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Abstract

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

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

The two marine stations are infrastructures under the Sven Lovén Centre for Marine Sciences, which is owned by the University of Gothenburg. Access to Ecosystems: Sweden's only true fjord Gullmarn is easily accessible from Kristineberg and the marine national park Kosterhavet is very close to Tjärnö. Research focus: climate change, ocean acidification, microplastics, aquaculture, ecosystem





functioning, blue biotechnology, maritime technologies, marine ecology, ecotoxicology, zoology, chemistry, and large-scale ecosystem research. SLC provides access to the west coast of Sweden from cold-water coral reefs to eel grass meadows. Access to a unique and high level of organismal diversity at the Lovén Centre: many current and emerging marine model organisms (e.g., Ciona intestinalis, Balanus improvisus, Skeletonema marinoi and Myxine glutinosa).

3.2 Installations offered

UGOT offered access to two marine stations with a specific set of installations:

3.2.1 Kristineberg (KMRS)

- Laboratories
- Smaller vessels

3.2.2 Tjärnö (TML)

- Laboratories
- Smaller vessels
- ROV

4. Applications received

4.1. Origin country of applicants

UGOT has received a total of 82 applications in the nine calls of TNA. Among these, 65 applicants were based in European countries while 17 applicants came from other non-European countries.

4.2. Applicants profile

4.2.1. Home institution type

Applicants were mostly based in academic institutes (72%), followed by research institutes (25,6%).

4.2.2. Career status

The most recurring career profile of the applicant was postdoc (41,5%), followed by senior scientist (34,1%).

5. User hosted and their stats

5.1. Projects completed

Overall, UGOT has hosted 53 projects for a total of 82 users. The list of projects completed at UGOT is available in "Appendix 1 – List of user-projects completed" further below.

5.2. Installations used

The installations used were in ascending order: laboratories, smaller vessels and ROV





5.3. User satisfaction

Overall, users have positively evaluated the services offered (Very good: 43.8%; Good: 37.5%).

5.4. Projects not completed or cancelled

Many projects were postponed due to the pandemic. Some of them did not have the time to finish their visits before the project ended. One project cancelled due to too complicated user access contracts.

6. Use of resources

| Beneficiary / Linked Third Party | РМ | short name of the installation(s) | explanations of tasks |
|-------------------------------------|----|--------------------------------------|-----------------------|
| University of Gothenburg | 12 | Labs | Preparing for visits |
| University of Gothenburg | 12 | All | Preparing paperwork |

7. Conclusion

- Access after pandemic caused a lot of problems and extra administration, new routines was set in place.
- Many new users came to the infrastructure thanks to the ASSEMBLE+ funding. New users with new scientific questions make the station adapt and stay up to date.





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8. Appendices

8.1. List of user-projects completed at UGOT

| Access provider | Project title | Project acronym | Applicati on number | Project leader | Other team members | Services used | Home institut e of the project leader | Home institute country of the project leader |
|--------------------|---|---------------------|---------------------------|-----------------------|--------------------|--|--|---|
| KMRS | Amphiura filiformis (Echinodermata) luminescence: origins and dietary induction of luminous capabilities | Afilum | 231 | Jérôme Mallefet | Constance Coubris | Dry laboratories; Coastal research vessels | Universi té catholiq ue de Louvain | BE |
| KMRS | Analysing Gene Regulatory Network Evolution Via Hybridisation Between Species of Strongylocentrotid Sea Urchins | urchinHybri dGRN | 49 | David Garfield | | Dry laboratories | IRI Life Science s/Humb oldt Universi tät zu Berlin | DE |
| KMRS | Carbon and nitrogen flux and microhabitat distribution of benthic foraminifera at the Gullmar Fjord | CARNIFO R | 10869 | Julia Wukovit s | | Coastal research vessels; Sampling equipment; | Universi ty of Vienna | AT |
| KMRS | Co-restoration of foundation species to increase restoration success and revitalise coastal biodiversity | CO- RESTORE | 356 | Karine Gagnon | | Coastal research vessels; Dry laboratories; Wet laboratories; Scientific diving; Aquaria and tanks; In- house catering; | Åbo Akadem i Universi ty | FI |
| KMRS | Collection of gravid Priapulus caudatus | PriapGerm | 230 | Andreas Hejnol | Naveen Wijesena | Coastal research vessels; Dry laboratories | Universi ty of Bergen | NO |
| KMRS | Comparative genomics and evolutionary history of cnidarian parasites | CNIDPar | 325 | Astrid Holzer | Inga Martinek | Coastal research vessels; Wet laboratories; Dry laboratories | Institute of Parasito logy, Biology Centre of the Czech | CZ |





