

D5.2 EOSC Portal requirements

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Abstract:

This document describes the requirements gathering methodology and process adopted by the EOSC Enhance project for ensuring a stakeholder-driven development and enhancement of the EOSC Portal. D5.2 EOSC Portal Requirements also includes some initial requirements gathered from the first batch of requirements gathering interviews carried out with a series of EOSC-related projects.



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Executive Summary

The EOSC Portal requirements deliverable by EOSC Enhance provides a blueprint for the requirements gathering activities of the project. Requirements in this document refers specifically to new requirements to be implemented in the EOSC Portal. This document will not include the bug fixes or actions on existing requirements of the EOSC Portal. This document outlines the following:

Roles and Procedures - This deliverable foresees five key roles in the requirements gathering activities led by EOSC Enhance Task 5.1 and carried out by a cross work package task force, namely: Collectors, Reviewers, Service Owners, Development Team members and Testers.

Target Stakeholders – the EOSC-related projects, those involved in the implementation phase of EOSC and the wider community of EOSC users (including researchers and research performing organisations) and providers.

Tools to carry out the requirements gathering have also been outlined such as requirements collections tools: questionnaires, polls, analytics etc., as well as key communications and engagement channels to be used such as webinars, events, forums etc. Additionally, requirements gathered will be documented and managed through Confluence and JIRA tools already used by EOSC Enhance.

Finally, a timeline of activities is provided and will be continuously updated as more requirements gathering opportunities are identified.

1 Introduction

The EOSC Portal aims to become a key component of the European Open Science Cloud (EOSC) by providing an access point for services and resources for Europe's research sector.

EOSC Enhance, as one of the contributing projects maintaining the EOSC Portal and aimed at enhancing its functionalities, aims to boost the performance and the usage of the EOSC Portal through two important releases of enhanced versions of the EOSC Portal scheduled across the lifetime of the project - the first in September 2020 and the last in October 2021. To deliver these two key milestones successfully to the satisfaction of the EOSC Portal stakeholders, implementations for these releases need to be guided by an effective requirements gathering campaign.

This document, D5.2 EOSC Portal requirements outlines the scope, target stakeholders, tools, and timeline of EOSC Enhance's requirements gathering activities.

2 Scope

The purpose of the requirements gathering activities is to collect, analyse and prioritise functional and non-functional requirements from users, providers and European Open Science Cloud implementation projects to improve the EOSC Portal functionalities and value proposition continuously.

The EOSC Portal overall website (www.eosc-portal.eu) is the entry-point for the EOSC stakeholders to access the EOSC resources (e.g. services, data, software, etc.).

The Requirements gathering activities will help to clearly understand the expectations and the needs of all stakeholders, both users & providers, in relation to the evolution of the EOSC Portal. Through these activities, all discrepancies between what has been designed and what is precisely needed will be avoided.

In particular, the requirements gathering activities will be critical to guide the future enhancements of the EOSC Portal both the front and back end side. The activities overall aim to achieve the following:

- Reveal insights on the needs of future EOSC users
- Increase the EOSC user base by guiding implementations
- Facilitate the onboarding of new service providers
- Make sure the EOSC portal becomes a sustainable and reliable platform for both users and providers

Stakeholders' consultation, requirements gathering and participation into EOSC Portal engagement activities will be fundamental to pursue an inclusive approach for the further development of the EOSC Portal. All collected data and information will contribute to enhance and maintain the EOSC Portal website throughout the project in line with quality requirements of both users and providers.

This accurate and comprehensive requirement analysis will ensure that the EOSC Portal's functionalities will be successfully increased and optimised, fully responding to the different needs.

All the implemented activities will aim to:

- Gather, analyse and prioritize requirements (user experience, service providers' needs, future evolution of the portal, etc.);
- Organise EOSC Enhance dedicated "stakeholder-oriented" sessions and workshops (co-located with EOSC and ESFRI/national-related events) and online consultations to support the requirements collection;
- Support and coordinate the participation of project partners to relevant third-party events and workshops to collect further feedback;
- Set up online tools to run user satisfaction surveys.

3 Roles and procedures

The requirements gathering activity is coordinated by Task 5.1 Stakeholders consultation, requirements gathering & participation into EOSC Portal under the lead of EFIS and all the EOSC Enhance work packages will be involved with the following responsibilities:

- WP1 and WP2 to analyse and prioritise the requirements for the short- (during the EOSC Enhance project) / long-term (post 2021)
- WP3 to support the analysis and prioritization of requirements related to functionalities and features supporting service providers and transforming them into technical requirements for the developers' team
- WP4 to support the analysis and prioritization of requirements related to functionalities and features supporting the EOSC Portal users and transforming them into technical requirements for the developers' team
- WP5 to support the analysis and prioritization of requirements related to functionalities and features related to the content component of the portal

In addition, WP5 will support all the above activities setting up appropriate mechanisms and tools to facilitate the requirements collection and identifying relevant events where to run stakeholder consultations.

A dedicated cross-WP EOSC Portal Requirements Gathering Task Force has been established composed by members of the different work packages.

