and booking the various structures was included. Finally, the portal has the goal of promoting the sustainable development of the Adriatic basin. Therefore, sections to promote the sharing of know-how among the various actors, to present the various pilot projects and their output, and to monitor and improve sustainable performances were included.

6. **Data collection and update (WP3.1.2.7):** Delineation of a strategy to collect the data required by the platform and definition of a methodology to constantly update and maintain the portal. The desk research and literature review provided a great amount of data and potential sources of information. These references were used to delineate the data requirement and potential partnerships to obtain updated and trustworthy information.

7. **Portal structure (WP3.1.2.7):** Creation of a model of the FRAMESPORT platform using the obtained data and features. This is the first draft of the portal which was presented both in a graphic and written way to provide a visual representation of the structure and an in-depth description of the various sections.

8. **Feedback and improvement (WP3.1.2.7):** Involvement of the project partners in the definition of the final structure of the platform via a collection of their feedback. About 20 comments from 4 partners were collected. This step allowed improving the portal's structure according to their comments and suggestions coming from the various stakeholders. It was very valuable to understand the relevant sections and to obtain new ideas for improvement. The outcome of this step was the final structure of the portal.

These are the activities that have been performed before the creation of this document. The following steps are going to be provided in the list below.

1. **Technical Report (WP3.1.2.7):** Create a document to provide to the IT company that is going to implement the portal. This report is going to contain the data related to the platform and its features and functionalities to provide clear and efficient instructions on how to create the portal. The Croatian colleagues of the PFRI, thanks to their experience in organising tenders to select ICT companies, supported the creation of this report providing feedback to its draft.

2. **Tender (WP3.1.2.8, 3.1.2.9, 3.1.2.10 & 3.1.2.11):** A tender will be organised to define the IT company that best suits the task of creating the platform. Several companies can participate to the

pre-tender and only the top 3 are going to be selected for the tender. The company that is going to be selected needs to be solid, experienced and capable of creating a platform with the required features keeping the time and cost to an acceptable level. Once again, the colleagues of the PFRI gave their contribution by sharing their knowledge and experience on how to run a tender to choose an ICT business.

3. **Platform Implementation (WP3.2.1.12):** The selected IT company is going to implement the portal according to the instructions provided by the FRAMESPORT team. The original structure of the portal can be subject to editing in case son technological barriers or opportunities for improvement are emerging. Anyway, the overall structure and functionalities are going to be maintained.

4. **Launch of the platform (WP3.2.1.14):** Once the platform is ready, it is going to be publicly available so that it can fulfils its objectives. The various stakeholders that are going to interact with the portal are going to be educated about how to use and take advantage of it in an appropriate manner.

5. **Monitoring and Update (WP3.2.1.12):** The platform is going to be constantly monitored and updated. The information from the various partnerships and actors involved are going to be gathered periodically. The data entered by the various stakeholders are going to be checked and validated before becoming publicly available. After this validation process the information gathered are going to uploaded in the portal. It is also possible to organise an annual survey to collect valuable information.

6. **Development of the strategy (WP3.3.1 & 3.3.2):** Development of the strategy to drive the sustainable development of the Adriatic basin according to the info contained in the portal and the one collected from WP4 and WP5. This strategy is going to support the socio-economic development of the area in a sustainable and resilient manner.

7. **Delivery of the strategy (WP3.4.1 & 3.4.2):** This strategic framework is going to be provided to the relevant stakeholders. In this way, the various actors can be introduced and educated about this new and improved methodology to run businesses in a sustainable and interconnected manner.

8. **Continuous Improvement:** The project partners are going to develop a strategy to constantly monitor the Adriatic basin and its stakeholders in order to promote a continuous improvement. In this manner, it is going to be possible to create a sustainable, resilient and consistent network of small ports and costal organisations.

4. FRAMESPORT ICT Platform

This chapter is presenting the process that led to the development of the FRAMESPORT ICT Platform. It is divided into 4 sections that are related to the various activities entailed in the WP3.1 and WP3.2.

D.3.1.1 – Desk research on existing ICT platforms

This chapter is presenting the way the objective of the application form has been achieved. In particular, it aims at answering to the question “How did we put all of the data from the literature review and desk research together?”

The literature review provided a valuable insight on small ports, ports and their sustainable development, and international standards related to ports sustainability performance measurement. The articles and documents that were collected were very valuable to grasp what kind of data should be displayed in the portal in order to monitor and improve the sustainable performances of small ports and the various coastal organisations. In addition to the literature, international standards about environmental, social and economic performance evaluation have been analysed. ECOPORTS, PERS, DEASP, EMAS and ISO certification have been studied in order to collect a list of indicators to monitor sustainable performances and delineate a strategy to display this kind of data in the portal. It was decided to create a list of indicators for sustainability performance evaluation that would have been used to monitor the activities of the various small ports and improve them. The collected literature also offered a valuable understanding of how to approach the definition of a strategy to promote a sustainable development in the Adriatic basin. Also, their content provided some data that could be included in the best practices section to promote the sharing of sustainability related know-how.

The desk research on existing ICT platforms was performed to understand the state-of-the-art about portals on small ports and their relationship with various stakeholders (e.g., policy makers, governmental institutions and touristic infrastructure). As explained in the methodology section, about 60 ITC platforms have been analysed. The various platforms have been classified to divide them into groups. The main categories that have been identified were:

- **Services of small ports:** This category contains the various portals that are presenting a single or network of small ports. These platforms are characterised by a description of the features of the small ports and their services, and prove the possibility to book berths or other services. This kind

of portals inspired the creation of a section in the FRAMESPORT portal related small ports that is listing their features in order to present them in an effective manner. Examples of these platforms are TransEurope Marina and FVG Marinas.

- **Features of the coastal area:** Websites such as EMODnet and ACE Project are describing the characteristics of the sea and of the coastal area. This type of portals made the FRAMESPORT team create an interactive map with the features of the land and sea to facilitate the mobility and accessibility to the Adriatic basin.
- **Tourism development:** This kind of portals are supporting the development of sea tourism and were used as inspiration to insert this kind of information in the FRAMESPORT platform. Websites such as Marriage provided the data to create sections to support the planning of the itinerary and to promote events, cultural sites and other areas of interest of the Adriatic basin.
- **Relation with policy makers:** This category of portals is providing a link between coastal businesses and policy makers. The data contained in these websites were very valuable to delineate how to make the various stakeholders of the Adriatic basin interact with the government in an appropriate manner. Examples of these platforms are ESPO and Association of marinas of the Croatian chamber of commerce.
- **Sustainable development:** These sources were very valuable to assess how to support the sustainable development of the Adriatic basin. The information contained in portal such as the European boating industry and WPSP were used to create sections to promote the sharing of knowledge and experience, to enhance the cooperation between the various stakeholder and to constantly monitor and improve their sustainability performances.
- **Resilience:** This last category is related to how to support coastal areas in becoming more resilient and to adapt to global challenges such as climate change and sea pollution and strong meteorological phenomenon. Platforms like Adriadapt and Change We Care provided valuable data on how the stakeholders of the Adriatic basin are moving towards resilience. These information were valuable to delineate the Business Continuity section and the sustainability related aspects of the portal.

