

Desk research on existing ICT platforms

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Table of Contents

1.	Introduction	4
	Objective	
	Results	
	Literature review	
	Desk research	
	SWOT Analysis on the current scenario	12
	FRAMESPORT portal features and functionalities	
5.	Conclusion	15
Δr	nnex A -I ist of the analysed nortals	16



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 divided into 4 work packages. 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 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.

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. 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 report is organised as follows. Chapter 2 is presenting the objective of the WP3.1.1, chapter 3 the methodology adopted to perform the literature review and desk research, and the last two chapters are presenting the outcome of these two activities and the conclusion.

2. Objective

This document depicts the outcome of the activities of the WP3.1.1. This activity prescribes desk research on existing ICT platforms with the aim of outlining the state-of-the-art about websites related to small ports and defining the general characteristics of the FRAMESPORT portal. Therefore, this report is going to focus on the methodology that was adopted to delineate the overall features and functionalities of the platform.

The final objective of the WP3.1 is creating an efficient, useful, and appealing IT platform. The projects partners want 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. For this reason, it is fundamental to comprehend what has already been done in relation to small ports, and thus a literature review and desk research were performed.

A schematic overview of the positioning of the present deliverable within the overall logic of WP3 is presented in the following figure.



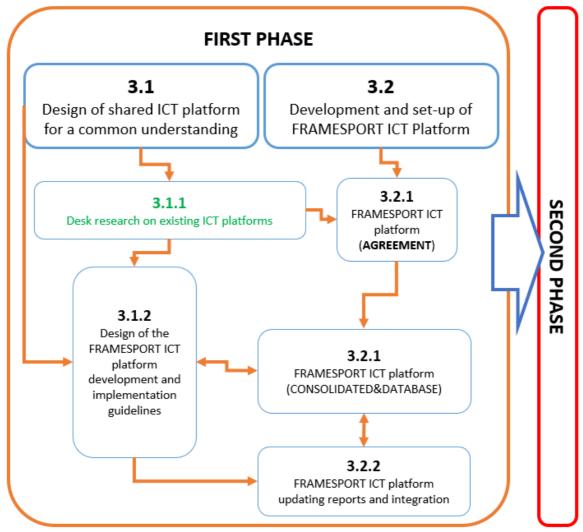


Figure 1 – Overall structure of the WP3/Phase 1, positioning the present deliverable (in green)

3. Methodology

This chapter describes the methodology that was adopted to perform the desk research and literature review in order to delineate the overall FRAMESPORT platform features and functionalities. The following list is presenting the methodological steps that have been executed to achieve this objective.

1. **Bibliography**: 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**: Desktop analysis of about 60 portals (see Annex A) 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: 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 2). 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**: 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: 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.



4. Results

This chapter is presenting the results of the aforementioned methodology. It is therefore depicting the outcome of the desk research and literature review that led to the definition of the overall functionalities and features of the FRAMESPORT portal.

Literature review

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 to be 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.

Desk research

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 and classified 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 provide the possibility to book berths or other services. This kind of portals inspired the creation of a section in the FRAMESPORT portal related to 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 led the FRAMESPORT
 team to create an interactive map presenting 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 stakeholders 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 adapting to global challenges such as climate change and sea pollution as well
 as strong meteorological phenomena. 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 to the aforementioned categories.



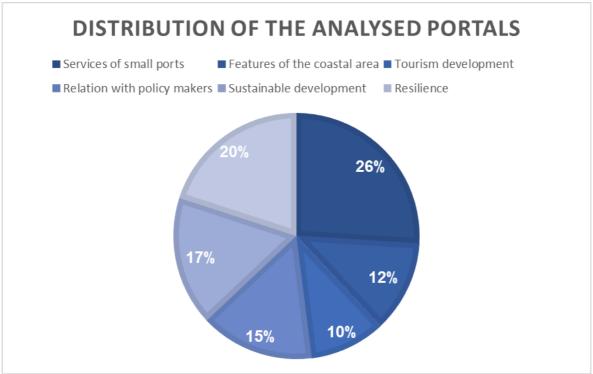


Figure 2 - Distribution of the analyzed websites about small ports

As we can understand from the pie chart, most of the analysed websites focused on services of small ports, sustainable development and resilience, while fewer portals were found in regard to tourism development and features of the coastal 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.



