FRAMESPORT
Strategy Paper

Final version of 29/06/2023

D.3.4.2

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	4 – Maritime Transport
Specific Objective	4.1
Work Package	3
Work Package title	Framework strategy for the development of small ports
Deliverable Nr.	3.4.2
Status	Final
Partner in charge	CORILA
Dissemination Level	Public

Table of Contents

Small Adriatic Ports: Planning beyond fragmentation
Framesport Strategy Paper

"The FRAMESPORT strategy intends to foster the development and resilience of Adriatic small ports and marinas to climate and socio-economic changes. Small ports must have their own connotation and definition in order to become the driving force of a sustainable and integrated tourism, capable of fostering the ecological transition, connecting rural and coastal areas and diversifying the offer in order to improve the management of tourist flows in line with a longer boating season."

Small ports: the need for action

Ports and cities in the Adriatic Sea are separated from a spatial, cultural and institutional perspective. This separation has direct implications on the quality of the land-sea interaction. It has historically generated a chaotic collage of spaces which are today characterized by an uncertain planning regime. Fragments of an industrial past and quite often obsolete infrastructures at the edge of the port and city are some tangible results of the uneven growth of the city with its port.

Four main aspects of separation can be identified as a consequence of this fragmentation: **1. spatial separation** between the nautical-tourist routes and inland territories; **2. environmental separation** with ports that need to make better use of existing resources and energy sources; **3. technological separation** with ports that need to identify solutions to be safer and better connected; **4. fractures** between global and local economies that ask for new competitive strategies.

All those different dimensions of separation **challenge the current understanding of main and small ports** asking decision makers to move away from a planning approach that has conceived them as isolated and punctual dots. On the contrary, **current and future challenges are asking decision makers to design them as greener, safer and more competitive**. While big ports are hard to change due to the scale of relations and to a complex governance structure and therefore institutional rigidity, **small ports have a different scale and therefore can play a key role in testing relevant tools and solutions and eventually scale them up to a larger context**. Therefore, working on small ports is of utmost importance to foster the climate, environmental and social transitions.

CHALLENGES AND OPPORTUNITIES OF THE ADRIATIC SMALL PORTS

The activities carried out within the Framesport project dealt with the study of the **territorial complexities linked to the small Italian and Croatian ports**. The project also aimed at **defining a methodology for the construction of an abacus of solutions and scenarios to face the plurality of economic, social,**

and environmental challenges that affect coastal territories today.

Adriatic small ports such as marinas and touristic harbors are currently experiencing a rather challenging spatial, social, and economic situation due to a surplus of supply compared to demand levels and an increased average age of users. **Boosting competitiveness** is a priority for these realities, both for Italian and Croatian contexts, which would highly benefit from new business models, measures and actions aimed at recovering their overall efficiency and attractiveness.

This experimentation is part of a line of study on innovative urban and environmental planning and in particular on the design and planning of coastal spatial systems undertaken by IUAV and Corila, enriching and completing the set of projects already undertaken within the Centro Studi Iuav-Planning and Climate Change Lab, which also represents one of the areas for discussion of the results. The research activities, which are in continuity with the Framesport Project, have set the objectives of reconceptualizing small ports, which often escape the gaze of regional and national planning, as catalysts of new social, cultural, spatial and environmental values. Particular attention has been dedicated to the construction and **mapping of data as a fundamental process for the construction of future scenarios.**

FRAMESPORT aimed at **supporting a homogeneous and integrated improvement of Adriatic small ports sustainability, competitiveness, and attractiveness** through:
- The delivery of a **strategic framework** orienting their future development in the long run, and this also by improving their connection with the neighboring territories and populations as well as enhancing and diversifying the overall touristic offer.
- The realization of an **ICT platform as a virtual space,** available for users and stakeholders, containing the tools resulting from the implementation of pilot actions, best-practices, suggestions and proposals for Adriatic small ports development and management.
- The **increase of competences for a harmonized planning** and management of small ports, contributing to elevating their role as drivers for the sustainable growth of coastal areas.

