

*High-Level Conference on Inter-basin Cooperation on Marine Litter:
a focus on the Danube River and the Black Sea
4 April 2019, Sofia, Bulgaria*

Research gaps and priority actions on marine litter and
pollution in the new **Strategic Research
and Innovation Agenda of the Black Sea (SRIA, in progress)**

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Representing the work carried out by Black Sea coastal countries experts, (BG, GE, RO, RUS Fed. TU and UKR and MOL), in cooperation with marine experts from leading European marine institutes and organisations, with the support of the European Commission

A Blue Growth Initiative for Research and Innovation in the Black Sea



Milestones:

June 2018 – Burgas EMD – Vision Paper for SRIA

May 2019 - Romania – Launch of SRIA

Workshops:

1. Brussels June 2017
2. Batumi Sept 2017
3. Brussels Dec 2017
4. Istanbul March 2018
5. Burgas May 2018
6. Bucharest October 2018
7. Brussels January 2019
8. Istanbul March 2019

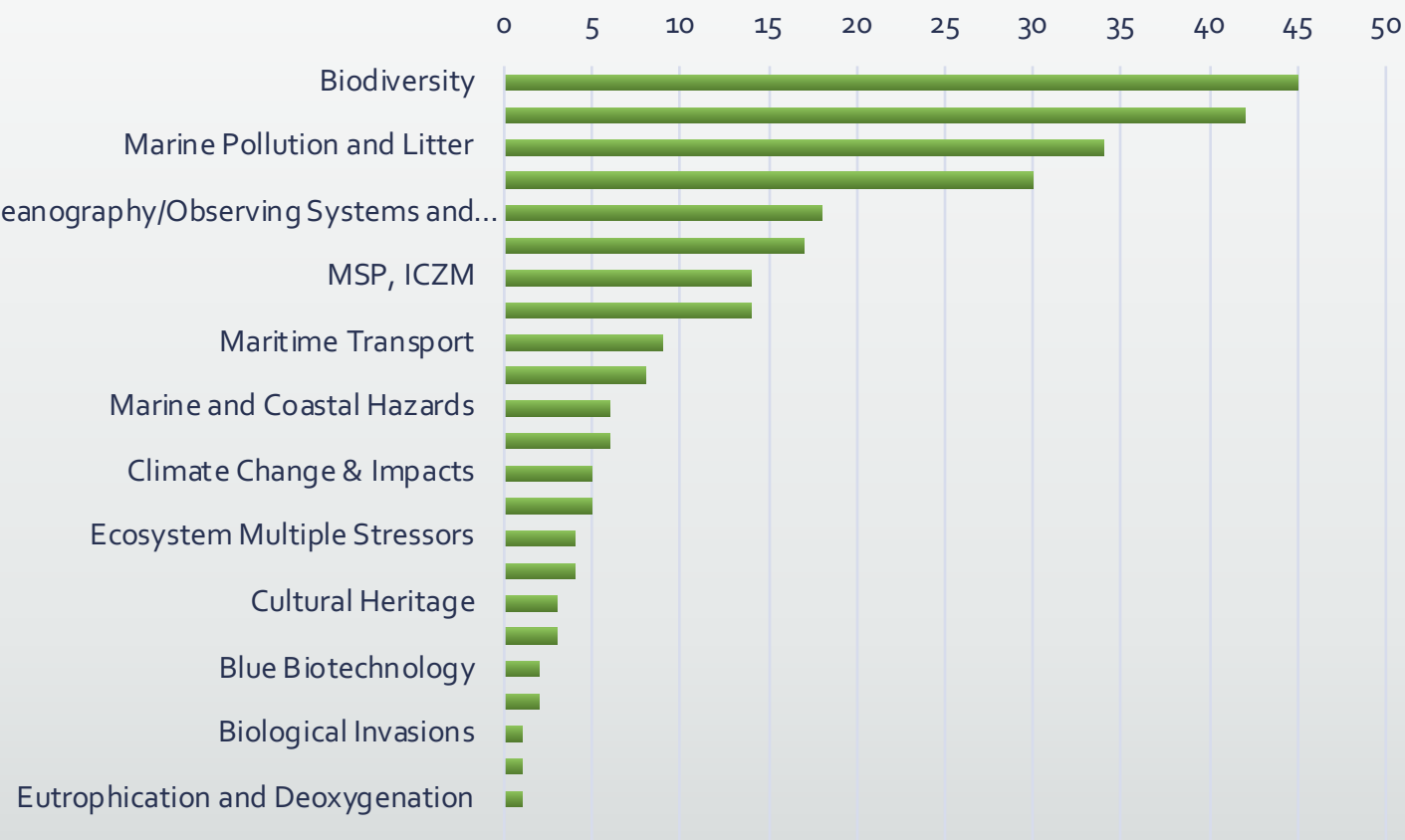


How did we get here?

