

D.2.2. Local plans of action for Bulgaria, Georgia, Ukraine – version 02., June 2023
LOCAL PLAN OF ACTION FOR BULGARIA

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Burgas
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Deliverable D.2.2. – LOCAL PLANS OF ACTION FOR BULGARIA, GEORGIA, UKRAINE

LOCAL PLAN OF ACTION FOR BULGARIA

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1. INTRODUCTION

The development of a Regional Blue Growth Strategy including tailor – made Local Action Plans for target regions in Bulgaria, Georgia and Ukraine is carried out within the framework of the EMFAF-2021-PIA-FLAGSHIP project “DBAN - Digital Blue economy and innovation Acceleration Network”.

The project is implemented by a cross – border partnership led by the Burgas Municipality and composed of DIGIHUB, an NGO joint initiative of organizations from the public, private, non-governmental and the educational sectors in Burgas, IBEDC, an NGO established in Tbilisi as an innovative Business Support Organization and the Odessa State Agrarian University, a multidisciplinary institution of higher education.

According to the executive summary, the project idea was designed around the concept of establishing a regional blue growth acceleration network – based ecosystem which supports existing and emerging businesses and initiatives in the Blue economy sectors, building upon their potential for innovation, circular and bio-based solutions, as well as their capacity to contribute to the local/ regional sustainable development performance indicators.

The Needs Analysis which led to the project idea identified a series of gaps between research and entrepreneurship, between entrepreneurship and demand for innovation, between the needs of the sectors and the unexplored potential for partnership as well as between the potential of the blue economy sectors and the overall performance of the region in achieving environmental and sustainable development goals.

The gaps were confirmed by the research made in order to identify specific needs related to digitalization and use of innovative tools in order to improve the business environment and strengthen value chains. The approach consisted in a documentary phase followed by field research carried out by each partner based on answers provided by the stakeholders to a set of questionnaires.

There were three major groups of stakeholders belonging to business sector, public sector and NGOs and R&D organizations related to established blue economy sectors of fishing, aquaculture, maritime transport, and maritime tourism.

Based on the analysis of the received answers, the main identified gaps were:

- between the existing and the required capacity about smart business specialization
- the existing support services for enterprises and the actual needs of different blue economy sectors doubled but distorted or insufficient communication
- between the skills of graduates and the actual requirements on the labour market

- between the actual skills of employees and the new requirements generated by technological improvements and innovative processes
- between current managerial skills and the need of strategic thinking in a more and more competitive environment
- between the financing needs of both R&D and private sector in order to have access to state of the art equipment and technologies
- between the regulatory framework and the actual possibility of the private sector to comply with legal requirements especially when they involve sudden digitalization of processes.

The scope of this endeavor is to provide guidelines towards filling the gaps while considering the existing Local Action Plans of Municipalities in the target regions focusing on modernization and innovation of local value chains in the sectors of aquaculture and fishing, maritime transport, and maritime tourism.

1. BLUE GROWTH AND SMART SPECIALIZATION

According to the authors of the Blue Growth and Smart Specialization JRC Technical Report¹, the principles of Smart Specialization are valuable when implementing Blue Growth, an integrated approach towards stimulating the maritime economy. Both concepts pay considerable attention to **innovation, young firm formation, bottom-up approaches and value chains**.

Blue Growth is a concept which is used by the European Commission (DG MARE) to express the potential of Europe's oceans, seas and coastal areas for jobs and economic growth. Blue Growth is seen as an innovative way to develop a range of maritime activities that are often dependent on each other because they rely on common skills and shared infrastructure. Innovation is seen as a crucial factor for all sectors of the blue economy.

The concept of blue growth emerged from the need to overpass the problem that maritime economic activities cannot be sufficiently captured through a sectoral approach. Shortly after its launch, the Blue Growth concept obtained substantial momentum after its recognition through the Limassol Declaration (October 2012)².

Blue Growth' general aim is to promote smart, sustainable, and inclusive growth and jobs in Europe's maritime economic activities, both in the short, medium- and longer term.

¹<https://s3platform.jrc.ec.europa.eu/documents/20125/248836/Blue+Growth+and+Smart+Specialisation.pdf/f2ed7c31-80b0-a62b-e4b7-7e7e8a192085?t=1621268542601>

² <https://maritime-forum.ec.europa.eu/en/node/3060>

Specific objectives encompass promoting synergies and fostering framework conditions in support of specific maritime economic activities and their value chains, with a particular focus on activities in the development / pre-development stage. As it is targeting the level of sea-basins, maritime clusters and localities, the concept is suited for regional strategies approach.

About the same time as Blue Growth concept gained importance, **Smart Specialization** had become a crucial concept in EU regional development. The notion of Smart Specialization describes the capacity of an economic system to generate new specialisms through the use of existing resources.

The Smart Specialization agenda responds to the need for transformation and modernization of the economy. It does so by exploring and exploiting (cross-cutting) niches of excellence, which requires integrated policy approaches. S3 is about developing new specialties to “maximize diversified specialization to gain competitive advantage” through a dynamic approach, by focusing on modernization and innovation of local value chains.

Even though Smart Specialization and Blue Growth have many commonalities such as **the focus on economic activities rather than sectors and the integrated approach**, it is important to review the two concepts together, and notably by identifying how the principles of Smart Specialization can be used to stimulate the maritime economy, creating more critical mass in distinctive domains of R&I.

Most studies on Blue Growth and Innovation or marine and maritime related Smart Specialization operate with the concept of **maritime functions** and acknowledge six such functions further on divided into a range of more detailed maritime economic activities.

The maritime functions are:

Maritime transport and shipbuilding

Food, nutrition, health, and eco-system services

Energy and raw materials

Leisure, working and living

Coastal protection

Maritime monitoring and surveillance.

An overview of the marine functions and associated activities is presented in the table below:

Table 1 - Overview of functions and maritime economic activities

Maritime Function	Activities	Description
1. Maritime transport and shipbuilding	1.1 Deep Sea shipping	International (freight) transport by sea with large vessels that often sail fixed routes (containers, major bulks) or tramp shipping.
	1.2 Short-sea shipping (incl. RoRo)	National and international freight transport within Europe and to/from neighbouring countries with medium sized ships. The same segments are found as under deep sea shipping.
	1.3 Passenger ferry services	Transporting passengers on fixed sea routes, national and international. Mainly intra-European. Sometimes this is combined with RoRo transport.
	1.4 Inland waterway transport	Freight transport on inland waterways in Europe, consisting of both fixed link services and tramp services.
2. Food, nutrition, health and eco-system services	2.1 Catching fish for human consumption	Extracting wild natural resources (i.e. fish, crustaceans, mollusks, algae, etc.) for human consumption. The final product is either raw or processed fish.
	2.2 Catching fish for animal feeding	Extracting wild natural resources (essentially fish) for animal consumption. The final product is mainly fishmeal and fish oil, which can be used by agriculture and aquaculture.
	2.3 Marine aquatic products	Farming of aquatic organisms, mainly for human consumption (mainly fish and mollusks)
	2.4 Sea salt extraction and production	Black Sea salt extraction and production at Black sea Salinas
	2.4 Blue biotechnology	Using wild and farmed aquatic living resources as precursors of bio-molecules used for high value products (health, cosmetics, etc.).
	2.5 Agriculture on saline soils	Development of agriculture on saline soils, through improving existing crops or adapting salt tolerant plants.
3. Energy and raw materials	3.1 Oil and gas	Extraction of liquid fossil fuels from offshore sources

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	3.2 Offshore wind	Construction of wind parks in marine waters, and exploitation of wind energy by generating electricity offshore
	3.3 Ocean renewable energy	Offshore development and exploitation of a variety of renewable energy sources excluding wind, including wave energy, tidal energy, Ocean Thermal Energy Conversion, Blue energy (osmosis) and biomass.
	3.4 Carbon capture and storage	Capture of CO ₂ at large emitters and ship these to empty offshore fields and other favourable geological formations for long term storage as a means to contribute to sustainability targets.
	3.5 Aggregates mining (sand, gravel, etc.)	Extraction of marine aggregates (sands and gravels) from the seabed.
	3.6 Marine minerals mining	Deep sea mining of raw materials other than aggregates., including critical materials which have a risk of supply shortage
	3.7 Securing fresh water supply (desalination)	Desalination of sea water for fresh water usage (agriculture irrigation, consumer & commercial use)
4. Leisure, working and living	4.1 Coastal tourism	Shore based sea related tourist and recreational activities
	4.2 Yachting and marinas	Construction and servicing of seaworthy leisure boats and the required supporting infrastructure including marina ports.
	4.3 Cruise tourism	Tourism based on people travelling by cruise ship, having the ship itself as their home base of holidays and making visits to places passed during the trip
	4.4 Working	Employment and economic activities taking place in coastal regions
	4.5 Living	Residential functions and associated services in coastal regions
5. Coastal protection	5.1 Protection against flooding and erosion	Monitoring, maintaining and improving the protection of coastal regions against flooding and erosion.
	5.2 Preventing salt water intrusion	Measures associated with coastal protection works aiming at the

		prevention of salt water intrusion as a measure to protect fresh water functions in coastal regions.
	5.3 Protection of habitats	Measures associated with coastal protection works aiming at protecting natural habitats.
	6. Maritime monitoring and surveillance	
	6.1 Traceability and security of goods supply chains	Equipment and services used for security purposes in the field of maritime transportation.
	6.2 Prevent and protect against illegal movement of people and goods	Monitoring and surveillance of the EU coastal borders using a variety of services, technologies and dedicated equipment.
	6.3 Environmental monitoring	Marine environmental monitoring is not a clear-cut function. It may cover water quality, temperature, pollution, fisheries etc.

In this context, a legit question arises: Which maritime economic activities can be considered innovative?

The JRC study on blue growth and smart specialization³ made an analysis of the innovative potential of components of marine functions based on the idea that the components that are more mature are less susceptible to produce innovation while the components that are in the development phase are expected to strongly impact on innovation.

Using a set of indicators consisting of innovativeness, competitiveness, employment creation, policy relevance, spill – over effects and sustainability, the components that score the most were:

2.3 Growing aquatic products

2.4 High value use of marine resources (health, cosmetics, well-being, etc.)

3.1 Oil, gas and methane hydrates

3.2 Offshore wind energy

3.3 Ocean renewable energy resources (wave, tidal, OTEC, thermal, biofuels, etc.)

3.4 Carbon capture and storage

3.6 Marine mineral resources

4.2 Yachting and marinas

³ De Vet J-M., Edwards J., Bocci M. (2016), Blue Growth and Smart Specialization: How to catch maritime growth through 'Value Nets', S3 Policy Brief Series No. 17/2016

4.3 Cruise including port cities

5.1 Protection against flooding and erosion

6.1 Traceability and security of goods supply chains

6.2 Protect against illegal movement of people and goods

6.3 Environmental monitoring.

Even though none of the components of the established sector of maritime transport and shipbuilding or the classical coastal tourism appeared to be among the innovation driven sub-sectors, it is important to keep in mind that there is need to combine innovative activities with existing activities in order to take advantage of critical mass and the knowledge basis existing in each region.

Besides working with the concept of maritime functions, both Blue Growth and Smart Specialization operate with the concept of **value chains**. The core activities for each maritime economic activity are surrounded by both upstream and downstream activities. Upstream of the value chain are suppliers of equipment and resources, who may also have their suppliers. Downstream are processing sectors and subsequently distribution and sales.

In most cases, both upstream and downstream there are land - related and land – based activities.

Under the circumstances, the **value net** concept proved to be useful. This is an analysis of social and technical resources within and between businesses. In such a network, there is a system of connected nodes, either people or role, that work together to produce and distribute goods and services.

Looking at the various components of maritime functions as networks rather than linear chains, has certain advantages concerning aspects of innovation and smart specialization. The process of innovation and entrepreneurial discovery is interactive, and cannot be captured through a linear downstream analysis. Introduction of enablers such as new technologies (e.g. digital technology, biotechnology, nanotechnology) and support services into existing value chains is a crucial aspect of smart specialization. It is also important to acknowledge the framework conditions upon which development of maritime economic activities depends, such as the need for ports but also new infrastructures such a smart grids and multi-purpose offshore platforms.

But most important, value networks are how ideas flow into the market and to the people that need to hear them. Due to the peculiarities of marine areas, many of them being peripheral locations, it is crucial that actors in the maritime economy can benefit from their own activities. And, in order to succeed, knowledge must be shared to create the best situations or opportunities.

There are different ways of creating “Blue value nets”:

Expanding nets through suppliers and enablers consisting of either connecting several value chains (marine and/or non – marine) or use enabling activities from another field (e.g. from IT, biotechnology or nanotechnology) into an existing maritime activity.

Sharing expensive infrastructure such as ports, platforms, research facilities including exploration vessels.

Building Blue Clusters and Networks.

The ideas will be further explored in the context of the local action plans.

2. THE REGIONAL STRATEGIC FRAMEWORK

2.1. COMMON MARITIME AGENDA FOR BLACK SEA

The Common Maritime Agenda (CMA) for the Black Sea⁴ is a sea basin initiative to enhance regional cooperation for achieving a sustainable Blue Economy in the Black Sea. It is developed in the broader framework of the Black Sea Synergy⁵ and is complemented by its scientific pillar, the Strategic Research and Innovation Agenda for the Black Sea (SRIA).

