



Joint European Research Infrastructure network for Coastal Observatory –
Novel European eXpertise for coastal observaTories – **JERICO-NEXT**

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1. Executive summary

The D6.2 reports the feedback of the User Engagement Panel mainly on the virtual access activity of JERICO-NEXT. The virtual access activity aims to provide data, products and services to a wide range of stakeholders acting in the coastal environment. The panel was selected in the beginning of the project to represent environmental managers/authorities and policy makers, the marine-related industry sector as well as research, education and the operational communities. The panel members were invited to three general assemblies where the outputs of the project were presented and discussed with them. Their feedback shows that the actions of the virtual infrastructures in JERICO-NEXT towards FAIR principle for scientific data management are promising although the infrastructures shows different level of maturity and specificity. The panel recognises that whereas close collaboration with data European platforms (EMODnet, SeaDataNet, CMEMS) already exists, there are new platforms (<https://www.coastal-tep.eu/portal>) related to earth observation (EO) to explore. The collaboration between earth observation and monitoring is now slowly taking place due to the improvement of the satellite observations (sentinel 2, sentinel 3) and the possibility to provide in situ data at high frequency from JERICO-RI. However, the use of new technologies in the monitoring depends on different legal, financial and governance decisions. Finally, the User Engagement Panel regrets not to have been involved enough in the project. In the future, it would be better to involve them in the different workpackages or better having a workpackage dedicated to stakeholder needs.





2. Introduction

A User Engagement Panel was set up as part of Work Package 8 to ensure that project deliverables fit the needs of a range of stakeholders and that uptake of related infrastructure and products is promoted. The members of this Panel represent environmental managers/authorities and policy makers, the marine-related industry sector as well as research, education and the operational communities. The main target is to establish an effective and proactive mechanism linking the project to beneficiaries in the design, planning and implementation phases of project deliverables. As the panel members are expected to individually and collectively participate in providing expert feedback and assessments to enhance the relevance of the project scopes, they were invited to the general assembly in Helsinki (March 2017), Galway (September 2018) and Brest (July 2019). During these meetings, different work packages were presented particularly on marine new technologies and new datasets relevant to monitoring and service providers.

D6.2 reports the feedback of the User Engagement Panel members who participated regularly to the general assemblies on:

1. The relevance of the actions of the VA providers in the framework of the project:
2. Recommendations of the panel members, according to the expertise and the needs of the stakeholder group that they each represented.





3. Main report

The virtual access activity (<http://www.jerico-ri.eu/virtual-access/>) which aims to deliver data and products to multiple stakeholders in coastal areas were assessed by the User Engagement Panel. Their answers are summarised below.

A. What is the relevance of the actions of the VA providers in the framework of the project?

The 15 Virtual Access portals that were supported in JERICO-NEXT were found to be interesting and promising, although they show different level of maturity/specificity. Most of them facilitate access to data, streamlining harmonised quality-controlled processes. One exception presented in the GA session in Brest is SpiArcBase from CNRS (University of Bordeaux). SpiArcBase is a software to study the sediment upper layer of the sea floor. This is more developed as a tool to perform capacity building than for data exchange and dissemination. Therefore, it is important to classify the outcomes of the virtual access activity to better understand the opportunities for JERICO-RI to capitalise and develop what is already available.

The virtual access infrastructures in JERICO-NEXT were considered to be fit-for-purpose in terms of their original target audience, even if the audience is quite narrow e.g. for SpiArcBase compared to COSYNA. Their data and products cover mainly regional specificity of the coastal environment.

The Virtual Infrastructures in JERICO-NEXT contain 4 types of expertise:

1. Data access, quality-controlled processes and expertise.
2. Tools for visualisation/data handling/cataloguing.
3. Expertise on sensors/measurements types and their compatibility.
4. Thematic expertise on what is observed in terms of physical, biogeochemical and biology parameters.

From the project, the User Engagement Panel expected a specific scientific knowledge and technical expertise, which could be useful in their sector of activities. Data access, quality-controlled processes and expertise (1) as well as visualising, handling and cataloguing (2) were the main activities in the virtual access and data management in the project. However, it is recommended in the future to harmonise the visualisation between partners. By branding and advertising JERICO-NEXT products, the programme will gain in visibility with the stakeholders. Expertise types 1, 3 and 4 are specifically requested by users and each virtual infrastructure serves its users as best as it can.