Information was collected on;

- **Projects.** Marine research project information
- **Matrix A.** Analysing gaps and research & innovation opportunities providing the necessary justification/drivers
- **Matrix B.** Regional and national boundary/framework conditions for the R&I needs and opportunities for successful implementation
- **Workshops.** Further analyses which result in the identification by the Black Sea Blue Growth Initiative group of : i) common vision, ii) challenges, iii) goals of the SRIA.
- **Vision Paper.** These results were presented in the Burgas Vision Paper.

Number of projects according to main R&I areas



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The matrix of marine research projects
Total Projects of Black Sea Countries - 274 Projects

Top-ranking marine research areas

National Projects

1. Biodiversity
2. Multiple Areas
3. Marine Pollution/Litter
4. Living Marine Resources
5. Operational Ocea./Obs. Systems Monitoring

EU Projects

1. Socioeconomics & Policy
2. Operational Oceanography/Obs. Systems Monitoring
3. Training and Tech. Transfer
4. Blue Biotechnology
5. Climate Change & Impacts

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Burgas Vision Paper

https://ec.europa.eu/maritimeaffairs/maritimeday/sites/mare-emd/files/burgas-vision-paper_en.pdf



Takip et

Good news: a shared vision for a productive, healthy, resilient, sustainable and better valued **#BlackSea** by 2030 launched today with the Initiative for Research and Innovation in the Black Sea in Burgas **#EMD2018** ec.europa.eu/research/bioec... **#Bluegrowth**



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EU Maritime & Fish ретвитна



EU Maritime & Fish @EU_MARE · 19 ч

Science diplomacy in the **#BlackSea** basin bringing people together for a Strategic **#Research** & **#Innovation** Agenda at the **#EMD2018** in Burgas. Read the vision paper here: [europa.eu/!Uj69hR](https://ec.europa.eu/!Uj69hR)



ErasmusMATES, METU Marine Sciences, EUScience&Innovation и 6 други

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The Black Sea

A unique sea basin, rich in biodiversity and heritage, but also where an exceptional combination of natural and human induced stressors co-occur

