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Science, services, sustainability

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JERICO-S3 MILESTONE Joint European Research Infrastructure network for Coastal Observatory Science, Services, Sustainability MS#, WP# and full JERICO-S3 MS8 – WP2 – Review of opportunities title 5 Key words **COVARTEC AS** Lead beneficiary **Lead Author Dominique Durand** Co-authors Antoine Mangin **Contributors** Submission date February 2021 (M12)

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L	Report after a workshop or a meeting (TEMPLATE A)
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TABLE OF CONTENT

1	Objectives and implementation process	3
2	Main report	3
	2.1 Review of opportunities: COPERNICUS	3
	2.1.1 General interaction with CMEMS	3
	2.1.2 Review of opportunities concerning satellite Ocean colour and Altimetry	3
	2.1.3 Cooperation with H2020-CCVS project	4
	2.2 Review of opportunities: Coastal-Based industries	4
3	Conclusion	5





1 Objectives and implementation process

As part of task 2.3 "interfacing with COPERNICUS and coastal-based industries", a review of the status of interaction between JERICO-RI and key potential end-users is planned.

The two main end-user groups are:

- 1. COPERNICUS, including the Copernicus Marine Environment and Monitoring System-CMEMS and space agencies (ESA, EUMetSat)
- 2. Coastal-based industries, including among other aquaculture, fisheries, oil & gas and offshore wind

The review has been performed through a series of internal and external meetings and through direct interaction with the partners in the task.

Besides, as part of task9.2.1 "Community of users and their needs", a comprehensive list of stakeholders and end-users has been established based on inputs from JERICO regions (PSS/IRS). Partners in Task2.3 have been contributing to this exercise that was tightly linked to the planned work in WP2. The objective has been to avoid redundancy between actions and optimise the use of the project resources.

2 Main report

2.1 Review of opportunities: COPERNICUS

2.1.1 General interaction with CMEMS

Several consultations and dialog with the CMEMS community have been conducted with the objective of mapping the present progress and topic of interest of the CMEMS community (both the satellite, the modelling and the data groups).

Date	Attendees	Objective	Outcomes
July. 21, 2020	For CMEMS: Sylvie Pouliquen (coordinator INSITU TAC) For JERICO: D. Durand, A. Mangin	Review of in-situ data challenges in CMEMS	Clarification of aspects to be tackled by JERICO-S3 in terms of data quality and sustainability.
July 27, 2020	For CMEMS: Gian Piero Cossarini (Modelling group) For JERICO: D. Durand and A. Mangin	State-of-the-art in operational modelling and forecasting in CMEMS	Clarification of the expectation on coastal in-situ observations for forecasting.

2.1.2 Review of opportunities concerning satellite Ocean colour and Altimetry

Two internal working group have been established to investigate into details the value of JERICO data towards ocean colour and altimetry activities:

WG	Members	Objective	Outcomes
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BGC data / Ocean Colour	Antoine Mangin (ACRI), D. Durand (COV), Helene Frigstad (NIVA), Holger Brix (HZG)	Identify success stories on the use of JERICO data by the satellite OC activities. Design of dedicated products for the OC community.	Supersite definition for OC Cal/Val activities
HF-radar / Altimeter	Antoine Mangin (ACRI), D. Durand (COV), Marcello Magaldi and Annalisa Griffa (ISMAR), Anna Rubio and Julien Mader (AZTI), Joaquin Tintore (SOCIB), Daniele Ciani (CNR)	stories on the use of JERICO HF-Radar data by the satellite	Three meetings conducted: design of a comparison exercise to be performed in fall 2021. Meetings March 22, 2021, May 10, 2021 and June 23, 2021.

2.1.3 Cooperation with H2020-CCVS project

At an early stage in the project, it was decided to take advantage of the newly funded H2020-LC-Space-19-EO-2020 CSA CCVS project for optimizing the dialog with the space agencies.

