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Summary

Being the main tangible output of the access provided by public research infrastructures (RI), publications and the policies that regulate them play a major role in delivering scientific excellence and contributing to innovation, in particular through knowledge transfer.

For that reason, publication policies of RIs need to be clear, precise and efficient in order to ensure proper dissemination of the results obtained from access to RI resources. Moreover, considering the growing debate around and support for open science in Europe, there is increasing expectation to have publication policies of publicly-funded research infrastructures encouraging researchers – in some instances even requiring– to make use of open access journals or any other means to share their results.

This document presents an overview of the current publication policies adopted by different European-level RIs, highlighting their different approaches to the same issues, and reflecting on how those could possibly evolve in the near future due to the changing environment and technological capabilities related to open data and related projects already under implementation or about to be launched.

The document is intended to be used by ACCELERATE partners as a tool to develop or improve their own publication policies in a more unified light.

Background

Deliverable 2.4 was conceived as a report of a workgroup formed by experts from FRM II Neutron Research Reactor, operated by the Technical University of Munich, ESS European Spallation Source, ELI Extreme Light Infrastructure and CERIC-ERIC in the frame of the task 2.2: Policy on publications generated by the use of RIs of the ACCELERATE project.

The original concept was to focus on possible solutions to give credits to the contributors of a publication that resulted from the access to an RI and to create a practicable method to search the acknowledgements in publications. The present document goes beyond the initial concept, analysing in depth the policies adopted by the different EU RIs in relation not only to the mentioned problem but also to other aspects such as the acknowledgment of support from funding agencies and the methodology in use to record, store or share publications, as well as the desired behaviour of scientists in this respect.

The changing scenario related to publications in view of the growing interest and emphasis in open science has driven us to change the scope of this deliverable. At the time the project was written, one of the main issues for RIs was how to identify and analyse publications deriving from the work performed at the RI. At that time, it seemed reasonable to develop a tool, with the collaboration

of publishers, that could allow researchers to associate their publication to a given RI and to allow the search of the full text, to identify the RI's instruments or personnel, whenever not explicitly credited. However, with the steep increase in the number of publications in open access journals, the introduction of the DOI for the RI's instruments and the development of the EOSC and related projects, already adopted or under implementation, the initially planned tool turned to be obsolete. At the same time, with open access and open data, newly developed metrics are changing the approach to publications derived from the access to the RIs. Therefore, priority was given to these emerging topics.

Importance of publication policies as a driver for scientific excellence, innovation and long-term sustainability of a Research Infrastructure

Most pan-European Research Infrastructures receive public funding to cover the operation costs. Since national budgets are limited and the number of research infrastructures and research performing organisations is growing, there is a conflict of resources. As a consequence, administrations need methods to assign funds wisely, based on results and performance monitoring. One of the main outputs of research infrastructures and other research performing organisations are publications, and bibliometrics are a usual tool to assess the scientific excellence of these organisations. Therefore, according to the metrics used by the funding bodies, Research Infrastructures need to prove to be "a good investment", and they need to be accountable for the funds received reporting to the same bodies the outcomes achieved. Therefore, Research Infrastructures invest a considerable amount of resources monitoring their outcomes (e.g. publications) and implementing policies that facilitate this task. A very important one is the publications policies, since according to the requirements of the funding bodies, Infrastructures may need to appear as co-creators of the knowledge and innovation (co-authors), simply be mentioned (acknowledgements) or none of this, but in any of these cases the infrastructure must be aware of these outcomes and monitor them in real time. However, there is no common practice across research infrastructures for publications, everyone trying their best to gather this information, with more or less success. Considering the publication policy may determine whether a publication is findable or not, it must be regarded as one of the elements contributing to the sustainability of the Research infrastructure, forasmuch as failing to demonstrate the productivity may have a negative impact in the funding of an RI.

Overview of the policies and solutions currently adopted by the European-level RIs

Introduction

An initial overview of the publication policies currently in place at EU RIs was made by reviewing documents available on the RI websites. The information thus collected was circulated to the EU User Offices mailing list[1] and amended and/or confirmed by:

- Alba Synchrotron - ALBA
- Deutsches Elektronen-Synchrotron - DESY
- Diamond Light Source - Diamond
- Elettra Sincrotrone Trieste - Elettra
- EMBL Hamburg - EMBL
- European Synchrotron Radiation Facility - ESRF
- European XFEL
- Helmholtz-Zentrum Geesthacht - HZG-GEMS
- Istituto Nazionale di Fisica – Laboratori Nazionali di Frascati (DAΦNE Light) - INFN-LNF
- Karlsruhe Institute of Technology - KIT
- Laboratoire Léon Brillouin - LLB-CEA
- Heinz Maier-Leibnitz Zentrum (for Jülich Forschungszentrum and FRM II – MLZ)
- Paul Scherrer Institute - PSI (SINQ, SLS, SμS and SwissFEL have the same publication policy)
- SOLARIS
- ASTRID2 responded to confirm that they do not have a publication policy.

The following RIs did not provide feedback, therefore were included only on the basis of the information available on their webpages:

- Helmholtz Zentrum Berlin - HZB-BESSY
- Institut Laue-Langevin - ILL
- ISIS Neutron and Muon Source - ISIS
- Soleil Synchrotron - SOLEIL

With the exception of HZG-GEMS, all the RIs have a publication policy publicly available on their webpage. The list of the URLs where the publication policies can be found is provided in Appendix 1. HZG-GEMS runs instruments at other RIs and asks users to follow the publication policies of the RI where the science is carried out. The LLB-CEA publication policy has not been recently updated. As a result of the neutron reactor shutdown in October 2019, the user facility they were operating, researchers were invited to apply to other infrastructures and consequently will be asked to follow the publication policies of the RI where the science is carried out.

There are up to five main items in the currently implemented publication policies:

[1]A “User office” is in a RI, the unit in charge of managing the requests for access to the facilities. A researcher who performs measurements in a facility is then called a “user”.

1) Discussion of open access publishing
2) Instructions on how to cite the scientists of the RI supporting the experiment
3) Instructions on how to cite the instrument and the RI
4) Guidance on particular funding to be acknowledged
5) Instructions on whether and how the RI should be made aware of arising publications.

Not all RIs address all five items within a single policy document. Instead, the content is split between two or more pages that are usually interlinked on the RI webpages. Typically, there is a pdf document that goes alongside an Internet presentation of the publication policy information.

1) Open Access Publishing

Open access publishing is a mode of publication where the resulting (peer-reviewed) scientific paper is freely available to readers on the Internet. There are two variants of open access publishing: gold open access, where the authors pay the journal a fee for processing their article and make it available free of charge on the Internet, and green open access, where the paper is only made freely available after an embargo period (typically 6 months), during which it is accessible only to subscribers or on purchase, and routinely the author is responsible for making the paper available via self-archiving, depositing it in his/her own institutional repository or open archive for the purpose of maximizing its accessibility, usage and citation impact.

Open access publishing is known to be positive for researchers as, on top of retaining the copyright to the paper they have written, are likely to be read and cited more widely. It is widely supported by the RIs. Many of them explain the modes of open access and provide information about funding article processing charges on their internet pages, though not always on the pages dedicated to users.