The following pie chart provides a graphic representation of the distribution of the analysed portals according the aforementioned categories.

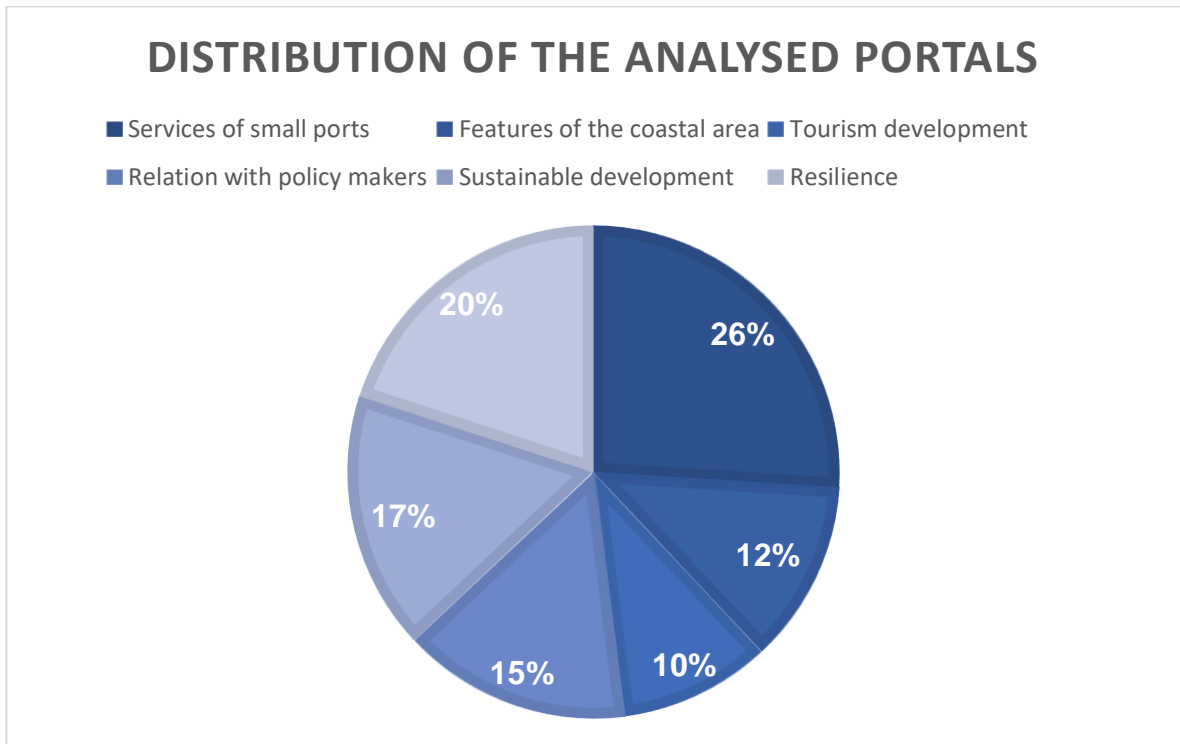


Figure 1 - Distribution of the analyzed websites about small ports

As we can understand from the pie chart, most of the analyzed websites were the one about services of small ports, sustainable development and resilience. Fewer portals were found in regards to tourism development and features of the costal area.

The figures below provide two examples on how the various info collected in the aforementioned websites were used to delineate the structure of the portal.


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- TransEurope Marina membership
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 **Address:** Universal Marina, Crabbeek Lane, Sarisbury Green, Hampshire, SO31 7ZN, United Kingdom



