BLACK SEA – BORDERLINE OR A LAUNCHING HUB FOR INNOVATION AND CIRCULARITY

Prof. Milen Baltov, PhD
Burgas Free University, Bulgaria

Abstract. 2018 was a year when the Black Sea stood in the focus and was the favourite basin of the European Union policies towards the maritime issues and the emerging blue growth dimensions. 2019 turn to be the year of the so called "mission economy", when the research and innovation policies of the EU took the track towards five mission areas – one of them on healthy oceans, seas, inland and coastal. Unfortunately at the end of 2021, when appeared the final version of this mission the Black Se was not namely written in its four limelight (pillars) – considering the majour basins around Europe. 2022 further escalated with the war that Russian Federation started against neighboring Ukraine. In this paper will be outlined both the logic of the mission "Restore our Oceans and Waters 2030", and the business and innovation challenges when applying to the Black Sea basin and its coastal territories.
Keywords: circular economy, blue economy, blue growth, SMEs, innovation, funding
JEL: O31, O33, O35, Q01, R11

Introduction

2018 was a year when the Black Sea stood in the focus and was the favourite basin of the European Union policies towards maritime issues and the emerging blue growth dimensions. 2019 turn to be the year of the so called "mission economy", when the research and innovation policies of the EU took the track towards five mission areas – one of them on healthy oceans, seas, inland and coastal. Unfortunately, at the end of 2021, when appeared the final version of this mission the Black Sea was not namely written in its four limelight (pillars) – considering the majour basins around Europe. 2022 further escalated with the war that Russian Federation started against neighboring Ukraine. In this paper will be outlined both the logic of the mission "Restore our Oceans and Waters 2030", and the business and innovation challenges when applying to the Black Sea basin and its coastal territories.

The blue economy and the Black Sea potential

Many of the activities related to the blue economy take place upstream and downstream of one another, creating a value chain. It is important to consider these value chains in the context of SME involvement. Many SME-

related activities take place not in the core of the sector, but upstream or downstream. In the maritime transport sector, shipping is the core activity. However, a great deal of value is added in seaports and associated services, as well as in shipyards and other supply activities that support shipping. Another example is fisheries, where opportunities exist to extend the value chain both upstream (e.g. vessel support services) and downstream (e.g. processing whole fish into higher-value products). The extent of the value chain will determine the total value that can be realised from a single maritime sector. Emerging technologies show that these value chains act as multipliers, triggering the introduction of new forms of production, technologies, logistics, labour processes, organisational relations and networks (Roberts, Ali 2016). If mapping of the Black Sea Blue Economy sectors, following the categorization proposed by the recent Blue Economy report (European Commission, 2021), that separates all those activities in marine-based and marine-related.

Blue economy includes not only the established sectors, meaning the traditional sectors of tourism, fisheries and aquaculture, and shipping, ports and maritime activities, but also emerging and innovative sectors that are expected to bring new opportunities for investment and further contribute to the development of the coastal communities. However, one of the main challenges encountered during the Blue Growth literature review was the lack of data for the emerging sectors.

According to the World Bank (2020), the contribution of the Blue economy in Bulgaria to the national economy in 2018 is significant compared to the standards of EU. The sea-related sectors generated in 2018 approximately EUR 995 million GVA, which is nearly 2% of Bulgaria's GDP and 3.4% of all jobs. These data place Bulgaria above the EU and above Italy and France. It covers the sectors of coastal and marine tourism, shipping, ports, shipbuilding and repair, fishing and aquaculture, oil and gas exploitation. It is believed that the favourable conditions for health tourism on the Bulgarian Black Sea coast can become a significant source of new jobs. In 2018 coastal tourism alone generated 80% of all jobs in the blue economy in Bulgaria and contributed 69% to the GDP generated by the blue economy, according to the same source.

Blue Growth supporting initiatives focused on the Black Sea basin

The Blue Growth supporting initiatives of relevance to the Black Sea. Among them, few are in the focus of both investments and the future decision making, starting with the Black Sea Assistance Mechanism (BSAM)[1]. The BSAM for the implementation of the Common Maritime Agenda (CMA) provides guidance and support to governments, private investors, trade and

[1] https://black-sea-maritime-agenda.ec.europa.eu/about/bsam

industrial associations, research institutions and universities and to the general public regarding opportunities to engage in Blue Economy maritime activities in the Black Sea region. The CMA sets three major goals for the Black Sea: 1) Healthy marine and coastal ecosystems; 2) A competitive, innovative, and sustainable Blue Economy; 3) Fostering Investment. The implementation of the Common Maritime Agenda (CMA) will be supported at a regional level by the National Hubs from the seven Black Sea countries in order to involve local stakeholders.

