

CNR – ISTI  
Institute of Information Science and Technologies “A. Faedo”



# External Advisory Board Report 1

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<b>CO</b>	Confidential, only for members of the Consortium (including the Commission Services)	
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NAUTILOS - New Approach to Underwater Technologies for Innovative, Low-cost Ocean observation is an H2020 project funded under the Future of Seas and Oceans Flagship Initiative, coordinated by the National Research Council of Italy (CNR, Consiglio Nazionale delle Ricerche). It brings together a group of 21 entities from 11 European countries with multidisciplinary expertise ranging from ocean instrumentation development and integration, ocean sensing and sampling instrumentation, data processing, modelling and control, operational oceanography and biology and ecosystems and biogeochemistry such, water and climate change science, technological marine applications and research infrastructures.

NAUTILOS will fill-in marine observation and modelling gaps for chemical, biological and deep ocean physics variables through the development of a new generation of cost-effective sensors and samplers, the integration of the aforementioned technologies within observing platforms and their deployment in large-scale demonstrations in European seas. The fundamental aim of the project will be to complement and expand current European observation tools and services, to obtain a collection of data at a much higher spatial resolution, temporal regularity and length than currently available at the European scale, and to further enable and democratise the monitoring of the marine environment to both traditional and non-traditional data users.

NAUTILOS is one of two projects included in the EU's efforts to support the European Strategy for Plastics in a Circular Economy by supporting the demonstration of new and innovative technologies to measure the Essential Ocean Variables (EOV).

More information on the project can be found at: <http://www.nautilos-H2020.eu>.

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## EXECUTIVE SUMMARY

The following document provides the first annual report and evaluation by the External Advisory Board (EAB), providing their overall assessment of NAUTILOS and advice on the project's future direction. The following deliverable is the report following the first EAB meeting held at the end of the first year of NAUTILOS, in Month 12.

The following deliverable has four main sections:

- **Chapter I: Review of the Project Management Structure**  
The chapter reviews the project management structure, giving a brief description of all the consortium bodies. This premise is needed to understand better the role of the External Advisory Board within all the governing bodies of NAUTILOS
- **Chapter II: Project Methodology, Planning And Scheduling**  
This section briefly recalls the technical structure and organisation of NAUTILOS, outlining the advisory role of the EAB

- **Chapter III: External Advisory Board Related Deliverables** describes the project planning, with scheduling and due dates for deliverables focusing on the reports that directly connect with the EAB.
- **Chapter IV: Report On The First EAB Meeting**  
This section describes the first meeting of the EAB, outlining the first advice and suggestions from the board members.

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## LIST OF ACRONYMS AND ABBREVIATIONS

Abbreviation	Definition
CA	Consortium Agreement
DC	Data Controller
GrAg	Grant Agreement
EC	European Commission
GA	General Assembly
TIB	Technical and Innovation Board
TIM	Technical and Innovation Manager
PM	Project Manager
PC	Project Coordinator
EAB	External Advisory Board
EthAB	Ethical Advisory Board
EB	Engagement Board
WPL	Work Package Leader
WPcL	Work Package Co-Leader
RIs	Research Infrastructures
STL	Sub-Task Leader
TL	Task Leader
TcL	Task Co-Leader

# I. REVIEW OF PROJECT MANAGEMENT STRUCTURE

## 1. PROJECT MANAGEMENT STRUCTURE

This document, being the first of the reports on the activities of the External Advisory Board, initially refers to the organisational and Project Management structure of the NAUTILOS project.

NAUTILOS includes 21 partners from 11 European countries. CNR, which has extensive experience in large-scale project management and delivery, coordinates the NAUTILOS project. The consortium members have been involved in past, and current EC-funded projects and are acquainted with EC reporting and project management procedures.

The project management structure of NAUTILOS has been designed as outlined in Figure 1. The management structure and procedures to be applied within NAUTILOS are established in the Grant Agreement (GrAg) and Consortium Agreement (CA).

