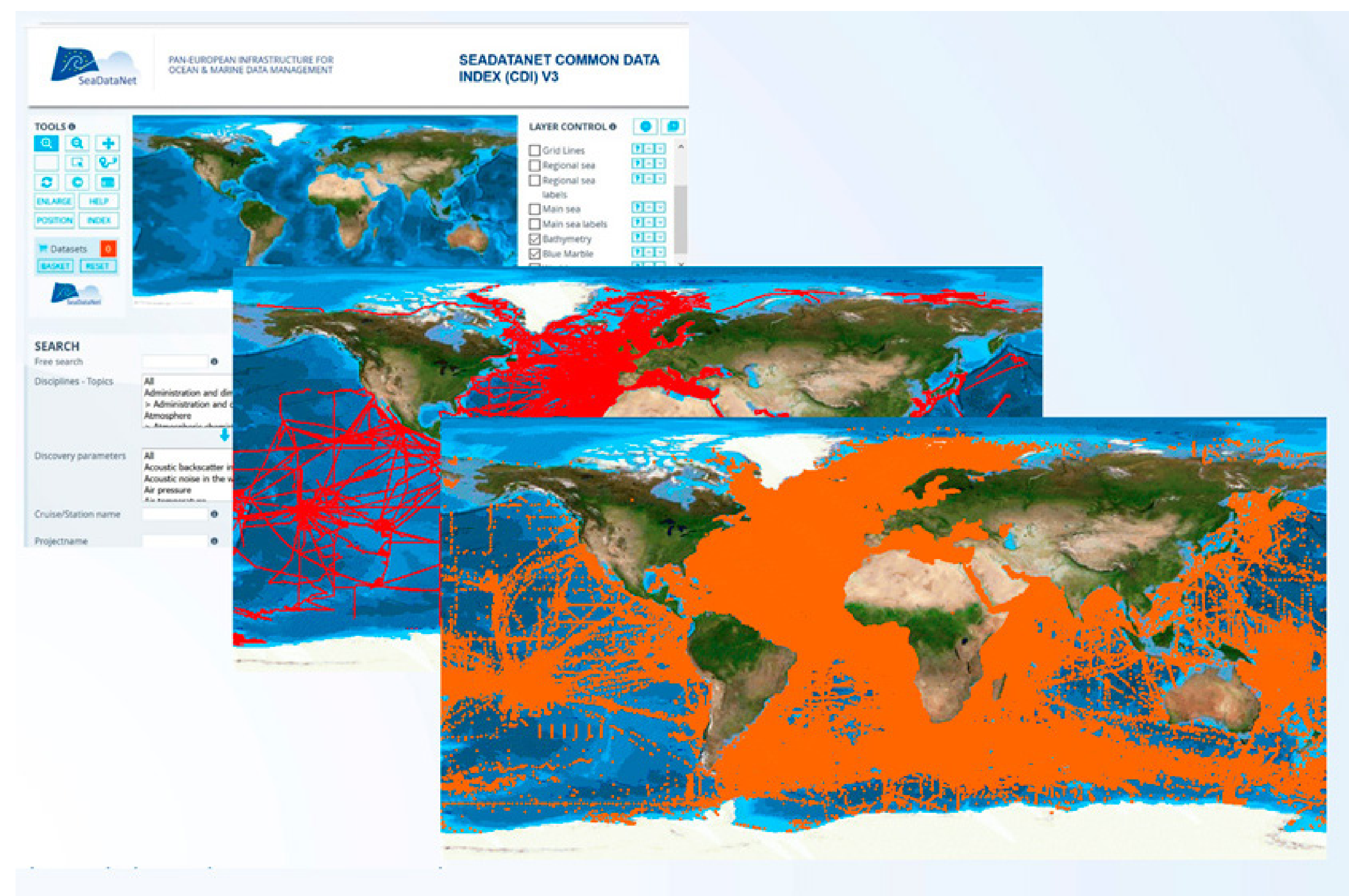


SeaDataCloud – further developing the pan-European SeaDataNet infrastructure for marine and ocean data management by Michele Fichaut, Dick Schaap, Peter Thijsse et al.



SeaDataNet is a major infrastructure in Europe for managing, indexing and providing access to ocean and marine data sets and data products, acquired from research cruises and other observational activities in European coastal marine waters, regional seas and the global ocean. It also develops and governs common marine standards for metadata and data formats, common vocabularies and quality flags as well as standard software tools.

