

JERICO-S3 All Region Workshop#2

SESSION 2.1 - Relations with other RIs and initiatives in regions for the future

GRANT N°: 871153

PROJECT ACRONYME: JERICO-S3

PROJECT NAME: Joint European Research Infrastructure for Coastal Observatories - Science,

services, sustainability

COORDINATOR: Laurent DELAUNEY - Ifremer, France - jerico-s3@ifremer.fr

JERICO-S3 MILESTONE				
Joint European Research Infrastructure network for Coastal Observatory				
Science, Services, Sustainability				
MS#, WP# and full title	JERICO-S3 - WP2- SESSION 2.1 - Relation with other RIs and initiatives in			
	Regions Regions			
5 Key words	RIs initiatives - Regions			
Lead beneficiary	Holger Brix, Ghada El Serafy, Carolina Cantoni, George Petihakis (WP2)			
Lead Author	Holger Brix, Ghada El Serafy, Carolina Cantoni, George Petihakis (WP2)			
Co-authors				
Contributors				
Submission date				

→ Please specify the type of milestone:

✓ Report after a workshop or a meeting (TEMPLATE A) ⇒ JERICO-Week#2, April 19-23 2021

- □ Report after a specific action (TEMPLATE B) (test, diagnostic, implementation,...)
- □ Document (TEMPLATE B) (guidelines,...)
- □ Other (TEMPLATE B) (to specify)

Diffusion list				
Consortium beneficiaries	Third parties	Associated Partners	other	

PROPRIETARY RIGHTS STATEMENT

THIS DOCUMENT CONTAINS INFORMATION, WHICH IS PROPRIETARY TO THE JERICO-S3 CONSORTIUM. NEITHER THIS DOCUMENT NOR THE INFORMATION CONTAINED HEREIN SHALL BE USED, DUPLICATED OR COMMUNICATED EXCEPT WITH THE PRIOR WRITTEN CONSENT OF THE JERICO-S3 COORDINATOR.

According to the Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation) and the 78-17 modified law of 6 January 1978, you have a right of access, rectification, erasure of your personal data and a right of restriction to the data processing. You can exercise your rights before the Ifremer data protection officer by mail at the following address: IFREMER – Délégué à la protection des données- Centre Bretagne – ZI de la Pointe du Diable – CS 10070 – 29280 Plouzané - FRANCE or by email: dpo@ifremer.fr // jerico@ifremer.fr

Ifremer shall not hold your personal data for longer than necessary with regard to the purpose of the data processing and shall destroy it thereafter.



JERICO-S3 All Region Workshop#2

SESSION 2.1 - Relations with other RIs and initiatives in regions for the future

ARW SESSION 2 - PART 1

Relations with other RIs and initiatives in regions for the future

Tuesday 20 April 2021 / 14:45 - 17:00 (with coffee break)

Scope of the session:

JERICO-RI addresses the challenges of the coastal domain. As such it operates at the interface between different parts of the Earth system and will have to address overlap with other geographically adjacent RIs from the marine, river and terrestrial communities. To establish an interface infrastructure, JERICO-RI has begun to forge connections with other relevant RIs in the land-ocean continuum (such as e-LTER, Danubius, EMBRC, ICOS, EMSO, EuroARGO, AQUACOSM). This session will serve to analyze and structure those dialogues with the goal to avoid overlap and to facilitate synergies between RIs, on a management level as well as on a regional level with the goal to establish regional "use cases".

It will also serve to present some (or all) the "successful stories" of collaborations that have been implemented in this first year within the PSS and IRS activities with the aim of inspiring people for future actions and further collaborations in other areas and/or with other RIs.

Expected outcomes:

- Setup of the JERICO RIs Board
- Collection of comments on the Term of Reference (ToR) for the establishment of a set of rules for cooperation with other RIs
- Identification of possible and/or existing sites for regional cooperation
- List of cooperation topics relevant on a regional level
- Stock taking of existing collaborations, their nature (where, what, how)
- Share successful approaches on how to organize collaboration

Targeted audience:

Representatives of other RIs (JERICO's RIs Board), Regions leads, WP 1, 2, 3, 4 leads Colleagues involved in cooperation with other RIs

Type of organisation: Plenary session

- Introduction of concept of cooperation
- introduction of other RIs with opportunity to identify overlap as seen from other RIs
- Introduction of region leads and existing cooperation
- Discussion of proposed RIs Board and Tor



JERICO-S3 All Region Workshop#2

SESSION 2.1 - Relations with other RIs and initiatives in regions for the future

Main reference persons: (Organisers/leaders)

Holger Brix, Ghada El Serafy, Carolina Cantoni, George Petihakis (WP2), Ingrid Puillat, Laurent Delauney (JERICO coordination)

WHAT IS EXPECTED ASKED FROM REGIONS (PSS and IRS)?

