The Ocean Data and Information Network for the Black Sea (ODINBLACKSEA) Pilot Project was established formally during the Nineteenth Session of the IODE Committee (Trieste, Italy, March 2007) through the Recommendation IODE-XIX.10, with the following objectives:

**Objective 1:** Provide assistance in the development, operation and strengthening of National Oceanographic Data (and Information) Centres to advance the level of less experienced data centres and to establish their networking in the region;

**Objective 2:** Provide training and education in marine data and information management, taking into account the requirements of operational oceanography; applying standard formats and methodologies as defined by the IODE;

**Objective 3:** Enhance national and regional awareness for Marine Data and Information Management;

**Objective 4:** Assist in the development and maintenance of national and regional marine data, metadata and information databases;

**Objective 5:** Assist in the development and dissemination of marine data, information products and services, meeting the needs of user communities at the national and regional levels, and responding to national and regional priorities;

**Objective 6:** Undertake the activities needed for applying modern technologies for data collection, processing, storing and dissemination to achieve end-to-end data management (E2EDM).

**Objective 7:** Undertake the ODINBLACKSEA activities in close collaboration and networking with other relevant organizations, programmes and projects operating in the region.

All riparian Black Sea countries are the participants of the project. Dr. Atanas Palazov (IO-BAS, Bulgaria) was elected to be the ODIN-Black Sea coordinator. Dr. Atanas Palazov was appointed to be a Director of the Bulgarian Institute of Oceanology at the end of 2007 and could therefore not dedicate much time for the
ODIN Black Sea Project. Dr. Vladimir Vladymyrov was appointed to take over as the ODIN Black Sea project coordinator in March 2009.

The main activities of the ODIN-Black Sea project in 2007 were directed to the regional NODCs capacity building that included participation of the 28 ODIN-Black Sea trainees in 3 training courses organized by the IOC Project Office for IODE (one of them was organized jointly with the ASCABOS EC Project). There was a gap in implementation of activities till 2009 when a new Coordinator was designated.

The following activities were implemented in the period March – December 2009:

(i) A preliminary review presenting the results of analysis of the structure and state of the Black Sea Region National Oceanographic Data Centres was done

(ii) The ODINBLACKSEA project website was developed in order to assist the coordination of project activities, as well as to create awareness and to promote the project,

(iii) The application of the E2EDM technology to integrate the non-homogeneous local data systems into unified distributed marine data system that will provide the transparent exchange between these local systems.

(iv) Organization of working collaboration with the ODINECET IODE Project.

(v) Combined ODINBLACKSEA Project Steering Committee meeting and additional E2EDM training (Obninsk, Russia, 20-22 March 2009)

The ODIN-BS Steering Committee meeting at the IOC Project Office for IODE from 15 – 16 September 2009 agreed on the following:

(i) A new review analyzing the structure and state of the Black Sea Region National Oceanographic Data Centers and their web sites would be repeated by the ODIN-BS Project Coordinator in mid 2010 before the next Steering Committee meeting

(ii) The ODIN-BS project website will be permanently updated by the NODC team at Institute of Biology of Southern Seas (IBSS) under supervision of the project coordinator. Each ODIN-BS National Oceanographic Data Center is encouraged to update its web site.

(iii) The NODCs will promote ODIN BS and its activities nationwide (through, for example, web sites, booklets, flyers, mass media, etc.)

(iv) The Black Sea Ocean Data Portal (BSODP) (www.blackseaoceandataportal.org) was established and the following related activities will be implemented:

- Request Ocean Data Portal (ODP) Steering Group (SG) to provide the conditions on data access and usage for the BSODP and send it for the ODIN-BS SC members for further discussion (by the end of November 2009).

- Till the end of the 2009 each BS ODP participant will make available at least one data set to be sure that ODP data provider software is fully operational.

- Second ODP training will be organized for the Georgian and Turkish specialists on 21-23 December 2009 in Istanbul. The venue will be coordinated by Turkish NODC and by the Black Sea Commission Permanent Secretariat (BSC-PS).
• It is advised that data and metadata from 2000 till nowadays are primarily loaded into the BS ODP. Data and metadata earlier than 2000 can also be provided to the BS ODP if they are not included in any regional Black Sea databases accessible via Internet. Data and metadata provided to BS ODP can be of any type. However due to the lack of access to the bio-optical data in the region, bio-optical data are advised to be provided as a priority.