The reviewed publication policies can be grouped into four categories depending on their level of requirement with respect to open access publication:

1) Users are *required* to publish via open access with a strong recommendation for gold open access, but an acceptance of green open access (Diamond and ISIS).
2) Users are *recommended* to use open access publishing (Elettra, ILL, MLZ and PSI). PSI highlight that their publication database is a repository for green open access, since the paper will be made publicly available after the embargo period.
3) Users may be recommended to publish according to established standards (subscription-based journals) or in open access literature (DESY and SOLEIL). This gives the author the *freedom to opt for open access or traditional publication,* recommending to publish but without indicating a preference for open or fee-based journals..
4) No comment may be made about open access publishing.

The RIs do not provide funding to cover for article processing charges, a fact that is made absolutely clear in the European XFEL policy, which clearly states that authors are liable for such charges.
The discussion on open access publishing links to two other areas of the publication policy: the provisions giving guidance on how to acknowledge for specific funding schemes and those giving instructions to users on how they should notify the RI of their publications. Some funding schemes come with their own requirements for open access publishing, for example, Horizon 2020 funding which commands that research be published using open access. A number of facilities maintain a publicly-available database of user publications, which provides an ideal opportunity for green open access by self-archiving.

2) Instructions of how to cite the scientists supporting the experiments at the RI

Most research carried out at the reviewed European RIs is done with the help of the scientists employed there. In this part of the policies, there is some evidence of harmonization: the policies from ALBA and Diamond use the same text while those of HZB-BESSY and ISIS have provisions in common. However, this is also the area where the policies show the greatest diversity. The reviewed policies differ mostly in the following two areas:

a. The author list on a scientific publication is often extremely contentious. Scientists tend to keep the list of authors as short as possible and consider that a short measurement in a 2-years research may not be relevant enough to include a co-author.
b. The routine extent of the contribution of a local scientist differs between facility and experiment types.

All of the policies are grounded on the premise that local scientists (the ones working at the RIs and providing support to users) should be given credit for their contributions to all published work. Appropriate credit may be in the form of co-authorship or of acknowledgement. The type of guidance given to users to determine the appropriate approach to such credit differs between the policies.
The simplest policy to understand and implement is to mandate that the local scientist is included as a named co-author in all publications arising from the research they have supported. This reflects the role of the local scientist not only in the individual research projects, but also in ensuring the instrument is ready and available for the research carried out. The only facility using this approach is MLZ.
A number of RIs (HZB-BESSY, ILL, ISIS and PSI), recommend that the local scientist be included as a co-author in all publications. However, they also consider situations where the experiment team is ‘largely self-sufficient’ and where the local scientist was consequently not a contributor to the

research. In the latter case, the local scientist should be thanked by name in the acknowledgement section of the publication. The ILL policy recognises that this can be a contentious issue and highlights the need for the local scientist and experiment team to agree on the expected contribution of the local scientist and consequently on their status in future publications before the experiment begins.

A number of other RIs (ALBA, Diamond, INFN-LNF and SOLARIS) are even more flexible. They require that the local scientist be a co-author where they are directly involved in the research. Where more routine support is provided, the facility is happy that support is credited by name in the acknowledgement section.

Other RIs have the same approach, though expressing it the other way around. Here the local scientist must be acknowledged by name *unless* they contribute sufficiently to be listed as a co-author. This is the route taken by DESY, EMBL, ESRF and SOLEIL.

Only one policy (Elettra) leaves room to not acknowledge the local scientist. To be acknowledged, the scientist must enhance the results of the experiment and, to be considered as a co-author, he or she must make a significant contribution.

The policy of the European XFEL shows a very different approach, which is perhaps the reflection of a distinct nature of experiments. The policy starts by stating as a 'fundamental principle' that all European XFEL contributions to publications shall be recognized. It then outlines a process based on which inclusion of European XFEL scientists will be determined. A first draft of the co-author list from the proposing team must be made available before the start of the experiment. The leading scientist and local contact at European XFEL are responsible for adding the appropriate European XFEL scientists to that co-author list. The PI and leading scientist are then to agree on the final list of co-authors.

With this in place, there is then an additional statement providing a general acknowledgement of the European XFEL naming the instrument and thanking the instrument group and facility staff as a collective.

It should be mentioned that some policies include the address of the facility. This should be praised. When adding the local scientist as a co-author, this is indeed required information and having it easily accessible assists the RI user in the process.

3) Instructions on how to cite the instrument and the RI

Typically, an RI will consist of more than one instrument and it is important that the readers of any published research are aware both of the instrument used and the RI hosting that instrument.

There is a great deal of consistency between the publication policies of the reviewed RIs with regards to how to acknowledge instruments and infrastructures. All the policies request that users acknowledge the facility and, all except the European XFEL that they specify the instrument in the acknowledgements. This is made very clear in the policies, by means of a statement to be included by the user in their publication.

Several policies include the references to use when citing an instrument, which is particularly useful for researchers. This is the case for MLZ where the user is instructed to cite the relevant instrument using DOIs based on a description of the instrument published in the Journal of Large-Scale Research Infrastructure. Elettra plans to provide a DOI for each instrument in 2020. By making acknowledging and citing the instruments as simple as possible, RIs increase the likelihood that users will act in compliance with this part of the policy. In addition, being machine readable, DOIs allow the automatic tracking of publication citing the facility instruments and any metadata associated to it.

4) Guidance on Funding to be Acknowledged

Many RIs receive dedicated grant funding to support user activities, including transnational access. It is expected that users acknowledge this funding and this is necessary for the benefits of such funding models being widely known, as the funding bodies also need to account for their outputs. Usually, this funding is conveyed to the user via the RI and as a consequence it is necessary for the RI to make it clear how that funding should be acknowledged, to be compliant with the requirements of the funding body or agency.

Most of the RIs' publication policies (all except ESRF, ISIS, KIT and SOLARIS), or linked websites, make it very clear which users are benefiting from which funding and provide a sample statement that they expect users to include in the acknowledgements of their publications. It should be noted that, in the case of the ESRF, they are not benefiting from any such grants so this section is superfluous.

5) Instructions on whether and how the RI should be made aware of arising publications

The scientific output of the user community represents a significant portion of the scientific output of an RI. As a consequence, the purpose of the publication policy should be to ensure that the RI is correctly credited and cited in the publications of its user community. This in turn will allow the RI to keep a record of all the published material resulting from research at the facility. The most accurate way of obtaining the details of all the papers that arise from users at a research facility is, in principle, to ask that users themselves provide that information to the RI.

Most facilities (ALBA, DESY, Diamond, Elettra, ESRF, European XFEL, HZB-BESSY, HZG-GEMS, ILL, LLB-CEA, MLZ and PSI) have publication databases and require the publication to be entered into the publication database in a timely fashion. Depending on the RI, this might be added through the user office software or it might be through a separate interface directly with the publication database. Once entered to the database, the publication becomes publicly searchable through an interface hosted by the RI. Many of these databases are able to support green open access publishing by providing the option to include the full text of the paper, typically as a pdf.

Where a facility does not have a publications database, they do still make a request on the user. INFN-LNF, for example, ask the users to notify them of any publications during the process of completing the experimental report and EMBL-Hamburg remind their users who may also use DESY to follow the DESY requirements. Only two RIs (KIT and Solaris) do not mention a requirement for their users to notify them of publications.

