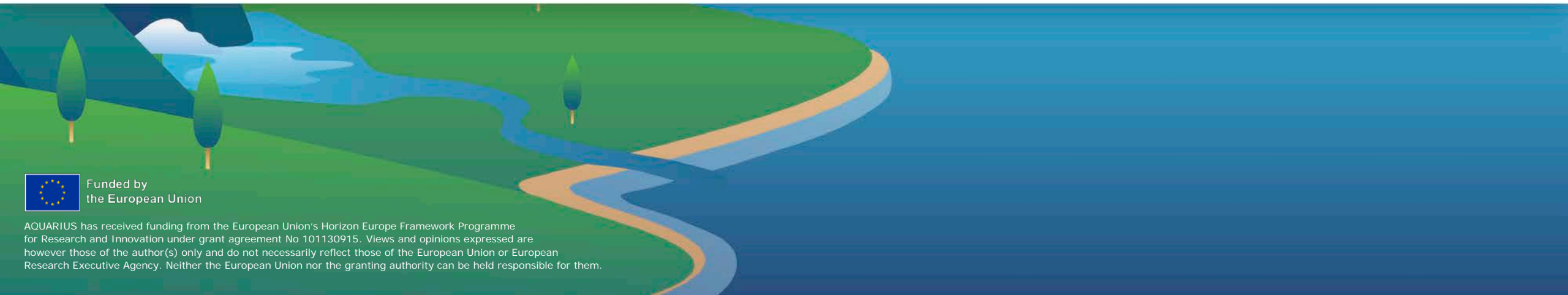




AQUARIUS KICK OFF Meeting

Dick Schaap – MARIS

APRIL 23rd & 24TH 2024



Funded by
the European Union

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Work Package 6 – Data Management & Open Science Practices

Lead: MARIS

Partners: IFREMER, OGS, SMHI, MOI, HCMR, SSBE, CSIC, EMBRC-ERIC, EMSO-ERIC, NORCE, NIMRD, GeoEcoMar, MI, RBINS, IMR, CNR, ULiege, VLIZ, INGV, EMBL-EBI, IH, AWI, and IRD

(representing Infrastructures, Data Centres and EU DM networks, Blue-Cloud VRE)

WP6 Objectives

1 Optimise open and FAIR access to new data, data products, and scientific knowledge to ensure a maximum return of investment from granted TA projects involving multiple RI platforms towards serving the targets of the Mission ‘Restore our Ocean and Waters by 2030’, the European Partnership ‘A climate neutral, sustainable and productive Blue Economy’ and associated initiatives and projects.

2 Ensure TA project researchers benefit from Copernicus, GEOSS, EMODnet and the European Digital Twin of the Ocean (DTO) initiatives, while making their TA project results (new data, data products, and scientific knowledge) available for these initiatives.

3 Plan, develop and operate a federated data management and analytical system for supporting the implementation of an Open Data Strategy; this system will give FAIR access to new data, data products, and scientific knowledge, derived from the TA projects, through a common **AQUARIUS Dataflow Dashboard (ADD)**.

AQUARIUS adopts an **open data policy**, which will be implemented with a **dedicated Data Management approach**, to ensure that all gathered and generated metadata and data will become part of the leading European data (management) infrastructures, such as SeaDataNet, EurOBIS, Copernicus INSTAC, for quality assurance, long term stewardship, and wide access and use. These will feed into EMODnet, CMEMS, DTO, and global portals. Moreover, AQUARIUS will facilitate Open Science as part of FOSC through Blue-Cloud.

WP6 activities

Tasks

Task 6.1 Analysis of data gaps (M1-M5)

Lead: IFREMER, with OGS, VLIZ, MARIS, SMHI, MOI, and SSBE

Task 6.2 FAIR Data Management of data to be collected and processed during and after TA projects (M1-M48)

Lead: MARIS, with CSIC, EMBRC-ERIC, EMSO-ERIC, NORCE, GeoEcoMar, OGS, IFREMER, HCMR, NIMRD, MI, SMHI, RBINS, IMR and SSBE

Task 6.3 Applying open science by analysing and valorising collected TA project data in a web-based research environment (M18-M48)

Lead: MARIS, with CNR, VLIZ, MOI, INGV, OGS, EMBL-EBI, IH, AWI, ULiege and IRD

WP6 Activities

Task 6.1 – Analysis of data gaps (M1-M5)

Lead: IFREMER, with OGS, VLIZ, MARIS, SMHI, MOI, and SSBE

- Analysing knowledge targets of the Mission ‘Restore our Ocean and Waters by 2030’, the European Partnership ‘A climate neutral, sustainable and productive Blue Economy’, the ‘Marine Strategy Framework Directive’ and the ‘Green Deal’.
- Reviewing existing and known data availability for European waters in RIs, EMODnet, Copernicus, and beyond, for supporting research into the knowledge targets, identifying data gaps that might be included as targets in the TA project Calls.

