D2.5: Recommendations for a minimal set of Rules of Participation

Author(s) | ELIXIR-Hub: Pascal Kahlem, Rafael Jimenez, Andrew Smith; CSC: Damien Lecarpentier; CNR: Donatella Castelli, Franco Zoppi. Contributors: Members of EOSCpilot WP2, WP3, WP5, ELIXIR.

Status | Draft/Review/Approval/Final
Version | v2.0
Date | 25/07/2018

Abstract:
This deliverable outlines a minimal set of Rules of Participation for Service Providers and Users in EOSC, and aims at feeding decisions within future discussions on EOSC Governance. The proposed organisational Rules of Participation for EOSC embrace the principles of openness, transparency and inclusiveness. They have been designed after deep analysis of widely accepted working practices in already established European infrastructures and organisations, and iterative consultations of EOSC Stakeholders.

The deliverable presents a main Rule of Participation for all EOSC service providers, complemented by a series of 7 specific requirements which could be applied depending on the needs of each scientific field. The main rule is that “EOSC services shall be registered in an EOSC compliant or compatible service catalogue visible to the global EOSC gateway”.

The European Open Science Cloud for Research pilot project (EOSCpilot) is funded by the European Commission, DG Research & Innovation under contract no. 739563
Document identifier: EOSCpilot - WP2-D2.5

Deliverable lead | EMBL
Related work package | WP2
Author(s) | Elixir-Hub: Pascal Kahlem, Rafael Jimenez, Andrew Smith; CSC: Damien Lecarpentier; CNR: Donatella Castelli.
Contributor(s) | Members of EOSCpilot WP2, WP3, WP5, ELIXIR.
Due date | 31/07/2018
Actual submission date | 31/07/2018
Reviewed by | Françoise Genova (CNRS/CDS, France) Massimo Cocco (INGV, Italy)
Approved by | Brian Matthews (STFC)
Start date of Project | 01/01/2017
Duration | 24 months

Versioning and contribution history

<table>
<thead>
<tr>
<th>Version</th>
<th>Date</th>
<th>Authors</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0</td>
<td>03/06/2018</td>
<td>EMBL</td>
<td>First draft</td>
</tr>
<tr>
<td>1.1</td>
<td>05/07/2018</td>
<td>EMBL</td>
<td>Update after internal review</td>
</tr>
<tr>
<td>2.0</td>
<td>23/07/2018</td>
<td>EMBL</td>
<td>Update after external review</td>
</tr>
</tbody>
</table>

Copyright notice: This work is licensed under the Creative Commons CC-BY 4.0 licence. To view a copy of this licence, visit https://creativecommons.org/licenses/by/4.0.

Disclaimer: The content of the document herein is the sole responsibility of the publishers and it does not necessarily represent the views expressed by the European Commission or its services.

While the information contained in the document is believed to be accurate, the author(s) or any other participant in the EOSCpilot Consortium make no warranty of any kind with regard to this material including, but not limited to the implied warranties of merchantability and fitness for a particular purpose.

Neither the EOSCpilot Consortium nor any of its members, their officers, employees or agents shall be responsible or liable in negligence or otherwise howsoever in respect of any inaccuracy or omission herein.

Without derogating from the generality of the foregoing neither the EOSCpilot Consortium nor any of its members, their officers, employees or agents shall be liable for any direct or indirect or consequential loss or damage caused by or arising from any information advice or inaccuracy or omission herein.
TABLE OF CONTENT

EXECUTIVE SUMMARY  
1. SECTION 1 - INTRODUCTION  
2. SECTION 2 - RECOMMENDED MINIMAL SET OF RULES OF PARTICIPATION  
   2.1. Background  
   2.2. Scope of the study  
   2.3. Recommended Rules of Participation for Service Providers  
      1. Main Rule of Participation for all Service Providers  
      2. Additional specific requirements  
      3. Rule specific to Core Resources of EOSC  
   2.4. Suggested EOSC Rules of Participation for Users  
3. SECTION 3 - ALIGNMENT WITH THE EOSC IMPLEMENTATION ROADMAP  
4. SECTION 4 - CONCLUSION  
ANNEX - SUMMARY OF THE CONSULTATION PROCESS  
   1. First phase (May-June 2017)  
   2. Second phase (July-Sept 2017): Interviews of leaders of selected Infrastructures  

LIST OF TABLES  
Table 1 - Alignment of EOSC Rules of Participation with the EC Implementation Roadmap  
Table 2 - Detailed overview of the mapping of principles of engagement in the infrastructures  
Table 3 - Interviews of leaders of selected infrastructures
EXECUTIVE SUMMARY

The key objective of the EOSCpilot Governance Work Package 2 is to design and trial a stakeholder driven governance framework with the involvement of research communities, research institutions, research infrastructures including e-infrastructures, and research funding bodies, to shape and oversee future development of the European Open Science Cloud. This deliverable D2.5 fulfils one of the objectives of the Sub-Task 2.3.1 of the EOSCpilot Work Package 2 (Governance), which consists of identifying and proposing a minimal set of Rules of Participation for Service Providers and Users in EOSC, necessary for EOSC participation and function.

This task first investigated and analysed the landscape of 7 e-Infrastructures, 11 Research Infrastructures, 2 commercial cloud providers and scientific initiatives established on the basis of charters/codes of conduct. Organisational Rules of Participation for EOSC were designed in harmony with widely accepted working practices in already established organisations, embracing the principles of openness, transparency and inclusiveness. Iterative consultations with EOSC Stakeholders through 5 events in 2017 and 2018 led to further refine the set of rules that are presented in this deliverable. The proposed Rules of Participation are also aligned with the Implementation Roadmap for the European Open Science Cloud published by the European Commission on March 14, 2018.

The deliverable D2.5 outlines a main Rule of Participation for all EOSC service providers, complemented by a series of 7 specific requirements which could be applied depending on the needs of each scientific field. The main rule is that “EOSC services shall be registered in an EOSC compliant or compatible service catalogue visible to the global EOSC gateway”. Additional service specifications may be required in the catalogue(s) depending on the scientific domain. We identified seven specifications of importance, which inform the users and the EOSC governance on the function of the service (availability, functionalities, maturity, support, terms of use, contractual framework) or the characteristics of the service (quality, performance, sustainability, access policies, data portability, compatibility, among others). Service descriptive information must be provided to the catalogue(s) and publicly displayed to enable users to assess the characteristics and quality of the service, as well as those of the service providers. The proposed service specifications tackle the following topics: machine-readable metadata, terms of use and policies, accessibility, portability, access costs and charging model, quality of service and relation to users. These specifications will need to adapt to the dynamic ecosystem consisting of the EOSC Services.

