

About the project

The Upgrade Black Sea SCENE is a project aimed at developing the research infrastructure of marine environmental institutes and organisations from the Black Sea countries. It started in 2009 and is running until 2011. The project is funded by the EU Seventh Framework Programme (FP7) for research infrastructures. Upgrade Black Sea SCENE builds upon the successful experience of its predecessor Black Sea SCENE, dedicated to the development of a scientific network of leading environmental and socio-economic research institutes, universities and NGOs from the countries around the Black Sea, contributing to a growing data and information infrastructure. The project consists of a large consortium of Black Sea institutes and European experts comprising over 50 partner organisations.

The project aims to improve and harmonise the marine data management practices in the region, and expand the coverage of the data infrastructure. Furthermore, it will enhance the exchange of scientific knowledge and regional cooperation of institutes for environmental problems and better protection, rehabilitation and sustainable development of the Black Sea ecosystem.

Objectives

Among the principal objectives of the project are:

- To implement common communication standards and adapted technologies to ensure the interoperability of data centres around the Black Sea.
- To network the existing and new Black Sea data centres, active in data collection, and provide integrated databases of standardised quality online.
- To realize and improve online access to *in situ*

and remote sensing data, metadata and products.

- To adopt standardised methodologies for data quality checking to ensure the quality, compatibility and coherence of the data generated and issued by many different sources.

More specifically the Upgrade Black Sea SCENE is going to realise its objectives by:

- Implementing the results of the Joint Research Activities of the FP6 RI SeaDataNet project (common communication standards and adapted technologies to ensure the data centres interoperability).
- Building a network of the existing and new Black Sea data centres, active in data collection, and provide integrated databases of standardized quality online.
- Realising and improving online access to *in situ* and remote sensing data, metadata and products.
- Adopting standardised methodologies for data quality checking to ensure the quality, compatibility and coherence of the data issuing from so many sources.



Project activities

The implementation of the project started with a kick-off meeting in Istanbul in April 2009. A substantial emphasis has been put on training and harmonisation of standards and data quality control (DQC) methods. New partners in the project took part in a DQC workshop in Brussels, Belgium in September. Another extensive training took place on the premises of the International Oceanographic Data and Information Exchange programme (IODE) in Ostend, Belgium in October. The training was aimed at those partners in the project that are managing and holding data sets in order to get acquainted with the SeaDataNet services, formats and tools and to get hands-on experience with their use. At the beginning of November the second progress meeting was organised in Bucharest to evaluate the workshops, monitor the progress of actions regarding metadata collection and system development and further detail the project plans.

A substantial amount of data is already available through the Black Sea Common Data Index version 1 (CDI V1) data access service which contains currently more than 90 000 individual entries. In the coming months additional data centres from the network will further populate the CDI metadatabase and other institutes will be encouraged to participate. The data services are aimed to make Black Sea scientific information and data more easily accessible for scientists and the general public in order to be better informed and prepared to approach issues related to the sea.



Outcomes

A tangible outcome of Upgrade Black Sea SCENE is the data access service, implemented through the Common Data Index (CDI). Its primary objective is to give users a highly detailed insight in the availability and geographical spread of marine data across the different data centres and institutes across Europe. The CDI provides an index (metadatabase) to individual data sets. Furthermore, it provides direct online data access or direct online requests for data access or file downloads. Currently, the Black Sea CDI V1 metadatabase contains more than 90 000 individual data entries, covering a broad scope and range of data. In the coming months additional data centres from the network will further populate the CDI metadatabase and other institutes in their countries will be encouraged to participate.

Services

A number of additional catalogues are available from the predecessor project Black Sea SCENE. Now they are upgraded to a higher version, responding to international standards. The metadata services are aimed to make Black Sea scientific information and data more easily traceable by scientists and the general public and can be divided in:

- EDMED — Marine and Environmental Dataset catalogue
- Data Quality Control — DQC methods overview and reference to support tools
- EDMERP — Marine and Environmental Project catalogue
- EDMO — Directory of Marine Organisations active in Black Sea region
- CSR — Directory of Marine Research Cruises in the Black Sea
- Scientists — Directory of Marine Scientists active in Black Sea region
- Bibliography — Scientific Reports and Publications on the Black Sea
- Socio Economic Data on the Black Sea
- Black Sea data products — An overview of specific data products developed under SeaDataNet by Black Sea partners.
- Black Sea EDIOS (ASCABOS project) — An overview of the current operational oceanography in the Black Sea by the bordering countries.

Promotion and dissemination

The first edition of the Promotion and Dissemination Plan was prepared within Networking Activity NA7, concerning Public Awareness, Promotion, Dissemination in December 2009. The partners involved — BENA, IO-BAS, Black Sea Commission Permanent Secretariat, Black Sea NGO Network and MT Consult – are communicating to potential end users of the information infrastructure the benefits of the project and its achievements. They make an effort to involve other Black Sea environmental and socio-economic organisations in providing input for the metadatabases.

Upgrade Black Sea SCENE will mobilise a large number of Black Sea institutions that hold significant quantities of environmental and socio-economic data and information as well as knowledge and expertise. It will support the European research community by providing availability overviews and access to marine environmental and socioeconomic Black Sea data.