Born as a partnership between the seven bordering countries: the Republic of Bulgaria, Georgia, the Republic of Moldova, Romania, the Russian Federation, the Republic of Türkiye and Ukraine, CMA was endorsed on May 21, 2019 as a follow up to the commitment of the 2018 Burgas Ministerial Declaration “Towards a Common Maritime Agenda for the Black Sea”.

The participation of the Russian Federation in the CMA as well as all forms of co-operation with the regional and national Russian stakeholders has been suspended as a result of Russia’s unprovoked and unjustified military aggression against Ukraine.

There are three main goals established and further developed into ten priorities as it follows:

Goal 1 - Healthy marine and coastal ecosystems

Priority 1: Ensure the protection and sustainability of the marine ecosystem

⁴ <https://black-sea-maritime-agenda.ec.europa.eu/>

⁵ https://www.eeas.europa.eu/eeas/black-sea-synergy_en

Priority 2: Address marine pollution and plastic litter

Priority 3: Support sustainable fisheries and aquaculture in the Black Sea

Priority 4: Supporting innovative marine research infrastructures in the Black Sea

Priority 5: Encourage the production, management and sharing of marine and coastal environmental knowledge for effective environmental monitoring and observation

Goal 2 - A competitive, innovative and sustainable blue economy for the Black Sea

Priority 1: Foster innovative business models, stimulate research and innovation, and sustainable growth and up-to-date jobs

Priority 2: Promote transport and digital connectivity of the Black Sea

Priority 3: Promote blue skills and blue careers as an engine for innovation and competitiveness

Goal 3 - Fostering Investment in the Black Sea blue economy

Priority 1: Improve access to financial resources and promote sustainable investment in the Blue economy

Priority 2. Promote maritime entrepreneurship and clusters.

The key concept behind CMA is regional co-operation in connection with European policies and funding mechanisms. The political coordination is provided through ad hoc Ministerial meetings, while the operational coordination is ensured through a CMA for the Black Sea Steering Group. Technical assistance is provided to the Steering Committee through the Black Sea Assistance Mechanism (BSAM). BSAM offers participating countries practical support to help meet the blue economy goals of the Common Maritime Agenda for the Black Sea.

The Agenda is funded by channeling and coordinating existing international, EU, regional and national funding, and by attracting private investments relevant to the three Agenda goals.

2.2. THE BLACK SEA STRATEGIC RESEARCH AND INNOVATION AGENDA (SRIA)

The development of the Black Sea Strategic and Innovation Agenda (SRIA) is a follow up of the *Burgas Vision Paper*.⁶

⁶ Burgas Vision Paper : https://ec.europa.eu/maritimeaffairs/maritimeday/sites/mare-emd/files/burgas-vision-paper_en.pdf presented on the occasion of the European Maritime Day in May 2018

The Initiative has identified four main pillars on which a new set of research and innovation actions can be developed:

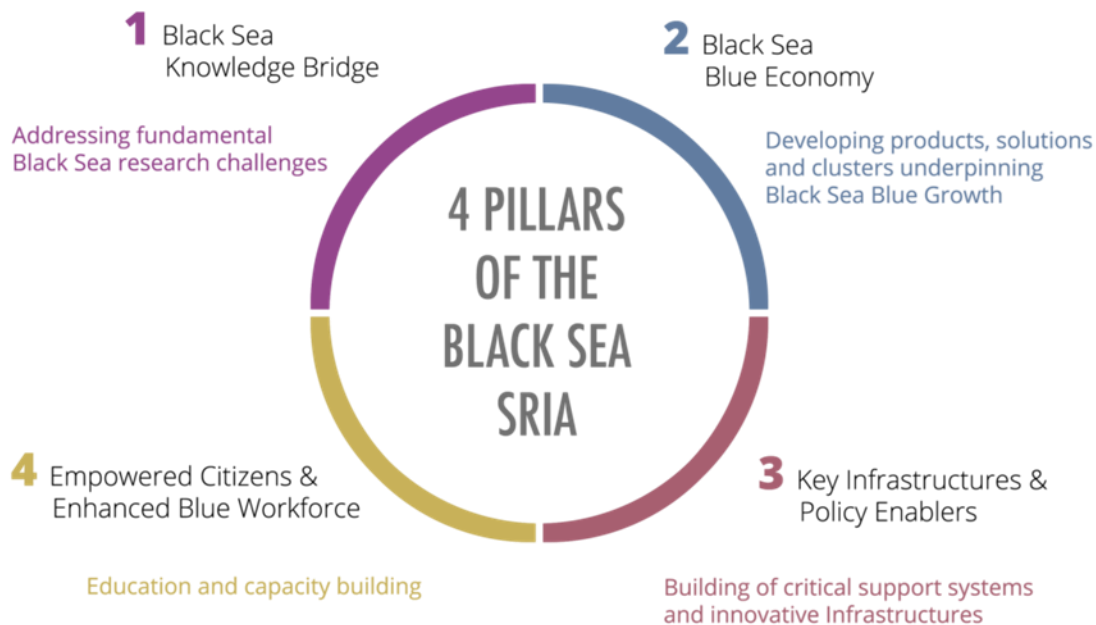
Addressing fundamental Black Sea research challenges - Black Sea Knowledge Bridge

Developing products, solutions and clusters underpinning Black Sea Blue Growth - Black Sea Blue Economy

Building of critical support systems and innovative Infrastructures - Key Joint Infrastructure and Policy Enablers

Education and capacity building - Empowered Citizens and Enhanced Blue Workforce.

Figure 1 – The four main pillars of the Black Sea SRIA based on the *Burgas Vision Paper*



Source: <http://connect2blacksea.org/the-sria/>

As there is synergy between SRIA and CMA, SRIA defines goals further on divided into actions for each of the four pillars as it follows:

Pillar 1 – Black Sea Knowledge Bridge – main goals:

Developing innovative multi-disciplinary research, building on existing initiatives, including data sharing mechanisms that will generate the knowledge needed to increase ecosystems resilience

Providing new knowledge to mitigate the impacts of global climate change and the multiple environmental and anthropogenic stressors in the Black Sea from land-sea interface to the deep basin

Pillar 2 - Developing products, solutions and clusters underpinning Black Sea Blue Growth – main goals:

Supporting marine and maritime research and innovation domains of all the Black Sea countries to create synergy, increase economic benefits, reduce hazards in service of prospering, resilient and empowered communities deriving interest from the Black Sea basin

Creating incentives for maritime innovation in existing and new, emerging blue economy sectors

Pillar 3 - Building of critical support systems and research infrastructures for the benefit of Black Sea communities – main goals:

Developing smart, integrated observing and monitoring systems in support of addressing scientific and socioeconomic challenges of the Black Sea, towards governance for a sustainable ecosystem, mitigation of climate change impacts, and accurate forecasting for adaptive management

Advancing a harmonised set of working methodologies, standards and procedures on all aspects of coastal and marine research

Developing new marine based technologies by benefiting from the fourth industrial revolution for the Black Sea to promote safe and sustainable economic growth of the marine and maritime sectors, the conservation and valorisation of marine cultural heritage

Mechanisms to create, support and promote start-ups oriented towards the circular and blue economy in the Black Sea region

Pillar 4 - Education and capacity building – main goals:

Supporting formal and informal learning, education, training and use of knowledge and technologies for established and emerging marine and maritime jobs

Empowering ocean-engaged citizens contributing to a clean, plastic free, healthy and productive Black Sea

Contributing to enhanced science policy dialogue in formulating coastal and marine policies and programmes.

Started as a process in 2017, SRIA is heading towards a new stage with the presentation of the Implementation Plan which is scheduled for May 4, 2023 in Brussels.

Both the CMA and SRIA encourage national initiatives and projects that are complementary to enhancing regional dynamics, promoting blue economy regional value chains, and untapping investment opportunities.

3. METHODOLOGY OF ANALYSIS

Field study The "blue growth and smart specialisation strategy aims at sustainable territorial development of the coastal zone by initiating, supporting and integrating the efforts and activities of all stakeholders to achieve the strategic goals. The development of alternative forms of tourism is considered as a diversified activity of significant importance on the territory of the municipality of Burgas. This implies an analysis of the attitudes of the local population, the municipal administration and the local communities for the development of activities other than fishing and more specifically tourism activities. In this way, the local participants are given the opportunity to discuss the problems of the respective area, the opportunities for the development of sustainable diversified activities and to support the development of development ideas. The main goal of the field study is to analyze the attitudes of representatives of local businesses related to the development of fisheries, of representatives of the public administration and scientific circles for the development of activities within the scope of the blue economy (including tourist activities) within on the territory of the municipality of Burgas and in connection with the identification of priorities of the Strategy and local action plan for Blue growth and Blue economy smart specialisation. The object of the field studies are representatives of the following target groups:

- Administration representatives. Municipal administration and IARA
- Representatives of fisheries-related businesses. The study covers economic entities with a main subject of activity such as: port administration; fisheries and aquaculture; maritime transport; repair of boats and marine related equipment; manufacturing of metal products; glass production; maritime transport services; trade in petroleum products; consulting activity; construction; trade; staff training; information services, etc.
- Representatives of the scientific community Higher education institutions registered on the territory of Burgas municipality, scientific organizations University "Prof. Dr. Asen Zlatarov" Burgas Free University
- Representatives of NGOs The studied representatives of civil society structures are mainly representatives of associations with public benefit. The study also covers representatives of foundations, as well as associations for private benefit Research strategy - the research strategy used is descriptive, the basic task of which is to determine the attitudes of the local communities within the territory of the municipality of Burgas and in connection with the identification of priorities of the Strategy for "blue growth". The data were collected by filling in a questionnaire made for the purposes of the study from a representative sample of the above target groups. Following the aim of the study to analyze and evaluate the attitudes of the local population and local communities for the development of the "blue growth" strategy within the territory of the municipality of Burgas, three sections of factors have been identified, which include various factual and

evaluative questions, namely: - Section 1 - "Capacity for the development of blue growth in the municipality of Burgas". "Capacity for the development of blue growth" means a generalized assessment of the economic, natural and social conditions for the development of activities within the scope of blue growth (including infrastructure provision and environmental assessment). This also refers to the ability of economic actors to make decisions and carry out activities contributing to the sustainable development of coastal areas. The study of "capacity" implies analysis at different levels. At the municipality level, when analyzing business capacity, the abilities, qualifications and experience of business entities to initiate activities related to the development of the fishing area, their motivation for cooperation are also assessed. Section 2 - "Cooperation" - analysis of the relationships between the countries interested in the development of blue growth. - Section 3 - "Opportunities for the development of activities within the scope of blue growth" (focus on alternative forms of tourism). The main methods for analyzing the information from the survey are: statistical grouping (using a tabular and graphic method) and statistical analysis (analysis of the distribution of the units according to the characteristics we are interested in).

The statistical processing of the information was carried out with Microsoft Excel.

Chapter 7: Evaluating the results of the analysis Presentation and assessment of the results of the analysis, SWOT analysis 7.1. Section 1. "Capacity for the development of blue growth" In this section, the strategic importance of basic economic activities in the scope of blue growth for the development of the studied territory of the municipality of Burgas is assessed from the positions of each of the studied interested parties: business; representatives of scientific circles; NGOs and local administration. With a separate block of questions, the ecological and administrative capacity for the development of the territory was analyzed.

Diagram 1 presents summarized assessments of the importance of economic activities for the strategic development of the municipality of Burgas.

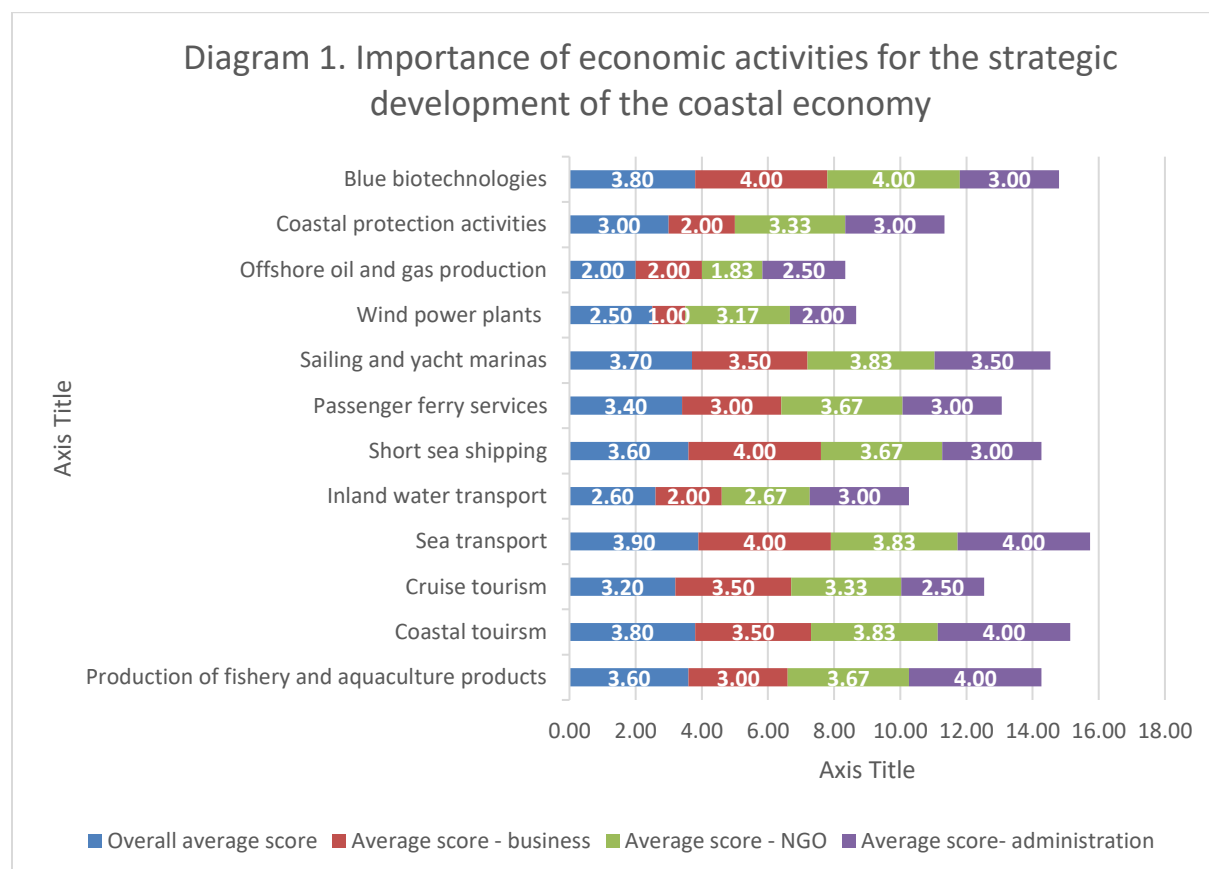
According to all respondents, **the following activities are of primary importance for the strategic development of the municipality:**

- Coastal tourism (including hotel and restaurant business, tourist agency activity and others within the scope of the coastal zone).
- Sea transportation;
- Blue biotechnologies
- Sailing and marinas.