To have every PSS and IRS fill in a slide like that and present it briefly (no more than 3 minutes) during the session : **SLIDES HERE**

#	Description	Leading person	Link
1 5 min	Introduction of concept of cooperation (RIs Board, ToR)	Holger Brix	
2 30 min	Presentation / introduction of some /all environmental RIs: Aim of the RI, level of maturity (ESFRI roadmap, implementation, etc), map with sites, plus information on access	RI representatives	
	Coffee Break		
3 40 min	"Successful stories from PSS and IRS" – one/two people for the site present their activities - region leads	PSS/IRS representatives	Link to slides
4 30 min	 Discussion about collaborations: What actions at coordination level can help pave the way toward a better integration? Role of RIs Board? Collaboration through mutual access How can the "seeds" of collaborations grow also in other sites? 	George Petihakis	



JERICO-S3 All Region Workshop#2

SESSION 2.1 - Relations with other RIs and initiatives in regions for the future

NOTES AND MINUTES

NOTES and MINUTES

→ SECRETARY.IES (responsible for notes and minutes) :	David Kaiser (Hereon) //
Carolina Cantoni (CNR)	

Discussion about collaborations:

- What actions at coordination level can help pave the way toward a better integration? Role of RIs Board?
- Collaboration through mutual access
- How can the "seeds" of collaborations grow also in other sites?

Nicolas Pade: Is there no link between Channel-PSS and the Plymouth observatories?

Sébastien Legrand, RBINS: for Channel PSS and BE, LifeWatch is important for plankton monitoring. EMBRC could also be important for other biology / biodiversity questions.

Richard Sanders ICOS OTC: Nicolas PML is a partner in DANUBIUS-RI and joint lead in our Observation Node

Nicolas PADE - EMBRC : So, the Tavy is part of Danubius then?

Michael Schultz (DANUBIUS-RI): Tavy is not a DANUBIUS-RI Supersite

Veronique Creach: it will be interesting to know a bit more about MINKE because we have two work packages dealing with Best practices. thanks

Laurent D: MINKE - 2021 - 2025

Kick off is not made yet and on my knowledge not yet planned regarding the dates.

Programme: H2020 - Research and Innovation Actions

Project title: Metrology for Integrated Marine Management and Knowledge-Transfer

Network

Lead: CSIC, Jaume Pierra The summary of the project:

MINKE will integrate key European marine metrology research infrastructures, to coordinate their use and development and propose an innovative framework of "quality of oceanographic data" for the different European actors in charge of monitoring and managing the marine ecosystems. MINKE proposes a new vision in the design of marine monitoring networks considering two dimensions of data quality, accuracy and completeness, as the driving components of the quality in data acquisition. The present proposal, through the

JERICO-S3 All Region Workshop#2

SESSION 2.1 - Relations with other RIs and initiatives in regions for the future

different Integration Activities (Networking, Transnational-Virtual Access and Joint Research), aims to lay the groundwork for creating the necessary synergies among the different involved actors in the quintuple helix model of innovation, creating a new community with complementary capabilities for Ocean & Coastal Observation, that will facilitate the transition towards a blue growth socio-economic system.

Laurent Coppola: Just a little reminder for everyone. For the regions that have a connection with the French EEZ, ILICO is of course present in the list of IRs (like for NW MedSea for example). But I think that here the relevant connections are those with ERIC.

Jay Pearlman: I am hearing comments about best practices used or in development. How many have been documented and submitted to the Ocean Best Practices System?

Laurent Coppola: @Jay: some JERICO BP have been submitted to OBPS but I don't know if all of them but it is essential nowadays

Richard S: There is a copy of the draft calls here https://sciencebusiness.net/sites/default/files/inline-files/Annex%203%20Research%20Infras tructures.pdf

lan Salter: @Jay: BOPs for omics/eDNA were discussed at an OBPS workshop last year and contributed to shaping a UN Decade Programme proposal for Investigating life in the ocean using bimolecular techniques

George P.: about Joint TNA exercise: easier in projects which have dedicated funds than in **ERICs**

Sylvie: comment: ERIC is also a good tool to enhance the collaboration at national level because we have access to ministries. So there is a way to strengthen collaborations

Nicolas P.: Yes, there is a strong argument of complementarity to justify long-term investment in observation through national collaboration. +1Sylvie

Inga L.: Totally agree on the need to develop a plan on concrete collaboration, benefits to be gained to the broader community

Nicolas P.: Europe wants to see that all these investments lead to solutions, and this could be one of them. Tuning into aspects of Mission Starfish

George P.: open the discussion to the RIboard

Holger B.: introduces the Board of RIs; can be a place for coordination, where RIs can communicate; avoidance of overlapping RI action can be discussed here

JERICO-S3 All Region Workshop#2

SESSION 2.1 - Relations with other RIs and initiatives in regions for the future

Sylvie P.: To answer the societal needs we need to know what's in the water and can we do it jointly.

Laurent C.: Wouldn't it be relevant to have more joint workshops between ERICs more often, as EURO-ARGO will do on the BGC and deep Argo part with GO-SHIP and EMSO/Oceansites to see how and where demonstrations can be set up

Joaquin T.: In relation to the collaboration between RIs there is an international framework for "Collective Impact" approach that could be relevant ... https://ssir.org/articles/entry/collective impact.

Nicolas P.: Yes, I think the avoidance of overlap is important. complementarity is an important argument in funding as well.