 **Website**

 **Time:** 24 Hours

 **Phone:** 01489 574 272


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 : ★★★★★

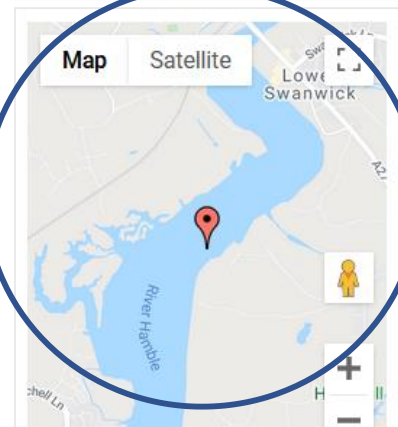


Figure 2 – Information taken from the TransEurope Marina website

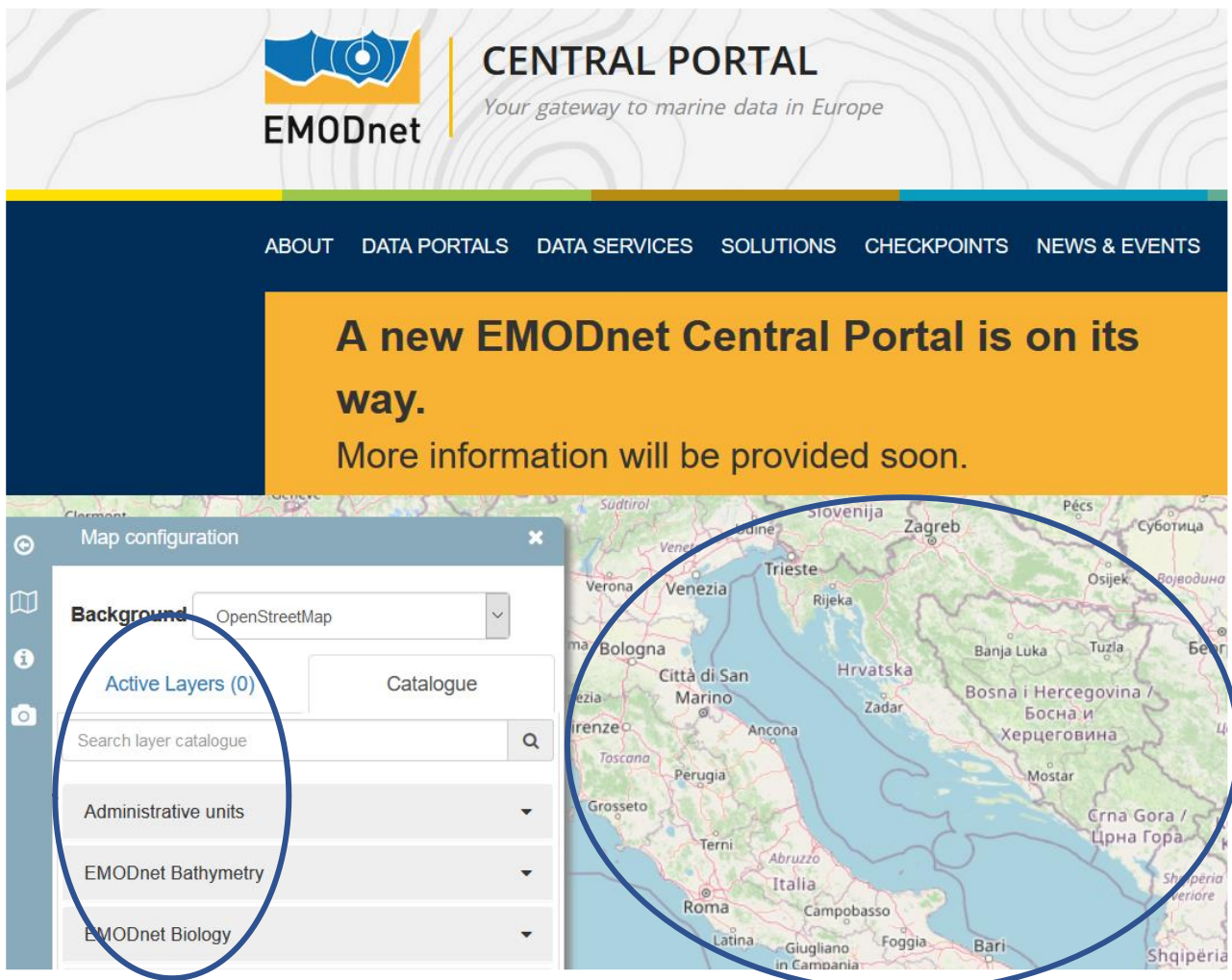


Figure 3 – Information taken from the EMODnet website

The former image comes from TransEurope Marina and inspired the delineation of the features of the section small ports (see: D.3.2.1 – FRAMESPORT ICT Platform→PUBLIC AREA→Map→Small Ports). This website was useful to understand that general info about the small port, its location and services provided are important to characterize it. The latter image is a screenshot of the EMODnet website, which provided the inspiration of creating a map with different layers containing the various features of the Adriatic basin (see: D.3.2.1 – FRAMESPORT ICT Platform→PUBLIC AREA→Map).

D.3.1.2 –Design of the FRAMESPORT ICT platform development and implementation guidelines

The aforementioned data allowed establishing the objective of the platform and its features. The objective is twofold. On the one hand, sponsoring the small ports and coastal organization in order to promote tourism. On the other, support and drive a sustainable development of the area. For these reasons, descriptive sections about the stakeholders involved should have been displayed together with ones about sustainable development. Thus, the portal has the function of presenting and sponsoring the various businesses and institutions, facilitate tourists in travelling within the area and support continuous performance improvement. Therefore, it was established that the portal shall contain information about the following topics (the various sections are going to be presented in details in the following chapters):

- The FRAMESPORT project, its partners, achievements and news. To provide concise but clear information about the various stakeholders involved and on the objective of the project.
- A section about knowledge and experiences to allow an adequate exchange of know-how among the various small ports and coastal organizations. This section contains, together with the aforementioned sections about best practices and performance monitoring, sections about articles, pilot projects and regulations. In this way, it is possible to include in a single section all the know-how of the FRAMESPORT project and make it available to all the interested stakeholders in an easy and efficient manner.
- Information about the territory to promote a better understanding of the area and support touristic activities. This section shall include data about the coastal area and its features (i.e., sea characteristics, human activities and infrastructure), local organizations (small ports, local businesses, cultural sites and events), the weather forecast and a tool to support tourists in planning their itinerary.
- A forum to collect all the opinions and experiences of the various people that are interreacting with the Adriatic basin for various purposes (e.g., tourism, business, research).

This methodology allowed defining the first draft of the platform that was improved thanks to the involvement of the various project partners. The structure of the platform was presented to them in order to collect their feedback and suggestions. Initially three project partners provided their feedback and after a reminder another partner did. A total of about 20 feedbacks related to various aspects of the platform were collected. The various feedbacks were put together in a document to

explain how and if they would be implemented in the FRAMESPORT portal. This document was provided to the partners for a final collection of comments but none of them replied. As a consequence, the structure of the portal presented in the aforementioned document was considered as the final one. This process of collecting and implementing the feedback from the project partners was of added value because many valuable ideas, recommendations and corrections were proposed. The implementation of these feedback allowed defining the final structure of the portal and the delineation of all its functionalities that are presented in the following section.

D.3.2.1 – FRAMESPORT ICT Platform

The landing page of the FRAMESPORT portal is composed of the title of the platform on top followed by a bar with the various sections of the portals (i.e., About us, Land and Sea, Plan your Trip and Forum). Underneath the bar, there is the Home page (see: PUBLIC AREA→Home) which is presenting the FRAMESPORT project, its news and a map of the Land and Sea. In addition, on the top right is going to be possible to choose between various languages (Croatian, English and Italian are must, other languages are nice to have) and there is going to be the “Log-in” button to access to the Private section. In fact, the portal is going to be composed of a public and private section. The former is accessible to everyone and is presenting the publicly available information. These info are related to:

- The FRAMESPORT project, its actors, pilots and achievements;
- The knowledge and experience, to facilitate the sharing of know-how and to promote the monitoring and improving of sustainable performances;
- The Adriatic basin, its geographical features, infrastructure, businesses, cultural sites and events;
- Touristic activities and a support to plan the itinerary and book the various structures.

On the other hand, the private area requires specific credentials to be accessed. This section of the portal allows the various stakeholders to edit the data contained in the portal related to them, and see additional sections and information that can bring benefit to their way of making business.

The public and private area are going to be presented below.

PUBLIC AREA

This section is describing the public area. All the info presented in this section are publicly available. The figure below is representing the structure of the public area.