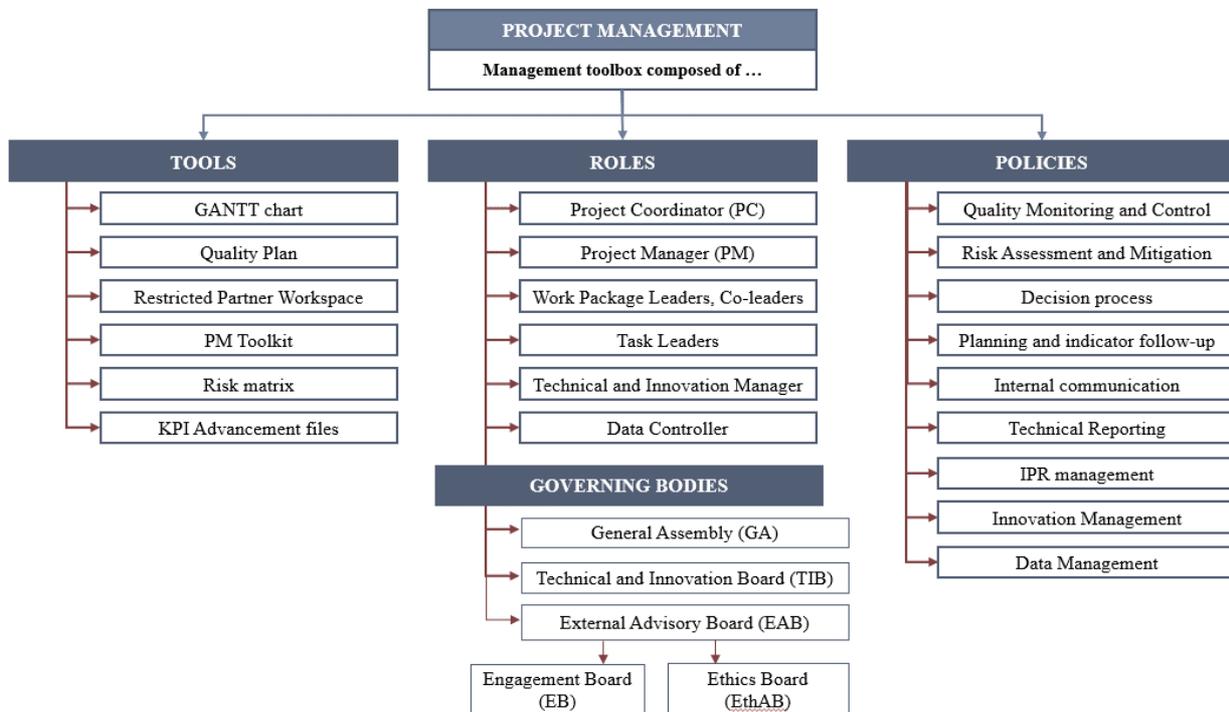


Figure 1. NAUTILOS Project Management Structure and Governing Bodies

As reported in the figure, among the **project's governing bodies** (as further detailed in Deliverable D1.1), there is the External Advisory Board (EAB), along with the General Assembly (GA) and the Technical and Innovation Board (TIB).

The GA is the ultimate decision body is the ultimate decision-making body of the Consortium chaired by the PC. They are responsible for monitoring the project implementation, taking major strategic decisions and determining the long-term strategy and direction of the project.

The PC chairs the GA, and all other project partners are represented through one representative.

The TIB represents the supervisory Consortium Body for the technical implementation of NAUTILOS, which shall report to and be accountable to the General Assembly.

The Technical and Innovation Board is led by the Technical and Innovation Manager and consists of the Coordinator, the Data Controller, the Project Manager and all WP Leaders (or a representative of the organisation leading the respective WP).

The EAB, chaired by the Coordinator, is composed of external experts, which will bring their expertise and ensure an external point of view concerning the implementation of the project. This organisational and decision-making structure will cover all necessary competencies regarding the quality project implementation, supervision and correction actions, if necessary, based on the complexity of procedures. The EAB will receive updates and reports on the project's progress and related outputs and provide the GA with strategic and the TIB with actionable technical feedback.

## 2. ORGANISATIONAL STRUCTURE

### 2.1. NAUTILOS general organization

The following Figure 2 outlines NAUTILOS organisational structure, with the GA structure, the operational development structure based on WPs.