Resulting report (D6.1) at M5 will be input towards the formulation of the TA Calls

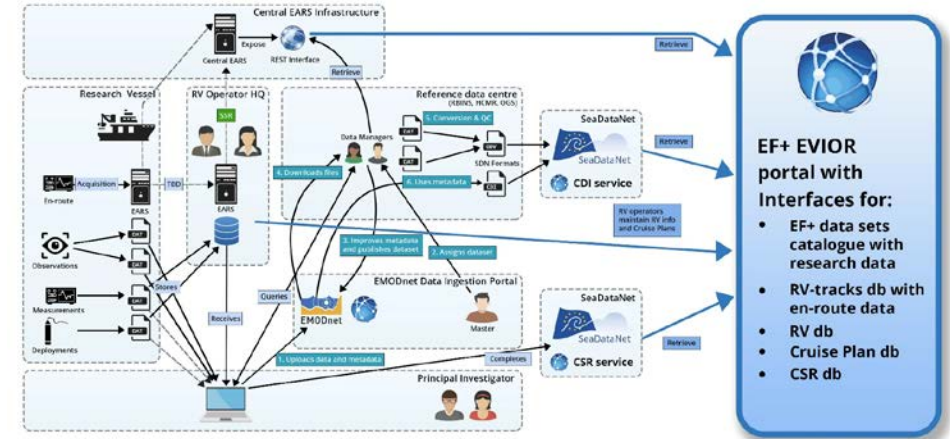
WP6 Activities

Task 6.2 – FAIR Data Management of data to be collected and processed during and after TA projects (M1-M48)

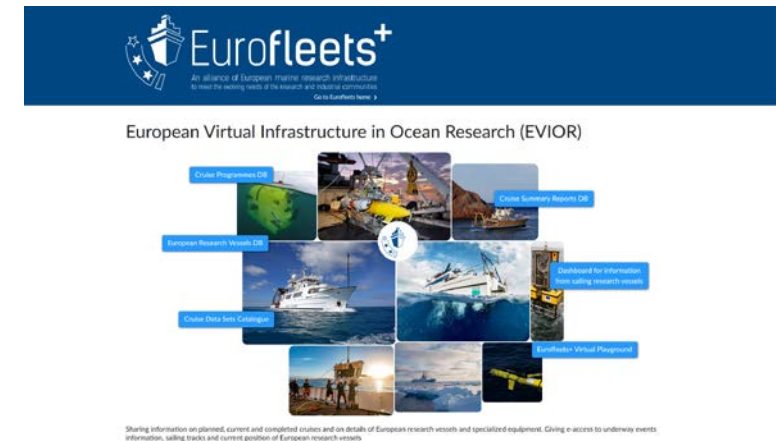
Lead: MARIS, with CSIC, EMBRC-ERIC, EMSO-ERIC, NORCE, OGS, IFREMER, VLIZ, HCMR, NIMRD, MI, GeoEcoMar, SMHI, RBINS, IMR and SSBE

a) Formulating a federated and FAIR Data Management flow scheme (MARIS)

- **Inventory of RIs approaches and services** for management of data output from different TA installations and data types
- analysis and design of a federated data flow scheme to ensure the flow of data from TA projects involving multiple RIs towards uptake in the leading **European marine data infrastructures**
- specifying the integration and possible adaptations of RI services for developing the **federated data flow scheme system**
- specifying transformation of the EVIOR platform into an overarching online **AQUARIUS Dataflow Dashboard (ADD)** that will give up-to-date information about the TA project plans, their implementation, and data management follow-up



Example of Eurofleets+ flow scheme and EVIOR dashboard



WP6 Activities

Task 6.2 – FAIR Data Management of data to be collected and processed during and after TA projects (M1-M48)

Lead: MARIS, with CSIC, EMBRC-ERIC, EMSO-ERIC, NORCE, OGS, IFREMER, VLIZ, HCMR, NIMRD, MI, SMHI, RBINS, IMR, GeoEcoMar and SSBE

b) Developing and deploying the federated data flow scheme system (MARIS)

