



**WP9: : Development and governance of software tools,
services and interoperability solutions**

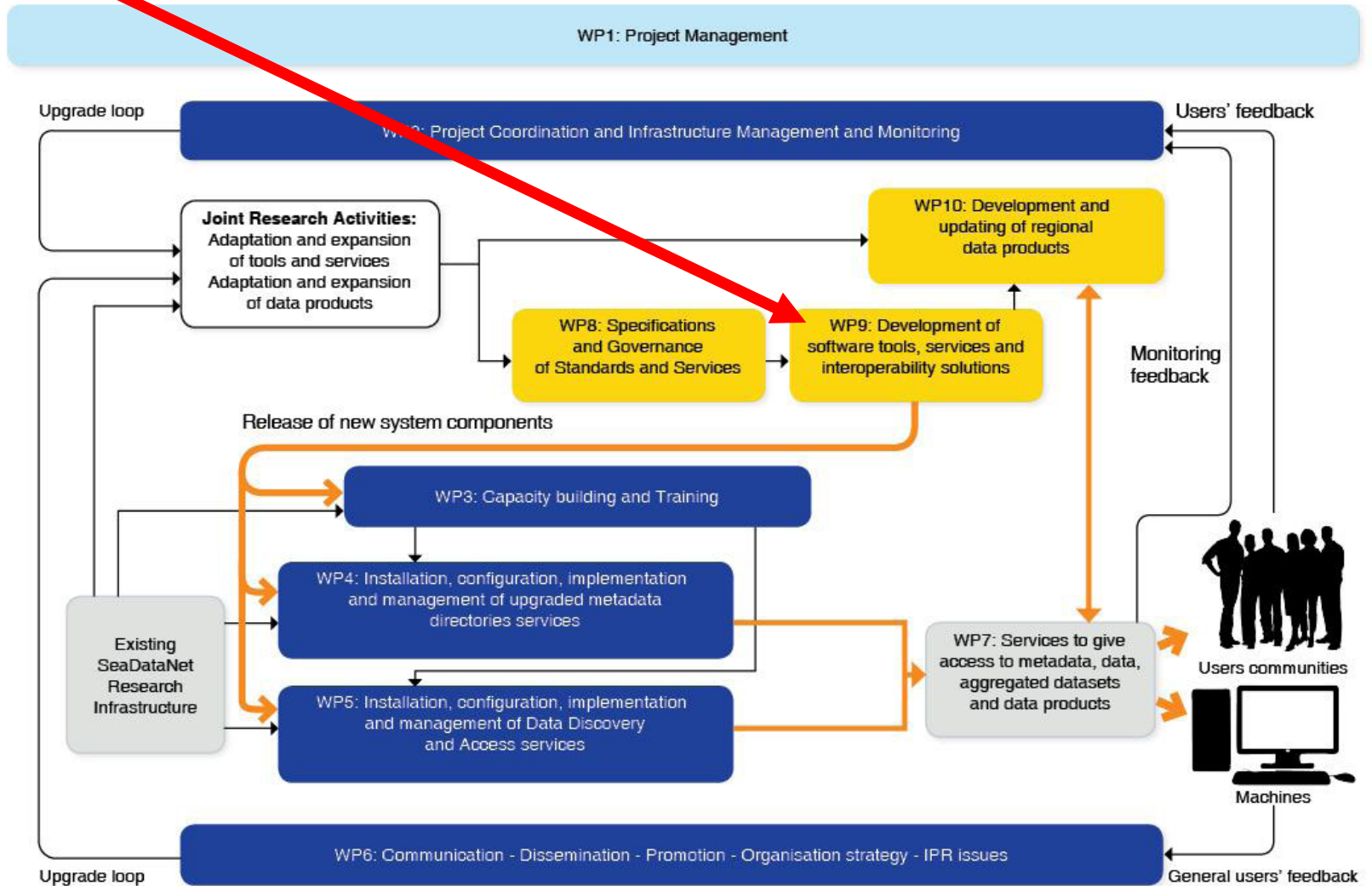
Total effort: 151,45 MM = ca 25% of full SeaDataNet II

By

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SeaDataNet II – Flow Chart



SeaDataNet II Flow Chart

Background

- The SeaDataNet infrastructure will be extended and upgraded (see WP8). These have an impact on the full operational chain of SeaDataNet components, such as the MIKADO XML editor, NEMO conversion software, the applications for import, validation, retrieval, and publishing at the central directories, the CDI data access transaction applications and the Download Manager software.
- The analysis report of WP8.6 gives the overall architecture modifications, major implications and specifications for the technical developments. WP9 focuses on developing, testing and documenting the individual software applications and the integrated system chains.
- WP9 also includes activities for upgrading the functionalities of the analysis software packages ODV and DIVA (including its web viewing service (OceanBrowser)). These are important user tools and key instruments for the generation and scientific analysis of the SeaDataNet regional data products, undertaken in WP10.
- Both WP8 and WP9 will be coordinated by the Technical Task Group, because there is a major interaction and tuning required between these activities.

