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# JERICO-DS DELIVERABLE

Joint European Research Infrastructure of Coastal Observatories - Design Study

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Nature

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PU = Public, PP = Restricted to other programme participants (including the Commission Services), RE = Restricted to a group specified by the consortium (including the Commission Services), CO = Confidential, only for members of the consortium (including the Commission Services)

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## APPROVALS

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## Table of Content

# EXECUTIVE SUMMARY

This deliverable recalls, deepens, and expands on the set of guidelines that falls under the name "JERICO Label", introduced in the JERICO community since the JERICO-FP7 project and consolidated during the JERICO-NEXT project through the Deliverable D2.7 "JERICO Label" (Nair et al., 2019).

The JERICO Label was created mainly as a set of technical recommendations to ensure a certain level of harmonisation of technologies, methodologies and procedures, and a demonstrable quality of data, within the emerging transnational network of coastal observatories. The JERICO Label evolved then through successive JERICO projects, as the idea of establishing a European Research Infrastructure became more and more concrete, and incorporated new and more mature concepts and tools for the practical implementation of its objectives. The current deliverable represents the outputs of tasks 5.4 ("Development of the JERICO label Committee to sustain the scientific research excellence framework of JERICO-RI") and 5.5 ("Policy for sustaining excellence and performance") of the JERICO-DS project, and is intended as an updated version of the JERICO Label. Provided that the previous version of the Label remains valid for everything that is not updated here, new sections are described as follows.

Section 2 is dedicated to the definition of the composition, role and mission of the JERICO Label Committee (JLC). JLC is an advisory panel, it represents the JERICO RI partners but it is also open to external members, and its overall objective, inspired by the JERICO Label itself, is "to support JERICO-RI's framework of scientific research excellence, to ensure that JERICO-RI keeps pace with scientific and technological development and attracts the best research teams".

Section 3 addresses the need of identifying a formal pathway for endorsement of best practices developed in JERICO-RI. Within the JERICO network, a remarkable number of documents has been delivered containing technical and scientific recommendations, often referred as good/best practices, for sensor and platform operations, data management and data analysis. However, with respect to each one of these documents, the degree of consensus within the scientific community at a wider level, is not always clear. The definition and adoption of an independent and standardised procedure for peer reviewing JERICO Best Practices becomes mandatory for supporting the trust in JERICO's leadership in coastal ocean observation. Section 3 also summarises JERICO-S3 guidelines for the development of documented practices toward best practices through the compliance with a set of criteria proposed as the foundation of a "maturity model for methods and their applications" in the context of ocean observation.

Section 4 summarises last developed and agreed policies for accessing both physical and virtual (namely JERICO-CORE) JERICO infrastructures, with attention paid also for securing JERICO-CORE data, information, and services against any loss of conformity, integrity, and availability due to incidents, human errors, or malicious attacks.

Section 5 provides a report on the work done for identifying, evaluating and synthesising the Core Impact Indicators and key performance indicators from the ESFRI Sustainability WG

(Kolar, 2019) and OECD (2019) recommendations that the JERICO-DS design will incorporate into its different life cycle phases, enabling effective performance monitoring as the RI develops. This will feed the roadmap for an operational RI.

Section 6 outlines the Terms of Reference for the Equal Opportunity, Gender Balance, Ethical Issues, and Minimization of Carbon Footprint Policy of JERICO-RI.

In the final section 7 conclusions and suggestions for next steps are provided.

# 1. Introduction

In the framework of WP5 of JERICO-DS, dedicated to the governance and organisation of JERICO-RI, the Tasks 5.4 and 5.5, respectively "Development of the JERICO label Committee to sustain the scientific research excellence framework of JERICO-RI" and "Policy for sustaining excellence and performance", build upon the work from WP1 to WP4 and deliver an updated version of the JERICO Label.

The intended audience of this document is certainly the JERICO coordination team, the JERICO (-DS & -S3) Steering Committees, the JERICO-DS Nations Committee, and all the people involved at any level of the JERICO governance structure. However, the whole JERICO community is encouraged to read it, as it includes governance elements, technical recommendations, scientific strategy elements, best practices development guidelines, ethical issues and recommendations.

After all, JERICO Label can be viewed as a symbol of identification that plays a pivotal role in strengthening the sense of belonging within a scientific community. By bearing the JERICO Label, institutions, facilities and individuals can express not only their affiliation but also actively contribute to the shared identity and collaborative spirit that define the JERICO scientific community.

The JERICO Label was created since the JERICO-FP7 project mainly as a set of technical recommendations to ensure a certain level of harmonisation of technologies, methodologies and procedures, and a demonstrable quality of data, within the emerging transnational network of coastal observatories. After its refinement during the JERICO-NEXT project through Deliverable D2.7 "JERICO Label" (Nair et al., 2019), there was the need to further develop some of the JERICO Label's recommendations and transform them into specific, activable instructions. The translation from broad guidance to detailed, practical steps is imperative to effectively guide and facilitate the implementation of real actions. It is through this process that theoretical advice is converted into a roadmap, providing clear direction and ensuring that meaningful, concrete steps are taken to achieve the intended outcomes.

Composition, role and mission of the envisioned JERICO Label Committee (JLC) had to be defined through a Terms of Reference (ToR) document, having in mind that JLC establishment was intended to ensure that JERICO-RI will keep pace with the scientific and technological development.

In terms of Policy for sustaining excellence and performance, as stated in the previous JERICO Label, "a basic requirement to enable efficient monitoring and streamlined services by an observing infrastructure - especially when it has to operate as part of a network - is defining and following Best Practices (either developed in-house or recommended methods and procedures) for managing and running it. This is particularly true in the context of instrumentation and measurement, maintenance, data acquisition, data flow, data integration and data product generation. An observing infrastructure wishing to be part of the JERICO system will be asked to produce a report detailing the efforts it is undertaking to ensure that Best Practices are an integral part of its operation, including any relevant documentation that

could be shared within the JERICO network first and possibly with the community-at-large later" (Nair et al., 2019).

To deal with those recommendations, the updated JERICO Label presented here summarises the results of Deliverable 5.2 of JERICO-S3 project in terms of guidelines for maintaining and evolving best practices in coastal observation and criteria for assessing their level of maturity (Mantovani et al., 2023). Additionally, it suggests a formal procedure for Best Practices endorsement within the global landscape.

Another crucial need is to establish clear and measurable key performance indicators (KPIs) as an integral part of the JERICO Label strategy, enabling internal and external reviewing processes, able to assess the results achieved.

This document synthesises the Core Impact Indicators and key performance indicators from the ESFRI Sustainability Working Group (Kolar, 2019) and OECD (2019) recommendations that JERICO will incorporate into its different life cycle phases enabling effective performance monitoring as the RI develops. This will feed the roadmap for an operational RI.

