Communications and Stakeholder Engagement Plan

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Deliverable Abstract
The EOSC-hub project involves infrastructure providers from the EGI Federation and EUDAT CDI, and technology providers from INDIGO-DataCloud, with the purpose of offering services, software and data to support research and innovation. These resources are offered via the integration and management system of the European Open Science Cloud Hub, acting as a single entry point for all stakeholders. In this document we describe the strategy in communicating and engaging with all possible stakeholders: from ESFRIs, to users in the so-called long tail of science; from business organizations, to Research Infrastructures; from governmental and policy bodies, to general public.

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TERMINOLOGY

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Contents

1. Introduction 5
2. Strategy and Methodology 7
2.1 EOSC-wide Strategy 7
2.2 Stakeholder map and engagement approaches 7
2.2.1 E-infrastructures (Pan-European) 8
2.2.2 Research infrastructures 9
2.2.3 ESFRI clusters 10
2.2.4 EOSCpilot demonstrators 10
2.2.5 H2020 e-infrastructure projects 11
2.2.6 Scientific-service provider institutes 11
2.2.7 Business organisations 12
2.2.8 Research communities (including individual researchers) 13
2.2.9 Governmental, funding, policy agencies 13
2.2.10 General public 14
2.3 Summary - Engagement instruments and 2018 timeline for stakeholder groups 14
3. Support for stakeholder engagement 18
3.1 Tooling and responsibilities 18
3.1.1 Workflow and Responsibilities: User engagement 18
3.1.2 Workflow and responsibilities: Provider engagement 19
3.1.3 Engagement tracking system 20
3.2 Communications 21
3.2.1 Dissemination and engagement support 21
3.2.2 Brand development and internal communications 23
3.2.3 EOSC-hub communication channels 24
3.3 Events 28
3.3.1 Organizing EOSC-hub Events 28
3.3.2 Participation to External Events 29
4. Measuring progress and success - Key performance indicators 33
5. Conclusions 34

Executive summary

EOSC-hub aims to develop a service ecosystem for researchers to access advanced computing resources and data-oriented infrastructures. Widening the access to services to all user groups is therefore a strategic goal that spans over a large number of tasks and activities in the project. The coordination of the user engagement procedures as whole falls under the remit of WP3. In this first deliverable we outline the basic strategy and coordination plans.

EOSC-hub will engage with both early adopters of EOSC-hub services (i.e. communities already part of the project) and new research communities. New communities will be supported by a team of experts and trainers providing expert advice on the use and customisation of products, services and solutions. This implies the need to reach out and engage with potential user and stakeholders' groups to increase awareness on EOSC-hub services and provide a clear and easy access point to them.

The main purpose of the engagement task is to facilitate this process by providing clear guidelines and project-wide coordination to facilitate the integration of new stakeholders in the EOSC-hub ecosystem. The coordination flow and tools to be used in the user engagement task is described in this document, as follows.

The deliverable defines the different types of stakeholders, the engagement strategy devised for each of them, and the procedures and tools to be employed to ensure a smooth running of the engagement activities. These include the communication activities which will facilitate the outreach of the target research communities at key events.

Once the dialogue with a stakeholder has been initiated, the required technical support and/or training comes via WP10 and WP11 respectively. Outreach to industrial partners is dealt within the context of WP9 (the Joint Digital Innovation Hub), which has already a funded activity within the project to pilot business cases, that will act as showcase for the new ones to come.

Tracking globally the progress in the engagement progress is the mission again of WP3, via the CRM process described in section 4. The delierable defines how the Key Performance Indicators relate to the engagement activity.

There is large amount of actors and activities involved in the engagement process that need information sharing in order to function in a coordinated manner. A tracking system, under the Confluence tool used by the project, will be set up, to follow up the different stakeholders and the actions taken towards each community group together with the indication on who is responsible for updating which part of system.

As a summary, having well defined procedures from the tasks assignments point of view, as well as having the technical tools in place for tracking the progress of the activity, is fundamental at this early stage of the project. In this sense the workflow of the user engagement task is defined in this document, in which we also outline the basic strategy to approach every type of prospective stakeholder. The technical tools used at the global level in task T3.1 (stakeholder engagement database) and at the level of individual WPs involved are also described here.

This document will be updated in the course of the project as experience indicates that tools need to be improved or refined, or general procedures need to accommodate to future strategic scenarios.

1. Introduction

The EOSC-hub project aims to become the single contact point for researchers and innovators to discover, access, use and reuse a broad spectrum of resources for advanced data-driven research. In particular, the project delivers a catalogue of services, software and data from the EGI Federation, EUDAT CDI, INDIGO-DataCloud and major research e-Infrastructures and builds on mature processes, policies and tools from the leading European federated e-Infrastructures to cover the whole life-cycle of services, from planning to delivery.

In this context one of the EOSC-hub objectives, as stated already in the project Description of Action, is to widen the access to services to all user groups including researchers, high-education, and business organisations. The 'virtual access' funding model (in WP13), pay-for-use models (in WP9), as well as alternative models will be studied (WP2, WP8). Communication and engagement will need to drive users and providers to the most appropriate access/provisioning channels.

EOSC-hub will engage with both early adopters of EOSC-hub services (i.e. communities already part of the project) and new research communities. Early adopters are represented through a network of research community-lead Thematic Services (WP7) and Competence Centres (WP8) and through Business Pilots with the involvement of SMEs (WP9). New communities are supported by a team of experts and trainers providing expert advice on the use and customisation of products, services and solutions supported by the EOSC-hub (WP10 support, WP11 training). Moreover, given the key role of EOSC-hub in defining and implementing the first building blocks for EOSC, stakeholder engagement by the project means to a certain extent 'EOSC engagement' as well.

