



## **Project Partners**



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Joint Operational Programme Black Sea Basin 2014 - 2020

Common borders. Common solutions.



TECHNOLOGY INNOVATION IN ENVIRONMENTAL MONITORING AND MODELLING FOR ASSESSMENT OF FISH STOCK AND NON-FISH RESOURCES

May 2020 - May 2022







## **TIMMOD RATIONALE**

**Promoting** Technology Innovation Environmental Monitoring and Modelling for Assessment of Fish Stock and Non-fish Resources (TIMMOD) is a EU funded project financed within the Black Sea Basin Program 2014-2020, under Priority 2. Promote coordination of environmental protection and joint reduction of marine litter in the Black Sea Basin, objective 2.1 Improve joint environmental monitoring.

The overall project objective is: To improve joint environmental monitoring and modeling, by facilitating Technology Innovation, to improve the availability and quality of data, the cooperation in sharing of data for water quality, biodiversity statistics, assessment of fish and non-fish living resources of the Black Sea - in line with the EU's Marine Strategy Framework Directive, Data Collection Framework, Blue Growth Strategy, Black Sea Convention on Environmental Protection and other EU and regional policies and conventions.

The project TIMMOD unites the efforts of six partner organizations from Bulgaria, Georgia, Greece, Moldova and Romania, aiming at tehnology innovation and improvement of transboundary cooperation un environmental monitoring.

The main target groups of the TIMMOD project are:

- National Public Authorities and international organizations;
- Local Public Authorities;
- Sectoral Agencies;
- Interest Groups including NGOs;
- Higher Education and Research.



## SPECIFIC OBJECTIVES

- SO1. Achieve enhanced capacity of project partner organisations (and other stakeholders), to provide, use, and share, reliable and compatible environmental data for water quality parameters, fish and non-fish living resources. SO1 will be achieved by elaboration of a detailed inventory on technology innovation (incl. future and emerging technologies), and review on best practices, tested and demonstrated in Pilot Demonstration Projects (in the sea space near Bulgaria and Georgia).
- SO2. Achieve better cooperation, improved environmental data-sharing between Black Sea partners, by creation of a set of ICT shared tools. SO2 will be achieved by comprehensive analysis on various ICT tools for data handling and numerical modeling of marine environment, including high level implementation of ocean-current modeling, and development of web-based data tools, integrated in a pilot demonstration Monitoring and Modeling Data Sharing Platform (MMDSP).
- SO3. Put on the agenda an Innovation Strategy, designed to bring together (national, regional, EU) regulations and permits, combined with new monitoring and information technology, expanded transparency, and innovative enforcement. The Innovation Strategy is intended to scale-up the project results in all Black Sea area for years ahead - in line with the rapid technological growth - this way to secure sustainability of project results for "improving joint environmental monitoring".



## **PROJECT ACTIVITIES**

- T1. Inventory and promotion of innovative monitoring technologies environmental assessment of fish stock and non fish living resources. This activity aims at the elaboration of an Inventory of Innovative water monitoring technologies for monitoring of chemical, physical and biological parameters, and assessment of living resources.
- T2. Assessment and recommendation on advanced hydro-environmental numerical tools for data handling, real-time control and forecasting of marine conditions in the Black Sea. The main aim is to broaden the focus of traditional data processing and numerical modelling approaches by taking into account the holistic perspective in the analysis.
- T3. Pilot demonstration project on innovative monitoring using advance methods and instruments. Selecting innovative instrumentation, data handling and numerical modelling tools that are going to be demonstrated in two sea areas/test sites in Varna and Batumi.
- T4. Innovation Strategy to improve joint monitoring, data sharing and cross border information exchange systems in compliance with Marine Strategy Framework Directive and Data Collection Framework. This activity aims to develop common Strategy for supporting implementation of modern technological upgrade in joint environmental monitoring, in service of the cross border cooperation and data sharing systems.



