

ASSEMBLE



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Abstract

This deliverable describes the management of the trans-national access (TA), including outcomes from the most recent call for access (5th, 6th, and 7th, October 2019 – September 2020).

It provides updates on the transnational access workflow, with details about the selection of the applications, their review, and how results obtained by the TA users are shared. General statistics of applicants to the TA programme and the research services used from the 1st to the 7th TA calls are provided.



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1. Introduction

Transnational Access in ASSEMBLE Plus is provided to a total of 36 marine stations in 15 countries. The stations provide access to a high diversity of marine environments; from the high Arctic (IOPAN) and Antarctic (NERC-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 CO₂ – 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.

Facilities include sampling and field access, biochemical and biological analysis, maintenance and culture of organisms, microscopy, molecular biology and bioinformatics. Biological resources encompass culture collections (OOB, SBR, MBA, SAMS, TZS) and bio-specimen banks (PiE-UPV/EHU). All stations host resident faculty and support personnel, engaging in cutting-edge science, e.g., on sea mammals (SOI, UG), sea turtles (SZN) and various finfish (HCMR, CCMAR, MSS).

Due to the diversity of access provided and the number of partners, a key issue of this project is to provide excellent coordination, harmonisation and quality management of access to ASSEMBLE Plus services and resources. Attention is paid to optimise interoperability with cognate initiatives offering complementary access programmes. Best practices for service provision are disseminated throughout the consortium, notably via thematic workshops but also efficient internal communication.

2. Objective

This deliverable intends to contribute to the following objectives:

1. Enhance transnational access to a coordinated set of state-of-the-art European infrastructures for marine biology and ecology;
2. 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.

3. TA management

3.1. TA workflow

The overarching aim of the workflow of TA provision is to maximise acceptance of good project proposals in the field of marine biology and ecology. The workflow, described in detail in Deliverable 3.1, illustrates the roles of all the stakeholders involved, and the documents required. This procedure has continued to be refined with input from the Liaison Officers at the partners in ASSEMBLE Plus and has reached its full consolidation and implementation in these latest calls (5th and 6th). A description of the consolidated steps of the TA workflow can be found in D2.7.



3.2. TA policy document

Transnational Access (TA) providers in the ASSEMBLE Plus consortium agreed on common and straightforward procedures to ensure harmonised TA provision and user satisfaction. WP3 has produced a detailed policy document for regulating, granting and supporting TA (see D3.1), now fully implemented among the community of liaison officers at the 15 access providers and the User Selection Panel. The TA policy document is reviewed on rolling basis with the inputs of LOs. A new version of this document is released before the onset of any new TA call.

3.3. TA project proposals selection

Project proposal submission

The entry point for submitting applications is the TA webpage of the ASSEMBLE Plus website <http://assembleplus.eu/access/transnational-access>. The AO interacted and responded to the applicants' questions and liaised with the liaison officers. Since call 4, project proposals have been submitted through the ARIA web platform, granting a smooth process for applicants, liaison officers and user selection panel members, and it proved to be an effective tool for the management of the overall TA.

Eligibility check

Following the proposal submission deadline, the AO checked proposal eligibility according to criteria described in D3.1. Only the 2% of the applications did not meet the eligibility criteria.

Feasibility check

The feasibility of the proposals was checked by the LOs. During the feasibility check, the LO checks the ability of the Access Provider to support the applicant with the successful execution of the proposed project within the proposed time window.

Scientific review

The AO distributed the proposals found to be eligible and feasible over the members of USP to one external USP member from the Advisory Board and one internal member from the Project Implementation Committee (PIC). Conflicts of interest were avoided, ensuring that USP members did not evaluate proposals to or from their own home institute.

Following USP suggestions during the 2nd General Assembly, the evaluation system was slightly modified, compared to the first four call for access, in order to increase the relevance of the scientific excellence of the proposal received and to smoothen the review process. The USP members agreed to apply the following selection criteria (range of scores for each selection criterion in parenthesis):

1. Scientific excellence and novelty of the project proposal (0-5 points)
2. Scientific feasibility/probability of delivery (0-1 point)
3. Need of the proposal to be carried out at the chosen Access Provider (0-1 point)
4. Priority to external applicants (overall, 3 points)
 - a) Applicant from non-marine discipline, and/or from country where state-of-the-art marine research infrastructure is unavailable (1 point)
 - b) Early career scientist (<5 years following PhD) or PhD student (1 point)



- c) No joint publication over last 5 years with in-house staff with which user requests collaboration (1 point)
- d) Repeated user: access received at the same access provider in previous TA calls of ASSEMBLE Plus. In case of proved published outcomes, this penalty is not counted. (-1 point)

The webpage <http://www.assembleplus.eu/access/scientific-review> provides the list of the USP members and the selection criteria used for evaluating the project proposals.

For those projects that passed the USP review, the AO sent e-mails to the relevant LOs to check if the Access Provider had budgeted enough TA funds to accommodate all of the projects requesting access to their stations. In case an access provider reached the maximum hosting capacity in a given call, the AO has been in contact with the successful applicants who could not be hosted, in order to reallocate the project towards alternative access providers, equally capable to satisfy the needs of the research teams. The AO sent a letter of acceptance to the applicants of each granted project. The AO sent an e-mail of rejection to each applicant whose project had not been granted, inviting them to submit an updated proposal in the next call. In both cases, the USP feedback received in the scientific review was sent to the applicant for possible re-submission of the project proposal in the next TA calls.

3.4. Tools for the management of the TA

The tools for the management of the TA workflow (shared spreadsheet and the ARIA web tool) are fully operational and their workflow is consolidated among the community of liaisons officers.