Relatively highly rated by all target groups are activities such as:

- Production of fishing and aquaculture products;
- Short distance shipping;

- Passenger and ferry services;
- Cruise tourism;
- Coastal protection activities



The closeness of the average assessments of the importance of economic activities for the strategic development of the municipality is striking. This can be interpreted in a way that the respondents do not favor one or another economic activity, but are clearly aware that economic development is possible through the integration of a wide range of businesses, which are often linked to each other like vessels. On the one hand, this is good in periods when several economic activities begin to develop more rapidly, because their development will stimulate interconnected industries. In periods of crisis, the opposite effects can be expected - with weak diversification and strong interdependence between economic activities, stagnant effects can be multiplied.

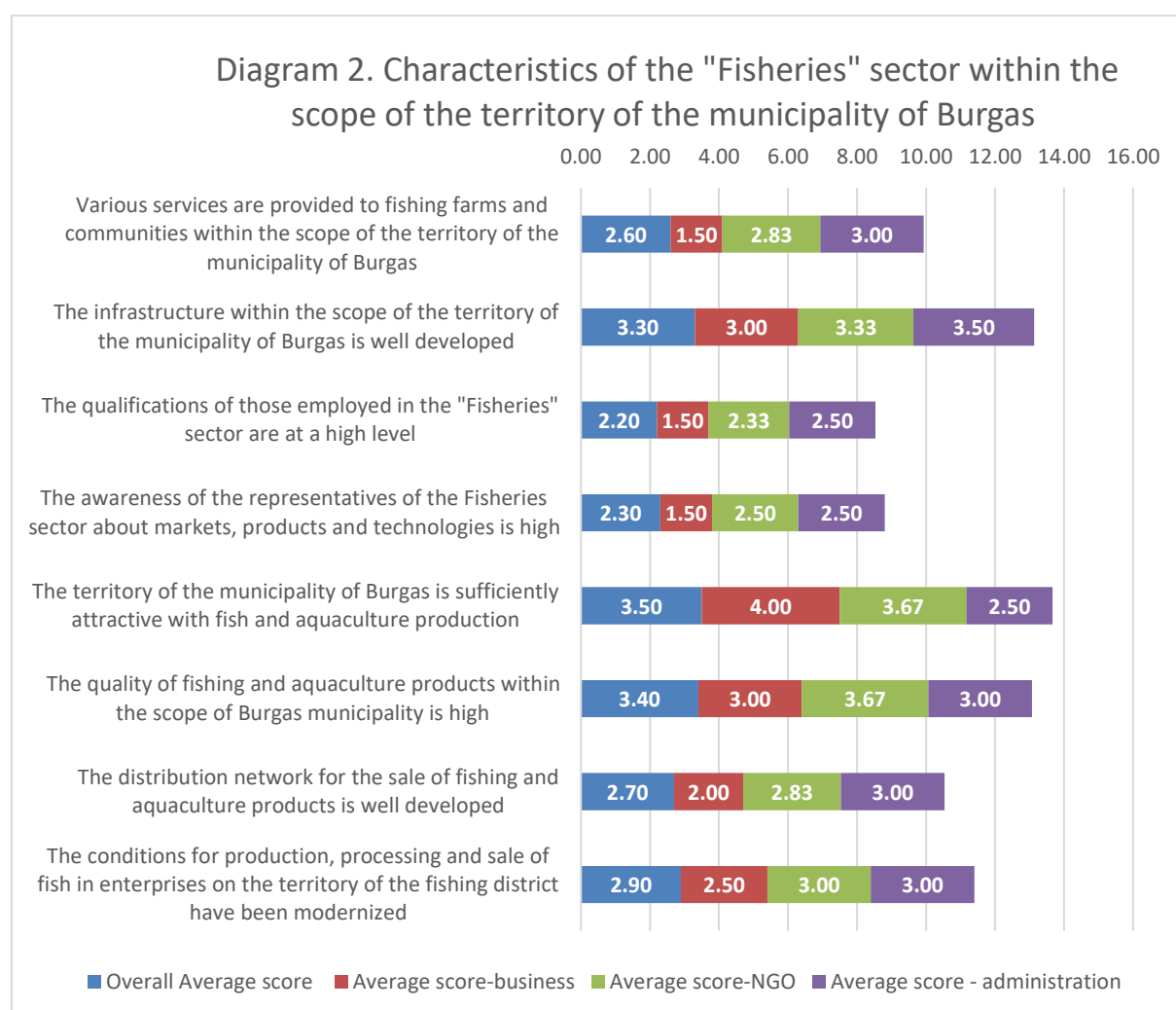
As part of the analysis of the capacity of the territory of the municipality of Burgas for the development of the blue economy, key characteristics and factors affecting fisheries have been studied. The analysis of the characteristics was carried out by means of statements for which each of the representatives of the studied target groups was asked to assess

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the degree of agreement (respectively disagreement) whether they refer to the territory of the studied municipality.

The summary ratings are presented in Chart 2. The rating scale used is from 1 to 4, where 1 is strongly disagree and 4 is strongly agree. The evaluations of each of the statements included in the analysis are in the range from 2.20 to 3.50 and the characteristics that the surveyed persons consider to be highly relevant to the fisheries of the territory are the production and quality of fish and aquaculture (3, 40) and the infrastructure within the scope of the territory (3,30). The qualifications of those employed in the "Fishing" sector and their awareness of markets, products and technologies were rated the lowest (average scores 2.20 and 2.30).



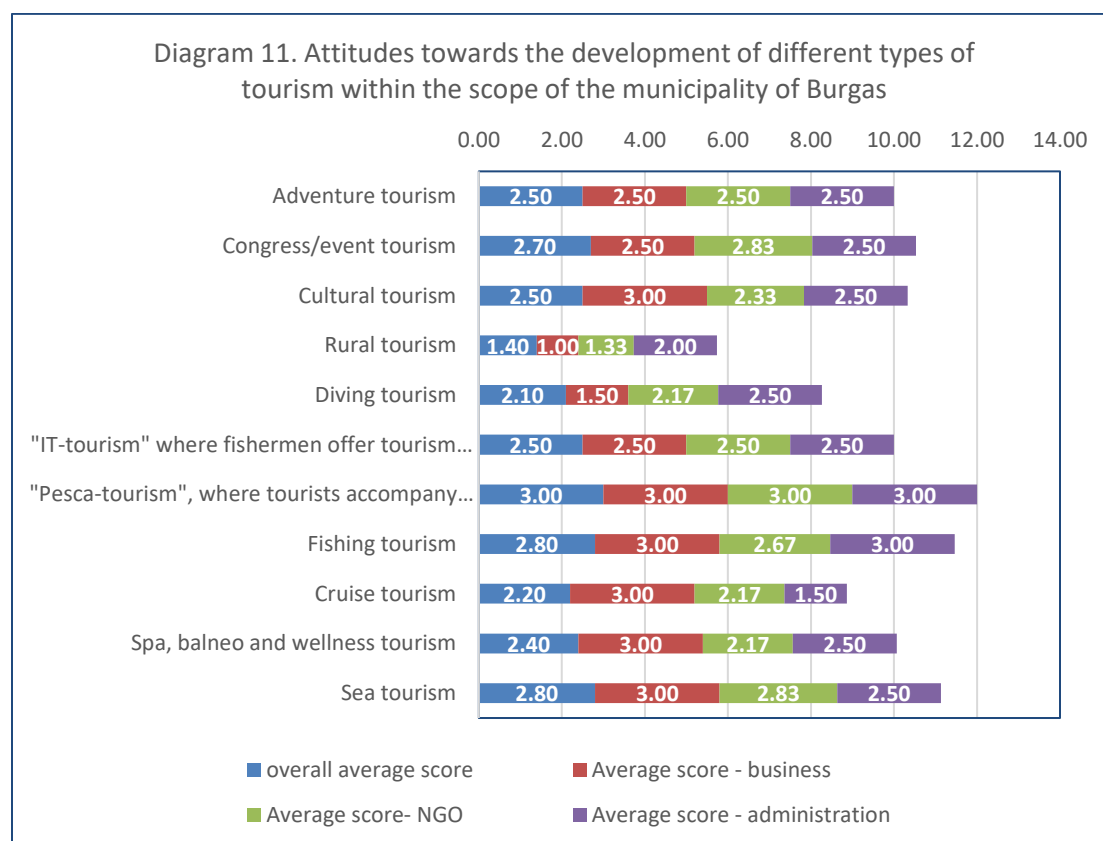
The majority of the surveyed persons believe that it is "rather necessary" and "necessary to a high degree" to stimulate the development of activities other than fishing on the

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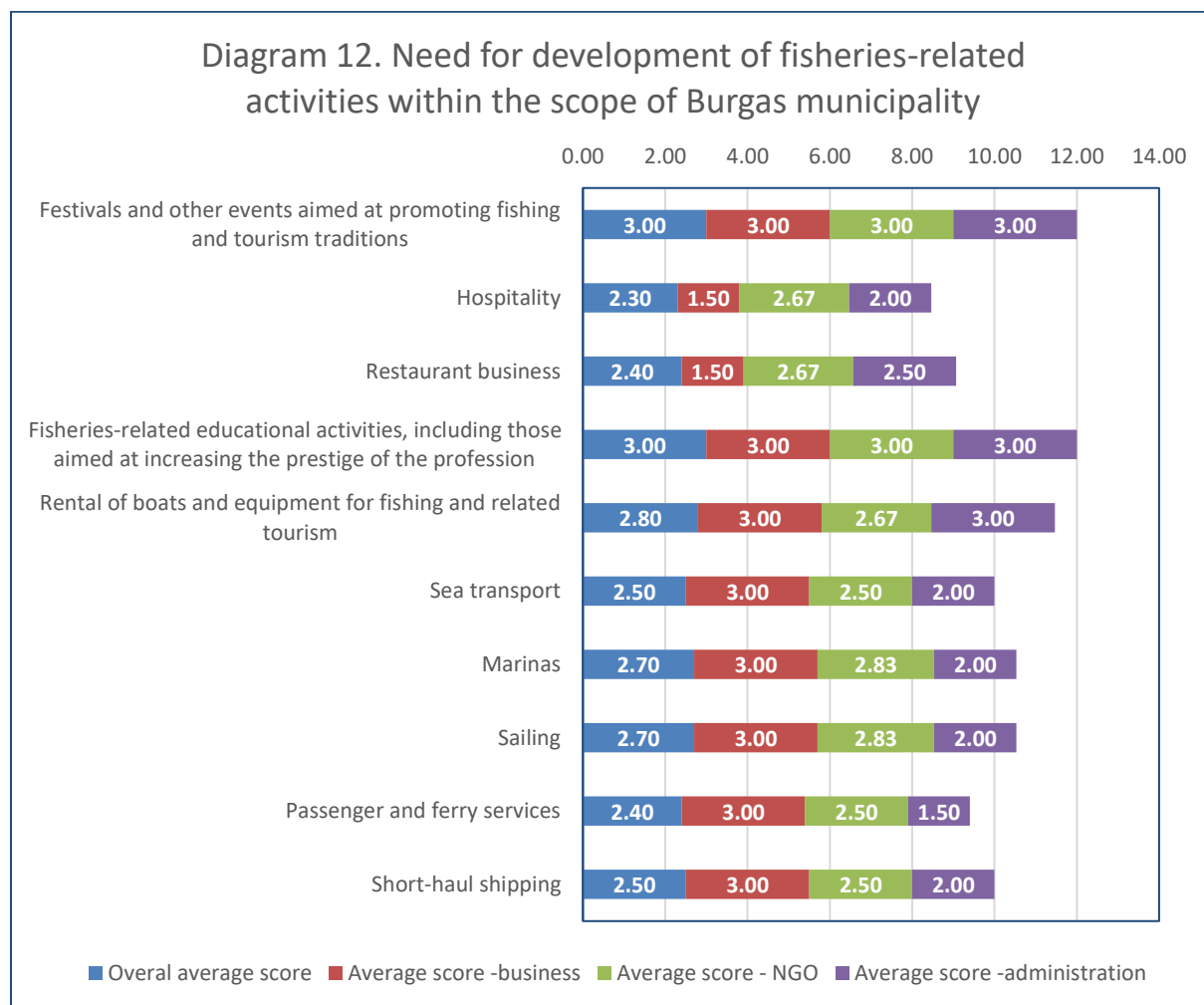
territory of the municipality. Of interest is the priority given by the target groups to the development of different types of tourism (Diagram 11). At the highest level, according to the surveyed representatives, "sand - tourism", marine, fishing, and congress/event tourism should be developed. Cultural, adventure, IT-tourism and spa and wellness tourism are indicated to a lesser extent. Rural tourism is expected to have the lowest rating, due to the specificity of the territory of the municipality. Substantial attention paid to alternative forms of tourism, such as the so-called "sand - tourism" (tourists accompany professional fishermen during fishing) to "iti tourism", where fishermen offer tourist services related to their traditional way of life, implies a serious activity on segmenting the market and finding the so-called "tribes", i.e. potential tourists with particular behavioral and psychological characteristics, who would choose the destination Burgas municipality because of (or in combination with other types of tourism) the opportunity to get up close and personal with the traditional way of life of fishermen or would be inclined to accompany fishermen while fishing. Relatively less importance is given to spa, cruise, diving and convention tourism, although such a conclusion is too tentative.