Universal Marina







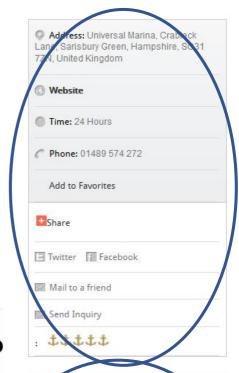






- Deep and semi tidal berths available
- · Moorings are available on a visitor, temporary or annual basis
- Annual moorings include complimentary water, electricity and WiFi
- Transeurope Marina membership
- Dry Stack System boat storage is available





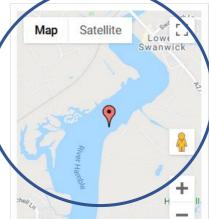


Figure 3 – Information taken from the TransEurope Marina website



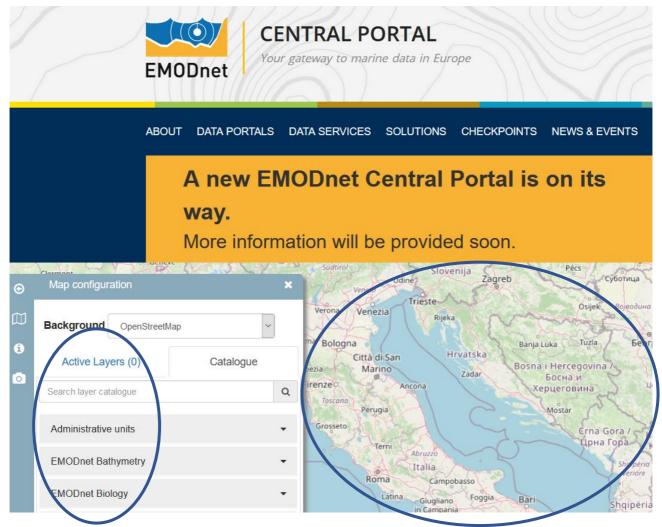


Figure 4 – Information taken from the EMODnet website

The former image comes from TransEurope Marina and inspired the delineation of the features of the section small ports. 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.

SWOT Analysis on the current scenario

The literature review and desk research also allowed understanding the context in which we are operating and the features that the portal shall have to meet its objectives and be competitive in this environment. In order to delineate the current scenario and its risk and opportunities a SWOT



analysis was performed using the aforementioned data. This analysis is presented in the figure below.

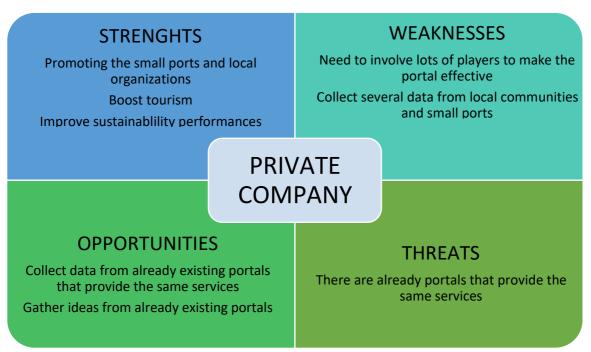


Figure 5 - SWOT Analysis to assess the current scenario

The SWOT analysis highlighted the need of leveraging on the potential strength of the portal and the opportunities coming from the market. Therefore, it is important to create a platform that could promote the small ports and the local attractions and organizations around them. In this way, it is possible to boost tourism and attract more people in the Adriatic basin. Furthermore, it is fundamental to constantly monitor and improve the sustainability performances of the small ports to make them a driver of the sustainable and socio-economic development of the area. These activities are facilitated by the context in which we are operating because there are several portals that are providing similar services and thus it is possible to gather data and ideas from them and establish cooperation with the actors that are running these portals.

However, the FRAMESPORT portal needs to involve as many small ports and organizations as possible in order to be effective and therefore be able to adequately promote the stakeholders of the Adriatic basin and support the enhancement of tourism and sustainability performances. It is also challenging to collect all the data required to run the portal and its services in an appropriate manner. Furthermore, there are already several portals which are providing the same services and that can thus be used by the various stakeholders instead of the FRAMESPORT one.



For these reasons, it is fundamental to create a portal that is attractive and of added value to the stakeholders of the Adriatic basin. The portal shall therefore be able to leverage on opportunities arising from this context and overcome the risks that could arise from the environment in which we are operating. In order to do that the portal shall have strong objectives, features and functionalities. Only in this way it is possible to make the platform effective and capable of boosting touring and driving sustainable development. The following chapter is presenting the overall aims and characteristics of the portal.

FRAMESPORT portal features and functionalities

The aforementioned data coming from the literature review, desk research and SWOT analysis allowed establishing the features and the objective of the platform, which is twofold. On the one hand, sponsoring the small ports and coastal organization in order to promote tourism. On the other, supporting and driving 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, the portal shall contain information about the following topics.

- 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. Together with the aforementioned sections about best practices and performance monitoring, this section provides information 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 interacting
 with the Adriatic basin for various purposes (e.g., tourism, business, research).



5. Conclusion

The WP3.1.1 and the methodology adopted to perform the desk research and literature review allowed to define the first draft of the platform structure that was containing its overall features and functionalities. These characteristics were presented to project partners both in a graphic and written way to provide a visual representation of the structure. In this way, it was possible to show them the progress made in relation to the WP3 and make them understand the overall features of the FRAMESPORT portal. An initial round of feedback was also collected in order to bring some improvement to the first draft of the platform.

This outcome was fundamental to create a solid background for the WP3.1.2, which aims at creating the implementation guidelines of the portal. For this activity the project partners were involved even further to create a portal that would be accepted and beneficial to all the stakeholders involved.