COMMENTS IN ZOOM

From Léa G. to Everyone: 03:53 PM

Link to the slides: ARW#2 - SESSION2.1 - PSS / IRS - Collaboration with other RIs

From Joaquin to Everyone: 03:54 PM

Great comments from Sylvie, not all platforms are good and adequate in all regions, and this is the strong power and potential of true multi platform approach of JERICO ١

From Nicolas PADE - EMBRC to Everyone: 04:07 PM

Is there no link between Channel-PSS and the Plymouth observatories?

From Sébastien Legrand, RBINS to Everyone: 04:08 PM

For Channel PSS and BE, LifeWatch is important for plankton monitoring. EMBRC could also be important for other biology / biodiversity questions.

From Michael Schultz (DANUBIUS-RI) to Everyone: 04:17 PM

Nicolas PML is a partner in DANUBIUS-RI and joint lead in our Observation Node

From Nicolas PADE - EMBRC to Everyone: 04:18 PM

So, the Tavy is part of Danubius then?

Thanks for the clarification

From Michael Schultz (DANUBIUS-RI) to Everyone: 04:18 PM

JERICO-S3 All Region Workshop#2

SESSION 2.1 - Relations with other RIs and initiatives in regions for the future

Tavy is not a DANUBIUS-RI Supersite

From veronique Creach to Everyone: 04:21 PM

It will be interesting to know a bit more about MINKE because we have two work packages dealing with Best practices. thanks

From Laurent Coppola to Everyone: 04:21 PM

Just a little reminder for everyone. For the regions that have a connection with the French EEZ, ILICO is of course present in the list of IRs (like for NW MedSea for example). But I think that here the relevant connections are those with ERIC.

From Jay Pearlman to Everyone: 04:23 PM

I am hearing comments about best practices used or in development. How many have been documented and submitted to the Ocean Best Practices System?

From Laurent Coppola to Everyone: 04:24 PM

@Jay: some JERICO BP have been submitted to OBPS but I don't know if all of them but it is essential nowadays

From Richard Sanders ICOS OTC to Everyone: 04:27 PM

There is a copy of the draft calls here

https://sciencebusiness.net/sites/default/files/inline-files/Annex%203%20Research% 20Infrastructures.pdf

From Ian Salter to Everyone: 04:29 PM

@Jay: BOPs for omics/eDNA were discussed at an OBPS workshop last year and contributed to shaping a UN Decade Programme proposal for Investigating life in the ocean using bimolecular techniques

From Nicolas PADE - EMBRC to Everyone: 04:30 PM

@jay, EMBRC has not submitted ours yet, we will wait till we have been running for a while to make sure that our SOPs are solid

From Jay Pearlman to Everyone: 04:30 PM

Thanks Laurent about submission to OBPS. My question is also to raise the question of how many of those mentioned today by the PSS and IRS are being documented.

From Christos Arvanitidis to Everyone: 04:31 PM



JERICO-S3 All Region Workshop#2

SESSION 2.1 - Relations with other RIs and initiatives in regions for the future

I can provide some examples on the first question of George

From Laurent Coppola to Everyone: 04:32 PM

@Jay hard to say but each PSS/IRS should provide info for WP4 and WP5. I will look for mine

From Nicolas PADE - EMBRC to Everyone: 04:40 PM

Yes, there is a strong argument of complementarity to justify long-term investment in observation through national collaboration

+1Sylvie

From Inga Lips (EuroGOOS) to Everyone: 04:42 PM

Totally agree on the need to develop a plan on concrete collaboration, benefits to be gained to the broader community

From Nicolas PADE - EMBRC to Everyone: 04:47 PM

Europe wants to see that all these investment leads to solutions, and this could be one of them. Tuning into aspects of Mission Starfish

From Laurent Coppola to Everyone: 04:53 PM

Wouldn't it be relevant to have more joint workshops between ERICs more often, as EURO-ARGO will do on the BGC and deep Argo part with GO-SHIP and EMSO/Oceansites to see how and where demonstrations can be set up

From Joaquin to Everyone: 04:53 PM

In relation to the collaboration between RIs there is an international framework for "Collective Impact" approach that could be relevant ... https://ssir.org/articles/entry/collective impact.

From Nicolas PADE - EMBRC to Everyone: 04:54 PM

Yes, I think the avoidance of overlap is important, complementarity is an important argument in funding as well.