This implies the need to reach out and engage with all potential user and stakeholders' groups to increase awareness on EOSC-hub services provision and provide a clear and easy access point to all the EOSC-hub services. Thus, the communication and engagement activities will be central in order to:

- Expand the access to services outside the traditional user base, opening them to all user groups including researchers, high-education, business organisations through the virtual access mechanism.
- Stimulate engagement via Competence Centres in the following areas: life science, fusion, marine, radio astronomy, seismology, climate change, disaster mitigation.
- Focus dissemination and communication activities (e.g. trainings, events) in order to improve their uptake within the target groups.
- Engage adjacent but fragmented scientific communities and promote the uptake of services from multiple sectors and geographic locations.
- Through the EOSC-hub stakeholder network nap out the interest and preferences for the future EOSC.

These communication and stakeholder engagement activities (and related tasks) have been from the very beginning and will be in the future highly connected and they have to work in synergy to identify prospective stakeholders and engage them into the EOSC-hub ecosystem. In particular, while both communication and engagement task will address the identification of stakeholders' groups and maintain the associated database, the engagement activities will be more devoted in promoting the EOSC-hub services and stimulate adoption (also looking for the involvement of new service providers), understanding the roles and the expectations of each stakeholder group, making

sure that their needs are considered and addressed (with other EOSC-hub activities leaders informed and involved to take action when needed), and maintaining contact with each of them in the best way. To achieve this, the communication activities will use the above information so to customise the channels and the message of the communication so to gain the best outreach result for each community.

Recognising the many commonalities between the projects, we are working with the OpenAIRE-Advance team to maximise the impacts of our communication and engagement strategies through a joint plan of activities. The work is part of a formal collaboration agreement between the projects and started in a preparatory meeting held in December 2017 in Amsterdam.

The purpose of the joint communications plan with OpenAIRE-Advance[1] is to develop a set of user-centric activities build to promote the outputs and results of the collaboration as building blocks of EOSC. The EOSC-hub / OpenAIRE-Advance joint communications plan will be running in parallel with project plans and activities and will focus on ways to reach researchers and stakeholders to communicate how and why OpenAIRE Advance & EOSC-hub networks/services can support them. The plan is based on the joint technical roadmap of the two projects and includes diverse range of activities such as: news items, training events, workshops, user stories in various formats (e.g. case studies).

[1] https://docs.google.com/spreadsheets/d/1b8QsMertXUFyXEXOd5XmTmHTu88NJF8Iebo8PlWmAE

2. Strategy and Methodology

2.1 EOSC-wide Strategy

The Strategic Direction of EOSC-hub (WP2) is responsible to oversee the coordination and planning of strategic activities, in collaboration with the Project Management Board and other strategic bodies in the project. One of these activities is the stakeholder engagement plan which is described in this document. The plan will make the project intentions publicly available in a transparent way and will help the consortium to engage with research communities, funders and other relevant initiatives.

Due to finate manpower resources, support will need to be prioritized to those communities that are of strategic interest to EOSC-hub. Thematic Services and Competence Centers enrolled in the project have their own support team and effort allocated. Therefore, the effort prioritization should be invested in the induction of other strategically positioned communities from the point of view of: scientific and technical maturity; perspective usage of e-infrastructures; number of users; community plans regarding the deployment of IaaS or PaaS layer(s) integrated in the EOSC-hub service ecosystem, are among the criteria that need to be strategically analyzed.

The way communities are approached is key to widen an “Open” initiative and ensure that newcomers feel supported and integrated. Identify community Champions is one possible approach that has proven to be useful. These are typically advanced researchers at the Postdoctoral level and beyond, well connected within the community, that act as links between the project and the user community.

2.2 Stakeholder map and engagement approaches

This section provides the first mapping of the EOSC-hub stakeholder landscape. The map considers the initial analysis carried out during the proposal preparation, as well as the stakeholder map that was prepared by the EOSCpilot project in 2017[2]. The list of stakeholders categories is in no particular order in this section. Appendix A provides a detailed listing of the main entities that have been identified so far under each category. A table at the end of this section summarises the approaches that the project will implement to engage with each stakeholder. The Appendix is provided as companion document to the present deliverable.

Horizontal to this stakeholder group classification we identify three roles: “user”, “provider” and “technology enabler”. Stakeholders can be any of them, or any combination of multiple roles. A given research community, besides having a user role. may be developing its own tools to enable certain service, in that sense a research community would have the role of technology enablers.

In general, EOSC-hub plans to use the mechanism of open calls to support research communities engagement into using the services of the catalogue. Researchers and research communities needing advanced services and state-of-the-art technology will be able to apply to use resources integrated in the EOSC-hub ecosystem, through a peer reviewed process.

[2] The output of this was documented in EOSCpilot D8.2 Stakeholder Identification & Engagement Strategy Plan.

The stakeholder groups and the motivations for the project to engage with them are presented in this table:

Stakeholder group	*Main motivation for engagement. They...*
E-infrastructures (Pan-European)	...provide services; Bring consumers; Enable the EOSC-hub ecosystem to function (e.g. with standards, good practices)
Research Infrastructures	...provide services; Bring consumers; Define EOSC in collaboration with EOSC-hub
ESFRI clusters	...are multipliers that bring service providers; Bring consumers; Define EOSC in collaboration with EOSC-hub
Technology providers	… develop software that later on is used for service composition.
EOSCpilot	...carry out complementary and preparatory activities for various EOSC-hub tasks
H2020 e-infrastructure projects	...deliver services/technologies that can be relevant for inclusion EOSC-hub; They bring early-adopter user communities
Scientific-service provider institutes	...are the most significant providers within certain disciplines (e.g. CERN), or towards specific groups (e.g. universities)
Business organisations	...can exploit services, data and technologies from the Hub for commercial purposes; Contribute to the Hub with commercial services
Research communities (incl. Individuals and long tail of science)	...are the users or future users of EOSC-hub services
Governmental, funding, policy agencies	...are funding the project and most of consortium members
General public	...are indirectly paying for the initiative so must be kept informed

2.2.1 E-infrastructures (Pan-European)

Pan-European e-infrastructures were stated as one of the key EOSC service providers by the EOSC High Level Expert Group report[3]. E-infrastructures are considered as one of the foundational groups of EOSC-hub, playing a complex role of providing services; consuming services as well as developing, improving components that make other stakeholders of the ecosystem more efficient in their own roles. The EOSC-hub project itself was initiated by two European e-infrastructures, EGI and EUDAT in collaboration with the INDIGO-DataCloud technology project. Several EGI and EUDAT members are involved within the project consortium, therefore engagement with them will happen through the 'usual' project channels (PMB, Internal briefs, EOSC-hub meetings). However, there are EGI and EUDAT members who are not directly involved in the consortium, or do not represent their NGI in the project.