3.5. TA reporting

The AO monitors and collects the documents required to reimburse the TA visit (confirmation of access, activity report with data management plan and user group feedback questionnaire). TA projects are reported right after the access has taken place through the “confirmation of access” document, which is sent by the LOs to the AO. The AO uploads in the EC portal user information and amount of unit of access delivered. Currently, an overall amount of 153 out of 391 accepted access requests have been completed and reported so far.

3.6. TA calendar: on-site and remote access requests

Submission of project proposal is open all-year round since May 2019 (4th call). TA projects can be performed in defined “access call window”, starting from project acceptance until six months after this date. The TA calendar and “access call windows” are available at the webpage <http://www.assembleplus.eu/access/next-calls>.

On-site projects are evaluated at pre-defined collection dates. Projects requiring exclusively remote access are reviewed and evaluated straightaway with no “access call window”. The next call for access (8th) closing on October 4, 2020 will allow access until June 2021.

Given the international travel restrictions caused by the current COVID-19 pandemic, all the TA projects that could not have been performed in the first part of the 2020 will be hosted until June 2021.



3.7. *Impact of COVID-19 and countermeasures to continue to offer TA*

The pandemic outbreak in the first month of 2020 and the consequent international travel restrictions and temporary closure of marine stations and institutions of the consortium have caused delays in the execution of TA projects accepted in the last TA calls.

The current re-opening of marine stations has allowed to resume the TA activities and on-site projects. To mitigate the impact of a possible second wave and continue to offer access to excellent TA projects, the option to convert an on-site to a remote access project has been offered to the researchers of the accepted TA projects wherever possible. In addition, a list of facilities and services available for remote access has been created and available at the webpage <http://www.assembleplus.eu/access/remote-access>.



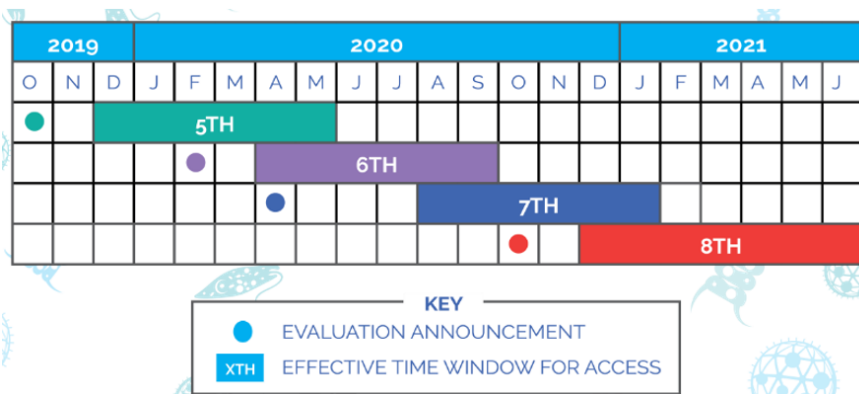
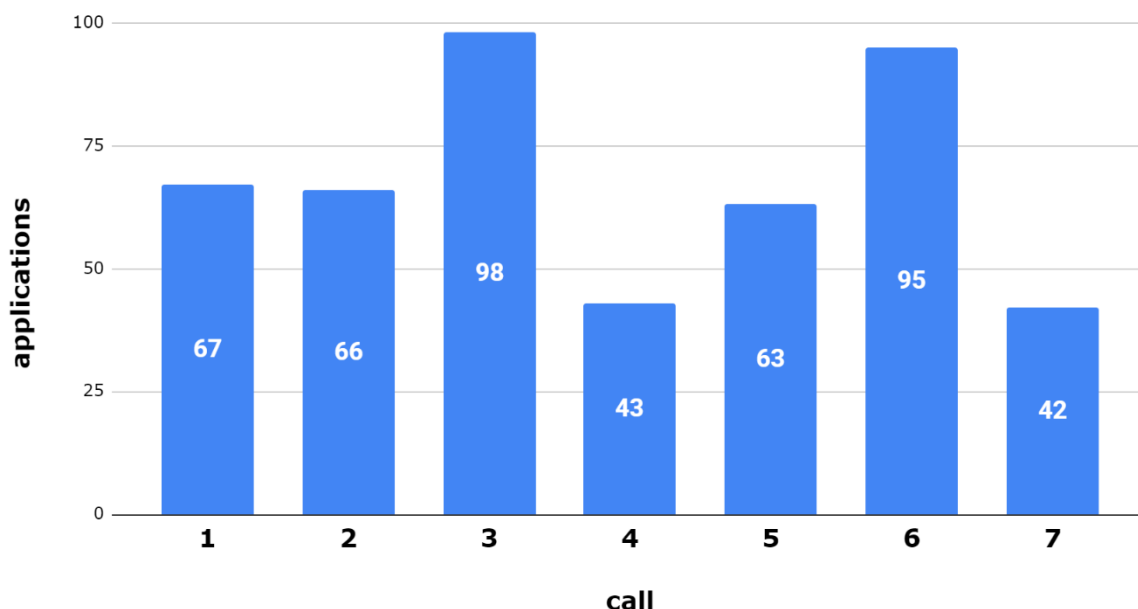
4. Statistics

While this deliverable refers to the period from October 2018 to September 2019, access statistics presented below report data from January 2018 (1st call) to September 2020 in order to encompass the whole TA programme at three quarter of the project execution.