This report aims at feeding future decisions within discussions on EOSC Governance.
1. SECTION 1 - INTRODUCTION

This deliverable D2.5 fulfils one of the objectives of the Sub-Task 2.3.1 of the EOSCpilot Work Package 2 (Governance), which consists of identifying and proposing a minimal set of Rules of Participation for Service Providers and Users in EOSC, necessary for EOSC participation and function. This report aims at feeding decisions within future discussions on EOSC Governance.

The deliverable is the result of a joint effort between the EOSC Governance Work Package 2 (Task 2.3.1), EOSC Architecture Work Package 5 (Task 5.1) and the Service Management Framework Work Package 5 (Task 5.3) and the Policy Work Package 3.

This task first investigated and analysed the landscape of e-infrastructures, research infrastructures, commercial service providers, and scientific initiatives established on the basis of charters/codes of conduct. A series of Stakeholders consultations allowed further refinements of the set of rules that are presented in this deliverable.

The proposed organisational Rules of Participation for EOSC have been designed in harmony with widely accepted working practices in already established organisations, embracing the principles of openness, transparency and inclusiveness.

The following sections include the description of the background leading to the present work, and define the scope of the study. The recommended minimal set of Rules of Participation are then described, followed by the analysis of their alignment with the Implementation Roadmap for the European Open Science Cloud published by the European Commission on March 14, 2018. The annex contains the details of the consultation process that spanned from May 2017 to May 2018.
2. SECTION 2 - RECOMMENDED MINIMAL SET OF RULES OF PARTICIPATION

2.1. Background

Based on the analysis of the various Rules and Principles of Engagement of a set of e-infrastructures and research infrastructures on the provision of various types of Services (Compute, Data, Bioinformatics Tools, among others) and iterative consultation of the EOSC community and leaders of research infrastructures, this document sets out current thoughts on a minimal set of Rules of Participation for Service Providers and Users to engage with the EOSC.

This set of Rules is being refined through an iterative consultation with both EOSC community and leaders of research infrastructures, which represent potential future Users and Service Providers. A summary of the consultation process can be found in the ANNEX1.

The Rules of Participation initially gathered through the analysis of 20 e-infrastructures and research infrastructures from May to September 2017 revealed various levels of entry barriers for Service Providers and Users, depending on the regulations of each individual infrastructure. High-barrier rules ensure a higher quality of Services, but also exclude many of them upfront. In turn, low-barrier rules enable the inclusion of most Services and empower the Users to select the Services according to their own criteria and needs.

The consultation process, started in October 2017, has already allowed to refine the broad set of Rules of Participation initially gathered into a simple set that applies the lowest barrier of entry for service providers. The proposed set of Rules will drive the specific description of the services to enable the Users to select the most appropriate ones.

The Rules of Participation can and will be subject to updates as EOSC matures, accompanied by specific guidelines when required, so we expect the set of Rules to be small and generic enough to allow for participation from all Service Providers and Users from the outset, ensuring as wide a participation in EOSC as possible.

2.2. Scope of the study

In the Rules of Participation described hereafter, ‘Service Providers’ are taken to be any organisation which is or planning to offer a Service in the context of EOSC, and include compute (cloud infrastructure) tools, data providers and providers of other research-related services (e.g. providers of semantic tools, providers of network, AAI, scholarly communication services, among others). ‘Users’ (see the definition of End-Users in the Glossary2) include individual researchers and research organisations. Users can become Data Providers and/or Service Providers when, for example, they access and process data to

---

1 https://docs.google.com/document/d/1J8d30DMG_KhG8vih1lrOlM4VpYFjOnk4sS59whjaIE/edit#  
2 https://docs.google.com/document/d/1Gq73U2tVnXlIIpXH9b4GB06EGiipdUtGvHbMm0/edit#heading=h.s90dmy4nakt4
provide services. All through the document, we name “Service” any service provided by a given Service Provider. That service may be unique to the Service Provider, or may be an instance of a service implemented by that Service provider.

We aimed at aligning this work with the tasks of various Work Packages in EOSCpilot: WP2 Task 2.3.1 (Investigation and analysis of organisational Rules of Engagement for EOSC), WP2 Task 2.2 (Federated Governance Framework\(^3\)), WP3 (Policy), WP5 (Services Demonstrators and Services Architecture\(^4\), Service Management Framework\(^5\)) and WP6 Task 6.2 (Data registries for EOSC). These Rules have been adjusted to reflect the need for inclusiveness on the EOSC participation and propose specific Rules which could be added to fulfil the requirements of particular scientific communities or services.

The European Commission announced on 14 March 2018 the adoption of the Implementation Roadmap for the European Science Cloud\(^6\), which proposes a framework for Rules of Participation to EOSC. Table 1 (Section 3) shows how the recommended Rules of Participation fully align with the framework specified by the EOSC Implementation Roadmap.

We are aware that the EOSC-Hub project started in January 2018 and in Work package 10, the Task 10.2 “Service Catalogue Technical Evolution” aims at defining rules of engagement for service providers that have services to be included within the Service Catalog. The contents of the present document have been already discussed in March 2018 with the experts in charge within ELIXIR-Hub. This document lays the first draft for recommendations of a minimal set of Rules of Participation, based on an iterative consultation of the research community. We expect the EOSC governance structures and the ongoing projects (e.g. EOSC-Hub) to refine these Rules and adapt them to the needs as EOSC develops.

\(^{3}\) Deliverable D2.2: http://eoscpilot.eu/content/d22-draft-governance-framework-european-open-science-cloud

\(^{4}\) Deliverable D5.1: https://docs.google.com/document/d/1ZeEo32_c6zWE-1r04VxL9oBkKVcXbdRxIPq5Skj4/edit

\(^{5}\) https://docs.google.com/document/d/1tJmNvbkChWTAgEonUQzn_tqS47mw5rYlwttNDxSP8ipl/edit?ts=5ac76c5f

\(^{6}\) http://ec.europa.eu/research/opencourse/pdf/swd_2018_83_f1_staff_working_paper_en.pdf#view=fit&pagemode=none
2.3. Recommended Rules of Participation for Service Providers

1. Main Rule of Participation for all Service Providers

EOSC services shall be **registered** in an EOSC compliant\(^8\) or compatible service catalogue visible to the global EOSC gateway.