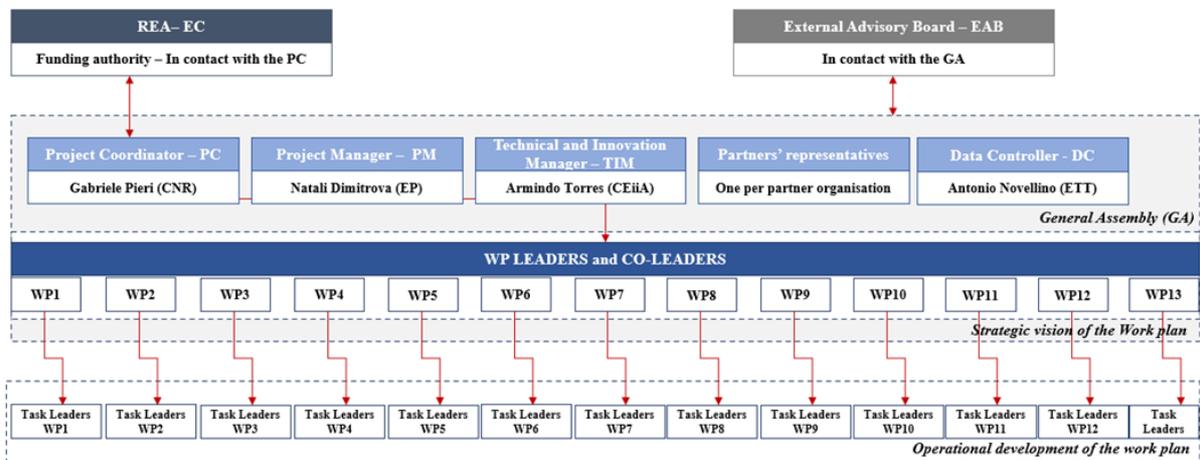


Figure 2. NAUTILOS Organisational Structure

The NAUTILOS GA is composed of the following roles: the **Project Coordinator (PC)**, responsible for the coordination and management of the overall project. CNR coordinates the project, with the PC role being assigned to Gabriele Pieri, Researcher at the Signals & Images Laboratory within the Institute of Information Science and Technologies (ISTI) in the National Research Council of Italy. The administrative and **Project Manager (PM)** is responsible for the administrative follow up of the project. Natali Dimitrova took the PM role from the partner EuroProject, but following her leave from EP, the role has been newly assigned to Victoria Geraskova yet from EuroProject. The **Data Controller (DC)** is responsible for the data management and the data management plan within NAUTILOS. The DC within the project is Antonio Novellino from the partner ETT S.p.A., who is also EMODnet Physics coordinator. The **Technical and Innovation Manager (TIM)** supervises and directs the technical and innovation aspects of the project. The TIM in NAUTILOS will be Armindo Torres from partner CEiiA. Together with these specifically nominated roles, the GA is also composed of one representative per partner Organization.

At the operational level, the work of the project is divided into 13 work packages. Each Work Package is led by a **Work Package Leader (WPL)**; the WPL has the general responsibility for the activities of the WP; for a detailed description of these duties, see Deliverable D1.1. The **Task Leaders (TL)** and eventual **Subtask Leaders (STL)** are assigned to coordinate separate tasks/subtasks within the work

packages. The TL/STL is responsible for the task implementation and its deliverable(s). This person will be directly involved in the task, responsible for the proper completion and the deliverable of its task and for reporting its progress or any issue encountered to the WPL.

## 2.2. External Advisory Board

### 2.2.1. Process and responsibilities

The EAB will act as an independent external body that reviews the project's progress and provides advice and guidance. EAB will aim to ensure that the project is in support of the implementation of the "G7 Future of the Seas and Oceans" initiative, the "Paris Climate Agreement", the "UN Decade of Ocean Science for Sustainable Development", and the needs of the "EC Integrated Maritime Policy" and the "Marine Strategy Framework Directive".

The EAB will aim to:

- provide ongoing connection and compliance to EuroGOOS, CMEMS, EMODnet, European Marine Research Infrastructures (EMSO ERIC, EURO ARGO, JERICO RI, Lifewatch ERIC);
- provide expert advice, feedback and input into a better understanding of the barriers facing effective Transfer of Marine Technologies within NAUTILOS;
- build relationships with stakeholders in Europe; and internationally, where relevant;
- promote and enhance the external communication activities of the project.

### 2.2.2. Meetings

The EAB will meet once annually and be responsible for supervising the achievement of the project's objectives, overseeing the project developments, results, constraints, obstacles, and ways to overcome them.

### 2.2.3. Members

The actual list of External Advisory Board members was decided and nominated during the Extraordinary GA meeting held online on 10 December 2020. All partners in the GA unanimously confirmed the proposed list of members. The agreed and formally voted list was communicated to the Project Officer, who acknowledged the information.