Many facilities have a communications department and are keen to work with users producing particularly accessible or interesting results to gain more impact from that work. The European XFEL is the only RI to emphasise this in the publications policy, asking users to highlight any publications where additional public relations resources might be useful.

Conclusions

This section presents a review of the publication policies of 18 European RIs. There is clearly a common philosophy running through all the policies: users should publish their research and in doing so should credit the local scientist, the instrument, the RI and any financial support provided through the RI. The user should also take responsibility for letting the RI know that a publication has arisen from their research at the facility. The details of how this is achieved differ between the RIs, though it is sometimes not clear whether this stems from a genuine divergence in intent or from a wording difference. For example, all the RIs agree that the local scientist should be acknowledged appropriately. The groupings identified may reflect a different ideology, but it seems more likely they reflect a different way of expressing clear guidelines to approach a subjective issue.

What may provide increased clarity to the user community and assistance to new RIs in need for a publication policy would be to be able to rely on a 'standard publication' policy wherein a statement would be provided to cover each viewpoint in each section. Here, one might include a section on open access publishing. At the relevant point, wording would be included to indicate that open access publishing is mandatory, recommended or optional and the RI could select appropriately to their respective philosophy.

This review has not considered the RI Scientific Data Policy. It should be noted that most of the RIs have a Scientific Data Policy that is linked from the Publication Policy. It is becoming increasingly common for the RI to provide a DOI with the data collected during access to the RI. The use of these DOIs is not discussed specifically in any of the publication policies since this is typically managed in the Scientific Data Policy. Consequently, data DOIs are not discussed herein. They are, however, extremely important and the overlap between the Scientific Data Policy and the Publication Policy should not be disregarded.

Bibliometric analysis based on persistent identifiers

The increasing diversity of solutions for publishing scientific papers and the intrinsic differences between disciplines, make it difficult to define an absolute quality standard, which is why in the

last years more emphasis is being put on the correct use of bibliometrics in research management and research evaluation. For long decades, bibliometric analysis represented a standard for assessing scientific quality and quantity indicators were interpreted as clear metrics to assess the scientific impact of a publication, often used by universities, research infrastructures and funding agencies to support strategic and managerial decisions. Currently, one of the most widely accepted indicators of scientific impact is the number of citations that publications have received from the moment they become public. The journal impact factor and the H-index are the best-known examples. Citation counts are also sometimes interpreted as indicators of scientific quality rather than scientific impact. *"The quality of a publication can be expected to influence the number of citations the publication will receive, but a high-quality publication on an obscure topic is likely to receive fewer citations than an average-quality publication on a popular topic"* [2] . The uncomfortable truth is that bibliometrics offer only a limited quantitative information, that should then be used carefully to support decision-making in a research management context.

When using bibliometric indicators, it is essential to keep in mind what they represent and their context. If correctly interpreted, the indicators provided by the bibliometric analysis can provide useful information about other interesting aspects beyond the scientific impact of a paper, for example scientific collaborations, internationality, mobility, interdisciplinarity, gender and open access publishing.

An additional complex side of the bibliometric analysis lies in the field of application. Different scientific fields have different citation practices. Large differences can arise between fields in citation density, that is, in the average number of citations received per publication. For instance, the average number of citations received by publications in mathematics is significantly smaller than those of publications in the life sciences. This problem is relevant for research infrastructures that operate in different fields and that want to compare their different areas of interest or more generally when RIs operating in different fields are compared amongst each other. An attempt to correct these differences has been introduced with the reduced impact factor, that relates the total number of citations with the average number of citations in a discipline. However, with the increasing level of interdisciplinarity of research, these corrections have improved the situation but not solved the issue.

The journal impact factor is also generally used to define the quality of the single papers, but the number of organizations that started to discontinue this practice is increasing. Some of well-recognized organizations for instance, avoid to use the journal impact factor and other journal impact indicators as a measure of the quality of individual papers as they are not necessarily representative of such quality.

It is also important to consider where bibliometric data is held, or more precisely how to retrieve it. Usually Universities or large research infrastructures have their own data archives with all

2 Bibliometrics for Research Management and Research Evaluation, CWTS Centre for Science and Technology Studies, Leiden University.

relevant content, but in most cases, however, an external data source is needed. Web of Science, produced by Clarivate Analytics, and Scopus, produced by Elsevier, are the two most commonly used bibliometric data sources. In addition to the two mentioned, Google Scholar is also used quite frequently, but with some limitations when compared to the previous ones.

Regardless of where the data are stored or what they are used for, the bibliometric analysis is based on persistent identifiers, being the DOI (digital Object Identifier) the most widely used for academic purposes. *"The DOI system provides a technical and social infrastructure for the registration and use of persistent interoperable identifiers, called DOIs, for use on digital networks"*[3]. Conceived as a generic framework for managing identification of content over digital networks, the DOI system provides persistent unique identification of objects of any type. The DOI system is designed to work over the Internet. A DOI name is permanently assigned to an object to provide a resolvable persistent network link to current information about that object, including where the object, or information about it, can be found on the Internet. While information about an object (metadata) can change over time, its DOI name will not change. A DOI name can be resolved within the DOI system to values of one or more types of metadata relating to the object identified by that DOI name, such as a URL, an e-mail address, other identifiers and descriptive metadata. As anticipated in the previous section, assigning DOIs to the datasets is becoming a common practice in the scientific world. This started partly in response to the "credibility crisis", when an increasing number of papers in high impact factor journals were withdrawn within a year of its publication because of severe mistakes and due to the lack of reproducibility of some scientific experiments. Providing access to the data at the origin of a paper became a good practice to guarantee the integrity of the research. Currently, the European Commission is making an unprecedented effort to support with different funding schemes, the development of the infrastructure and policies to allow every single researcher to share their data and to provide all the necessary information (metadata) to make that data FAIR (Findable, Accessible, Interoperable and Reusable). The EC calls this federated core the European Open Science Cloud (EOSC). While the description of the EOSC and all associated projects is out of the scope of the present document, it is worth mentioning that all research infrastructures are involved in the EOSC, either through thematic clusters (Environment, Photons and Neutrons, Life Sciences, Astronomy, Social Sciences and Humanities) that relate directly to the EOSC, or through funding for national infrastructures that relate to the five cluster projects.

The existence of these projects aiming to build the EOSC with data arising from open access to RIs is now playing a key role also for the publications. Currently, the data collected during the performance of the measurements is stored directly by the facilities or the users performing them, leaving to the publications the task to disseminate the results obtained. With the implementation of the FAIR principles, providing open access to the data obtained, the analytics and thus the results, the dissemination process may change in the near future. The publication system as known

[3] DOI website

right now will be influenced since a whole metrics system based on the data will need to be established, to promote data sharing by researchers, as for example the provision of rich metadata is a time consuming operation and incentives as required for it to become diffuse. Furthermore, with the strong decision by the EC to impose the exclusive use open access journals for research supported with EC grants, it is expected that altmetrics[4] start growing on influence.

New metrics for the analysis of the publications

Along with the traditional subscription journals that offer access to published content for a fee, there are open access (OA) journals. The different access modality offered by OA journals changes the way they are analysed as all content is freely available on the journals webpages to everyone without the limitations linked to subscription. Classic indicators such as Impact factors, H-indexes, number of citations can be calculated as well, but, in addition, new instruments come in handy. Having the content freely available on a webpage makes it possible to calculate, for instance, the number of views of a publication or the number of downloads, which leads to an analysis of the location in which a paper has been mostly exploited. Through the IP address it is possible to analyse the location and organizations interacting with a paper. These new metrics can provide a clearer understanding on how science produced in Europe is exploited all over the world.