There are multiple service catalogues in each scientific community (e.g. TeSS\(^9\) for life science training resources, bio.tools\(^10\) for bioinformatics resources, or FAIRsharing\(^11\) for data and metadata standards). It is recommended that service providers register their services to community accepted and supported catalogues. Catalogues are diverse and various tasks within the EOSCpilot project are providing recommendations about EOSC catalogues:

- EOSCpilot Task 5.1 EOSC Architecture for the basic principles governing the development of the EOSC System Architecture and its services. (Deliverable D5.1 - Initial EOSC Service Architecture).
- EOSCpilot Task 5.2 for the process of entry to and requirements for being accepted in the EOSC Service portfolio. (Deliverable D5.2 - EOSC Service portfolio).
- EOSCpilot Task 5.3 for the Federated Service Management Framework. (Deliverable D5.3 - EOSC Federated Service Management Framework)
- EOSCpilot Task 6.2 for the research and data interoperability within the EOSC. (Deliverable D6.2 - EOSC architecture design)

In the EOSC compatible catalogues, the registered services must be described according to the appropriate EOSC service guidelines (based on the eInfraCentral\(^12\) project), which include information about the service availability, functionalities, operations, maturity, user support, interoperability (metadata schemata supported), openness (licenses), privacy (GDPR compliance), terms of use and contractual framework.

**Rationale:** Inclusiveness, transparency, enabling standardisation and interoperability of services.

---

\(^7\) Be them providers of EOSC Services, EOSC Compatible Services, EOSC Service Components (cf. EOSC Deliverable D5.1).
\(^8\) [http://eoscpilot.eu/content/d22-draft-governance-framework-european-open-science-cloud](http://eoscpilot.eu/content/d22-draft-governance-framework-european-open-science-cloud)
\(^9\) [https://tess.elixir-europe.org/](https://tess.elixir-europe.org/)
\(^10\) [https://bio.tools/](https://bio.tools/)
\(^11\) [https://fairsharing.org/](https://fairsharing.org/)
\(^12\) [http://beta.einfracentral.eu/home](http://beta.einfracentral.eu/home)
2. Additional specific requirements

Particular service specifications may be required in the catalogue(s) depending on the scientific domain. We identified seven specifications of importance, which inform the users and the EOSC governance on the function of the service (availability, functionalities, maturity, support, terms of use, contractual framework) or the characteristics of the service (quality, performance, sustainability, access policies, data portability, compatibility, among others). Service descriptive information must be provided to the catalogue(s) and publicly displayed to enable users to assess the characteristics and quality of the service, as well as those of the service providers. These specifications will need to adapt to the dynamic ecosystem consisting of the EOSC Services.

2.1. Machine readable metadata

All services (including specific instances of services implemented by Service Providers) must be described in machine readable format and be identifiable by means of a common and persistent identification. Minimal information must be provided to the catalogue(s) according to the specifications of the EOSC catalogue (see rule 1) and to accommodate the specificities of the corresponding community(s) to allow users to assess operational and functional aspects of the Service Providers (e.g. quality indicators, FAIR indicators, licences, etc).

*Rationale:* Drives adoption of generic standards for content description. Promotes transparency of services.

2.2. Terms of Use and Policies

All EOSC services must have Terms of Use (including Access Policies such as who is able to access them, for how long, who the data could be used/aimed for, how long data will be available, security and privacy issues, the need for Service Level Agreements, among others) and other policies (such as data curation and preservation procedures) displayed publicly online and/or via the EOSC Service catalogue(s).

For data catalogues for instance, EOSCpilot WP3 “EOSC policy” recommends using machine readable licenses instead of terms of use (where possible) and to have a limited number of compatible licenses. WP3 also recommends that Service Providers use EOSC-designed templates of terms of use for specific types of services.

Services that provide “Excellence-based access” (e.g. PRACE) - where research groups are allocated resources based on competitive processes - should operate with transparent expert peer-review.

*Rationale:* EOSC will build on services provided by many organisations. This may limit individual user access or the type of project that can use a given resource (e.g. data security). Such restrictions must be fully transparent.

---

13 EOSCpilot deliverable D3.1
14 www.prace-ri.eu/
2.3. Accessibility
EOC Service Providers must describe how they ensure accessibility and interoperability, and provide information in the EOSC compatible service catalogue where they have registered their service on, e.g. their metadata, APIs, standards, protocols, etc.

*Rationale: Allows for a more open market for users.*

2.4. Portability
Legal and technical infrastructures should enable the portability of data and services. Whenever possible, Service Providers (e.g. tools service providers) should support the deployment and execution of their service by users in compatible computing environments. (Work by EOSCpilot Task 5.4 “Service pilots”)

Example of the ELIXIR (Research Infrastructure for Life Sciences) strategies to implement the portability principle: “we invest significantly in portable workflows (CWL) and making our galaxy servers interoperable (galaxy community); we invest in a reference data distribution service to ensure that users can move data to different clouds and we invest in compatible cloud execution systems (GA4GH cloud project) with the common AAI to tie this together”.

*Rationale: Facilitates use of service on sensitive data.*

2.5. Access costs and charging model
Service providers may apply user charges/fees, which could vary by type of service, type of service provider and location of users. This information must be made clear to users online and via the service catalogue(s). In particular cases, underlying costs could be indicated: for instance for data-related services, service providers could indicate maintenance costs, curation, stewardship, etc.

*Rationale: Low barrier, as it allows for all players (public and private) to engage and the decision on what services to consume is left to users.*

2.6. Quality of service
Service providers should adhere to a minimal set of quality guidelines that are being developed within the EOSCpilot project and the EOSC-hub project. These may include the Technology Readiness Level (TRL) scale or domain-specific certifications (for example the CoreTrustSeal certification for a data repository, or an ISO27001 information security standard certification for a service provider).

*Rationale: Building trust with users. EOSC will build on services provided by many organisations. Users must be able to make informed choices based on quality, performance and capacity.*

---

15 See EOSCpilot Task 6.2.4
16 https://www.eosc-hub.eu/
17 https://www.coretrustseal.org/
18 https://www.iso.org/standard/54534.html
2.7. Relation to users
Service providers should be transparent about the data management mechanisms they use to store-process-publish content. If applicable, Service Providers:

- **FAIRness and Reproducibility:**
  - must publicly indicate if they provide users with the means, and list them, to apply FAIR principles to research data.
  - must publicly indicate if they offer the mechanisms, and list them, to ensure sustainability, openness and reproducibility of data.