Members:

- Sara Garavelli (TRUST-IT), T5.1
- Rob Carrillo (TRUST-IT), T5.1
- Lidia Minina (CYFRONET), T4.1
- Bartosz Wilk (CYFRONET), T4.2, T4.3
- Nick Juty (UNIMAN), T4.4
- George Papastefanatos (UoA), T3.1
- Stefania Martziou (UoA), T3.1
- Carmela Asero (EFIS), T5.1
- Kostas Koumantaros (GRNET/GEANT), WP2, WP3, WP4
- Marcin Wolski (PSNC/GEANT), WP2, WP3, WP4

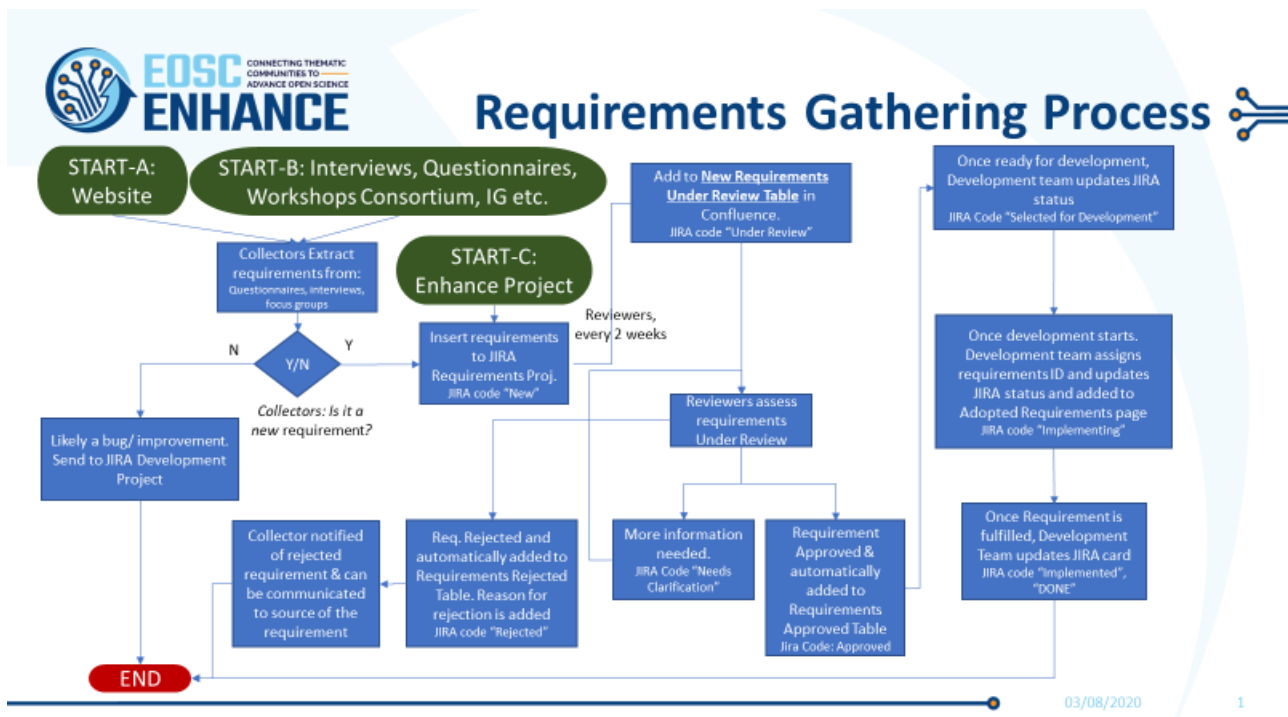
- Jorge Sanchez (JNP) T2.2, T2.3
- Nikos Vogiatzis (JNP) T2.4
- Owen Appleton (EGI) T1.2
- Mark van de Sanden (EUDAT), WP2, WP4
- Andrea Mannocci (OPENAIRE) WP2, WP4

The EOSC Portal Requirements Gathering Task Force has been responsible for the definition of the requirements gathering process and the definition of the stakeholder engagement strategy. A series of regular calls, led by TRUST-IT, WP5 leader, have been organised since the inception of the project.

3.1 Requirements Gathering Process

The diagram below shows the process for New Requirements Collection, Validation, Prioritization, Implementation and Provision of feedback. There will be frequent references to the main collaboration and management tools used to manage the entire requirements gathering process, specifically JIRA¹.

JIRA allows the automated tracking of each requirement as it goes through each step with automatic notifications sent to specially designated teams. Changes in the JIRA code of each proposed requirement signifies a change in its status as it goes through the requirements process.



A series of roles supporting the process has been defined and the persons in charge of them appointed:

- **Collectors:** The primary interfaces with the Portal target stakeholders. They are in charge of understanding and capturing the stakeholder needs and of kicking off the requirements gathering

¹ Access to JIRA and Confluence is restricted to consortium members only. For access to specific materials, interested parties may contact contact@eosc-portal.eu.

process by opening a “New feature” JIRA ticket. They distinguish bugs/other requests from new requirements.

- **Reviewers:** The team in charge of assessing the priority and feasibility (with the support of the service owners) of the requirements. They can decide if a requirement can be rejected or put in production (with the related timeline: short/long term).
- **Service Owners:** They support the Reviewers in assessing the feasibility of the requirement. They are the key figures who are most familiar with the part of the portal that will be affected by the proposed requirements
- **Development Team:** They design the solution and coordinate the implementation and the testing.
- **Testers:** They verify the design and are in charge of the quality assurance.