[3] https://ec.europa.eu/research/openscience/pdf/realising_the_european_open_science_cloud_2016.pdf

Maintaining a continuous discussion with *all* EGI and EUDAT members is crucial to avoid that the two foundational communities lose the support of their members, and to ensure that all relevant EGI and EUDAT services are brought into EOSC-hub. Engagement with these 'external' EGI and EUDAT members will happen through the e-infrastructures' internal community-specific channels, such as the NGI Council, NGI International Liaisons, NGI Operation Managers for EGI, EUDAT CDI activities. The project will facilitate this by co-locating specific sessions at the main EOSC-hub events.

The project needs to maintain collaboration with all the other European e-infrastructures: OpenAIRE, GEANT and PRACE. The relationship with OpenAIRE is well defined through the Collaboration Agreement that EOSC-hub and OpenAIRE-Advance (the current OpenAIRE flagship project) have recently signed. Another agreement will be signed with GEANT's current flagship project, GN4-2[4]. The agreement will complement the existing, managerial-level interactions and mutual attendance of main community events (EOSC-hub Week and TNC) with focused technical collaborative activities.

RDA - although not a physical infrastructure - is considered in this category. EOSC-hub has started engaging with RDA through the 2018 Berlin plenary, where a workshop co-organised with OpenAIRE-Advance and the FREYA project was held. The purpose of the workshop was to discuss with the RDA community a set of challenges identified by the projects that can be addressed in a set of RDA working/interest groups. These groups, as well as participation at future plenaries will be the main engagement activity with RDA. An additional activity will be the involvement of national RDA nodes (in countries where exist) into the NGI - NOAD collaboration that the EOSC-hub - OpenAIRE-Advance collaboration nurtures under their project collaboration umbrella. This will allow the three projects to strengthen the collaborations at the national level.

Engagement with non-European e-infrastructures will have lower priority, and will be ensured through managerial contacts, as well as by mutually attending each other's' main community events.

2.2.2 Research infrastructures

EOSC-hub provides an infrastructure that can support researchers in pushing the frontiers of science, in particular within areas with massive data or computational requirements. In the next years, a growing number of Research Infrastructures (RIs) from the ESFRI roadmap and from national roadmaps are expected to reach implementation or operational stage. These RIs are already operating online services, or are exploring needs of their user communities. Given their international nature and awareness of the benefits of cross-border access, the European RIs are considered as the primary long-term providers and users in EOSC. RIs are expected to have a dual role: operate as EOSC service providers (through EOSC-hub or through some thematic clouds), and to act also as 'user channels' to bring scientific users from academia and industry to the EOSC services.

The ESFRI roadmap provides the most comprehensive listing of international RIs, splitting them into 'project' and 'landmark' groups. We are assuming that these RIs will continue retaining their brand even if they join EOSC-hub or EOSC with their services and continue serving disciplinary communities directly via existing channels. Therefore, their contributions to EOSC will be primarily motivated by reaching additional customers, such as multi-/inter-disciplinary researchers, and/or industry.

The project consortium already sees the involvement of 18 RIs, most of them also listed in the 2016 ESFRI roadmap. Engagement with these will primarily happen through the task leaders they

[4] https://www.geant.org/Projects/GEANT_Project_GN4

delegated towards the project (in WP7 and WP8). In addition, managerial level information-exchange will be also performed.

Our initial analysis in the Appendix revealed that 19 ESFRI projects and 21 ESFRI landmarks are not represented in the project consortium. Several of these RIs are/were already working with EGI or EUDAT (or both), and we should capitalise on those relationships to connect them in the EOSC-hub context. For example, EMSO has already experimented with EGI cloud services in the past years; SKA works with the EGI Foundation in the AENEAS H2020 project and with the LOFAR community (Task 8.6). Task 3.2 should assess those RIs that have no history with EGI/EUDAT/INDIGO and based on this assessment decide whether EOSC is relevant for them, and if so, interview them to pull them closer to EOSC-hub and the EOSC preparation activities.

2.2.3 ESFRI clusters

ESFRI clusters are H2020 projects facilitating joint developments, technology/service harmonisation across multiple RIs of specific disciplinary areas. Similarly, to individual RIs, these clusters can play a dual role in EOSC: act as service providers and as channel of new users. Engagement should guide them towards these two roles.

Currently, ESFRI cluster projects exist in the areas of Life sciences (CORBEL 2015-19), Environmental sciences (ENVRI+, 2015-19), Astrophysics & astro-particle physics (ASTERICS 2015-19), Marine biology (EMBRIC, 2015-19). Engagement with the clusters can improve the consistency and efficiency of engagement with RIs because the clusters can act as multipliers towards multiple RIs, especially towards those that are not linked to EOSC-hub via other channels.

CORBEL has an ‘e-infrastructure advisory board’, which was used so far to engage with e-infrastructures. EGI, EUDAT (as well as GÉANT and PRACE) has one delegate in this board, which meets during their Annual General Meetings (AGM), providing advice to the projects. CORBEL's next AGM takes place October 16-17, 2018 in Paris.

ENVRI+ has the EGI Foundation, CSC, CINECA, Juelich and a few other EOSC-hub members within the consortium. Engagement with this cluster is therefore already happening on several channels. The 6-monthly ENVRI Weeks provide points for synchronisation, with the next one to be organised at Zandfoort (NL) between 14-18 May 2018.

ASTERICS involves several institutes from EOSC-hub (e.g. SURFsara, STFC, CNRS), but the main surface for engagement remains the annual ASTERICS-OBELICS workshops, organised around October each year. Director-level representation at these events seems to be the most effective way of interacting with this cluster.