4.1. Project proposals and their success rate

A total of 474 applications were received in the seven TA call launched so far, with some differences among each call (see bar chart below). The lower number of applications received in call 4 and 5 may be partly explained by the occurrence of the “access TA windows” of these calls during the fall and winter months, typically less attractive to researchers because of low availability/abundance or even absence of marine biological resources in the field. On the other hand, the higher number of proposals received in call 3 and 6 can be explained by the preference of researchers for on-site projects (more in the paragraph “Applicants – research services required”) matching with spring and summer season.

Access requests accepted were 391 (success rate: 82.5%) of which 153 have now been completed.

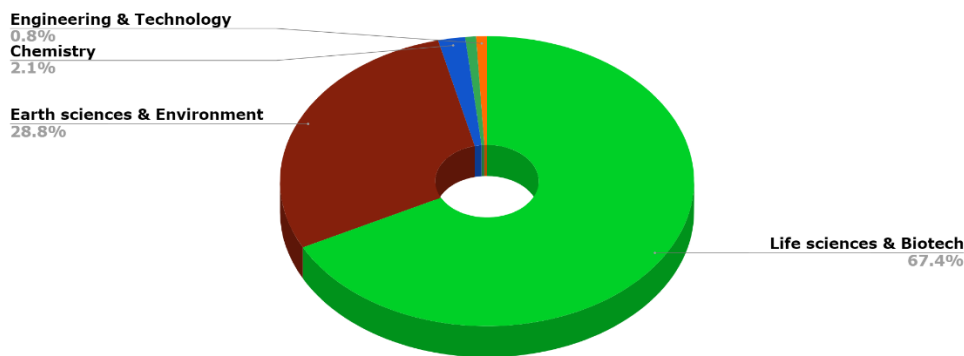


TA calls and their timeframe for on-site projects.

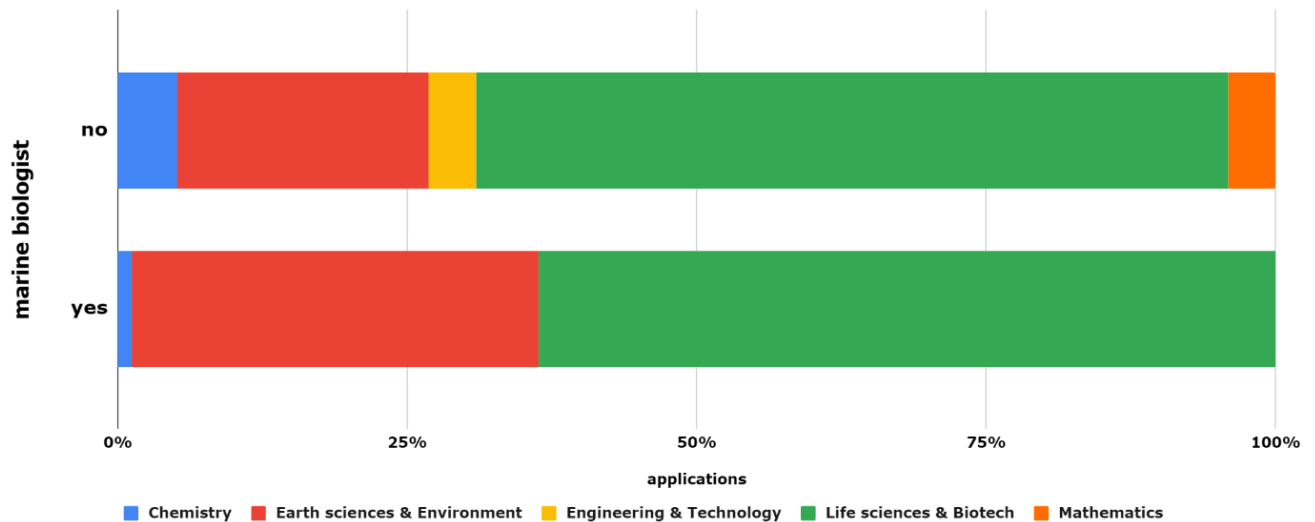


Applicants – general information

The majority of applicants comes from disciplines of Life Sciences & Biotech (67.4%) and the Earth Sciences & Environment (28.8%); fewer applicants come from other scientific domains (Chemistry, Mathematics and Engineering: 2.1%, 0.9% and 0.8% respectively). The large majority of applicants defined themselves as marine biologists (71.6%). In terms of scientific domains of provenance, no appreciable difference exists between marine and non-marine biologists, the only exception being scientists coming from the Engineering and Mathematics fields (stacked bar chart). Despite the evident general interest for marine stations in the biological and environmental community, scientists from non-marine fields are still interested in applying for accessing services for marine biology and ecology. The gender of the project leaders is equally represented (51.2% females and 48.8% males).



Scientific domain of the applicants.



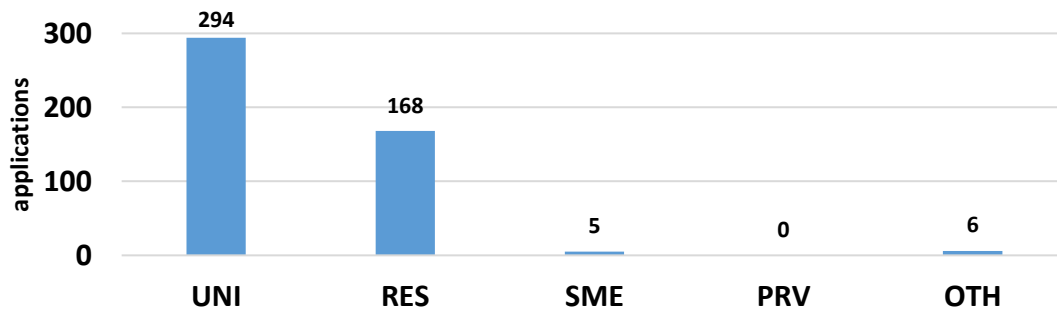
Scientific domain of the applicants and their relationship with marine biology.