The finalised and actual list of External Advisory Board Members in NAUTILOS, after the refusal of Prof. Matthias Kaiser from the University of Bergen, is the following:

1. Dr Juanjo Dañobeitia, Director General EMSO-ERIC.
2. Dr Alessandra Giorgetti, EMODnet Chemistry.
3. Dr Christos Arvanitidis, CEO and Director General LifeWatch ERIC.
4. Dr Stein Sandven. NERSC, Coordinator of INTAROS H2020 project.
5. Dr Mariana Mata Lara, Coordinator of AQUA-LIT project.
6. Dr Haizea Jimenez, Surfrider Foundation Europe.
7. Prof. Jorge Miguel de Miranda, President of Portuguese Institute for the Ocean and Atmosphere-IPMA.
8. Dr Mafalda Carapuço. Member of Portuguese Institute for the Ocean and Atmosphere-IPMA.
9. Dr Nina J. Zugic, independent research ethics expert.

The external advisory board will have two subsections within it:

1. To be part of EAB, the *Ethics Advisory Board (EthAB)* will supervise and monitor the ethical aspects of the project proposal. EthAB, part of EAB, is an independent body that will advise the GA and all NAUTILOS members on ethical, regulatory and socio-environmental issues raised by the research and development to be undertaken under NAUTILOS. For the moment, it consists of Dr Nina J. Zugic, an independent ethics research expert.

- The *Engagement Board (EB)* will ensure that stakeholder’s inputs have been taken into consideration in all aspects of the proposed implementation. The EB is part of EAB advising the GA and all NAUTILOS members regarding the stakeholders’ engagement. The representative from Surfrider Foundation is part of the EB.

## II. PROJECT METHODOLOGY, PLANNING AND SCHEDULING

### 1. STRUCTURE BREAKDOWN: PERT DIAGRAM

NAUTILOS will run through 48 months and comprises 13 work packages, as illustrated in the PERT diagram below (see Figure 3). The work programme consists of 4 phases dedicated to the implementation of NAUTILOS, namely:

- Development,
- Integration, validation and scenario testing,
- Demonstrations and
- Data Management and Modelling.

Throughout the implementation of activities composing these four phases, there will be five horizontal Work Packages - one work package will be fully dedicated to the management of the whole project, including technical and administration (WP1), exploitation and impact (WP11), engagement with the European Strategy for Plastics in a Circular Economy (WP12), outreach, communication & dissemination activities (WP10) and ethics (WP13).