To complete the picture, some new elements, not mentioned in the previous version of the JERICO Label, are introduced: the JERICO CORE security and access policies and the Terms of Reference for good conduct.

JERICO CORE is a brand-new e-infrastructure developed in the most recent JERICO-S3 & JERICO-DS projects, and is "…the unified central hub of JERICO to discover, access, manage and interact with JERICO resources including services, datasets, software, tools, best practices, manuals, publications, organisations, projects, observatories, equipment, data servers, e-libraries, training, and similar assets. Increasing discoverability of assets is also critical to create services that respond to specific needs of users. JERICO-CORE also provides a framework to facilitate collaboration and creation of services…" (Charcos Llorens et al., 2023).

Like in all modern e-infrastructures, the definition of clear access and security policies is crucial for delivering information technology services. Access policies contribute to the prevention of data breaches, enhance user accountability, and facilitate compliance with regulatory standards. Moreover, a robust security system not only minimises risks but also spreads trust among clients and stakeholders, reinforcing the reliability and credibility of the provided information technology services.

With respect to the principles of equal opportunity, gender balance, ethical standards, and carbon footprint minimization, the European Commission actively promotes those principles as part of its broader policy objectives.

Establishing clear Terms of Reference (ToR) is crucial also within JERICO-RI for promoting equal opportunity, gender balance, ethical conduct, and carbon footprint minimization. The ToR serves as a guiding document, ensuring policies that foster diversity and inclusivity, ethical practices, and environmental responsibility.

## 2. JERICO Label Committee and ToR

In this section the composition, role and mission of the JERICO Label Committee (JLC) is provided. The aim of the JLC is to support the JERICO-RI framework of scientific research excellence, to ensure that JERICO-RI keeps pace with scientific and technological development and attracts the best research groups.

The starting point is the work done in Task 2.6 "Overview of the outcomes of the work carried out on the JERICO Label" of the previous project JERICO-NEXT and detailed in the deliverable D2.7 "The JERICO Label Technical Committee" of WP2 of the JERICO-NEXT project.

In the JERICO-NEXT D2.7 the competences and the composition of the label Committee were defined. Briefly it was composed by 16 persons/institutions. At this initial stage, the members of the JERICO Label Committee of JERICO-NEXT have been asked to be part of this JLC, although JLC is open to anyone who wants to contribute.

Regarding the composition of the JLC, it was proposed to prioritise the scientific expertise of the members without limiting their number for example to one or two for project partner or country representatives. The goal is to create an advisory working group that will keep pace with scientific and technological development and is able to set up the concept of JERICO Label and propose the concept to the JERICO community.

According to JERICO-NEXT, from a technological point of view, the JLC had to accomplish the following:

- acknowledge the consensus on guidelines for best practices in the design, implementation, maintenance, data policy and valorisation of the coastal observing elements of the JERICO RI;
- allow fair recognition of the quality of the managed observatories within the JERICO RI;
- help stakeholders become aware of the European interests in the development of high-quality coastal observatories;
- foster a wider market for industry in the fields of sensor technology and platforms based on agreed recommendations.

In addition to the technological part, it is necessary that the JLC also addresses the scientific issues of research to direct the decision-making processes of the JERICO-RI, addressing them to excellence. In this case the recommendations and directives to be developed by the JLC should not be thought of as rigidly constraining rules, but rather as guidelines to enable observational systems to conform to the requirements necessary to be part of the JERICO community.

It has been suggested and accepted, that the goals to be achieved for accreditation of a label to an observational system should not be fixed and generalised but should be commensurate with the purposes of that particular system. The possession of the requirements should therefore be seen in relation to what are the purposes for which a system is developed and operates.

Starting from these guidelines, the next step has been to define the Term of Reference (ToR) for the JLC. Some bullets have been taken into account in defining the ToR for the JLC.

The JLC has to operate following directives coming from JERICO-DS and JERICO-S3 WPs, in particular:

- the JERICO-RI science and technology strategy plan;
- the Key Performance Indicators (KPI);
- the Best Practices developed in WP5 of JERICO-S3;
- the present updated version of JERICO Label.

Summarising, the JERICO Label Committee Term of Reference (ToR) are defined as follows.

Composition

At present, the group is composed of 16 persons/institutions, all partners of the project, but it is open to anyone who wants to contribute.

Members were appointed during the JERICO-DAYS in June 2022, when a specific session titled "Label Committee" was held.

Laurent Delauney (IFREMER), Karlson Bengt (SMHI), Anouk Blauw (DELTARES), Fabio Brunetti (OGS), Joaquin Del Rio Fernandez (UPC), Helene Frigstad (NIVA), Marcello G. Magaldi (CNR), Wehde Henning (IMR), Seppälä Jukka (SYKE), Andrew King (NIVA), Lauri Laakso (FMI), Julien Mader (AZTI), Carlo Mantovani (CNR), Klas Ove Möller (HGZ), George Petihakis (HCMR), Joaquin Tintore (SOCIB).

Role and mission

The aim of the JLC is to support the JERICO-RI framework of scientific research excellence to ensure that JERICO-RI keeps pace with scientific and technological developments and attracts the best research groups.

Governance

No governance or structure for the committee is currently defined (e.g., a coordinator is provided).

Areas of assessment of the LABEL

- *Sustainability*, intended as funding for keeping a system running in the long term (5 years).
- *Operationally*, intended as the level of efficiency of the process taking acquired data from raw to quality-assured and available for users.
- *Fit for purpose/Observing*, intended as the completeness of the list of parameters handled by a system in relation to scientific and/or other goals.
- *Fairness*, intended as the way in which data are managed and released and their degree of integration into the structure under examination.

Guideline in awarding LABEL

The goals to be achieved for accreditation of a label to an observational system should not be fixed and generalised but should be commensurate with the purposes of that particular system. The possession of the requirements should therefore be seen in relation to what are the purposes for which that system was developed.

In the previous JERICO-NEXT project, the Label was specified as:

"a set of criteria defined to ensure some standardisation, interoperability and quality of data for coastal observatories"

Taking this into account, some subject areas for the JLC are:

- Areas of committee responsibility.
- Target audience.
- Expected outputs.

Areas of committee responsibility:

- *Evaluate*, according to predetermined guidelines, *coastal observatories* that express interest in becoming part of the JERICO network and provide useful guidance so that they can be compliant with the best practices and standards defined in JERICO-RI.
- *Acknowledge the consensus on guidelines* for best practices in the design, implementation, maintenance, data policy and valorisation of the coastal observing elements of the JERICO-RI.
- *Allow fair recognition of the quality* of the managed observatories within the JERICO-RI.
- *Help stakeholders become aware of the European interest* in the development of high-quality coastal observatories.
- *Foster a wider market for industry* in the fields of sensor technology and platforms based on agreed recommendations.
- *Cooperate* on specific issues of common interest with similar groups/committees in other European and non-European Research Infrastructures or Organizations.
- *Foster* ever better integration and harmonisation among JERICO-RI observational systems by acting as an advisor and encouraging the use of the guidance in the Label documents.