RIs are expected to form new cluster projects using the INFRAEOSC-04-2018 H2020 call in 2018 Q1. Through the current clusters, EOSC-hub management has already engaged with a few consortia that prepared proposals for this call, and in some cases included specific activities in the proposal for EOSC-hub service integration. In addition, ESFRI cluster representatives will have a role in sharing the project stratigic direction as members of the EOSC-hub Strategy Board. Information about the new projects will not be known until Q3-4 of 2018, and the new projects will start in 2019.

2.2.4 EOSCpilot demonstrators

Between 2017-2019 (2 full years), the EOSCpilot project clarifies and defines several characteristics of EOSC by:

- Proposing and trialing the governance framework for the EOSC and contributing to the development of European open science policy and best practice;
- Developing a number of demonstrators functioning as high-profile pilots that integrate services and infrastructures to show interoperability and its benefits in a number of scientific domains (15 demonstrators); and
- Engaging with a broad range of stakeholders, crossing borders and communities, to build the trust and skills required for adoption of an open approach to scientific research.

EOSC-hub and EOSCpilot share several complementary areas of work, such as Stakeholder engagement; Governance; Support for scientific use cases; Service management; Principles of engagement; Skill development. Direct contact between the respective tasks have been already established and the relationship is nurtured by the management of the two projects. In this deliverable, and in the T3.2, we are concerned with the science communities engagement aspect of EOSCpilot, because this requires coordinated action from multiple EOSC-hub WPs ('order handling in WP4; 'technical support' from WP10; 'training' from WP11). The engagement will happen through the 15 scientific demonstrators. EGI Foundation is involved in both shepherding demonstrators in EOSCpilot, and in the WP3 and WP10 of EOSC-hub (the WPs concerned with science community support). Science demonstrators can benefit from EOSC-hub in two ways: (1) Receive generic services from EOSC-hub providers to continue their EOSCpilot activities; (2) Become Thematic Service providers in EOSC-hub to make their science-specific applications available for cross-border access.

The hand-over of demonstrators will be handled by WP4 of EOSCpilot and Task 3.2 of EOSC-hub. The first step is to interview the demonstrators to assess their maturity, and about their interest in EOSC-hub engagement (early Summer 2018).

2.2.5 H2020 e-infrastructure projects

In the past years several e-infrastructure provider and user communities emerged from H2020 projects that brought together e-infrastructure experts, software developers and scientific groups. Such projects typically build custom e-infrastructure setups by expanding generic components for certain disciplinary areas. The projects include early user communities and have the ambition to produce services that attract users from outside the project. Multi-scale Genomics (genetics), AGINFRA (food and agriculture), PhenoMeNal (Phenome and Metabolome aNalysis), BlueBRIDGE (fisheries, aquaculture, blue-growth) are a few examples for such projects.

EOSC-hub should support successful services and communities from such projects to become sustainable providers/consumers in EOSC. This requires EOSC-hub to monitor the H2020 project landscape (e.g. through the EC CORDIS website) and engage with relevant domain e-infrastructure communities to support them become sustainable providers and users through EOSC-hub. As first step, the project has organised a session[5] for such initiatives at the 1st EOSC-hub week in April 2018 in Malaga.

2.2.6 Scientific-service provider institutes

For several scientific disciplines Europe has major scientific service provider institutes that operate discipline-specific services for a given audience. For example, CERN provides services for high-energy

[5] http://eosc-hub.eu/events/eosc-hub-week-16-20-april-2018-malaga-spain/programme/leading-e-infrastructure-project-communities-eosc

physics, the EMBL network of institutes for researchers and projects in molecular biology. Also universities serve specific researchers - people working at their campus and their collaborators.

Such institutes should be engaged with in order to support them become service providers through the EOSC(-hub) channel (if they wish to), and also to support them in serving their user communities more effectively by the use/re-use of EOSC-hub services and technologies. The project should identify and directly engage with those of such institutes which offer services which can be relevant for the EOSC target users. Similarly, to what was stated also concerning the RIs, also here we expect that major organisations will continue delivering services via existing channels to domain scientists, and will seek for federation into EOSC to reach new users/customers.

2.2.7 Business organisations

One of the project activities consists of the creation of a Joint Digital Innovation Hub (DIH, WP9), that allows research e-Infrastructures to join efforts in reaching out to business organisations and stimulate the innovation potential of research infrastructures, SMEs/industry, and other innovative actors. Establishing partnerships with industry will allow for the increased exploitation potential of commercially viable research data and other existing e-Infrastructure services, and the provision of commercial services to researchers. From the business perspective, there is a clear need for a cyberinfrastructure, in terms not only computing and storage needs but also set of integrated services to allow, for example, the data ingestion, management, sharing, a set of different models and algorithms that gives an added value.

The EOSC-hub DIH will initially run 6 pilots with SMEs to kick-start these business opportunities. This business pilots have been selected via an open call during the project preparation phase, out of 30 high-quality applications and will run during the first half of the project. Each pilot has a defined business and exploitation plan described in D9.1 and will serve as examples/blueprints to engage with additional SMEs in the second half of the project.

Additional objectives of the EOSC-hub Digital Innovation Hub to be carried out through WP9 comprise:

- Creating partnerships with SMEs/industry, innovation clusters, accelerators and investors that stimulate innovation (new products, services).
- Facilitating access to e-Infrastructure resources to support prototyping, scaling-up, design, performance verification, testing, demonstration, development of pilot lines, validation for market replication, including bringing innovation to investment readiness and maturity for market take-up.
- Connecting with other regional and pan-European networks of Digital Innovation Hubs supported by the EC and other agencies.
- Sharing best practices and competencies for knowledge transfer between the public and private sector.
- Developing long-term business relationships outside of/beyond the project.
- Providing feedback from the SMEs, industries on provided services and infrastructure (also through pilot activities).
- Offering business-oriented coaching with the mission to accelerate market uptake and results in exploitation of the both the pilots and Competence Centers.