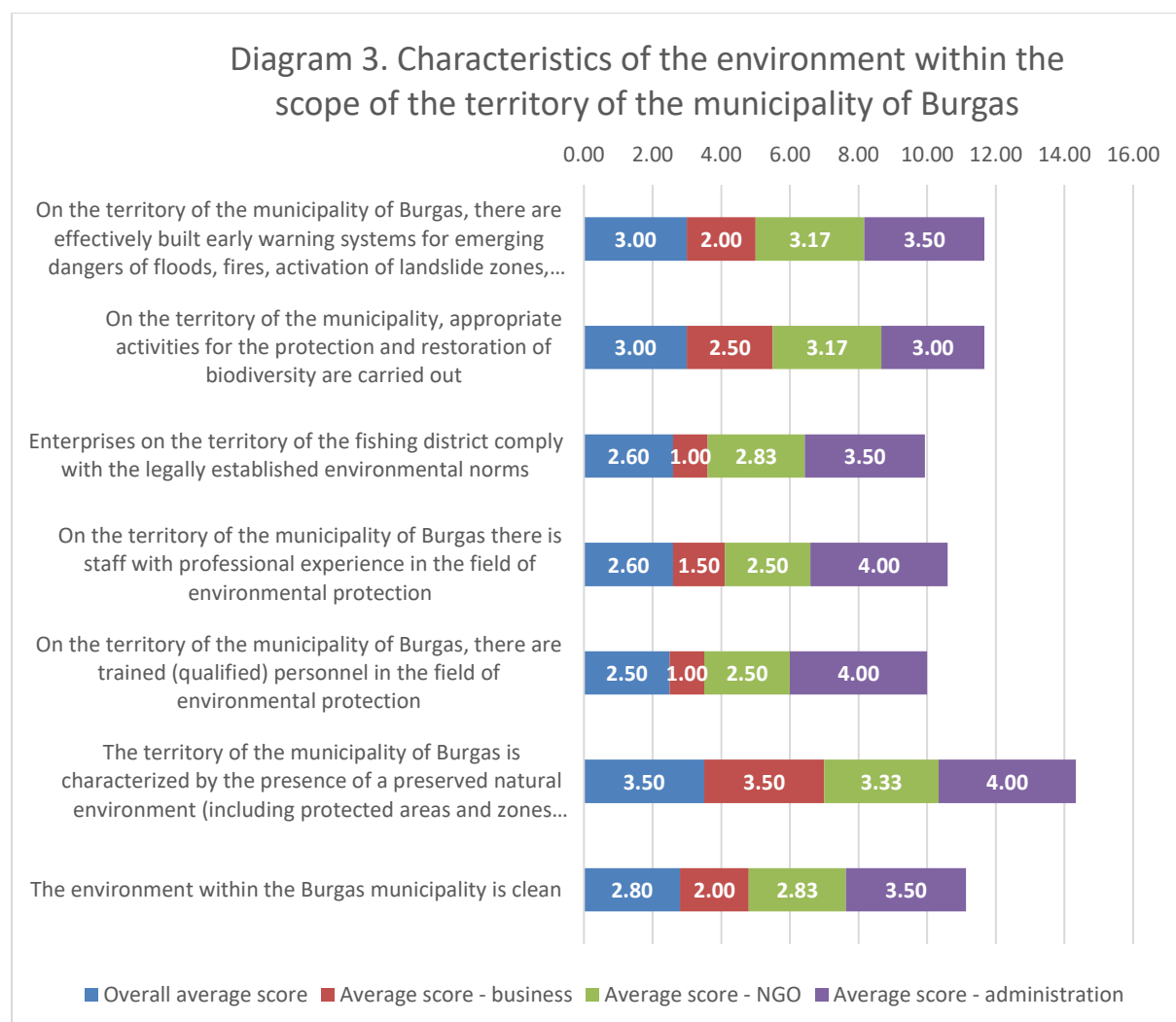
The importance of these types of tourism is assessed differently by different target groups. It can be concluded that it is more important to offer a complex tourist product on the territory of the municipality, with the possibility of satisfying the demand of different target groups of tourists. This can be achieved by offering various fisheries-related activities and services on the territory of the municipality.



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The representatives of the researched target groups were asked the question to what extent they consider it necessary (not necessary) to develop activities that would be relevant as fisheries-related services. The results are summarized in Diagram 12. The estimates from the business representatives are close and rather high for all listed types of activities, with the exception of hotels and restaurants. Particular interest is observed in relation to fisheries-related educational activities, including those aimed at increasing the prestige of the profession (average score 3.00), in terms of festivals and other events aimed at promoting fisheries and traditions (average score 3.00) and the rental of boats and other equipment for fishing and related tourism (average score 3.00) and the rental of boats and other equipment for fishing and related tourism.





The summarized conclusions related to the development of the territory of the municipality of Burgas are as follows:

1. The researched target groups attach the greatest importance to the development of the territory of Burgas municipality to **coastal tourism** (including hotel and restaurant business, tourist agency activity and others within the scope of the coastal zone), **sea transport, blue biotechnologies and sailing and marinas**. The results for the degree of importance of the studied areas of economic activity are relatively close, and yet different target groups place different emphasis on priority areas.
2. As key factors affecting the development of the municipality and activities within the scope of blue growth, a number of infrastructure activities related to the exploitation of coastal areas, rehabilitation of roads, reservoirs, etc. are outlined.

3. A predominant part of the representatives of all investigated representatives of target groups believe that activities other than fishing should be actively developed on the territory of the municipality.

Priority on the part of all target groups is placed on educational activities related to raising the prestige of the profession, organizing festivals and other events.

4. Different target groups have different benefits from cooperation in the implementation of the blue growth strategy. The following directions are of essential importance: personnel training; the access to information about different sources of funding and the development of projects under European programs, the computerized management of processes and information about the potential, risk and market trends.

5. Priority is given to the development of "sand - tourism", marine, fishing, and congress/events. Cultural, adventure, IT-tourism and spa and wellness tourism are indicated to a lesser extent.

6. The capacity of the municipality of Burgas for the development of tourist activities is assessed as very high or rather high.

7. Villa villages, campsites and business hotels are taking shape as preferred sites.

8. The profile of current tourists visiting the municipality of Burgas for the purpose of fishing is: predominantly from the Burgas region and the country, aged 36-45 and 46-65 years; traveling individually or groups of friends; overnight stays most often 3-4 nights.

Future growth could be boosted if Bulgaria takes the steps to become a knowledge economy, with high value-added products and services in industries where the country already has some competitive advantages. Smart specialization involves a process of developing a vision, identifying competitive advantage, setting strategic priorities and making use of smart policies to maximize the knowledge-based development potential of any region, strong or weak, hightech or low-tech

KEY FINDINGS: (4BIZ Project Country Report Bulgaria)⁷

As a result of the mapping of the companies in three sectors, the following needs have been identified:

- Lack of suitable **marine infrastructure**;
- Lack of **qualified specialists** with new skills for the blue economy;
- Need to raise awareness and promote blue career opportunities among young people;

⁷ <https://black-sea-maritime-agenda.ec.europa.eu/black-sea-success-story-4biz-boosting-blue-economy-black-sea-region>

- Insufficient **coordination and lack of procedures** in the case of natural disasters and accidents at sea;
- Availability and quality of marine research data is not sufficient;
- **Need for better collaboration between business and academia** for the commercialisation of research results but also for solving business challenges;
- There is **need for the development of Short Sea Shipping and related multimodal transport**;
- **Lack of sufficient support for digitalisation of the maritime businesses**;
- Need for support for establishing **new business contacts** and entering new markets.

KEY RECOMMENDATIONS TO THE POLICY MAKERS

Key recommendations are mainly related to establishing common strategic approach for the Blue Economy.

The main recommendations in this regard is to develop a National strategy for sustainable blue economy.

There is also a need for larger consensus on regional level for the development of the Blue economy as a strategic priority.

4. SWOT ANALYSIS. PRIORITIES

The choice of priorities to be further developed within the Local Action Plans (LAPs) is based on the Black Sea Region's strengths and opportunities, taking challenges and weaknesses into account.

The SWOT analysis compares the strengths and weaknesses of the Region (internal characteristics) with its opportunities and threats (characteristics of the environment). The distinction between an internal or external factor is determined by the possibility of the actors in the Region influencing them. If they do have this option, it concerns an internal factor. The confrontation of internal and external characteristics enables the identification of future issues that are of importance for the smart specialization strategy of the Region.

This SWOT is the result of an analysis of the state of affairs in the Region, based on documentary proof and the result of the research made within the gap assessment stage of the project. The Territorial analysis of the Interreg NEXT Black Sea Basin Programme 2021-2027 was also considered.

4.1. Strengths of the region

Presence of academia and research centers

Growing interest from the business sector in co-operation with RDI structures

Available funding opportunities.

Untapped potential for R&D initiatives and investments

Wide access and an increasing trend of using Internet services.

4.2. Weaknesses of the region

Post COVID effects on blue economy sectors, e.g. decline of tourism and cultural and entertainment activities in the BSB area

Quality of ports infrastructure around the Black Sea still needs improvements

Slow transition towards green maritime transport

Less progress with regard to intermodal transport.

Rather low research and development expenditures in the BSB area. Support for research at national level is rather low.

Lack of effective cross-border cooperation. There is a reduced number of models of implementing cross-border integrated strategies not only in the BSB region but also in other EU regions

Reduced civil society participation in decision-making processes

Challenges in adapting the EU regulations to the transnational context and to the legislation of the participating countries

4.3. Opportunities

A smarter cooperation area, as part of the blue economy is a key objective of the Common Maritime Agenda and of the Strategic Research and Innovation Agenda

In the context of the recent COVID-19 crises and restrictions, digitalization and online communication are to be considered for supporting education system and the labour market

Investment in fully renewable fuels technologies, with green ports becoming hubs for energy production

The marine aquaculture has been one of the fastest growing activities in the last years.

The adoption of the legal framework for The EU Single Window Environment for Customs in December 2022 with a 2-phase implementation plan (2025 and 2031)

4.4. Threats

4.4.1. Common environmental threats

Depleting marine resources

Pollution (including oil and microplastics)

Climate changes effects such as eutrophication/nutrient enrichment

Biodiversity / habitat changes, including alien species introduction

Large areas exposed to erosion.

4.4.2. Common geo-political threats

Unprovoked Russian aggression in Ukraine and its effect in the whole Black Sea Basin

Tradition of bottom -up approaches to policy processes.

4.5. Particularities of the Bulgarian Black Sea Region

Besides the common traits, particularities of the Bulgarian Black Sea Region were also taken into account⁸.

S	STRENGTHS
1	Strong and distinct identity of the area and population, inextricably linked to the sea and its professions
2	International and active shipping center and gateway to international trade
3	Port infrastructures capable of serving ships of different types

W	WEAKNESSES
1	Poor demographic and social indicators (high population density, high aging rate, low rate of economically active population)
2	Underdevelopment of tourism activities, services and infrastructure, such as types and alternatives
3	Unbalanced labor market - seasonality, lack of qualified personnel, a significant share of

⁸ Based on <https://icbss.org/4biz-project/> and https://www.mi.government.bg/files/useruploads/files/innovations/ris3_26.10.2015_en.pdf

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			persons who are not included in the labor market in the area
4	A wide range of maritime activities, which defines the important function of the Black Sea as a source of economic growth and employment	4	Strong pressure on the environment - unsustainable management of resources; congested Black Sea coast with overcrowded resorts; underdeveloped infrastructure; lack of a concept for adapting the sector to climate change.
5	Interconnection with all modes of transport (railway, highway, airport)	5	Lack of business culture of cooperation among entrepreneurs
6	Presence of unique for the country and Europe representatives of the plant and animal world and preserved habitats in the water area of the Black Sea and the coastal zone. Built ecological network of protected territories and zones and preserved biodiversity.	6	Lack of coordination between local stakeholders to promote blue growth in Burgas and the coastal region
7	Diverse and spatially saturated tourist resources - natural and cultural heritage, climate, attractive Black Sea coast, mineral waters, biodiversity, protected areas and species, conditions and products for many types of tourism and their combination in 4 seasons.	7	Lag behind in research, technological development and innovation indicators and low level of spending compared to other advanced EU regions
8	Critical mass of educational and research institutions	8	Limited interaction between the research and business communities
9	Promotion of the blue economy as one of the city's areas of expertise and various initiatives aimed at supporting the blue economy	9	Lack of diversification of marine aquaculture (only black sea scallop)
10	Strong drive and commitment to cooperation with other cities with similar characteristics internationally	10	Restricted sailing area of a large part of the fishing fleet and a very large relative share of fishing vessels smaller than 12 m, with permission to sail within the area up to 2 nautical miles from the coast.