This strategy is the result of a complex work of analysis and consultation but will, hopefully, support the choices of decision makers and port management in the coming years to ensure small Adriatic Ports are greener, connected, competitive and safer. The study of the state of the art informed the definition of the different key aspects composing the strategy. The state of the art encompasses directives, strategies and laws, data on ports describing their current state, an analysis of demand and offer, as well as the results from FRAMESPORT and the inputs from local stakeholders.

Space, Environment, Technology, Economy

SPACE. A (small) port is a contact area, a liminal space where different flows meet and often collide at the intersection of land and water (Notteboom & Haralambide, 2020; Russo, 2016). This threshold space is the place where solid and liquid mix, where large-scale economies meet urban palimpsest and where the city takes on a landscape connotation (Moretti, 2020; Russo, 2016). It is in this space, which is controversial by nature, that the contemporary challenges are concentrated, from environmental to demographic and social pressures.

Located at the edge of sea and land, (small) ports are indeed the first to experience the impact of climate change. They have long been hot spots of innovation and **can be today incubators for circular solutions based on adaptation.** However, despite the current interest, academic and professional, **(small) ports are still expanding in a way that is detached from cities and their inhabitants.**

ENVIRONMENT. Today, sustainable thinking in future-planning for port cities has become even more urgent. One of the main issues to address is the **fossil fuel infrastructure**. Indeed, it is because of the oil industry and the development of ports, refineries and the larger petroleum infrastructure spread across our territories that cities function today in the way we know them. Most of the clothes we wear contain petroleum, as do all the objects that surround us, from smartphones to computers to cosmetics. Food also contains oil, if we think of the logistics chain that transports it or the packaging that wraps it. Oil has produced prosperity and increased well-being, allowing people to move smoothly around the world. At the same time, **oil has produced inequality and enormous waste and has altered the landscape.** There are many examples that can be used as background to the story of petroleum: Naples, Dunkirk, Antwerp, Le Havre and Rotterdam are just a few from Europe. Dealing with the often unacknowledged *petroleumscape* requires an urgent rethinking of both spaces and cultures; port cities have a key role in that rethinking (Hein, 2016; De Martino et. al, 2022).

(beyond) TECHNOLOGY. Imagining a future scenario requires policy makers to think not only about technical solutions, but also to question lifestyles and cultural beliefs. Addressing an urban and spatial problem is also an opportunity for a radical transformation of society and dominant cultural constructs. The separation between small ports and inland territories need to be overcome and redesigned to make room for new energy forms, people and nature.
All of this raises questions: **How will these places work in the future? How much space will the energy transition take?** A scenario beyond technology can help reformulate the relationship between cities, infrastructure, heritage, landscape, water and economy. We need to adapt heritage to host new functions that are more compatible with contemporary needs.

ECONOMY. The tourist ports and marinas are the focus of the Framesport project and strategy, being a core infrastructure located in frequently sensitive territories that could be perceived as a positive stimulus for the economic development of territories, frequently underdeveloped from an industrial perspective. Marinas' performances play a fundamental role in the success of nautical destinations, where the multi-purpose ports are being substituted with specialized marinas, completely dedicated to boaters. **The turnover in Europe of this industry reaches almost 4 billion Euro and it employs 40.000-70.000 people.** As for the tourism sector, in the Adriatic Sea in 2022 there are 341 marinas and more than 80,000 berths, in Italy 192 structures with 49.207 berths and the average number of berths per structure is 256. In Croatia there are 126 structures with 20.736 berths and an average number of berths per structure of 165. The major concentration of berths and structures is in the North Adriatic, with 56,4% of berths and 58,1% of structures (Risposte Turismo, 2023). These numbers immediately are emblematic of the value of the economy of the sea, but also of the impact that this has on the surrounding environment. **Current economic models are still tied to an idea of exponential growth**, despite researchers arguing about the need to stay

within the limits of the planet (Raworth, 2018). Therefore, in order to remain competitive in the future, this sector needs a profound transformation of business models.

WHICH ARE MOST IMPORTANT POLICIES THIS STRATEGY ENDORSES?