The requirements collection process is structured around six steps

1. **Collection:** EOSC Portal new requirements are formally collected using questionnaires, interviews, focus groups, etc. They may also come from other sources/interfaces like Processes (e.g. onboarding, etc.), the Specifications, the Helpdesk, the Development Teams, the Management Teams, the Sponsors and other Stakeholders of the EOSC. All Requirements MUST first be inserted in the EOSC Enhance JIRA Requirements Project with the issue status "New". JIRA issues are created manually by Collectors or by any other authorized Partner or automatically from the EOSC Portal website JIRA ribbon.
2. **Filtering:** The Collectors check all collected requirements and keep in the EOSC Enhance JIRA Requirements Project only those that are requirements, i.e. bug fixes or improvements of existing features are moved to the EOSC Enhance JIRA Development Project, except if those bugs or improvements may generate new requirements. The JIRA issues should record all the data required for the Requirements Review Process. In this respect, the collectors may consult internally the Reviewers or Developers or externally the Users. At this point, the Collectors change the Status of the JIRA issue to "Under Review".
3. **Review:** All JIRA tickets "Under Review" are automatically added with a bridge to the "New Requirements Under Review Table" in the CONFLUENCE New Requirements Page. The reviewers meet every 2 weeks to review the requirements. The Reviewers check that all grey and green columns are complete and analyse each new requirement and complete the assessment by filling in the orange and blue columns, where the Review Team validates and assesses the new Requirements.
4. **Rejection or Approval:**
 - a. For requirements discarded, the Reviewers update the status of the JIRA issues to "Rejected". Those are then automatically added with a bridge to the "Requirements Rejected Table" in the CONFLUENCE New Requirements Page. The Reviewers MUST enter in the Jira issue the explanation of why the requirement has been discarded. A notification is sent to the person that has opened the ticket.
 - b. For requirements assessed positively, the Reviewers update the status of the JIRA tickets to "Approved". Those are then automatically added with a bridge to the "Requirements Approved Table" in the CONFLUENCE New Requirements Page.
5. **Selection for Development:** After the Reviewers meeting all JIRA issues with Status "Approved" are further assessed by the Development Teams to choose the class of the Requirement (GENERAL, UR-

UEUI, UR-AEUI, UR-ERPI, etc.), the Owner, the Controller and Anticipated Date. The Development Team also changes the status of the JIRA Issue to "Selected for Development" or "Implementing" and assigns a new ID for the requirement (e.g. UR-AEUI-17). Those are then automatically added with a bridge to the selected Class in the CONFLUENCE Adopted Requirements Page for further monitoring, implementation, clarification, testing and completion.

6. Once the requirement is fulfilled/implemented and validated/tested (the Jira issue status is updated accordingly in each step) the development team changes finally the JIRA issue status to "**DONE**" and the person who opened issue is notified.

JIRA status: requirements project

JIRA status	Previous Jira status	Who changes the status	Notifications
New	None	Collectors	A notification is sent to the reviewers
Under Review	New	Reviewers	A notification is sent to the service owners that need to contribute to the assessment
Rejected	Under Review	Reviewers	A notification is sent to the requirement generator with an explanation of why the requirement was rejected
Approved	Under Review	Reviewers	A notification is sent to the requirement generator and the Development Team
Selected for Development	Approved	Development Team	A notification is sent to the development team
Implementing	Selected for Development	Development Team	A notification is sent to the development team
Needs Clarification	Selected for Development	Development Team	A notification is sent to the development team
Implemented	Implementing	Development Team	A notification is sent to the testers (quality assurance)
Done	Implemented	Tester	A notification is sent to the requirement generator

4 Target stakeholders and consultation topics

4.1 Target stakeholders

The target groups that will be addressed by the requirements gathering activities can be clustered into the following main categories:

- **EOSC Portal Resource Providers**
 - **Aggregators technical managers** (e.g. RIs, Clusters, thematic clouds) interested in exploring how to make their existing resources (e.g. data, services) part of the EOSC portal

- **E-Infrastructure managers** interested in providing compute, storage, networking resources via the EOSC Portal
- **Public and Private service providers** willing to make their services and products part of the portal
- **EOSC Portal Users:** Users in the context of the EOSC Portal include researchers, research and academia organisations, industry, citizens, scientists, etc. that may be interested in using or ordering services or learning more about the EOSC and the opportunities for them. Among this target group there are:
 - **Researchers or community managers** interested in using one or more of the current or prospective services provided by the portal
 - **Project Coordinators** interested in understanding how to reflect their strategic plan into the EOSC Portal future developments
 - **Stakeholder Engagement leaders** interested in leveraging on the portal to widen the user base of their project
 - **Training managers** willing to share their training modules with a wider audience and looking for complementary training suitable for their projects
 - **Communications Managers** willing to exploit the portal to disseminate the outcomes of their project
- **EOSC-related projects** building EOSC components/ standards / procedures that will be fundamental for the operation of the portal with a particular focus on the cluster projects: ESFRI clusters and thematic clouds (In 2021, when an improved version of the portal will be available, a more extensive consultation, targeting researchers and academic institutions, will be open)
- **EOSC governance & Policy makers** defining the rules of participation of EOSC

All the above stakeholders will be consulted to make sure that the future developments of the portal are aligned with the strategic vision of EOSC and meet the user demand.

4.2 Consultation topics

A first [EOSC Portal Functional and Non-Functional Requirements document](#) has been released by the project on month 4 (13 March 2020) including a set of requirements to be further discussed with the service providers.

In order to collect extra requirements, a first consultation has been started focusing on the following main topics:

- General Portal Enhancements
- Finding Resources on the EOSC-Portal
- Using Resources on the EOSC-Portal
- Making your resources available via the EOSC Portal and managing them
- Training & user documentation on the EOSC Portal
- Training material on the resources made available via the EOSC Portal
- EOSC Portal as a multiplier for promoting your activities and outcomes

This consultation aims to collect specific requirements from the different target stakeholders as described below.