- **Privacy and Security:**
  - must publicly disclose details on what data about users is collected and how the user statistics is tracked, managed and used for service improvement.
  - must publicly indicate that they offer the mechanisms to apply data protection rules according to the General Data Protection Regulation, especially in terms of Data Protection by Design and Data Protection by default, using relevant shields and information.

- **Easing usability:**
  - All services should be accompanied by corresponding documentation, support and training materials and contact channels (e.g. email, helpdesk) to interact with the service provider.

**Rationale:** Develop and maintain trust in provided services through transparency mechanisms.

3. Rule specific to Core Resources of EOSC
The Core Resources of EOSC are the “set of services and processes that are needed for EOSC operations to integrate and enable access to the various resources federated in the EOSC (for example a central AAI, service registry, monitoring, helpdesk, enabling users feedback, among others) [See section 4.2.3 of the governance framework draft document](http://eoscpilot.eu/content/d22-draft-governance-framework-european-open-science-cloud).

We acknowledge the need for Core (enabling) Resources of EOSC as the glue of EOSC. Their cross-domain, cross-region use are absolutely essential for basic EOSC operation. Once a service falls into this category, it must follow stricter rules both on the level of service provision (Service Level Agreements (SLAs)) and the interoperability aspects.

---

19 [http://eoscpilot.eu/content/d22-draft-governance-framework-european-open-science-cloud]
2.4. Suggested EOSC Rules of Participation for Users

Here we consider Users as the end-users of Services. Users’ Rules of Participation may be ultimately framed within the Terms of Use presented by the Service Providers.

1. Data sharing and sustainability

For mid/long-term projects, we recommend the use of Data Management Planning tools as early in the process as possible. Such tools can produce machine-readable outputs and are linked to EOSC infrastructures and services. In the domains where community-recognised deposition data repositories providing the means for FAIRness and Openness exist (e.g. see the ELIXIR Deposition Databases for Biomolecular Data20), users should be encouraged to deposit data in them in the first instance.

As per the “Combined Recommendations for the Embedding of Open Science” published by the European Commission’s Open Science Policy Platform21, “individual researchers must consider openness the default position for their work, and use standard identifiers for themselves (ORCID), their outputs (DOI) and their contributions (CRediT)”.

2. Acknowledgement of use of services accessed through the EOSC gateway

If requested by the Terms of Use of the Service Provider, users accessing services through the EOSC gateway should acknowledge through citing in publications or other means the specific service or services that have enabled their research.

*Rationale*: Improving visibility of the usage/impact of Services through EOSC will support long-term sustainability of those services.

3. SECTION 3 - ALIGNMENT WITH THE EOSC IMPLEMENTATION ROADMAP

The European Commission announced on 14 March 2018 the adoption of the Implementation Roadmap for the European Science Cloud22, which proposes a framework for Rules of Participation to EOSC. Table 1 (an online version of the table is available23) shows how the recommended Rules of Participation fully align with the framework specified by the EOSC Implementation Roadmap.

---

20 https://www.elixir-europe.org/platforms/data/elixir-deposition-databases
21 https://ec.europa.eu/research/openscience/index.cfm?pg=open-science-policy-platform
22 http://ec.europa.eu/research/openscience/pdf/swd_2018_83_f1_staff_working_paper_en.pdf#view=fit&pagemode=none
23 https://docs.google.com/spreadsheets/d/1t1EofQwxsboBrUehytIwLeax32MJpmBzoVOqVNLykK0/edit#gid=0
Table 1 (part 1): Alignment of EOSC Rules of Participation with the EC Implementation Roadmap.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Implementation Roadmap</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>These needs would still exist in a transparent and inclusive environment.</td>
</tr>
<tr>
<td>2</td>
<td>The use of the EC's specifications, ecologies, and methodologies (framework for FAIR research data)</td>
</tr>
<tr>
<td>3</td>
<td>The special requirement 2.4 states that &quot;All EOSC services must adhere to EOSC framework and standards (EOSC shared resources and applicable ecosystems)&quot;</td>
</tr>
<tr>
<td>4</td>
<td>The principles for regulating transactions in the EOSC</td>
</tr>
<tr>
<td>5</td>
<td>The special requirement 2.7 states that &quot;Service providers should be transparent about the data management mechanisms they use to process-qualify content. If the data access policies displayed publicly online are incompe</td>
</tr>
<tr>
<td>6</td>
<td>The principles for regulating transactions in the EOSC</td>
</tr>
<tr>
<td>7</td>
<td>The principles for regulating transactions in the EOSC</td>
</tr>
<tr>
<td>8</td>
<td>The principles for regulating transactions in the EOSC</td>
</tr>
<tr>
<td>9</td>
<td>The principles for regulating transactions in the EOSC</td>
</tr>
<tr>
<td>10</td>
<td>The principles for regulating transactions in the EOSC</td>
</tr>
</tbody>
</table>

**Notes:**
- EOSC rules of participation include mechanisms to develop and maintain trust in provided services through transparency, confidentiality, and security. EOSC data access policies must enable a high level of transparency with clear and consistent rules. EOSC services should be transparent about the data management mechanisms they use to process-qualify content. In the context of the EC's implementation roadmap, these principles and mechanisms should be considered in the development of EOSC services and policies.
Table 1 (part 2): Alignment of EOSC Rules of Participation with the EC Implementation Roadmap.