European Directives

The broader macro-objectives and strategies established by the European Union such as the European Green Deal, Circular Economy and the recent Repower EU plan have set the play to rapidly reduce path dependencies, such as dependence on fossil fuels and fast forward the green transition. Among the multiple transitions, the one related to energy is one of the most important to achieve. Small ports are interesting laboratories to promote economic, social, cultural, environmental innovations, aimed at achieving a transition in the whole sector.

The European Parliament resolution of 25 March 2021 on the establishment of an EU strategy for sustainable tourism represents an important document to bring attention to small and minor ports as key actors to strengthen a transition to sustainable, responsible and smart tourism. According to it, sustainable tourism should take account of current and future economic, social and environmental impacts, addressing the needs of visitors, the industry, the environment and local communities. **The _socio-cultural dimension_** and education is also key in creating more awareness of the impacts of tourism on the territory is also highlighted. The Commission encourages to include local actors that work in rural and coastal areas in income diversification initiatives through the creation of tourism products, services or experiences, in the design of new initiatives and the search for synergies between existing ones.

The EUSAIR Pillars

The Framesport strategy meets several flagships of the EUSAIR program: in particular under Pillar 4 - Sustainable Tourism "Development of the network of sustainable tourism and clusters". In particular, it builds coherence to **develop sustainable and responsible tourism**.

National laws

In Italy the current definition of pleasure boating is provided by Article 1, paragraph 2 of Legislative Decree no. 171/2005, according to which pleasure boating is the activity carried out in maritime or inland waters for sport or recreational purposes and without profit. According to Presidential Decree no. 509 of 2 December 1997, a marina is defined as 'a particular type of port infrastructure built or dedicated to a purely recreational use, equipped with facilities for the storage, repair and refueling of vessels of varying tonnage for tourist, amateur or sports purposes.

According to Italian strategies and legislation[1] tourism linked to small ports shall be supported and fostered in terms of sustainability, innovation and inclusivity.

---

[1] Law 11.02.1971 n. 50, Law n.172, 08.07.2003 and following amendments

Sustainability in Italy is intended not only in strictly environmental terms, but also with reference to economic development, intermodal and soft mobility, economic and territorial sustainability, use of heritage, creation and innovation of tourism products, use of financial resources, authenticity and identity.

According to the Ordinance on the Classification of Ports, **the small ports in Croatia that are part of this study are classified as ports open for public traffic and operated by port administrations created by counties and local self-government units.** More than 450 small ports and twenty-two port authorities manage harbors in Croatia. Port authorities range from small port authorities with only six ports, like the County port authority of Cres or Novalja, to the Split Port Authority, which manages 80 small ports and harbors in Split-Dalmatia County.

Key policy recommendations

Rethink **the nature and role of small ports within the territory** in order to allow the multiple stakeholders to re-imagine the port of the future. This has to do with creating awareness that (small) ports are more than just infrastructures and service providers. They are part of the city, often the reason for the development of the city itself.

Empower **regional and local actors**, which especially in Italy are mainly spectators although they have tools and knowledge to influence planning decisions. This would allow reimagining small ports not as alien bodies within the city, rather as a social, cultural and economic opportunity for the whole region.

Coordinate **at the regional level**. We should rebalance the relation between the port and the cities gravitating around them. Decision makers need a strategic vision on a regional scale in order to define the pillars for the development and how the port can coexist with the city, the region and the coastal landscape as a whole;

Plan **through scenarios** rather than conventional plans. Scenarios take the form of **reflections, points for discussion**, speculations which do not claim to plan the territory in an assertive way rather to point out **possible new narratives for the future**.

HOW SHOULD PORTS BECOME?