The number of providers that offer access to different kind of information about publications and journals itself are increasing, with dedicated tools and data for publishers, institutions, researchers and also funding agencies. The details of the information provided is higher, easily comparable and accessible. The new metrics interact also with the most common social platforms that are now active part of the communication strategy of every organization, with dedicated data about the response of a publication that has been posted, commented or cited by the single subscribers. Every information can be tracked in connection to websites, blogs and internet forums, being connected to a single or multiple papers with his value weighted in respect to other publications.

The number of subscription journals interested in the advantages offered by the OA is increasing, with cases of publishers that offer both subscription solutions and OA ones. Some hybrids are also being created. Along the gold OA that offers all the contents freely available to the public and where the cost for the publication of a paper is supported directly by the authors, that are usually funded by their institutes or directly by public funding programs, the green OA is available. In some cases, a paper is published in a subscription journal, but leaves the possibility for the author(s) to make it freely available on other platforms previously discussed with them to a particular audience. In other cases, the papers are published in a subscription journal for a fixed period, usually 6 months or a year, before becoming freely available on the same or different journal, reducing the cost for the publication.

4 https://ec.europa.eu/research/openscience/pdf/report.pdf

From one side the dissemination of the scientific content is bound to a market that for years has dictated strict rules and allowed only imprecise indicators based on available solutions, on the other the request for a simplification of the dissemination itself forces the market to adapt and come up with new and more powerful instruments to analyse and define the quality of the content promoted, with new metrics and the necessity to define new standards.

Publication tracking systems: The MLZ case

It is very common in the neutron source research infrastructures to assign DOIs to single instruments through dedicated publications in an open access. This allows an easier citation of the instruments by users, but also a better tracking of the publications generated out of the use of those instruments. A first approximation of the total number of publications related to a specific instrument can be derived from the total number of citation that instrument receives. This assumes, however, that users overwhelmingly use the DOI of the instrument, which – unfortunately – is not true for many facilities. Using an internal data source, or, in the absence thereof, of the above mentioned data sources, such as Web of Science or Scopus, it is possible to retrieve all papers generated from the use of the instrument and making use of the instrument's DOI, and perform different kinds of analysis directly from those sources. The use of this system is starting to spread as the benefits resulting from it are clear and an increasing amount of RIs, not strictly related to the Neutron community, are starting to adopt the same approach.

The Heinz Maier-Leibnitz Zentum case:

In order to keep track of the publications based on the instruments owned by the Jeinz Maier-Leibnitz Zentrum based in Munich, the users are asked to cite the instruments itself. Therefore, the library of FZ-Jülich have setup an own open access journal named The Journal of Large-scale Research Facilities (JLSRF). Being published on the mentioned journal, every instrument is assigned with a unique DOI which enables the Heinz Maier-Leibnitz Zentrum facility to use available search engines to retrieve publications that otherwise would have been missing from the internal database "join2".

One of the main advantages of the JLSRF journal relies on the ability to easily update the articles describing the instruments in case of significant upgrades or new features that are worth mentioning. It is also possible to track the publications related to the instruments before and after their upgrades. The article itself is restricted to list the parameters and features of the instrument without the need to demonstrate the performance by scientific measurements. The article is usually written by the instruments scientist and submitted directly to the journal. Every facility that decides to publish an instrument related article appoints a referee, ensuring the quality of the content without the overhead of a peer review process. In order to make it easier for the facilities to adopt such a methodology, the open access JLSRF journal does not charge anything for the publication of the instruments from the submitting institute.

As previously mentioned the import of a new publication is supported by automated database searches, i.e. typing in the DOI is sufficient to track the publication. All the relevant information, such as Authors, Institutes and titles are automatically imported which results in a reduction of manual typing errors.
In the case of the MLZ, all the publication system is supported by the use of a software named join2 which is based on a data management software developed at CERN. It provides the facility with repository of all the publications and allows to classify them with self-defined categories such as “scientific area” or “grand challenge”.

CERIC-ERIC Publications

CERIC bases the analysis of the publications derived from measurements performed in one or more of the 8 Partner Facilities distributed in Central and Eastern Europe on the information collected in the VUO (Virtual Unified Office), with information stored directly by the users performing the measurements or by the beamline/instrument scientists themselves in the system.
CERIC generated 190 publications over 5 years of operations (from half of 2014 to 2019). From the data collected, the average lag between the performance of a measurement and the publication of a paper related to it has been 2 years, which is in line with the other large RIs that offer open access to the international research community as CERIC-ERIC.
Currently, roughly 25% of the overall CERIC publications have been published in open access journals. From the beginning of its operations, CERIC has encouraged publication of the papers in Open Access Journals. One of the concrete measures was to award the best papers (journals with an IF higher than 10), by covering the fee charged by the journal for golden access. Every year CERIC offers up to 6 awards, depending on the available funds.
One of the challenges of correctly tracking publications based on experiments performed in different facilities lies in the policies for co-authorship and acknowledgement. All the CERIC PFs have their own acknowledgment criteria that are not always in line with each other. Some of them require one of the Beamline/Instrument scientist to be mentioned as co-author of the paper, while others don’t, just ask for an acknowledgement. The same heterogeneity found amongst the RIs reported in the first part of this document, is present amongst CERIC facilities. CERIC is now working to define a unified policy for publications and acknowledgment, based on the experiences collected through the research performed for the completion of this deliverable. CERIC’s publication policy will be closely related to the data policy, where the participation of CERIC in PaNOSC (the cluster project for Photons and Neutrons) is also expected to have a strong influence.
Probably the most challenging aspect for CERIC is the attribution: since the instruments offered in CERIC provide also access through other channels (national facilities, European projects, etc), the same research group may use the facilities through more than one channel. In this sense, it is very difficult to understand whether a paper derives from the work done through access provided by CERIC or by another entity. There is no other way to assess this than from reporting by researchers,

when they declare their publications in our database, associating it to some instruments. This introduces an error that not only may be substantial but is also very difficult to quantify.

Conclusions

The comparison of the publication policies in place in several RIs of pan-European interest shows differences in approach, in aspects as co-authorship, acknowledgement of the local scientists, instruments and the RI itself, as well as in the promotion of publication in open access journals. Rather than being driven by specific needs in reply to the stakeholders' requirements, these heterogeneities seem to be generated by the lack of coordination among RIs. The development of the EOSC and the introduction of new indicators related to data, along with the rising awareness on altmetrics will increase the complexity on an aspect that RIs will need to handle. This document will be distributed to all the RIs that participated sharing their practices, with the hope that it will work as a starting point for a more coordinated approach that may lead, if not to a single policy, at least to guidelines for the implementation of a publication policy.

Acknowledgements

The ACCELERATE partners would like to thank the User Offices of the following RIs for their valuable contribution sharing their good practices and previous experience:

ALBA Synchrotron, ASTRID2, DESY, Diamond Light Source, Elettra Sincrotrone Trieste, European XFEL, FELIX, HZB, ISIS, LLB-CEA, INFN-LNF, MLZ, PSI, SOLEIL Synchrotron.

