FACILITY FOR BLUE GROWTH IN THE BLACK SEA

Stakeholder Seminar on Blue Economy

"Towards a Common Maritime Agenda for the Black Sea"

19 March 2019 in Istanbul

Concept paper

Workshop 2

Maritime connectivity in the digital era: an engine for blue economy

Contents

Chapter 1 3

Introduction 3

Chapter 2 4

Background: challenges and opportunities for blue growth in the Black Sea 4

Chapter 3 6

1. **Objectives to be achieved in the Black Sea** 6
2. **Challenges** 8
3. **Discussions and intervention input** 11

Concept paper

Workshop 2

Maritime connectivity in the digital era: an engine for blue economy

Chapter 1

Introduction

This Stakeholder Seminar stems from the 2018 Burgas Ministerial Declaration[1], where the participating countries[2] committed to work on the setting up of a Common Maritime Agenda for the Black Sea in 2019. The Burgas Declaration lists the possible cooperation areas to be further developed under the Common Maritime Agenda. The purpose of the seminar is to gather input from the stakeholders in the region in the shaping of the Maritime Agenda.

The seminar is being organised by the Facility for Blue Growth project in cooperation with the European Commission and with the support of the Permanent International Secretariat of the Organisation of the Black Sea Economic Cooperation (BSEC PERMIS).

Experts for the region and beyond will share their vision and experience in developing actions and projects in the Black Sea, with a focus on six blue economy thematic areas. These areas in line with the priorities listed in the Burgas Ministerial Declaration and will be discussed during six parallel workshops. The workshop sessions will be highly interactive and will be flanked by a plenary opening session and a closing discussion. Workshops topics:

- 1) Research and Innovation
- 2) Connectivity
- 3) Tourism
- 4) Sustainability
- 5) Fisheries and Aquaculture
- 6) Blue Skills and Careers

The purpose of this paper is to help guide the discussions during the seminar. The next chapter (2) will provide a brief overview of the blue economy in the Black Sea. The final chapter (3) will present the gap analysis and list of indicative questions to be discussed by the participants during the workshop sessions.

[1] https://ec.europa.eu/maritimeaffairs/.../sites/.../burgas-ministerial-declaration_en.pdf

[2] Bulgaria, Georgia, Republic of Moldova, Romania, Russia, Turkey, Ukraine.

Chapter 2

Background: challenges and opportunities for blue growth in the Black Sea

The blue economy includes all economic activities related to oceans, seas and coasts[3]. It is an essential contributor to the national economic growth and job creation. The competitiveness and sustainability of the blue economy depend on the ability of the stakeholders to embrace and support innovation. Thus, the established activities[4] need to be adapted to the current market demands and the environmental standards. At the same time the emerging sectors, which have significant growth potential, need to be supported.

The Facility for Blue Growth in the Black Sea (Facility) has analysed the state of the blue economy in the Black Sea sea-basin through a desk review of available secondary sources[5]. This analysis[6] has been discussed, expanded upon, and validated through a series of workshops held with stakeholders across the Black Sea coastal countries, as reported on the Facility website[7].

The outcomes of the national workshops[8] confirmed that there is a significant potential for more and more sustainable blue growth and jobs through in the Black Sea. For example, only in Romania and Bulgaria combined the gross added value (GVA) of the blue economy in 2016 was EUR 2 billion. This resulted in about 200,000 jobs in those countries[9]. These figures could well increase in the future if the development of the blue economy is further promoted politically and supported with adequate public and private funding and investment[10].