Applicants – home institutions and their professional career status

The vast majority of applications come from applicant whose home institutions are Universities and Research Organizations (462). Only few applications come from the private sector (5). Applications are submitted equally by researchers in their postdoc, senior or doctorate (PhD student); a minor part consists of early career scientists.

While the TA programme is popular among academic researchers and considered as highly rewarding in terms of use of facility, results obtained and as overall experience (see paragraph “User satisfaction”), it still fails to attract users from private companies. This may be due to the scarce attractiveness of the TA to companies because of: lack or low communication of the benefit of the TA and of the overall ASSEMBLE Plus project, limited amount of time offered by the TA (one month), complications related to the requirements of the Open Access policy, absence of previous connections with academic institutes for research and development projects. This will require to establish relationships with the private sector via company fora or dedicated personnel.



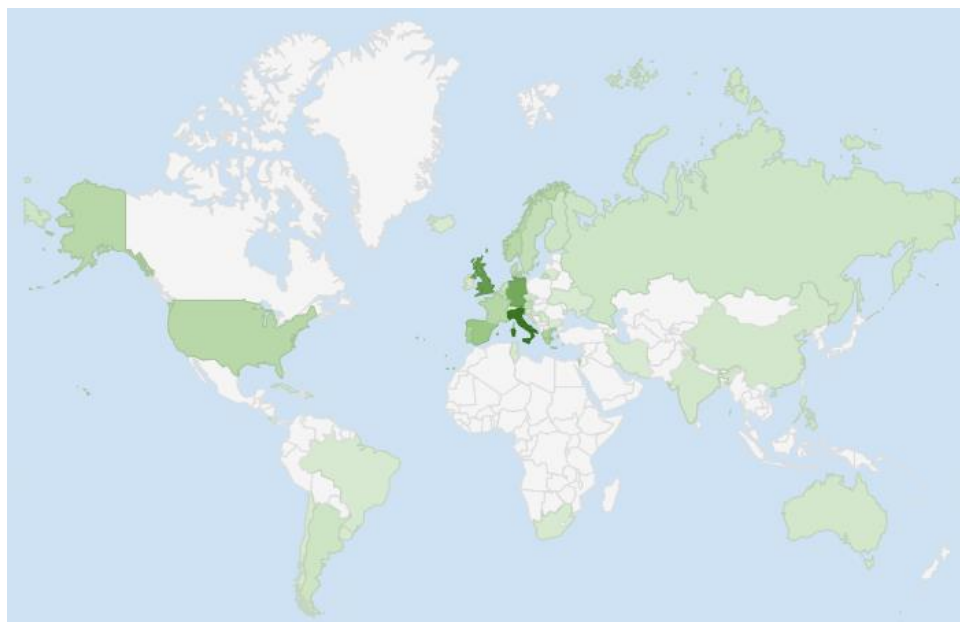
Home institution type of the applicants

(UNI=University, RES=Public Research organisation, SME=Small and Medium Enterprise, PRV= Private company, OTH= Other organisation).



Applicants – home institutes countries

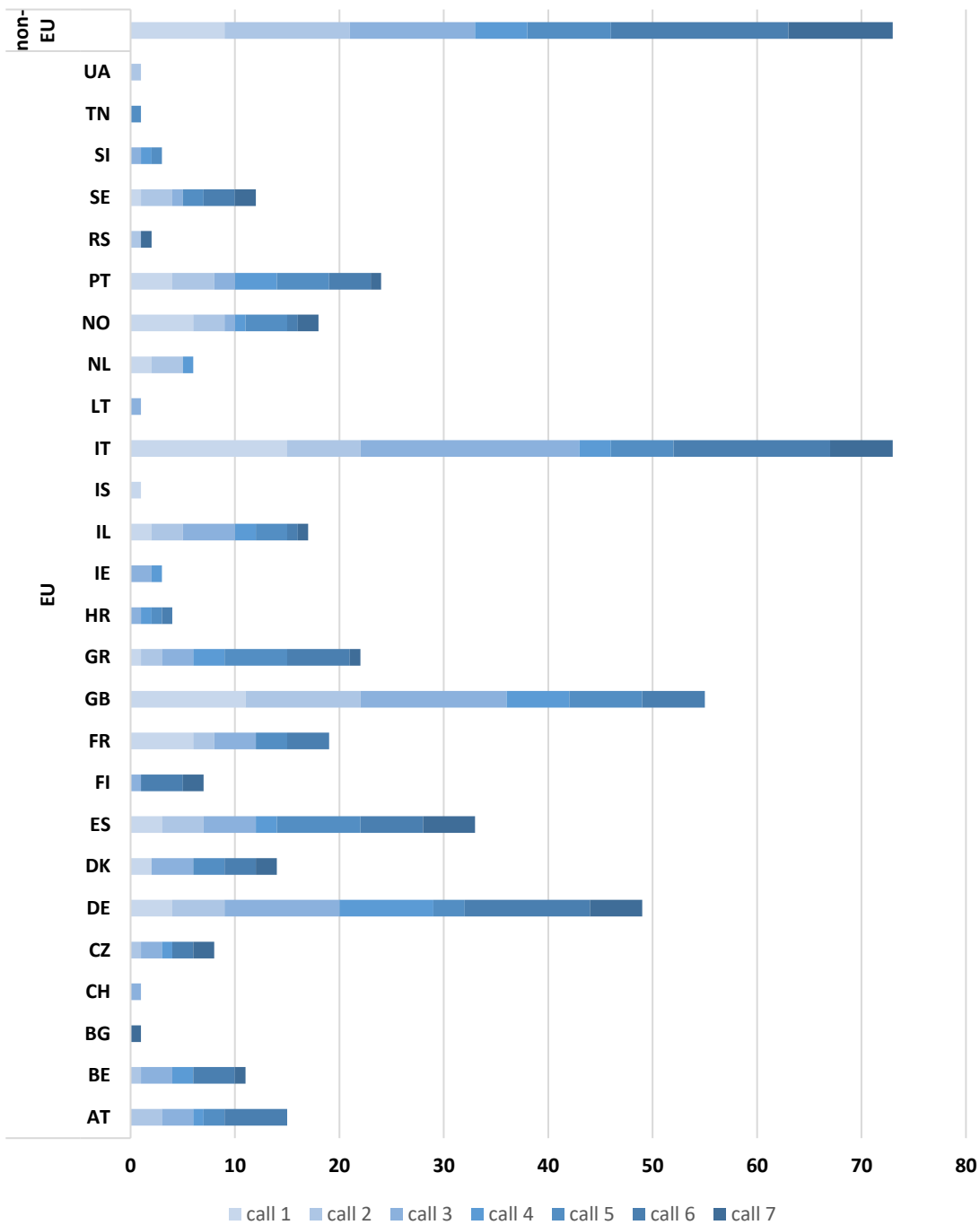
Applicants come in large majority from European institutes (84.6%), mostly from Italy, United Kingdom and Germany. Non-European applicants represent 15.4% of the applications received, so below the 20% maximum quota of access reserved in H2020 projects. Applicants from non-EU institutions come mostly from United States, Argentina and Russia.