Target audience

- *Research infrastructures/institutes* interested to be part of JERICO-RI and specifically of its coastal monitoring networks.
- *JERICO-RI partners*, helping them maintain or improve high-quality standards for their coastal observatories.
- *Coastal observing infrastructure operators and technical staff*, interested in the JERICO - Label directives developed for JERICO-RI.
- *Manufacturers of marine instrumentation*, interested in developing sensors compliant with JERICO - Label directives.

Expected outputs

- Enable new observational systems to reach a level that is compliant with the Label guidelines in order to become part of JERICO-RI.
- Provide continuous updating of the Label guidelines, consistent with evolving scientific needs with special reference to EOVs.
- Keep the Label guidelines aligned with the best observational practices defined by international organizations (EuroGOOS, IOC,...).
- Provide suggestions to industry for the development of innovative sensors based on the evolving functionality required by JERICO-RI coastal observatories.
- Support the creation of best practices, endorsed best practices and standards for Europe and the Global observing capabilities.

# 3. A formal procedure for the development and endorsement of JERICO-RI Best Practices

## *3.1. Introduction*

Development and endorsement of best practices are two distinct processes that overlap as far as the formal endorsement can be considered one of the final steps in best practices development. Development focuses on creating effective guidelines, while endorsement involves validating and recommending those guidelines by authoritative bodies. Development is about innovation and creation, while endorsement is about validation, acceptance, and widespread acknowledgment of established best practices.

## *3.2. Development of JERICO-RI Best Practices*

The JERICO-S3 D5.2 "Technical handbook published within the OBPS Repository of BP for implementing and operating coastal observatories" (Mantovani et al., 2023) has provided an extensive discussion on the creation and evolution of best practices in the field of ocean observation. A conceptual scheme and criteria have been defined for helping the maturity level assessment of ocean observing practices from the point of view of their documentation, application and evolution. Existing practices can be reviewed against a series of capability attributes, and gaps can be identified and addressed towards a uniform level of maturity. The satisfaction of criteria draws itself a path for BPs development and evolution.
The final objective is to push practices and make them become best practices, formally endorsed by experts, widely applied, and sustained by training programs and tools for their application and improvement.

## *3.3. A formal procedure for the endorsement of JERICO-RI Best Practices*

JERICO Best Practices endorsement process is the procedure that frames how practices developed in JERICO-RI will be peer reviewed and archived in the Ocean Best Practices Repository (OBPS). The endorsement process is intricately linked with the OBPS but also with the relevant EuroGOOS Task Teams (HF Radars, Glider, Ferrybox, Fixed Platforms) and GOOS expert teams and networks, ensuring that expertise from each specific area contributes to the validation and acceptance of best practices.

The engagement of these expert teams enriches the endorsement process by bringing in-depth knowledge, diverse perspectives, and network-specific insights, fostering a comprehensive and collaborative approach to setting and approving standards within JERICO-RI.

The JERICO Label Committee fosters the submission of JERICO Best Practices to the endorsement process by the "JERICO Expert Teams" associated with each observational network. These teams cover a range of crucial components, including **HF Radar, Glider, Ferrybox, Fixed Platform, Multiplatform Biogeochemical Sensors, Protocols for Automatic Sampling for DNA Analysis, and Biological Automatic Platforms.**

**The JERICO-RI best practice endorsement process draws inspiration from the Global Ocean Observing System (GOOS) best practice endorsement model, developed in collaboration with the Ocean Best Practices System (OBPS)** (Hermes, 2020; Przeslawski et al., 2023; Pearlman et al., 2019).

This strategic approach aims to facilitate the development and sharing of best practices within the ocean community. Recognizing the pivotal role of best practices in enhancing the reproducibility of scientific research, interoperability across disciplines, and standardising data collection methods, the JERICO-RI objectives align with these principles.

The endorsement process ensures that community-adopted best practices undergo a rigorous review, originating from networks that align with JERICO-RI attributes, and are approved by relevant leadership. The link with the OBPS enhances visibility and accessibility, promoting the dissemination of key endorsed best practices to benefit the broader ocean science community. The JERICO-RI's commitment to scientific excellence, collaboration, and open access resonates with the overarching vision of creating widely adopted methods for ocean observing activities, fostering a resilient and interoperable global ocean observing system.

**Draft Process for JERICO-RI Best Practice Endorsement**

The JERICO-RI best practice endorsement process is designed to ensure consistency, reliability, and efficiency in endorsing community-adopted best practices. The steps outlined below are identified to guide the JERICO-RI in endorsing practices considered essential for the broader coastal and ocean observing community:

Initiation by Community or Expert Group:

- The process begins when a community or expert group proposes a best practice for endorsement.

Rigorous Community Review:

- The proposed best practice undergoes a rigorous community review process, inviting public comments that are adjudicated and addressed by the author.

Network Alignment:

- The best practice originates from a network aligning with JERICO-RI attributes, ensuring relevance and applicability.

Leadership Approval:

- Approval is sought from the leadership of the relevant network, expert team, or community leaders to validate the endorsement.

Fit for Purpose:

- The best practice must be deemed fit for its defined purpose and fully satisfy the criteria for a best practice within JERICO-RI and OBPS[1].

Recognition by the relevant GOOS/EuroGOOS/OBPS Body:

- Recognition is obtained through the GOOS/EuroGOOS/OBPS body responsible for endorsements, such as a dedicated panel or committee. The

[1] https://www.frontiersin.org/research-topics/7173/best-practices-in-ocean-observing

possibility of creating a new "coastal team" under OBPS or "best practices task team" under EuroGOOS could be investigated.

Visibility in OBPS Repository:

- The endorsed best practice is made available and identifiable within the Ocean Best Practices System (OBPS) repository or submitted promptly upon endorsement.

Regular Updates:

- The best practice undergoes updates at relevant timeframes to ensure continued relevance and applicability.

Central Record Keeping:

- JERICO-RI maintains a central record of endorsed best practices, documenting when each practice was endorsed, by which community, and the relevant JERICO-RI component.

Acknowledgement Mechanism:

- Depending on the stage of the best practice, an endorsement certificate is created and added to the document. If the document is already in the OBPS, the metadata is updated to include endorsement information.

Communication and Outreach:

- Information about the endorsed best practices is communicated via JERICO-RI channels, including newsletters and relevant websites, ensuring visibility and accessibility.

Encouragement for Publication:

- Creators are encouraged to consider publishing the endorsed best practice or a notice of endorsement in relevant scientific journals, contributing to broader knowledge dissemination.

This comprehensive process aligns with JERICO-RI's commitment to scientific excellence, collaboration, and open access, reinforcing the importance of endorsed best practices in advancing coastal and ocean observations. It also aligns closely with the GOOS endorsed OBP process ensuring the connection with expert communities at the Global level.