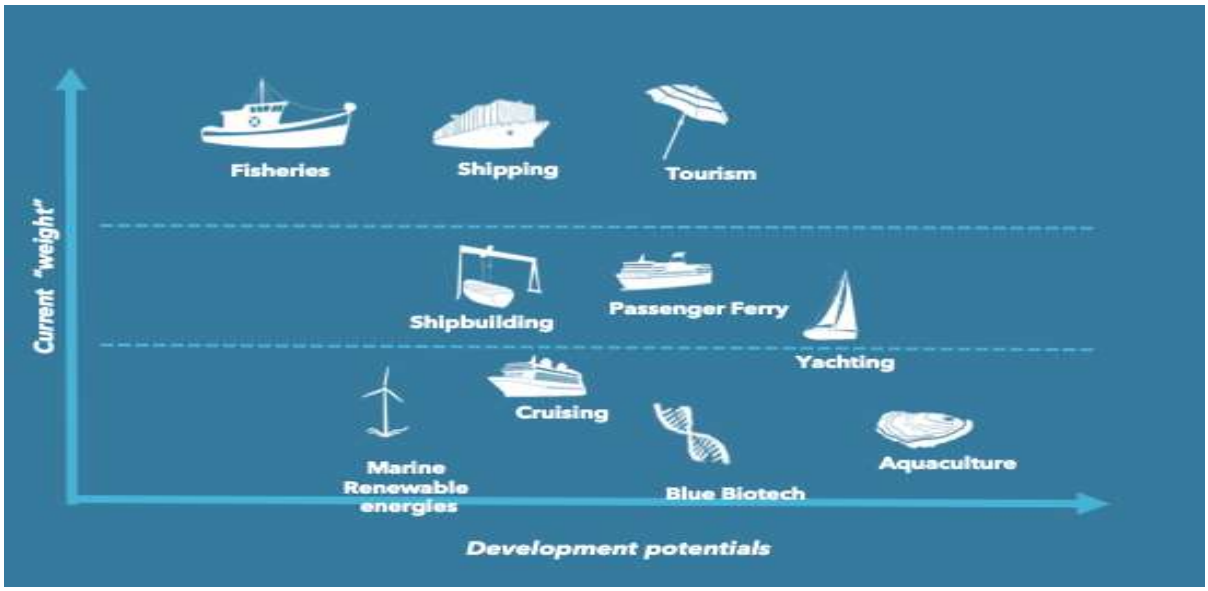
The performance in GVA and jobs creation strongly varies across the various maritime economic activities. Striking differences emerge when comparing activities among countries with respect to the: i) current levels of GVA and job generation (activities such as tourism,

[3] A recent definition by the European Commission (The 2018 annual economic report on the EU blue economy) divides the sectors in the blue economy into: *i) marine-based activities,* that are directly undertaken over or under the oceans, seas and coastal areas (e.g. capture fisheries, aquaculture, offshore oil and gas, offshore wind energy, ocean energy, desalination, shipping and marine transport, marine and coastal tourism), and *ii) marine-related activities,* that use or produce material products and services related to the oceans and seas (e.g. seafood processing, marine biotechnology, shipbuilding and repair, port activities, communication, equipment, marine insurance and marine surveillance). The blue economy also includes those parts of the public sector with direct coastal and ocean responsibilities (national defence, coast guard, marine environmental protection, etc.) as well as marine education, research and observation.
[4] for instance, fisheries, maritime transport maritime and coastal tourism
[5] Based on a targeted analysis of Strengths, Weaknesses, Opportunities and Threats (SWOT) of the maritime sectors and marine and coastal capital at national and regional level (national administrations, regional studies in particular the scoping mission in support to the development of Blue Economy and Integrated Maritime Policy in the Black Sea.
[6] Regional assessment of the Blue Economy
[7] https://blackseablueconomy.eu/publication-categories/deliverables
[8] https://blackseablueconomy.eu/our-events
[9] 2018 annual EU Blue economy report
[10] Innovation /education (for emerging sectors) or adaptation/training (for existing sectors)

fisheries, and shipping are the most relevant today), as well as ii) expected improvements of such performance in the future (tourism may still remain relevant, but other emerging activities such as yachting or aquaculture, which are expected to grow exponentially in the next years).

An overview of such heterogeneity regarding the weight of the sectors (GVA and jobs) and their potential of development is presented on figure 1. This will be the basis for discussion during the workshop aimed at identifying tailored support actions.