<table>
<thead>
<tr>
<th>Requirement</th>
<th>EOSC Policies</th>
<th>EC Implementation Roadmap</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The need of all researchers and service providers to access and use EOSC services is acknowledged and supported.</td>
<td>1. The need of all researchers and service providers to access and use EOSC services is acknowledged and supported.</td>
<td>1. The need of all researchers and service providers to access and use EOSC services is acknowledged and supported.</td>
</tr>
<tr>
<td>2. The rules of participation of the EOSC would need to support a diverse and wide range of providers.</td>
<td>2. The rules of participation of the EOSC would need to support a diverse and wide range of providers.</td>
<td>2. The rules of participation of the EOSC would need to support a diverse and wide range of providers.</td>
</tr>
<tr>
<td>3. The decision on what services to consume is left to the users.</td>
<td>3. The decision on what services to consume is left to the users.</td>
<td>3. The decision on what services to consume is left to the users.</td>
</tr>
<tr>
<td>4. The service is provided by the service providers to the users.</td>
<td>4. The service is provided by the service providers to the users.</td>
<td>4. The service is provided by the service providers to the users.</td>
</tr>
<tr>
<td>5. The service is consumed by the users.</td>
<td>5. The service is consumed by the users.</td>
<td>5. The service is consumed by the users.</td>
</tr>
<tr>
<td>6. The service consumption model is flexible and adaptable to the needs of the users.</td>
<td>6. The service consumption model is flexible and adaptable to the needs of the users.</td>
<td>6. The service consumption model is flexible and adaptable to the needs of the users.</td>
</tr>
<tr>
<td>7. The actual existence and variety of service providers.</td>
<td>7. The actual existence and variety of service providers.</td>
<td>7. The actual existence and variety of service providers.</td>
</tr>
<tr>
<td>8. The current needs of all researchers and service providers need to be accommodated.</td>
<td>8. The current needs of all researchers and service providers need to be accommodated.</td>
<td>8. The current needs of all researchers and service providers need to be accommodated.</td>
</tr>
<tr>
<td>9. The specific requirement 2.6 states that service providers should strive to minimize the current situation and readiness of data.</td>
<td>9. The specific requirement 2.6 states that service providers should strive to minimize the current situation and readiness of data.</td>
<td>9. The specific requirement 2.6 states that service providers should strive to minimize the current situation and readiness of data.</td>
</tr>
</tbody>
</table>
4. SECTION 4 - CONCLUSION

This document lays the first draft for recommendations of a minimal set of Rules of Participation for Service Providers and Users in EOSC. The proposed Rules embrace the principles of openness, transparency and inclusiveness. The main rule is that “EOSC services shall be registered in an EOSC compliant or compatible service catalogue visible to the global EOSC gateway”. It is complemented with seven specific Rules which could be added to fulfil the requirements of particular scientific communities or services.

The European Commission announced on 14 March 2018 the adoption of the Implementation Roadmap for the European Science Cloud[24], which proposes a framework for Rules of Participation to EOSC. The recommended Rules of Participation fully align with the framework specified by the EOSC Implementation Roadmap.

This report aims at feeding decisions within future discussions on EOSC Governance and we expect the ongoing projects (e.g. EOSC-Hub) to refine these Rules and adapt them to the needs as EOSC develops.

ANNEX - SUMMARY OF THE CONSULTATION PROCESS

Authors: Andrew Smith (EMBL), Pascal Kahlem (EMBL), Donatella Castelli (CNR), Franco Zoppi (CNR), Damien Carpentier (CSC)

1. First phase (May-June 2017)

Broad-based study of the rules of engagement (of service providers and of users) of 7 e-Infrastructure providers/projects, 11 domain-specific research infrastructures (RIs), 2 commercial cloud providers and scientific initiatives established on the basis of charters/codes of conduct.

1) Service-providing RIs and e-Infrastructures picked from the e-infrastructure landscape (See e-IRG roadmap\(^{25,26}\)).
   - Networking
     - GEANT (https://www.geant.net)
   - Computing and cloud
     - EGI (https://www.egi.eu/)
     - PRACE (http://www.prace-ri.eu/)
     - Helix Nebula initiative (http://www.helix-nebula.eu/)
     - NIH Cloud (https://datascience.nih.gov/commons)
   - Data infrastructures and services
     - EUDAT (http://eudat.eu)
     - OpenAIRE (https://www.openaire.eu/)

2) Domain-specific Research Infrastructures

Acknowledged in the ESFRI roadmaps (http://www.esfri.eu/):
   - Social Sciences and Humanities
     - DARIAH (http://dariah.eu):
     - CESSDA (https://cessda.net):
     - ESS (http://www.europeansocialsurvey.org)
   - Environmental Science
     - LifeWatch (www.lifewatch.eu)
     - EPOS (https://www.epos-ip.org)
   - Biological and Medical Sciences
     - ELIXIR (http://www.elixir-europe.org/)

Not-acknowledged in the ESFRI roadmaps:
   - Satellite Earth Observation and in situ (non-space) data

\(^{25}\) http://e-irg.eu/roadmap
\(^{26}\) http://knowledgebase.e-irg.eu/e-infrastructures
- **Ocean and Marine Sciences**
  - SeaDataNet ([https://www.seadatanet.org/](https://www.seadatanet.org/))
- **EiroForum** ([http://www.eiroforum.org/](http://www.eiroforum.org/)) consists of eight European intergovernmental scientific research organisations with the aim to play an active and constructive role in promoting the quality and impact of European Research. These organisations bear already policies to manage the use of their services. Here are 3 examples:
  - CERN ([http://home.cern/](http://home.cern/)): Founded in 1954, the CERN (European Organization for Nuclear Research) laboratory sits astride the Franco-Swiss border near Geneva. It was one of Europe’s first joint ventures and now has 22 member states. CERN Procurement Rules for the procurement of supplies and services are here[^27].
  - ESA ([http://www.esa.int/](http://www.esa.int/)): Its mission is to shape the development of Europe’s space capability and ensure that investment in space continues to deliver benefits to the citizens of Europe and the world. ESA procurement regulations are available here[^28].
  - EMBL ([http://embl.de](http://embl.de)): EMBL is an intergovernmental organisation specialising in basic research in the life sciences, funded by public research monies from more than 20 member states.

3) **Commercial cloud providers:**
   - Amazon Web Services (AWS): Cloud solutions. AWS public sector contract center policies[^29].
   - Google Cloud Platform[^30].

4) **Scientific initiatives established on the basis of Charters/Codes of conduct**

   **Existing Charters and ‘Rules of Engagement’:**

   - RDA Research Data Alliance ([https://www.rd-alliance.org](https://www.rd-alliance.org)): Community-driven organization with the goal of building the social and technical infrastructure to enable open sharing of data.
   - Data Seal of Approval: [https://www.datasealofapproval.org/en/](https://www.datasealofapproval.org/en/)

A list of repositories having acquired DSA seals is available here[^31]. Some examples are:

- [Czech Social Science Data Archive](http://archiv.soc.cas.cz/en)

[^28]: [http://www.esa.int/About_Us/Law_at_ESA/Highlights_of_ESA_rules_and_regulations](http://www.esa.int/About_Us/Law_at_ESA/Highlights_of_ESA_rules_and_regulations)
[^30]: [https://cloud.google.com/](https://cloud.google.com/)
• Earth Resources Observation and Science Center\textsuperscript{33}
• European Charter and Code for recruitment of researchers: \url{https://euraxess.ec.europa.eu/jobs/charter} 892 organisations have endorsed the Charter & Code principles as of May 2017\textsuperscript{34}.
• European Charter for Access to Research Infrastructures (resulting from a collaboration between EC RDT, ESFRI and e-IRG) \url{https://ec.europa.eu/research/infrastructures/pdf/2016_charterforaccessto-ris.pdf}

