



**Acronym: ASSEMBLE Plus**

***Title: Association of European Marine Biological Laboratories Expanded***

**Grant Agreement: 730984**

## **Deliverable D16.1**

### **IOPAN TA assessment report**

**September 2022**

**Lead parties for Deliverable: IOPAN**

**Due date of deliverable: M60**

**Actual submission date: M60**

#### **All rights reserved**

This document may not be copied, reproduced or modified in whole or in part for any purpose without the written permission from the ASSEMBLE Plus Consortium. In addition to such written permission to copy, reproduce or modify this document in whole or part, an acknowledgement of the authors of the document and all applicable portions of the copyright must be clearly referenced.



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 730984. This output reflects the views only of the author(s), and the European Union cannot be held responsible for any use which may be made of the information contained therein.

## GENERAL DATA

Acronym: **ASSEMBLE Plus**  
 Contract N°: **730984**  
 Start Date: **1<sup>st</sup> October 2017**  
 Duration: **60 months**

Deliverable number	D16.1
Deliverable title	IOPAN TA Assessment report
Submission due date	M60
Actual submission date	M60
WP number & title	WP16 – TA5 Transnational access to IOPAN
WP Lead Beneficiary	IOPAN
Participants (names & institutions)	<a href="#">Piotr Kuklinski (IOPAN)</a> <a href="#">Jeanne Porter (IOPAN-HWU)</a> <a href="#">Andrea Waeschenbach (IOPAN-NHM)</a> <a href="#">Lee Hsiang Low (IOPAN-UO)</a> <a href="#">Elica Baldrighi (IOPAN-CNR-IRBIM)</a> <a href="#">Francesca Alvisi (IOPAN-CNR-ISMAR)</a> <a href="#">Eva Jimenez (IOPAN-UE)</a> <a href="#">Laure Vilgrain (IOPAN-IMV)</a> <a href="#">Tobia Politi (IOPAN-KU)</a> <a href="#">Michael E. Böttcher (IOPAN – Leibniz Institut für Ostseeforschung)</a> <a href="#">Catia Milene Ehlert von Ahn (IOPAN – Leibniz Institut für Ostseeforschung)</a> <a href="#">Thomas Schwaha (IOPAN-UW)</a> <a href="#">Carmen Rizo (IOPAN-SZAD)</a>

Formatted Table

### Dissemination Type

Report	<input checked="" type="checkbox"/>
Websites, patent filling, etc.	<input type="checkbox"/>
Ethics	<input type="checkbox"/>
Open Research Data Pilot (ORDP)	<input type="checkbox"/>

Demonstrator	<input type="checkbox"/>
Other	<input type="checkbox"/>

### Dissemination Level

Public	<input checked="" type="checkbox"/>
--------	-------------------------------------



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 730984. This output reflects the views only of the author(s), and the European Union cannot be held responsible for any use which may be made of the information contained therein.

Confidential, only for members of the consortium (including the Commission Services)	<input type="checkbox"/>
--	--------------------------



## Document properties

<b>Author(s)</b>	Piotr Kuklinski, IOPAN
<b>Editor(s)</b>	Davide Di Cioccio, EMBRC-ERIC
<b>Version</b>	<del>1.0</del> <u>1.0</u>

## Abstract

**This deliverable describes the outcomes of the trans-national access programme (TNA) offered at IOPAN, in terms of: installations available, applications received and user's projects performed (through on-site and / or remote access), users' profile and other stats (country of origin, career profile, type of organization, satisfaction of the services used).**



## Table of Contents

1. Introduction.....	6
2. Objective.....	6
3. Outcomes of the Transnational Access programme .....	6
3.1 Overview of the access provider(s) .....	6
3.1 Installations offered .....	7
4. Applications received .....	8
4.1. Origin country of applicants .....	8
4.2. Applicants profile .....	8
4.2.1. Home institution type .....	8
4.2.2. Career status .....	8
5. User hosted and their stats .....	8
5.1. Projects completed.....	8
5.2. Installations used.....	8
5.3. User satisfaction .....	8
5.4. Projects not completed or cancelled.....	8
6. Use of resources .....	9
7. Conclusion .....	10
8. Appendices .....	11
8.1. List of user-projects completed at IOPAN .....	11