A detailed strategy for EOSC-hub DIH will be reported in D9.2 due in project month 6 (June 2018), however some initial engagement activities include areas such as: dedicated website section; planned interviews; fast-track incubator platform; attendance at business events; establishing collaboration agreements with multipliers, etc.

2.2.8 Research communities (including individual researchers)

Research communities are expected to be engaged with EOSC-hub as 'users'. Those research communities that are wishing to provide services typically do so via Research Infrastructures or scientific-service provider institutes - both of these have been covered in previous sections above.
Engagement with researchers will happen primarily through two streams:

1. Thematic services, competence centre services/pilots/demonstrators, and the business pilots: These activities provide/develop services that target researchers and innovators. Effort for outreach, promotion and training is budgeted for these within WP7 (thematic services), WP8 (competence centres), WP9 (business pilots) and WP11 (training about thematic services and competence centres). WP3 already established online forms to track dissemination activities, plans and impact; WP11 did the same but for training events. WP3 will have to regularly bring together the findings from these activities and analyse the disciplinary coverage and impact. Those disciplines that are underrepresented should be prioritised, (or their underrepresentation better understood).
2. In the OpenAIRE-Advance project, the OpenAIRE National Open Access Desks will organise national workshops for researchers (1 workshop/NOAD/year). Under the umbrella of the OpenAIRE-Advance collaboration, we are aiming to expand the scope of these workshops with input from the EGI national stakeholders (NGIs). The expanded workshops can inform national groups about services that exist nationally and internationally through EOSC-hub and OpenAIRE for the support of planning and implementing research data management. An idea for the future can be also to further expand the scope with the involvement of national RDA groups (in countries where such exist) to move towards a landscape of integrated, strong national EOSC players.

The main workflow for researchers and research community engagement starts with dissemination and a step - e.g. a presentation at a conference or workshop, a webinar, a newsletter article. Section 4 provides details about these pro-active dissemination-communication activities. The activities will drive users to the EOSC-hub service marketplace[6] from where the users can either use services through 'corporate SLAs', or via custom arrangements. The latter will be the responsibility of the order management task (T4.2).
One of the main beneficiaries of EOSC is expected to be cross-/interdisciplinary science. A key question for the EOSC-hub engagement task is to understand who are the key entities in the 'cross-/interdisciplinary science' landscape, and how can the project most effectively work with them. This is an area where Task 3.2, together with the strategy planning task of WP2, should focus on next.

Additional scalable mechanisms that the project will also consider to engage with researchers are surveys and open calls for applications. Through surveys we could collect input (e.g. requirements, priorities, expectations), with open calls we can build long-term relationships (e.g. call for applications, call for specific disciplinary groups).

2.2.9 Governmental, funding, policy agencies

Given that EOSC-hub and EOSC are initiatives by the European Commission, the EC will remain one of the most important stakeholders of the project. Managerial-level engagement with regular telephone and face-to-face meetings, and presentations at EOSC-hub events will ensure the best communication between the parties.

[6] The marketplace is to be setup by summer of 2018.
In the meantime the project provides a service catalogue with a request form on this public wiki page: https://wiki.eosc-hub.eu/display/EOSC/EOSC-hub+service+catalogue

The role of national agencies and funding bodies in EOSC is described in the Staff Working Document[7]. The EC is currently leading a consultation process with the main national entities via the European Research Area Committee and is expected to report about this to us during 2018 together with the input of the 2nd EOSC HLEG[8]. Further actions on this stakeholder group will be decided after the new reports are known.

2.2.10 General public

Engagement with the general public will happen through the project Website (www.eosc-hub.eu). In the past days discussions started with the EC about the setup of an EOSC Portal, which could be maintained outside EC projects, but which could serve as an authoritative landing page for users of EOSC to learn about EOSC and to discover services from the providers and thematic catalogues (where for example EOSC-hub can be one catalogue).

2.3 Summary - Engagement instruments and 2018 timeline for stakeholder groups

The below table provides a summary of the main EOSC-hub stakeholder categories, and the mechanisms that the project will use to engage with each group. The EOSC-hub events, the Website and the Newsletter will serve as a 'catch-all' mechanism to reach out to and inform nearly all types of stakeholders. Specific approaches (such as training workshops) will complement this for certain types of stakeholders. The diversity of the planned approaches will ensure that the various groups are contacted in the right form to convey the project's messages that are relevant to them.

Stakeholder groups	***Specific subgroup***	***Specific ways to engage with them***	***Generic engagement activities***
European e-infrastructures	EGI, EUDAT, INDIGO	Consortium channels (Newsletters, meetings, video/written interviews, cross e-infra use cases, etc.); EGI/EUDAT channels (NILs, council, etc.)	EOSC-hub events Website Newsletter Webinars
	OpenAIRE	Collaboration agreement workplan	
	GÉANT, PRACE	Managerial-level communication/interview; Attending their events	
	RDA	Attend Plenaries; Establish EOSC-related groups or contribute to existing WGs/LGs; joint webinars	
Non-European e-infrastructures	e.g. XSEDE, Nectar	Managerial-level communication/interview; Attending their events	
RIs	Involved in the project	Use cases and interviews with Thematic services; Competence Centres	

[7] http://ec.europa.eu/research/openscience/pdf/swd_2018_83_f1_staff_working_paper_en.pdf
[8] https://ec.europa.eu/research/openscience/index.cfm?pg=open-science-cloud-hleg

	ESFRIs with EGI/EUDAT experience	Rescope existing contacts and experience to EOSC-hub/EOSC engagement	
	New ESFRI projects and landmarks	Interview and assessment; Decide on future actions accordingly	
Current RI clusters	ENVRIplus, CORBEL	Directly by membership in those projects	
	All the others	Attend their events; Follow their news channels; Managerial-level communication	
Future RI clusters		Initial engagement completed. Continue after evaluation outcome is known.	
EOSCpilot demonstrators		Directly through shared project members, primarily EGI.eu, CSC	
E-infra H2020 projects		Identify main ones (e.g. from CORDIS site); Map them into stakeholder matrix	
Scientific-service provider institutes		Interview and assessment; Decide on future actions accordingly	
Business organisations		Setup fast-track incubator infra; Attend business fairs; Direct engagement with multipliers. Designing of a “vouchers”-based scheme for supporting business pilots on EOSC-hub resources.	
Research communities	Disciplinary groups	Thematic services; Competence Centres, Business pilots. Possibly also surveys, open calls	
	Inter-disciplinary communities	Best mechanism is still to be understood (in collaboration with Strategy Planning task)	
Governmental, funding, policy agencies	EC	Managerial-level communication and meetings	
	National	Engage through national EOSC-hub entities (NGIs); Further actions based on EC guidance	
General public		Website with description of marketplace, catalogue of services, status of monitorization, etc….	