• WISE community on information security for collaborating e-infrastructures: \url{https://wise-community.org}
  Five Working Groups, which should implement policies:
  o Risk Assessment WISE (Chair CSC, EUDAT)
  o Security in Big and Open Data (Chair HBP, PRACE and EUDAT)
  o Updating the SCI (Security for Collaboration among Infrastructures) framework (Chair: STFC, NCSA & XSEDE): EGI, PRACE, EUDAT, WLCG, XSEDE, HBP)
  o Security Review and Audit (Chair: CSC, EUDAT)
  o Security Training and Awareness (Chair: SURF, PSC)

• Marie Curie Seal of Excellence: \url{https://ec.europa.eu/research/soe/index.cfm}

\textit{Examples of initiatives/infrastructures that require certification:}

\textbf{NIH Cloud Credit scheme}\textsuperscript{35}:
A Commons cloud credits business model is being tested, which is designed to provide unified access to a choice of “Commons-conformant” compute resources. Through the Commons Credits Scheme, NIH approves providers that meet its requirements and standards, and investigators can apply to receive credits they can use to purchase cloud services from their choice from among the approved vendors, including commercial HPC providers such as AWS.

\textbf{EGI service provider certification scheme}
EGI service provider certification activities, roles and responsibilities are community defined, and define the “rules of engagement” i.e. the minimum set of requirements that a service provider needs to meet to be part of the EGI Federation:
• \url{https://wiki.egi.eu/wiki/PROC09}
• IT security management certification \url{https://wiki.egi.eu/wiki/SEC05}

\textit{In-depth case analysis:}

\begin{footnotesize}
\textsuperscript{33} \url{https://eros.usgs.gov/nsilrsda/}
\textsuperscript{34} \url{https://euraxess.ec.europa.eu/jobs/charter/declaration-endorsement}
\textsuperscript{35} \url{https://datascience.nih.gov/commons}
\end{footnotesize}
Analysis to include a view on ‘organisational users’ particularly for the examples where access to services are provided - in those cases, when users access services, what obligations/requirements do they have?

- Cross e-Infrastructure AUP and conditions of use: The conditions of use described in the AUP have to be accepted by all Users during their registration as a user of the Infrastructure. Having one common AUP for all Users regardless of which infrastructures and/or resources they are using eases the issues of interoperability. The following is the EGI version: [https://documents.egi.eu/document/2623](https://documents.egi.eu/document/2623) (other e-infrastructure collaborating with EGI and supporting a common user base have similar incarnations)

Table 2: Detailed overview of the mapping of principles of engagement in the infrastructures analysed (The original table is available for download online36).

---

36 [https://drive.google.com/file/d/1M_VK4jyFdAHGpntzTVd9aGzbqO2pPGZI/view?usp=sharing](https://drive.google.com/file/d/1M_VK4jyFdAHGpntzTVd9aGzbqO2pPGZI/view?usp=sharing)
Policies/rules for service providers

serves its core membership of 38 European scientists, multinational projects and research organisations.

https://cessda.net/

Infrastructure for Social Sciences and Humanities

http://embl.de

http://www.esa.int

https://cloud.google.com/

OPENAIRE: Scientific articles

Europe (Supercomputing)

EGI: advanced computing for research communities

COMMERCIAL CLOUD PROVIDERS

Google Cloud Platform

GEO - Group on Earth Observation

CERN

SeaDataNet

Survey

EUDAT: Big data for deeper understanding

Selected examples of data and service providers

www.eoscpilot.eu | contact@eoscpilot.eu | Twitter: @eoscpiloteu | Linkedin: /eoscpiloteu
2. Second phase (July-Sept 2017): Interviews of leaders of selected Infrastructures

Infrastructures: EGI, PRACE, OpenAIRE, EUDAT, SeaDataNet, ELIXIR, Amazon Web Services

Questions asked:

<table>
<thead>
<tr>
<th>ABOUT THE SERVICE PROVIDERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is the procedure of inclusion of a service provider?</td>
</tr>
<tr>
<td>Are there minimum criteria to include service providers (scientific, legal, technical) in your infrastructure - active/passive service providers</td>
</tr>
<tr>
<td>How are the criteria presented? (are they machine actionable? Are they a list of public criteria?)</td>
</tr>
<tr>
<td>Is there a regular review of the service provider criteria? (frequency? Done by committee?)</td>
</tr>
<tr>
<td>Are the service providers self-declared/self-certified?</td>
</tr>
<tr>
<td>Type of services provided</td>
</tr>
<tr>
<td>Do you make domain/service-type decisions on which providers can be classed as providers?</td>
</tr>
<tr>
<td>Pricing policy for users (is there a different cost between academic/private users, or users from within that country or other countries?)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ABOUT THE USERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>What obligations/rules user’s organisations have to adhere to use the service (ie, ensure their systems are safe and secure, are there differences in the roles of the users)?</td>
</tr>
<tr>
<td>Is there an evaluation process to assess users requests (ie, scientific domain, scientific excellence, funding)?</td>
</tr>
</tbody>
</table>

Table 3: Interviews of leaders of selected infrastructures (The original table is available for download online37)

37 https://drive.google.com/file/d/1uSiADeSat9UgPQ2vk-KQ4A3trn3LSLpM/view?usp=sharing
**Summary**

The document discusses the criteria for becoming an OpenAIRE service provider. It highlights the importance of having a human network and the Resource Centre for ensuring a minimum but sufficient level of interoperation and interoperability. The service providers need to comply with the EUDAT CDI model and policies for awareness, advocacy, role for open access and open science, and policies for awareness, advocacy. The stakeholders in their country in relation to the SeaDataNet portal are also considered. The minimum requirements for service providers include a high-level examination, service management policies, and security policies. The service providers should comply with the EUDAT CDI model and policies for awareness, advocacy, role for open access and open science.

**Technical aspects:**

- **OpenAIRE board.**
- **Technical aspect:** serving Open Access to open science.
- **Stakeholders in their country in relation to the SeaDataNet portal.**
- **Summary analysis of results**
- **www.eoscpilot.eu | contact@eoscpilot.eu | Twitter: @eoscpiloteu | Linkedin: /eoscpiloteu 22**

**Questions**

- How are the criteria presented? (are they machine actionable?)
- Are they a list of public service providers?
- How many service providers in total?