Annex I: Brief description of the facilities consulted

Paul Scherrer Institute (PSI)

The Paul Scherrer Institute - located in Villigen/CH - is the largest research institute for natural and engineering sciences in Switzerland. The institute performs research in three main subject areas: Matter and Material, Energy and Environment, Human Health. PSI operates five large scale facilities, the Swiss Light Source (SLS) – a 3rd generation synchrotron, the spallation neutron source SINQ, the Swiss muon source SμS, a meson factory for particle physics and the X-ray free electron laser facility SwissFEL, which just started pilot user operation by the end of 2017. All PSI user facilities offer open access to external academic and industrial users worldwide via one single entry point, operated by the PSI User Office.

https://www.psi.ch

Istituto Nazionale di Fisica – Laboratori Nazionali di Frascati (LNF.INFN)

INFN is the Italian National Institute for the study of Nuclear and Sub-nuclear Physics with accelerators and the Frascati National Laboratory (LNF) is the largest INFN laboratory. INFN-LNF operates the DA√NE storage ring and DA√NE - Light synchrotron radiation facility with three operational beamlines and two under commissioning.

http://w3.lnf.infn.it

Laboratoire Léon Brillouin (LLB – CEA)

The French Laboratoire Léon Brilloin uses neutron beams produced by the Orphée research reactor to perform neutron scattering experiments for fundamental and applied research. The scientific activities of the laboratory can be classified in three fields: physical-chemistry, structural and phase transition studies, magnetism and superconductivity.

http://www-llb.cea.fr

Soleil Synchrotron (SOLEIL)

SOLEIL is the French National Synchrotron Light Source to matter analysis down to the atomic scale. SOLEIL's 29 Beamlines cover fundamental research needs in physics, chemistry, material sciences, life sciences, earth sciences, and atmospheric sciences. It offers the use of a wide range of spectroscopic methods from infrared to X-rays, and structural methods such asX- ray diffraction and diffusion.

https://www.synchrotron-soleil.fr

ASTRID2

ASTRID2 at the Department of Physics and Astronomy, Aarhus University, Denmark, is a low energy synchrotron light source used for research within medicine, molecular and cell biology, nanotechnology and atomic and molecular physics. A wide range of spectroscopic methods from the infrared to soft x-rays are used across the 6 beam lines, with access to the facilities available to academic and industrial users worldwide.

www.isa.au.dk

Alba Synchrotron (ALBA)

ALBA is a Synchrotron Light facility located near Barcelona/Spain with a complex of electron accelerators which allows the visualization of the atomic structure of matter as well as the study

of its properties. The facility has eight operational beamlines comprising soft and hard X-rays, devoted to bio-sciences, condensed matter (magnetic and electronic properties, nanoscience) and materials science.

https://www.cells.es

Deutsches Elektronen-Synchrotron (DESY)

DESY is a world's leading accelerator centre for the research of interactions of tiny elementary particles and the behaviour of new types of nanomaterials to biomolecular processes. The in Germany located facility offers a wide range of X-rays instruments through three large accelerators: PETRA III, FLASH and as international project EUROPEAN XFEL.

http://www.desy.de

Helmholtz Zentrum Berlin (HZB)

The HZB facility in Germany conduct research on complex systems of materials. The BESSY II photon source in Berlin-Adlershof with its 46 beamlines is highly suited for analysing thin-film materials. With its emphasis on vacuum ultraviolet radiations (VUV) and soft X-ray emissions, it offers ideal capabilities for investigating thin films as well as boundary surfaces. Further the HZB operates the BER II neutron reactor located in Berlin-Wannsee. The BER II comprises 9 different neutron instruments.

https://www.helmholtz-berlin.de

European XFEL

The construction and operation of the European XFEL facility has been entrusted to a non-profit limited liability company under German law, the European X-Ray Free-Electron Laser Facility GmbH (European XFEL GmbH), that has international shareholders. The shareholders are designated by the governments of the international partners who commit themselves in an intergovernmental convention to support the construction and operation of the European XFEL. Denmark, France, Germany, Hungary, Italy, Poland, Russia, Slovakia, Spain, Sweden, and Switzerland participated in the construction and operation of the European XFEL. The United Kingdom is in the process of joining as the twelfth member state. The Facility is based in Schenefeld, Germany.
Research currently being done at X-ray FELs is already breaking new ground, with studies across many disciplines: determining structures of molecules critical to biology, watching ultrafast energy transfers within molecules, probing the characteristics of extreme states of matter, and observing the behaviour of electrons within complex molecules. The European XFEL started Early User

operation in September 2017 and with its special characteristics of ultrashort pulses and ultrahigh brilliance, it is expected that new opportunities in many areas of research will be created.

https://www.xfel.eu

FELIX Laboratory

The FELIX Laboratory at Radboud University in the Netherlands exploits intense, short-pulsed infrared and THz free electron lasers that are used for research of matter both by in-house as well as national and international external users. The four lasers FELIX-1, FELIX-2, FELICE and FLARE each produce their own range of wavelengths and together, they provide a tuning range between 3 and 1500 µm.

http://www.ru.nl/felix/

DIAMOND Light Source

The DIAMOND Light Source is the UK's national third-generation synchrotron located at the Harwell Science and Innovation Campus in Oxfordshire that has been designed to produce very intense beams of X-rays, infrared and ultraviolet light. The facility provides a medium energy source supporting a very wide range of applications. The synchrotron is free at the point of access through a competitive application process, provided that the results are in the public domain.

http://www.diamond.ac.uk/Home.html

ISIS Neutron and Muon Source

ISIS Neutron and Muon Source is based at the STFC Rutherford Appleton Laboratory in Oxfordshire and is a world-leading centre for research in the physical and life sciences. With over 30 neutron and muon instruments the ISIS allows an international community of more than 3000 scientists to study materials at the atomic level.

https://www.isis.stfc.ac.uk

JÜLICH Forschungszentrum

The JÜLICH Forschungszentrum is a German located interdisciplinary research institution and member of the Helmholtz Association. JÜLICH has ten research institutes with over 60 sub-institutes working in the areas of energy and climate research, bio- and geosciences, medicine and neuroscience, complex systems, simulation science, and nanotechnology.

http://www.fz-juelich.de

ELETTRA Sincrotrone

ELETTRA Sincrotrone is an international multidispinary research centre, specialized in synchrotron and free electron laser light, with applications in materials and life sciences. The main assets of the research centre are two advanced light sources, the electron storage ring Elettra and the free-electron laser (FEL) FERMI, continuously (H24) operated supplying light of the selected "colour" and quality to more than 30 experimental stations.

http://www.elettra.trieste.it

EMBL Hamburg

EMBL Hamburg operates an integrated infrastructure for life science applications using synchrotron radiation. The facilities are situated at the PETRA storage ring, operated by Helmholtz Research Centre DESY in Hamburg-Bahrenfeld. The ring is a dedicated low emittance synchrotron radiation facility with leading optical parameters, named PETRA III. EMBL is responsible for maintaining and operating three undulator beamlines of which two are dedicated to macromolecular X-ray crystallography and one to small angle X-ray scatteringapplications of biological material.