EU country	applications	EU country	applications	Non-EU country	applications
Italy	73	Croatia	4	United States	18
United Kingdom	66	Ireland	3	Argentina	7
Germany	49	Slovenia	3	Russia	6
Spain	33	Serbia	2	Australia	4
Portugal	24	Bulgaria	1	China	4
Greece	22	Switzerland	1	India	4
France	19	Iceland	1	Philippines	4
Norway	18	Lithuania	1	Cuba	3
Israel	17	Tunisia	1	Dominican Republic	3
Austria	15	Ukraine	1	Brazil	2
Denmark	14			South Africa	2
Sweden	12			Bermuda	1
Belgium	11			Chile	1
Czech Republic	8			Costa Rica	1
Finland	7			Iran	1
Netherlands	6			Uruguay	1

Home institution country of the main applicant and relative number of applications to the ASSEMBLE Plus TA programme. (“European countries” are those associated to the H2020 funding programme).





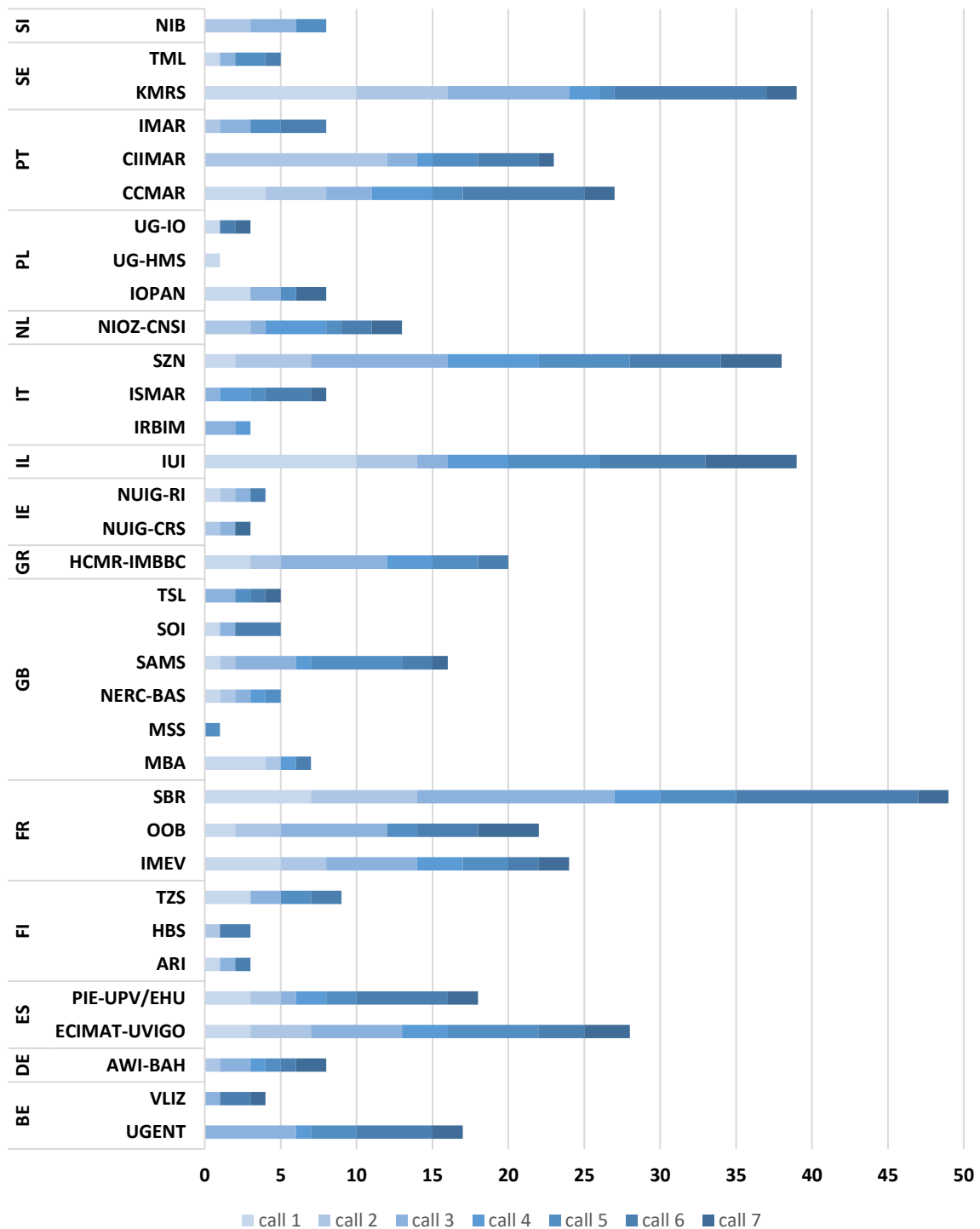
Home country of the main applicant (EU vs. non-EU) and number of applications per call.