On the other hand, the Black Sea Trade and Development Bank (www.bstdb.org) is an international financial institution with headquarters in Thessaloniki, Greece, was established by Albania, Armenia, Azerbaijan, Bulgaria, Georgia, Greece, Moldova, Romania, Russia, Turkey, and Ukraine. BSTDB started operations in June 1999 and has authorized capital of €3.45 billion. The Bank supports economic development and regional cooperation in the Black Sea Region through trade and project finance lending, guarantees, and equity participation in private enterprises and public entities in the member countries.

The Black Sea Economic Cooperation (BSEC, www.bsec-organization.org/) came into existence as a unique and promising model of multilateral political and economic initiative with the signing of the Istanbul Summit Declaration and the Bosphorus Statement by the Heads of State and Government of the countries in the region, on 25 June 1992. With the entry into force of its Charter on 1 May 1999, BSEC acquired international legal identity and was transformed into a full-fledged regional economic organization - the Organization of the Black Sea Economic Cooperation. Aiming at fostering interaction and harmony among its members, as well as to ensure peace, stability and prosperity, encouraging friendly and good-neighbourly relations in the Black Sea region, today BSEC serves as a forum for cooperation in a wide range of areas for its 13 Member States: Albania, Armenia, Azerbaijan, Bulgaria, Georgia, Greece, Moldova, North Macedonia, Romania, Russia, Serbia, Turkey and Ukraine. The BSEC Headquarters - the Permanent International Secretariat of the Organization of the Black Sea Economic Cooperation (BSEC PERMIS) - was established in March 1994 in Istanbul. Agriculture and agro-industry, banking and finance, combating organized crime, culture, customs matters, education, emergency assistance, energy, environmental protection, exchange of statistical data and economic information, healthcare and pharmaceutics, information and communication technologies, institutional renewal and good governance, science and technology, SMEs, tourism, trade and economic development and transport are among the main fields of cooperation within the framework of the Organization.

Black Sea Virtual Knowledge Centre (BSVKC): http://www.bsec-bsvkc.org/Forms/Default BSVK is a project supported by the European Commission (DG Maritime Affairs and Fisheries) and managed by the Permanent International Secretariat of the Black Sea Economic Cooperation Organization (BSEC PERMIS) for a duration of 24 months. The objective of the BSVKC is to provide a centralized platform for information on the Blue Economy in the Black Sea and to improve synergies between stakeholders and Blue Economy related projects in the region. The objective of the BSVKC is to support sustainable Blue Economy in the region by contributing to the implementation of the Common Maritime Agenda. The project will provide the necessary means to disseminate information, ensure synergies and raise awareness about opportunities in the Blue Economy sector. It also aims to support the work of the CMA Black Sea Steering Group, by providing regular updates on progress in the implementation of the CMA. The BSEC PERMIS will contribute to the establishment of the necessary complementarities and links with other relevant initiatives that are funded by the European Union, for example the Black Sea CONNECT CSA project related to the Strategic Research and Innovation Agenda for the Black Sea (SRIA).

The sustainable Blue Economy is expected to grow at pace over the next decade and offers significant opportunities for investment (Baltov, 2021). Several studies have provided estimates of this growth potential. The nature protection organization World Wide Fund for Nature (WWF) has estimated that overall global ocean assets, including ecosystem services, are worth $24 trillion and that a significant percentage of these assets will rely on healthy, productive, and resilient oceans to maintain their value (WWF 2015). The Organisation for Economic Cooperation and Development (OECD) conservatively valued the Blue Economy's contribution to the global economy in 2010 alone at $1.5 trillion in gross value added (GVA) terms. With an estimated three billion people relying directly on the sea for their livelihoods, and GVA set to reach $3 trillion by 2030, the Blue Economy has the potential to outperform the global economy, in terms of both value added and employment, if managed in a sustainable manner (OECD 2016).

Investigating commercially oriented innovations, which are more likely to come from business, the European Commission report (2018) concludes that large corporations are less likely to face financial constraints that hinder their investment, in compared to small enterprises, and on the other hand, large established companies have less incentive to innovate than new companies.

Implementation of research results and deployment of innovation will unlock the potential of the blue economy by bridging the gap between research and commercialization and sustainable development of blue economy activities (Pace et al 2023). Firms operating in the blue economy or also called

"blue firms" receive insufficient financing from existing sources to be able to be sufficiently innovative, regardless of whether it concerns public or private sources of financing, the same study states. The report's recommendations are to overcome this deficit, as the blue economy has a high potential to achieve economic growth and job creation, but also innovation and sustainability, given its interdependence with the circular economy (BELLEI et al. 2024). It is concluded that the lack of sufficient information and rather the lack of the right information to SMEs about financing opportunities can be an obstacle to financing their projects and hence the inability to achieve the goals and to achieve an increase in their innovation. It is therefore recommended to introduce a single point of contact for all available blue economy funding provided by the EU. The achievement is possible, according to the authors, by implementing BEIP, similar to the InvestEU platform.