https://www.embl-hamburg.de

ESRF

The European Synchrotron Radiation Facility located in Grenoble is the world's most intense X-ray source and a centre of excellence for fundamental and innovation-driven research in condensed and living matter science. Based on the international cooperation of 22 nations, ESRF provides unrivalled opportunities for scientists in the exploration of materials and living matter in many fields: chemistry, material physics, archaeology and cultural heritage, structural biology and medical applications, environmental sciences, information science and nanotechnologies.

https://www.esrf.eu

HZG-GEMS

The German Engineering Materials Science Centre, GEMS is a central user access platform, where the Helmholtz-Zentrum Geesthacht provides a worldwide unique infrastructure for complementary research with photons and neutrons. Instruments using synchrotron radiation are

operated at the outstation at DESY in Hamburg and instruments using neutrons are located at the outstation at the FRM II in Garching near Munich.

https://www.hzg.de/institutes_platforms/gems/index.php.de

ILL

The Institut Laue-Langevin is an international research centre at the leading edge of neutron science and technology. Located at……, ILL provides scientists with a very high flux of neutrons feeding some 40 state-of-the-art instruments and its Research focuses primarily on fundamental science in a variety of fields: condensed matter physics, chemistry, biology, nuclear physics and materials science, etc.

https://www.ill.eu

KIT Karlsruhe Institute of Technology

Being the Research University in the Helmholtz Association, KIT creates and imparts knowledge for the society and the environment excelling in a broad range of disciplines, i.e. in natural sciences, engineering sciences, economics, and the humanities and social sciences.

https://www.kit.edu

Annex II: List of RI websites where details about publication policies can be found

ALBA
https://www.cells.es/en/users/after-your-experiment

DESY
http://photon-science.desy.de/e8/e175093/e201908/e201916/index_eng.html?preview=preview

Diamond Light Source
https://www.diamond.ac.uk/Users/Policy-Documents/Policies/Publications-and-Open-Access-Pol.html

Elettra Sincrotrone Trieste (to be updated in 2020)
https://www.elettra.trieste.it/userarea/publications.html

EMBL Hamburg
https://www.embl-hamburg.de/services/index.html (in the instrument guides for P12, P13 and P14, linked from this page)

ESRF
http://www.esrf.eu/UsersAndScience/UserGuide/Publications

European XFEL
https://www.xfel.eu/users/experiment_support/policies/user_publication_policy/index_eng.html

HZB-BESSY
https://www.helmholtz-berlin.de/user/beamtime/publishing/index_en.html

HZG-GEMS
No web page information

ILL
https://www.ill.eu/users/user-guide/after-your-experiment/after-your-experiment/#c9759

INFN-LNF
https://web.infn.it/Dafne_Light/index.php/how-to-apply/european-users

ISIS
https://www.isis.stfc.ac.uk/Pages/ISIS-Publications-and-Open-Access.aspx

Karlsruhe Institute of Technology (KIT)
http://www.ibpt.kit.edu/user_experiments.php

LLB-CEA
http://www-llb.cea.fr/en/Web/hpr_web/HPRWEB4.php

MLZ
https://www.mlz-garching.de/englisch/user-office/terms-of-reference.html

PSI (SINQ, SLS, SμS and SwissFEL)
https://www.psi.ch/de/useroffice/psi-data-policy

Solaris
https://synchrotron.uj.edu.pl/documents/1457771/141455682/TERMS+CONDITIONS.EN.pdf/e84b9436-2341-461e-b5f0-2759c9bbb8e1 (article 12)

SOLEIL
https://www.synchrotron-soleil.fr/fr/espace-utilisateurs/apres-lexperience

Annex III: Data table

FACILITY	IS THE PUBLICATION POLICY AVAIALBLE ON INTERNET?	DOES THE FACILITY REQUIRE PAPERS TO BE IN OPEN ACCESS JOURNALS?	HOW SHOULD THE USER CITE THE LOCAL SCIENTIST?	HOW SHOULD THE USER CITE THE INSTRUMENTS USED?	DOES THE POLICY INCLUDE DETAILS ABOUT ACKNOLWEDGING FUNDING?	IS THE USER REQUIRED TO TELL THE RI ABOUT PUBLICATIONS?	DID THE RI CONFIRM THIS INFORMATION?
ALBA	YES	All scientific publications co-authored by ALBA staff must be uploaded at UAB-DDD/ALBA digital deposit. Post-print versions of all publications must be prepared. When the DOI is available, ALBA User Office is in charge to carry out the uploading. The ALBA database is publicly searchable and therefore could be considered an archive for open access.	Appropriate acknowledgment should be given to the support given by beamline and technical staff. Since this is a matter of judgment, the following guidelines are offered: 1. ALBA staff named on as co-investigators on proposals for beam time at ALBA should be included amongst the list of authors. 2. The inclusion of the local contact in the list of authors has to be decided on a case-by-case basis. The decision to include a local contact in the list of authors signifies that the person provided more than routine technical support. If the success of the experiment rested upon creativity, ingenuity or persistence of the local contact, possibly late into the evening/night, then inclusion on the list of authors would be fair recognition. Another indicator would be if the local contact provided substantial help with data analysis and interpretation. 3. If the contribution of a member of ALBA staff does not justify inclusion in the list of authors, then a note indicating the support received from ALBA should appear in the acknowledgements section of the publication resulting from an experiment at ALBA.	Authors shall quote ALBA in the acknowledgement section as follow: “These experiments were performed at […] beamline at ALBA Synchrotron with the collaboration of ALBA staff.”	On a separate page from the main information about publications the users are given a statement to use when acknowledging Calipsoplus funding (including the grant number).	Users are asked ro report publications as soon as possible with a link to the user office software where this can be done.	Yes
ASTRID2	NO	N/A	N/A	N/A	N/A	N/A	Yes
DESY	YES	The policy requires publication according to ‘established standards’ this does not explicitly refer to open access publication but to publication in peer-reviewed journals (=established standards) in general. However, our users are requested to provide DESY with the latest author version /PDF of the article. The Papers are then made available via the DESY Publication Data Base under consideration of applicable copyrights.	The statement in the policy, quoted for how to cite the instruments used includes: giving reference to … supporting beamline staff of any other assistance as appropriate.'	In publications based in total or in part on research carried out at DESY Photon Science, the following note is expected to appear in the acknowledgements, giving reference to the station(s) used, supporting beamline staff or any other assistance as appropriate, e.g. EU contract numbers (Reporting Requirements): "Portions of this research were carried out at the light source N.N.* at DESY, a member of the Helmholtz Association (HGF). We would like to thank N.N.** for assistance in using beamline N.N.***." *FLASH / PETRA III / DORIS III **Names of the beamline staff in case that they are not co-authors ***Name of the used beamline(s) A similar acknowledgement should be included in conference presentations, proceedings and any other public	If applicable, also acknowledge travel reimbursement. If granted via CALIPSOplus please inlcude the following sentence: "The research leading to this result has been supported by the project CALIPSOplus under the Grant Agreement 730872 from the EU Framework Programme for Research and Innovation HORIZON 2020"	Users are asked ro report publications as soon as possible with a link to the user office software where this can be done; upload of the paper is also highly appreciated. If not done by the users, DESY add the paper whenever possible and time permits.	Yes