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O OPPORTUNITIES		T THREATS	
1	Significant opportunities to diversify tourism activities, with multiple benefits for local development and employment	1	Lack of reforms and restructuring of the sectors of the maritime economy, as well as shortage of qualified personnel and “brain drain “
2	Growth of ecological culture and sensitivity to nature - increasing demand for sustainable alternative forms of tourism (field for enhanced animation of the stay and inclusion of attractive cultural and natural heritage, and marine archaeology)	2	Insufficient public resources, reduced liquidity in the private sector, limited financing from the banking system and slow progress of relevant programs
3	Turning part of the negative consequences of the Covid'19 crisis into an advantage by increasing the standard of service, sanitary and hygienic conditions and comfort.	3	Reducing the volume of international freight flows and increasing fuel prices on the international market.
4	Using new fishing methods that do not damage bottom habitats and reduce bycatch of non-target fish species.	4	Investment uncertainty (economic conditions, bureaucratic interference, tax regime)
5	Introducing the circular principle in blue-economy and in the sectoral plans	5	Strong competition in and outside the EU in research, technological development and innovation
6	Promoting blue growth by the EU as a policy that will contribute to smart, sustainable and integrated development and support the Green Deal	6	Strong competitors - both in terms of the product "Black Sea recreational tourism" and in terms of alternative forms.
7	Creating a platform for the exchange of technologies in the field of the sea, with a goal enhancing cooperation between SMEs, maritime clusters, laboratories, public authorities and research communities	7	Continued pollution of the Black Sea and negative impacts of climate change
8	Effective use of EC support to develop the blue economy and promote blue growth and funding for IT, research, technology and innovation	8	External conflicts and crises in the development of the world economy. A deepening global crisis, a consequence of Covid'19.
9	Creation of planning and structural prerequisites for the balanced	9	Deterioration of the quality of port infrastructure as a result of lack of

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	development of a successful and sustainable marine economy, taking into account the socio-economic aspects and the adequate protection of the vulnerable marine ecosystem		financial means for its maintenance, operation and development
10	<p>Creation of cross-sectoral (and cross-border) synergies in the development of the maritime economy- funding within from EU Next through the National Recovery and Resilience Plan</p> <ul style="list-style-type: none"> - Varna and Burgas ports – are included in the concept for development of the TEN-T network - interest in innovative sea farming (crabs and algae) - interest in development of value-added processing for sea salt and mud 	10	<p>Different level of commitment of individual countries to reducing carbon emissions, which limits the possibilities of formulating a common regional policy for the Blue Economy</p>

Even though the war is a major threat for the whole region, and it casts shadows on all potential designed actions, it is worth mentioning that periods of economic decline and political turmoil can enhance openness and willingness to embrace new maritime economic activities.

Based on the smart specialization targeted questions, the gap assessment identified a series of priorities for each sector that was subjected to analysis within DBAN project.

The following table establishes the connections between the marine functions that were identified by the JRC study on blue growth and smart specialization as having the best potential for smart growth and the needs identified by the DBAN gap assessment.

Table 2 – Marine functions with growth potential

Marine functions with growth potential according to JRC study on blue growth and smart specialization	DBAN findings – priorities for sustainable Blue Growth in BSB area
Growing aquatic products	Sea farming (both traditional: fish and mussels and innovative: crab and algae) is considered a priority especially due to depletion of natural resources in the Black Sea and legal problems such as fishing quotas. Modern seafood processing and distribution are seen as profitable businesses. There is a need for digital and AI tools for aquaculture.
Offshore wind energy	Increased energy efficiency and new energy sources – cross – cutting issue for all analyzed sectors
Yachting and marinas	Creation of new products able to provide differentiation factors in a globalized tourism market. Improvement of operational equipment for both transport and handling and creation of logistic chains with a need for digital cargo handling solutions and digital flows of information both for business and in the private sector relationship with administration (customs, tax, port authorities). Security services and remote surveillance for offshore farming facilities Block -chain systems to control the origin of goods.
Cruise including port cities	
Traceability and security of goods supply chains	
Protect against illegal movement of people and goods	
Environmental monitoring	Marine and coastal natural resources protection Marine spatial planning Waste reduction and circular economy Efficient waste management

As cross – cutting issues ICT tools to be used in both in B2C and B2B and e-services and e-tools for interaction with the governmental organizations were acknowledged in each sub-sector as well as a need for capacity building in terms of an increased capacity of professional associations, development of digital skills of the personnel and implementation of cybersecurity measures within the organizations.

Several priorities and concepts need some explanations in order to understand their relevance as potential triggers for growth in the region.

Aquaculture and fisheries appear to be more and more important in the context of the depletion of natural resources in seas and oceans, with a particularly dangerous situation in the Black Sea. In the context, United Nations Food and Agriculture Organization (FAO) introduced the concept of Blue Transformation.

FAO describes **Blue Transformation**⁹ as a targeted effort by which agencies, countries and dependent communities, use existing and emerging knowledge, tools and practices to secure and sustainably maximize the contribution of aquatic (both marine and inland) food systems to food security, nutrition and affordable healthy diets for all. It builds on existing successes while providing a framework to overcome sustainability challenges.

Besides other core principles, Blue Transformation is a knowledge-based process meaning that the formulation of transformative initiatives or interventions should be based on the best available scientific / research, data, technical, traditional, and local knowledge.

The benefits of technology in the fish farm sector are tangible and substantial. A fast-growing technological innovation incorporated in blue growth is the development of real time remote monitoring systems. Thus, aquaculture and fisheries are good candidates for growth based on smart specialization within a blue transformation process.

Europe's current and future sustainable economic growth and societal wellbeing increasingly draws on value created by data. In the context, **Artificial Intelligence** (AI) was identified as a supportive factor for developing solutions able to respond to needs of the blue sector. AI is one of the most important applications of the data economy. Simply put, AI is a collection of technologies that combine data, algorithms and computing power¹⁰. AI is a strategic technology that offers many benefits for citizens, companies and society as a whole, provided it is human-centric, ethical, sustainable and respects fundamental rights and values.

Under the circumstances, EU Commission is working to establish a policy framework to mobilize resources to achieve an "ecosystem of excellence" along the entire value chain, starting in research and innovation, and to create the right incentives to accelerate the adoption of solutions based on AI, including by small and medium-sized enterprises (SMEs). In the meantime, aspects like compliance with EU rules, including the rules protecting fundamental rights and consumers' rights (what it is called an "ecosystem of trust"), are to be considered in order to give citizens the confidence to take up AI applications and give companies and public organizations the legal certainty to innovate using AI.

⁹ <https://www.fao.org/3/cc0459en/cc0459en.pdf>

¹⁰ https://commission.europa.eu/system/files/2020-02/commission-white-paper-artificial-intelligence-feb2020_en.pdf

Another concept that occurred during the survey is **blockchain technology**. Blockchain enables data to be recorded in a secure digital format by providing real-time information on transactions between different parties, be they corporations, supplier networks, investment pools, or an international supply chain. Blockchain provides solutions for trade operations by simplifying cross-border trade, contributing to competitive improvements, and reducing transaction costs. A main application is related to fighting counterfeiting which is a massive economic problem that causes heavy financial loss to businesses operating across the globe.

One of the main anti-counterfeiting methods currently used is to affix holographic stickers or barcodes on the product to establish a product's authenticity. However, this method is no longer sufficient as due to advancement in technology accessible to counterfeiters the barcodes and stickers can now be copied convincingly as well. A solution occurred when companies started implementing blockchain technology on their products using smart tags such as QR codes, RFID tags or NFC chips.

Thus, blockchain technology can have a significant role in ensuring the traceability of blue economy products.

The survey identified **digital flows of information** both for business and in the private sector relationship with administration (customs, tax, port authorities) as a priority. The context is more than favourable for the implementation of appropriate solutions taking into account the fact that after almost 10 years of pilot projects and four years of preparations and negotiations, the Regulation establishing the EU Single Window Environment for Customs was introduced into the EU law in December 2022. The Regulation provides a new legal framework to improve information sharing and digital cooperation between customs administrations and other government authorities in charge of enforcing non-customs formalities at the EU border in areas such as health and safety, environmental protection, food and product safety, agriculture, etc. and will allow economic operators to clear certain customs formalities more easily.

The ECORYS study¹¹ identifies several synergies that are considered a pre-condition for future blue growth and development, while some activities put pressure on different sectors directly or indirectly, thus generating tensions. It is considered that an optimal strategy aims to avoid tensions and to optimize synergies. The maximization of such synergies can often be achieved through promoting **maritime clusters** and policies focusing on maritime clusters can make a difference. The classical definition of a cluster is the one given by Porter¹², i.e. "geographically proximate group of interconnected companies and associated institutions in a particular field, including product producers, service providers, suppliers, universities, and trade associations, from where linkages or externalities among industries result". Clusters are primarily market-driven and there are

¹¹ <https://maritime-forum.ec.europa.eu/system/files/Blue%20Growth%20Final%20Report%2013092012.pdf>

¹² Porter, M. (1998). "Clusters and the New Economics of Competition". Harvard Business Review

examples world-wide which demonstrate that clusters can provide powerful engines of growth and jobs.

A definite advantage for the blue economy in Bulgaria is the existence of such a structure. Marine Cluster Bulgaria¹³ is a non-government organization consolidating the efforts of all sectors of the maritime economy in Bulgaria. The association acts towards the creation of favorable conditions for development and enhancement of the competitiveness of the blue economy by introducing new organizational, product, market and technological solutions, training, implementation of best practices, as well as for its promotion at national and international level. As members of the cluster are SMEs, NGOs, educational institutions, research and development organizations, the proposed measures in the plan of action can be tackled in a more structured manner.

More than that, Southeast Digital Innovation Hub, or DigiHub (a partner in the DBAN project) is a joint initiative of actors from the public, private, non-governmental and the educational sectors in Burgas whose aim is to facilitate the effective transition to digitalisation of the working processes, to support the representatives of the business in the region for the introducing and/or implementation of digital technologies and intelligent systems and to provide high quality services. DigiHub can set an example of how measures of similar type with the ones proposed in the local plan of action are actually implemented by joint action between research and business actors.

5. VISION, OBJECTIVES, LOCAL ACTION PLAN

The Assessment Gap previously performed identified similar needs and gaps in all three target regions of the DBAN project, with limited peculiarities mainly derived by Bulgaria's status as EU Member State and Georgia and Ukraine as members of the Eastern Partnership which has an influence upon the regulatory framework and funding opportunities.

The gaps to be filled are common to the priority sub- sectors for sustainable blue growth as mentioned above and mainly consist in:

Discrepancy between the existing and the required capacity for smart business specialization

Discrepancy between the existing support services for enterprises and the actual needs of different blue economy sectors

Difficulties of communication and understanding in terms of needs and priorities between business sector and R&D sector

¹³ <https://www.marinecluster.com/en/info/mission-and-objectives/>

Discrepancy between the skills of graduates and the actual requirements on the labour market

Discrepancy between the actual skills of employees and the new requirements generated by technological improvements and innovative processes

Discrepancy between current managerial skills and the need of strategic thinking in a more and more competitive environment

Scarcity of financial resources and / or bureaucratic barriers for both R&D and private sector in order to have access to state of the art equipment and technologies

Discrepancy between the regulatory framework and the actual possibility of the private sector complying with legal requirements especially when they involve sudden digitalization of processes.

In order to cope with these discrepancies and to promote smart solutions able to support sustainable blue growth in target regions it is proposed a common vision and common objectives for smart specialization further on detailed into actions within the Local Action Plans.

The plans are thought to be disseminated among the stakeholders belonging to the business sector related to blue economy, public sector and NGOs and R&D organizations and to provide support for common approaches and decision-making processes.

The challenge for Black Sea surrounding regions is to jointly tackle innovation issues beyond chains and provincial regions. Only then the possible synergy will be used optimally, enabling strategic choices in terms of the knowledge and expertise in the area.

Common Vision: Facing the climate and economic challenges and the societal changes in BSB with an innovative – oriented approach.

Objectives:

Smarter blue economy in BSB based on better connectivity between business and R&D

Attractive tourism based on digital tools and environmental conscious choices

A region that fosters a culture of learning and upskilling

A greener BSB area based on technological innovation and clean energy sources

The aim is to achieve a higher share of original innovations, research and development activities and thus significantly increase the added value of production and related services belonging to Blue economy in Bulgaria. The result will be transformed sectors oriented towards innovation and the creation of long-term jobs focused on the use of intellectual and creative skills, which will also reduce the outflow of young people abroad.

6. BLUE GROWTH STRATEGY AND BLUE ECONOMY SMART SPECIALISATION LOCAL ACTION PLAN

The Blue Growth Smart specialization Action Plan of Burgas 2023-2030 is an ambitious initiative aimed at promoting sustainable and integrated economic development within the maritime sector while safeguarding marine ecosystems and resources. To ensure its success, the Action Plan should be designed to complement and reinforce existing EU policies and strategies. Here's how it could involve actions and projects that align with various EU policies:

Europe 2020: The Blue Growth Action Plan should be aligned with the Europe 2020 strategy, which focuses on smart, sustainable, and inclusive growth. By promoting sustainable practices in maritime industries, such as eco-friendly fishing, renewable energy production from the sea, and responsible tourism, the Action Plan would contribute to achieving the goals set forth in the Europe 2020 strategy.