The EOSC Portal Resource Providers will be mainly consulted on the following topics:

- Service onboarding procedures (both front and back end)
- Service Resource Description Template (SDT) and related Service Description Excellence Assessment Framework
- Service validation procedures
- Design of the functional specifications that support ARMs, RIs and SRPs in contributing services and resources to the EOSC Portal
- Order management services and potential integrations with EOSC Portal
- Implementation of analysis and visualization services for SRPs to view and analyse the uptake of their offerings and user feedback in the EOSC Portal (dashboard for SPR)
- Specifications of the open APIs for enabling exchange of information related to service updates and service usage with the EOSC Portal

The EOSC Portal end-users will be mainly consulted on user experience in the following topics:

1. Discovery the EOSC services
2. Accessing the EOSC Services
3. Ordering the EOSC Services
4. Finding useful information on EOSC Portal and its role in the EOSC landscape, on relevant EOSC Portal user & service providers events and training material
5. Finding relevant information about EOSC services/resources
6. Receiving support for the EOSC services

Many EOSC-related projects are building components/ standards / procedures that will be fundamental for the operation of the EOSC portal. EOSC Enhance will make sure that the requirements identified by those projects as well as the solutions developed by them will be taken into account in the portal developments via a series of collaboration agreements.

The EOSC Governance and policy makers will be mainly consulted on the following topics:

- Rules of participation for the EOSC portal
- Overall architecture of EOSC
- Future strategic direction of EOSC and future maintenance of the portal

5 Consultation Tools and Channels

Specific tools will be used for consultation, in order to gather a large amount of feedback from all the stakeholders.

WP1, WP2, WP4 will elaborate appropriate templates to collect requirements on the basis of the topics of interest. WP5 will set up the most appropriate digital instrument to facilitate and speed up the compilation from the target stakeholders.

Different tools will be used in order to meet the specific needs of the different target group:

5.1 Requirements collection tools and methods

- **Questionnaires:** The questionnaire is meant to collect requirements for the needed future functionalities of the EOSC Portal. A specific survey on the desired requirements is being addressed to stakeholders. It has been designed for EOSC-related projects. In particular, for each section of the survey, the precise target stakeholder is indicated: Service user / Service Providers (see Annex1).
- **Surveys / Polls:** Online surveys addressed to the target audience have been created as Web forms. The answers completed over the Internet will be collected and stored in a database and analysed using statistical software to provide analytics.
- **Analytics & statistics:** Specific tools and advanced techniques will be used to analyse trends, surveys and collected data
- **Brainstorming:** This activity can be performed either in the context of a workshop or on its own, by using tools such as whiteboards or mind-mapping software. By considering different parts of the system and considering 'what-if' scenarios, brainstorming help to break out of the context of the current-state and consider visionary ideas for the future, and it can be very helpful in this phase
- **Role-Playing:** Through formal role-playing, different people take on the roles of different users in the system/process. Particularly, when the requirements strongly depend on different types of user, role-playing helps to understand how the different parts of the system need to work to support the integrated process.

5.2 Communications and Engagement Channels

This paragraph provides an overview of the primary communications and engagement channels that will be used during the project:

- **EOSC-hub Service Providers forum mailing list:** mailing list of around 150 contacts collected from all onboarded service providers in the EOSC marketplace. Typically, the contacts are system administrators or people responsible for the service. The list is owned and maintained by EGI.eu. The mailing list will be enriched with the contacts of all the new service providers willing to be involved in the EOSC Portal development. The list will be used to distribute information to the service providers and to facilitate communications.
- **EOSC Secretariat Interest Group on Service Catalogue & Onboarding:** The EOSC Enhance project will leverage on the EOSC Secretariat Interest Group on Service Catalogue and Onboarding to discuss Service Providers requirements for the portal
- **EOSC related events:** The EOSC Enhance project will leverage on the events (virtual and in-person, when feasible) organised by the EOSC-related projects contributing to the development of EOSC technical components to organise sessions focused on the requirements collection (for example the EOSC-hub week, etc.).
- **Webinars:** A series of focused webinars will be delivered via digital broadcasting means to support all the stakeholders and to optimize the Requirements Gathering procedures. The webinars output will be made available on the EOSC Portal and also used in knowledge transfer activities.
- **Structured documents:** Several structured templates will be designed in order to optimize the requirements collection and to facilitate the reuse and analysis of data
- **User journeys/personas:** Appropriate understanding of EOSC end-users and their needs and the deployment of stable functionality that adds value by responding to those needs will be assured.

Good practices for usability assessment and modelling user experience has been used, including describing personas and relevant usage scenarios for each category. An appropriate methodology has been used to analyse the EOSC Portal user experience, and then measure progress during implementation.

- **FAQs:** A list of frequently asked questions (FAQs) and answers on topics of particular interest will be published on the EOSC Portal
- **Presentations:** Comprehensive presentations will be addressed to different target groups to highlight main topics and to facilitate knowledge transfer and training activities

5.3 Coordination Tools

The Requirements Gathering Team use an integrated solution combining Confluence and JIRA² to manage the requirements process as each requirement passes through various stages and are handled by different parts of the Requirements Gathering Team.

- **Confluence:** This tool is currently used by the project as its internal project management and internal wiki tool. In the scope of the requirements gathering activities, Confluence will be used to document the Requirements Gathering procedure. The project's Confluence instance also has an integration with the EOSC Enhance JIRA instance allowing the requirements gathering pages to extract and display information from JIRA.
- **JIRA:** This allows the requirements collectors and validators to coordinate and ensure that all requirements are handled, and there are assigned responsible members of the Requirements Gathering Task Force to each requirement at every step of the requirements gathering.

6 The stakeholder consultation strategy: an in-depth look at 2020

The Requirements Gathering Task Force has discussed and set up a stakeholder consultation strategy with the support of WP5 for the full duration of the project.

The stakeholder consultation strategy will be organised in two phases:

- Phase 1 – January - December 2020: consultation of the EOSC-related projects, those involved in the implementation phase of EOSC
- Phase 2 – January - December 2021: consultation with the wider community of EOSC users (including researchers and research performing organisations) and providers.

The first stakeholders that will be consulted are those involved in the EOSC related projects, namely the ESFRI clusters and regional projects (see below), as they know the background of the current status of the portal and the ongoing and planned implementations. Therefore, they can focus on the identification of the most urgent implementations needed rather than focusing on identifying the current gaps of the portal.