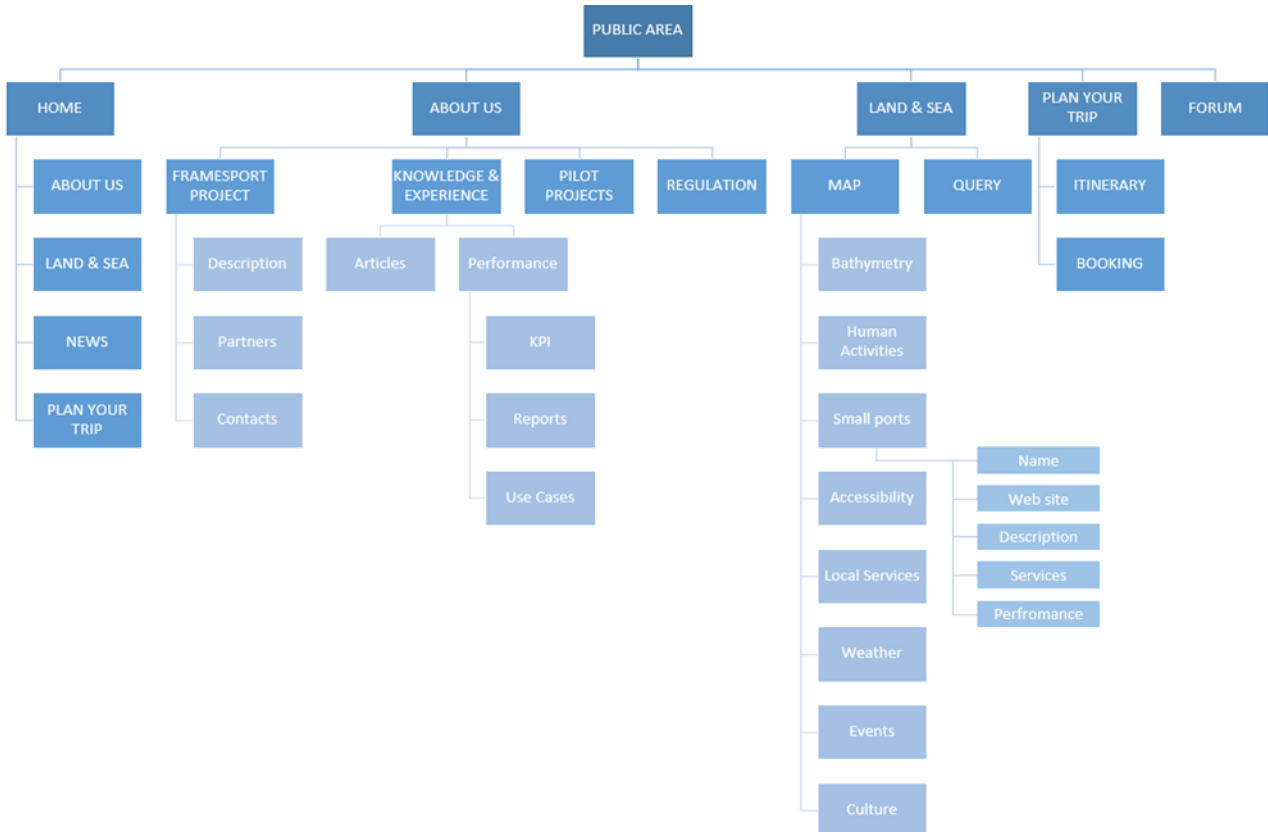


Figure 4 - Structure of the Public Area

A description of the various sections of the portal and what they entail is provided below.

Home

The user of the portal is going to land on the Home page when opening the FRAMESPORT portal. This section is going to present three sections in the following sequence:

- *About Us*: that is containing a brief description of the FRAMESPORT project and its stakeholders, with a focus on the aim, history, mission of the project.

- *Land & Sea*: a map of the territory (see section Land & Sea below);
- *News*: the last information about the FRAMESPORT project and its initiatives.

About us

This section has the aim of presenting, in greater details, the FRAMESPORT project and the know-how that has been developed.

FRAMESPORT project

Description

Description of the aim, history, mission, of the FRAMESPORT project

Partners

List and short description of the various partners involved in the project

Contacts

List of the various contacts of the portal administrators. List and short description of the job vacancies, plus a link to the job vacancy and the application process.

Knowledge and experience

This section is containing all the know-how developed during the FRAMESPORT project. It is divided into the following sections:

Articles

This section is going to present all the articles that are telling a story regarding the Adriatic basin and the FRAMESPORT project. These articles are going to give a perspective of how people see this project and the stakeholders that are part of it.

Best practices

The best practices adopted by the various stakeholders are going to be included in this section in order to provide a valuable collection of the know-how (how to solve an issue, how to handle a certain situation, how to improve sustainable performances, how to improve customer satisfaction...).

Performances

This section is going to provide an overview of the performances of the Framesport projects and the stakeholders involved in it. It is going to be divided in the following sub-sections:

- *KPI*: This sub-section displays the KPI used to monitor the performances of the Framesport projects and of the stakeholders involved in it. These KPI are going to monitor the economic, social and environmental performances of the various small ports and stakeholders. In this way, it is possible to define the areas of improvement and see how the performances developed through time.
- *Reports*: This sub-section presents the publications related to the performances (e.g. annual report and sustainability report)
- *Use cases*: This sub-section presents use cases that used the data contained in the portal for a valuable purpose (e.g. a study on how the performance of the small ports of a region have improved through time thanks to the data provided by the portal).

Pilot Projects

This section is containing the info about the various pilot projects (or pilots). It is going to be organised in two tiers. The former one is presenting the macro-themes of the various pilots. The projects are divided into macro-themes according to their features and purposes (i.e. Planning&Management, E&E aspects, T&K aspects, ICT&Services, Business Aspects). While the latter is the tier where the various pilots are presented. In particular, it is going to contain a brief description of the project, its expected and actual output, the work progress, and the experiences and know-how developed.

Regulations

Present the regulation that the various stakeholders need to follow and recommendations on how to conform to it.

Land and sea

This section is presenting the territory of the Adriatic basing. It is going to composed of two tools. The former is a map with different layers that gives to possibility to switch from one player to another and to show different data. The latter is a tool that allows to run queries and find specific data according to the one contained in the various layers of the map.

Map

The map of the territory is composed of different layers that presents the various features of the sea. It is possible to open multiple layers at the same time and see how the various data displayed are related to each other. The map is going to initially show the entire Adriatic basin with a satellite view, according to the layer(s) chosen various info are going to appear. There is the possibility to zoom and see the features of a specific location. The layers are presented below:

Small ports

This layer is a map with the location of the various small ports. Each port is going to be identified with a coloured dot. When the user clicks on the small port, the user gets access to its information that are showed on a window that is going to open on the side (Figure 5).



Figure 5 – Example of Small Ports layer of the Map

It is possible to select multiple small ports and compare their features. In this way, the customers can compare and choose the small port that best suits their needs and wants.