Territorial Cohesion: The Action Plan should address territorial cohesion by promoting balanced development across coastal and maritime regions. This could involve investing in infrastructure and innovation projects in coastal areas, fostering regional cooperation, and supporting local communities to create sustainable blue economies.

Trans-European Networks (Transport and Energy): To support the Trans-European Networks for transport and energy, the Action Plan should prioritize projects that enhance connectivity between coastal areas and key inland nodes. This could include improving port infrastructure, developing maritime transport corridors, and investing in sustainable offshore energy production.

Energy and Future Transport Communities: The Action Plan should actively engage with the Energy and Future Transport Communities to promote sustainable energy solutions and efficient transportation methods within the maritime sector. This could include initiatives to transition maritime transport to low-carbon alternatives like hydrogen-powered vessels and supporting research on clean energy technologies like wave and tidal energy.

Disaster Risk Management Policy: The Action Plan should incorporate disaster risk management policies to ensure the resilience of coastal communities and marine ecosystems. This involves developing strategies for preventing and mitigating maritime disasters, preparing emergency response plans, and supporting coastal communities in building resilience to climate-related risks.

Strategies on Biodiversity and Adaptation to Climate Change: The Action Plan should align with the EU strategies on Biodiversity and Adaptation to Climate Change by incorporating measures to protect marine biodiversity and ecosystems. This could involve establishing marine protected areas, promoting sustainable fishing practices, and developing adaptation strategies to address the impacts of climate change on coastal communities.

By integrating these actions and projects into the Blue Growth Action Plan, Burgas Municipality can ensure a coherent and comprehensive approach to sustainable blue growth, fostering economic prosperity while safeguarding the marine environment for future generations.

2030 vision for Burgas as the Blue-green door of Europe

Burgas envisions a future where its coastal region thrives as a leading center of blue economy activities, driven by cutting-edge research, innovative technology, and sustainable practices.

The city seeks to foster an ecosystem that attracts local and international investments, promoting job creation, economic diversification, and increased well-being for its residents.

Taking into account the circumstances under which the Local Action Plan is developed, as a result of activities within a cross – border project, the actions are recommendations that can be incorporated in any Local Action Plans developed by LPAs meant to promote smart specialization in the target areas, as well as in broader smart specialization strategies.

From the point of view of implementation duration, most actions are thought as mid – term interventions. The available data during the process did not allow an estimate of the financial dimension of the proposed measures.

Transversal themes such as green energy solutions, reduction of waste and development of circular economy - based products shall be taken into consideration with regard to all proposed measures.

Pillar 1 of the Black Sea and Blue Growth Strategy and Burgas Smart Specialisation Local Action Plan 2023-2030 aims to drive innovative maritime and marine growth while promoting sustainable economic development, job creation, and business opportunities in the blue economy sectors

The specific objectives of **Pillar 1** are as follows:

Promoting Research, Innovation, and Business Opportunities in Blue Economy Sectors: This involves facilitating collaboration between research and business communities, fostering networking and clustering capacity, and encouraging knowledge exchange to drive innovation in the blue technology sector.

Adapting to Sustainable Seafood Production and Consumption: The focus is on developing common standards and approaches to strengthen the seafood production and consumption sectors, ensuring sustainability, and creating a level playing field in the macro-region.

Improving Sea Basin Governance: This objective aims to enhance administrative and institutional capabilities in the area of maritime governance and services to ensure effective management and coordination.

To achieve these objectives, Pillar 1 will concentrate on three main topics:

Topic 1 - Blue Technologies: Strengthening blue technologies, such as maritime innovations and marine-based industries, to contribute to smart growth within the region. Emphasis will be on developing human capital, promoting entrepreneurship, and encouraging collaboration between research and public/private sectors.

Topic 2 - Fisheries and Aquaculture: Focusing on sustainable growth in fisheries and aquaculture sectors through effective management, mitigating environmental risks, and supporting innovation to create a positive impact on economic development.

Topic 3 - Maritime and Marine Governance and Services: Enhancing sea basin governance through Maritime Spatial Planning and improved management in fisheries and aquaculture to ensure sustainable use of natural resources and foster economic growth.

Connecting the Black sea region

The main goal of **Pillar 2, "Connecting the Region,"** is to enhance connectivity within the Black Sea Region and improve its transport and energy networks, both internally and with other sea basins and rest of Europe. This pillar recognizes the significant infrastructure disparities in the region, particularly between EU Member States and other countries, due to historical isolation and conflicts. Improving transport and energy connections is vital for the region's economic and social development, and environmental impacts must be carefully considered in the planning process.

To achieve this objective, there are three specific goals for Pillar 2:

Strengthen Maritime Safety and Security and Develop a Competitive Regional Intermodal Port System: This involves enhancing safety and security measures in maritime transport while developing a competitive intermodal port system to improve efficiency and attract more trade and investment.

Develop Reliable Transport Networks and Intermodal Connections: The aim is to establish reliable and efficient transport networks, both for freight and passenger transportation, connecting the region's ports to the hinterland seamlessly.

Achieve a Well-Interconnected and Well-Functioning Internal Energy Market: The focus is on developing interconnected energy networks that support the three energy policy objectives of the EU: competitiveness, security of supply, and sustainability. This will reduce wholesale energy prices and attract more investors.

To work towards these objectives, the pillar concentrates on three specific topics:

Maritime Transport: Enhancing maritime safety and security measures, promoting the competitiveness of regional ports, and fostering efficient maritime transportation.

Intermodal Connections to the Hinterland: Developing efficient and well-coordinated transport connections between ports and the hinterland, benefiting both freight and passenger movements.

Energy Networks: Establishing a well-interconnected and efficient energy market to support the EU's energy policy objectives, ensuring competitiveness, security, and sustainability.

Improving connectivity in the region and with the EU requires a cooperative and coordinated approach. Given that the region comprises several relatively small countries, national actions alone are insufficient to address the challenges. Instead, broader regional cooperation is essential to overcome infrastructure bottlenecks and promote seamless connectivity between countries.

By adopting a collaborative approach and focusing on these key areas, **Pillar 2 aims to enhance the region's attractiveness for investments and tourism**, leading to increased job opportunities and prosperity. Moreover, it seeks to optimize intermodal transport, reduce costs in Central and Eastern Europe, improve the eco-balance, and restore the competitive position of Black Sea ports as gateways to the region. Additionally, an interconnected and functioning energy market will benefit the entire South-East Europe region and attract more investors through reduced wholesale prices.

Pillar 3 Environmental quality

The main aim of this pillar is to address environmental quality concerns, specifically related to marine, coastal, and terrestrial ecosystems in the Black sea Region. The region recognizes that a healthy environment is crucial to support human activities, ensure the well-being of its people, and promote economic prosperity. To tackle the environmental challenges effectively, cooperative efforts at the macro-regional level are essential.

The specific objectives for this pillar are as follows:

Ensure Good Environmental and Ecological Status of Marine and Coastal Environments: By 2030, the pillar aims to achieve a good environmental and ecological status of the marine and coastal environments, following the EU acquis and the ecosystem approach of the Barcelona Convention.

Contribute to the EU Biodiversity Strategy: The pillar strives to support the EU Biodiversity Strategy's goal of halting the loss of biodiversity and ecosystem services in the EU by 2030, as well as restoring them wherever feasible, by addressing threats to marine and terrestrial biodiversity.

Improve Waste Management and Reduce Marine Litter and Pollution: Efforts will be made to enhance waste management, reducing waste flows to the sea and decreasing nutrient and pollutant flows to rivers and the sea.

Two central topics have been identified for addressing environmental quality in the Black sea Region:

Topic 1 - The Marine Environment: Actions under this topic will focus on achieving a good ecological and environmental status for marine and coastal ecosystems by 2030.

Topic 2 - Transnational Terrestrial Habitats and Biodiversity: This topic will address environmental concerns related to terrestrial habitats and biodiversity.

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Taking appropriate actions to address environmental issues will contribute to implementing the EU Environmental acquis, which includes various directives and strategies concerning marine, water, waste, birds, habitats, and green infrastructure. It will also align with the goals set out in the Common Fisheries Policy, the EU Adaptation Strategy, and the EU Biodiversity Strategy.

The region is vulnerable to disasters and the impacts of climate change. To enhance resilience, comprehensive actions are needed, including conducting risk assessments, implementing disaster risk management policies, and developing a regional strategy for adapting to climate change. By working together on these issues, the Black sea Region can build resilience and better cope with the challenges posed by disasters and climate change.

Growing human activities in marine and coastal areas, such as fishing, maritime transportation, tourism, and construction, have put immense pressure on these ecosystems. To ensure the sustainable use of resources, it is crucial to adopt an ecosystem-based approach to coordinating these activities. Integrated Coastal Management (ICM) and Marine Spatial Planning (MSP) are frameworks that play a vital role in achieving this goal.

ICM and MSP are essential tools for promoting collaboration and cooperation among different coastal and maritime sectors. They facilitate trans-boundary engagement and bring stakeholders together to manage activities in a coordinated manner. These frameworks have the potential to integrate ecosystem services and opportunities for Blue Growth in a sustainable manner. By employing ICM and MSP, decision-makers can strike a balance between the interests of various sectors that compete for marine and coastal space. In doing so, they contribute to the overall objective of sustainable development and responsible use of marine and coastal resources.

Pillar 4 Sustainable Tourism

This pillar's main focus is on promoting sustainable and responsible tourism in the Black Sea Region, which is well aligned with the objectives and measures proposed in the Strategy for sustainable tourism of Burgas Municipality 2022-2030 suggesting the development of innovative and high-quality tourism products and services. It seeks to encourage responsible tourism practices among all stakeholders, including the public, local, regional, and national actors, as well as tourists and visitors. The development of tourism in the region requires addressing bureaucratic hurdles, creating business opportunities, and enhancing the competitiveness of small and medium-sized enterprises (SMEs).

The specific objectives for this pillar are:

Diversification of Tourism Offer: The pillar aims to diversify the region's tourism products and services, while also addressing the issue of seasonality in both inland and coastal tourism demand.

Enhancing Quality and Innovation in Tourism: The focus is on improving the quality and innovation of tourism offerings while promoting sustainability and responsible tourism practices among various actors in the region.

To achieve these objectives, the pillar will concentrate on two key topics:

Diversified Tourism Offer (Products and Services): Efforts under this topic will focus on expanding the range of tourism products and services available in the region and finding ways to manage tourism demand throughout the year.

Sustainable and Responsible Tourism Management (Innovation and Quality): The pillar will work on promoting sustainable and responsible tourism practices, emphasizing innovation and maintaining high-quality standards across the tourism sector.

This pillar strongly aligns with the Europe 2020 Strategy by contributing to smart growth through enhancing the competitiveness of the Black Sea Region's tourism sector and leveraging EU policies and financial instruments effectively. It also aims to foster sustainable and inclusive growth by promoting resource-efficient and responsible tourism, leading to the creation of new, better, and long-term job opportunities. Moreover, it aims to establish the Black Sea Region as a sustainable and high-quality tourism destination.

Regarding the EU Tourism Policy, the pillar reflects key principles outlined in the Communication "Europe, the world's No 1 tourist destination – a new political framework for tourism in Europe" (COM(2010)352), which emphasizes the need for a sustainable approach while boosting the competitiveness of the European tourism sector. Additionally, it acknowledges the Communication "A European Strategy for more Growth and Jobs in Coastal and Maritime Tourism" (COM(2014)86), which addresses current challenges and proposes strategies to enhance the sustainability and competitiveness of the coastal and maritime tourism sector.