² Access to JIRA and Confluence is restricted to consortium members only. For access to specific materials, interested parties may contact contact@eosc-portal.eu.

In addition, it has to be noted that at the start of the EOSC Enhance project, there were already some pending requirements to be implemented in the portal - those captured in the [EOSC Portal Functional and Non-Functional Requirements document](#). The implementation of these requirements will already represent a big step forward for the Portal, and this is why the project decided to consult the projects first, and then consult the wider community after the EOSC Enhance portal first release will be delivered (end of 2020).

To kick-off the consultation with the EOSC projects, a questionnaire has been prepared by TRUST-IT and validated by the Requirements Task Force (See Annex 1), and a series of interviews have been performed at the time of writing of this deliverable:

- Cluster projects:
 - SSHOC
 - EOSC-Life
 - PaNOSC
 - ENVRI-FAIR
- Regional projects
 - EOSC-Nordic
 - EOSC-Pillar

The interviews with NI4OS and EOSC-Synergy are planned after the summer period.

The outputs of the interviews are a series of requirements that will be discussed, prioritized and added to the implementation list by the EOSC Enhance requirements reviewers in collaboration with the projects mentioned above (a virtual 2-hour workshop is planned by mid-September 2020).

Section 6.1 summarizes the list of requirements collected through these interviews.

6.1 Requirements collection early results

This section reports an initial list of requirements collected after the interviews with the ENVRI-FAIR, EOSC-Life, EOSC-Nordic, EOSC-Pillar and SSHOC.

From a first analysis of this initial list, it is evident that EOSC Enhance can't address all the requirements. In fact, some are related to more governance aspects (for example, the discussion about the value proposition of the portal: is the portal a b2b or a b2c channel?; can the portal act as a proper broker streamlining the contractual aspects of eventual service purchases?), while some others are already planned as future developments in the project answering to the INFRAEOSC03 call (for example, the addition of the data component). The role of EOSC Enhance for these set of requirements will be to pass them to the EOSC governance bodies and to position them in the correct timeframe of the EOSC Portal's future development timeline.

The requirements reported in the table below are only an initial subset of the full requirements that will be further discussed and consolidated with the project. The below list will be completed in August 2020, and in September 2020, a virtual workshop with the cluster and regional projects will be organised.

<i>EOSC Portal Governance & Value Proposition</i>		
Requirements	Short description	EOSC Portal component
Target market of the portal is not clear	<p>Is the portal meant for b2b transactions? Is the portal targeting individual scientists or institutions or RIs?</p> <p>The EOSC-Life perspective is that the Portal end user is the RI itself.</p> <p>The portal would be more useful if serving b2b (RIs & institutions. RIs are sceptical about service packages for multidisciplinary research) at least in the first phase and the federated core products would be enough to meet the needs of the users (niche products such as Haddock should not go via this channel). In this case, IT managers would be the real target of the portal.</p> <p>Once the real target is clarified user stories describing the problems the portal can solve would be very useful</p>	Portal value proposition & strategic direction
Better value propositions must be in place	<p>End users are not looking for apps like iPhone apps, but for a total service offering. Many science projects are looking for more than a simple service, something more complex, useful for cross-disciplinary research.</p> <p>The focus should be on democratisation and spreading excellence. Users should be able to access services also if they are not part of a RI.</p>	Portal value proposition & strategic direction
Lack of aggregation of services for cross-domains use	There are no quick ways to aggregate and build catalogues in a way that the other domains can read them – it is not an ontology problem, it's a question of strategy	Portal value proposition & strategic direction
The onboarding process must be supported with funding	The Portal has an onboarding process that requires effort from the RI side and the clusters do not have any resources allocated to that in their work plan	Portal value proposition & strategic direction
Accounting rules must be in	Accounting should be one of the first	Portal value

place	governance questions to be answered	proposition & strategic direction
Services provided via the portal should be contracted by a unique EOSC entity	When we were requesting resources with the EOSC-hub Early Adopter Programme, we had to make a contract with an external company. For the user it is better to have a unique interface	Governance issue
Service Discoverability		
Requirements	Short description	EOSC Portal component
To set up a proper search engine, especially to search data. The ideal model is the “Google dataset search”.	The Portal search engine must be easy to use and intuitive. The users should be able to enter keywords and find the data/services/software/etc. they are looking for. Searching by categories might not be that intuitive. Usually researchers are searching according the what (the resources they are looking for e.g specific data), when (the spatial and geographical coverage e.g. data in a certain area and in a certain timeframe), why (the purpose of what they want to do, e.g. an analysis etc.). A more guided approach would be appreciated.	User Component
Comparability of services	Currently, it is very difficult to compare services. A mechanism should be in place for users to understand what is the service most suitable for their work and needs and descriptions should be detailed.	User Component
Composability of services and workflows	At the moment, the portal is just a collection of independent things. The portal should suggest that a combination of services could fit the users’ purpose. This will be very useful for the users to make a selection of the resources they need.	User Component
Mechanism to make the RIs services and data discoverable	ENVRI-FAIR is building an ENVRI-hub that will be the entry gate to the whole digital assets for environmental infrastructures. A mechanism to make the ENVRI-hub services	User Component