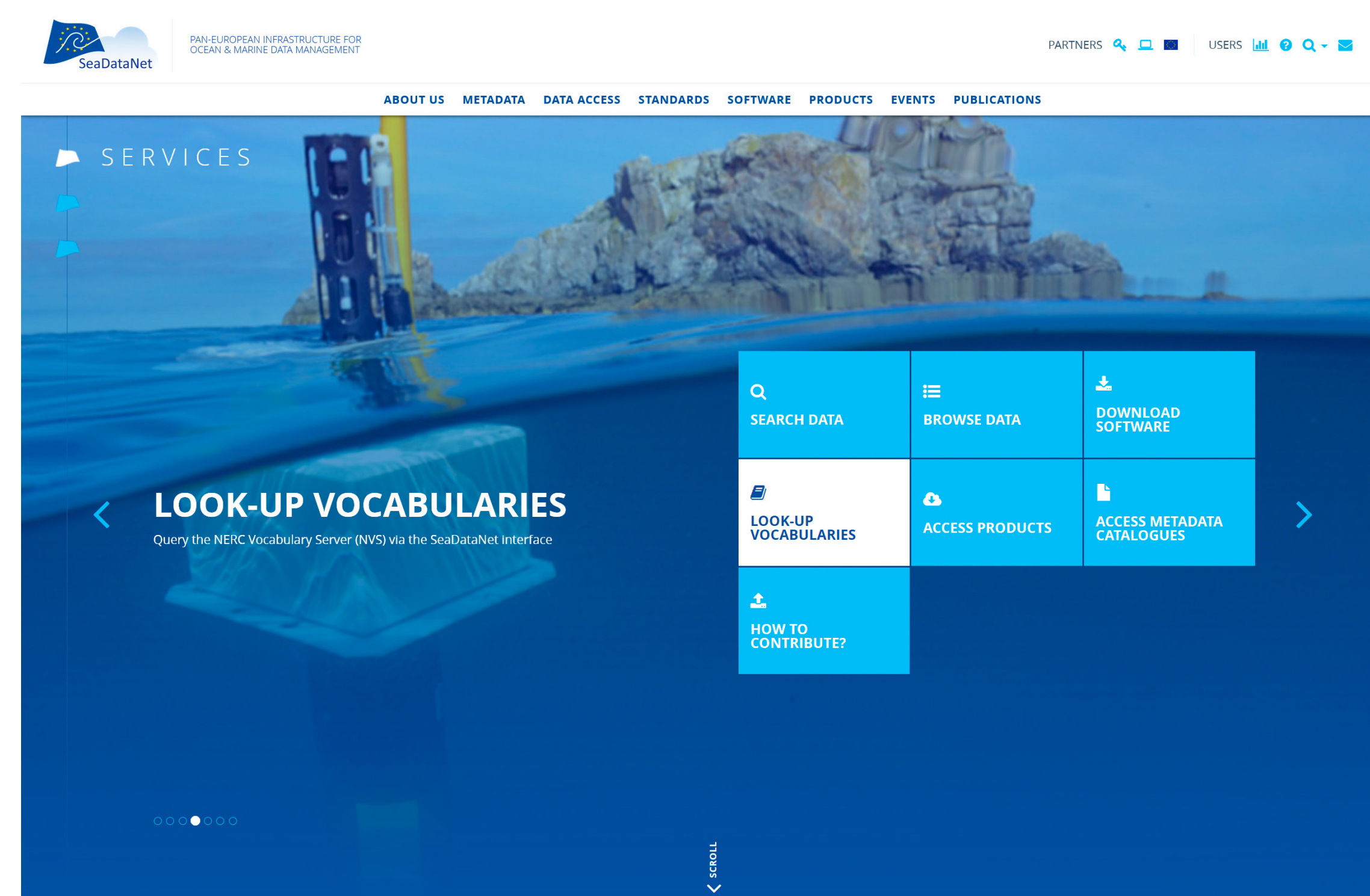
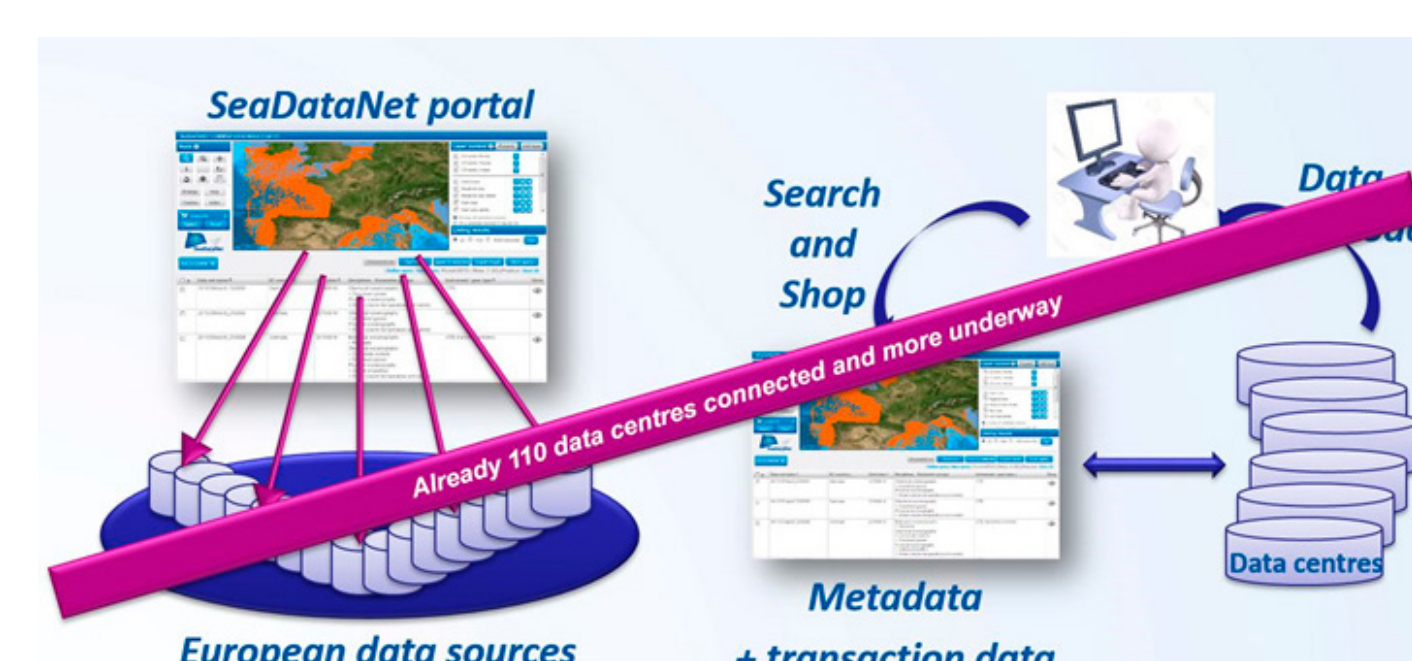
SeaDataNet portal (www.seadatanet.org) giving access to standards, tools (both for data centres and data users), data and metadata, and products.