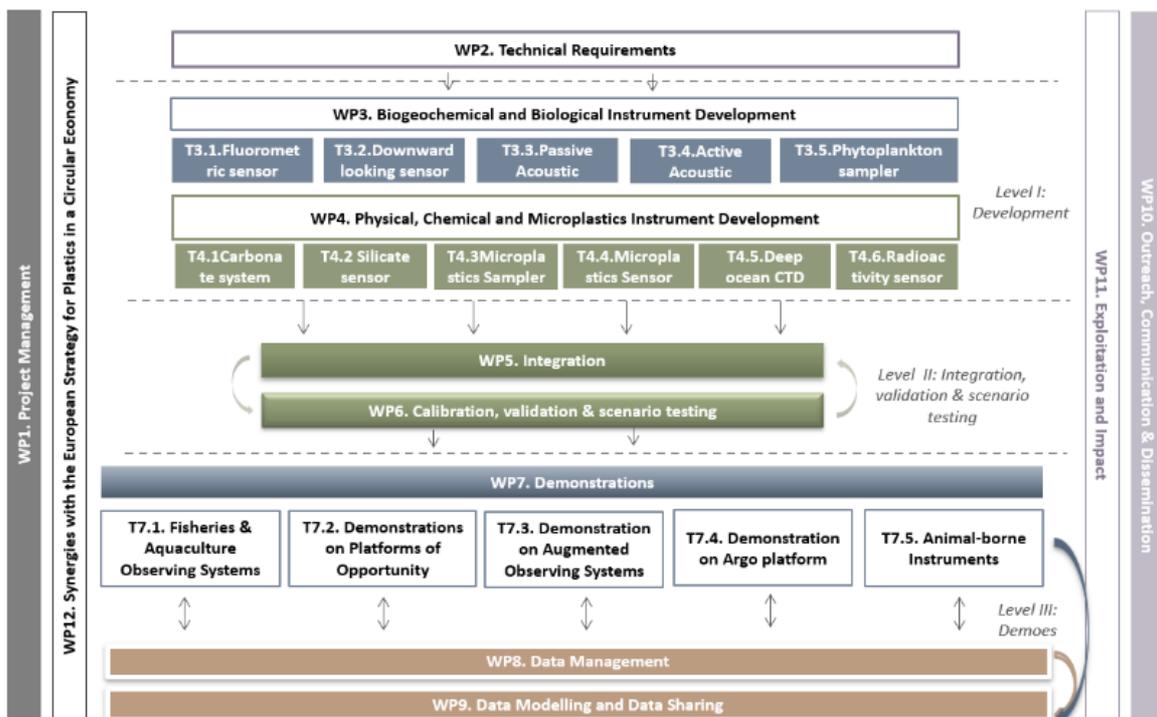


Figure 3. NAUTILOS PERT Diagram

### 2. PROJECT SCHEDULING: GANTT CHART

NAUTILOS’ methodology is based on the technological development of marine instrumentation from mid (TRL3-6) to high TRL levels (TRL6 to 9), with some of the technologies being brought to TRL 9

within the project's timeframe. The step-by-step process which gets to the technology demonstration phase in WP7 goes through the following stages:

- Requirements stage (WP2) and Development Specifics (WP3, WP4)
- Integration (WP5)
- Calibration, Validation and Scenario Testing (WP6)
- Demonstrations (WP7)
- Data Flow (WP8-9)
- Data modelling (WP9-8)

To manage the project's complexity, partners have developed a detailed GANTT Chart that provides a visual overview of the project schedule with specific timeframes per work package and task and an outline of the WP/Task leaders as shown in the following Table 1.



### III. EXTERNAL ADVISORY BOARD RELATED DELIVERABLES

A high level of quality in deliverables is essential to the success and impact of the project. Many deliverables will be available to the public and will thus be accessible long after the project's completion. A quality assurance plan for deliverables has been organised to maximise the project's impact and ensure the above. The method rests on activities of timely deliverable preparation by all partners involved. NAUTILOS creates deliverables that are either reports or demonstrators as described in "Annex I of the Grant Agreement". For deliverables that do not take the form of a written report, a written record will nevertheless be prepared to include supporting material for the accomplishment. For demonstrators, a technical report will be created, capturing the outcomes of the demonstration. For more detail, see Deliverable D1.4 Quality Plan.

#### 1. LIST OF DELIVERABLES RELATED TO EAB ACTIVITIES

The following Table 2 lists Deliverables that are foreseen during the project and have a direct link with the EAB activities. As it can be noticed, these belong all to WP1 (Project Management) and WP13 (Ethics); several of the Ethics WP Deliverables were due in the first months of the project and were submitted correctly (i.e. seven Deliverables submitted at months 3 and 6 reported in italics).

The present document is the only remaining deliverable due in the first year of the project. An EAB report will be due every year until the end of the NAUTILOS Project.

**Table 2. List of NAUTILOS Deliverables related to the EAB**

Del. No.	Deliverable Title	WP no.	Lead beneficiary	Type	Dissemination level	Due Date (in months)
<b>D1.2</b>	External Advisory Board Report 1	WP1	1 - CNR	Report	Public	<b>12</b>
<b>D1.6</b>	External Advisory Board Report 2	WP1	1 - CNR	Report	Public	<b>24</b>
<b>D1.7</b>	External Advisory Board Report 3	WP1	1 - CNR	Report	Public	<b>36</b>
<b>D1.8</b>	External Advisory Board Report 4	WP1	1 - CNR	Report	Public	<b>48</b>
<b>D1.5</b>	EthAB Reports	WP1	1 - CNR	Report	Public	<b>48</b>
<b>D13.1</b>	<i>H - Requirement No. 1</i>	<i>WP13</i>	<i>1 - CNR</i>	<i>Ethics</i>	<i>Confidential</i>	<i>3 Submitted</i>
<b>D13.2</b>	<i>POPD – Requirement No. 2</i>	<i>WP13</i>	<i>1 - CNR</i>	<i>Ethics</i>	<i>Confidential</i>	<i>3 Submitted</i>
<b>D13.3</b>	<i>A - Requirement No. 3</i>	<i>WP13</i>	<i>1 - CNR</i>	<i>Ethics</i>	<i>Confidential</i>	<i>3 Submitted</i>
<b>D13.4</b>	<i>NEC - Requirement No. 4</i>	<i>WP13</i>	<i>1 - CNR</i>	<i>Ethics</i>	<i>Confidential</i>	<i>3 Submitted</i>
<b>D13.5</b>	<i>EPQ - Requirement No. 5</i>	<i>WP13</i>	<i>1 - CNR</i>	<i>Ethics</i>	<i>Confidential</i>	<i>3 Submitted</i>
<b>D13.6</b>	<i>DU - Requirement No. 9</i>	<i>WP13</i>	<i>1 - CNR</i>	<i>Ethics</i>	<i>Confidential</i>	<i>6 Submitted</i>
<b>D13.10</b>	<i>GEN – Requirement No. 13</i>	<i>WP13</i>	<i>1 - CNR</i>	<i>Ethics</i>	<i>Confidential</i>	<i>6 Submitted</i>
<b>D13.7</b>	GEN – Requirement No. 10	WP13	1 - CNR	Ethics	Confidential	<b>18</b>
<b>D13.8</b>	GEN – Requirement No. 11	WP13	1 - CNR	Ethics	Confidential	<b>36</b>
<b>D13.9</b>	GEN – Requirement No. 12	WP13	1 - CNR	Ethics	Confidential	<b>48</b>