via the portal in an automatic way	and data discoverable via the portal should be in place, keeping in mind that the curation of data remains in the responsibility of the RIs and that researchers are not obliged to use the portal to access those resources. The Google dataset search is a good example. The connection between ENVRI FAIR & Portal has to be mainly machine to machine.	
Clear and automated mechanisms to make the services/data of the RIs/clusters discoverable in the portal	How will the RIs/clusters data / services be made discoverable?	User Component
Service Ordering		
Requirements	Short description	EOSC Portal component
A better description of the offer is needed	Currently, there are no indications or guidelines on what you can order. For example, in the case of storage resources, is it possible to order GB? MB? The offer must be clear to avoid that users have certain expectations that cannot be met.	User Component - Service descriptions
Make the service description template FAIR and based on an ontology	The service ontology should be developed in agreement with the service providers.	User Component
Clear policies to access services	When requesting a service, in many cases you are redirected to a service provider and after the discussion it comes out that the provider cannot serve users outside its country. Clear access & usage policies must be clarified and described upfront.	User Component - Service descriptions
User paths to better guide the users in ordering resources should be created (customized landing pages or personal dashboards based	Right now, the users has to go through all the services and understand which one might be fitting for their purpose. It would be good to have a guided experience: what are you looking for? What do you need it for? And	User Component - Service Ordering

on the profile of the user)	then the system returns you with some suggested resources.	
To add social media functionalities	E.g. most ordered services, possibility to add reviews to the services, possibility to rank services (e.g. stars ranking of Tripadvisor). B2NOTE can be used to annotate services, for example.	User Component
Service Onboarding		
Requirements	Short description	EOSC Portal component
Better guidelines for the onboarding of national catalogues & registries	It is not clear what are (if any) the procedures to onboard services from national aggregators/registries. It could be useful to have different onboarding paths based on the user: e.g. onboarding path for national service providers, onboarding paths for aggregators, etc.	Provider Component – Service onboarding
To implement APIs to automatically harvest the content (services, data) from national catalogues & registries	One of the key objectives of the EOSC regional projects is to increase visibility of the services in the national catalogues/registries. Interoperability framework allowing harvesting of national services is needed (also to reduce the burden on the service providers).	API
Types of resources available via the Portal		
Requirements	Short description	EOSC Portal component
The data component is still missing	The portal should be equipped with the possibility to search for relevant datasets	User Component
Software solutions for common problems should be made available via the portal	These could be extra resources to add to the portal. The rationale is that people could take these ready-to-use software solutions and integrate them in their workflows	User Component

The portal should provide 2 types of resources: federated core services and access to aggregated catalogues	The portal should provide 2 types of resources: <ul style="list-style-type: none"> • federated core services • access to aggregated catalogues 	User Component
Service Maintenance over time		
Requirements	Short description	EOSC Portal component
Service providers should keep the control of their data and services and must be able to update them in the portal	Service providers should maintain service descriptions directly on the portal	Provider Component - Service Maintenance
To implement a governance model for each of the record (services, data, etc.) part of the Portal	The long-term maintenance of the records part of the Portal is essential. Clear rules and appropriate tools must be in place	Provider Component - Service Maintenance
Service Provider Functionalities		
Requirements	Short description	EOSC Portal component
Accounting and usage monitoring systems are crucial	Research Infrastructures providing the services need to know all details of their users, because they are evaluated by the funding agencies on the basis of the usage.	Provider Component - Accounting and monitoring
Training		
Requirements	Short description	EOSC Portal component
Training material and user documentation should be part of the portal and linked to the services	The portal resources should be equipped with targeted and focused training material and user documentation	User Component - Training
The EOSC Portal should provide trainings on general	Training material should be short, easy and	Provider Component -

topics (e.g. GDPR, ICT etc.) Targeted trainings remain on the RIs side.	with pictures. Videos are not the best format.	Training
Guidelines on what to do with the portal and how should be there too	Guidelines should be there to introduce the capacities and functionalities of the portal to new users.	Content Component - Training
The maintenance of the services has also to be applied to the training	The training resources have to be curated. Dates of publications are fundamental. It is also important to tag the training as “Outdated” if it is the case. Metadata should stay even if the data is gone.	Provider Component - Training Resources

Table 1 Initial list of EOSC Portal requirements collected from the EOSC regional and cluster projects

7 Conclusions

This deliverable includes the full description of the EOSC Enhance requirements collection process that could be adopted in the future by the new projects in charge of the further evolution of the portal. The strategy on how to collect requirements for the duration of the EOSC Enhance project is also documented and the first results of the interviews with the regional and the cluster projects are reported in the document.

A further iteration of this deliverable, D5.3: EOSC Portal requirements, is due in month 18.

Annex 1: Questionnaire

EOSC-Portal Requirements Gathering Interview

EOSC Enhance is a 24-month project funded by the European Commission tasked to develop and improve the functionalities of the current [EOSC Portal](#), further augmenting the catalogue of services assembled to date, and connecting independent, thematic data clouds for the benefit of users and service providers across Europe.

These objectives can only be achieved via wide-ranging stakeholder consultation and in close collaboration with the EOSC Executive Board and Working Groups.

While we are working on the consolidation and homogenization of the current different components of the portal ([Informative Portal](#), [Catalogue & Marketplace](#), [Providers Dashboard](#)) that we know is necessary and that will be completed by 2020, we decided to start consulting the stakeholders on the **desired requirements for a post-2020 version of the portal**.

The stakeholders that we are addressing in this first consultation phase are the **EOSC-related projects**, those contributing to shaping the future EOSC with a particular focus on the cluster projects (ESFRI clusters and thematic clouds). In 2021, when an improved version of the portal will be available, we will open a wider consultation targeting researchers and academic institutions.

Scope of the survey

The survey is meant to collect requirements for the needed future functionalities of the EOSC Portal.

Who is the survey for?