Figure 1. Overview of the state of play of the maritime economic activities in the Black Sea



Source: BGBS Facility (based on secondary sources and inputs shared during national workshops held in 2018)

Furthermore, discussions held during the workshops organised by the Facility pointed to a number of challenges. These challenges need to be addressed in order to ensure an economically, socially and environmentally sustainable blue growth in the Black Sea:

- ***Established activities in relatively 'established' and large economic sectors are not fully sustainable. Innovation should be fostered to maximise their positive impact for local communities and ecosystems.*** Relatively established maritime economic activities such as tourism, fisheries, shipbuilding, shipping, ferries require strong adaptation and innovation within existing business models and services offered in accordance with international standards (e.g. Ports services) or to meet customers demand regarding sustainability (e.g. ecotourism) to fulfil their economic potential and become more resilient. This would allow

for the maximisation of their potential to boost local economic returns and provide for more stable and high-quality jobs (e.g. in tourism, in shipping).

- ***Emerging activities, currently representing a limited share of the overall GVA and jobs for the blue economy in the region. Those activities require greater support to fulfil their development potential.*** There are specific and valuable niche markets with large potential in the Black Sea - small-scale yachting, cruising and aquaculture - which could be instrumental in the diversification of above-mentioned 'traditional' sectors based on the re-use of the skills between their value chain (fisheries and aquaculture or fisheries and yachting (pescatourism)).
- ***Underdeveloped economic activities have still uncertain potential, due to the lack of availability of essential and applied marine research data. Hence further basic research is required to boost their growth in a sustainable manner.*** Such sectors include renewable marine energy (e.g. offshore wind) and biotechnologies, for which further research would allow for assessment of their actual potential and prospective pre-commercial opportunities.

Building on this analysis, the regional seminar aims to provide the stakeholders from various maritime and marine sectors a forum to discuss the main challenges and opportunities for blue growth in the Black Sea. The participants will be asked to identify strategic joint actions to address the bottlenecks. To do so, structured exchanges will be held through a series of "thematic workshops".

Chapter 3

1. Objectives to be achieved in the Black Sea

The implementation what objectives and actions will foster the maritime connectivity in the Black Sea?

Objective 1: Boost cooperation across the Black Sea to ensure greater interconnectivity between ports and inter-modality

Greater integration of maritime and inland transport and the development of intermodal connectivity, within and across countries, are essential to boost mobility. ***Common sea basin challenges and possible joint solutions should be taken fully into account in the plans for future transport development across the Black Sea.*** Importantly, and as stated by the

Intergovernmental Commission TRACECA[11], efficiency of ports is not solely a sea-related issue, given that infrastructures in the regional transport system are not independent of one another. The **river-sea connections provide opportunities for tourism growth and transport, and foster synergies across sectors** (coastal- and land- tourism; short sea shipping and shipbuilding), which allow for greater generation of local added value.

Objective 2: Better develop RoRo shipping and foster more efficient Europe-Asia connections

The Black Sea region should be regarded as a 'strategic bridge' connecting the Mediterranean and Europe at large to Central Asia, the Middle East, South-East Asia and China. To make the most of this pivotal role, provide reliable inter-regional transport means, and achieve a larger market share of ro-ro shipments, more efficient connectivity between ports is needed at the regional level. This is highly relevant, as lots of ports have set out objectives for expansion, to compete against the underdeveloped road infrastructure in the hinterland..

Objective 3: Support innovation of the logistics chains and related infrastructures

Related added value creation must be based first **on the adaptation of the logistics/supply chain** in terms of business models as well as **further investment in innovation, technologies such as digitalisation, and provision of services,** in order to generate greater economic development and high-quality local jobs within the Black Sea.

Objective 4: Ensue greater respect of international safety and environmental standard (green ports)

Full support should be provided to meet international safety and security standards, including with respect to environmental protection (green ports). The performance and availability of services should fully reflect the needs of the blue economy activities in the region, while an upgrade of skills should be fostered to meet international standards – including in port state control, CO2-emission-free performances, as well as quality of port-reception facilities and shipping/transport operations. Acceleration of testing and deployment of **infrastructural networks required for the use of Liquefied Natural Gas (LNG)** should also be considered**.**

[11] Strategy of the Intergovernmental Commission TRACECA for development of the international transport corridor - Europe-the Caucasus-Asia - for 2016-2026

2. Challenges

What are the specific challenges and gaps to be addressed to achieve such objectives?