It is also worth noting that ongoing efforts are being made to investigate the feasibility of creating an OBPS/OP AISBL where a new governance structure may be developed.

# 4. JERICO security and access Policies

JERICO-RI provides a crucial service through granting access to high-quality pan-European coastal infrastructures. A systematic and transparent process for managing user access requests is envisioned within JERICO-RI, facilitated by Service Level Agreements (SLAs) and executed by the JERICO-RI Secretariat in collaboration with Liaison Officers at National Nodes. Users can initiate their requests through the JERICO-RI website, where a service

offer interface outlines the available services and an online access request form is accessible.

JERICO-RI extends access to various platform types, categorised as cabled observatories, ferryboxes, fixed platforms, gliders and AUVs, multi-platform facilities, supporting facilities, and special equipment. Access to these infrastructures is granted through three avenues:

- Physical Access: Users can physically visit the infrastructure either for free or at a cost.
- Remote Access: Enables users to utilise infrastructure services without the need for a physical visit.
- Virtual Access: Involves free access to e-infrastructure through data resources and associated services, catering to a diverse user base.

Competitive access for physical and remote access requires an application process, with selection based on criteria such as scientific excellence, availability, work plan, and links to industry seeding.

The JERICO-CORE e-infrastructure Access Policy aims to provide fair, transparent, and non-discriminatory access to JERICO-CORE data, information, and services to all users, including researchers, private companies, governmental agencies, and the general public. The policy promotes the use of JERICO-CORE data, information, and services for academic, industrial, and societal purposes, while ensuring the protection of personal and confidential data. There are three defined user categories: visitors, regular users, and advanced users. The JERICO-CORE service desk is the primary point of contact for users, and the JERICO-CORE resource catalogue provides an exhaustive description of the JERICO-RI online and physical resources, products, datasets, documents, tools, Virtual Research Environments, and other functionalities and services accessible to JERICO-RI users. The Access Policy is guided by the principles and recommendations of the European Charter of Access for Research Infrastructure and aims to promote scientific excellence, international cooperation, and knowledge dissemination.

The JERICO-CORE information security policy aims at securing JERICO-CORE data, information, and services against any loss of conformity, integrity, and availability due to incidents, human errors, or malicious attacks. Because the latter cannot be totally avoided, the JERICO-CORE information security policy establishes an Information Security Management System (ISMS). The ISMS ensures that security risks are assessed at all stages of the JERICO-CORE lifecycle, from design to operation and decommissioning. The ISMS systematises the identification of potential risks, threats, and vulnerabilities in the JERICO-CORE distributed architecture and anticipate their adverse consequences. The ISMS emphasises planification activities for security risk treatment and establishes an incident management system in which incidents that have compromised information security are reported and documented. The incident management system also encompasses steps for containing the damage, investigating the incident, and taking appropriate corrective actions to prevent similar incidents in the future. The ISMS frames periodic auditing and security reviews to identify security improvement actions. Finally, the ISMS includes training and awareness-raising programs for JERICO-CORE actors, users, and stakeholders to educate them on specific security risks.

# 5. Evaluation and Synthesis of Key Performance Indicators

*Introduction*

A Key Performance Indicator (KPI) is a measurable value that demonstrates how effective a Research Infrastructure (RI) is in meeting objectives for performance. RIs use KPIs at multiple levels to evaluate their success at reaching targets. High-level KPIs may focus on the overall performance of the RI, while low-level KPIs may focus on specific processes.

As described in the ESFRI Working Group Report (WG Monitoring, 2019): The purpose of KPIs is to "provide a means of monitoring the performance of a Research Infrastructure with regard to progress towards its stated objectives from inputs, through activities and outputs to outcomes".

The aim of this section is to synthesise the Key Performance Indicators (KPIs) developed in JERICO-DS, listed in Table 5.1, in relation to the following categories by specific work packages (WP). WPs were tasked with developing KPIs for their specific thematic category based on the list of indicators from the ESFRI Sustainability WG (Kolar, 2019) and OECD (2019). KPIs related to WP4 Sustainability and WP5 Governance, Social and Societal Impacts will also be included. Figure 5.1 shows a visualisation of how each work package feeds into WP5 Governance and the KPIs developed from each WP milestone.

| Milestone | Work Package | Reference |
|---|---|---|
| MS1.5 | WP1 Scientific Excellence | Brix, H., Magaldi, M., Cocquempot, L., Gremare, A., (2022) JERICO-DS MS1.5 - WP1 - "KPIs for an operational JERICO-RI to assess the scientific excellence and societal economic impacts.". |
| MS2.5 | WP2 Technological design | Kuuppo, K., Seppälä, J., Blauw, A., Meszaros, L., Frigstad, H., King, A., (2022) JERICO-DS MS2.5 – WP2 - KPIs for JERICO-RI technological implementation. |
| MS3.7 | WP3 e-infrastructure | Mader, J.,Fernandez, J.C., Llorens, M.C., Gorringe, P., Breviere, E., Rubio, A., Legrand, S., (2022) JERICO-DS MS.19 - WP3 - "KPIs for the JERICO-RI e-Infrastructure" . |
| MS4.2 | WP4 Sustainability Business Plan | Christodoulaki, S., Reilly, K., Gaughan, P., Petihakis, G., (2021) JERICO-DS MS.4.2 – WP4 - "Workshop on Socio Economic Impacts - present work on KPI's and results of National Case studies". |
| MS6.2 | WP6 Communication | Vitorino, J.,Pfannkuchen, M., Lips, U., Liblik, T., (2022) JERICO-DS MS32 / MS6.2 - WP6 - "Identified Potential Communication KPIs to feed general KPIs table (WP5)". |

**Table 5.1:** The milestones from each work package (WP) that contribute to the synthesis of key performance indicators for JERICO-RI.