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Applicants – access providers selected

The most popular access providers were SBR (Roscoff, France), IUI (Eilat, Israel), KMRS (Kristineberg, Sweden) and SZN (Naples, Italy), each receiving 35 applications and more. Spain, Portugal, Italy, Israel and United Kingdom received an overall similar amount of applications (ca. 40 each).

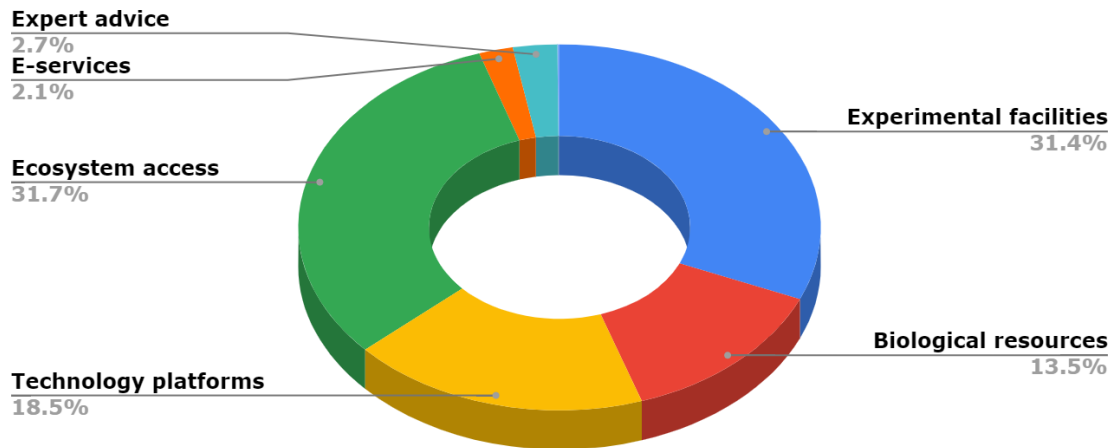


Access providers: applications per call.



Applicants – research services required

The top three research services per application most in demand were experimental facilities (wet labs, aquaria, mesocosms; 31.4%), ecosystem access (research vessels and SCUBA diving; 31.7%), and technology platforms (bioassays, imaging, molecular biology and omics; 18.5%) followed by biological resources (marine model organisms, culture collections; 13.5%). Fewer requests were received for supporting facilities, e-services and expert advice (overall, 8.5%). Request of services was predominantly required for on-site services (93%) or combined together with remote access (3.8%); remote access requests accounted for the remaining 3.2% of the requests.

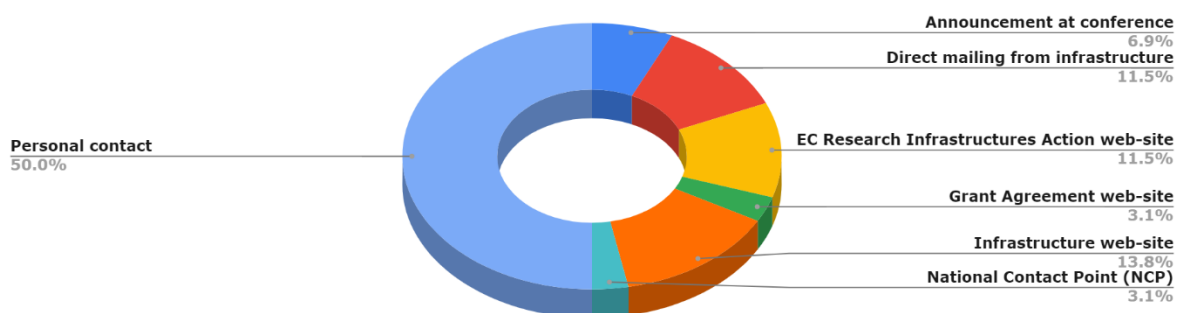


User satisfaction

At the conclusion of the TA visit, project leaders were asked to submit an online survey to evaluate their satisfaction in terms of scientific, technical, logistic, administrative and financial support offered by ASSEMBLE Plus for their research. Among the 153 projects completed so far, 130 surveys have been collected.