Partners

The joint effort of Black Sea SCENE has run from 2005 to 2008. The consortium has been continued and extended in Upgrade Black Sea SCENE, 2009–2011, adding 23 new partners to the existing 33.

Partners since 2005

- Marine Information Service (MARIS), Netherlands
- Institute of Fishery Resources (IFR), Bulgaria
- Institute of Meteorology and Water Management, Maritime Branch in Gdynia (IMWM MB), Poland



- Hellenic Centre for Marine Research, Hellenic National Oceanographic Data Centre (HCMR/HNODC), Greece
- TNO Built Environment and Geosciences, Geological Survey of the Netherlands, Netherlands
- Institute of Limnology RAS, Russian Federation
- All-Russia Research Institute of Hydrometeorological Information - World Data Centre (RIHMI-WDC) National Oceanographic Data Centre (NODC), Russian Federation
- P.P.Shirshov Institute of Oceanology, RAS, Russian Federation
- P.P.Shirshov Institute of Oceanology, Southern branch, Russian Federation
- Institute of Hydrogeology and engineering geology of Georgian Academy of Sciences (GAS), Georgia
- Bulgarian National Oceanographic Data Centre (BGODC), Institute of Oceanology, Bulgaria
- Iv.Javakhishvili Tbilisi State University, Centre of Relations with UNESCO Oceanological Research Centre and GeoDNA (UNESCO), Georgia
- Scientific-Industrial Center of Research and Governance of Coastal Formation Processes SAKNAPIRDATSVI, Georgia
- Centre of Monitoring of Environmental Pollution of the Department of Hydrometeorology of Georgia, Georgia
- Institute of Marine Sciences, Middle East Technical University, Turkey
- National Institute for Marine Research and Development Grigore Antipa, Romania
- State Oceanographic Institute of Roshydromet (SOI), Russian Federation
- Marine Hydrophysical Institute, Ukraine
- Karadeniz Technical University, Faculty of Marine Sciences, Turkey
- Sinop University, Fisheries Faculty, Turkey
- Space Research Institute of RAS, Russian Federation
- Institute of Biology of the Southern Seas, NAS of Ukraine, Ukraine
- National Institute of Marine Geology and Geoecology — GEOECOMAR, Romania
- Moscow State University, Geography Department, Russian Federation
- M. Nodia Institute of Geophysics of Georgian Academy of Science, Georgia
- Technical University Varna, Bulgaria
- Black Sea NGO Network, Bulgaria
- Ukrainian scientific center of Ecology of Sea

(UkrSCES), Ukraine

- Scientific Research Institute of Ecological Problems (USRIEP), Ukraine
- Odessa National I.I.Mechnikov University, Ukraine
- Norwegian Institute of Water Research (NIVA), Norway
- International Bureau for Environmental Studies (IBES), Belgium
- Fieldfare International Ecological Development plc. (FIED), United Kingdom



- Marine Sampling Holland BV, Netherlands
- Institute of Environmental Geoscience RAS, Russian Federation
- Georgian Institute of Water Management, Georgia
- Ankara University, Turkey
- Balkan Environmental Association (BENA), Greece
- Danube Delta Biosphere Reserve Authority, Romania
- Taurida V.I. Vernadsky National University, Ukraine
- Institute of Geological Sciences - IGS, Ukraine
- Center Dynamics of the Nearshore Zone, Russian Federation
- University of Mining and Geology - Saint Ivan Rilski, Bulgaria
- Danube Hydro-meteorological Observatory, Ukraine

Partners since 2009

- Laboratory of Marine Ecology-Central Laboratory of General Ecology, Bulgaria
- Southern Scientific Research Institute of Marine Fisheries and Oceanography, Ukraine
- Cyprus Oceanographic Data Center, Oceanography Center, Cyprus
- Dokuz Eylul University, Institute of Marine Science and Technology, Turkey
- Istanbul University, Institute of Marine Science and Management, Turkey
- Marine branch of Ukrainian Hydrometeorological Institute, Ukraine
- The Centre for Monitoring and Prognostication of the Ministry of Environmental Protection and Natural Resources, Georgia
- National Institute of Meteorology and Hydrology, Bulgarian Academy of Sciences, Bulgaria
- Intergovernmental Oceanographic Commission - IODE, Belgium
- Scientific - Research Firm "GAMMA", Georgia
- Permanent Secretariat Commission on the Protection of the Black Sea against Pollution, Turkey
- Institute of Oceanology, Bulgarian Academy of Sciences (IO-BAS), Bulgaria

Editorial team: Emma Gileva, Ralitsa Zhekova, Aleksandar Shivarov, photo: © Krasimir Delchev, design: Iliya Iliev

Contact information:

Black Sea NGO Network
 P. O. Box 91
 2 Dr. L. Zamenhof St., fl. 2
 BG-9000 Varna, Bulgaria
 tel.: +359 (52) 615-856
 fax: +359 (52) 602-047
 e-mail: bsnn@bsnn.org
<http://www.bsnn.org>

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