The survey has been designed for EOSC-related projects. In particular for each section of the survey, the precise target stakeholder is indicated:

- **End-Users**
 - **Researchers or community managers** interested in using one or more of the current or prospective services provided by the portal
 - **Project Coordinators** interested in understanding how to reflect their strategic plan into the EOSC Portal future developments
 - **Stakeholder Engagement leaders** interested in leveraging on the portal to widen the user base of their project
 - **Training managers** willing to share their training modules with a wider audience and looking for complementary training suitable for their projects
 - **Communications Managers** willing to exploit the portal to disseminate the outcomes of their project
- **Service Providers**
 - **Aggregators technical managers** (e.g. RIs, Clusters, thematic clouds) interested in exploring how to make their existing resources (e.g. data, services) part of the EOSC portal
 - **E-Infrastructure managers** interested in providing compute, storage, networking resources via the EOSC Portal
 - **Public and Private service providers** willing to make their services and products part of the portal
- **Mediators** (e.g., data stewards, data curators, etc.)

How to compile the survey

- An invitation to participate in the requirements gathering interview is sent to the project coordinator together with the questionnaire
- The project coordinator will identify the most appropriate persons (max 3) in the project (according to the categories above) and will provide the names to EOSC-Enhance. A survey pilot will be run to test the methodology.
- EOSC Enhance will set up individual calls (max 40 minutes each) with the project representatives according to the availability of the interviewees (Timeframe: May-July 2020).

What happens next?

- The results of the interviews will be analysed by the EOSC Enhance Requirements Task Force.
- The outputs of the analysis will be a series of requirements that will become part of the implementation plan of EOSC Enhance. The resulting requirements will be shared with the interviewees (Please note that ad-hoc virtual meetings might be organised at a later stage with the interviewees in case some requirements need a consensus process).
- The interviewees can be informed on the progress of the implementation.
- The interviewees can indicate at the end of the questionnaire if they are willing to take part in the design verification/validation/testing

Requirements Gathering Survey

Basic Instructions:

- For each of the new functionality that you would like to see implemented we will ask you to indicate the level of priority: High; Medium; Low. Clearly this value indicates ONLY the urgency of the implementation. The technical assessment on when this feature will be implemented is up to the EOSC Enhance Requirements Task Force based on the resources and effort available.

Section 1: General Portal Enhancements

Target interviewees: All the above-mentioned categories

1. What is the most important functional issue that needs to be solved on the current EOSC-Portal?
2. What is the most important feature that you would like to see implemented in the next year?
3. How in your opinion we can stimulate the EOSC-Portal usage?

Section 2: Finding Resources on the EOSC-Portal

*Target interviewees: **those landing to the EOSC Portal to search some resources (data, services, software, etc.) to perform their research** (Researchers or community managers, Project Coordinators, Stakeholder Engagement leaders, Aggregators technical managers, E-Infrastructure managers, Public and Private service providers)*

1. Is it clear enough from the EOSC-portal landing page where to find the resources on the Portal? If not please suggest how to improve it.
2. What are the resources (data, service, products, software, research outputs, etc.) that you would like to see part of the portal? Please indicate which resources in your opinion should be / should not be part of the portal
3. What are the functionalities that you would like to see in place to improve the discoverability of the resources (e.g. possibility to compare or rate resources, see resource availability or possibility to book directly from the portal, etc.)?

Section 3: Using Resources on the EOSC-Portal

Target interviewees: those who have found a useful resource on the portal and they want to use it.

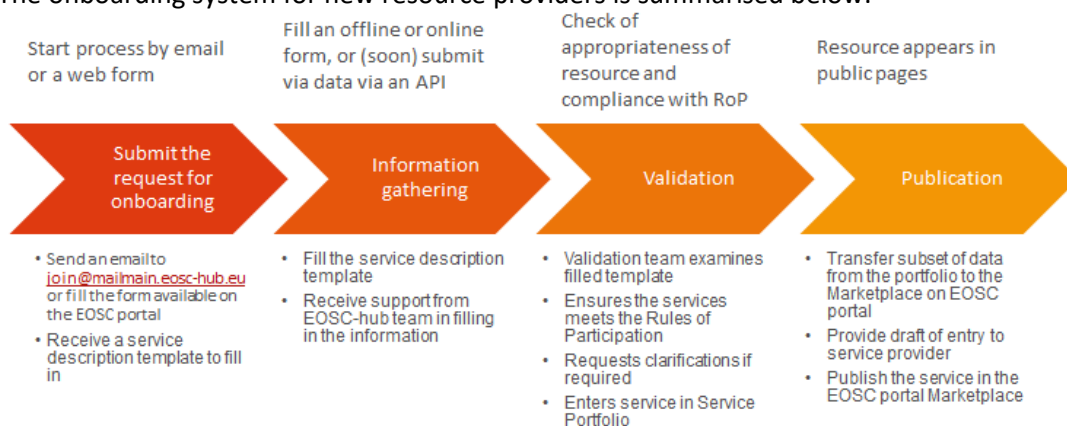
(Researchers or community managers, Project Coordinators, Stakeholder Engagement leaders, Training managers, Aggregators technical managers, E-Infrastructure managers, Public and Private service providers)

1. Is the ordering system satisfactory? If not how would you suggest to improve it?
2. Is there anything currently preventing you from making a service order?
3. Is the helpdesk and support system satisfactory? If not how would you suggest to improve it?

Section 4: Making your resources available via the EOSC Portal and managing them

Target interviewees: those willing to provide their resources via the portal. (Researchers or community managers, Training managers, Aggregators technical managers, E-Infrastructure managers, Public and Private service providers)

1. Is it clear enough how to apply to become a provider of the Portal from the EOSC Portal landing page? If not, please suggest how to improve it.
2. The onboarding system for new resource providers is summarised below:



Source: *The current state of the catalogues and onboarding, Owen Appleton, EGI/EOSC-hub*

Please indicate the improvements that you would like to see implemented if any (e.g. in case of aggregators what is the process that you would foresee?).

