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NEXT Black Sea Basin

EfxINNOs in Türkiye

3RD EfxINNOs JOINT OPEN WORKSHOP:

**AN INNOVATIVE MARINE TECHNOLOGY TRANSFER NETWORK FOR BLUE
GROWTH IN THE BLACK SEA BASIN**

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Tbilisi, Georgia



Human impacts on the Black Sea Basin



Seagrasses in the Black Sea Basin

- Functioning as «Biodiversity Hotspots»
- Main primary producers
- Providing shelter and nursery to benthic invertebrates and fish species
- High capacity to store organic carbon «*blue carbon*»
- Indicator species



Surface
↓
6 m (max 17m)

BSB00193 - EfxINNOs



«The starting point for the project is the need to establish a sustainable and comprehensive marine monitoring network in the Black Sea and Northern Aegean marine ecosystems.»



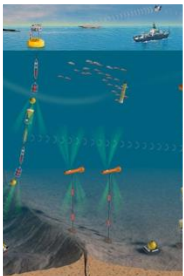
Data gaps and fragmented monitoring activities

Limited, inconsistent and incompatible data across countries in the Black Sea basin...



Climate change and increasing human pressure

urbanisation, tourism, maritime transport, fishing and pollution



Need for technological & scientific innovation

AUVs, ROVs, sensor networks, remote monitoring tools, innovative, low-cost and sustainable technologies



Strengthening regional cooperation

Common standards, data sharing and capacity building



EfxINNOs in TR

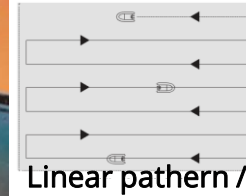


- Monitoring sensitive habitats by ROV (non-destructive and no-time consuming) in the pilot sites + SCUBA diving for seagrass assesment
- Tracking marine biodiversity with innovative methods,
- Evaluate of coastal human activities on benthic ecosystems.
- Reveal impacts of marine activities (destructive fishing, mooring, coastal filling, marine litter, Non –indigenous spesies etc.)
- Raise public awareness via training, workshops, and seminars

Methodology followed during the data processing

➤ Assessment of the macrophytic composition by extracting the frame images from the ROV videos.

- Aerial imageries of Google Earth Pro
- Coordinates
- Photogrammetric images: upper&lower limit depth with habitat type



Results/Expected impact

Environmental and Social impact

- «Conservation and monitoring» of Key Ecosystems

Functioning of critical habitats (EU Habitat Directive (92/43/EEC) in the BSB, provide significant information for the development of sustainable practices on climate change limitation

- Environmental awareness
- Blue economy



Contributions to EU Policies

- Marine Strategy Framework Directive (MSDF)
- Marine Spatial Planning (MSP)
- Biodiversity Strategy
- Climate Change Action
- Black Sea Integrated Monitoring Assessment Programme (BSIMAP)

Project Results and Outputs

«EfxINNOs brings a sustainable and holistic approach to the monitoring of marine ecosystems through innovative technologies and regional cooperation»

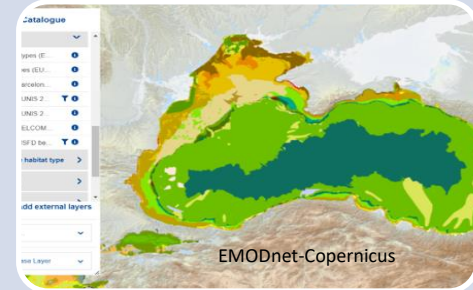
Innovative aspect/Added value



Innovative research technologies (ROV, AUV, drone-based mapping, sensor systems)



The dissemination of scientific findings to the public and policymakers



Regional data-sharing network and sustainable monitoring model

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Thank you

