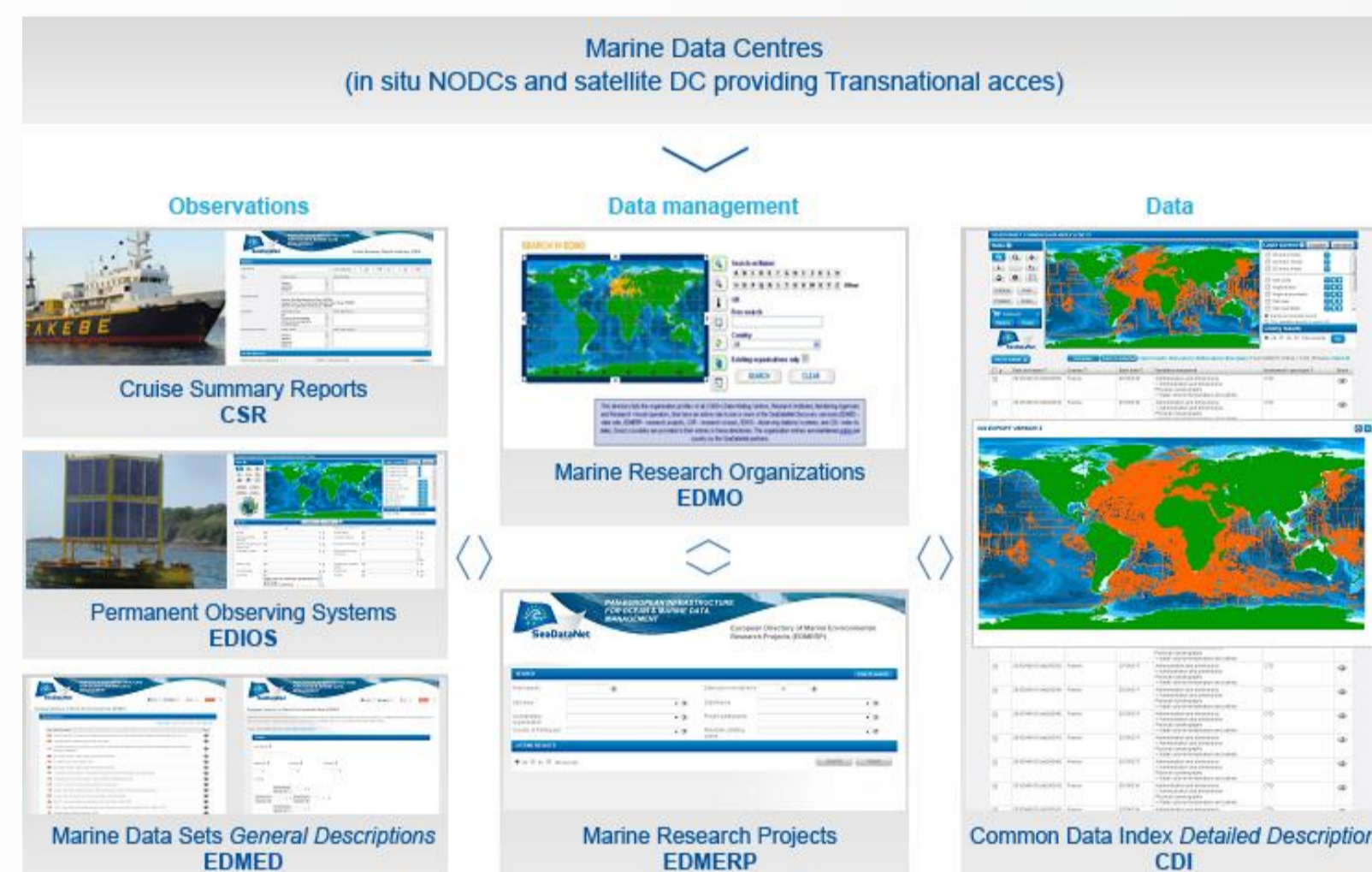# PAN-EUROPEAN INFRASTRUCTURE FOR OCEAN & MARINE DATA MANAGEMENT

SeaDataNet

The SeaDataNet infrastructure network and enhance the currently existing infrastructures, which are the national oceanographic data centres of 35 countries, active in data collection. The networking of these professional data centres, in a unique virtual data management system provide integrated data sets of standardized quality on-line. As a research infrastructure, SeaDataNet contributes to build research excellence in Europe.