Timeline with milestones for 2018:

Stakeholder group	*2018*				
	Q1-2 2018	*EOSC-hub week (public)*	*June EOSC Summit*	*Q3-4*	*DI4R (program depend on co-organiser infras too)*
E-infrastructures	Engagement through community channels and project newsletter	Community sessions		Engagement through community channels and project newsletter	National infrastructures sessions
Research Infrastructures	Assess and prioritise non-member ESFRIs (T3.2)	Session with clusters		Conduct interviews with priority ones. Bring input into PoE	Direct invitations
ESFRI clusters	Support for new clusters in INFRAEOSC-04	Session with RIs		Direct engagement with INFRAEOSC-04 projects	Session with new clusters
EOSCpilot	EOSCpilot All-hands; EOSC-hub webinar for WP4&5	Session (with TSs and CCs)		Interview and hand-over of demonstrators	
H2020 e-infrastructure projects		Dedicated session		Bring their input into PoE	
Scientific-service provider institutes	Identify, assess and prioritise			Conduct interviews with priority ones	Direct invitations
Business organisations	Launch 6 business pilots; Define engagement plan with additional SMEs (D9.2)	Dedicated session		Direct engagement with new industry contacts	Pilot Demos
Research communities (incl. individual researchers)	NIL-NOAD workshop to start planning national outreach events	Service catalogue with order handling workflow in place		First national workshops by NOADs and NILs	National infrastructures session
Governmental, funding, policy agencies	Managerial consultations	Keynote presentation		Follow-up actions based on HLEG-2 and	

				Consultation Reports	
General public	Website with main areas and engagement channels	Website announcement		Accept and handle enquiries through website; Add Marketplace capability to handle orders automatically	
Contribution to external events	Mainly by WP3, 7, 8: Continuously performed according to event tracking table: https://wiki.eosc-hub.eu/display/EOSC/Events				

3. Support for stakeholder engagement

3.1 Tooling and responsibilities

At a first level, the goal of the stakeholder engagement activity is providing the mechanisms to support research communities willing to use EOSC-hub generic services and promote the inclusion of new service providers.

Raising awareness on the existence of those EOSC-hub services, making them widely known to the user communities, gathering input from the researchers as to what is the usefulness perception of such services, and feeding that information into the support teams, is a fundamental task, that is taken care by a number of tasks in the project. In this section we describe the basic workflow of the engagement process in terms of responsibilities within the project.

3.1.1 Workflow and Responsibilities: User engagement

The user engagement activity is a shared responsibility in the project involving strategy, technical and user support training work packages.

User stories or case studies need to be analyzed to capture and address the technical Requirements. To this end the information will be channeled, using confluence tools, to WP10, Task T10.3 ("**Community Requirement Analysis and Technical support**")[9]

This task will analyse the requirements, provide support to user communities engaged before or during the project, and identify appropriate services to satisfy requirements. Those requirements that are as flagged as non-addressable by the services already present in the catalogue will be forwarded to Task T10.4 ("**Common service building requirements and gap analysis**"). The team will perform a deeper requirement analysis, considering external services or extending the EOSC-hub service catalogue. The outcome will be a set of prioritised solutions for roadmap evolution. Solutions that imply major changes to the service portfolio will be evaluated in collaboration with the service team in Task T2.2 ("**Service roadmap, service portfolio and service catalogue** ").

Once the required services have been identified, the researchers need to be pointed to the most up-to-date information regarding how to use them. At this point the training tasks is fundamental regarding the delivery of online tutorials, user documentation, examples, etc....

There are two training oriented task in EOSC-Hub, T11.4 ("**Training about common and federated services**"). This task is responsible to develop and deliver training content about the common/federation services for Thematic Services, Competence Centers and for external research communities arriving through the engagement program.

The Task T11.5 ("**Domain-specific training to data providers and data scientists**") is a more targeted activity towards structured scientific communities linked to the CCs and TSs. Identifying and making widely available the user documentation coming from those communities already integrated in the project, can prove to be very useful for newcomers.

[9] The template to collect user requirements can be found in:
https://docs.google.com/document/d/1uqgitXVmsOn0ULPhaj5Yysl7Lt6OlpmPiYl2MLweoxE

All the training activities and service tools will be collected under this link[10]. The training calendar, material and training infrastructure description and update will be collected under Confluence in this dedicated space.

3.1.2 Workflow and responsibilities: Provider engagement

The initial EOSC-hub infrastructure builds upon national e-Infrastructures, data centres, research e-Infrastructures and European Intergovernmental Scientific Research Organizations (EIROs). The EGI partnership brings 22 national e-Infrastructures (NGIs), while the EUDAT CDI brings a network of nodes that provide a range of services for the data lifecycle management.

The project stimulates engagement via large research collaborations and infrastructures via 8 Competence Centres in the areas of: life science (ELIXIR RI), physical sciences (Eurofusion and ITER), marine sciences (IFREMER), radio astronomy (LOFAR), seismology (EPOS and the EIDA data infrastructure), climate change (ICOS and eLTER), disaster mitigation (DMCC+).

By bringing together research community experts, service providers and technology providers, the Competence Centre supports early adopters in running proofs of concept, service piloting and service co-creation. After successful integration, Competence Centres are expected to bring new core data resources and services to the EOSC-hub catalogue. Focused dissemination and communication activities (e.g. trainings, events) are conducted in order to improve their uptake within the target groups.