DIAMOND	YES	The publications and open access policy document explains what options are available for open access publications and goes on to state that users are required to publish in using open access, but that the choice of green or gold open access remains with the user and their establishment.	The guidelines for publications, online in the section for users 'after they leave' includes the following: Appropriate acknowledgment should be given to the support given by beamline and technical staff. Since this is a matter of judgement and the following guidelines are offered: Diamond employees named on as co-investigators on proposals for beamtime at Diamond should be included amongst the list of authors. The inclusion of the local contact in the list of authors has to be decided on a case-by-case basis. The decision to include a local contact in the list of authors signifies that the person provided more than routine technical support. If the success of the experiment rested upon creativity, ingenuity or persistence of the local contact, possibly late into the evening/night, then inclusion on the list of authors would be fair recognition. Another indicator would be if the local contact provided substantial help with data analysis and interpretation. If the contribution of a member of Diamond staff does not justify inclusion in the list of authors, then a note indicating the support received from Diamond should appear in the acknowledgement of the publication resulting from an experiment at Diamond.	The guidelines for publications, online in the section for users 'after they leave' instructs users to to acknowledge Diamond instruments using the following statement: This work was carried out with the support of the Diamond Light Source, instrument XXX (proposal XX12345)	The guidelines for publications, online in the section for users 'after they leave' contains the following advice for users in receipt of EU funding: - Any research that has used funding from iNEXT should include the statement: "This work has been supported by iNEXT, grant number 653706, funded by the Horizon 2020 programme of the European Union." - Independently of the selected journal, every user who was supported by the trans-national access program of CALIPSOplus is obliged to acknowledge funding in his or her publication, using the following statement: The research leading to this result has been supported by the project CALIPSOplus under Grant Agreement 730872 from the EU Framework Programme for Research	The publications and open access policy requires that users should log their publication in the publications database and send a copy to Diamond.	Yes
ELETTRA	YES. Updated version due in 2020	The Elettra policy mentions Open Access as an option, e.g. in the text we send to users: "The User should share the scientific results with the scientific community through publication in appropriate journals, including Open Access publications, within a reasonable amount of time."	Users are sent the following text: "The User should acknowledge the open access contribution of the RI to his/her research project in every publication based on the results obtained at the RI. If appropriate, the staff of the RI that enhanced the results should also be acknowledged. In cases when the scientists or engineers of the facility contributed significantly to the success of the User's project, the User should consider including them as coauthors on the resulting scientific publications."	The user is asked to mention, in every publication, the beamline on which data were obtained. Starting from 2020 they will be asked to cite the instrument DOI or the DOI of the dataset used in the publication which can be connectet to the instrument.	Specific sentences (e.g. CALIPSOplus or Laserlab Europe funding) provided in the User Area of our website (http://www.elettra.trieste.it/userarea/eu-support.html)	As soon as a publication is accepted, users are requested to insert it in our Database through the Virtual Unified Office. The beamline coordinators need to validate every publication to complete the process. In the future more automatised way to handle the process will be devised possibly based on AI supporting the beamline coordinators.	Yes
EMBL Hamburg	YES	No open access policy in place for facility users.	Instruction on internet: "The synchrotron <SAXS/MX> data was collected at beamline <P12/P13/P14> operated by EMBL Hamburg at the PETRA III storage ring (DESY, Hamburg, Germany). We would like to thank N.N.** for the assistance in using the beamline." **If appropriate, names of the beamline staff in case they are not co-authors.	Request for instrument to be cited (P12, P13 and/or P14), citation links are provided per instrument.	EMBL Hamburg provides a statement that the users should use to acknowledge relevant EU funding.	No requirement by EMBL Hamburg, but DESY synchrotron users are asked for publication recording via DESY publication database/specific user software.	Yes
ESRF	YES	Poster on open access to inform the users (https://epn-library.esrf.fr/flora/icons/css/flora2/visual/Open_Access_poster.pdf) Users are requested to send the author version of their publications to the joint ESRF/ILL library Users are encouraged to publish in open access but they are not obliged to	Acknowledge assistance from ESRF staff, according to the following template: "We acknowledge the European Synchrotron Radiation Facility for provision of synchrotron radiation facilities and we would like to thank xyz for assistance in using beamline ###." is requested If a local scientist has participated actively in the experiment setup, data harvesting and analysis with the visiting team, a collaboration can be put in place and a co-authorship can be discussed. (case by case)	Acknowledge assistance from ESRF staff, according to the following template: "We acknowledge the European Synchrotron Radiation Facility for provision of synchrotron radiation facilities and we would like to thank xyz for assistance in using beamline ###." is requested DOIs provided by sessions are now put in place (recently) and users must now provide them in the publication (data policy 6.1 http://www.esrf.eu/files/live/sites/www/files/about/organisation/ESRF%20data%20policy-web.pdf)	NO - use of ESRF is covered by member countries and doesn't involve other fundings. If material, samples are funded by a grant this should be mentionned but not related to ESRF use.	Users are asked to register their publication in the Joint ESRF/ILL library database and provide the author version of the article. The librarians search regularly for publications mentionning experiments on our instruments and add them to the Library database	Yes

EUROPEAN XFEL	YES	The policy only obliquely refers to open access publications, stating: It is understood that article processing charges (APCs) that occur during the publication process will be paid by the institution(s) of the corresponding author(s) in case there is no third-party funding available	The policy opens with a statement of the '*fundamental principle*' that all European XFEL contributions to publications shall be recognized. They then go on to outline a process by which inclusion of European XFEL scientists will be determined. A first draft of the co-author list from the proposing team must be made available before the start of the experiment. The leading scientist and local contact at European XFEL are responsible for adding the appropriate European XFEL scientists to that co-author list. The PI and leading scientist are then to agree on the final list of co-authors. With this in place, there is then an additional statement providing a general acknowledgement of the European XFEL naming the instrument and thanking the instrument group and facility staff as a collective	The European XFEL policy provides a statement users should include: We acknowledge European XFEL in Schenefeld, Germany, for provision of X-ray free-electron laser beamtime at <Scientific Instrument> and would like to thank the instrument group and facility staff for their assistance. As a footnote, the policy includes the instrument names as they should be included in the acknowledgement.	A statement is provided that users should include in the case that they are in receipt of grant funding to support their use of the research infrastructure (instructions on individual cases given by User Office)	The policy asks that users provide citation information of reprints to the user office. In addition, EuXFEL ask that, where there may be media or PR interest, this is notified to the user office.	Yes
HZB-BESSY	YES	No open access policy in place for facility users. However, clear indication is made that those projects supported by Horizon 2020 funding need to publish in an open access way.	This policy prompts the user to include the local scientist as a co-author in all publications but allows for the case where this would be unreasonable: Without the dedicated work of HZB scientists in designing, commissioning, building, maintaining, and developing the HZB instruments and experimental stations many experiments could not be carried out. For this reason we would appreciate it if you included your HZB local contact as co-author on your papers. If your research team is largely self-sufficient and you do not intend to include your local contact as a co-author on publications, you should discuss this with your local contact during the experiment.	The policy asks the user to acknowledge HZB in two places. In the experimental section of the paper: "Measurements were carried out at the XX instrument (beamline/station) at Helmholtz-Zentrum Berlin." and in the acknowlegements "We thank HZB for the allocation of neutron/synchrotron radiation beamtime"	There is a section on acknowledging financial support outlining the potential grants that could have provided funding for the work and indicating how they should be acknowledged.	The user is required to supply the citation information to the digital user office software they are using.	No
HZG-GEMS	NO	HZG has policies explaining the types (gold and green) of open access publication. Experiments funded by EU projects have to publish in open access journals.	GEMS is running instruments at PETRA III/DESY and FRM II/MLZ, therefore the publication policies of these facilities apply.	The user should follow the publication policies of the facilities; articles like in JLSR for citing of the instruments.	HZG-GEMS provides a statement users should include in the case that their experiments were funded by EU projects.	Users are asked by the facilities to provide citation information to the relevant user offices.	Yes
ILL	YES	This policy asks that the user will give preference to Open Access publication, indicating that where the experiment is supported by EU funding, APC costs are eligible on the project.	The ILL policy states that: If the results of your experiment are going to be published you must give proper credit to ILL staff members who participated in the experiment and proper mention of the ILL facilities used (preferably on the first page). The ILL considers it natural that local contacts who have made a significant contribution to the conception, design, execution, analysis or interpretation of user experiments should be offered the opportunity to be listed as authors in publications. As a minimum you should acknowledge ILL scientists with their ILL affiliation at the end of your paper. Since co-authorship can be contentious, this policy asks that the terms of the local scientist involvement are understood before the start of the experiment.	As per the statement for citing the local scientist, this policy requires the user to give proper mention of the ILL facilities used in all publications.	It is clear that if EU funding is used, any publication should be open access, but there is no comment on how the user should specifically acknowledge EU funding.	Users are asked to register their publication in the Joint ESRF/ILL library database and provide the author version of the article. The librarians search regularly for publications mentionning experiments on our instruments and add them to the Library database	No
INFN-LNF	Yes, for EU funded users	For usesr funded by the EU project CALIPSOplus financial support is given for gold open access publications.	Local scientists are included on the publication only if they had a direct involvement in the measurements and data analysis. This is not written but come out automatically if this kind of support is given. Otherwise they are normally included in the acknowledgements.	The facility, the beamline and also the instruments used to perform the measurements also if not written are normally cited in the papers.	The EU funded users, as written on the web page including information for EU users, are obliged to acknowledge fundings in their publications citing the project name, the number of the Grant Agreement and the EU framework.	When asking for the experimental reports that must be sent to the facility we also ask for information on publications.	Yes