The aforementioned European and national directives as well as data and demand trajectory have contributed to the identification of the core objectives of the strategy:
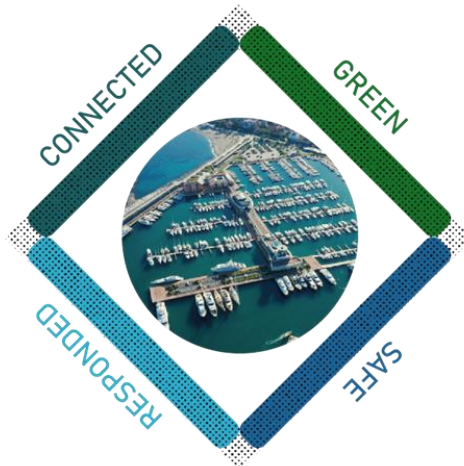
- **CONNECTED:** with the territory, to encourage tourist diversification and the enhancement of local knowledge and traditions, including through training. But also connected in terms of nautical-tourist routes (e.g. European, national, etc. projects).
- **GREEN:** sustainable ports, making the best use of resources, renewable energy, new technologies and supporting virtuous behavior.
- **SAFE:** safe harbors for those who use them, in limiting accidents and problems for vessels and people, including those caused by climate change. But also safe for the environment in which they are located.
- **COMPETITIVE:** ports that know how to respond to the demand of the tourism sector, including through available technologies, and that know how to attract new types of users.

WHO SHOULD ACT FOR THE STRATEGY?
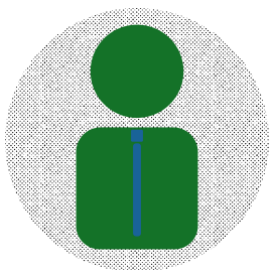
The strategy intends to provide **decision makers**, especially at Regional/County level and national level, with an overview of the main needs of small ports and steps to meet in order to achieve the sustainable development in connection with the surrounding territory. The strategy is also useful for **port authorities and management**, who, being well aware of the challenges that managing a small port represents, can find a compilation of opportunities for innovation and diversification of offer.

The strategy can therefore support their decisions based also on common needs and opportunities of connected cities, country and neighboring ports. Eventually, in terms of opportunities, the industry can also be interested in the partnership opportunities with public bodies suggested in the document and that may be beneficial to all parties.

## WHEN SHOULD THE STRATEGY BE IMPLEMENTED?
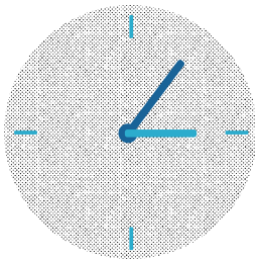
Stakeholders' meetings highlighted the need for a robust monitoring and evaluation framework to track the progress and effectiveness of the FRAMESPORT strategy. They stressed the importance of establishing clear indicators and benchmarks to assess the achievement of objectives, identify areas for improvement, and support evidence-based decision making.

Timeframe and sustainability: The strategy is intended to be implemented over a short and medium period and reviewed to ensure a longer durability. This is due to the need to implement actions with the current technology and support the green transition, hence, the 2030 time horizon is the first to be considered. There are some actions in terms of electrification whose implementation will depend on technological development and may be fastened compared to current trends, in this regard national legislations may also have a positive or negative effect. Regarding complex processes (legal, implementation, etc.), a certain degree of simplification of said procedures may help shorten times in order to realize the FRAMESPORT's vision in line with EU and national strategies.

In terms of durability, the strategy will have to be monitored and updated: a table is provided to monitor and evaluate its implementation, while broad effects may also be assessed via interviews. The update may help look towards the **2050** horizon, a key milestone in terms of sustainability and development.

HOW CAN THE STRATEGY BE FINANCED?
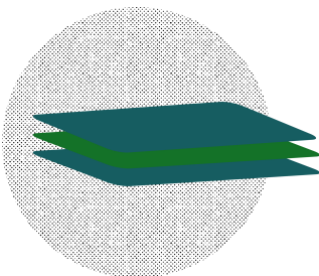
The implementation of the strategy represents an important financial effort, which shall not be covered by small port managements alone. In fact the added value it will represent for the connected territories and the national extension of the considered ports, ask for that effort to be shared. **This means that the planning of Regional/County financing over the next 10-15 years will have to take this aspect into account, while national financing may also be requested, especially in terms of support to cultural activities and environmental protection.** Further EU funds on selected actions can also be an important option to pursue.

Eventually, **public-private partnerships** and private sponsorships are also of extreme interest.

Ideally, the network built by FRAMESPORT is expected to help build partnerships and strengthen the relationships between level of governance, port managers and authorities to allow for the operative implementation, including financial aspects, of the strategy.