The windows of the various small ports are going to contain the following information:

- *Name*: of the small port;
- *Web Site Link*: to access to the website of the small port;
- *Short Description*: A section where the main info about the small port are going to be collected. It should be brief and a limited amount of characters should be given when people are filling it;
- *Services*: Kind of services and facilities offered by the small port (e.g. restaurant, pool, boat maintenance, charging station, gas station...). Figures and sings (see figure below) of the available services and facilities are going to be adopted to easily convey the performances and to allow a rapid comparison with the other ports. Some examples of services is provided in the table below.







FAMILY SYMBOLS	OF	SYMBOL NAME	SYMBOL	DESCRIPTION
Services for Navigation	for	Fuel station		Station where boats can be filled with fuel
		Charging station		Charging station for electric boats or their electric equipment
Services for People		Showers		Showers available for the customers
		Laundry		Laundry infrastructure and service
Territory		Touristic info		Info point for touristic purposes
		Restaurants		Restaurant available at the small port

Table 1 - Examples of the symbols related to the Services

- Performance:** This section is going to provide a summary of a small port sustainability performances (economic, social and environmental). Figures and sings are going to be adopted to easily convey the performances. The small ports that are taking part in the portal will receive a tool/module to calculate their sustainability performances. The result of this evaluation is going to be presented in each website of the small ports. The results of the evaluation are going to be summarized and displayed on the portal in the way described above. This section is also going to be helpful in relation with the pilot projects because it allows to understand their impact on the sustainability performances of the small ports.

Bathymetry

Layer with info about the seabed and depth. It is very useful for navigating in the area. It is going to be possible to zoom on a specific site and see the relative sea bed features. The figure below depicts this layer.

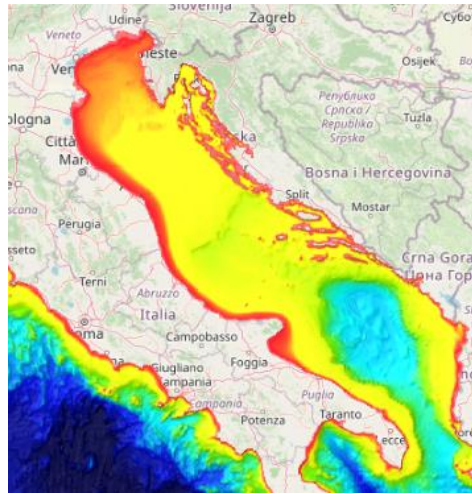


Figure 6 – Example of Bathymetry layer of the Map

Human Activities

Layer with info about the human activities in the area (e.g. fishing areas, drilling platforms, protected areas...). Each coloured dot is going to open a small window with a brief information about the human activity. See figure below for an example.

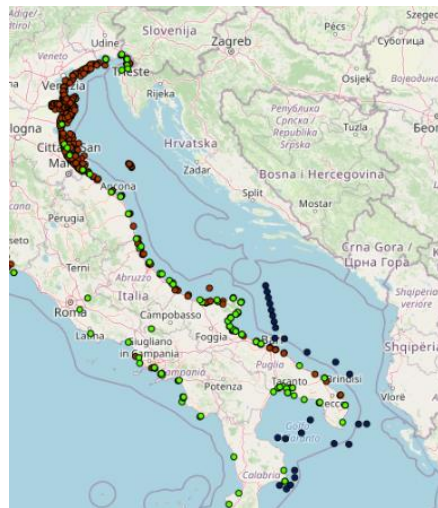


Figure 7 – Example of Human Activities layer of the Map

Accessibility

The map layer that is going to show the roads, highways, railways, airports, car rental/sharing ... of the area around the small port. Therefore, all the information that can be useful to travel around the area are going to be depicted by this layer. It is going to be similar with the classic view of google maps where all the streets and relative names are shown. It would be nice to have a sign for the various infrastructures (e.g., a plane for the airport, a train for the train station, a pump for a gasoline station...) to make them easier to find.

Local companies

Layer with a presentation of the local companies (e.g., restaurants, bars, sport clubs, associations, car rental...) in the area using coloured dots. If you click on one dot, the name, website and a brief description of the local company is going to be shown.

Weather

Layer with information about the weather of the area (e.g., precipitation, temperature, pressure, wind, waves). This layer and the related data should also be used to prevent damage due to strong weather events.

Events

Layers with the events that are happening in the area using coloured dots. When the user clicks on one dot, the name, website and a brief description of the event is going to be shown. There is going to be a focus on events and initiatives related to sustainability.

Culture

Layer that depicts places and associations related to our cultural and historical heritage. These cultural areas are presented with coloured dots, when the user clicks on one dot, the name, website and a brief description of the cultural site is going to be shown.

Itinerary

The itinerary tool (see section) could be a layer of the map. In this way, the users of the platform can find, for instance, a place they want to visit or an event they want to attend and insert it directly

in the itinerary. However, this feature can be constrained by technical barriers. Its feasibility needs to be assessed with the IT company that is going to implement the portal.

Query

Tool to create queries and find specific information about the sea features within a certain area or boundaries. The kind of data are the same of the one used in the aforementioned layers of the map. Therefore, the query tool allows to navigate into the data contained in the various layers and find a single or a group of information according to its needs.

Plan your trip

Booking

In this section is going to be possible to book the various structures of the Adriatic basin. There is a pilot project about this matter and its outcome is going to be valuable to define how to manage this section. The pilot may suggest to create a FRAMESPORT booking platform and therefore there may be the need to implement it. However, this pilot project can also show that it is better to cooperate with an external company that is expert in providing booking services (e.g., Expedia, Trivago) or that it may be sufficient to provide the websites of the various structures that the customers want to book. Consequently, the IT company should provide flexibility to implement this section at a later stage.

In addition, the Booking section shall work in close relation with the Itinerary section. In this way, it is possible to book the various structures while planning the itinerary. Also, this aspect of the portal needs to be defined later on via finding the right trade-off between the outcome of the pilot project on booking and the possible technical limitation.

Itinerary

This is a tool to support customers in planning their routes. It is going to use the same info contained in the other layers of the map. This tool can work in three ways. The first is that the customer chooses its own route and places to visit. The tool is going to optimise the journey by assessing the best (considering the shortest route and therefore the one with the overall best environmental performances) route. It is also going to calculate the emission and fuel consumption for a certain itinerary. It is also going to calculate the safety of the itinerary according to weather conditions. The second way suits the customers that do not know where to go. This tool is going to provide hints

and suggestions about the itinerary according to the preferences of the customers (e.g., specific places, finishing, sightseeing, relaxing, events). Based on the input (preferences) the tool is going to calculate a possible route and suggest places to visit according to the interests of the customer. The third way is a mix of the two, where the customer can choose a part of the route and let the tool suggesting the other. In this way, it is possible to support clients in creating a better, safer and more sustainable journey.