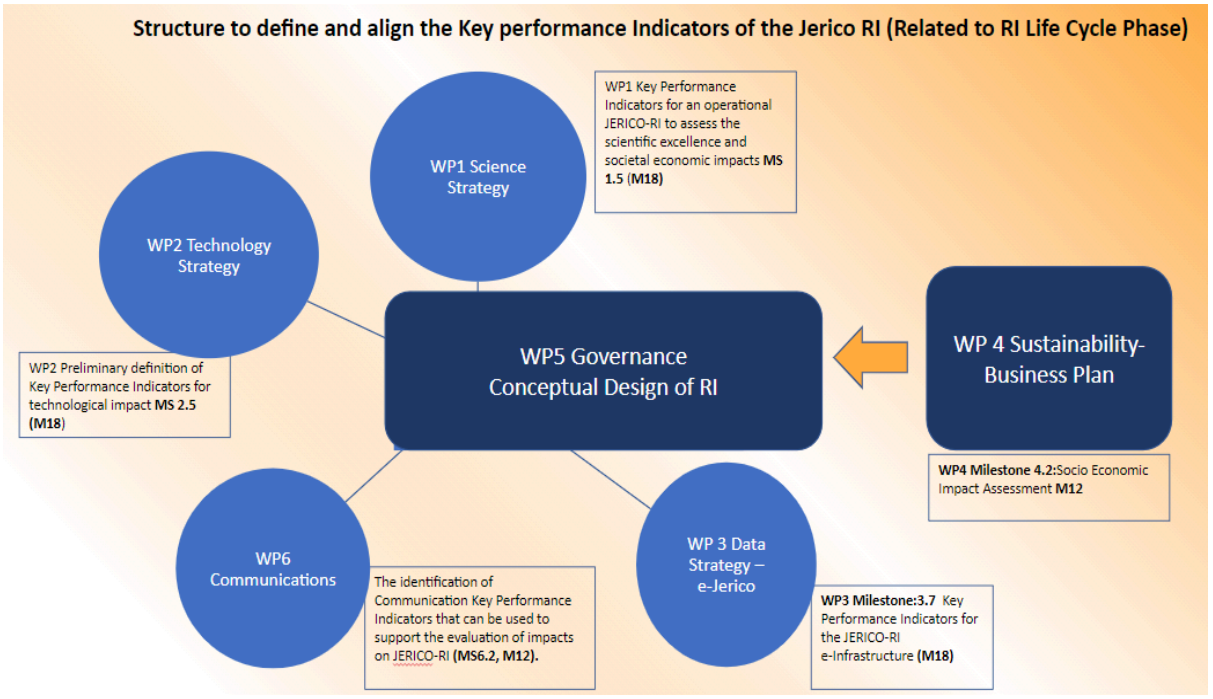


**Figure 5.1:** The KPI output Milestones in each Work package that feed into the KPI synthesis in WP5 Governance.

The main outcomes of the KPI exercise process for RI Governance are:

- To help identify information gaps within RI in implementing KPIs
- To help identify specific KPIs relevant for each work package focus based on those from the OECD or ESFRI
- CORE indicator KPIs do not cover all performance aspects of a National RI, the WPs will identify new JERICO specific KPIs

During the JERICO Week in November 2021, WP4 partners organised a workshop on RI socio-economic impact assessment. The workshop included presentations from EMBRC, ICOS and LIFEWATCH ERICs on how they developed their Key Performance Indicators. The workshop also included presentations on the socio-economic impact assessment case studies of national RIs in Ireland (EIROOS) and Greece (POSEIDON). The WP4 milestone 4.2 (Christodoulaki, et al., 2021) report for this workshop provides a useful reference document for task 5.5 in terms of the methodology and processes utilised for choosing, synthesising and defining the KPI's for JERICO-RI.

This section aims to outline the KPIs for JERICO-RI over the lifecycle phases defined by ESFRI (Kolar, 2019). The four phases under consideration are the preparation phase, implementation phase, operational phase and termination phase. This section will also draw on the work done in WP4 on the socio-economic impact assessment for national RIs. The main outcomes of this section are:

- Synthesise and merge overlapping KPI's - Determine which lifecycle phases KPIs from the WPs will address,

- Prioritise KPIs to identify CORE KPIs for JERICO-RI - The selected KPIs need to be balanced with those coming from all WPs, to create a comprehensive and coherent set of impact indicators for JERICO-RI.

### *Summary of KPIs Selected by Work Package*

A summary of each milestone from each WP is presented with a table of the KPIs selected for each thematic category. The specific milestones for each WP provide more detail and context for the selected KPIs.

#### WP1 – Task 1.3 preliminary definition of Key Performance Indicators for scientific excellence

MS1.5 (Brix, et al., 2022) identified 10 KPIs that will assess the scientific excellence and socio-economic impacts of the future JERICO-RI in the operational phase. These were based on the OECD (2019) "Reference Framework For Assessing The Scientific And Socio-Economic Impact Of Research Infrastructures" and have been modified according to JERICO's needs. The initial criteria to be used for evaluation of scientific impact are listed in the table as the KPI, while the fields of interest for JERICO-RI are included based on the details provided from MS1.5 section 3.1.

| **KPI from the OECD list** | **Field of Interest** |
|---|---|
| Number of published JERICO-RI-related articles | Publications and citations |
| Number of citations | Publications and citations |
| Number of JERICO-RI infrastructure users (from inside and outside the JERICO consortium) | Collaboration and projects |
| Number of applications and grants for TNA | Collaboration and projects |
| Number of requests for VA | Collaboration and projects |
| Number of collaborations with other RIs | Collaboration and projects |
| Number of shared grant applications with external partners | Grant applications |
| Categories of partner (research institutions, universities, RIs, etc.) and their geographical spread | Inclusion of external partners of diverse backgrounds |
| Number of external collaboration projects | Collaboration and projects nd Inclusion of external partners of diverse backgrounds |
| Number of publications involving external partners / RIs | Publications and citations |

**Table 5.2**: WP1 selected list of KPIs and field of interest.

### WP2 - Task 2.4 Preliminary definition of Key Performance Indicators for technological impact

MS2.5 (Kuuppo, et al., 2022) aimed to identify the KPIs to assess the implementation of the JERICO-RI that will be useful in measuring the progress and success of technology roadmap execution. The below table summarises the six KPIs identified along with the JERICO target determined by WP2. The KPIs were modified from the OECD (2019) list of indicators, with specific detail on each JERICO-RI indicator outlined in the WP2 Milestone 2.5. The KPIs for "JERICO RI Technology development" will be refined and updated after the technology Roadmap has progressed further. The indicators to be followed during the JERICO-RI technology implementation can be decided only when a solid plan is available for JERICO-RI next phase.

| **KPI from the OECD list** | **Description** | **Related to the JERICO target** |
|---|---|---|
| Number of publications | Number publications in peer-reviewed journals, and technical reports based on data/observations/ technical developments done in the RI | Scientific excellence |
| Number of projects granted | Number of projects to use the RI, which have received funding from international (e.g., EU) or national source | Scientific excellence, amount and type of RI users |
| Number of users | Number and type of users, which utilise the data or physical facilities of the RI | Amount and type of RI users |
| Structuring effects of the RI on the scientific community | Number of new collaborations and projects, application of new and emerging technologies in coastal observation and research | Progress and success of technology roadmap execution |
| Collaboration with other RIs and industry | Collaborative projects with industrial partners, projects funded by the industry, or innovations co-developed with the industrial partners | Technology collaboration with other RIs and industry, innovations developed |
| **KPI to be defined once the Technology roadmap is in place** | | |
| JERICO RI Technology development - relevant for business plan | Number of variables measured, number of multi-platform observatories sending data to data aggregators, number of JERICO-RI platforms, and countries involved in JERICO-RI | Progress and success of technology roadmap execution, technical integration and harmonisation |