From Richard Sanders ICOS OTC to Everyone: 04:55 PM

I think the EOOS - RI - EMODNET dialogue is important

From Nicolas PADE - EMBRC to Everyone: 04:55 PM

JERICO-S3 All Region Workshop#2

SESSION 2.1 - Relations with other RIs and initiatives in regions for the future

+1 Richard

From Laurent Coppola to Everyone: 04:56 PM

OceanOPS

From Richard Sanders ICOS OTC to Everyone: 04:57 PM

I also think JPI is crucial

That's the place where funding agencies come together from member states which is ultimately where observing money comes from

Creating a collective vision of what success looks like and how to deliver it is crucial

From Nicolas PADE - EMBRC to Everyone: 04:57 PM

So EOOS could be a good medium for what Sylive and George suggest

From Richard Sanders ICOS OTC to Everyone: 04:57 PM

It's a huge job as George says. But the funding is there now to create the vision

From Christos Arvanitidis to Everyone: 05:00 PM

LOICZ as well

From Joaquin T. to Everyone: 05:03 PM

The framework is more detailed in oceanography in Bob Wellers paper, OcesanObs 2019 https://www.frontiersin.org/articles/10.3389/fmars.2019.00105/full and Figure 6 and 7

OPEN DISCUSSION COMMENTS

Main points:

- What actions at coordination level can help pave the way toward a better integration? Role of RIs Board?
- Collaboration through mutual access
- How can the "seeds" of collaborations grow also in other sites?

Christos A: ERICs can be an umbrella, but more exchange than now needs to happen; funding is not secure long-term. There is "organic" collaboration between science clusters (which provide global science hypotheses and challenges) and RIs.



JERICO-S3 All Region Workshop#2

SESSION 2.1 - Relations with other RIs and initiatives in regions for the future

Collaboration is (scientifically) important because the boundaries between research areas are future scientific frontiers.

Nicolas P: interest of collaboration can be more openly communicated. At which levels do discussions about collaboration happen?

Sylvie P: ERICs are a good collaboration tool because they have access on a national level. A joint-RI proposal could be worked out (funded via ERICs, national level, or projects). RIs need to be brought to the attention of a community outside the RIs themselves.

George P: financial sustainability is a common/shared RI challenge

Jens N: joint TNA activity, via co-location, can be a tool to increase mutual access

Nicolas P: Defining a joint grand challenge scientific topic and the contributions from different RIs can increase collaboration between and the use of RIs. An open (hackathon-like) workshop could kick this off.

Jens N: This is a very promising approach, but proper coordination is critical

George P: A call around a grand challenge could bring collaborators together

Nicolas P: such calls are expected in the near future

See also link shared by Richard S: There is a copy of the draft calls here https://sciencebusiness.net/sites/default/files/inline-files/Annex%203%20Research% 20Infrastructures.pdf

Holger B: introduces the Board of RIs; can be a place for coordination, where RIs can communicate; avoidance of overlapping RI action can be discussed here

Sylvie P: "What is in the water?" Can we create an infrastructure to see all operational platforms on a European level?

Laurent: OceanOps, EuroGOOS would be the place for this

Joaquin T: Integrated Coastal Zone Management is a framework that works in a collaborative way between different "stakeholders", with common agenda, measurement, etc.



JERICO-S3 All Region Workshop#2

SESSION 2.1 - Relations with other RIs and initiatives in regions for the future

Attendees (62) → Taken at 15:15 (session started at 14:45)

Léa G. (Host, me)	HW Henning Wehde
CA Christos Arvanitidis	IS lan Salter
Bastien Tagliana (Co-host)	Inga Lips (EuroGOOS)
ingrid (Co-host)	Joanne Burden
LD Laurent D (JERICO Coord) (Co-host)	JV Joao Vitorino
HB Holger Brix	J Joaquin
JN Jens Nejstgaard (IGB)	JS Jukka Seppälä
AC Andres Cianca (PLOCAN)	JM Julien Mader (AZTI)
al alain lefebvre	KB Kees Borst (RWS-NL)
AL Ana Lara Lopez	Kieran Reilly
AL Andrew Luke King	Klas Ove Möller
AR Anna Rubio AZTI	Lumi
Antoine Grémare	Mp Martin pfannkuchen
BP Begoña Pérez	MH Martti Honkanen
BM Behzad Mostajir (CNRS)	MJ Melanie Juza (SOCIB)
CC Carolina Cantoni (CNR)	MS Michael Schultz (DANUBIUS-RI)
CG Carolyn Graves	MC Miguel Charcos (SOCIB)
CA Christian Autermann	MJ Milla Johansson (FMI)
CF Costas Frangoulis	Nelli Rünk (TalTech)
DK David Kaiser - hereon-KDG	NP Nicolas PADE - EMBRC
EB Emilie Breviere	Nikolaos Zarokanellos
Eric Delory - PLOCAN	PF Paolo Favali (EMSO ERIC)
FB Fabio Brunetti	Paul Gaughan
François Bourrin	SE Samu Elovaara

SR Saskia Rühl

SM Simone Marini

se sebastian ehrhart [syke]

GU Georg Umgiesser - ISMAR-CNR

George Petihakis

HF Helene Frigstad (NIVA)



JERICO-S3 All Region Workshop#2

SESSION 2.1 - Relations with other RIs and initiatives in regions for the future

SLIDES PRESENTATION DURING SESSION



LifeWatch ERIC: mission, recent developments and what is offered for climate change ipmacts on biodiversity and ecosystems research



Christos Arvanitidis, Juan Miguel González-Aranda, Alberto Basset, Peter Van Tienderen and Lucas de Moncuit de Boiscuillé

Online talk to the JERICO-S3 WP2, on the cooperation between JERICO and other RIs | April, 20, 2021





What is LifeWatch ERIC?