This itinerary planning tool is of added value to customers and can become an important strength of the FRAMESPORT portal. However, there may be technical limitations to the implementation of instrument. Consequently, the features of this tool can vary according to the potential limitations and suggestions from the IT company that is going to implement the portal.

Another important aspect to consider is how to integrate this tool with the other layers. It would be nice to have a tool that is related and can interact with the other layers (e.g., a customer likes a certain event, seen in the event layer, and can add it to the itinerary). This interaction may not be possible and the Itinerary layer may need to be on its own or another way to manage it should be developed. Therefore, the suggestions from the IT company once again are going to be valuable to handle this challenge.

Forum (nice to have)

A forum where all the stakeholders can express their opinion about the experiences in the area. There is the need to find a moderator to prevent inappropriate behaviour from the users. This is a nice to have section so it can be excluded if not necessary or difficult to manage.

PRIVATE AREA

The portal is also going to have a private section where the various users can access with their credentials. The various actors can edit different sections in order to update them. According to the kind of stakeholder that is going to access to the portal, different kind of actions are going to be possible and different sections are going to be visible. The part below is going to present the authorisation of the various stakeholders.

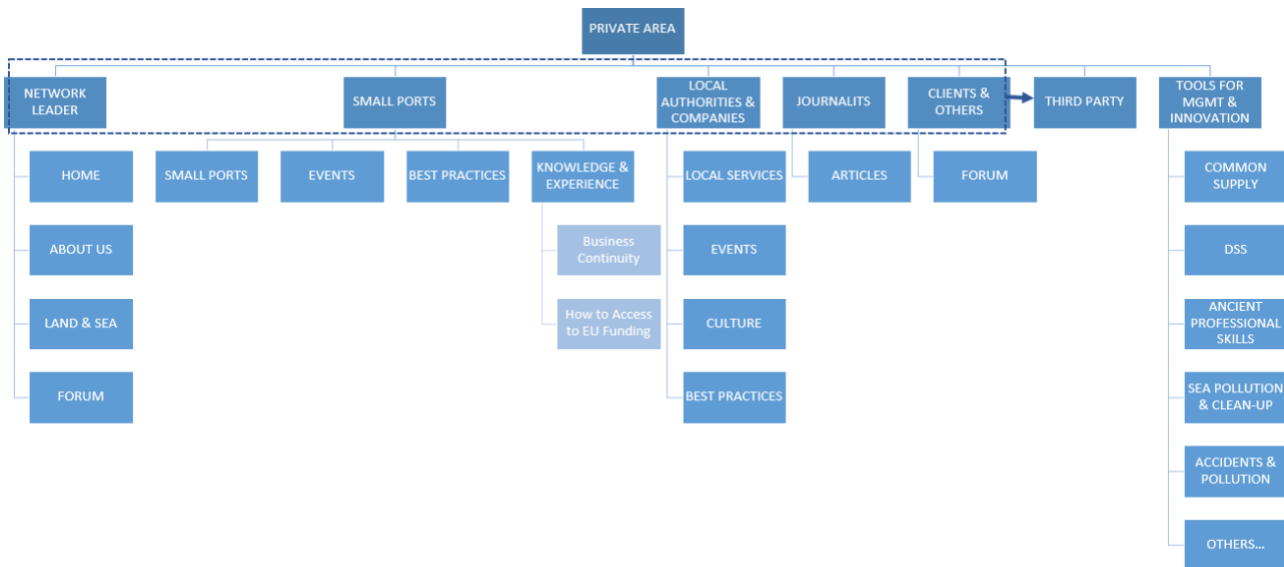


Figure 8 - Structure of the Private Area

Network leader

Can see and edit all the information in the portal (i.e. the various sections of the Home, About us, Land and Sea, Plan Your Trip, Forum). The network leader has not been defined yet. The next chapter is going to provide a SWOT analysis to present the pros and cons of the two alternatives (See Annex 1).

Small ports

The small ports can interact with the section related to their own small port (small port), and with other sections such as Events, Articles & Best practices, Knowledge & Experience. In addition, they can see other two sections. The first is about Business Continuity, which provides general suggestions and actions plans to overcome current challenges such as climate change, Covid-19 pandemic, strong and dangerous meteorological phenomenon. The data about Business Continuity are going to be general and applicable to the various actors. If a small port wants something specific for their circumstance, they need to ask for an ad hoc consultancy service and pay for it. The second section is How to Access to European Funding. This section is a NICE TO HAVE and it is going to include all the info to get funding from the EU.

Local authorities and companies

These stakeholders can see and edit info related to Local companies, Events, Culture.

Journalists

Can publish an article about related to the FRAMESPORT project, its focal area and stakeholders and upload it in the Articles section.

Clients and other stakeholders

All people can log-in and express their point of view, experiences...in the Forum.

Third party

There is going to be a third party that is going to take care of the data validation. This is a crucial task because it allows to provide only reliable and valid data in the portal. The third party checks the validity and reliability of the info and data provided by the various stakeholders. Without validation is not possible to edit and update the portal's information.

The third party needs to be unrelated to the other businesses and institutions involved in the FRAMESPORT project. It needs to be neutral, transparent and truthful, therefore it shall not try to take advantage of the project and to favour the fraudulent activities of certain companies. For these reasons, the third party needs to be chosen carefully involving all the project partners in the decision making process.

Tools for management & innovation of small ports

This section of the private area is going to be seen by the small ports (and potentially other stakeholders if needed) and it is going to contain all the tools that have been created as an output of the various pilot projects. These tools can be used to improve certain aspects and performances of small ports. The sections below are presenting some of the potential tools that are going to be created via the outcome of the various pilot projects:

- Common supply

This is a strategy to manage all the supply of a certain kind of stakeholder. It is going to be very valuable to create a supply system that is cheaper and more efficient, sustainable and effective. This is still not a pilot project but it could become one not only because it can provide a valuable outcome

but also because it may be the driver to keep the platform working in the future. This common supply system, in fact, can become the future way the stakeholders of the Adriatic basin are supplying their materials, thus keeping the portal alive and working.

- DSS

It is an ICT tool that contains the info about an action plan to improve the management of small ports. The data on best practices and performances are going to be very useful to create this tool.

- Ancient Professional Skills

It is a tool containing info about how to provide new and better knowledge to the ship crew and craftsman in relation to historical ships.

- Sea Pollution and Clean-up

It is a tool that allows to develop a methodology, instruments and technologies to collect floating waste from the sea and monitor the level of water pollutants. The data related to water pollution could be potentially used to create a new layer in the Land and Sea section.