Challenge 1: Concentration of cargo flows must be well balanced in order to achieve efficient modal shifts

The Black Sea basin is a major transport area with a total of 18 major ports. Good port infrastructures are available in the area and connections exist between several Black Sea countries (ferries, maritime transport, etc). In terms of port regionalization[12], the Black Sea region is divided into three multi-port gateway sub-regions - Black Sea West (Burgas, Varna, Constantza), Black Sea North (Odessa, Iliychievsk, Yuzhnyi, Mariupol) and Black Sea East (Poti and Batumi) - and one separate gateway (Novorossiysk). The ports of Constanza, Odessa, Iliychevsk, Yuzhny and Novorossiysk are called directly by shipping lines. During the last fifteen years the size of the vessels visiting these ports grew to 8,000 TEU, maximum size is about 9,000 TEU due to the navigational restrictions of the Bosporus strait. The smaller ports in the Black Sea region are called by feeder vessels and the ports of Istanbul, Piraeus, Damietta, Port Said, Gioia Tauro, Malta etc. are used for transhipment. Black Sea countries recognised with the endorsement of the Burgas Declaration that shipping, passenger and cruise lines to boost trade and promotion of transport connectivity could be areas of voluntary cooperation throughout the Black Sea.

Despite this, due to the lack of post-crisis economic recovery, **liner shipping operations still suffer from strong imbalances between demand and supply**. However, feeder services have undergone a different path of development, which has led to an increase of port numbers and of deployed vessels, though performance depends mainly on the availability of transportation cargo volumes and thus there are imbalances between front hauls and back hauls within the network[13]. It must also be noted that ro-ro vessels employed in the region are not high-speed, resulting in longer transport durations and irregularities in scheduling. Black Sea port operators therefore strive to increase the volumes of ro-ro shipments as a tool to expand their market coverage. Further, in terms of marketing capabilities, it is difficult to compete with international containerized freight cargo. Problems also persists with an **inefficient integration with other modes of transport,** mainly due to the underdeveloped road structure. The latter impedes the integration of ro-ro shipping into the intermodal supply chains. As the intermodal networks are vital for the development of the port system in the Black Sea, **concentration of cargo flows must be well balanced in order to achieve efficient modal shifts.**

[12] A. Varbanova (2018), Faculty of Shipbuilding, Technical University – Varna, Bulgaria
[13] A. Varbanova (2018), Faculty of Shipbuilding, Technical University – Varna, Bulgaria

Challenge 2: Greater support is needed to recover from recent losses and boost Ro-Ro services

Following the economic crisis in 2008 and its effect on the transportation of finished goods, the liner companies sustained significant losses. The rationale behind the new strategies of liner operators lies within the several possible strategic scenarios: restructuring of liner services as networks, withdrawal and scrapping of vessels, flexibility in terms of slot numbers, improvement in the rate of utilization, decreasing of overheads. The main concern of liner operators in the region is **the minimization of operational cost** (liner services, inland transportation) **and maximization of the quality of service** by use of a customer-oriented approach, whilst also having direct calls as much as feeder calls. The Black Sea container terminals of Ukraine, Romania, Russia, Georgia and Bulgaria handled 2,752,709 TEU in 2017, a number that includes empty containers but excludes transhipment[14]. Despite the fact that the container market is in general becoming more concentrated in Europe, the Black Sea region still remains a secondary market benefiting presently from higher levels of regional connectivity. This situation can offer margins of development for the sector.

There is a serious potential that the larger ports in the Black Sea region attain higher concentrations and benefit from economies of scale (both of maritime and inland modes of transport) and increased frequency of liner port calls. An important need for smaller ports, located close to larger ones, are the existing hinterland links of the latter. More than 90%[15] of the gross weight of the goods transported by short sea shipping is mainly liquid and solid bulk whereas short sea shipping of goods on Ro-Ro units barely registered in the Black Sea. Containerized cargoes accounted for only 5 % of the short sea shipping in the Black Sea, likewise cargoes transported in ro-ro shipments accounted for less than 2% in the Black Sea region.