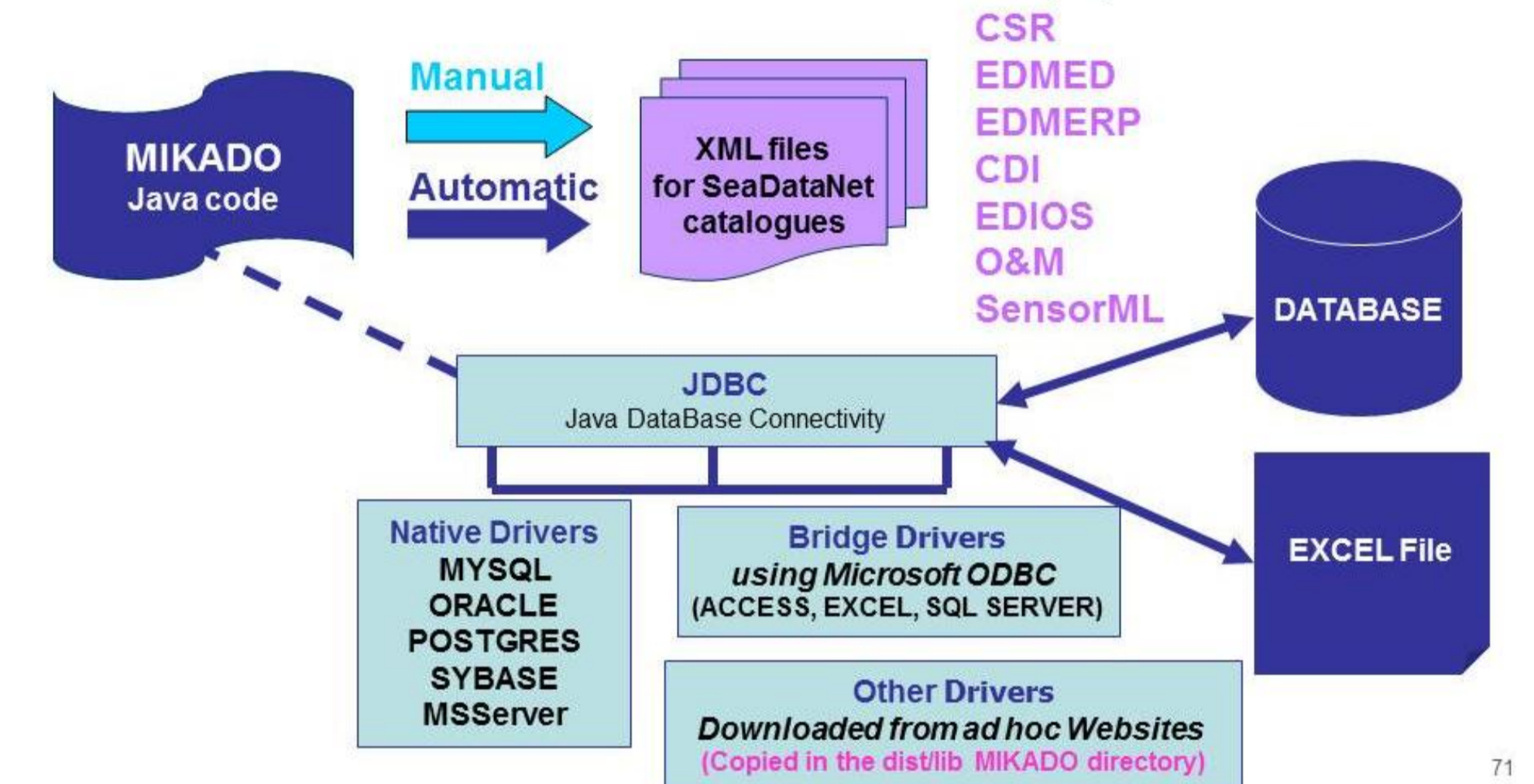
SeaDataNet II (2011 - 2015) is addressing the needs of informatics, data management, research, environmental protection, etc. The project has then two ambitious goals: be ahead in the Information Science and upgrade the SeaDataNet infrastructure realised during SeaSearch and SeaDataNet I into an operationally robust and state-of-the-art Pan-European infrastructure.

Technical development are supporting the SeaDataNet user communities:

NEMO reformatting ASCII files at SeaDataNet standard formats (ODV, NetCDF and MEDATLAS);
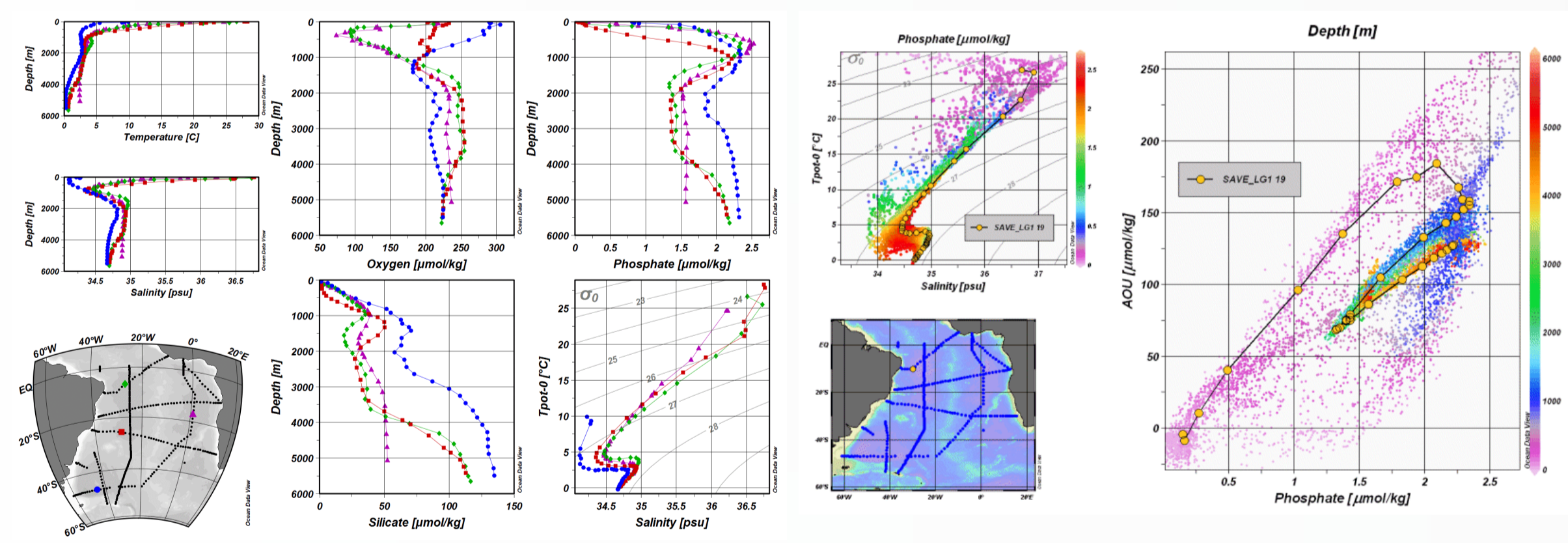
MIKADO an ISO-19115 XML and ISO-19139 catalogue description generator to create XML files for metadata exchange.

SeaDataNet is providing services highly available and accessible to users. For this reason several actions have been planned to minimize unavailability and failure of provided services. One of them constitutes the permanent monitoring using appropriate IT tools to detect failures of systems components and to warn persons in charge.

HOST	Service	% Time OK	% Time Warning	% Time Unknown	% Time Critical	% Time Undetermined
seadatanet.bsh.de	ROSCOP	100.0%	0.0%	0.0%	0.0%	0.0%
sedatanet.maris2.nl	CDI homepage1	100.0%	0.0%	0.0%	0.0%	0.0%
	CDI homepage2	99.7%	0.0%	0.0%	0.3%	0.0%
	EDIOS	100.0%	0.0%	0.0%	0.0%	0.0%
	EDMERP	100.0%	0.0%	0.0%	0.0%	0.0%
	EDMO	100.0%	0.0%	0.0%	0.0%	0.0%
www.bodc.ac.uk	EDMED	96.2%	1.3%	0.2%	2.3%	0.0%
www.geo-seas.eu	GEO-SEAS	100.0%	0.0%	0.0%	0.0%	0.0%
www.seadatanet.org	SeaDataNet	98.4%	1.3%	0.1%	0.1%	0.0%

The **scientific data products developments** contribute to the data quality control protocol, insure the overall functioning of the system and serve a larger community of users.

Version 4.5.3 of Ocean Data View provides a number of important enhancements highly relevant for SeaDataNet users, and as been used to aggregate SeaDataNet TS Data Collection. Duplicates have been eliminated for the creation of regional data sets to be used by (e.g.) operational projects – MyOcean; regional organisations, etc.

So far, SeaDataNet has focused on data management and access for physical oceanography, marine chemistry (to support also the EMODNet Chemistry pilot), bathymetry (to support the EMODNet Hydrography and Seabed Mapping pilots), and geology and geophysics (to support the Geo-Seas project and the EMODNet Geology pilot). Many partners in SeaDataNet are also involved in data acquisition and management for marine biology.

A number are member of the Marine Biodiversity and Ecosystem Function (MarBEF) network of excellence and contributing to EurOBIS (European Ocean Biogeographic Information System), managed by the Flanders Marine Institute (VLIZ). SeaDataNet II is to undertaking actions to better fit for handling marine biological data sets and establishing interoperability with biology infrastructure developments.