The initial network of Competence Centres will be further expanded during the duration of the project. In addition, a call for Thematic Service providers will be conducted to engage new research collaborations willing to join the EOSC-hub as providers of new community-specific services.

The integration of those additional service providers will be tracked using Confluence as a tool (see below). Task T10.2 will define the project's Rules of Engagement (RoE), including guidelines, policies and procedures to assess conformance of services to the RoE and to the FAIR principles.

Task T4.1 will be responsible for publishing the Rules of Engagement (RoE) for services providers: set of reference standards and public interfaces for interoperability among EOSC-hub services. Compliance to the RoE will be used to brand services in the project as trustworthy and interoperable.

Supporting the inclusion of new thematic service providers is a key aspect to measure the success of the project in supporting research communities. Different communities may have different resources, scope, and technical expertise. Most of the research communities are used to handle the whole chain from computing resources in their own data centres, up to the support of the applications for their final users. Experience shows that researchers are mostly interested in using discipline-based tools, developed for/or by the community itself and thus tailored to specific needs. Those tools are devised to access the Infrastructure as a Service, that in turn provides a way to access the basic resources that the scientific applications will use: computing, storage, and/or network.

However, in a service-enabled cloud world research communities are faced with the dilemma of continuing to do so, or selecting the layer(s) or set of service(s) they need to ensure that their

[10] https://confluence.egi.eu/display/EOSC/Online+tools+and+services+for+supporting+training

researchers will be able to execute their applications. There are a few technical decisions to be taken at the IaaS, PaaS and SaaS levels by the research community:

- The research community can decide to contribute to IaaS services, like those participating in the EGI FedCloud Cloud Compute services, or use an external IaaS provider (that can be also EGI FedCloud Cloud Compute services). Then they will integrate as an IaaS Service Provider.
- Then they have to decide if they need a specific PaaS solution, which one, and if they will provide it by themselves or will access an external one provided as a generic service by EOSC-Hub. In the second case, the thematic services developed in the context of EOSC-Hub, and available in the marketplace are possible solutions.
- Finally, to satisfy the end-user needs, the research communities must provide a portfolio of final applications, typically as SaaS solutions. Again, this SaaS solution may be provided by a generic EOSC-Hub service, or the research community must build and deploy them.

The type of integration as a service provider (IaaS level, deployers of new thematic services, or users of existing thematic services) depends on the answers to these questions.

3.1.3 Engagement tracking system

As it is clear from the responsibilities section, different partners from different WPs will need to input and access information related to the stakeholder communities and engagement activities carried out. The participation of different persons in the interactions with the communities might generate a confused message to the stakeholders as well as an increased risk for some stakeholders not to be properly considered.

For this reason, WP3 is planning and will put into place an online shared system to keep track of the different stakeholders and the actions taken towards each community group together with the indication on who is responsible for updating which part of system. The general approach will be that whenever an EOSC-hub partner team member is in contact already with the community, he/she will be responsible for the specific engagement with the community; for new communities (not in contact already with any EOSC-hub partner) will be assigned to one of the Task 3.2 team members.

The collection and update of information on the stakeholder engagement involves in particular to:

- Define, and implement a database of all the stakeholders relevant for the EOSC-hub project;
- Fill in the database with the initially identified communities with which EOSC-Hub partners are already in contact;
- Identify who is in charge to act as maintain main contact with the stakeholder and to keep the information on the database up-to-date;
- Maintain the database along the project lifetime;
- Trigger other WPs as needed.

A first structure for the database of stakeholders has been identified and it contains:

- Type of stakeholder: stakeholders are grouped into clusters so to allow targeted communication or messages to be created. The type of stakeholder can be selected from the list used in the previous section. (E-infrastructures, RIs, RI clusters, etc.)
- Community: name of the community/stakeholder
- Description: short description of the community
- Disciplinary area: main scientific domain for the community
- Main contact within the entity: reference person for the community

- Owner in the project: who within EOSC-hub is responsible for the engagement with the community
- Priority: priority in the engagement which will be decided based on the level of influence, power, and interest
- Status of engagement
- Date of last update: the data of the last contact is important to avoid long periods of silence or to re-contact the stakeholder two times in a short time frame for the same purpose
- Role: each stakeholder community can be a provider for services, a consumer of EOSC-hub services or an enabler
- Why to engage with them: which is the main reason and objective of the engagement with the specific community;
- Channel to reach them: best channel to be used to reach the expected engagement as described in details in section 5.2.

This database structure will be created on the project confluence, and made accessible to all persons responsible to update the information, as well as those that need to track the evolution of the process with or without writing rights.

The database will be populated at the beginning with the stakeholder communities to which EOSC-hub partners are already in contact with and then will be enriched with new stakeholders during the project lifetime.

3.2 Communications

The communication strategy will build on the added values, lessons learned and relationships established during the previous projects of EGI (EGI-InSPIRE and EGI-Engage), EUDAT (EUDAT2020) and the INDIGO consortium (INDIGO-DataCloud).

As per the joint activity 2: Communication, engagement, Support and Training indicated in the draft collaboration agreement between EOSC-Hub and OpenAIRE Advance projects, dated 12/01/2018, joint training and support activities are considered to avoid overlaps.

In the context of EOSC-hub, communication activities are designed to support the execution of the project and to contribute to its impact and can be divided into classes of activities guided by two main objectives. They are described in the subsections below.

3.2.1 **Dissemination and engagement support**

The project's dissemination [1] plan will be developed in the context of task T3.1 (Innovation Management: Dissemination, IPR and Exploitation) and delivered in PM8 (August 2018) as part of the D3.2 deliverable entitled Innovation management plan. This document will describe the project results, which will be captured, classified and protected with respect to Intellectual Property Rights (IPR). The deliverable will also outline the exploitation routes suitable for each result (exploitation plan) and how these exploitable results can be deployed to generate impact for the project (dissemination plan). The dissemination plan will be executed through communication activities defined for each exploitable result in partnership with the result owners and the team of task T3.1, and according to target stakeholder group.