| | | | | | | Academ y of Science s | |
|--|--|---|--|--|---|--|---|
| Development of a broad-range DNA- based method for the identification of marine species in food products | ldfoodplex | 233 | Filipe Pereira | Filipa Moreira | Dry laboratories | Universi ty of Porto | PT |
| Drivers affecting on Blue Carbon stocks in eelgrass ecosystems: Coastal erosion and anthropogenic impacts | BlueCgras s | 10829 | Luis Gonzalo Egea Tinoco | | | Universi ty of Cadiz | ES |
| Early cell fate specification of the nemertodermatid Nemertoderma westbladi (Xenacoelomorpha) | Nemertode rmatida | 2 | Andreas Hejnol | | Dry laboratories | Universi ty of Bergen | NO |
| Eelgrass implication on carbon remineralisation: insights from DOC refractoriness by natural bacterial assemblages | SweDoc | 11286 | Rocío Jiménez -Ramos | Luis Gonzalo Egea Tinoco | | Mediterr anean Institute for Advanc ed Studies (UIB- CSIC) | ES |
| Effects of predator presence on diel feeding rhythms of marine copepods (nauplii and adults) | EPCDR | 8226 | Manuel Olivares | | Climate controlled rooms; Coastal research vessels; Dry laboratories; Imaging; Wet | Consejo Superio r de Investig aciones Cientific as CSIC | ES |
| Embryonic development from a single-cell perspective | SingleCell- Priapulus | 11997 | Andreas Hejnol | Carmen Andrikou, Andrea Orús, Petra Kovacikova | Climate controlled rooms; Coastal research vessels; Marine model organisms; Wet laboratories; | Universi ty of Bergen | NO |
| Evolution of boring bryozoans | boringBryo | 237 | Thomas Schwah a | | Dry laboratories; Coastal | Universi ty of Vienna | AT |
| | broad-range DNA- based method for the identification of marine species in food products Drivers affecting on Blue Carbon stocks in eelgrass ecosystems: Coastal erosion and anthropogenic impacts Early cell fate specification of the nemertodermatid Nemertoderma westbladi (Xenacoelomorpha) Eelgrass implication on carbon remineralisation: insights from DOC refractoriness by natural bacterial assemblages Effects of predator presence on diel feeding rhythms of marine copepods (nauplii and adults) Embryonic development from a single-cell perspective | broad-range DNA- based method for the identification of marine species in food productsIdfoodplexDrivers affecting on Blue Carbon stocks in eelgrass ecosystems: Coastal erosion and anthropogenic impactsBlueCgras sEarly cell fate specification of the nemertodermatid Nemertoderma westbladi (Xenacoelomorpha)Nemertode rmatidaEelgrass implication on carbon remineralisation: insights from DOC refractoriness by natural bacterial assemblagesSweDocEffects of predator presence on diel feeding rhythms of marine copepods (nauplii and adults)EPCDREmbryonic development from a single-cell perspectiveSingleCell- Priapulus | broad-range DNA- based method for the identification of marine species in food productsIdfoodplex233Drivers affecting on Blue Carbon stocks in eelgrass ecosystems: Coastal erosion and anthropogenic impactsBlueCgras s10829Early cell fate specification of the nemertodermatid Nemertoderma westbladi (Xenacoelomorpha)Nemertode rmatida2Eelgrass implication on carbon remineralisation: insights from DOC refractoriness by natural bacterial assemblagesSweDoc11286Effects of predator presence on diel feeding rhythms of marine copepods (nauplii and adults)EPCDR8226Embryonic development from a single-cell perspectiveSingleCell- Priapulus11997 | broad-range DNA- based method for the identification of marine species in food productsIdfoodplex233Filipe PereiraDrivers affecting on Blue Carbon stocks in eelgrass ecosystems: Coastal erosion and anthropogenic impactsBlueCgras s10829Luis Gonzalo Egea TinocoEarly cell fate specification of the nemertodermatid (Xenacoelomorpha)Nemertode rmatida2Andreas HejnolEelgrass implication on carbon remineralisation: insights from DOC refractoriness by natural bacterial assemblagesSweDoc11286Rocío Jiménez -RamosEffects of predator presence on diel feeding rhythms of (nauplii and adults)EPCDR8226Manuel OlivaresEmbryonic development from a single-cell perspectiveSingleCell- Priapulus11997Andreas HejnolEvolution of boring byozoansboringBryo237Thomas Schwah | broad-range DNA- based method for the identification of marine species in food productsIdfoodplex233Filipe PereiraFilipa MoreiraDrivers affecting on Blue Carbon stocks in eelgrass ecosystems: Coastal erosion and anthropogenic impactsBlueCgras s10829Luis Gonzalo Egea TinocoEarly cell fate specification of the nemertodermatid (Kenaccelomorpha)Nemertode rmatida2Andreas HejnolEelgrass implication on carbon remineralisation: insights from DOC refractorines by natural bacterial assemblagesSweDoc11286Rocio Jiménez -RamosLuis Gonzalo Egea TinocoEffects of predator presence on diel feeding rhythms of marine copepods (nauplii and adults)SingleCell- Priapulus11997Andreas Andreas -RamosCarmen Andrikou, Andreas Carmen Andrikou, Andrea Orús, Petra KovacikovaEvolution of boring bronzansboringBryo237Thomas Schwah | broad-range DNA- based method for the identification of marine species in food productsIdfoodplex233Filipe PereiraFilipa MoreiraDry laboratoriesDrivers affecting on Blue Carbon stocks in eelgrass cosystems: Coastal erosion and anthropogenic impactsBlueCgras s10829Luis Gonzalo Egea TinocoFilipa MoreiraDry laboratoriesEarly cell fate specification of the nemertodermatid (Xenacoelomorpha)Nemertode rmatida2Andreas HeinolLuis Gonzalo Egea TinocoEelgrass implication on carbon refractorines by natural bacterial assemblagesNemertode rmatidaRocio Jiménez -RamosLuis Gonzalo Egea TinocoClimate controlled rooms; Coastal research research researchClimate controlled rooms; Coastal research vet laboratories;Effects of predator presence on diel feeding rythms of marine copepods (nauplii and adults)EPCDR8226Manuel OlivaresCarmen Andrikou, AndreasCarmen Andrikou, Andrea Orús, Petra KovacikovaClimate controlled rooms; Coastal research vetsels; Dry laboratories; Wet laboratories; Oroms; organisms; Wet laboratories; Organisms; Wet laboratories; | Development of a broad-range DNA- based method for the identification of marine seques in food productsLdfoodplex233Filipe PereiraFilipa MoreiraDry laboratoriesUniversi s pot UniversiDrivers affecting on Blue Carbon stocks in elgrass ecosystems: Coastal erosion and methodermatid Nemertodermatid (Xenacoelomorpha)Blue Cgras s10829Luis Gonzalo Egea TinocoFilipa MoreiraDry laboratoriesUniversi ty of CadizEerly cell fate specification of the methodermatid (Xenacoelomorpha)Nemertode matida2Andreas HejnolDry laboratoriesDry laboratoriesUniversi ty of CadizEelgrass implication o n carbon remineralisation: insights from DOCSweDoc11286Rocio Jiménez -RamosLuis Gonzalo Egea TinocoDry laboratoriesMediterr anean instituteEffects of predator presence on diel feeding rythms of marine copepods (nauplii and adults)SweDoc11286Manuel OlivaresLuis Gonzalo Egea TinocoClimate controlled roomsConsejo Constolled roomsEmbryonic development from a single-cell perspectiveSingleCell- Priapulus11997Andreas AndreasCarmen Andrikou, Andrea Orús, Petra KovacikovaClimate controlled rooms r de controlled roomsUniversi y of BergenEmbryonic development from a single-cell perspectiveSingleCell- Priapulus11997Andreas Carmen Andrikou, Andrea Orús, Petra KovacikovaDry laboratories; Climate C |