WHO SHOULD BE INVOLVED IN THE IMPLEMENTATION OF THE STRATEGY?

During the FRAMESPORT project it was possible to identify the main groups that shall participate in the implementation of the strategy, collaborating to build innovative shared solutions.

Governance and Management:
Ports Authorities/ Marinas management
Local Authorities
Regional Authorities
National Authorities
Mixed management private-public
Policy makers

The Governance of ports and linked territories is structured at multiple levels, all levels should be considered to ensure coherence between policies, legal and management tools.

The industry:
Nautical sector
Energy sector
Transport sector
Tourist sector
-Restoration
-Information
-Hotels

The industry needs to be involved in order to ensure that policies, planning and regulation consider the economic needs and technological advancements, also in order to support their implementation in regard to sustainable alternatives. Moreover, another interesting factor is represented by the development of local activities linked to the opportunities that the strategy has identified.

Research and Innovation:
Academia: e.g. university IUAV, Padova, etc.
Technology developers/providers

The local research can help decision makers supporting their choices with scientific evidence. In addition, it can provide support to development and connectivity but also to engagement with the public in terms of dissemination.

End Users
Boat Owners
Coastal tourists
Port inhabitants

End users should be main beneficiaries of the strategy, finding sustainable services better suited to their needs, and new opportunities in terms of touristic offer.

IN WHICH KEY AREA SHOULD THE STRATEGY ACT?

They focus on the sectors of the maritime economy, with particular reference to the themes of energy transition, sustainable tourism, intelligent mobility, computerisation of systems, circular economy and urban metabolism for a land-sea integration that enables coastal territories to respond to multiple environmental, social, cultural and economic challenges.
While there is a principle of transversality, a se of areas of intervention have been identified in order to simplify the strategic organization and readability of the strategy itself. The areas are:

1. Governance and Planning

The aspects of governance and management, including planning that shall be coherent across levels, scales, visions and timelines.

2. Tourism

The touristic sector includes its many and different aspects and stakeholders from culture, sport, catering, renting, etc. and geographical scopes in the inland, coastal and sea areas.

3. Maritime culture/identity and involvement of the population

The intangible aspects that define a community and an area, considering the ways of passing on a culture and promoting it.
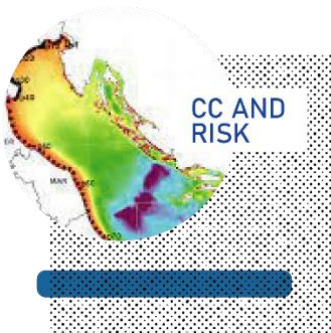

4. Landscape and heritage protection

The protection of tangible heritage, its promotion and sustainable use.

5. Green transition

Interventions that are linked to the European Green deal, ranging from decarbonization to zero pollution and circular economy, including new mobilities to enable the transition of small ports.

6. Climate Change and risk management

The management of risks, especially associated to climate change and sea level rise, including infrastructures and adaptation methods for coastal and port communities.

7. Coast and Water

The management of water and ecosystems and physical assets of the coasts to ensure high quality standards, also considering connectivity with river routes and land.

8. Maritime Transport

The maritime connectivity among ports, islands and interactions with large and small scale maritime flows (goods and people).

HOW TO REACH THE OBJECTIVES?

The FRAMESPORT STRATEGY has identified a set of actions. Different items have been contemplated, at several scales of actions, from national legislation to punctual design. The actions represents the practical implementation of the strategy and range from national and regional measure definition and institutional tables to suggestions in terms of promotion of activities, support to infrastructure innovation and ideas for public-private partnership.

They focus on the maritime sectors with different approaches including governance tools, trainings, partnerships, IT tools, etc.

A code has been assigned to each action to help its tracking and evaluation according to dedicated indicators. A level of priority has also been identified and assigned, to help the strategy implementers choose on which actions allocate resources and efforts.

The identified actions are rather broad and considered both Italian and Croatian needs, therefore the strategy implementer shall recognize which ones apply to its specific territory. This instrument will, hopefully, be appreciated by policy makers and decision takers and become a useful compass to set the path for small ports' sustainable development in the near future.

