Interreg

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NEXT Black Sea Basin

BS-SEOS

Black Sea Smart Marine Environmental Outcome System (BS-SEOS)

MESS
TÜRKİYE
METAL SANAYİCİLERİ
SENDİKASI

T.C. İSTANBUL ÜNİVERSİTESİ
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INCDM

სსიპ გარემოს
ეროვნული სააგენტო

BS-SEOS is an innovative environmental monitoring project designed to enhance the health and sustainability of the Black Sea. By leveraging cutting-edge AI forecasting, smart buoys, and autonomous surface vehicles, **BS-SEOS** will collect, analyze, and share critical environmental data across borders, ensuring a resilient and thriving marine ecosystem.

BS-SEOS is an innovative initiative enhancing marine ecosystem monitoring through AI-powered forecasting and real-time data collection. By deploying smart buoy and autonomous monitoring stations, the project establishes a standardized communication network for environmental data, fostering cross-border cooperation between Turkey, Romania, and Georgia. Key indicators such as temperature, salinity, dissolved oxygen, Chlorophyll-a, and pH will be continuously monitored, supporting sustainable marine management. **BS-SEOS** benefits scientists, policymakers, fisheries, and local communities. The project promotes climate resilience, pollution control, and sustainable development, ensuring a cleaner and greener Black Sea for future generations.

PO 1 - A more competitive and smarter Europe

PO 2 - A greener Europe

ISO 1 - A better cooperation governance

- **Harnessing technology and cross-border cooperation for a cleaner and healthier marine ecosystem.**

FUNDING & SUPPORT

BS-SEOS is funded by the Interreg NEXT Black Sea Basin Programme, a European initiative supporting regional cooperation in Black Sea for environmental sustainability.

The project has a total budget of €1,291,447.20, allocated to developing cutting-edge marine monitoring technologies, AI-driven forecasting models, and cross-border data-sharing systems.

Spanning 30 months, BS-SEOS brings together leading research institutions, environmental agencies, and policymakers from Turkey, Romania, and Georgia to tackle marine ecosystem challenges.

☪ Turkish Employers Association of Metal Industries (MESS) – Lead Partner (Türkiye)

As the lead partner, MESS oversees project coordination, financial management, and stakeholder engagement. It provides technological infrastructure for AI-driven forecasting and ensures smooth integration of environmental monitoring tools.

☪ Istanbul University, Institute of Marine Sciences and Management (Türkiye)

Istanbul University leads scientific research and data collection, developing monitoring methodologies for smart buoy and mobile station. It also contributes to policy recommendations based on marine ecosystem analysis.

🇷🇴 National Institute for Marine Research and Development 'Grigore Antipa' (NIMRD) – Romania

NIMRD specializes in marine ecosystem assessments, pollution control, and biodiversity protection. It manages mobile station in Romania and ensures collected data supports EU marine conservation strategies.

🇬🇪 National Environmental Agency (NEA) – Georgia

The NEA conducts climate impact assessments and disaster risk prevention. It integrates marine environmental data into national policies, ensuring research informs decision-making for sustainable resource management.

KEY BS-SEOS COMPONENTS

Joint Data Center & Shared Database System – A centralized platform for environmental data sharing and analysis.

Smart Buoy & Autonomous Monitoring Stations – Deployment of smart buoy in Turkey and additional monitoring solutions in Romania and Georgia.

AI-Based Prediction Models – Real-time environmental analysis to support proactive decision-making.

Stakeholder Engagement & Awareness – Public events, cross-border conferences, and policy integration discussions to enhance regional cooperation.

HOW TO GET INVOLVED?

We welcome collaboration from researchers, policymakers, industry experts, and local communities. Visit our website or reach out to us for more details on how you can contribute to the sustainability of the Black Sea.

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