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Blue Economy Sub - sector	Related objective	Proposed action	Actors	Results	KPIs
BLUE TRANSFORMATION ACTIONS					
Aquaculture	01. Smarter blue economy in BSB based on better connectivity between business and R&D	Develop high-tech aquaculture including multi-use platforms	Businesses / R&D / partnerships	Competitive aquaculture actors Sustainable food sources	No. of high-tech facilities
	01. Smarter blue economy in BSB based on better connectivity between business and R&D	Develop real time monitoring using remote sensors in fish farms	Businesses / R&D / partnerships	Reduction of costs Improved risk management plans	No. of fish farms using the technology
	01. Smarter blue economy in BSB based on better connectivity between business and R&D	Develop security services and remote surveillance for off shore farming facilities	Businesses / R&D / partnerships	Reduction of losses due to poaching / theft	Increased turnover and profit
	04. A greener BSB area based on technological innovation and clean energy sources	Develop systems to allow powering remote sensors with marine energy – especially important in the context of energy crisis	Businesses / R&D / partnerships	Reduction of costs Reduction of greenhouse gas emissions	Increased profit Tons of CO ₂ e
	01. Smarter blue economy in BSB based on better connectivity between business and R&D	Support research projects for innovative sea farming such as crab and algae	Businesses / R&D / partnerships	Competitive aquaculture actors	No. of innovative sea farms
	01. Smarter blue economy in BSB based on better connectivity between business and R&D	Support research projects for added value processes regarding resources such as salt and mud	Businesses / R&D / partnerships	Extension of the blue value chain towards cosmetics	No. of innovative processes

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				industry and / or spa tourism	
		Both measures can be connected to the specific marine biotechnology strategy which is expected to be developed.			
	01. Smarter blue economy in BSB based on better connectivity between business and R&D	Support research projects regarding the impact of climate changes and invasive species in the BSB	LPAs R&D businesses	Local / regional / national policies and mitigation measures	No. of actions to mitigate the impact
	01. Smarter blue economy in BSB based on better connectivity between business and R&D	Develop guidance and instruments on good aquaculture practices (GAPs)	R&D LPAs	Increased knowledge on sustainable aquaculture	No. of GAPs
	01. Smarter blue economy in BSB based on better connectivity between business and R&D	Develop and promote indicators of aquaculture sustainability	R&D LPAs	Reliable and comparable system of indicators	No. of indicators
Fishing	01. Smarter blue economy in BSB based on better connectivity between business and R&D	Support for the use of innovative marine technologies and IT monitoring tools for fisheries vessels, including small-scale fisheries	Businesses / R&D / partnerships	Increased efficiency and profit from fishing	No. of new technologies developed / implemented
	01. Smarter blue economy in BSB based on better connectivity between business and R&D	Facilitate the implementation of innovative data collection and management systems at local and regional level	National / regional / local authorities R&D Businesses	Increased safety at sea	Accessible data sources Effective warning systems, including an IUU Fishing

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					Reporting system
	O1. Smarter blue economy in BSB based on better connectivity between business and R&D	Support for projects enhancing the valorization of catches (e.g. electronic auction platform) and diversification of activities to maximize the economic benefit of the fisheries sector, in particular for small-scale fisheries	LPAs Businesses / R&D / partnerships	Added value for fisheries	No. of entities implementing new activities / processes
Seafood processing	O1. Smarter blue economy in BSB based on better connectivity between business and R&D	Develop food traceability systems using blockchain technology	Businesses / R&D / partnerships	Increased traceability More competitive products Increased trust from customers	No. of companies implementing blockchain based solutions
	O1. Smarter blue economy in BSB based on better connectivity between business and R&D	Promote and support the development of diverse practices and processes to reduce fish loss and waste	Businesses / R&D / partnerships	Increased efficiency of activity	No. of zero / reduced waste companies
Maritime and marine governance and services					
Data and knowledge sharing			<i>National and local authorities, research institutes</i>		
Maritime skills					
Citizen and business awareness and involvement	"Citizens exploiting the Region's blue potential", promoting awareness about the macro-region's potential in terms of blue				

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	economy, new technologies, aquaculture and fisheries . The target group would mainly be citizens and businesses in the Region.				
MARITIME TRANSPORT ACTIONS					
Shipping	O1. Smarter blue economy in BSB based on better connectivity between business and R&D	Promote the implementation of modern navigation systems for sustainable and safe shipping	Regional / local authorities Businesses / R&D / partnerships	Safer navigation conditions Functional early warning systems	No. of implemented systems
Shipping and ports	O4. A greener BSB area based on technological innovation and clean energy sources	Improvement of operational equipment for both transport and handling	Businesses / R&D / partnerships	Increased efficiency of maritime transport	No. of new / modernized ships and handling facilities
		Improving and harmonising Traffic monitoring and management			
Ports	O1. Smarter blue economy in BSB based on better connectivity between business and R&D	Development and implementation of digital cargo handling solutions	Businesses / R&D / partnerships	Increased efficiency of maritime intermodal transport	No. of digital tools
		Developing ports, optimising Port interfaces,infrastructures and procedures / operations	<i>Port authorities, port users, shipping companies, transport companies</i>		

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	O1. Smarter blue economy in BSB based on better connectivity between business and R&D	Implementation of the connection between the national Single Window and the EU Single Window for Customs	National / regional authorities in cooperation with EU	G2G access to data Reduced time and administrative burden for businesses	Single Window system compatible with EU Single Window
ENVIRONMENTAL QUALITY OF MARINE BIODIVERSITY					
	Increasing marine knowledge	Establishment of a common infrastructure platform with participation of all countries for data collection, research, and laboratory analysis	Research institutes, national/regional authorities, NGOs		
	Enhancing the network of Marine Protected Areas		National/regional authorities, NGOs		
	Exchanging best practices among managing authorities of Marine Protected Areas	Exchanging best practices for managing NATURA 2000 areas, including designating fishery measures under the new Common Fishery Policy			
	Implementing Maritime Spatial Planning and Integrated Coastal Management:				
	Protection and restoration of coastal wetland areas and karst fields				
	Implementing a life cycle approach to marine litter				
	Supporting Clean-up				

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	programmes for both floating and sunken litter				
MARITIME TOURISM ACTIONS					
Coastal tourism	O2. Attractive tourism based on digital tools and environmental conscious choices	Develop new and innovative tourism offers and services to promote synergies between coastal tourism and other activities (e.g. pesca-tourism, culture and underwater heritage, aquaculture, yachting)	Businesses / R&D / partnerships	New products able to provide differentiation factors in a globalized tourism market	No. of innovative services No. of IT tools to support tourism industry
	Brandbuilding of the Black sea tourist products/ services	-Identification and development of an Black sea ‘basket of products’ that can be associated in a unique manner with the Region. -Communication of the branding strategy , both within the Region, with targeted common niches, and internationally with continuous campaigns promoting the Region so as to attract visitors from other continents and from both established and emerging markets.			

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	Fostering Black sea cultural heritage	Black sea /Blue eco mar Network for the establishment of a regional network that will direct visitors to the various museums, cultural events and premises across the Region. • More emphasis on archaeological sites for the promotion of the Region as a global destination for archaeological tourism.			
		Design coastal tourism developement based on marine spacial planning taking into account the MU (multi – use) approach as promoted by the MSP Directive	LPAs R&D	Solutions for tourism development with respect to environment protection	No. of sustainable tourism areas / products
	“Sustainable tourism R&D platform on new products and services”	Use technology and innovation (ITC platforme and mobile apps) to grow “niche” markets able to develop year – round tourism	Businesses / R&D / partnerships	Extended tourism season	No. of ITC integrating tools
	“Sustainable and thematic maritime and ecotourist routes”				
	Developing marine archaeology tours, services and products				

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Cruise tourism	O2. Attractive tourism based on digital tools and environmental conscious choices	Develop and implementation of innovative solutions to reduce the environmental and social – economic pressure on local communities	LPAs Businesses / R&D / partnerships	Appropriate infrastructure for large ships with decreased impact on environment Tourism products that bring benefits to the local communities able to compensate the stressor caused by large number of tourist	No. of tourism facilities / products
Sustainable and responsible tourism management (innovation and quality)	Network of Sustainable Tourism businesses and clusters	<p>Create smart specialization platforms for tourism, which will expand the entrepreneurial discovery process across the macro-regional level. This will be achieved by building on the knowledge and expertise gained from Smart Specialization Strategies, with a special emphasis on identifying commercial tourism opportunities.</p> <p>To enhance the tourism sector's efficiency, there will be a greater emphasis on utilizing ICT tools and information packages. These technologies will aid in establishing, managing, and promoting tourism businesses and</p>	<i>SMEs, tourism clusters, technology transfer and innovation support networks, research centres</i>		

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		<p>opportunities, as well as facilitating digital connections between SMEs in both source and destination markets.</p> <p>To foster growth and collaboration, efforts will be made to strengthen ties with industries that have significant growth potential. This includes environment-based industries and the cultural and creative sector, with a particular focus on enhancing their overall commercial prospects.</p> <p>An essential aspect of this initiative is to promote sustainable tourism innovation. To achieve this, there will be an exchange of business cooperation opportunities and best practices related to sustainable tourism. The existing Enterprise Europe Network, particularly through the Tourism and Cultural Heritage Sector Group, will play a crucial role in facilitating this process.</p>			
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	Facilitating access to finance for new innovative tourism startups and creative industries	develop innovative financial and incentives instruments facilitating access to seed and venture capital European Investment bank (EIB) and European Investment Fund (EIF) or other international financial bodies for new start-ups	Financial institutions, private operators, relative university departments and research institutes		
	Promoting the Region in world markets	Joint promotion strategy and campaigns in the world market. • Supporting internationalisation of tourism SMEs in the macro-region through establishment of "one-stop shops", "BtoB" or "BtoC" shops, in order to provide assistance and guidance to businesses and customers, to promote partnerships, and to define new entry strategies to foreign markets	Destination Management Organisations, Tourism Business Associations, Ministries of Tourism, Burgas Municipality		
	Expanding the tourist season to all yearround	Promoting rural tourism - Promoting the Region for year round conference and business tourism , and especially during the off-season	Regional Authorities, Destination Management Organisations, Tourism Business Associations, Ministries of Tourism		

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	Training in vocational and entrepreneurial skills in tourism.	Training for tourism entrepreneurship, for developing key skills in managing tourism businesses; this training will include an update on new market trends and transfer of know-how regarding destination management. • E-learning platform for SME training.			
CROSS – SECTOR ACTIONS					
Support structures	<p>O3. A region that fosters a culture of learning and upskilling</p> <p>O1. Smarter blue economy in BSB based on better connectivity between business and R&D</p>	<p>Support and enhance the activity of the Marine Cluster Bulgaria, as well as new generation innovation clusters.</p> <p>Establish a Maritime Technology Exchange Platform¹⁴ to strengthen the collaboration among SMEs, maritime clusters, business labs, public authorities, and research communities.</p>	LPAs Businesses / R&D / partnerships	Improved cooperation across the regions and the implementation of the blue economy actions set in the Common Maritime Agenda. Diminished gap between the existing support services for enterprises and the actual needs of different blue economy sectors	<p>No. of new solutions provided by Marine Cluster Bulgaria to Blue economy actors</p> <p>No. of new clusters</p>
	O3. A region that fosters a culture of learning and upskilling	Create, integrate and support incubators and techno parks for promoting SMEs, start-ups and innovative businesses for	LPAs Businesses / R&D / partnerships	Improved support infrastructure for start-ups and innovative	<p>No. of incubators</p> <p>No. of techoparks</p>

¹⁴ Measure proposed by WB within Bulgaria: Towards Blue Economy Development

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		blue economy – following the model of Sofia Tech Park		businesses for blue economy Diminished gap between the existing and the required capacity for smart business specialization	
	<p>O3. A region that fosters a culture of learning and upskilling</p> <p>O1. Smarter blue economy in BSB based on better connectivity between business and R&D</p>	Promote mentoring and training for new start-ups and coaching for scaling-up companies in blue economy and blue growth at local/regional levels – using the opportunity provided by DigiHub Burgas	Businesses / R&D / partnerships	Improved competitiveness of start ups and blue economy SMEs Diminished gap between current managerial skills and the need of strategic thinking in a more and more competitive environment	No. of entrepreneurs / companies trained / mentored
Human Capital development	O3. A region that fosters a culture of learning and upskilling	Promote blue skills and blue careers as an engine for innovation and Competitiveness	Businesses / R&D / partnerships	Skilled workforce Improved professional standards and sets of competencies	No. of new / improved professional standards
	O3. A region that fosters a culture of learning and upskilling	Promote digital literacy (e.g. e-learning environments) and prepare for the rapid change in use and implementation of virtual technologies as an essential component of life long	Businesses / R&D / partnerships	Diminished gap between the actual skills of employees and the new requirements generated by	No. of training programmes No. of trainees

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		education in all fields of blue economy		technological improvements and innovative processes	
	O3. A region that fosters a culture of learning and upskilling	Train policy and decision makers through dedicated activities for the efficient implementation of marine and coastal policies and management	Higher education entities LPAs associations	Improved decision – making process Diminished gap between the regulatory framework and the actual needs and constraints	No. of public servants and elected representatives trained

A crucial aspect for at least some of the proposed actions to be actually implemented is the identification of financial resources.

A major advantage is Bulgaria's status as EU Member State which opens the prospective of a wider range of funding opportunities for innovative interventions.

Interregional Innovation Investments Instrument (I3) - creates linkages for interregional collaboration bringing together actors from different EU regions investing in joint innovation projects along S3 priorities and close to the market. The Agency implements two types of calls: Financial and advisory support for investments in interregional innovation projects and Financial and advisory support to the development of value chains in less developed regions.

European Maritime Fisheries and Aquaculture fund¹⁵ provides support for developing innovative projects ensuring that aquatic and maritime resources are used sustainably. The types of actions that are supported, i.e.:

- the transition to sustainable and low-carbon fishing
- the protection of marine biodiversity and ecosystems
- the supply of quality and healthy seafood to European consumers
- the socio-economic attractiveness and the generational renewal of the fishing sector, in particular as regards small-scale coastal fisheries
- the development of a sustainable and competitive aquaculture contributing to food security
- the improvement of skills and working conditions in the fishing and aquaculture sectors
- the economic and social vitality of coastal communities
- innovation in the sustainable blue economy

do correspond to the type of measures that are proposed within the present LAP. Thus EMFAF appears to be a valuable resource for funding the implementation of the proposed measures.

BlueInvest¹⁶ is a platform and accelerator to foster innovation and investment in sustainable technologies for the blue economy. It provides investment readiness support and access to finance for early-stage businesses, SMEs and scale-ups. BlueInvest is enabled by the European Maritime and Fisheries Fund.

Horizon Europe¹⁷ is the EU's key funding programme for research and innovation with a budget of €95.5 billion available over 7 years (2021 to 2027). The programme facilitates collaboration and strengthens the impact of research and innovation in developing, supporting and implementing EU policies while tackling global challenges. It supports creating and better dispersing of excellent knowledge and technologies.

Funding research and innovation for the implementation of European Green Deal - European Climate Infrastructure and Environment Executive Agency, EU Innovation Fund Programme.