**Table 5.3**: WP2 selected list of KPIs.

### WP3 - Task 2.4 KPIs for the JERICO-RI e-infrastructure (JERICO Core)

WP3 identified 5 KPIs in MS3.7 (Mader, et al., 2022) for the JERICO-RI virtual infrastructure, JERICO-CORE, based on the 21 KPIs developed from the ESFRI Sustainability Working

Group (WG Monitoring, 2019) and adapted for JERICO-CORE specific indicators in MS3.7. These KPIs will aim to measure the performance of the virtual infrastructure.

| KPI from the ESFRI list | Description |
|---|---|
| Experimental time available or size of resources database | Number of resources in JERICO-CORE catalogue: Total and per category (Data, Services, Software, Platform, Best Practice, Publication, Document) |
| Number of proposals/user requests, or Number of registered users of data, services (for resources RIs) | Requested access unit, as defined in Draft Access Policy (MS14), per type of service |
| Number of granted proposals/ accepted users, or Number of logins/month; number of downloads, number of studies or services (for resources RIs) | Delivered access unit, as defined in Draft Access Policy (MS14), per type of service. |
| Share of users and publications per EU country | Number of users and publications per EU country |
| Number of publicly available data sets used externally | Number of publicly quality controlled data processed by Assembly Centres and used externally |

**Table 5.4**: WP3 selected list of KPIs.

### WP6 - Task 6.5 Identified potential communication KPIs to feed general KPIs table (MS6.2)

WP6 identified 5 KPIs in MS6.5 (Vitorino, et al., 2022) adapted from the ESFRI Sustainability Working Group (Kolar et al., 2019) that can be used to support the evaluation of impacts on JERICO-RI in the areas of communications, taking into account potential future evolutions in communication channels. The communication KPIs were selected where:

- 4 address external communication, the first 3 of these were adapted from the list proposed by the ESFRI Working Group in the framework of *Outreach to the Public*
- 1 addresses internal communication

| From the ESFRI List | Description |
|---|---|
| Engagement achieved by direct contact | Outreach by public relations/direct contact with specific target groups: organisation of events, participation at events organised by third parties, visitors to the RI measured by the number of visitors/participants, number and duration of events, and visitors/duration. |
| Outreach through printed, broadcast and | Website popularity and levels of social media engagement: Web (e.g. Google Analytics) analytic and social media analytic tools |

| | |
|---|---|
| web-based media | (Twitter, LinkedIn, YouTube, Flickr, Facebook,…). This is measured by:<br>Web standard indicators: Users, New Users, Page views, Unique page views, Avg. session duration, etc.<br>Social media standard indicators: Profile visits, total number and number of new followers (per period), mentions and interactions, etc. |
| Outreach via the RI's own web and social media activities | Measures the result of the RI activity in terms of awareness and understanding within the general public and policy circles through the number of times the RI is mentioned in press articles, radio, TV broadcast or web-based media not related to RI. |
| Communication of JERICO-RI derived results | Measures results dissemination effectivity, response to the results (citation), impact on the scientific community through the number of scientific papers and citations based on JERICO-RI data & products |
| Internal communication impacts in the building of the community | Measures the impact of Internal communication in promoting an engaged and well-informed community around JERICO-RI Vision and Mission and ESFRI roadmap through the number of positive feedbacks |

**Table 5.5**: WP6 selected list of KPIs.

*KPIs for the JERICO RI lifecycle phases*

The KPIs selected for each WP's thematic category were collated into Table 5.6 where the OECD number or ESFRI number for each identified KPI is referenced, unless it was specifically developed for JERICO-RI then it is labelled Jerico Specific. The relevant WPs are listed next to each indicator, where some WPs have identified the same indicators as important to their thematic category. WP ID's are listed as:

WP1 Long-term Science Plan= S, WP2 Technical Design= T, WP3 e-Infra Design= E, WP4 Sustainability= SB, WP5 Governance= G, WP6 Communication= C

Further, the indicators have been evaluated as to their relevance in the 4 different stages of the RI Development namely:

P= Preparation Phase, I= Implementation Phase, O= Operation Phase, T= Termination Phase

| KPI OECD number or ESFRI ID | Key Performance Indicator | WP Title | RI Lifecycle Phase |
|---|---|---|---|
| S1 | Number of publications | S, T, E, C | P, I, O |
| S2 | Number of citations | S, T, E, C | P, I, O |
| S4 | Number of projects granted | S, T, E | P, I, O |

| | | | |
|---|---|---|---|
| S6 | Number of scientific users | S, T, E | P, I, O |
| S10 | Structuring effects of the RI on the scientific community | S, T | P, I, O |
| T16 | Number of collaborations with industry | T | P, I, O |
| ESFRI 11 | Extent of outreach and engagement achieved by direct contact | C | P, I, O |
| ESFRI 12 | Outreach via the RIs own web and social media activities | C | P, I, O |
| ESFRI 13 | Outreach through printed broadcast and web-based media | C | P, I, O |
| JERICO specific | Internal communication impacts in the building of the community | C | P, I, O |
| E27 | Number of full time equivalent within the RI | G | P, I, O, T |
| O57 | Gender balance Ethnic balance | G | P, I, O, T |
| JERICO specific | Number of JERICO-RI member states | SB | P, I, O, T |
| JERICO specific | Number of JERICO-RI facilities | SB | P, I, O |
| JERICO specific | Number of JERICO-RI services provided | SB | P, I, O |
| ESFRI 20 | Revenues | SB | P, I, O, T |
| JERICO specific | Units of Access provided for TA & VA | S, E, SB | I, O |
| JERICO specific | Number of applications, grants requests for TA & VA | S, E | I, O |
| JERICO specific | Number of collaborations with other RIs | S, T | I, O |
| JERICO specific | Number of shared grant applications with external partners | S | I, O |
| JERICO specific | Categories of partner (research institutions, universities, RIs, etc.) and their geographical spread | S | P, I, O |
| JERICO specific | Number of external collaboration projects | S | I, O |
| JERICO specific | Number of publications involving external partners / RIs | S | I, O |
| ESFRI 14 | Experimental time available or size of resources database | E | P, I, O |
| ESFRI 16 | Number of publicly available data sets used externally | E | P, I, O |

**Table 5.6:** JERICO-RI KPIs Identified in JERICO Design KPI analysis.

*Synthesis of KPIs for JERICO-RI*

It is essential that the scale of the KPI monitoring system remains reasonable and compatible with the administrative capacity of the JERICO-RI. As a result, a limited number of indicators, which allow for monitoring of progress against a variety of objectives, is seen as the best approach. To synthesise the selected KPI list, the indicators were screened using the following criteria (MS2.5):

Optimal use of KPIs

- The link between strategic objectives and indicators is one of the major contributions
- Each indicator should be carefully selected and adapted, as necessary, to the RI objectives and context
- Socio-economic impact is context-specific