What is LifeWatch ERIC? LifeWatch ERIC is the e-Science and Technology European Infrastructure for Biodiversity and Ecosystem Research

- > Establishes and operates the infrastructure and information systems necessary to mobilise and integrate data and algorithms for biodiversity and ecosystem research, including enhancing understanding, linkages and synergies with other societal challenges such as climate change adaptation and mitigation, and to provide analytical capabilities:
- > Provides access to data collected by science at a global level and offers ICT services, tools, storage capacity and computational power, to transform information into new knowledge;
- > Connects and brings together physical observatories, research centres and scientific communities into a single web space accessible to all; in doing so
- > Offers researchers and stakeholders wherever they are, regardless of their access to funding and facilities, the resources to enact their own innovative scientific approach; and
- > Empowers citizens to engage with science and contribute to their own well-being and survival.

JERICO-Week#2_19-23 April 2021





What is LifeWatch ERIC?

LifeWatch ERIC invests in three essential components: open access data, reproducible analytics and mobilised communities.



LifeWatch ERIC in a nutshell:

https://www.youtube.com/watch?v=m4n-cAcgpl0&feature=youtu.be





How is LifeWatch ERIC organised?

The core structural components are the three Common Facilities, serving the entire ERIC and responsible for the implementation, coordination and management of all activities:

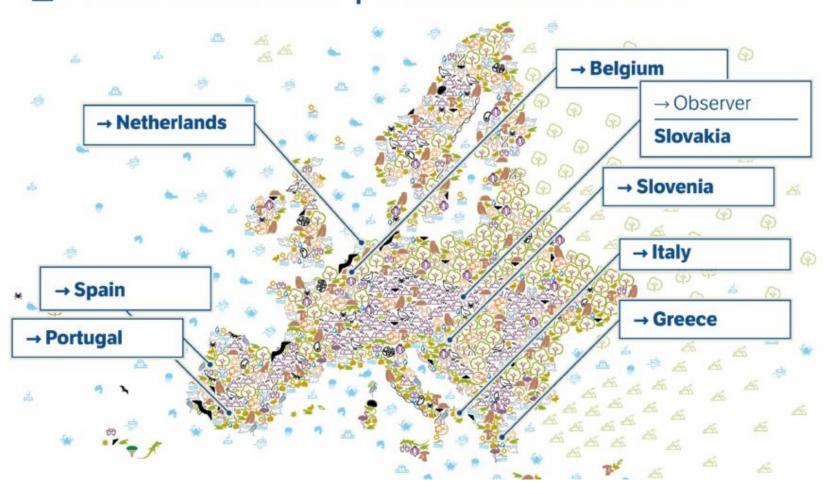
- > Statutory Seat and ICT e-Infrastructure Technical Office (SSO, ICT-Core), Seville, Spain;
- > Service Centre (SC), Lecce, Italy;
- > Virtual Lab and Innovation Centre (VLIC), Amsterdam, The Netherlands.

Distributed Centres are facilities that are hosted by Member States, and coordinate national contributions to the consortium.





How we work | National Nodes







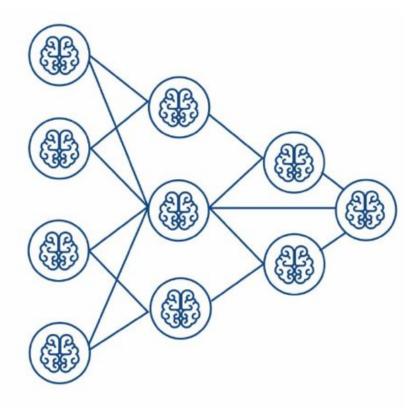
_Cultural challenge

"This change would direct most of the scientific effort from a single-core (SCBs) operation, or **brain-etics**









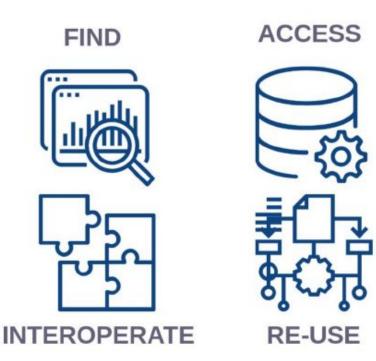
to high performance brain network synthesis (HPBNs) or **brain-omics**"





What we offer | FAIR DATA

- Find the data and metadata you are looking for, thanks to our Catalogue of resources;
- Freely access, use and share large datasets of different types and sources;
- Work with interoperable data, thanks to our standards, thesauri and ontologies;
- Reuse and combine data for different research questions, generating new services and meeting community standards.