At the time of drafting this document, there are two open calls for proposals that address measures like the ones in the LAP:

¹⁵ https://oceans-and-fisheries.ec.europa.eu/funding/emfaf_en

¹⁶ <https://maritime-spatial-planning.ec.europa.eu/fundings/blueinvest-fund>

¹⁷ https://research-and-innovation.ec.europa.eu/funding/funding-opportunities/funding-programmes-and-open-calls/horizon-europe_en

1st call of proposals within the Interreg NEXT Black Sea Basin Programme with the following priorities: Priority 1 - Blue and Smart Region and Priority 2 – Clean and Green Region

3rd call of proposals for small-scale projects under the Innovation Fund. Areas of activity include: renewable energy, decarbonisation of energy-intensive industries, energy storage, and carbon capture, use and storage.

On the national level, Integrated territorial investments in the field of blue economy can be funded under the National Recovery and Resilience Plan of Republic of Bulgaria and the operational programmes such as:

Regional Development Program 2021-2027 – priority 1 Integrated urban development

Operational Program: "Competitiveness and Innovation" 2021-2027

Operational Program: "Research, innovation and digitization for intelligent transformation" 2021-2027

Operational Program: "Education" 2021-2027

Operational Program: "Environment" 2021-2027

Operational Programme Maritime, Fisheries and Aquaculture (PMDRA).

7. COMPLIANCE WITH THE PLAN FOR INTEGRATED DEVELOPMENT OF THE MUNICIPALITY OF BURGAS 2021-2027

Burgas is a major municipality on Bulgarian Black Sea coast whose vision for local development might set an example in the region. The Strategic Framework for the Development of Municipality of Burgas¹⁸ sets several main measures further on divided into subsequent actions:

An effective process for building and developing entrepreneurial potential, implementation of innovations and modern technologies

Improving infrastructure to promote economic activity, transition to a circular economy and a just energy transition

Improving research potential

Development of blue economy sectors.

¹⁸ 27. INTEGRATED DEVELOPMENT PLAN OF THE MUNICIPALITY OF BURGAS 2021-2027. DRAFT "STRATEGIC FRAMEWORK FOR THE DEVELOPMENT OF MUNICIPALITY OF BURGAS" p. 20-26

Out of the subsequent actions, the following are of greatest interest from the point of view of the present LAP:

Burgas IDP	Smart Specialization LAP
Creation of a Resource Center for qualification and retraining of specialists in accordance with the needs of enterprises positioned in the zone and future investors	All the measures within the Human Capital development chapter directly connected to O3. A region that fosters a culture of learning and upskilling
Expansion of the activity of the newly created Virtual Reality Center to University "Prof. Dr. Asen Zlatarov" - a platform for high-quality training and digital solutions for professional qualification	
The 2nd phase of the "Industrial and Logistics Park Burgas" (a joint project of the Municipality of Burgas and National Company "Industrial Zones" (NKIZ)	All measures within the Support structures chapter
The creation and development of the Scientific and Research Center for Blue growth in three main directions: prevention and reduction of marine pollution environment, protection and improvement of the ecological potential of aquatic ecosystems and development of solutions for sustainable utilization of biocenous resources is fundamental priority for the period	All measures regarding Blue Transformation actions directly related to O1. Smarter blue economy in BSB based on better connectivity between business and R&D

8. DISSEMINATION OF THE PLAN

The idea behind the development of the present local action plan is to provide decision makers in the area as well as actors of Blue economy with a useful tool able to provide ideas and practical means for making a difference using the existing resources.

The most important channel is the DBAN platform and website where the English version as well as the versions in each of the national languages of the project (i.e. Bulgarian, Georgian and Ukrainian) will be uploaded.

The LAP will be disseminated on the website for integrated urban development [Община Бургас в развитие \(smartburgas.eu\)](https://smartburgas.eu) and during the final press conference presenting

the achieved project results and regional initiatives that will be organized during month 21-22 of the project implementation in Bulgaria as well as during the final conference of the project hosted by the lead partner, the Municipality of Burgas.

In addition to the means identified within the project, the partners will use opportunities whenever there are planned events related to blue growth and innovations in the Black sea region to try to attend and participate either physical or online with the objective to present and promote the DBAN network and its results including the LPAs.

A major aspect to be taken into consideration when designing any communication actions is that in terms of smart specialization, stronger partnerships between knowledge institutes and the business community can contribute to the valorization of ideas and knowledge. That is why communication and coordination between players must be improved. It is essential in this respect that various players start to speak each other's 'language': the usual jargon that policy and knowledge institutes use, is often not recognized by the business community; enterprises often find it difficult to find the right person because they have broad questions and proposals that do not fit the specific task of staff within knowledge institutes.

By promoting the LPAs, DBAN project can support a better understanding of how regional policies, RDI and local and regional blue businesses should meet towards common goals and mutual benefits.

9. MONITORING

The basic principle of any strategy monitoring system is continuous monitoring and collection of information related to its implementation. From the perspective of blue growth and smart specialization at least two sets of KPIs can be taken into consideration, i.e. key performance indicators for socio economic impacts and KPIs regarding funding absorption and generation of R&I related activities.

Relevant socio – economic KPIs able to measure the impact of implemented proposed measures might be: number of jobs or companies created / number of new services or products introduced to the market / productivity increase through the introduction of new processes/methods etc.

In terms of funding absorption and generation of R&I related activities, performance might be measured by indicators such as number of patents or number of connections company – university registered / established in a certain period of time.

KPIs related to the two sets were introduced in the LPA for each specific action.

Taking into account the fact that the present action plan is developed as part of a cross – border project, with limited resources and a limited period of time, the task of monitoring the implementation of the proposed measures will be assumed by each partner for its area.

A key factor in designing the local action plan was represented by the identified stakeholders who were involved in the gathering information process. They are also the key factor for monitoring the implementation of the measures. The input from stakeholders including recommendations and observations on local Blue Growth policy, needs and potential for development will be incorporated into the second Policy Feedback Report.

Due to the fact that it is not possible within the scope and the means of the DBAN project to make a comprehensive monitoring regarding several sectors of Blue economy on a longer period of time, each partner will focus on a specific measure that is approached as in issue within the hackathon and will monitor the way the provided solution is important for a transformational process.

10. REFERENCES AND RESOURCES

- De Vet J-M., Edwards J., Bocci M. (2016), Blue Growth and Smart Specialization: How to catch maritime growth through 'Value Nets', S3 Policy Brief Series No. 17/2016- <https://s3platform.jrc.ec.europa.eu/blue-growth,https://s3platform.jrc.ec.europa.eu/documents/20125/248836/Blue+Growth+and+Smart+Specialisation.pdf/f2ed7c31-80b0-a62b-e4b7-7e7e8a192085?t=1621268542601>
- ECORYS, Deltares, Oceanic Development, Blue Growth Scenarios and drivers for Sustainable Growth from the Oceans, Seas and Coasts, Final Report - <https://maritime-forum.ec.europa.eu/system/files/Blue%20Growth%20Final%20Report%2013092012.pdf>
- The EU Blue Growth Strategy - <https://blue-action.eu/policy-feed/blue-growth>
- The Limassol Declaration - <https://maritime-forum.ec.europa.eu/en/node/3060>
- A European Strategy for Marine and Maritime Research - <https://eur-lex.europa.eu/EN/legal-content/summary/a-european-strategy-for-marine-and-maritime-research.html>
- COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS on a new approach for

- a sustainable blue economy in the EU - Transforming the EU's Blue Economy for a Sustainable Future - <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52021DC0240>
- Common Maritime Agenda for the Black Sea - <https://black-sea-maritime-agenda.ec.europa.eu/>
- The Black Sea Strategic Research and Innovation Agenda (SRIA) - <http://connect2blacksea.org/the-sria/>
- The Black Sea Synergy - https://www.eeas.europa.eu/eeas/black-sea-synergy_en
- Burgas Vision Paper: https://ec.europa.eu/maritimeaffairs/maritimeday/sites/mare-emd/files/burgas-vision-paper_en.pdf
- © 2021 United Nations Environment Programme, Nature – based solutions for climate change mitigation - https://reliefweb.int/report/world/nature-based-solutions-climate-change-mitigation?gclid=CjwKCAjw8-OhBhB5EiwADyoY1T_8BsaulW-o92rwAzzr8ODKE0EJG7tQGyC9vCRhoFH1PJyFS2vclhoCaFgQAvD_BwE
- FAO. 2021. 2021 COFI Declaration for Sustainable Fisheries and Aquaculture. Rome- <https://doi.org/10.4060/cb3767en>
- FAO. 2022. Blue Transformation - Roadmap 2022–2030: A vision for FAO’s work on aquatic food systems. Rome - <https://doi.org/10.4060/cc0459en>
- Porter, M. (1998). “Clusters and the New Economics of Competition”. Harvard Business Review.
- <https://www.marinecluster.com/en/>
- Proposal for a Council Recommendation on the key enabling factors for successful digital education and training - <https://education.ec.europa.eu/sites/default/files/2023-04/CR%20Proposal%20on%20key%20enabling%20factors%20for%20successful%20digital%20education%20and%20training.pdf>
- The Digital Education Action Plan 2021 – 2027 - <https://education.ec.europa.eu/focus-topics/digital-education/action-plan>
- Vuorikari, R., Kluzer, S. and Punie, Y., DigComp 2.2: The Digital Competence Framework for Citizens - With new examples of knowledge, skills and attitudes, EUR 31006 EN, Publications Office of the European Union, Luxembourg, 2022, ISBN 978-92-76-48883-5, doi:10.2760/490274, JRC128415 - <https://publications.jrc.ec.europa.eu/repository/handle/JRC128415>
- Territorial analysis Interreg NEXT Black Sea Basin Programme 2021-2027- Key points- https://blacksea-cbc.net/wp-content/uploads/2021/01/Interreg-NEXT-BSB-Territorial-Analysis_presentation.pdf
- “World Bank. 2020. Bulgaria: Toward Blue Economy Development.”© World Bank.”
- Innovation Strategy for Smart Specialization of the Republic of Bulgaria 2014-2020 https://www.mi.government.bg/files/useruploads/files/innovations/ris3_26.10.2015_en.pdf

- European Manifest Sustainable Nautical Tourism - [http://www.nautical-tourism.eu/upload/files/06_15%20Manifeste%20ANG%2012p\(1\).pdf](http://www.nautical-tourism.eu/upload/files/06_15%20Manifeste%20ANG%2012p(1).pdf)
- <https://eu-citizen.science/>
- https://intellectual-property-helpdesk.ec.europa.eu/news-events/news/use-blockchain-protect-against-counterfeiting-2022-09-16_en
- European Commission WHITE PAPER On Artificial Intelligence - A European approach to excellence and trust - https://commission.europa.eu/system/files/2020-02/commission-white-paper-artificial-intelligence-feb2020_en.pdf
- https://taxation-customs.ec.europa.eu/eu-single-window-environment-customs_en
- INTEGRATED DEVELOPMENT PLAN OF THE MUNICIPALITY OF BURGAS 2021-2027. DRAFT "STRATEGIC FRAMEWORK FOR THE DEVELOPMENT OF MUNICIPALITY OF BURGAS" p. 20-26
- https://eisma.ec.europa.eu/programmes/interregional-innovation-investments-i3-instrument_en
- https://oceans-and-fisheries.ec.europa.eu/funding/emfaf_en
- <https://maritime-spatial-planning.ec.europa.eu/fundings/blueinvest-fund>
- https://research-and-innovation.ec.europa.eu/funding/funding-opportunities/funding-programmes-and-open-calls/horizon-europe_en

ANNEXES

ANNEX 1 - ABBREVIATIONS

AI -	Artificial Intelligence
BESF -	Blue Economy Framework
BSAM -	Black Sea Assistance Mechanism
BSUN -	Black Sea Universities Network
CAM -	Common Maritime Agenda
DBAN -	Digital Blue economy and innovation Acceleration Network
DCF -	Data Collection Framework
DG MARE -	Directorate General Maritime Affairs and Fisheries

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EC -	European Commission
EDP -	Entrepreneurial Discovery Process
EGD -	European Green Deal
EIST - domain)	Economic and Innovation, Scientific and Technological (specialization
E&I -	Economic and Innovation (specialization domain)
EMFAF -	European Maritime, Fisheries and Aquaculture Fund
ENMC -	European Network of Maritime Clusters
EU -	European Union
FAO -	Food and Agriculture Organization of the United Nations
FEDETON -	European Federation of Nautical Tourism Destinations
FPV -	Floating solar photovoltaic
GAPs -	Good Aquaculture Practices
GDP -	Gross Domestic Product
GERD -	Gross Domestic Expenditure on R&D
GVA -	Gross Value Added
H2020 -	EU Programme Horizon 2020
IDP -	Integrated development Plan
JRC -	Joint Research Center. The JRC provides independent, evidence-based knowledge and science, supporting EU policies to positively impact society.
KPIs -	Key Performance Indicators
LAPs -	Local Action Plans
NFC chip -	Near-field communication chip
MSs -	Member States
MSP Directive -	Marine Spatial Planning Directive 2014/89/EU
MU -	Multi - use
RFID tag -	Radio frequency identification tag
R&D -	Research and Development
R&I -	Research and Innovation

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S3 -	Smart Specialization Strategy
SMEs -	Small and Medium - sized Enterprises
S&T -	Scientific and Technological (specialization domain)
STEM -	Science, Technology, Engineering and Mathematics
UN -	United Nations
VCA -	Value Chain Analysis



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