## 1. Introduction

Transnational Access in ASSEMBLE Plus is provided to a total of 36 marine stations in 15 countries. In the whole consortium, the stations provide access to a high diversity of marine environments; from the high Arctic (IOPAN) and Antarctic (UKRI-BAS) to the tropics (IUI and NIOZ-CNSI) and the mid-Atlantic ridge (CCMAR and IMAR). Within mainland Europe, access is provided to the Mediterranean, the Atlantic and the Baltic seas. Habitats comprise estuaries (e.g. SZN, ISMAR, CCMAR, AWI, IOPAN, UG), mega-tidal seas (SBR), cold-water coral reefs (KMRS, NUIG, SAMS), brackish seas and sea ice communities (IOPAN, TSZ, ARI, HBS), near-shore deep sea (HCMR, IMEV, NUIG, UGOT, SAMS) and volcanic seeps (high CO<sub>2</sub> – low pH; HCMR, SZN, IMAR). The TA-providing stations (access providers) have modern research laboratories and a wide array of specialized research facilities to support internal and external users. Several of these also have technological backup of nearby university institutions.

This deliverable describes the outcomes of the trans-national access programme (TNA) offered at IOPAN, in terms of: installations available, applications received and user's projects performed (through on-site and / or remote access), users' profile and their stats (country of origin, career profile, type of organization, satisfaction of the services used).

## 2. Objective

This deliverable intends to show the outcomes of the transnational access programme executed at IOPAN, hence contributing to the ASSEMBLE Plus objectives:

- Enhance transnational access to a coordinated set of state-of-the-art European infrastructures for marine biology and ecology;
- Improve service provision by these infrastructures in line with their areas of excellence in marine biology and ecology, with emphasis on developing novel key enabling technologies and data solutions;
- Strengthen complementarity and interoperability within the consortium and with related infrastructures;

## 3. Outcomes of the Transnational Access programme

### 3.1 Overview of the access provider

The installation IOPAN includes the main building, with administration, facilities for seminars, workshops and teaching, research service platforms and laboratories in Sopot and the coastal RV Oceania. Research: marine chemistry and biochemistry, physical oceanography, marine physics, marine genetics and biotechnology, and marine ecology. IOPAN is a Centre for National Polar Studies (KNOW). Access to Ecosystems: i) North Atlantic and Arctic intertidal and subtidal benthic and pelagic ecosystems, ii) Baltic Sea brackish environment of benthic and pelagic ecosystems including seagrass beds. Access to biological resources: samples of benthic macro-fauna and -flora, plankton - possibility



of wide range of sample collections from above mentioned ecosystems - cultures of zoo- and phytoplankton. IOPAN manages hi-tech equipment including a monitoring buoy, spectrometers, gas chromatographs and HPLCs, specialized microscopes (e.g. fluorescence inverted microscopes).

### 3.1 Installations offered

IOPAN offered access to set of services and installations:

- Access ecosystems: North Atlantic and Arctic intertidal and subtidal benthic and pelagic ecosystems  
Baltic Sea brackish environment of benthic and pelagic ecosystems including seagrass beds
- Coastal research vessels (*On-site and remote service*): RV Oceania, fully equipped for coastal marine habitat sampling, monitoring and in-situ experimentation
- Scuba diving facilities (*On-site and remote service*): Svalbard (summer), Baltic Sea (all year); remote collection, diving logistical support
- Submersibles (*On-site and remote service*): ROV, AUV
- Sampling equipment (*On-site and remote service*): Various CTD, grabs, dredges etc.
- Species collected upon request (*On-site and remote service*): Samples of benthic macro-fauna and -flora, plankton from Baltic Sea and European Arctic
- Biobanks (*On-site and remote service*): Wide range of sample collections from Baltic Sea and European Arctic
- Culture collections: Cultures of zoo- and phytoplankton
- Aquaria and tanks: 6 aquarium tanks suitable for live material
- Dry laboratories: Fully equipped with microscopes and stereomicroscopes for sample sorting and identification: molecular genetics and chemical analytical platform, specialised microscopes (e.g. fluorescence inverted microscopes), -spectrometers gas chromatographs and HPLCs
- Wet laboratories: Sorting and identification microscopes
- Imaging: Advanced optical microscopy
- Structural and chemical analysis: Chemical analysis, spectrometry, gas chromatography, HPLC, other
- Molecular biology and omics: Molecular genetics
- Biological sample identification: The Taxon Identification Service offers qualified identification of Baltic and Arctic marine organisms
- Library services: Library with large collection of literature related to Baltic and Arctic ecosystems.



## **8.4. Applications received**

### **8.1.4.1. Origin country of applicants**

IOPAN has received a total of 10 applications in the nine calls of TNA. All of applicants were based in European countries.

### **8.2.4.2. Applicants profile**

#### **8.2.1.4.2.1. Home institution type**

Applicants were mostly based in academic institutes (universities: 50%; research organizations: 50%).

