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Adriatic Sea Decision Support System (ADRI-DSS)

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The Adriatic Sea decision support system (ADRI-DSS) consists of an on-line service built upon a set of integrated operational oceanography products. ADRI-DSS integrates the Adriatic Sea monitoring and forecasting system (AFS) with local in-situ observations and is built to support the Emilia-Romagna coastal monitoring system for marine environment and ecosystem health. The target user is the Regional Environment Prevention Agency from Emilia-Romagna (Italy) called ARPA-EMR.
Specifically ADRI-DSS will support the daily action of the oceanographic section of ARPA-EMR called ARPA-DAPHNE providing all the available products (forecast, observations, simulations) from Adriatic Forecasting System. The product is shaped as required by the user and moreover ADRI-DSS also integrates with the routinely observations that the user carry out on a weekly basis.
The system has been designed through the interaction with ARPA-DAPHNE and consists of a online portal containing simulation and forecast for the relevant north Adriatic region. Moreover the model products are compared with in-situ observations of temperature and salinity collected by the ARPA-DAPHNE itself. In the coming future also satellite observations and indicators will be made available by ADRI-DSS.
The final aim of ADRI-DSS is to integrate selected products from the AFS with the insitu and satellite observation to support the monitoring activities of ARPA-DAPNHE and to improve ARPA-DAPHNE capabilities for the Emilia-Romagna marine environment status assessment.
ADRI-DSS has been developed within ECOOP project (European COastal-shelf sea OPerational Observing and forecasting system Integrated Project).
ADRI-DSS is a web-based application available via internet browsers with JavaScript capability. The server part is implemented on PHP (data management) and NCL (graphics production). The NCL is NCAR Command Language, a free interpreted language designed specifically for scientific data processing and visualization, see www.ncl.ucar.edu.