- Impacts often results from cumulative effects over time … hence the need to use consistent indicators over time (trend data)
- Quantitative indicators … should be complimented whenever possible with more qualitative indicators and narratives

Secondly, the JERICO-RI KPIs should fulfil the **RACER** criteria developed by the European Commission (2023) and implemented by ESFRI (WG Monitoring, 2019):

- Relevant – i.e. closely linked to the objectives to be achieved
- Accepted – e.g. by staff and stakeholders
- Credible for non-experts, unambiguous and easy to interpret
- Easy to monitor – e.g. data collection should be possible at low cost
- Robust – e.g. against manipulation

Table 5.7 is the list of priority KPIs for JERICO-RI. The majority of these KPIs were common to two or more of the WP categories (i.e. scientific excellence, technological impact, e-infrastructure, JERICO Core and communication). The fact that these KPIs were chosen across two or more of the categories, and in some cases all of the categories, would suggest that these are the KPIs that JERICO-RI should focus on due to their relevance and importance to these key elements of the JERICO-RI design.

In selecting the priority KPIs, results from the ERIC Forum Implementation Project report (Nardello, 2022) were considered. The ERIC Forum is a community of 21 leading European Research Infrastructures that aim to provide recommendations for a sustainable business plan. The Implementation Project surveyed participating RIs in identifying priority KPIs for their specific RI. Most notably, the top priority indicator was units of access with 67% of RIs ranking this the most important (Nardello, 2022). Taking this recommendation, units of access was included as a priority KPI for JERICO-RI.

Two additional KPIs (KPI6 & KPI7) were considered from the list as these are indicators that quantify the development and sustainability of the RI. These indicators are described in the ESFRI report (WG Monitoring, 2019) as optimising management for the RI. These financial based KPIs are included in ESFRI recommendations (WG Monitoring group, 2019) and OECDs indicators (2019). These financial KPIs will be especially beneficial for JERICO-RI in the preparation and implementations phases, as JERICO-RI seeks to establish its maturity.

The KPIs that have been identified are described by the RI objective from the ESFRI working group report (WG Monitoring, 2019). A number of common RI objectives have been defined based on the ESFRI working group report (2019) These objectives are:

- Enabling scientific excellence
- Delivery of education and training
- Enhancing transnational collaboration in Europe
- Facilitating economic activity
- Outreach to the public
- Optimising data use
- Provision of scientific advice
- Facilitating International co-operation
- Optimising management

Modelling the KPI table after ICOS's KPI list (ICOS ERIC, 2021), each KPI was given sub-indicators to further quantify the KPIs. These selected KPIs are the proposed indicators for JERICO-RI to focus on to quantify the development of the RI.

| RI Objective | KPI description | Sub-indicators | JERICO-RI related deliverable |
|---|---|---|---|
| Enabling scientific excellence | **KPI1:** JERICO-RI in publications and citations | -Number of published JERICO-RI related articles<br>-Number of citations | -JERICO-DS MS1.5 - WP1 - "KPIs for an operational JERICO-RI to assess the scientific excellence and societal economic impacts."<br>-JERICO-DS MS2.5 – WP2 - KPIs for JERICO-RI technological implementation<br>-JERICO-DS MS.19 - WP3 - "KPIs for the JERICO-RI e-Infrastructure"<br>-JERICO-DS MS.4.2 – WP4 - "Workshop on Socio Economic Impacts - present work on KPI's and results of National Case studies"<br>-JERICO-DS MS32 / MS6.2 - WP6 - "Identified Potential Communication KPIs to feed general KPIs table (WP5)" |
| Enabling scientific excellence | **KPI2**: Units of Access Provided by JERICO-RI facilities | -Units of access provided for physical and remote access<br>-Units of access provided for virtual access<br>-Number of applications and grants for TNA<br>-Number of requests for VA<br>-Number of internal JERICO infrastructure users<br>-Number of external scientific JERICO infrastructure users | -JERICO-DS MS1.5 - WP1 - "KPIs for an operational JERICO-RI to assess the scientific excellence and societal economic impacts."<br>-JERICO-DS MS.19 - WP3 - "KPIs for the JERICO-RI e-Infrastructure"<br>-JERICO-DS MS.4.2 – WP4 - "Workshop on Socio Economic Impacts - present work on KPI's and results of National Case studies"<br>More details for Units of Access is in the JERICO-RI J-DS Business Plan in Chapter 5.12 |
| Enabling scientific excellence | **KPI3:** Number of applications and grants/projects granted | -Number of applications accepted<br>-Number of projects accepted | -JERICO-DS MS1.5 - WP1 - "KPIs for an operational JERICO-RI to assess the scientific excellence and societal economic impacts."<br>-JERICO-DS MS2.5 – WP2 - KPIs for JERICO-RI technological implementation |

| | | | |
|---|---|---|---|
| | | | -JERICO-DS MS.19 - WP3 - "KPIs for the JERICO-RI e-Infrastructure" |
| Enhancing transnational collaboration in Europe; Enabling scientific excellence | **KPI4:** Number of collaborations with other RIs | - Number of projects other RIs are contributing to with JERICO-RI<br>-Number of MOUs signed with other RIs | -JERICO-DS MS1.5 - WP1 - "KPIs for an operational JERICO-RI to assess the scientific excellence and societal economic impacts."<br>-JERICO-DS MS2.5 – WP2 - KPIs for JERICO-RI technological implementation |
| Facilitating economic activity; Enabling scientific excellence | **KPI5:** Number of collaborations with industry | - Number of industrial users for all services provided by JERICO-RI | -JERICO-DS MS1.5 - WP1 - "KPIs for an operational JERICO-RI to assess the scientific excellence and societal economic impacts."<br>-JERICO-DS MS2.5 – WP2 - KPIs for JERICO-RI technological implementation |
| Enhancing transnational collaboration in Europe; Optimising management | **KPI6:** Number of JERICO-RI member states | - Number of member states signed with JERICO-RI | More details in the JERICO-RI J-DS D4.3 Business Plan in Chapter 7.4 |
| Optimising management | **KPI7:** Revenues | -Sources of revenues including financial and in-kind contributions | More details in the JERICO-RI J-DS D4.3 Business Plan in Chapter 7.4 |

**Table 5.7:** Synthesised list of KPIs for JERICO-RI.

*Conclusion*

In conclusion, the 7 KPIs selected as priority indicators are a synthesised list of KPIs to reflect all categories of JERICO-DS in order to assess the development of the RI. The 7 selected priority KPIs are:

- **KPI1:** JERICO-RI in publications and citations
- **KPI2**: Units of Access Provided by JERICO-RI facilities
- **KPI3:** Number of applications and grants/projects granted
- **KPI4:** Number of collaborations with other RIs
- **KPI5**: Number of collaborations with industry
- **KPI6:** Number of JERICO-RI member states
- **KPI7:** Revenues

The task linked closely with JERICO-DS WP1, 2, 3, and 6 to identify, evaluate and synthesise the key performance indicators from the ESFRI Sustainability WG (Kolar, 2019) and OECD (2019) recommendations that the JERICO-RI design will incorporate into its different life cycle phases enabling effective performance monitoring as the RI develops. The relevant lifecycle phase for each selected WP's KPIs were identified before selecting the priority KPIs. These priority KPIs will inform the JERICO-RI J-DS D4.3 Business Plan.