3. Once your resources are part of the portal, what are the functionalities that you would like to see in place (e.g. accounting, usage monitoring system, statistics, maintenance, etc)? Please indicate for each of them the functionalities that you would like to see implemented
4. What indicators/statistics for your resources would you be most interested in visualising or receiving from the EOSC Portal (i.e. my resource page visits, orders etc.)

Section 5: Training

Target interviewees: those looking for training material and user documentation on the EOSC portal functionalities & training managers willing to promote the training material of their services via the portal. (Researchers or community managers, Project Coordinators, Stakeholder Engagement leaders, Training managers, Aggregators technical managers, E-Infrastructure managers, Public and Private service providers)

1. What type of training resources would you like to see provided via the portal?
2. How training resources should be organised on the portal (e.g. stand alone section or training resources as part of the catalogue)?
3. What are the functionalities that you would like to see as part of the Training area (calendar, search, etc.)?

Would you like to take part of the design verification/validation/testing phase?

Name:

Email:

Annex 2: References

Potentially Relevant Documents

EOSC Enhance

- [EOSC Portal Functional and Non-Functional Requirements](#) (Compiled by WP2)
- Collaboration Agreement with EOSC-hub

eInfraCentral

- D3.1, "[Service Catalogue Requirements](#)"
- D3.2, "[Service Classification/Taxonomy](#)"
- D4.1, "[Portal functional and architectural specifications](#)"
- D3.3, "[Guidelines for schema representation and APIs](#)"

EOSC-Pilot

- D2.7, "[Final Stakeholder Map](#)"
- D5.4, "[Final EOSC Service Architecture](#)"
- D5.5, "[EOSC Service Portfolio Roadmap](#)"
- D6.9, "[Final report on Data Interoperability](#)"

EOSC-hub

- [D12.1 - Procurement requirements and demand assessment](#)
- [D4.1 - Operational requirements for the services in the catalogue](#)
- WP2 documents including candidate criteria for inclusion into the portal portfolio
- [D10.5 - Requirements and gap analysis report - first version](#)
- [D12.1 - Procurement requirements and demand assessment](#)

OCRE

- [Long-Tail of Science's Commodity Cloud Requirements](#)

CATRIS

- D4.1, "[Mapping and gap analysis of service catalogues/portfolios](#)"
- D4.4, "Functional and non-functional requirements"
- D3.3, "[Report on the results of the survey on requirement elicitation](#)"

Annex 3: Requirements Gathering Tables Snapshot

Snapshot taken as of 27 August 2020 in the Confluence tool. Note, majority of the requirements are still in early stages of validation and so, there are still no approved nor rejected requirements.

Requirements Under Review

JIRA ticket	Channel (Email, Survey, Interview, etc.)	Proposer (Organisation proposing the requirement)	Contact (to provide details/verify implementation (name, email, phone, position))	Title (Short description of the proposed requirement)	User Need - User Story - Problem to be solved (What problem is the user trying to solve? What does the user need and want? What will the user achieve when the requirement is met?)	Where did the user find the problem / expect solution to be found? (Link, picture, place in the Portal, etc.)	User Groups benefited (Researchers, Resource Providers, company Funder, etc.)	User Priority (Critical, High, Medium, Low)	Constraints and Assumptions (as perceived by the user)	Affected Systems (As perceived by the user)	Service Owner Constraints	Service Owner Implementation Priority	Estimated Resources needed	Reviewers Assessment	Reviewers Decision	Priority	Deadline for implementation	Feedback to the User	Status	Other Comments
Key Summary T Created Updated Due Assignee Reporter P Status Resolution																				
EOSCENR 97				Edit a name in the Network Classification	<input checked="" type="checkbox"/>	2020 May 26	2020 May 27	2020 Jun 30	Unassigned	Jorge Sanchez	▼	UNDER REVIEW	Unresolved							
EOSCENR 96				Provide Public Repository of EOSC Enhance Results in EOSC Portal Menu	<input checked="" type="checkbox"/>	2020 May 11	2020 May 27	2020 May 31	Unassigned	Jorge Sanchez	↔	UNDER REVIEW	Unresolved							
EOSCENR 95				Contact information automatically retrieved for onboarding process	<input checked="" type="checkbox"/>	2020 May 11	2020 May 26	2020 May 31	Unassigned	Jorge Sanchez	▼	UNDER REVIEW	Unresolved							
EOSCENR 94				Other Resource Providers have read access at the Resource Dashboard	<input checked="" type="checkbox"/>	2020 May 09	2020 Jul 15	2020 May 31	Unassigned	Jorge Sanchez	▼	UNDER REVIEW	Unresolved							
4 Issues Refresh																				

Requirements Approved

ID	Channel	Proposer	Contact	Title	User Need - User Story - Problem to be solved	Where did the user find the problem / expect solution to be found?	User Groups benefited	User Priority	Constraints and Assumptions	Affected Systems	Service Owner Constraints	Service Owner Implementation Priority	Estimated Resources needed	Reviewers Assessment	Reviewers Decision	Controller	Anticipated Date	Feedback to the User	Other Comments
Key Summary T Created Updated Due Assignee Reporter P Status Resolution																			
No issues found Refresh																			

Requirements Rejected

ID	Channel	Proposer	Contact	Title	User Need - User Story - Problem to be solved	Where did the user find the problem / expect solution to be found?	User Groups benefited	User Priority	Constraints and Assumptions	Affected Systems	Service Owner Constraints	Service Owner Implementation Priority	Estimated Resources needed	Reviewers Assessment	Reviewers Decision	Controller	Anticipated Date	Feedback to the User	Other Comments
Key Summary T Created Updated Due Assignee Reporter P Status Resolution																			
No issues found Refresh																			