Annex A -List of the analysed portals

The following table is presenting the ICT platform analysed during the desk research.

Table 1 – List of the portals analysed during the desk research

Name of the Portal	Link
TransEurope Marina	https://www.transeuropemarinas.com/
EMODnet	https://www.emodnet.eu/en
MARRIAGE	http://www.project-marriage.net/home/
FVG MARINAS	https://www.fvgmarinas.com/fvg-marinas/
LE SALINE	http://www.darsenalesaline.com/
ESPO	https://www.espo.be/
WPSP	https://sustainableworldports.org/about/
ACE	https://www.msp-platform.eu/projects/accessibilita-intermodalita-ace
TransEurope Marina	https://www.transeuropemarinas.com/
MPN Marinas	http://www.mpnmarinas.eu/
European boating industry	https://www.europeanboatingindustry.eu/eu-affairs/tourism#A
Hrvatski registar brodova	http://www.crs.hr/en-us/home.aspx
Adriatic croatia international club	https://aci-marinas.com/
Assosiation of marinas of the croatian chamber of commerce	https://www.hgk.hr/
Adriaticum sail	https://yacht-charter-croatia.eu/croatia-tourist-info/yachting/croatian+marinas+group
Croatian charter	https://www.croatiacharter.com/
Marina Poreč-Parenzo	http://marinaporec.com/it/
Marina Punat	https://www.marina-
	punat.hr/?utm_source=google&utm_medium=organic&utm_campaign=gmb
Assonautica	https://www.pagineazzurre.com/
Pagine azzurre	https://www.assonautica.it/
ADRIACLIM	https://www.italy-croatia.eu/web/adriaclim
ADRIADAPT	https://www.italy-croatia.eu/web/adriadapt
ADRIAMORE	https://www.italy-croatia.eu/web/adriamore
ASTERIS	https://www.italy-croatia.eu/web/asteris
CHANGE WE CARE	https://www.italy-croatia.eu/web/changewecare



Name of the Portal	Link
E-CITIJENS	https://www.italy-croatia.eu/web/e-citijens
PMO-GATE	https://www.italy-croatia.eu/web/pmo-gate
READINESS	https://www.italy-croatia.eu/web/readiness
RESPONSE	https://www.italy-croatia.eu/web/response
STREAM	https://www.italy-croatia.eu/web/stream
Greek Marinas	https://greek-marinas.gr/en/
Marina Associations	https://marinaassociation.org/resources
TYHA	https://www.tyha.co.uk/
British Marine	https://britishmarine.co.uk/Sectors/Marinas
Bahamas Marines	https://www.bahamasmarinas.com/
GTP	https://www.gtp.gr/TDirectoryDetails.asp?ID=73061
DMYV	www.dmyv.de
Costa Rica Marinas	https://www.costaricamarinas.org/
Harbor Master	https://www.harbormaster.org/harbors-ports-and-marinas
Lake Texoma	https://www.laketexomaonline.com/marinas/
Wind Mill Marina	https://www.windmillmarina.com/
Boating Ontario	https://www.boatingontario.ca/cpages/boatingontario
Bay Port Marina	https://www.bayportmarina.com/
Portugal Marina	http://www.marinasdeportugal.pt/en/
Harbor Towne Marina	http://www.htownemarina.com/
Andalucia Marina	https://marinasdeandalucia.com/en/the-association.html
Ocean Pines	https://oceanpines.org/marinamenu
ABMA	https://abma.ag/yachting/marinas/
Board Bay Sailing	https://broadbaysailing.org/BBSAMarinas
Washington Ports	https://www.washingtonports.org/small-ports-seminar



Name of the Portal	Link
IAPH	https://www.iaphworldports.org/
Estonian Ports	https://www.estonianports.com/
IPCSA	https://ipcsa.international/about/members/members-asia-pacific/indian-ports- association-india/
North Sea Regions	https://northsearegion.eu/dual-ports/news/
Coast Link	https://www.coastlink.co.uk/supporters/the-iceland-ocean-cluster
Smart Marinas Network	https://smartmaritimenetwork.com/tag/international-port-community-system- association-ipcsa/
UK Marinas	https://www.maritimeuk.org/careers/explore-sector/ports/
PCC	https://pccharbormasters.org/
Port of Guam	https://www.portofguam.com/about-us/maritime-operation/facilities-and- services/marinas
JUNEAU	https://juneau.org/harbors
MY SEA	https://my-sea.com/en/croatia
Porto Fantwerp	https://www.portofantwerp.com/en/willem-dock-marina
Marine Traffic	https://www.marinetraffic.com/en/ais/details/ports/12819/Germany_port:SEGLER%20A SSOCIATION%20O
Porto Feverett	https://www.portofeverett.com/your_port/port_commission/index.php
Florida Government	https://floridadep.gov/sites/default/files/Clean%20Marina%20Action%20Plan%20Guideb ook.pdf (è un manuale ma può essere utile anche se non va nell'elenco)
Shet Land	https://www.shetland.org/visit/do/outdoors/sail/lerwick