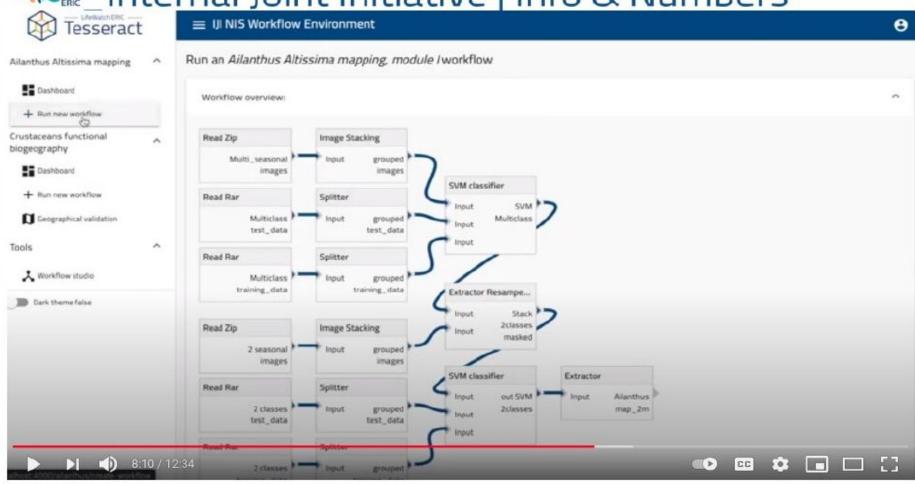
What we provide | VREs

Virtual Research Environments,
Open science e-Labs to run
experiments, backed up with
Decision Making Tools to support
smart ecosystem management





Internal Joint Initiative | Info & Numbers







Thank you for your attention and questions



Do you need more information?

Please don't hesitate to get in touch at

statutoryseat@lifewatch.eu











Session 2: Relations with other RIs

Scope of this session:

- JERICO operates at the interface of different parts of the Earth system
- Therefore, JERICO needs to address overlap with other RIs
- Get started on creating an interface infrastructure
- Analyze and structure dialogue to avoid overlap and facilitate synergies

Schedule:

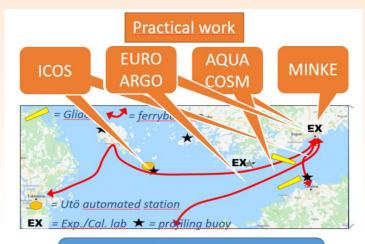
- Introduction of RIs
- Coffee break
- Reports from JERICO Pilot Supersites (PSS) and Integrated Regional Sites (IRS) on existing collaboration
- Discussion





Gulf of Finland PSS - collaboration with other RIs

- GoF PSS links to major environmental RIs active in Baltic
 -ICOS: knowledge sharing, coordination of carbonate
 system measurements, data-analysis
 - -EURO ARGO: knowledge sharing for calibrations, use of Argo data for model performance evaluation, and O2 mapping
 - -AQUACOSM: joint study how observations and experiments improve knowledge on ecosystem responses
 - -MINKE: knowledge sharing for calibration
 - -ACTRIS, EMBRC, EUROFLEETS: seeking possibilities for future joint activities



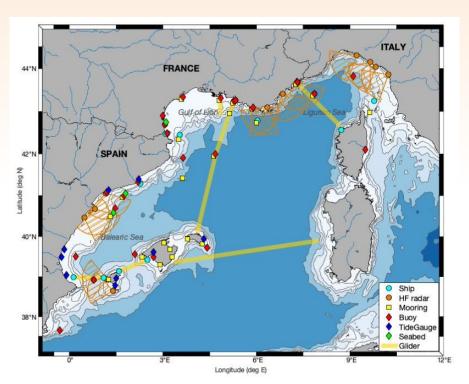
Establish connections
ACTRIS, EMBRC, EUROFLEETS

- Contacts well established, mostly in-house
- Important to clarify to ourselves the different roles of RIs (nationally, regionally and Europeally) and bring a clear message to decision makers. WP2 to be communicated, before strategic regional connections started by local JERICO-RI group.
- Practical work well planned and ongoing. The more strategic actions need still planning.



NW-Med-PSS - collaboration with other RIs

- List RIs your PSS/IRS has been in contact with in what areas?
- EMSO ERIC: open sea moorings
- EURO-ARGO: Argo floats deployment and collection; data QC procedures
- ICOS: pCO2-pH measurements with autonomous sensor on fixed platforms (Dyfamed) and monthly cruises visits for CO2 variables (AT, CT, pH)
- EMBRC: collection of zooplankton species in coastal waters + expertise in imagery sensor (eg. UVP)
- DANUBIUS: river inputs (sediments, nutrients) and impact in the coastal area (Ebro-Llobregat supersite)





NW-Med-PSS - collaboration with other RIs

- What are those contacts about (e.g., meetings, best practices, shared facilities,)?
 Joint workshops EMSO-EURO-ARGO meetings
 Set up best practices for Eulerian Obs (EUROSEA), gliders with OceanGliders (EUROSEA)
 Shared research vessels for EMSO moorings and Argo floats deployment
 Case studies through EU and national projects, collaboration with PhD students focused on data integration in the PSS region
 - What works well?

Deeply involved in EMSO ERIC at different stage (RF leaders, advisor) and O2 expertise in EURO-Argo and Oceangliders, expertise in QC procedures for Argo (SOCIB, CNRS)

- Where are critical points and / or difficulties?

 Search for funding for the implementation of demonstration missions between several RIs
 - Future plans?

Implication in the new call HORIZON-INFRA-2022-TECH-01 with EURO-ARGO (new sensors integration). Implication in on going projects EA-RISE, EUROSEA...