**Notes**

- **Technical:** yes. Automatic validation
- **ISO standard:** N/A
- **Technical aspect:** guidelines.openaire
- **Donatella Donatella Natalia Manola (natalia@di.uoa.gr)**
- **Service providers:**
  - Any national service provider affiliated to one of the 23 national/international infrastructures that participate in the EGI Federation:
    - DE, ES, IT, FR and NO.
  - Any service provider affiliated to an e-Infrastructure that participates in the EGI Federation:
    - SeaDataNet: Need to download a data manager.
    - PRACE: It is the country that joins PRACE.
    - EGI: need a formal link to the council to be able to join.
    - 2- Any service provider affiliated to an e-Infrastructure that participates in the EGI Federation:
      - 23 national/international infrastructures that participate in the EGI Federation:

**Service Providers**

- **EGI:**
  - strict rules: operational agreement, policy: compliance, support channels and the minimum service level targets between the service provider and EGI.
  - The minimum requirements are defined by the EGI Management Board and subject to ISO 9000 and ISO 20000 standard. It is not machine actionable.
  - The OLA is service agnostic and is meant to ensure a minimum but sufficient level of interoperation and interoperability.
  - The criteria are defined in the Resource Centre.
  - The EGI OLA template is ISO compliant.
  - Permission to access services provided by the EGI Federation is conditioned on a valid OLA form filled in and signed by the service provider.
  - The OLA is service agnostic and is meant to ensure a minimum but sufficient level of interoperation and interoperability.
  - The OLA does not provide any guarantee of accessibility or content availability.
  - The OLA is service agnostic and is meant to ensure a minimum but sufficient level of interoperation and interoperability.
  - The OLA is service agnostic and is meant to ensure a minimum but sufficient level of interoperation and interoperability.

**Federation:**

- Two participative models are supported by the EGI. The human network: National Open Access Desks - NOADs and the technical one: a technical one that connects OA data sources in all of the research communities or host data from several research communities or host data from a single research community. Interoperable nodes: it must be possible to harvest and make available the data using the OA identifier (persistent identification). Integrated nodes: must have a data repository in which the OA data is stored. It must be possible to harvest and make available the data using the OA identifier (persistent identification).
The Service Providers are certified by the Operations Centres and regional Operations Centres. The Operations Centres and regional Operations Centres are in charge of the Operations and support activities for the EGI services. The Operations Centres and regional Operations Centres are responsible for the overall quality of the services provided, the management of the operations, and the support to the users. The Operations Centres and regional Operations Centres are also responsible for the implementation of the security policies (https://wiki.egi.eu/wiki/SPG: Organization - VO) that are defined by the Operations Centres and regional Operations Centres. The security policies are based on the ISO 27001 standard, and they define the requirements for the security of the services provided. The security policies are implemented by the Operations Centres and regional Operations Centres, and they are reviewed and updated on a regular basis.

The EGI service management policies are service-type specific. Each service-type has its own set of policies that define the requirements for the service. The policies are based on the ISO 20,000 standard, and they define the requirements for the service-level management, the service-level agreements, and the service-level management processes. The policies are implemented by the Operations Centres and regional Operations Centres, and they are reviewed and updated on a regular basis.

The EGI service management policies are service-type specific. Each service-type has its own set of policies that define the requirements for the service. The policies are based on the ISO 20,000 standard, and they define the requirements for the service-level management, the service-level agreements, and the service-level management processes. The policies are implemented by the Operations Centres and regional Operations Centres, and they are reviewed and updated on a regular basis.

The EGI service management policies are service-type specific. Each service-type has its own set of policies that define the requirements for the service. The policies are based on the ISO 20,000 standard, and they define the requirements for the service-level management, the service-level agreements, and the service-level management processes. The policies are implemented by the Operations Centres and regional Operations Centres, and they are reviewed and updated on a regular basis.

The EGI service management policies are service-type specific. Each service-type has its own set of policies that define the requirements for the service. The policies are based on the ISO 20,000 standard, and they define the requirements for the service-level management, the service-level agreements, and the service-level management processes. The policies are implemented by the Operations Centres and regional Operations Centres, and they are reviewed and updated on a regular basis.

The EGI service management policies are service-type specific. Each service-type has its own set of policies that define the requirements for the service. The policies are based on the ISO 20,000 standard, and they define the requirements for the service-level management, the service-level agreements, and the service-level management processes. The policies are implemented by the Operations Centres and regional Operations Centres, and they are reviewed and updated on a regular basis.

The EGI service management policies are service-type specific. Each service-type has its own set of policies that define the requirements for the service. The policies are based on the ISO 20,000 standard, and they define the requirements for the service-level management, the service-level agreements, and the service-level management processes. The policies are implemented by the Operations Centres and regional Operations Centres, and they are reviewed and updated on a regular basis.

The EGI service management policies are service-type specific. Each service-type has its own set of policies that define the requirements for the service. The policies are based on the ISO 20,000 standard, and they define the requirements for the service-level management, the service-level agreements, and the service-level management processes. The policies are implemented by the Operations Centres and regional Operations Centres, and they are reviewed and updated on a regular basis.

The EGI service management policies are service-type specific. Each service-type has its own set of policies that define the requirements for the service. The policies are based on the ISO 20,000 standard, and they define the requirements for the service-level management, the service-level agreements, and the service-level management processes. The policies are implemented by the Operations Centres and regional Operations Centres, and they are reviewed and updated on a regular basis.

The EGI service management policies are service-type specific. Each service-type has its own set of policies that define the requirements for the service. The policies are based on the ISO 20,000 standard, and they define the requirements for the service-level management, the service-level agreements, and the service-level management processes. The policies are implemented by the Operations Centres and regional Operations Centres, and they are reviewed and updated on a regular basis.

The EGI service management policies are service-type specific. Each service-type has its own set of policies that define the requirements for the service. The policies are based on the ISO 20,000 standard, and they define the requirements for the service-level management, the service-level agreements, and the service-level management processes. The policies are implemented by the Operations Centres and regional Operations Centres, and they are reviewed and updated on a regular basis.

The EGI service management policies are service-type specific. Each service-type has its own set of policies that define the requirements for the service. The policies are based on the ISO 20,000 standard, and they define the requirements for the service-level management, the service-level agreements, and the service-level management processes. The policies are implemented by the Operations Centres and regional Operations Centres, and they are reviewed and updated on a regular basis.