- Accidents & Pollution

It is the tool to forecast and prevent pollutants dispersion in the sea caused by an accident.

- Others...

Other tools derived from pilot projects.

Changes to the FRAMESPORT platform's structure and functionalities

The various sections of the portal, their features and functionalities may be subject to technical limitations and/or future developments. Therefore, it is essential to maintain a certain degree of flexibility in order to be able to edit certain characteristics of the platform in an agile and effective manner.

Furthermore, the pilot projects and their outcome can delineate changes in certain sections of the FRAMESPORT platform. Therefore, a certain degree of flexibility needs to be guaranteed to implement the potential editing in the future. For instance, the way the Booking section is going to

be managed depends of the outcome of the related pilot project and therefore it needs to be realised later on.

Info from IUAV's survey

This section is going to contain the outcome of the work of the IUAV partners in relation to the survey to provide to small ports.

D.3.2.2 – FRAMESPORT ICT platform updating reports and integration

Keeping the FRAMESPORT portal working and maintaining its efficiency and effectiveness through time is a fundamental aspect of the project. Therefore, keeping the portal updated and functional is an essential objective, but also a challenge. For this reason, in relation to the portal's data update, two strategies have been developed. The first one is establishing partnerships with associations that can provide updated data on a daily basis (e.g., cooperating with a weather forecast company to get daily data on the weather and predict potentially dangerous meteorological phenomenon). The second one is involving the various stakeholders that can interact with the platform. They have the opportunity, according to their role and related permissions, to edit and update the information contained in the portal via the access to the private section (D.3.2.1 – FRAMESPORT ICT Platform – PRIVATE AREA). In this way, the various actors are capable of maintaining the platform's data constantly updated. However, there is the issue related to the validity and reliability of these information. For this reason, a third part is going to take care of the data validation in order to guarantee that only trustworthy and updated information are going to be displayed in the portal (D.3.2.1 – FRAMESPORT ICT Platform – PRIVATE AREA – Third Party). Thus, also sensible information, such as the one related to sustainable performance monitoring and best practices, are assured to be valid and reliable, and it is possible to prevent the risk of jeopardising the creation of an effective action plan to drive sustainable development due to the lack of trustworthy and transparent data.

Another challenge is related to involving as many stakeholders as possible in the FRAMESPORT project. Without a wide participation of small ports, restaurants, shops, cultural sites and other businesses and institutions, the portal would lose its effectiveness and therefore the entire project is not going to meet its objectives. Therefore, the idea is making the FRAMESPORT platform as much appealing as possible. In order to do so, it is fundamental to offer a great variety of services to the various stakeholders. It is fundamental to give them the opportunity to promote their business and attract new clients, to improve their sustainable performances and become more profitable, and to make them play an active role in supporting the socio-economic development of the Adriatic basin.

For this reason, the FRAMESPORT portal has not only the aim of presenting the network of small ports and organisations of the Adriatic basin but also to support their sustainable development. Thus, sections to present the various small ports and local businesses/institutions were included as well as sections about best practices, performance monitoring and improvement, pilot project and their outcome, business continuity, and regulations. In this way, it was possible not only to create a platform where all the stakeholders of the Adriatic basin are adequately presented to the public and potential clients, but also an IT tool that could provide an efficient and effecting monitoring and improvement of the sustainable performances of these actors. This strategy is therefore capable of supporting the various stakeholders in becoming more appealing, resilient and sustainable and, as a consequence, turn them play a central role in the socio-economic development of the Adriatic basin.

5. D.3.1.2 – Design of the FRAMESPORT ICT platform development and implementation guidelines

Another aim of the WP3 is selecting an ICT company capable of implementing the FRAMESPORT portal and create the appropriate documentation for the tender as well as the one to provide to the selected business to create the platform according to the project requirements.

A market analysis was performed to assess the features of the available ICT organisations and to define a cluster that could be able to satisfy the technical requirements related to the implementation of the platform. This is an iterative process where all the project partners have been included. The Unipd team is supervising this process to guarantee an adequate performance and management of these activities.

It was defined that the selected ICT company shall have the following features:

- Have experience related to the planning, implementation, management and controlling of projects similar to the FRAMESPORT one;
- Capability of creating and maintain a platform with analogous features of the FRAMESPORT one;
- Create the platform containing the overall costs (planning, implementation and maintenance of the platform);
- Have the technical skills and know-how to implement the portal;

- Economically solid, reliable and transparent to assure the company will be able to meet the requirement of the project throughout its entire duration;
- Capable of working in an international environment.

In order to meet these criteria, a scoring sheet was created. Different categories have been defined and a score was assigned to each of them (see table X). A technical sheet is going to be provided to the organisations that will participate to the tender. This sheet has the aim of assessing the overall features of the firms and to calculate the score for every single category. The ICT company is going to be selected according to the overall score. If two businesses are close to each other in terms of scoring, then the single categories are going to be analysed giving more importance to the one that are characterised by a higher score.

EVALUATION CRITERIA	EVALUATION REQUIREMENTS	SCORE (MAX)
1	Quality and coherence of the methodology adopted to implement the platform according to the objectives, requirements, limitations and budget of the FRAMESPORT project	20
2	Clarity and quality of the implementation procedure in relation to the features and requirements of the FRAMESPORT project, and to the compulsory level of maintenance and assistance	25
3	Technical assistance	10
4	Quality and interdisciplinarity of the team that will implement the FRAMESPORT portal	15
5	Quality and relevance of the potential additional services and products offered by the ICT company	10

Table 1 - Scoring sheet to select the ICT company to implement the FRAMESPORT portal

The platform may be subject to changes while the ICT company is going to implement. These editing are related to technical and technological limitations of all the stakeholders involved, and to the economical restrictions imposed by the FRAMESPORT project's budget.

I. Annex 1: SWOT analysis to decide the network leader

This section is going to present the advantages and disadvantages of having a public or private company that is going to manage the platform. This task was performed via SWOT analysis. The main strength and weaknesses of the two actors are going to be highlighted, together with the opportunities and threats coming from the market in which they operate.