Conclusion

However, the environmental risks or losses in natural capital resulting from unsustainable economic activity in the ocean are continuing to erode the resource base on which such growth depends. The stress and depletion of marine resources have been well-documented: acidification and warming seas are causing widespread damage; 85 per cent of fish stocks are either over-exploited or exploited to the limit; some estimate that the ocean could contain one kilogram (kg) of plastic for every three kilograms of fish by 2025 should practices not change. Unlocking the full potential of a sustainable Blue Economy is good for the ocean and good for economies globally. Sustainable Blue Economy investment and development must be aimed, from the outset, at the transition to a net-zero emissions world, using circular economy models.

ACKNOWLEDGEMENT

The current paper was designed and drafted during and due to the period of research grant at the Burgas Free University of № KP-06-N65/12, financed by the Bulgarian National Research Fund. Attitude of Bulgarian Entrepreneurs and Managers towards Continuing Vocational Education and Training of Organization's Human Resources (ABECVET), Bulgarian National Science Fund (BNSF), Contract: №КП-06-Н65/12, 12.12.2022.

REFERENCES

AEVELINA R., KARIM, N. 2015. Green Shipbuilding and Recycling: Issues and Challenges, *International Journal of Environmental Science and Development*, **6** (11), 838-842, Available from https://www.ijesd.org/vol6/709-JM1023.pdf

BALTOV, M. 2021. The Blue Growth Smart Specialisation Challenges Towards the Restorative Economy, Chapter in REthinking Sustainability TOwards a Regenerative Economy (eds. Andreucci, M., Mavrugla, A., Baltov, M., and Hansen,

P.), Springer, 281-294. Available from: https://link.springer.com/chapter/10.1007/978-3-030-71819-0_15#citeas

BARRETO, R., GŁOWACKI, K., PERZANOWSKA-SZYMCZAK, J., PUCHER, J., HAIDER, J. 2018. Study to support investment for the sustainable development of the blue economy, European Commission, Available from https://op.europa.eu/en/publication-detail/-/publication/7e2a955d-4016-11eb-b27b-01aa75ed71a1/language-en

BELLEI, P., SCHAFER, G., MAGALHAES, F., TORRES, I., COSTA, E., SOLSTAD, R., FLORES-COLEN, I. 2024. Oyster shells' incorporation into mortar to achieve blue circular economy – LCA case study in Portugal, *Procedia Structural Integrity*, 96-102. Available from: https://doi.org/10.1016/j.prostr.2024.02.013

EUROPEAN COMMISSION 2021. Blue Economy Report 2021, Available from: https://op.europa.eu/en/publication-detail/-/publication/0b0c5bfd-c737-11eb-a925-01aa75ed71a1

JRC 2016. Building Industries at Sea: 'Blue Growth' and the New Maritime Economy, *Ocean Energy Status Report*. Brussels.

OECD 2016. The Ocean Economy in 2030, OECD Publishing, Paris. Available from: www.oecd.org/content/dam/oecd/en/publications/reports/2016/04/the-ocean-economy-in-2030_g1g6439e/9789264251724-en.pdf

PACE, L., SARITIS, O, DEIDUN, A. 2023. Exploring future research and innovation directions for a sustainable blue economy, *Marine Policy*, 148. https://doi.org/10.1016/j.marpol.2022.105433

ROBERTS, JP., ALI, A. 2016. The Blue Economy and Small States. *Commonwealth Blue Economy Series*, 1. Commonwealth Secretariat, London. Available from: https://production-new-commonwealth-files.s3.eu-west-2.amazonaws.com/s3fs-public/2022-02/BlueeconomyandSmallStates_UPDF.pdf

RTD and DG Mare expert group (2018), Burgas Vision Paper - A Blue Growth Initiative for Research and Innovation in the Black Sea, Burgas.

The World Bank 2020. Bulgaria: Toward Blue Economy Development, Available from: https://documents1.worldbank.org/curated/en/750341608100452940/pdf/Toward-Blue-Economy-Development.pdf

WWF 2015. Reviving the Ocean Economy. The Case for Action, Available from: https://wwfeu.awsassets.panda.org/downloads/reviving_ocean_economy_report_low_res_2.pdf

Prof. Milen Baltov, PhD
ORCID: 0000-0002-1195-7479
Burgas Free University
Burgas, Bulgaria
E-mail: mbaltov@bfu.bg