- Integrating and developing possible adaptations of RI services for delivering to the federated data flow scheme system
- Upgrading and expanding the EVIOR platform into the **AQUARIUS Dataflow Dashboard (ADD)**

c) Implementing the Data Management approach for the actual TA projects (MARIS)

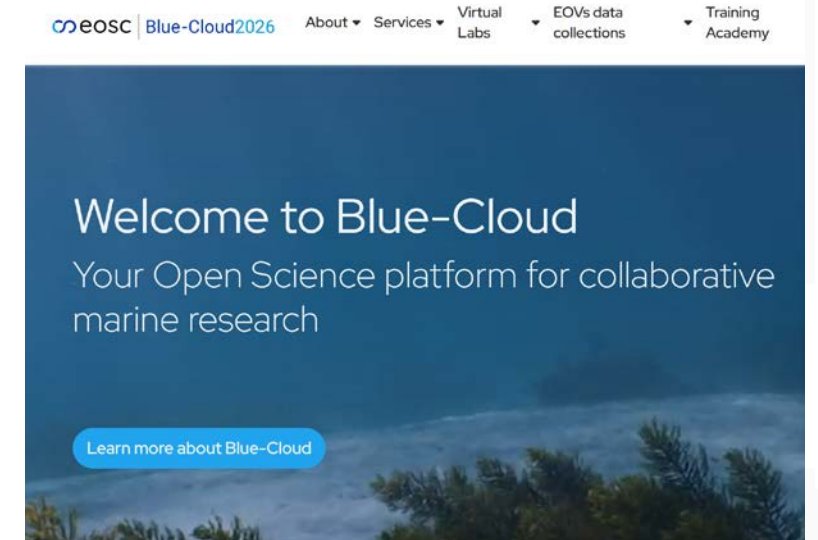
- Formulating **Data Management Plans (DMPs)** per TA project by TA research project teams, coached and reviewed by assigned Data Centres; this interacts with **WP5** training activities
- Supporting and coaching PIs by assigned Data Centres to make available their validated data sets
- Elaborating ingested metadata and data by assigned Data Centres for inclusion in leading European marine data infrastructures and feeding the **ADD**.

WP6 Activities

Task 6.3 – Applying open science by analysing and valorising collected TA project data in a web-based research environment (M18-M48)

Lead: MARIS, with CNR, VLIZ, MOI, INGV, OGS, EMBL-EBI, IHPT, AWI, ULiege and IRD

- Registering TA project scientific teams in the Blue-Cloud Virtual Research Environment (VRE); this interacts with **WP5** activities for educating and training of TA project scientific teams in web-based open science.
- Facilitating and coaching TA project scientific teams by Blue-Cloud experts to make use of analytical services, data repositories, and work with VLabs at the Blue-Cloud VRE, for elaborating their newly gathered data, and combining these with other data sets
- Blue-Cloud experts collaborating with TA project scientific teams for documenting and publishing resulting data products and publications in EOSC and the upgraded EVIOR platform