The objective of the Copernicus Cal/Val Solution (CCVS) is to define a holistic solution for all Copernicus Sentinel missions (either operational or planned) to overcome current limitations of Calibration and Validation (Cal/Val) activities. Among other CCVS intends to implement solutions for access to high-quality Fiducial Reference Measurements provided by, among other, observing systems. CCVS includes a strong interface to ESA and EUMetSat.

There is therefore a strong common interest in developing robust cooperation agreement between JERICO-RI, as a provider of high-quality coastal data and relevant Copernicus services

ACRI, co-leading partner of Task2.3 is coordinating the CCVS project, thereby providing an easy cooperation framework between the two projects.

Two joint meetings have been conducted between JERICO-S3 and CCVS so far.

Date	Attendees	Objective	Outcomes
Feb. 2, 2021	For CCVS coordination: Sebastien Clerc, ACRI-ST For JERICO: D. Durand, A. Mangin	First contact – clarification of common interest a link to space agencies	Potential of JERICO-RI for providing key data for Cal/Val of OC and radar satellite data
May 7, 2021	Christophe Lerebourg (ACRI-CCVS), D. Durand (JERICO-S3)	Interview on JERICO products and service of interest for Cal/Val	Clarification of the potential of JERICO-RI. The question of sustainability of the service provision is key.





2.2 Review of opportunities: Coastal-Based industries

As stated in section 1, a comprehensive list of industry stakeholders in PSS/IRS has been established as part of WP9. This list is the basis for engaging private stakeholders in WP2/task2.3. Contributors in task2.3 are also part of the Business Development Group established as part of task 9.4., thereby ensuring an appropriate synergy between overarching strategic development carried out in WP9 and the more "close to the ground" actions that are the focus of Task 2.3.

The European Green Deal and its "digital twin of the ocean" target is considered as a new playground for engaging industrial actors into co-creation processes with JERICO-RI.

In order to reach out to many stakeholders and engaging a good dialog on their needs and on fit-for-purpose products and services that JERICO-RI could deliver, it was decided to first approach national and international industry clusters.

The Norwegian GCE-Ocean technology cluster (150 members representative from many marine and maritime sectors, such as oil & gas, offshore wind, aquaculture, deep sea mining) is being used as a "champion" organisation for gathering needs from the private sectors. We have established a dialog area, with trimestral meetings.

In addition, four meetings with the "Blue-Tech Cluster Alliance" - BTCA, have been conducting between June and December 2020. The BTCA is a European industry-targeted cluster of clusters, with seven charter members from France, Spain, Portugal, Norway, Ireland and UK and with additional contribution from USA and Canada, as well.

Date	Attendees	Objective	Outcomes
August 19, 2020	For JERICO: D. Durand For BTCA: Forum Oceano (Portugal), Marine Institute (Ireland), OceansAdvance (Canada), PLOCAN (Spain), Pole Mer Mediterranee (France), TMA BlueTech (formerly The Maritime Alliance) (US), the UK Blue Growth Network (UK), and the GCE Ocean Technology (Norway)	Get to know each other	
September 1, 2020	Same as previous	Key common targets	Short list of topics where JERICO-RI could support clusters' members.
October 2, 2020	Same as previous	Key common targets #2	Consolidation of the list
November 24, 2020	Same as previous	Identifying cluster members with specific interest	

3 Conclusion

After 12 months in the project and despite the many limitations raised from the Covid-19 situations, a good status and basis for developing cooperation with Copernicus services and private actors in coastal domains has been established.





Two meetings are planned in September 2021 for kicking-of the next phase of the task 2.3 activities:

- A meeting (COV, ACRI, NIVA, HZG) on co-design of JERICO-RI products for ocean colour community.
- Meeting (COV, ACRI, Deltares, SOCIB) on co-design of partnership models with industry

A close collaboration with WP9 needs to be pursued. Besides, an intensification of cooperation with WP3 and 4 (PSS/IRS) needs to be established in view of taking advantage of regional cooperation with both CMEMS and with industrial actors. The latter is considered as a key for developing success story of partnerships with JERICO-RI key stakeholders.