ACQUISITION OF OCEAN AND MARINE DATA

SeaDataNet works together with originators of marine data, comprising scientists collecting data with the European research vessel fleet and other observing platforms, and various governmental agencies, collecting data for environmental management and economic activities. SeaDataNet also has a close cooperation with the European operational oceanography community involving i) **EuroGOOS**, the association of national governmental agencies and research organisations committed to European-scale operational oceanography within the context of the intergovernmental Global Ocean Observing System, ii) **Copernicus Marine Environment Monitoring Service (CMEMS)**, deploying pan-European capacity for Ocean Monitoring and Forecasting, and iii) **Euro-ARGO**, developing a long-term global ocean monitoring system deploying Argo floats.

Providing discovery and access to millions of data sets for oceanography, chemistry, geology, bathymetry, and biology by connecting more than 100 data centres



Homepage SeaDataNet



©GOOS

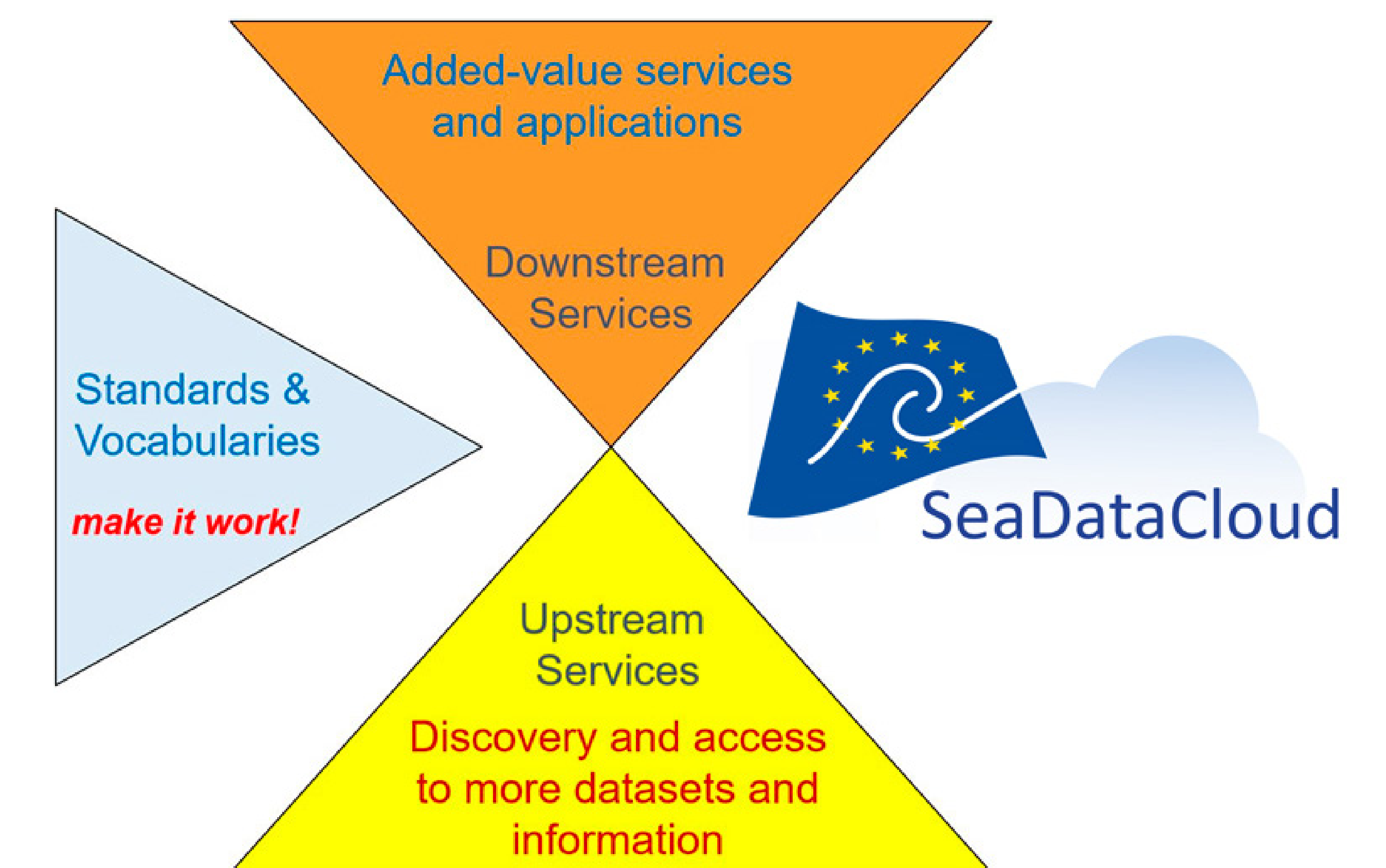


SeaDataCloud: "moving to the cloud"

Capacity building by training workshops for uptake of standards and tools by the data centres in order to achieve standardisation.

SeaDataNet is an operational infrastructure, well established on a pan-European scale with national nodes and currently serving many users and applications. The current EU SeaDataCloud project has a focus on upgrading and expanding the architecture and services of SeaDataNet, inter alia by adopting cloud and High Performance Computing technology. For that purpose SeaDataNet has entered into a strategic and technical cooperation with the EUDAT consortium. EUDAT is a consortium of e-infrastructure providers that are well engaged in the development of the European Open Science Cloud (EOSC).

SEADATACLOUD CONCEPTUAL APPROACH



SEADATACLOUD INNOVATION TOPICS CONCERN

- Upgrading of standards and services as part of the SeaDataCloud project:
 - Upgrading the CDI Data Discovery and Access service
 - Adopting Linked Data for metadata directory services
 - Further developing Sensor Web Enablement standards and ingestion service
 - Striving for INSPIRE compliance and related transformation services
 - Expanding the Common Vocabulary services
- Developing the SeaDataCloud Virtual Research Environment (VRE):
 - Generating validated and harmonised Temperature & Salinity data collections and climatologies
 - Online version of Ocean Data View (ODV) analysis software
 - I-notebook for Data-Interpolating Variational Analysis (DIVA) software
 - Versatile Visualisation services

THE SEADATACLOUD DEVELOPMENTS ARE SUPPORTED BY THE EU HORIZON 2020 RTD PROGRAM AND RUN FROM 2016 TO 2020. ALL UPGRADED SERVICES WILL BECOME AVAILABLE FOR ASSOCIATED EMODNET PORTALS.

VISIT US AT: WWW.SEADATANET.ORG