#### **8.2.2.4.2.2. Career status**

The most recurring career profile of the applicant was full time scientist with three PhD students projects.

## **9.5. User hosted and their stats**

### **9.1.5.1. Projects completed**

Overall, IOPAN has hosted 10 projects for a total of 12 users. Seven projects were carried out on-site, three in remote access. The main reason for remote access was the specific request from users but one project had remote access due to COVID pandemics.

The list of projects completed at IOPAN is available in "[Appendix 1 – List of user-projects completed](#)" further below.

### **9.2.5.2. Installations used**

The installations used were research vessel, laboratories and facilities including number of chemical analytical equipment (e.g. CV-Atomic Fluorescence Spectrophotometer Tekran 2600, Gas chromatograph [GC -FID; GC-ECD; GC-MS], Liquid Chromatograph [GC -FID and HPLC-UVF], Atomic Absorption spectrophotometer AAS Shimadzu 6800, Plasma Mass Spectrometer ICP MS [Perkin ELMER ELAN 9000]), Scientific services including scientific diving, taxonomical expertise, chemical analysis, expertise in zooplankton imaging analysis).

### **9.3.5.3. User satisfaction**

Overall, users have positively evaluated the services offered (Very good: 100%). In general, comments from the users were very positive and number of firm collaborations between users and IOPAN scientist were established.

### **9.4.5.4. Projects not completed or cancelled**

None of the projects which were awarded to take place at IOPAN were not completed or cancelled.

Formatted: Font: Not Italic

Formatted: Font: Not Italic





## 11.6 Use of resources

Please include information on how many of the Person-Months (PM) reported in the use of resources linked to the financial statements have been used to provide access and explain for which task (e.g. scientific or administrative support to users, etc.). What is useful here is how many PMs have been paid directly from the project and what they did, and how many PM estimated have been devoted to running the project but without charging it. Resources allocated to IOPAN in terms of personnel have been used as for the table below.

Beneficiary / Linked Third Party	PM	short name of the installation(s)	explanations of tasks
<a href="#">IOPAN Andrea Waeschenbach (NHM, UK)</a>	0	Research vessel	Samples collection <a href="#">for the TNA project of Andrea Waeschenbach (NHM, UK)</a>
<a href="#">IOPAN Joanne Porter (HWU, UK)</a>	0	Scientific diving	<a href="#">Joanne Porter (HWU, UK)</a> Samples collection
<a href="#">IOPAN Eva Jimenez-Guri (UE, UK)</a>	0.5	Laboratory and facilities	Samples analysis <a href="#">for the project of Eva Jimenez Guri (UE, UK)</a>
<a href="#">IOPAN Carmen Rizzo (SZAD, Italy)</a>	11	Laboratory and facilities, Scientific services: diving, taxonomical expertise, chemical analysis	Samples collection and analysis <a href="#">for the TNA project of Carmen Rizzo (SZAD, Italy)</a>
<a href="#">IOPAN Elisa Baldrighi (CNR, IRBBM, Italy), Francesca Alvisi (CNR, ISM, Italy)</a>	0.8	Laboratory and facilities, Scientific diving	Samples collection <a href="#">for the TNA project of Elisa Baldrighi (CNR, IRBBM, Italy)</a>
<a href="#">IOPAN Laure Vilgrain (IMV, France)</a>	0.5	Laboratory and facilities, Scientific services	Samples analysis <a href="#">for the TNA project of Laure Vilgrain (IMV, France)</a>
<a href="#">IOPAN Lee Hsiang Liow (University of Oslo, Norway)</a>	0	Research vessel, Scientific diving	Samples collection <a href="#">for the TNA project of Lee Hsiang Liow (University of Oslo, Norway)</a>
<a href="#">IOPAN Michael E. Böttcher, Catia Milene Ehlert von Ahn (LIO, Germany)</a>	1.5	Laboratory and facilities, Scientific diving	<a href="#">Michael E. Böttcher, (LIO, Germany)</a> Samples collection and analysis

Formatted: Font: Not Italic

Formatted: Font: Not Italic

Formatted: Centered

Formatted: Centered

Formatted: Centered

Formatted: Centered

Formatted: Centered

Formatted: Centered

Formatted: Centered

Formatted: Centered



<del>IOPAN</del> Tobia Politi (Klaipėda University, Lithuania)	0	Research vessel	Samples collection <del>for the TNA project of Tobia Politi (Klaipėda University, Lithuania)</del>
<del>IOPAN</del> Thomas Schwaha (University of Vienna, Austria)	0.75	Laboratory and facilities	Samples analysis <del>for the TNA project of Thomas Schwaha (University of Vienna, Austria)</del>