The actions are here listed with their code and a short description to offer a useful overview, more details per each action are accessible in the FRAMESPORT Strategy Document.
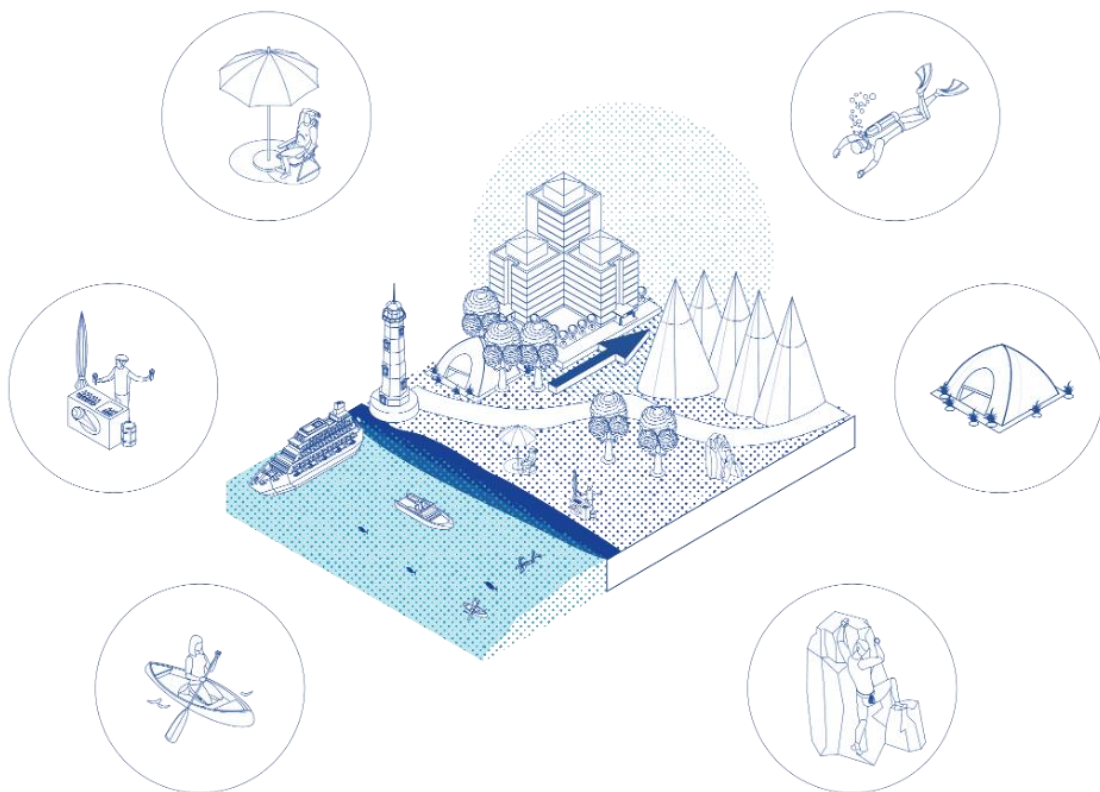
Code	Area/Name of the Action	Short description
Governance/planning (land/sea)		
GP1	State - Region table	Launch of a State-Region consultation table for an agreed, integrated and shared management.
GP2	Regional port system plan	Definition of a regional port system plan able to integrate major and minor ports.