North Sea-PSS - collaboration with other RIs

Elbe River

- Cooperation with DANUBIUS-RI in their Tidal-Elbe Supersite
- Setting up a shared station at Tesperhude (1), considering existing infrastructure at Cuxhaven (2) to ensure highest degree of shared technology:
 - Shared planning, starting in the early planning phase
 - For example, COSYNA/JERICO operates Cuxhaven FerryBox station and is part of setting up the Tesperhude FerryBox station (DANUBIUS)
 - Shared data center (Helmholtz Coastal Data Center)
 - To be operational summer 2021
- "Low hanging fruit" as both groups are from the same institute (Hereon, former HZG)
- Cooperation with ICOS community: started in 2019 FB workshop
- Financing is an issue how are "services" from one RI to another financed

How to integrate other players? Networks operated by states, local agencies,

funded concertion at a conc

funded consortia, etc.

- Tesperhude Station (Danubius)
- Cuxhaven Station (COSYNA / JERICO)







Channel-PSS - collaboration with other RIs

IR-ILICO (Seashore and coastal research infrastructure)

- => 5 elementary networks (= labelled monitoring services) are of primary importance for the Channel-PSS
- => 2 are support for J-S3 experiments/numerical dvpt
 COAST-HF, Coastal Ocean Observing System High frequency
 PHYTOBS, Phytoplankton Monitoring Program
 SOMLIT, Coastal Hydro. Biolog. Observation Service
 DYNALIT, Coastline and Shoreline Dynamics
 SONEL. Coastal Sea Level Observation System



Data Flow



Objectives:

- Ensure that observations made respond primarily to the **societal issues** and **scientific questions** associated with them,
- Federate and animate the network of observation systems of the seashore and coastal environments in a multidisciplinary perspective,
- Guarantee the **relevance** and **quality** of the observations made.

What works well? Networking, shared best practices, shared facilities
Where are critical points and / or difficulties? Too low financial supports, human resources
acknowledging the objectives

Future plans? build SMART, LOW-COST and FAIR tomorrow's Observation Systems!



EU. Community (ICSU, IOC, EuroGOOS, EOOS,

Copernicus)



Cretan Sea-PSS - collaboration with other RIs

- RIs contacted by Cretan Sea PSS
 - AQUACOSM-plus: access to mesocosm for calibration of sensors //provision of mesocosm monitoring via sensing Contacts made. Planning ongoing. First tests in June 2021. Join experiment planned for late spring 2022
 - -ICOS-ERIC: access to supporting data (CO₂ data in the region), training activities, guidelines best practices / provision of data of carbonate system

Contacts made. CO2 and other carbonate data collection initiated. Participation in ICOS intercomparison workshop in June 2021.

-EMBRC-ERIC: access to new technologies providing additional EBV data /provision of samples and access to related physicochemical data

Contact (in house) made. Planning initiated. Joint sampling to start in June 2021

- -LifeWatch-ERIC: access to additional EBV data/ provision of related physicochemical data (e.g. pH)

 Contact (in house) made, planning TBD
- EURO-ARGO ERIC: access to supporting data/ provision of reference data.
 Access to supporting data ongoing.
- -MINKE: knowledge sharing for calibration
 Project started April 2021. Contact and planning TBD

No critical points and / or difficulties at this stage



Northern Adriatic-IRS - collaboration with other RIs

Several RIs are co-located in the Northern Adriatic, mainly along the Italian shore:

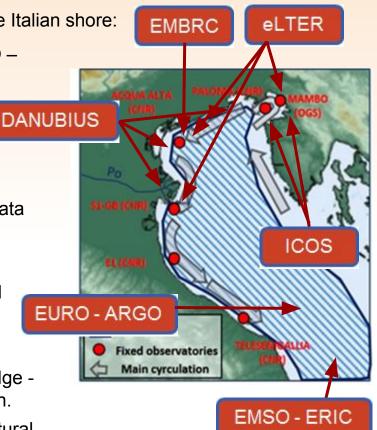
<u>ICOS-ERIC</u>: pCO2-pH measurements network sites: MAMBO –
 C1, PALOMA.

- <u>eLTER</u>: network sites: Aqua Alta, S1-GB, MAMBO C1.
- EMBRC-ERIC: data access point: Aqua Alta.
- <u>DANUBIUS-RI</u>: Po river delta Venice and Marano Lagoons,
 Italian National waters.
- <u>EURO-ARGO-ERIC</u>: Argo floats deployment and collection, data QC procedures.
- <u>EMSO-ERIC</u>: Southern Adriatic E2M3A Buoy, network site.

Contacts: informal, sharing best practices; DANUBIUS-RI Informal meetings on planning how to share facilities providing different services, framing possible collaborations and synergies.

Good/Critical point: good on practical activities and share knowledge - expertise / difficulty in formalising collaboration.