The EGI service management policies are service-type specific. Each service-type has its own set of policies that define the requirements for the service. The policies are based on the ISO 20,000 standard, and they define the requirements for the service-level management, the service-level agreements, and the service-level management processes. The policies are implemented by the Operations Centres and regional Operations Centres, and they are reviewed and updated on a regular basis.

The EGI service management policies are service-type specific. Each service-type has its own set of policies that define the requirements for the service. The policies are based on the ISO 20,000 standard, and they define the requirements for the service-level management, the service-level agreements, and the service-level management processes. The policies are implemented by the Operations Centres and regional Operations Centres, and they are reviewed and updated on a regular basis.
<table>
<thead>
<tr>
<th>Summary analysis of results</th>
<th>E-INFRASTRUCTURES</th>
<th>HUMAN-SPECIFIC RESEARCH INFRASTRUCTURES</th>
<th>COMMERCIAL CLOUD PROVIDERS</th>
<th>INITIATIVES DRIVEN BY CHARTERS</th>
<th>IMPACTS (ECONOMIC, SOCIAL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A new evaluation process is proposed to assess user requests for availability (security, scalability, funding)</td>
<td>EGI: advanced computing for research (cloud computing)</td>
<td>SeaDataNet</td>
<td>AMAZON WEB SERVICES</td>
<td>Charter Access to RIs</td>
<td>No. The user has to use the AWS as they wish.</td>
</tr>
<tr>
<td>100 EGI resources can be accessed through the following access policies:</td>
<td>PRACE - Partnership for Advanced Computing in Europe (Supercomputing)</td>
<td>ELIXIR - Life Sciences</td>
<td>RDA Research Data Alliance</td>
<td>Charter Access to RIs</td>
<td>2 calls per year for projects. There is a free Preparatory Access that allows users to test the system before applying to the calls. This Preparatory Access is free, and receives free support.</td>
</tr>
<tr>
<td>Policy-based: users are granted access based on policies defined by the EGI resource providers or by the EGI Foundation; such policies usually apply to resources being offered “free at point of use” to meet some national or EU level objective; for instance, a country may offer free at point of use resources to support national researchers involved in international collaborations</td>
<td>OpenAIRE: Open Access Infrastructure for European Research</td>
<td>EUDAT: Big data</td>
<td>Charter Access to RIs</td>
<td>Charter Access to RIs</td>
<td>No currently. OpenAIRE is open to all. For specific services, policies that relate to their use will be in place by mid-2018. These policies will be aligned with RRI rules.</td>
</tr>
<tr>
<td>Wide access: users can freely access scientific data and digital services provided by EGI resource providers</td>
<td>SeaDataNet</td>
<td>EUDAT: Big data</td>
<td>Charter Access to RIs</td>
<td>Charter Access to RIs</td>
<td>Some services (b2share, b2drop, b2find) are offered free of charge for public use. Others can be accessed (or purchased) through service level agreements with specific CDI providers. EUDAT also runs regular open calls making available storage resources to selected projects.</td>
</tr>
<tr>
<td>Market-driven: users can negotiate a fee to access services either directly with EGI resource providers or indirectly with the EGI Foundation</td>
<td>SeaDataNet</td>
<td>EUDAT: Big data</td>
<td>Charter Access to RIs</td>
<td>Charter Access to RIs</td>
<td>Requests for data sets downloading are arranged through the CDI Data Discovery and Access service and fall under the SeaDataNet Data Policy and License. Data centres (and their data originators) can indicate in the CDI metadata per data set whether they demand a restriction and what restriction. Users at registration have a public role; however NODCs can amend the role to be more specific, like scientific, private, government, etc. The roles in combination with data access restrictions drive a decision matrix. Most data sets of the 1.9 million are unrestricted and directly accessible for everybody. A subset has restrictions and requires negotiation between the user and the data centre to reach a decision (yes/no). The CDI shopping system facilitates the access and negotiation process and all relevant transactions are administered for users, data centres and overall system managers, each at their own collection level.</td>
</tr>
<tr>
<td>Services allowing access to rival resources (e.g. computing capacity or storage space) are usually provided under a policy-based or market-driven access policy. Services allowing access to non-rival resources (e.g. software packages or scientific data) are usually provided under a wide access policy. All access policies may not be available for each and every resource, service or scientific data set.</td>
<td>SeaDataNet</td>
<td>EUDAT: Big data</td>
<td>Charter Access to RIs</td>
<td>Charter Access to RIs</td>
<td>Requests for data sets downloading are arranged through the CDI Data Discovery and Access service and fall under the SeaDataNet Data Policy and License. Data centres (and their data originators) can indicate in the CDI metadata per data set whether they demand a restriction and what restriction. Users at registration have a public role; however NODCs can amend the role to be more specific, like scientific, private, government, etc. The roles in combination with data access restrictions drive a decision matrix. Most data sets of the 1.9 million are unrestricted and directly accessible for everybody. A subset has restrictions and requires negotiation between the user and the data centre to reach a decision (yes/no). The CDI shopping system facilitates the access and negotiation process and all relevant transactions are administered for users, data centres and overall system managers, each at their own collection level.</td>
</tr>
<tr>
<td>No. The user has to use the AWS as they wish.</td>
<td>SeaDataNet</td>
<td>EUDAT: Big data</td>
<td>Charter Access to RIs</td>
<td>Charter Access to RIs</td>
<td>No. The user has to use the AWS as they wish.</td>
</tr>
</tbody>
</table>

For depositing data in databases there is no evaluation process. For accessing computing resources, the policy differs between centres. |

- EOSCpilot WP2 meeting, Brussels (BE), Oct 18-19, 2017
- EOSCpilot Stakeholder Forum, Brussels (BE), Nov 28-29, 2017
- Piloting EOSC governance framework, Porto (PT), January 25, 2018
- EOSCpilot All Hands Meeting, Pisa (IT), March 8-9, 2018


For this consultations, we made use of a survey\(^\text{38}\) to collect feedback.

- European Commission Officers (RTD: Katarzyna Szkuta (A2), Maria (A2), Lorenza Saracco (B4), Jean-Claude Burgelman (A2), Patrick (A2), Brussels (BE), May 2, 2018
- EOSC Workshop in ENVRI Week, Zandvoort (NL), May 16, 2018

---

\(^{38}\) https://www.surveymonkey.com/analyze/browse/eMKC15Kgv6iMPkngJTdT2DYsXu0cVedjbi_2FJEk8tAr0_3D