# 6. Terms of Reference for good conduct

*Terms of Reference for equal opportunity, gender balance, ethical issues and minimisation of carbon footprint policy for JERICO-RI*

The purpose of this section is to outline the Terms of Reference for the Equal Opportunity, Gender Balance, Ethical Issues, and Minimization of Carbon Footprint Policy of JERICO-RI. This policy aims to ensure fairness, inclusivity, ethical conduct, and environmental sustainability throughout the life cycle of JERICO-RI. The goal is to include these policies and practices into the JERICO Label where they can be easily accessed by JERICO Stakeholders and utilised across all areas of JERICO-RI governance and operations. The EU Commission's Responsible Research and Innovation policy (EU Commission, 2014) underpins the importance of tackling societal challenges for a greener economy. These challenges include, but not limited to, gender balance and ethical issues.

These policies follow closely to those set out in other ERICs, specifically EMSO ERIC Gender Equality Plan (Tegas, 2022), Chapter 7 "Sustainability" of the ACTRIS ERIC Business Plan (ACTRIS, 2023), and more broadly, those outlined in ICOS ERIC (2022) and EMBRC ERIC (2021).

This section proposes a preliminary Terms of Reference related to equal opportunity, gender balance, ethical issues, and minimisation of carbon footprint.

## *Policy Objectives*

The objectives of this policy are as follows:

a. To promote equal opportunity and non-discrimination in all aspects of the ERIC's activities, including recruitment, selection, employment, training, and access to research infrastructure and resources.

b. To strive for gender balance and diversity in participation, decision-making, and leadership roles within JERICO-RI, ensuring equitable representation of all genders.

c. To uphold high ethical standards in research, including responsible conduct, integrity, and compliance with relevant legal and ethical frameworks.

d. To minimise the carbon footprint and environmental impact of JERICO-RI operations, promoting sustainable practices and technologies throughout its life cycle.

These objectives are designed to align with the Values of JERICO-RI.

## *Implementation of the Policy Objectives*

### Equal Opportunity

a. JERICO-RI will strive to provide equal opportunities for all members and will not discriminate based on any ground such as sex, race, colour, ethnic or social origin, genetic features, language, religion or belief, political or any other opinion, membership of a national minority, property, birth, disability, age or sexual orientation, as outlined in the EU Charter for Fundamental Rights.

b. Recruitment, selection, and employment processes shall be fair, transparent, and based on merit.

c. Reasonable accommodations shall be provided to individuals with disabilities to ensure their full and equal participation.

d. Measures shall be implemented to prevent and address any form of discrimination, harassment, or unequal treatment.

### Gender Balance

a. JERICO-RI will aim to achieve gender balance in relation to recruitment of leadership and decision-making roles, and research teams. They are also committed to gender equality in career progression and enabling personal development.

b. Efforts shall be made to remove barriers and biases that hinder the participation and advancement of individuals of underrepresented genders.

c. Gender-disaggregated data shall be collected and monitored to assess progress and identify areas for improvement.

### Ethical Issues

a. JERICO-RI shall adhere to the highest ethical standards in conducting research and related activities, ensuring compliance with relevant ethical guidelines, legislation, and regulations.

b. Research involving human subjects, animals, or sensitive data shall undergo ethical review and approval.

c. Researchers and staff shall receive training on ethical conduct, responsible research practices, and the handling of research misconduct allegations.

d. Whistle-blower mechanisms shall be established to enable the reporting of ethical concerns and violations.

### Minimization of Carbon Footprint

a. JERICO-RI will work towards becoming climate neutral with net zero carbon emissions in line with the European Green Deal and in the EU's commitment to global climate action under the Paris Agreement.

b. JERICO-RI shall develop and implement strategies to minimise its carbon footprint and environmental impact throughout its life cycle, including the planning, construction, operation, and decommissioning phases.

c. Collaboration with external partners and stakeholders shall be sought to promote knowledge sharing and best practices in environmental sustainability.

### Monitoring and Review

a. JERICO-RI shall establish monitoring mechanisms to assess the effectiveness and impact of this policy and its associated measures.

b. Regular reviews shall be conducted to ensure the policy remains up to date and aligned with evolving standards, legislation, and societal expectations.

c. Feedback from stakeholders, including employees, researchers, partners, and the public, shall be sought and considered in the review process.

### Communication and Reporting

a. JERICO-RI shall communicate this policy to all stakeholders, including employees, researchers, governing bodies, and external partners.

b. Progress, achievements, and challenges related to equal opportunity, gender balance, ethical issues, and carbon footprint minimization shall be reported regularly, internally and externally.

### Compliance and Enforcement

a. All individuals and entities associated with JERICO-RI shall comply with this policy and associated guidelines.

b. Non-compliance may result in appropriate disciplinary or corrective actions, as determined by JERICO-RI governing bodies.

### *Conclusion*

The Equal Opportunity, Gender Balance, Ethical Issues, and Minimization of Carbon Footprint Policy of JERICO-RI provides a framework for promoting fairness, inclusivity, ethical conduct, and environmental sustainability throughout JERICO-RI's life cycle. By adhering to this policy, JERICO-RI aims to create a supportive and responsible research environment that contributes to the advancement of marine science while addressing societal challenges.

# 7. Conclusion and next steps

This deliverable presented an updated version of the JERICO Label. The document focuses on outputs from JERICO-DS project tasks, and addresses the following aspects:

- JERICO Label Committee (JLC) composition and its mission to support scientific research excellence within JERICO-RI.
- the need for a formal pathway to endorse best practices developed in JERICO-RI, proposing a standardised peer-review procedure to enhance trust in JERICO's leadership in coastal ocean observation.
- policies for accessing physical and virtual JERICO infrastructures, including JERICO-CORE, and security measures for data and services.
- Core Impact Indicators and key performance indicators from ESFRI Sustainability WG and OECD recommendations, integrated into the JERICO-DS design for effective performance monitoring and roadmap development.
- Terms of Reference for the Equal Opportunity, Gender Balance, Ethical Issues, and Minimization of Carbon Footprint Policy of JERICO-RI.

Next developments could focus on the following topics: confirm the JERICO Label Committee's position in the overall governance structure; recognise the broader character of the JERICO Label instead of a technical-operational certification of individual observatories, possibly even changing its name; further refine the best practices development model and endorsement process.

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