GP3	**IT systems for management**	Adoption of IT systems to improve marina management and monitoring financial flows.
GP4	**Transboundary planning tool**	Promotion and development integrated transboundary planning tools.
GP5	**Governance for Green**	A set of regional and national measures should support green deal indications.
	Tourism	
T1	**Multi-use Platform**	Improvement of accessibility of end-users to the existing offer.
T2	**Diversified touristic offer**	Valorization and development of activities for a diversified, homogeneous and regionally structured tourist offer.
T3	**Territorial connectivity**	Improvement of territorial connectivity.
T4	**Chart of minimum services**	Creation of a Chart of Services for Small Ports in the Adriatic.
	Maritime culture/identity and involvement of the population	
MC1	**Training for traditions**	Implementation of training and education activities for the transfer of traditional skills.
MC2	**Connect ports with citizens**	Promotion of initiatives for the opening up of small ports and its activities to citizens.
MC3	**Reuse buildings**	Implementation of projects aimed at reusing abandoned buildings in small ports.
MC4	**Public-private partnership**	Ignition of Public Private Partnership programmes.
	Landscape and Heritage Protection	
LHP1	**Land preservation- natural buffer**	Ignition of awareness-raising initiatives to avoid the occupation of new land.
LHP2	**Management tools for coastal heritage**	Introduction of management tools for the protection and enhancement of coastal interconnection.
LHP3	**Heritage protection**	Promotion of infrastructural interventions for the conservation of the landscape and heritage.
	Green transition	
GT1	**Energy system**	Implementation of practical approaches to improve the energy system.
GT2	**Sectors transition**	Implementation of practical approaches to implement green transition.
GT3	**Information for transition**	Citizens should be informed of opportunities to contribute to the Green Deal.
GT4	**Green connectivity**	Improvement of land-coast connectivity.
	Climate change/risk management	
CCRM1	**Adriatic monitoring system**	Contribution to the existing Adriatic monitoring system.
CCRM2	**Infrastructure resilience**	Ensuring maritime accessibility and the resilience of port infrastructures to climate change.
CCRM3	**Climate mitigation**	Promoting the adoption of green corridors.

CCRM4	**Improve risk management**	Improvement of risk management through digitization.
	Coast and Water	
CW1	**Water quality monitoring**	Definition/improvement of water quality and environmental monitoring systems.
CW2	**Water economy**	In response to the water crisis, ensure best use of resources.
CW3	**Preserving coast-port asset**	Preservation and management of port-coastal assets.
CW4	**New life on water**	Promotion of new opportunities for living on water.
	Maritime transport	
MT1	**Harmonized transport flow**	Promotion of the integration of small port, regional and national flows for the management of transport flows.
MT2	**Innovative processes**	Small ports can work as promoters of social and productive innovation.
MT3	**Tracked transport**	Improvement of transport via digitalization.

FURTHER RECOMMENDATIONS

The target groups should also consider that continuous communication and stakeholder engagement are key to the strategy implementation. In this regard, a dedicated budget should be allocated as part of the "monitoring and adaptive management" section. This may also take the form of **training programs**, workshops, and knowledge exchange platforms to enhance the skills and expertise of individuals involved in the project.

Eventually, it would be useful to maintain the **collaborative approach** at **national** and **Adriatic level** that the FRAMESPORT project showed to be fruitful and effective. This could take the form of recurrent meetings, for instance held on an annual or biannual basis, to share the advancement of the strategy implementation, or employing **existing communication channels**, for instance the EUSAIR events and stakeholder platform.

Text References

De Martino, P., Hanna, J. M. K., & Hein, C. M. (2022). What Does Building Green Mean in Port Cities? PORTUSplus, 2022(14), 1-13. https://portusplus.org/index.php/pp/article/view/268/245

Hein, C. (2016). Port Cities: Nodes in the Global Petroleumscape between Sea and Land. TECHNOSPHERE MAGAZINE. Retrieved from https://technosphere-magazine.hkw.de/article1/a533bca0-08ba-11e7-b921-a58643285390

Hein, C. (2018). Oil Spaces: The Global Petroleumscape in the Rotterdam/The Hague Area. Journal of Urban history, Vol. 44(5), 1-43. doi:10.1177/0096144217752460

Moretti, B. (2020). Beyond the Port City: The Condition of Portuality and the Threshold Concept: JOVIS.

Notteboom, T., & Haralambide, H. (2020). Port management and governance in a post-COVID-19 era: quo vadis? Maritime Economics & Logistics, 22, 329–352. doi:https://doi.org/10.1057/s41278-020-00162-7

Raworth, K. (2018). Doughnut economics. Seven Ways to Think Like a 21st-Century Economist. UK: Random Uk.

Russo, M. (2016). Harbourscape: Between Specialization and Public Space. In M. a. R. Carta, D. (Ed.), The Fluid City Paradigm. Waterfront Regeneration as an Urban Renewal Strategy. Switzerland: Springer International Publishing.