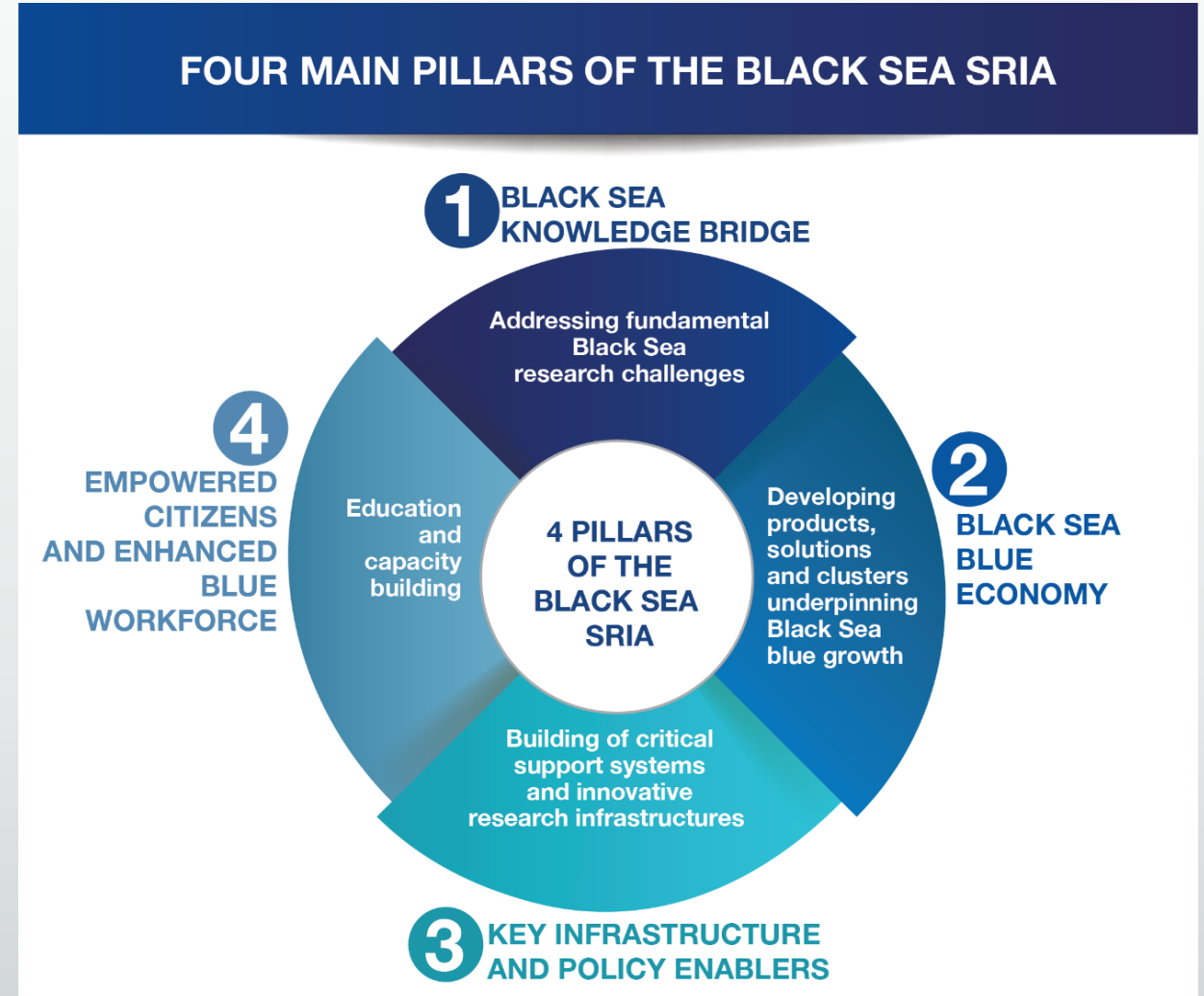


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Main pillars of the Black Sea SRIA based on the Burgas Vision Paper

- The SRIA considers the special and unique ecosystem characteristics of the Black Sea, its biodiversity and its submerged cultural heritage sites while supporting new local, national and transboundary policy measures.
- These principles were used through planning the goals and actions to address the related challenges. The Initiative has identified four main pillars

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FROM BURGAS VISION PAPER TO SRIA IMPLEMENTATION



The structure of the SRIA was set to pave the path for an effective and realistic implementation of the SRIA which includes a clear definition of goals, challenges, targets and main actors

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Steps taken to develop the SRIA

- The SRIA is developed on the already agreed goals as stated in the Burgas Vision Paper.
- The Black Sea SRIA will be further updated in dialogue and in close link with relevant national stakeholders, by analysing in depth the goals of the 4 pillars, key challenges and actions and providing a solid knowledge basis to establish the scope, specific needs and priorities for the different actions foreseen.
- The **goals** were defined as broad objectives to address a key sub-challenge that will facilitate reaching certain ambitious but achievable targets.
- The **actions** needed to achieve and implement the goals through the commitment by certain actors by a given timeframe were developed.



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Litter-related selected actions from SRIA

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Pillar 1 - Addressing fundamental Black Sea research challenges

Main Goal 1 - Developing innovative multi-disciplinary research, building on existing initiatives, including data sharing mechanisms that will generate the knowledge needed to increase ecosystems resilience

Actions	Main Actor(s)-Initiatives
<ul style="list-style-type: none">• Address the main Black Sea challenges on eutrophication, deoxygenation, invasive species, emerging pollutants, litter (Medium /Long Term)	Academia, Research Institutes, public, private sector , FAO, GFCM, BSC
<ul style="list-style-type: none">• Quantify sources of natural and anthropogenic inputs including the catchments, rivers, atmosphere, maritime activities, towards an understanding of the drivers and processes that influence the Black Sea at wider scale (covering river-to-sea interactions and atmosphere – hydrosphere interfaces) (Short/Medium Term)	Port Authorities, Maritime Agencies, Space Agencies, EU Safety Security at Sea, Municipalities, River Commissions, Academia, Research Institutions, Ministries and Governmental Agencies, Research Infrastructure Networks, Coastal communities, NGOs, BSC
<ul style="list-style-type: none">• Develop research on Integrated Coastal and Marine Management including the interaction between land-based and sea-based activities and their impacts on coastal zones, both landward and seaward (Short/Medium Term)	BSC, Ministries and Government Agencies, MEDCOAST, Universities, Research Institutions, Municipalities, NGOs, CPMR

