ASSEMBLE

ASSOCIATION OF EUROPEAN MARINE BIOLOGICAL LABORATORIES EXPANDED

Acronym: ASSEMBLE Plus

Title: Association of European Marine Biological Laboratories Expanded

Grant Agreement: 730984

Deliverable D17.1

UG TA assessment report

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GENERAL DATA

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WP Lead Beneficiary	UG
Participants (names & institutions)	Rafal Lasota (UG) Maciej Wolowicz (UG)

Dissemination Type

Report	☒
Websites, patent filling, etc.	☐
Ethics	☐
Open Research Data Pilot (ORDP)	☐
Demonstrator	☐
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Dissemination Level

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Confidential, only for members of the consortium (including the Commission Services)	☐

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Author(s)	Rafal Lasota, UG
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Abstract

This deliverable describes the outcomes of the trans-national access programme (TNA) offered at UG, 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).

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Table of Contents

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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_2 – 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.

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2. Objective

This deliverable intends to show the outcomes of the transnational access programme executed at UG, 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;
- Lay the logistical and strategic foundations to expand the coverage of the European Marine Biological Resource Centre (EMBRC) in both its scope and its geographical distribution and to consolidate its long-term sustainability.

3. Outcomes of the Transnational Access programme

3.1 Overview of the access provider(s)

UG provides three installations (Institute of Oceanography, research vessel Oceanograf, Hel Marine Station) which are located on the southern coast of the Baltic Sea. IO UG in Gdynia comprises several buildings for administration, teaching and research, including laboratories, classrooms, library and research service platforms. Research activities concern various aspects of marine biology and ecology

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as well as marine physics, chemistry and geology. The field station HMS on the Hel Peninsula allows research on the open sea and in the coastal zone. Living quarters of the Station provide bedrooms, seminar rooms and a canteen. R/V Oceanograf is a very modern research vessel (catamaran) with a length of 49.5 m. It is excellently equipped to carry out research in many areas of oceanography. The vessel also houses laboratories and social accommodation (cabins, mess room, kitchen, laundry). UG through those installations provides access to benthic and pelagic ecosystems in the Puck Bay, Gulf of Gdansk and open Baltic Sea. Access to biological resources includes plankton, benthos and nekton – mainly molluscs, crustaceans, oligochaetes, jellyfish, fish, cyanobacteria, micro- and macroalgae, bacteria, seals. IO offers also access to culture collection of microalgae with 200 strains.

3.2 Installations offered

UG offered access to three installations:

3.1.1. R/V Oceanograf

Provided access to open-sea bottom habitats (sampling of organisms, sediments, performing "bottom disturbance" experiment, measuring water physicochemical parameters, providing lab facility for experiments, samples treatment and storage).

3.1.2. IO (Institute of Oceanography)

Provided access to specialized laboratories and experimental facilities (taxonomical, chemical and cytogenetic analyses).

3.1.3. HMS (Hel Marine Station)

Provided access to wet and macroscopic laboratory (sorting and analysing zoobenthos samples).

4. Applications received

4.1. Origin country of applicants

UG has received a total of 4 applications in the nine calls of TNA. Among these, 5 applicants were based in European countries (Denmark, Italy, Finland) while 2 applicants came from other non-European country (United Kingdom, however 1 of the users from UK visited UG in 2018, when UK belonged to EU).

4.2. Applicants profile

4.2.1. Home institution type

All applicants were based in academic institutes (universities: 100%).

4.2.2. Career status

The most recurring career profile of the applicant was postdoc (71.4%). Early career scientists equalled 28.6%.

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5. User hosted and their stats

5.1. Projects completed

Overall, UG has hosted 4 projects for a total of 7 users. All 4 projects were carried out on-site. The list of projects completed at UG is available in "Appendix 1 – List of user-projects completed" further below.

5.2. Installations used

The installations used were R/V Oceanograf, IO and HMS. The units of access delivered are indicated in the table below.

Installation	HMS	IO UG	r/v Oceanograf
unit of access delivered	8	28	16

5.3. User satisfaction

Overall, users have positively evaluated the services offered (Very good: 100%). In general, comments from the users were indicating their high satisfaction regarding quality of infrastructure (including equipment) provided and support received. One of user commented administration processes as too slow.

6. Use of resources

Beneficiary / Linked Third Party	**PM**	**short name of the installation(s)**	**explanations of tasks**
UG	0	HMS	Administrative, logistic and scientific support at different stages of projects
UG	0	IO	Administrative, logistic and scientific support at different stages of projects
UG	14.5	r/v Oceanograf	Cruise planning. Mobilization of the vessel. Participation of in-house scientists in the cruise.

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7. Conclusion

- Enabling access to infrastructure has been an overall very positive experience. It allowed to implement very interesting projects and establish interesting scientific cooperation. Significantly expanded the scope of research conducted to date in the offered infrastructure and may possibly contribute to the emergence of new scientific ideas. It must be admitted that it required a lot of work, especially from the administrative and logistical side.

- Some formal, administrative and financial settlement difficulties with TA were encountered at early stage of the project realisation. Nevertheless, having worked out the procedures at the beginning of the project, they did not pose significant difficulties afterwards. It was very rare that some of the users accessing the research vessel seemed to not have enough experience working at sea. So, the duties performed by in-house scientists during cruise had to be extensive in order to complete project successfully.

- Benefits for the host institution should be assessed very positive. As mentioned, TA expanded the scope of research conducted in the institution and possibly inspired new scientific ideas. TA users shared new knowledge and experience with in-house scientists. Future collaboration with users is very likely, with some of them it is already running.

- The results of some of the completed projects can be important not only for the development of science, but also for better management and protection of the marine environment in Poland.

8. Appendices

8.1. List of user-projects completed at UG

- Project title: Assessing impact of bottom trawl fishing and oxygen depletion on the longevity distribution of benthic invertebrates (OXYTRAWL). Users: Jan Geert Hiddink (Bangor University, GB), Daniel van Denderen (Technical University of Denmark). Services used: Coastal research vessels, Other experimental facilities
- Project title: Can cancer cells “ship” among cockle species in nature? (Ship Cells). Users: Seila María Díaz Costas, (University of Santiago de Compostela, ES). Services used: Coastal research vessels, Aquaria and tanks, Dry laboratories
- Project title: Trawling and Hypoxia Impact on Nutrient Cycling (THINC). Users: Marija Sciberras (Heriot-Watt University, GB), Marco Bartoli (University of Parma, IT). Services used: Coastal research vessels, Other experimental facilities, Biological sample identification
- Project title: Drivers of diversity and adaptation in marine phytoplankton (DIATOM). Users: Conny Sjöqvist, Janni Heikkinen (janni.heikkinen@abo.fi) (Åbo Akademi University, FI). Services used: Coastal research vessels, Climate controlled rooms, Other experimental facilities

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