www.blue-cloud.org

WP6 DELIVERABLES



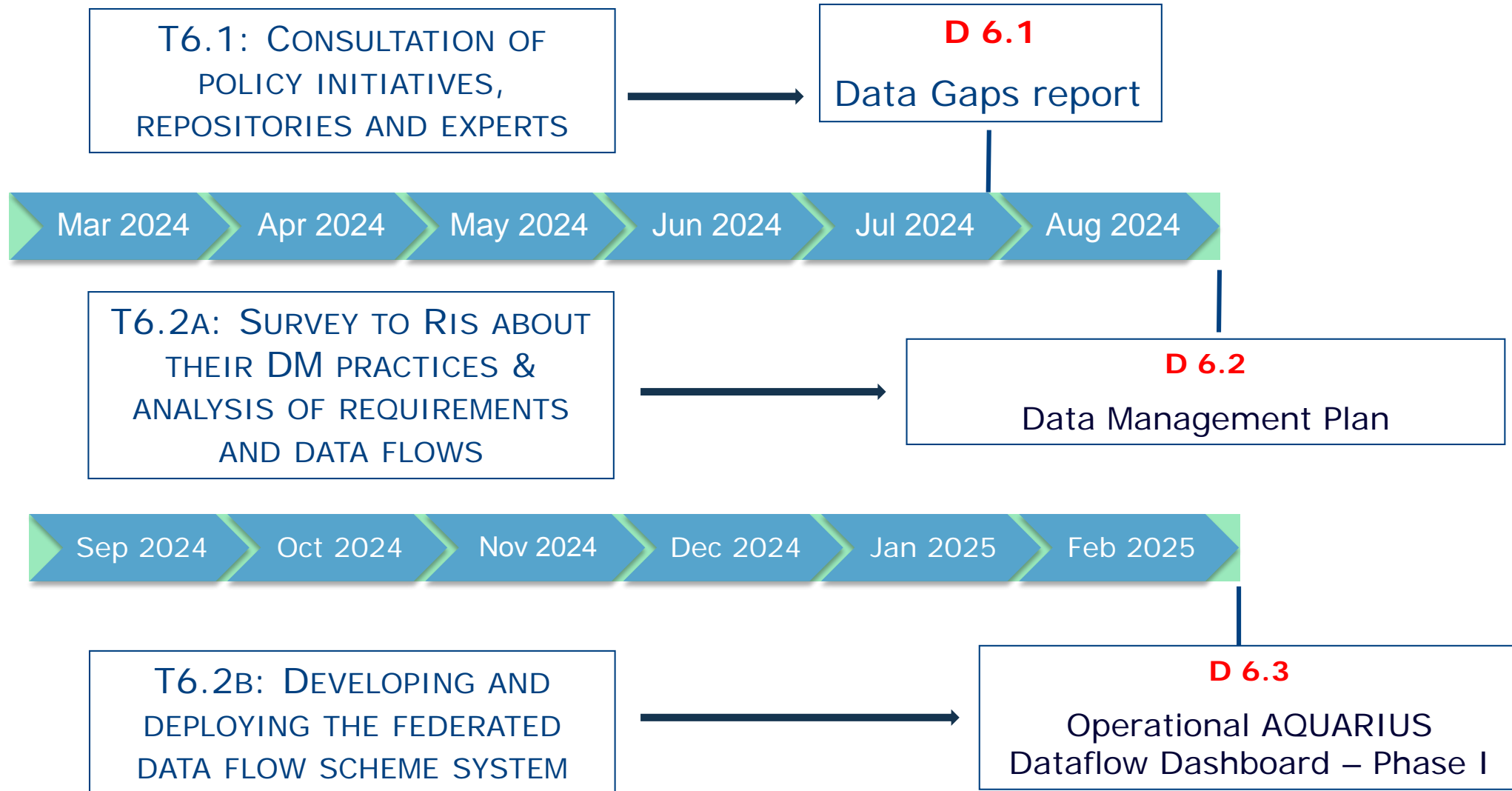
Deliverable Name	No.	Description	Lead	Type	Diss level	Month
Data gaps report	D6.1	Analysis report identifying data gaps	Ifremer	R	PU	5
Data Management Plan	D6.2	Plan for a federated Data Management flow scheme and integrated AQUARIUS Dataflow Dashboard (ADD)	MARIS	DMP	PU	6
Operational ADD – phase 1	D6.3	Operational federated and integrated AQUARIUS Dataflow Dashboard (ADD) with selected functionality	MARIS	OTH	PU	12
Operational ADD – phase 2	D6.4	Operational federated and integrated AQUARIUS Dataflow Dashboard (ADD) with full functionality	MARIS	OTH	PU	24
TA Data Mgmt follow-up – I	D6.5	Data management follow-up report for funded TA events	MARIS	R	PU	18
TA Data Mgmt follow-up – II	D6.6	Data management follow-up report for funded TA events	MARIS	R	PU	36
TA Data Mgmt follow-up – III	D6.7	Final data management follow-up report for funded TA and lessons learned	MARIS	R	PU	48
VA Data Analytics follow-up - I	D6.8	Data analytics follow-up report for funded VA access to Blue-Cloud VRE related to TA events	MARIS	R	PU	36
VA Data Analytics follow-up - II	D6.9	Final data analytics follow-up report for funded VA access to Blue-Cloud VRE related to TA events	MARIS	R	PU	48

WP6 MILESTONES



MILESTONE NO.	MILESTONE NAME	DUE DATE	MEANS OF VERIFICATION
M19	TA Project Data available on AQUARIUS Dataflow Dashboard and open EU repository	24	Website
M20	TA Teams engaged in Open Science Practices	46	Report
M27	TA Project Data available on AQUARIUS Dataflow Dashboard open EU repository	48	Website

WP6 Roadmap for the 1st year



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