Private company

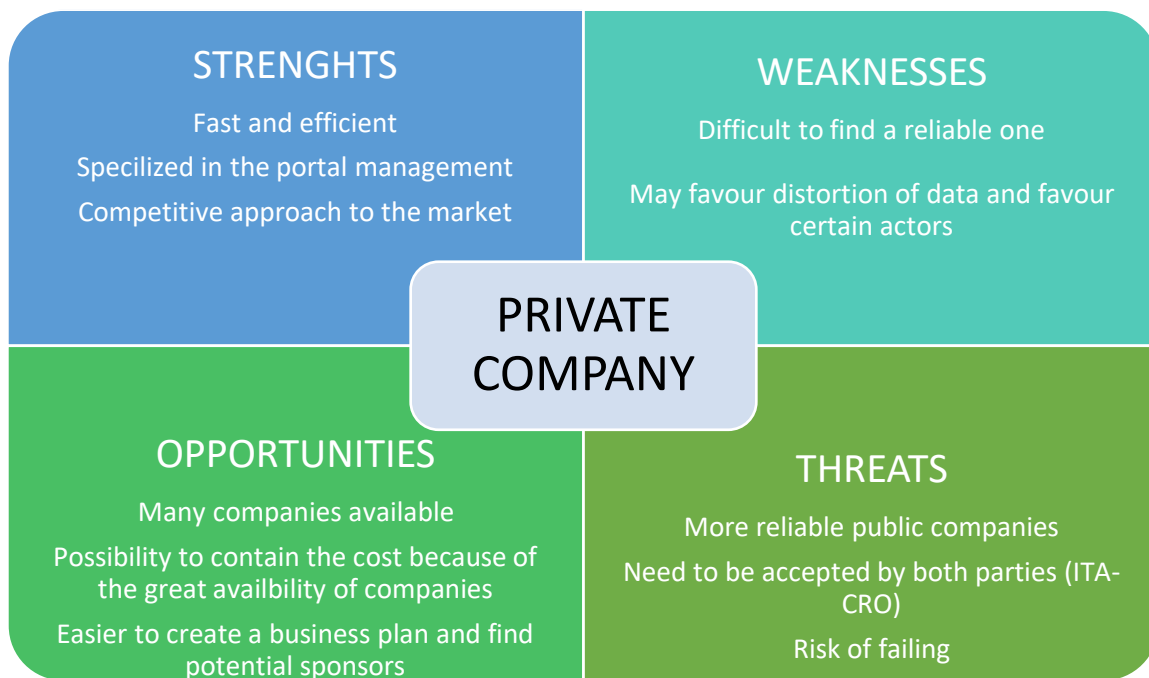


Figure 9 - SWOT Analysis for a Public Company as Network Leader

A private company can be specialized in providing this kind of services and therefore it can potentially be faster and more efficient regarding the management of the platform. In addition, private companies are more numerous than public ones so there is a wider choice and therefore it may be possible to contain the expense for this kind of service. For private companies is also easier to create a business plan and to find sponsors to their tasks.

On the other hand, it may be difficult to find a reliable one, especially if its cost it's small. Their operations can also be subject to cheating and the private company may favour a certain actor. Moreover, public companies are considered as more reliable than private ones and it may be

difficult to find a private business that is accepted by both the Italian and Croatian stakeholders. Finally, private companies are more subject to failing than private one and this may be a big problem if the FRAMESPORT portal loses its leader.

Public company

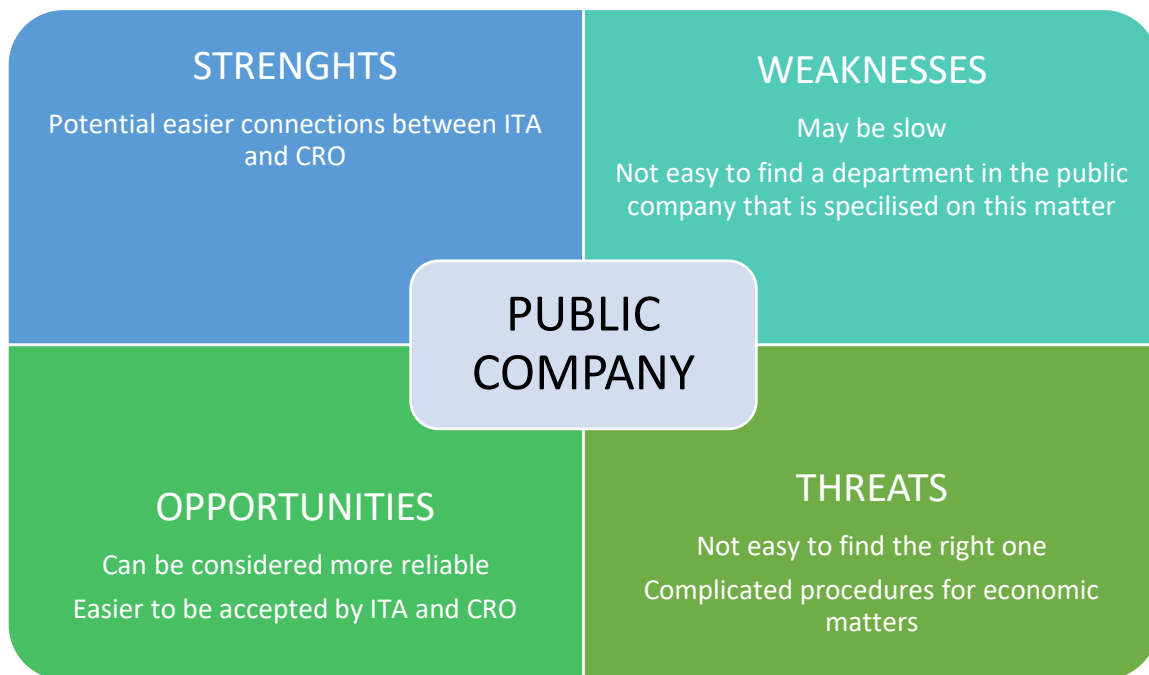


Figure 10 - SWOT Analysis for a Private Company as Network Leader

Public companies can favour the cooperation and communication between the Italian and Croatians sides. For instance, if the ministries of the environment of the two countries are going to be selected, then the collaboration between them it may be easier. Also, public institutions are considered as more reliable than private ones and less subject to fraudulent behaviours. As a consequence, it may be easier to get the various stakeholders agree on a public actor.

However, a public company can be slower in performing its tasks and may not have the knowledge and competence to manage the platform in an appropriate manner. It is therefore complicated to find a good public provider of this service. Finally, the procedure for economic matters is very complicated with public company and this may negatively influence the efficiency and effectiveness of their work.

Recommendations according to the SWOT Analysis

The SWOT analysis highlights the risks and opportunities related to choosing a private or a public actor as the network leader. This analysis demonstrates that a public company is better for the following reasons. First, it is easier to achieve a cooperation between Croatia and Italy if a public institution is chosen. It is possible to select the same kind of organisation (e.g. the Ministry of the Environment) and make them cooperate to run the FRAMESPORT portal. Secondly, choosing a public company means reducing the risk of fraudulent behaviour and preventing favouritism to a certain actor. Finally, there is less competition among private institutions and therefore it may be easier to find a public partner that is willing to become the network leader.