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| KMRS | Fate of microplastics: The role of seagrass meadows as particle sinks | SEASINK | 336 | Carmen B de los Santos | | research vessels; Coastal research vessels; Dry laboratories; Wet laboratories; Scientific diving; Aquaria and tanks; In- house catering; | CCMAR | PT |
|------|---|---|-------|------------------------------|---|--|--|----|
| KMRS | Fish thermal tolerance and acclimation potential under increasing temperature | FTTA | 10856 | Ana Filipa Lopes | | Data analysis tools and software; Sampling equipment; | Mare- ISPA | PT |
| KMRS | Generating genomic resources for Xenoturbella bocki | XENOMIC S | 22 | Pedro Martine z | Simon Sprecher, Esther Odekunle | Dry laboratories | Universi tat de Barcelo na | ES |
| KMRS | Hematopoiesis in priapulids | EVOBLOO D | 9533 | Carmen Andriko u | Petra Kovacikova, Tsai- Ming Lu, Andrea Orús | Coastal research vessels | Universi ty of Bergen | NO |
| KMRS | Impacts of future global changes on a marine temperate fish species. | Global Changes Impacts on Fish | 59 | Ana Filipa Lopes | | Dry laboratories | MARE- Ispa | PT |
| KMRS | Interactive effects of ocean acidification and Phytophthora- infection on eelgrass seed germination and seedling development | InfecSeeO A | 269 | Traci Cox | Laura Govers | Dry laboratories | Dauphin Island Sea Lab | US |
| KMRS | Large-scale seagrass restoration and biodiversity | RESTORE | 11007 | Karine Gagnon | | | Åbo Akadem i Universi ty | FI |
| KMRS | Maritime Particles: Comparison of microplastics and nanoparticles in seawater between the Västra Götaland marine waters and the Aegean Sea | MariPart | 393 | Andreas Gondika s | Theodora Kalampaliki | Dry laboratories; Imaging; | Universi ty of Athens, Depart ment of Geology and Geo- environ ment | GR |