Future plans: Reinforce collaborations and make them more structural





Iberian Atlantic Margin-IRS - collaboration with other RIs

PLOCAN (Canary Islands – Spain)

EMSO: Sharing of EMSO EGIM information for a coastal module, ocean continuum (use of open-ocean station as reference point)

Works well: Good cooperation through common partners and needs for technological innovations

ICOS: Support from ICOS OTC to maintain carbon cycle time-series and integration new stations (coastal and open-ocean)

Works well: Official integration of Spain in ICOS in 2020

GROOM: Contribute to the creation of a specific ocean glider-based RI

Works well: well harmonized data management platform and community track record

(two EU projects)

Critical points/difficulties: Cost of maintenance of open-ocean activities, national coordination of ship-time use









Iberian Atlantic Margin-IRS - collaboration with other RIs

IH (Portugal): Articulation in the framework of ATL2MED (ICOS)

FUTURE PLANS

PLOCAN (Canary Islands - Spain)

EMSO: update and redeployment of EMSO EGIM at PLOCAN ESTOC site and coastal test site for validation purposes. EMSO TSC Ocean sound observing conference, Gran Canaria 20-22 Oct 2021.

ICOS: integration of ESTOC station carbon sensors in ICOS OTC

GROOM: Inventory of Spanish glider fleet

IH (**Portugal**): Contacts to be developed aiming future collaboration with **EMSO PT** and **EMBRC PT**.



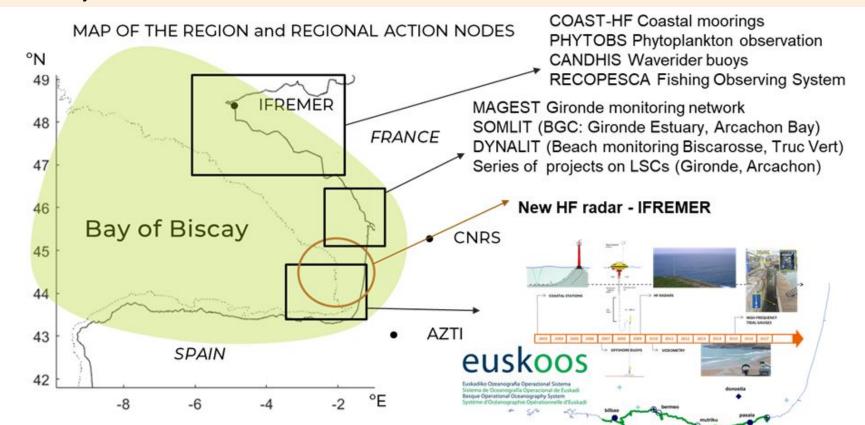






Bay of Biscay-IRS - collaboration with other RIs

List RIs your PSS/IRS has been in contact with - in what areas? -> MAIN FRENCH IR ILICO





Bay of Biscay-IRS - collaboration with other RIs

- List RIs your PSS/IRS has been in contact with in what areas?What are those contacts about (e.g., meetings, best practices, shared facilities,)?
 - SE BoB: Collaborations with Plentzia Marine Station (Research Centre for Experimental Marine Biology and Biotechnology), member of EMBRC ERIC Joint MSC programme: plans for future collaboration
 - DANUBIUS-RI: Underrepresented in the BoB, while there are IRS thematics related to River-Sea Systems
- Delay on the establishment of contacts/collaboration (COVID situation)
- Future plans?
 - Organization of one IRS BOB Stakeholders workshop in first half 2021.
 - ISOBAY conference in June 2021







Skagerrak-Kattegat-IRS - collaboration with other RIs

- List RIs your PSS/IRS has been in contact with in what areas?
 E.g. a map of the site with JERICO's facilities and highlighted the areas of the on site collaborations with the different RIs
- What are those contacts about (e.g., meetings, best practices, shared facilities,)?
- What works well?
- Where are critical points and / or difficulties?
- Future plans?



Norwegian Sea-IRS - collaboration with other RIs

- EuroARGO-ERIC: Institute of Marine Research is leading NorArgo the Norwegian contribution on Argo. Common strategy, research etc are part of the overall development in IMR
- **EMSO-ERIC**: IMR and NORCE are partner in norEMSO, the Norwegian node in EMSO-ERIC. Collaboration is ongoing between the Norwegian nodes of EMSO and JERICO on BGC especially
- **EMBRC**: IMR research station Austevoll and NIVA Solbergstrand research station are part of the EMBRC network and JERICO, the centre of excellent innovation Smart Ocean and EMBRC Austevoll aiming for collaborative development
- ICOS-ERIC: NORCE is leading the ICOS-OTC and is the representative for ICOS in Norway.
 Coastwatch (the Norwegian contribution to JERICO) has taken initial discussions, SOOP collaboration (mainly via NIVA NIVA's coastal FerryBox that is part of JERICO will be a new ICOS marine station in 2022)
- AQUACOSM: Discussions ongoing via the partners NIVA (Solbergstrand) and NORCE, both part of AQUACOSM and JERICO-S3, shared facilities, collaboration on best practices
- ERGA and BIOSCAN Europe: Discussions around DNA based biomonitoring, common strategies
 BOPs and SOPs reference genomes
- EUROFLEETS: IMR managing Norwegian Research vessel fleet and is member of EUROFLEETS