Challenge 3: Limited innovation in the logistics/supply chain is a bottleneck for service development

Innovation in the logistics and supply chain for transport services in the Black Sea remains substantially limited. The number of ports within the regional feeder networks in the Black Sea have increased but have no definite model of cargo concentration. This is also due to the fact the traffic and cargo volumes increased in transhipment ports, i.e. in Istanbul. The ports of Varna and Burgas have been competing with the port of Constanza during the last two decades, also Odessa has gained an advantage over Iliychevsk. **Limited technological development in the Black Sea hinterland infrastructures and logistic chains, combined with**

[14] Hellenic shipping news worldwide (04/2018)
[15] Eurostat 2018

the lack of effective modal shifts, prevent the concentration of freight flows in ports and limits potential developments in logistical services across the Black Sea.

Challenge 4: The capacity to implement international standards is limited and should be supported

To address the economic opportunities related to the increase of the maritime (including river) connectivity within the Black Sea, it is essential to take into account the existing status of the marine and coastal environment in the Black sea. Efforts are needed to tackle pollution from ships but also the ports with the upgrade of port standards (ECOPORT) but also with multilateral sharing of data of maritime surveillance. Importantly, some actions to sustain the adoption of international standards are already ongoing. The EU funded Black and Caspian Sea project, for example, provides training in several areas: (i) on IMO Port State Control Procedures for non MoU on Port State Control countries; (ii) for full endorsement of the responsibility of Vessel Traffic Services staff in accordance with the guidelines set out in the relevant IALA (International Association of Marine Aids to Navigation and Lighthouse Authorities) Recommendation V-103/1; (iii) for promulgation, establishment of legislation, and implementation of national procedures enabling Black Sea countries to effectively perform their obligations, and to exercise an effective Flag State jurisdiction in accordance with relevant instruments. These **activities should be further supported to achieve a sufficient level of capabilities across the Black Sea. Additional support should also be provided for a full uptake of LNG networks and related infrastructures,** to boost green ports facilities and international environmental standards.

3. Discussions and intervention input

The discussions in this panel will focus on the challenges and opportunities related to innovative logistics and sustainable infrastructures, the adoption of international quality and safety standards, as well as the promotion of inter-regional and multi-modal connectivity. This panel will discuss competitiveness and sustainability of maritime connectivity in the region, which are based on the one hand on the optimization and the rationalization of the logistics chains (traffic, platforms, network), as well as on the development of intermodal transport or motorways of the sea, and on the other hand on the improvement of its sustainability with the full implementation of existing international and emerging standards for the management and greening of ports and shipping.

A set of questions is now proposed, as a basis for discussion during the panel:

- How, if necessary, could a **port cooperation mechanism** within the Black Sea be implemented in order to address common bottlenecks (port infrastructures, interfaces and procedures/operations) and **boost regional maritime transport, short-sea shipping capacity and cross-border ferry connectivity**?
- How can **RoRo shipping be better developed,** taking in account the difficult balance between services provision (frequency, reliability), the level of investments (vessels, ports) and the costs of transportation in the Black Sea, **for a better Europe-Asia connection** (including through efficient interconnections with navigable inland waterways)?
- How can new technologies (including digitalisation) contribute to improve port efficiency (as well as specific measures to implement)? How to foster **innovation of the logistics chains and related infrastructures** (traffic, platforms, network), to address the actual needs of the various activities encompassing the blue economy in the region, by supporting smart connectivity and digitalisation of ports and infrastructures *(e.g. smart hubs*)? How can improvements of the **integrated management of the ports system** fully support the blue economy sector potentials in the Black Sea?
- How to foster t**he implementation of international standards** for safe, sustainable and CO2-emission free ports, ports-reception facilities and shipping/transport operations? How to define, test and deploy the **infrastructure network for the use of Liquefied Natural Gas (LNG)** so that maritime transport can promote green shipping through clean fuels (green shipping

FACILITY
FOR BLUE GROWTH
IN THE BLACK SEA