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| KMRS | Maritime Particles: microplastics and nanoparticles in seawater from the Skagerrak and Aegean Seas | MarineParti cles | 8490 | Andreas Gondika s | Theodora Kalampaliki, Ana Dura | Dry laboratories; | National and Kapodis trian Universi ty of Athens | GR |
|------|---|------------------------------------|-------|-----------------------------------|-----------------------------------|--|--|----|
| KMRS | Moulting in basal ecdysozoan animals: study of Priapulus and Halicryptus from Sweden | ECDY | 363 | Jean Vannier | | Coastal research vessels; Marine model organisms; Aquaria and tanks; Wet laboratories; Imaging; In- house catering; | Universi té Claude Bernard Lyon 1 | FR |
| KMRS | Non-lethal effects of predators on the diel activity rhythms of marine zooplankton | Diel Rhythms Zooplankto n | 34 | Manuel Olivares Requen a | | Dry laboratories; Coastal research vessels | Institut of Marine Science s (ICM- CSIC) | ES |
| KMRS | Regeneration at single cell resolution | CellReg | 12013 | Paola Oliveri | Emanuele Astoricchio | Climate controlled rooms; Coastal research vessels; Marine model organisms; Wet laboratories; | Universi ty College London | GB |
| KMRS | Role of phylogeny in shaping morphological traits with emphasis on gastric ossciles of decapod | CRP- 2020 | 10845 | Prema Mani | | | Annama lai Universi ty | IN |
| KMRS | Sampling, assembly and annotation of a bryozoan reference genome from Scandinavian coastal waters. | REFEREN CE | 50 | Russell Orr | | Dry laboratories; Coastal research vessels | Universi ty of Oslo | NO |
| KMRS | Settlements as contributors of microplastic to the Arctic marine environment. | Settlement s' plastic | 44 | France Collard | | Dry laboratories | Norwegi an Polar Institute | NO |
| KMRS | Structure and rates of energy fluxes in the | PLANCFL UCS | 9 | Danilo Calliari | Laura Rodriguez | Dry laboratories | Universi dad de la | UY |
| | | | | | | | 1.1 | |







| | plankton assemblages of the Gullmar fjord | | | | | | Republi ca | |
|------|---|-----------------|-------|-------------------------------|---|--|---|----|
| KMRS | The role of the microbiome of seeds and sediments in eelgrass meadow restoration | SeedMiBio | 11271 | Anne Brauer | Mia Bengtsson, Kassandra Radtke | | Universi ty of Greifsw ald | DE |
| KMRS | Transgenerational effects of global change on marine invertebrates | GCBInvert s | 279 | Jeff Clement s | Frederik Jutfelt | | Norwegi an Universi ty of Science and Technol | NO |
| KMRS | Vitellogenin expression as a molecular signature of resource distribution in sand goby | VISIREDI | 13401 | Johann a Yliporti mo | | | ogy Åbo Akadem i Universi ty | FI |
| TML | Adaptation of the seagrass circadian clock to latitudes | CircaGrass | 347 | Emanue la Dattolo | Miriam Ruocco | Coastal research vessels; Wet laboratories; Molecular biology and omics | SZN | IT |
| TML | Amplifying the sound of Lophelia reefs – using passive acoustic recordings to assess and monitor the health of cold-water coral reefs | AmpLOPH ELIA | 8975 | Laurenc e De Clippele | Johanne Vad, Denise Risch, Tomas Lundälv | Aquaria and tanks; Climate controlled rooms; Coastal research vessels; Dry laboratories; Submersible s; Wet laboratories; | Universi ty of Edinbur gh | GB |
| TML | Cold-water coral larvae in a changing ocean | LARVAE | 12998 | Maria Rakka | | | Universi ty of the Azores | PT |
| TML | Microbial Dispersal from Sea to Air and Snow | MIDSEAS | 9845 | Janina Rahlff | Julia Nuy | Wet laboratories; | Universi ty Duisbur g-Essen | DE |
| TML | Role of phylogeny in shaping morphological traits with emphasis on gastric ossciles of decapod | CRP- 2020 | 10845 | Prema Mani | | Climate controlled rooms; | Annama lai Universi ty | IN |