• Each data set loaded to the BS ODP should have full metadata with information on QC procedures applied to the data;

• Bulgarian NODC that will serve as a thematic assembling centre for the BS region within the MyOcean European Commission (EC) project will provide the available data obtained within the project to the BS ODP.

(v) Improve and strengthen the relationships with Black Sea Commission Permanent Secretariat (BSC PS) in terms of coordination and cooperation, taking into account that the BSC PS is considered as one of the end users of ODIN-BS activities. Within this context, ODIN BS and BSC PS are encouraged to:

• Consider possibility for signing the MoU between BSC PS and IOC as the basis for the future collaboration,

• Enable access to each other’s web data services, including access to real time data (e.g. buoys data, data from offshore platforms, remote sensing data, etc.),

• Share data and metadata from research cruises,

• Inform each other on and coordinate the ongoing activities.

• Coordinate training activities

BSC PS will consider the options on supporting ODIN-BS in stipulating conclusion of a regional agreement regarding deployment of ARGO buoys in the Black Sea.

(vi) Improve collaboration with the ODIN for European Countries in Economic Transition (ODIN-ECET) coordinator. In this regard the ODIN-BS Steering agreed that the ODIN-ECENT Coordinator, Ms Olga Akimova be invited to attend the next ODIN-BS Steering Committee meeting to inform ODIN-BS participants about the ODIN-ECET activities and discuss the possible co-operation between two ODINs. It is recommended that representatives of Romanian, Turkish and Georgian NODCs will try to identify the focal points in their countries to participate in the ODIN-ECET IODE Project.

(vii) Request the ODIN-BS coordinator to communicate with all International projects with the oceanographic data management component which are running or are preparing for run in the Black Sea region and inform ODIN-BS Steering Committee for the possible co-operation with these projects. This includes the following:

• ECOOP (European COastal-shelf sea OPerational observing and forecasting system) End - February 2010
- SESAME (Southern European Seas: Assessing and modeling Ecosystem Changes) End - October 2010
- OCEAN-UKRAINE (Interdisciplinary project that involves the Flanders Marine Institute (VLIZ) and two major Ukrainian marine institutions: IBSS and MHI. The general objective is to strengthen capacity in these institutes and to integrate them in European networks through a bilateral partnership with Flanders). End – November 2009
- EnviroGREED (Building Capacity for a Black Sea Catchment Observation and Assessment System supporting Sustainable Development). The deals with Only zooplankton data
- MyOcean (The implementation project of the GMES Marine Core Service, aiming at deploying the first concerted and integrated pan-European capacity for Ocean Monitoring and Forecasting)
- PEGASO (People for Ecosystem Based Governance in Assessing Sustainable Development of Ocean and Coast)

The following work plan and budget for 2009 – 2011 was endorsed.

<table>
<thead>
<tr>
<th>Action item description</th>
<th>To be implemented by</th>
<th>Deadline date</th>
<th>Requested from UNESCO RP</th>
<th>Requested from other sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>ODINBLACKSEA Steering Group Meeting and Training on the E2EDM prototype system for the ODINBLACKSEA countries</td>
<td>ODINBLACKSEA coordinator, Russian NODC</td>
<td>March 2009</td>
<td>5,000 USD (shared with the ODP Project?)</td>
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<tr>
<td>Development of the ODINBLACKSEA web site</td>
<td>ODINBLACKSEA coordinator</td>
<td>April 2009</td>
<td></td>
<td></td>
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<tr>
<td>Participation of the ODINBLACKSEA coordinator in IODE-XX</td>
<td>ODINBLACKSEA coordinator</td>
<td>May 2009</td>
<td>2,500 USD</td>
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<tr>
<td>Organization of the ODINBLACKSEA DM training course (intermediate level)</td>
<td>ODINBLACKSEA coordinator, IODE Project Office</td>
<td>Autumn 2009</td>
<td>35,000 USD</td>
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<tr>
<td>Participation of the ODINBLACKSEA trainees in the different training courses</td>
<td>ODINBLACKSEA coordinator, IODE Project Office</td>
<td>2010</td>
<td>30,000 USD</td>
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<tr>
<td>ODINBLACKSEA Steering Group Meeting</td>
<td>ODINBLACKSEA coordinator</td>
<td>2010</td>
<td>7,000 USD</td>
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<td>Participation of the ODINBLACKSEA trainees in the different training courses</td>
<td>ODINBLACKSEA coordinator, IODE Project Office</td>
<td>2011</td>
<td>30,000 USD</td>
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</tbody>
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