## IV. REPORT ON THE FIRST EAB MEETING

The EAB formation process started with the beginning of the NAUTILOS Project in October 2020. Unfortunately, due to the fulfilment of the bureaucratic formalities required by the Coordinator's Administration and delays the Covid pandemic brought to the needed paperwork, the finalisation of the contracts with external experts could only be finalised at the end of July 2021.

Therefore, the first contacts between the experts and the project started late and the level of advice for this first-year report are limited to a short period.

Nevertheless, in this section, a detailed description and comments on the first EAB meeting are reported. The first meeting of the EAB took place virtually on 22 September 2021.

### 1. EAB REPORT AND ADVICE

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The participants to this first meeting were all the members mentioned earlier of the EAB, NAUTILOS Coordinator (i.e. Gabriele Pieri), and NAUTILOS Project Manager (Victoria Geraskova). The agenda for this first meeting was the following:

- The Coordinator briefly introduced the NAUTILOS project and gave an overview of the Projects activities during the first year, as well as the foreseen activities for the subsequent period;
- The member of the EAB introduced themselves with a brief presentation of the core expertise/activities, but with a significant focus on NAUTILOS topics;
- In the end, a discussion and wrap up of the Board works.

In the first part, the Coordinator presented both the NAUTILOS project as a whole and the project's actual status approaching the end of the first year. The presentation covered the following main points: partnership, concept, objectives, impact, the actual status of the project approaching the first year, a summary of WPs activities and NAUTILOS management structure.

Details on this presentation are not the main objective of this report, but the minutes and the presentations were stored and available on the project's ownCloud (<https://cloud.nautilos-h2020.eu/>).

After this step, the EAB members introduced themselves and presented the first analysis focused on the themes for which they could provide direct support or help to achieve the strategic objectives of NAUTILOS.

**Christos Arvanitidis**, CEO and Director General of LifeWatch ERIC, presented LifeWatch goals and activities: offering new opportunities for large-scale scientific development, enabling accelerated data capture with innovative technologies, supporting knowledge-based decision-making for biodiversity and ecosystem management, providing training, dissemination and awareness programmes. The current challenge of LifeWatch is to shift scientists' attitude from working in isolation, on single-core PCs, to using and benefiting from an ecosystem of web services. A prototype of an RI on biodiversity and Ecosystem Research is currently available at TRL5 with the ambition to reach TRL 9 soon.

LifeWatch could provide support to NAUTILOS as follows:

- WP1 – to provide the means for the sustainability of applications after the end of the project along with other ERICs (e.g. EMSO ERIC);
- WP2 – to find political and societal drivers and define technical requirements through LW ERIC communities;
- WP5 – how to integrate NAUTILOS sensors and samplers into LW ERIC platform;

- WP7 – promote NAUTILOS-developed sensors, samplers, and systems in a broad range of key environmental settings and EU policy-relevant applications through LW ERIC relevant communities (from “measurement to manuscript” concept, through VREs (e.g. Tesseract));
- WP8 – provide expertise and technology on the design and implementation of
- the NAUTILOS data management system (e.g. LifeBlock)
- WP9 – promote the use of the new sensors, their integration into platforms and their potential to improve modelling;
- WP10 – extend the project’s visibility through LW ERIC media.