From an OSPAR perspective the most likely users will be the specialist scientific working groups, for example on contaminants, ocean acidification, eutrophication, species and habitats, offshore industry (oil & gas and renewables). For them the QA and QC of data and information are of utmost importance. Operational oceanography and real time data are rarely required. The assessors are most likely to use the virtual infrastructures which:

3. Provide data and information without any charge,
4. Insist on & provide good metadata,
5. Provide transparent QA and QC processes,
4. Probably data that have DOIs would also be preferable

B. According to your expertise and the needs of the stakeholder group that you represent, what are your recommendations?





There are today many platforms to optimise the use of QA and QC data collected by the partnership for building products and services. Most of the JERICO-NEXT partners of the virtual access already deliver to EMODnet, SeaDataNet, and CMEMS. However, other exploitation platforms (e.g.: ESA Thematic Exploitation Platform: <https://tep.eo.esa.int/>, DIAS: <https://www.copernicus.eu/en/access-data/dias>) can be used to bring data to the users/researchers for developing testing and optimisation processing (e.g: algorithms for EO) through virtual IT environment. JERICO-RI virtual access should be visible in these platforms in order to become 'familiar' to the users of these platforms. This is felt as a good method to pave the way to inclusion of JERICO-RI data into CMEMS/EMODnet area. The Coastal TEP (<https://www.coastal-tep.eu/portal/>) is ready to make the connection between users of EO coastal data .

The outcomes of the JERICO-NEXT to establish services for delivering scientific outputs could be used in environmental monitoring programmes. OSPAR Contracting Parties have national monitoring programmes that contribute to the OSPAR Coordinated Environmental Monitoring Programme (CEMP). This provides the data used by the experts to conduct assessments. It is quite likely that many of the national virtual infrastructures are already part of the CEMP, for example, much of the data available in the Cefas data hub are already used in OSPAR monitoring and assessment programmes. New sources of quality-controlled and quality-assured data, information and innovation are welcomed, but the experts are unlikely go looking for it, unless they have identified information gaps. Therefore, JERICO partners need to approach the experts if they really want their data and information to be taken up by OSPAR expert groups.

The recommendation for future engagement, therefore, is to better identify the users and contact them right at the start of a project and define their specific needs together. Then keep regular contact with them, e.g. by attending expert group meetings, or having regular Skype/WebEx meetings. This would establish a two-way relationship so that project outcomes are shaped by the needs of its users, which could be defined by organising by a survey in the beginning of the project.





4. Conclusions

The JERICO-NEXT data and products proposed by each virtual infrastructure and in the SEXTANT catalogue mainly cover regional coastal environment interest. Approaches and tools could be adapted to other coastal areas by the private sectors or organisation in charge of national monitoring.

Concerning the monitoring, several barriers need to be overcome before the changes proposed by JERICO-RI in terms of using new tools and holistic approach can take place. Organisations implementing national monitoring programmes range from Government Departments (e.g. Marine Scotland), Government Agencies (e.g. Cefas), Independent Agencies, Universities (e.g. DTU-aqua), to Contractors. Each will have different legal responsibilities and structures within which changes to monitoring needs to take place. Each different type of organisation will be funded in different ways, and will have different abilities to redirect funding, and/or receive funding from EU. Hence if new methods need new funding or a change in funding, or a “spend to save” investment, the ease of doing this will be different in each case. Also, different monitoring programmes are in different stages of maturity. Contaminant monitoring has been in place for decades, whereas in contrast litter monitoring is just developing. This influences how easy it is to bring in new methods. At the governance level, each monitoring programme has a different governance structure which needs to approve changes.

The engagement of the User Engagement Panel has been limited to one meeting during each of the three general assemblies. It has been difficult for the members to understand what JERICO is delivering with just a few presentations in one day. For the future, it would be beneficial if the panel members could be engaged into each work package. Different end users could be embedded in different packages, so we do not all have to commit to multiple meetings. Then when the whole User Group meets up, the “specialist” user from each work package could report back as to how the work package is progressing and provide much more informed feedback and advice.