Pillar 2 - Developing products, solutions and clusters underpinning Black Sea Blue Growth

Main Goal 2 - Creating incentives for maritime innovation in existing and new, emerging blue economy sectors

<ul style="list-style-type: none">• Develop and promote innovative marine litter (including microplastics) management techniques both on land and sea in line with the principles of circular economy (Short Term)	BSC, GFCM, citizens, municipalities, NGOs, local communities, Ministries and related governmental agencies Academia, Research Institutions, private sector
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Litter-related selected actions from SRIA

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Pillar 3 - Building of critical support systems and innovative Infrastructures

Main Goal 1 - Development of smart 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

Actions	Main Actor(s)-Initiatives
<ul style="list-style-type: none">Develop and enhance a network of dedicated Marine Research Infrastructures at the Black Sea, building on existing European and international initiatives, ensuring interaction between the ongoing projects and research activities (Short Term)	Research infrastructures (such as EMSO -ERIC, DANUBIUS-RI, EURO ARGO-ERIC RI, Jerico, HYDRALAB, etc.), GOOS, IOC, EuroFleets, etc., Ministries and related governmental agencies, Academia, Research Institutions, private sector
<ul style="list-style-type: none">Produce, collect and make available compatible high-quality data sets (the FAIR principles and open data access) (Short/Medium Term)	Academia, Research Institutions, NCPs, National Data centres and organizations, Authorities, Regional data infrastructures and European such as COPERNICUS , EMODNET, SeadataNET, SeaData Cloud, DANUBIUS-RI, EURO ARGO ERIC RI
<ul style="list-style-type: none">Integrate, strengthen and upgrade monitoring, modelling and forecasting capacities to address societal challenges (Short/Medium Term)	BSC, Regional and National Forecasting Centres, Copernicus, CMEMS, Regional forecasters , Risk management agencies, National Authorities, EuroGOOS, Academia, Research Institutions

Litter-related selected actions from SRIA

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Pillar 4 - Education and capacity building

Main Goal 1 - Supporting formal and informal learning, education, training and use of knowledge and technologies for established and creation of new marine and maritime jobs

Actions	Main Actor(s)-Initiatives
<ul style="list-style-type: none">Develop new programs and coordinate existing ones (syllabus and curricula) to support and implement priorities defined in SRIA. This entails the design and implementation of dedicated undergraduate, MSc, PhD and postdoctoral programmes for future researchers and professionals in all fields of Blue Growth (Short/Medium Term)	Academia, Research Institutions, Ministries and related governmental agencies, Training Organizations, regional and national authorities/government, private sector
<ul style="list-style-type: none">Develop programmes for life long training and vocational education of professionals in integrated coastal and marine management and blue economy (Short Medium Term)	Academia, Research Institutions, Ministries and related governmental agencies, Training Organizations, regional and national authorities/government, vocational training institutions, private sector, MEDCOAST

Main Goal 2 - Empowering ocean-engaged citizens contributing to a clean, plastic free, healthy and productive Black Sea

Actions	Main Actor(s)-Initiatives
<ul style="list-style-type: none">Educate the communities in the region towards the unique value of the Black Sea and promote Citizen Science in the region (Short/Medium Term)	Universities, Research Institutions, Training Organizations, Academia, Research Institutions, Ministries and related governmental agencies, private sector, Training Organizations, Local Authorities, NGOs, Mass Media, Social Media and Communication experts and specialised companies, opinion makers (influencers), EMSEA

Launch of the Black Sea SRIA

8-11 May 2019, Bucharest



SUST-BLACK

Sustainable development at the Black Sea

www.sust-black.ro



Organisers: **INCD GeoEcoMar**
with full support of DG RTD

Financed by: **EU – Horizon 2020 Programme, MRI – Romania, DG NEAR**

Estimated no of Participants: **300**

During: **8-11 May 2019**
8-9 May 2019 – Palatul Parlamentului
Alexandru Ioan Cuza Hall

10-11 May 2019 – Field Trip in Danube Delta

www.sust-black.ro