**Mafalda Carapuço**, Coordinator of Research Vessels at the Portuguese Institute for Sea and Atmosphere (IPMA), is an environmental engineer focusing on geology which has been researching in the last 20 years linked to oceans and technologies. She presented a video on the operational research vessels activities at IPMA for the Ocean observations ([https://www.youtube.com/watch?v=c-x\\_e3XXD10&t=1s](https://www.youtube.com/watch?v=c-x_e3XXD10&t=1s)), giving an overview on the latest equipment deployed for Ocean observation. They have vessels, gliders, and platforms that could support NAUTILOS activities, e.g. hosting its instrumentation; it is worth mentioning the connection with EMSO-Portugal. The President of IPMA, **Jorge Miguel de Miranda**, who also presented IPMA activities in the video, is a member of NAUTILOS EAB.

**Juanjo Dañobeitia**, EMSO-ERIC Director General, described the vision of EMSO-ERIC in contributing as a reference and distributed Marine Research Infrastructure (14 research institutions, 11 deep-sea observatories with cable and stand-alone) to the information, knowledge and preservation of the deep oceans and the water column to address global marine environmental challenges of the 21<sup>st</sup> century. Three test sites provide a place for testing almost any sensor for low cost, with possible remote access. The organisation’s priorities are enhancing collaboration through the marine RIs and harmonising information by integrating data and knowledge. EMSO-ERIC focuses on quality ocean observations, promoting collaborative research and the use of digital ocean outstanding science. Various connection points with NAUTILOS and possible advisory, an important aspect could be improving the monitoring of deep-sea and identifying sources of chemical, biological and biogeochemical events.

Furthermore, the multiplatform approach to Ocean observation is a common goal, particularly the integration aspect developed in NAUTILOS WP5. Moreover, the focus on BlueGrowth and possible improvement for the blue economy is also a common point that could be developed. Another essential common guide could be concerning the monitoring of pollution from plastics.

As a first suggestion, NAUTILOS should take advantage and possibly use the numerous Marine RIs that come under the umbrella of ERICs activities to enhance collaboration.

Finally, on the side of harmonising information and Ocean data integration of information and services, there could be a common goal to go along with the UN Decade of Ocean Science for Sustainable Development (SDG 14).

**Alessandra Giorgetti**, OGS-National Institute of Oceanography and Applied Geophysics-Dept. Oceanography and Coordinator EMODnet Chemistry presented the main activities of EMODnet and the Chemistry node. The network involves 65 scientific institutes and data management experts from 32 countries and five international organisations from 32 countries. Its main objectives are unlocking marine data, facilitating access and re-use for different domains. Moreover, to bring a new vision on the interoperability (FAIR) and the collection, aggregation, standardisation, quality check of EU marine data. Finally, the provision of open access, HQ data and data products. The main contribution could regard WP8 and WP9 to find this connection with NAUTILOS Data controller and EMODnet Physics coordinator Antonio Novellino and WP12 concerning the micro-litter monitoring.

**Haizea Jimenez**, Head of expertise department at Surfrider Foundation Europe, is a marine ecologist. The Foundation is a non-profit organisation representing a volunteers' network dedicated to coastline and water protection through expertise, lobbying and local action. The foundation mission is to be the voice of the world's oceans and their users.

It has a wide presence all around Europe with several local chapters and around 2000 volunteers, focusing on water quality and preservation and users' health, raising awareness on the ocean and climate issues, and fighting against marine litter.

Haizea and the Foundation can contribute mainly to NAUTILOS WP10 and WP12 on Dissemination, awareness-raising and knowledge transfer, Citizen Science Experiments and Synergies with ESPCE.

**Mariana Mata Lara**, senior project manager at Geonardo and Aqua-Lit Coordinator, has a Master of Environmental Sciences, policy and management, and marine observation specialisation.

Geonardo is an innovation and technology company active in the energy, environment and sustainable development fields.

The Aqua-Lit Project finished in 2020, focused on working with the aquaculture stakeholders from the Mediterranean Sea, the Baltic Sea, and the North Sea developing a toolbox that helps tackle marine litter.

Another connection of interest could be the CoastObs project, which used satellite remote sensing to monitor coastal water environments and develop a user-relevant platform offering validated products such as indicators and integrating predictive models. A further project with a possible connection is the OTTER project, focused on outdoor science education focusing on plastic waste reduction.

