



## **The ARENA project: main achievements and further challenges**

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The health and well-being of 162 million people are affected by the environmental degradation in the Black Sea. An adequate prediction of the environmental variability in the Black Sea is needed to identify, analyze and determine the tools and solutions for cost-effective management of the marine environment aiming a sustainable development of the region. Furthermore, the environmental management of the Black Sea and the related scientific and technological developments require a Data-Base Management System to support an operational forecasting system aware of end-users needs. Therefore, the ARENA project (A Regional Capacity Building and Networking Programme to Upgrade Monitoring and Forecasting Activity in the Black Sea Basin) was launched by the EC to foster development of operational oceanographic services in the Black Sea region. It has initiated a co-operative ocean programme to improve the communication and other essential facilities for monitoring, modelling and forecasting of the basin processes.

The present paper aims to disseminate the main achievements of the ARENA project. In particular it describes the networking system and established communication flows as well as the design of the nowcasting system of the Black Sea circulation and its testing through a pilot experiment. The special attention is paid also to the current status of observational systems and their capability to serve the end-user needs. Potential beneficiaries of operational meteorological and oceanographic information are identified and their requirements accessed.