SeaDataNet II – Overall approach - cycle

**UPGRADING &
IMPROVING**

OPERATIONAL

Implementation

Operation

Training & Transfer

Maintenance

Developments & Testing

Support

Specifications

Service

Error diagnosis

Monitoring

Exploration standards

Promotion

Exploration user
requirements

Exploitation



Objectives

- To deliver tools and services to support improved and upgraded maintenance of the SeaDataNet metadata directories
- To deliver tools and services to support robust access to a wider range of data types, including real-time from acquisition to data centre, with extended functionality and interoperability
- To deliver interoperability solutions with other initiatives, such as the IODE Ocean Data Portal and GEOSS
- To upgrade the ODV analysis and visualisation software
- To upgrade the DIVA statistical analysis and interpolation software and the OceanBrowser visualisation services for data products

Partners in TTG

- IFREMER, MARIS, BODC, BSH, SMHI, IEO, HCMR, OGS, RIHMI, ENEA, CLS, AWI, UIG, IMR, NERI, ICES, NIOZ, RBINS-MUMM, VLIZ, OC-UCY, CNR, UniHB

Activities

- **WP9.1: Upgrading the existing SeaDataNet tools and services for metadata maintenance and aggregation to the central metadata directories, applying CS-W and ISO 19139 (M5 – M8)**
 - This concerns upgrading both the MIKADO tool as used by data centres and the central directory as operated by NERC-BODC, MARIS and BSH-DOD for the EDMED, EDMERP, CSR, EDIOS and CDI directories as described in WP8 and WP4.
 - Task lead by IFREMER, NERC-BODC, MARIS and BSH-DOD
- **WP9.2: Upgrading the existing SeaDataNet portal services and local software components for data access, including real-time access and visualisation services, and handling more data types and formats (M15 – M28)**
 - See WP8 and WP5; they will be used in WP5. It also includes upgrading the NEMO tool to be able to generate new defined data formats.
 - Task lead by IFREMER and MARIS

Activities

- **WP9.3: Developing machine to machine interfacing for various purposes (M9 – M20)**
 - This includes developing and tuning the aggregation of metadata and data to meet requirements of specific user communities and the internal production of regional data products. Regular communication with representatives of the user communities. SeaDataNet serves as provider for these user communities, whereby it integrates the data flows from the individual SeaDataNet data centres in its network, respecting agreed rules and conditions.
 - Task lead by MARIS and IFREMER
- **WP9.4: Developing interoperability with global portals, such as the IOC-IODE Ocean Data Portal and GEOSS (M5 – M40)**
 - Focus on a two-way exchange: SeaDataNet providing output from its portal to the other portals and vice versa. Focus on establishing exchange of metadata between the portals. Note: the interoperability with the INSPIRE portal is established as part of WP9.1.
 - Task lead by RIHMI-WDC, IOC-IODE (subcontractor to IFREMER) and CNR

Activities

- **WP9.5: Upgrading the Ocean Data View analysis and visualisation software (M1 – M42)**
 - Task lead by AWI
- **WP9.6: Upgrading the DIVA statistical analysis and interpolation software and OceanBrowser visualisation services for data products” (M1 – M42)**
 - Task lead by ULG

MILESTONES

- **M18:** End of 1st innovation cycle - All portal services and SeaDataNet data centres make use of CS-W harvesting and ISO 19139 for updating EDMED, EDMERP, CSR, EDIOS and CDI entries. Exchange of ISO 19139 metadata between SeaDataNet portals and INSPIRE, IODE ODP and GEOSS portals
- **M24:** Regular aggregation of metadata and data following specified user community profiles and delivery from machine to machine
- **M40:** Interaction between SeaDataNet portals and IODE ODP and GEOSS portals for retrieving and giving access to data sets next to metadata exchange
- **M42:** End of 2nd innovation cycle – Upgraded central CDI data discovery and access service with capabilities for handling O&M and SensorML profiles, new visualisation services and more data types.