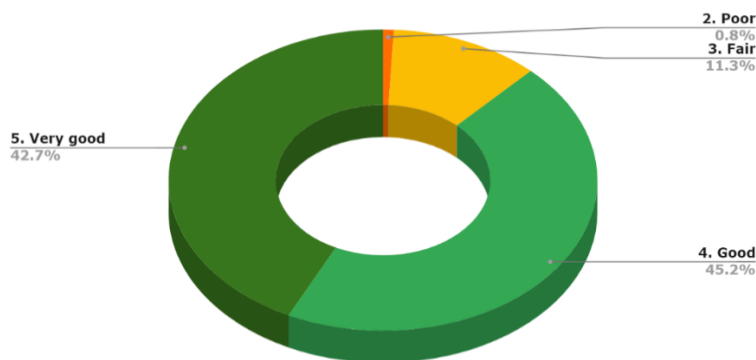
Advertisement of the TA funding

The outreach of the transnational access was mostly made via personal contacts (50% of users). The remaining part has been reached through different websites (31.5%). Outreach through emails and conferences has been useful for the remaining 18.5% of the users.



Advice to use the most appropriate installation or infrastructure

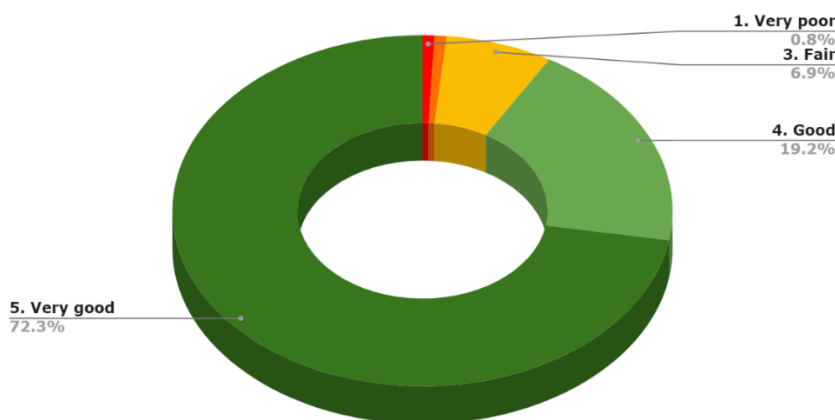
Users were generally happy about suggestions and indications received by liaison officers and local researchers regarding how to improve their design experiments with the most appropriate research services (129 users). Only one user indicated the advices received as “poor”.



● 1. Very poor ● 2. Poor ● 3. Fair ● 4. Good ● 5. Very good

Technical support provided

The vast majority of the users (128) were very satisfied with the technical support received during the access, in terms of setup of experiments and results interpretation (very good, 72.3%; good 19.2%, fair 6.9%). Only two users reported the support received as “poor” and “very poor”.



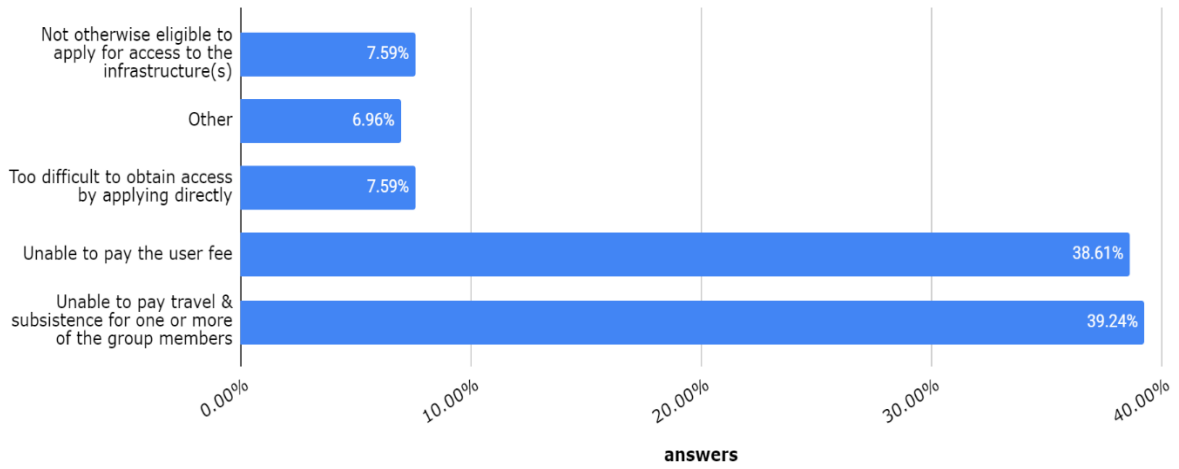
● 1. Very poor ● 2. Poor ● 3. Fair ● 4. Good ● 5. Very good

Need of ASSEMBLE Plus funding

Only the 11% of researchers stated that they could have run their research project without the ASSEMBLE Plus funding. The great majority of all other users applied for the TA funding either to use research services for free (38.6%) and for covering travel and subsistence expenses to their user group (39.2%). The remaining part indicated other reasons such as having difficulty or not being eligible to apply to access to infrastructures.