Formatted: Centered

Formatted: Centered

## 12.7. Conclusion

~~Please add the overall outcomes of the TNA programme about:~~

Formatted: Font: Not Italic

Formatted: Justified

TNA programme was no doubt beneficial for both users and facility/services provider (IOPAN). While IOPAN provided infrastructure and lots of expertise in given area also users brought lots of new points of views and knowledge which enrich the scientists and overall community of IOPAN. Number of TNA projects with their leaders generated exciting collaborations with IOPAN scientists which last to these days. This is real gain for IOPAN scientists and generally for Polish Scientific Community. ~~Of course~~Of course, TNA projects which took place in IOPAN are generating fruits in terms of scientific publications. They ~~are in the~~ majority of cases in progress as ~~outcomes are not yet published (as~~ it usually takes long time to generate quality product), ~~Therefore~~Therefore, from the scientific point of view, ~~the~~ TNA programme which IOPAN was part of was a great success.

Formatted: Font: Not Italic

Formatted: Font: Not Italic

Formatted: Font: Not Italic

Formatted: Font: Not Italic

Formatted: Font: Not Italic

Formatted: Font: Not Italic

Formatted: Font: Not Italic

Formatted: Font: Not Italic

Formatted: Font: Not Italic

Formatted: Font: Not Italic

Formatted: Font: Not Italic

Formatted: Font: Not Italic

Formatted: Font: Not Italic

Formatted: Font: Not Italic

Formatted: Font: Not Italic

Formatted: Font: Not Italic

The major difficulty encountered during the TNA programme was ~~the~~ system of travel cost claims for the users. At the IOPAN we asked users to ~~credit~~ pay in advance their travel and all the cost related to stay at IOPAN by their home institutions and then ~~invoice IOPAN~~ at the end of the stay ~~invoice IOPAN~~ to claim all the costs. This system was not always clear ~~to understand by~~ to the users and their home institution administration. Yet the end point was always ~~successful~~successful, meaning ~~that~~ all the costs were ~~paid~~ reimbursed to the users.

Formatted: Font: Not Italic



## 13.8. Appendices

### 13.1.8.1. List of user-projects completed at IOPAN

- Project title: Arctic bryozoan collection for 'Molecules meet fossils as an integrative approach to studying palaeodiversity. User: Andrea Waeschenbach (Natural History Museum, UK). Services used: research vessel.
- Project title: Collection of Arctic Bryozoa by SCUBA. User: Joanne Porter (Heriot Watt University, UK) Services used: scientific diving services.
- Project title: Chemical analysis of plastic leachates in sea water. User: Eva Jimenez Guri (University of Exeter, UK) Services used: Marine chemical laboratories
- Project title: Assaying marine benthic invertebrates in the Arctic for the associated bacterial communities: diversity and biotechnological potentials. User: Carmen Rizzo (Stazione Zoologica Anton Dohrn, Italy) Services used: Laboratory facilities, Scientific services including scientific diving, taxonomical expertise, chemical analysis
- Project title: Meiobenthic response to oxygen depletion and the role of sedimentary environment in the hypoxia phenomena. Users: Elisa Baldrighi (Consiglio Nazionale delle Ricerche, Istituto per le Risorse Biologiche e le Biotecnologie Marine, Italy), Francesca Alvisi (Consiglio Nazionale delle Ricerche, Istituto di Scienze Marine, Italy). Services used: Laboratory and facilities, Scientific diving services.
- Project title: Red pigmentation of Calanus – an ecological story about food, adaptation and performance. User: Laure Vilgrain (Institut de la Mer de Villefranche, France) Services used: Laboratory and facilities, Scientific services (expertise in zooplankton imaging and HPLC analysis).
- Project title: Inferring phylogenetic relationships among species of a little studied phylum from the Baltic to the Norwegian Sea. User: Lee Hsiang Liow (University of Oslo, Norway) Services used: Research vessel, Scientific diving services
- Project title: Effect of submarine groundwater discharge on the coastal carbon cycle: A case of study in Puck Bay. Users: Michael E. Böttcher, Catia Milene Ehlert von Ahn (Leibniz-Institut für Ostseeforschung, Germany) Services used: Laboratory and facilities, Scientific services including diving and analytical infrastructure.
- Project title: Benthic Ecosystem Functioning along environmental gradients in Spitsbergen Fjord (Arctic marine system). User: Tobia Politi (Klaipėda University, Lithuania) Services used: Research vessel.
- Project title: Arctic ctenostome fauna. User: Thomas Schwaha (University of Vienna, Austria) Services used: Laboratory and facilities.