As specific support, she can be provided to WP10, WP11 and WP12 concerning Dissemination, awareness-raising and knowledge transfer, Citizen Science Experiments and Exploitation and Impact. Other potential support could be provided by linking with other projects or services and finally helping promote activities.

**Stein Sandven**, senior scientist at NERSC-Nansen Environmental and Remote Sensing Center, Professor at UNIS and former Director of NERSC, Coordinator INTAROS & CAPARDUS. The INTAROS project is an H2020 RIA project, coordinated by NERSC, focused on the development of Arctic observing systems for atmosphere, ocean, cryosphere, terrestrial sciences and local communities (intended with a similar meaning as Citizen Science but more oriented to communities needs) with focus on in situ systems. It includes a work effort from about 200 scientists from 49 organisations in 20 countries. The project is working more at the platform level and not at the sensors level, as NAUTILOS. An important focus is on the data delivery chain, from data collection, processing, models, and production of results. Focus also on data standards and accessibility of data catalogue (Open data).

In more detail, the challenges that a project should be ready to face could be summarised in the following: (1) Organisation of the users/stakeholder through systems and resources; (2) filling the gaps through the technology in observing platforms and sensors, and capability of operational systems; (3) data generation, dissemination and management; (4) sustainability of observing systems: from engagement to funding.

The main contribution foreseen is especially in WP5 for integration and WP8 and 9 for data management.

**Nina Zugic**, independent research ethics expert, also active in the field of innovative education and learning. She is the only member of the NAUTILOS Ethics Board (EthB). The experience in the MARINA project, coordinated by CNR, is an example of good practice: 45 mobilisation workshops; 504 lessons learned and good practices outcomes; a company from Croatia is now using the MARINA platform, though the project ended in 2019.

Main involvement will be involved with the activities of WP13 and the work on data management and sharing in WP8 and 9. An important outlined aspect is the specific focus that the EC gives to the ethics

and encourages all EAB members to collaborate with the whole Consortium and be attentive to any ethical requirement throughout the project's implementation. A critical aspect will be to consider any possible ethical issue (also concerning the continuation of the project after its conclusion), just as examples of Artificial Intelligence use within NAUTILOS, as well as other issues regarding young citizens (e.g. Citizen Science initiatives). Finally, not to disregard also attention to the animal-borne instrumentation correlated with animal welfare. Finally, the attention to the animal-borne instrumentation concerning animal welfare should not be overlooked.

## 2. CONCLUSIONS

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Considering the attention that EC and H2020 Programme are paying to themes of ethics in research, an essential piece of advice that already comes as a conclusion from the EAB meeting is always to pay attention and consider all possible aspects in this regard.

The board agreed that the Coordinator would be sharing a series of information and documents to facilitate the work of the EAB and its comprehension of the Project. In particular, the first document will be the Part B of "Annex I to the GA", which covers all the implementation descriptions. Then a list of all the Deliverables will be shared, and specific deliverables will be provided on request by the members. Meanwhile, the NAUTILOS Consortium is preparing a suitable space for storing and sharing the documents and reports mentioned above.

Furthermore, a dedicated email address "eab@nautilus-h2020.eu" has been created by Project Management, which all EAB members could use.

Finally, the NAUTILOS Consortium has scheduled a specific session during the next Consortium Meeting of the first year dedicated to the reporting and acknowledging the EAB meeting towards the whole Consortium. It was agreed that some of the EAB members would join the session and give a brief outline of the future advice from the board. More details on this session will be decided upon approaching the Consortium Meeting.

## APPENDIX 1: REFERENCES AND RELATED DOCUMENTS

Deliverable 1.2 has been developed under the provision outlined within the following related documents:

ID	Reference or Related Document	Source or Link/Location
1	NAUTILOS Grant Agreement	NAUTILOS ownCloud
2	NAUTILOS Consortium Agreement Nr. 101000825.	NAUTILOS ownCloud
3	NAUTILOS Deliverable D1.1.	NAUTILOS ownCloud
4	NAUTILOS Deliverable D1.4.	NAUTILOS ownCloud
5	External Advisory Board 1 <sup>st</sup> meeting – minutes	NAUTILOS ownCloud
6	External Advisory Board 1 <sup>st</sup> meeting – presentations	NAUTILOS ownCloud