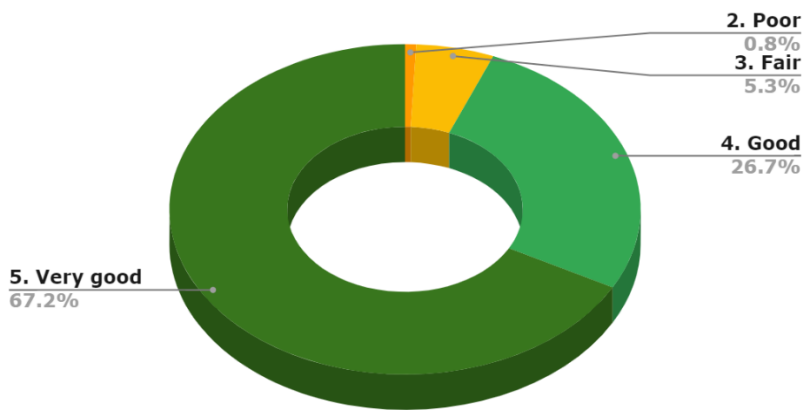


Reasons for not being able to apply for the use of research services



Overall satisfaction

Overall, there is general agreement among the users about the benefit and the positive outcomes resulting from the TA programme of ASSEMBLE Plus: the vast majority of users indicated their overall experience of the TA as very good (67.2%), good (26.7%), and fair (5.3%).



● 1. Very poor ● 2. Poor ● 3. Fair ● 4. Good ● 5. Very good



5. Conclusions

Implementation of the TA programme

The TA policy document and the experience of TA liaison officers have ultimately reached a degree of maturation to consent a smooth implementation of the TA programme.

Visibility of the TA programme

In terms of outreach, the TA programme has reached a good level of interest within the marine biological community, being capable of attracting researchers from many countries (European 84.6%, international 15.4%) and from different scientific fields (notably, from the “Life Sciences & Biotech” and “Earth & Environment” domains). Scientists from the Engineering and Mathematics domains, not typically associated with marine biology and ecology sciences are less interested in the TA programme. The application rate from researchers outside of the EU is 15%, closer to the maximum 20% reserved quota. Applicants are informed of the opportunity of the TA programme and its calls through different websites and in particular through word of mouth from their colleagues.

Participation to the TA programme of the private sector

The TA programme of ASSEMBLE Plus still fails to attract a significant amount of users from private companies. Previous TA projects (ASSEMBLE Marine, EMBRIC) have shown that the private sector rarely like to travel to another country to get what they need, they have a preference for working with local partners, so the TA is not a suitable tool for many of them. Undoubtedly, we are lacking penetration power with our communication into the private sector. Generally, the academic sector finds it difficult to identify the appropriate channels, language, and tone to appear as attractive opportunities for companies. The private sector also works on much shorter and immediate timelines, meaning a long process of evaluation and predefined call dates. Finally, it is also possible the Open Access policy is off putting to the private sector due to a worry of loss of competitive advantage, sharing of data, and potential loss of IP. It appears that the TA format is ill-suited to companies and that a change in approach is required to convince them to use the services of marine stations and related research institutes. In all likelihood, the flexible approach of European Research Infrastructures, though not free, will be a more attractive option to companies. However, the communication approach will need to be adjusted appropriately to factors important in the private sector, such as discretion, full retention of IP, flexibility, cost effectiveness, competitive advantage, and a made-to-measure approach.

Delivery of services

The onset of a continuous open call (from call 4th) has allowed to receive applications all-year round. Projects requiring only services offered by remote access are reviewed upon their receipt, potentially giving more relevance to the delivery of biological samples or experiments results at the user’s home institutions. Despite this possibility, the number of remote access applications has still been low (total remote access requests 3.2%), even during the international travel restrictions due to the COVID-19 pandemic outbreak occurred in Spring 2020. The pandemic has had evident consequences also on the performance on-site projects, causing the delay of many TA projects now postponed of few months or put on stand-by. In particular, TA projects requiring seasonal samplings (in the field or in controlled conditions) have currently been delayed of one year. The community of liaison officers is in contact

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with these users in order to host these projects as soon as international travel will be again possible. The last TA call (8th) closing on the next 4 October 2020 will allow access until summer 2021. A higher average number of applications is expected given the coincidence of the TA windows in the spring and summer seasons in 2021, usually more attracting for: i) users requiring on marine biological resources obtained directly from the field and ii) studies on biological processes occurring at seasonal scale.

Differences in service delivery among access providers

Applicants have showed more interest for a limited number of access providers, instead of being equally distributed. While this may depend to: i) differences in the effort to advertise the TA programme by each institute / country; ii) the amount and the diversity of services offered in the TA; iii) stochastic factors; there is a general skew in terms of access requests towards some access providers, generally those who have participated in previous TA programmes (FP7) or have a historical tradition of hosting researchers at their premises.

A successful way to mitigate imbalances of attractivity of the access provider (and hence problems in terms of hosting capacity in a given call) is to reallocate a TA project towards an alternative access provider, which can equally respond to the needs of the hosted research team. Alternative access providers are suggested by the access officer through a search in the database of the services offered and upon agreement with liaison officers. The research team to be hosted make ultimately the choice on the possible reallocation. The imbalance on the attractiveness of access providers can be further mitigated highlighting clearly specialisations of an access provider in specific research topics through their dedicated facilities and available resources. This can encourage applicants to explore different access providers in future.

The preference of users for some specific access providers has led to consider a redistribution of the budget allocated for the TA programme among the partners. This change will be necessary to: prevent budget shortages (i.e. for access provision and for travel & subsistence reimbursement of users) at the most required access providers and ii) increase the overall number of accepted users in the TA programme. The consortium has recently approved to redistribute funds according to the emerging budget limitations. After a positive feedback of the EC project officer regarding this issue and the proposed solution, the management team is currently at work for submitting budget changes in an amendment of the Grant Agreement.

Feedback of TA users

The overall positive feedback of the users regarding the support received, in terms of technical advices and funding offered, demonstrates the high quality of services provided by the partners in the TA programme and the need of researchers of top-class services for fostering their research projects in the marine domain and in other proximal scientific domains.