ISIS	YES	The ISIS policy explaining the types of open access publication. They require open access publication and recommend Gold Open Access publication. Limited conditions under which financial support will be provided to pay article processing charges	This policy states: When publishing results from your experiments at ISIS, it is expected that you will include your ISIS local contact as a co-author on your papers. Without the dedicated work of ISIS scientists in designing, commissioning, building, maintaining and developing the ISIS instruments many experiments could not succeed. If your research team is largely self-sufficient and you do not intend to include your local contact as a co-author on publications, you should discuss this during the experiment.	The policy states: Your publications from experiments at ISIS should contain an acknowledgement of the support received from ISIS. For example: "Experiments at the ISIS Neutron and Muon Source were supported by a beamtime allocation RBXXXXXX from the Science and Technology Facilities Council."	No information specified	This policy asks that information on publications is sent to a named person (with the email address provided).	No
Karlsruhe Institute of Technology (KIT)	YES	No information specified	No information specified	The policy instructs the user to include the following statement in their publications: We acknowledge the KIT light source for provision of instruments at their beamlines and we would like to thank the Institute for Beam Physics and Technology (IBPT) for the operation of the storage ring, the Karlsruhe Research Accelerator (KARA).	No information specified	No information specified	Yes
LLB - CEA	YES	No information specified	No information specified	No information specified	LLB-CEA provide a clear statement for users in receipt of EU funding.	This policy asks that users provide citation information of reprints to the user office.	Yes - ongoing provision via CRG @PSI and ILL and will comply with those policies
MLZ	YES	The MLZ provides free beam time for scientific use at its instruments – under the condition that results are published in a peer reviewed journal or an equivalent paper, naming the MLZ. (So far there is no demand/rule to publish (only) in open access journals.)	The MLZ expects that the local contact in charge of the proposal is involved as co-author in publications mainly dealing with the results of the experiment. Furthermore users are obliged to notify their local contacts about any publication of the results achieved at the MLZ. Please keep in mind, that without his help during the measurement, and providing the instrument the experiments would not be possible.	Proper mention shall be made of the used instrument and the operating institution, preferably on the first page. Alternatively the following acknowledgement statement is required at the end of the publication. "This work is based upon experiments performed at the [instrument name] instrument operated by [xxx] at the Heinz Maier-Leibnitz Zentrum (MLZ), Garching, Germany." (being xxx one of the following institutions: HZG, JCNS, MPG, FRM II). Each instrument is decribed in an article in the Journal of large-scale research facilities (JLSRF). The DOI for this article is available at the instrument's web page.	When a financial support has been granted to the experimental team from the operating institutions HZG, JCNS or FRM II this has to be acknowledged in any publication. For the acknowledgement please use the following text: "The authors gratefully acknowledge the financial support provided by [xxx] to perform the neutron scattering measurements at the Heinz Maier-Leibnitz Zentrum (MLZ), Garching, Germany." (being xxx one of the following institutions: HZG, JCNS or FRM II).	Our Terms of Reference state: If an experiment has led to a publication, the PI must deposit a reference in the MLZ publication data base within three months. - However, a direct entry in our publication data base by the user is not possible. Therefore they have to tell the local contact at MLZ, and the local contact has to make the entry in the publication database. In addition, we perform regular user surveys once a year to collect all publication information.	Yes
PSI (SINQ, SLS, SμS, SwissFEL)	YES	No explicit request for open access publications but the PSI publ repository allows for green open access in many cases if the accepted version is being made available. Embargo periods are kept!	These policies prompt the user to include the local scientist as a co-author in all publications or at the least the authors should do is name the local scientist in the acknowledgements at the end of the paper: It is expected that PSI staff members acting as local contacts during your experiments at XX are mentioned as co-authors in any publication that results from data obtained at XX. XX = SINQ, SLS, SμS or SwissFEL	Sample text is provided for each facility to indicate how the facility should be cited in the acknowledgements.	Sample statements are provided for the user to acknowledge EU funding from appropriate grants (e.g. SINQ indicates NMI3, SLS indicates CALIPSO etc.)	The policy asks that the users record all publications in the PSI publication repository DORA-PSI.	Yes

SOLARIS	YES	No information specified	Users are encouraged to offer co-authorship of the publication to the SOLARIS employees who have contributed to the achieved results of the experiment through their work.	Every publication must contain acknowledgement text for the research infrastructure includng the beamline name. The sentence "The experiment was performed thanks to collaboration of the SOLARIS Team" should be added.	No information specified	No information specified	Yes
SOLEIL	YES	The policy requires that results are published in 'open literature'.	Within the User's Charter, users are instructed that in all cases the local scientist should be thanked by name in the acknowledgement section of the publication.	The policy provides a statement for users to include that acknowledges both SOLEIL and the instrument used: "We thank SOLEIL for providing the synchrotron radiation facilities and for the help provided for the use of the "YYYY" beam line. "	Within the User's Charter, users are instructed that all financial support from external sources, including the EU should be clearly mentioned in the acknowledgement section of the publication. Within the 'preparing your experience' section there is a list of potential funding providers and included here are statements that might be used to acknowledge this funding.	Users are asked to provide a reprint of the publication to the SOLEIL Librry via the user office software).	No