The engagement strategy, outlined earlier in this document, defines what target groups can benefit the most from the service offer of the EOSC-hub project and what the best route is to reach them.

Preparatory work conducted during the project's conception and first months of activity identified the stakeholders most likely to be targeted as part of the dissemination and engagement activities.

The main activities of this area will be writing use cases, developing the concept and content of the project's publications, designing the concept of infographics, and ensuring that the messages defined in the dissemination plan reach their target audiences (for example by pitching articles to community-specific outlets).

An initial sketch is presented below.

Target 1 – Research Communities

Communication activity	***Outputs and examples***
Write use cases to illustrate success stories of uptake of services	Success story for each of the integrated Thematic & Common Services, focused on research results, e.g.: story to illustrate usage of the HADDOCK portal (different format will be used: written use cases, written and video interviews, videos, etc.)
Promote / pitch the use cases for publication in science- and non oriented outlets	• LOFAR use case published in the SKA newsletter • 3-5 use cases published in Science Node • DODAS use case published in CERN Courier • ICT media channels • Promotion on social media
Produce support publications	• 1 Service Catalogue with overview of what is available (“anotated catalogue”) • 1 flyer to promote FAIR principles • 'EOSC-hub for X': flyers highlighting what is available for the X field with guide to how to get started, prepared jointly with the Thematic Services and Competence Centers • 1 infographic to illustrate the scope of the common services
Write use cases to illustrate success stories of uptake of services	Success story for each of the integrated Thematic & Common Services, focused on research results, e.g.: story to illustrate usage of the HADDOCK portal (different format will be used: written use cases, written and video interviews, videos, etc.)

Target 2 – Service providers

Communication activity	***Outputs and examples***
Promote the implementation of the FitSM standard	• 5 FitSM certification trainings/year (initial focus on the Foundation level) • 1-2 FitSM Implementation Experiences Workshop(s) • 1 infographic to illustrate the FitSM workflow with first person quotes • Promotion on social media
Produce support publications	• 1 infographic to illustrate usage of services • 1 'why integrate with the EOSC-hub catalogue' flyer • 1 flyer to encourage SPs to collect publications by requesting acknowledgements on the publications.

Target 3 – Decision makers

Communication activity	*Outputs and examples*
Engage with ESFRIs and Research Infrastructures	1 'EOSC-hub for Big Science' publication
Keep funding agencies and governance bodies informed about the project's plans and successes	• 1 Sustainability roadmap • 2 Strategy Plans with a forward look of three years • 3 Service Strategy Roadmaps • 1 use case collection to demonstrate added values • Promotion on social media

Target 4 – Industry and SMEs

Communication activity	*Outputs and examples*
Write use cases to illustrate added value of business pilots	5 published business pilot success stories, focused on key exploitable results and impact of/on EOSC-hub
Promote the outputs of the business pilots	• 1 flyer showcasing each business pilot • 1 business use case publication (combining individual success stories) • 1 video • Promotion on social media
Promote the Digital Innovation Hub	• Area in the EOSC-hub website about the DIH • News/interviews/social media from the business pilots • 1 flyer to promote the Digital Innovation Hub • 1 infographic to illustrate what is available for industry • Promotion on social media

3.2.2 Brand development and internal communications

A second objective of the communication task will be to support the realisation of the Hub – a federated integration and management system for the future EOSC, implemented as an open, community-lead framework – through the development of a strong brand for the project and its combined outputs.

A complementary goal is to develop a cohesive network of internal project communications to facilitate practical work and build the sense of community necessary to unite the team around the project's mission.

The communication activities related to this objective will focus on establishing the public image of the EOSC-hub project, including corporate identity and project website, as well as maintaining communication channels open within the consortium and with external audiences.

Brand development

For this work, the communications team will work with Task 3.5 to provide the graphic design elements and web-based tools (e.g. the website).

Activity	*Outputs and examples*
Define the image of the project and ensure consistency	• Project logo and graphics package, including usage guidelines • Presentation and document templates in different formats • Roll-up banner and supporting event materials
Establish the project's communication channels	*See sub-chapter 5.2.1*
Establish the key messages about the project	• Project one-line tagline • Project's pitch to each target audience • Generic EOSC-hub poster • EOSC-hub presentation / slide collection that can be reused by project partners • EOSC-hub flyers

Internal communications

For this work, the communications team will liaise with the Activity Management Board to extract the content, priorities, announcements and successes to be broadcasted by the team. The main activity related to this objective is the internal newsletter, which is defined below, in the section on the project's communication channels.

3.2.3 EOSC-hub communication channels

The communications task will also develop and maintain the project's communications channels, which will be deployed with the goals outlined above. This section gives an overview of what these channels will be and what our individual goals are for each.

EOSC-hub website

The website (http://eosc-hub.eu/) will be a repository of information with sections targeted to researchers, policy makers, the business community, the project team and the general public. The website will be developed (delivered by Task 3.5 in PM4) to:

- Give visibility to the project's outputs and exploitable results
- Enhance the public profile of the EOSC-hub Service Catalogue, including the Thematic Services
- Be the main entry point of the Digital Innovation Hub, the project's business programme
- Report on the progress of the Competence Centres
- Display the project's corporate information, including details on governance, the consortium, funding instruments
- Showcase the EOSC-hub ongoing collaborations with other projects, for example OpenAIRE-Advance
- Host the newsfeed, the blog, the newsletter archive, social media, and the publications gallery

With these goals in mind, the draft sitemap of the EOSC-hub website is as follows:

HOMEPAGE	***Sections: menu; slider with calls to action; row 1: collaborations, newsfeed and twitter; row 2: services, CCs, business; infographic; footer***

MENU	**Our Services**	Thematic; Core; etc.	*Each page will give an intro at first, then host subpages*
	Our Communities	Competence Centres; Business Pilots	*Each page will give an intro at first, then host subpages*
	News & Events	News; Events; Publications; Trainings	*And additional material (e.g., videos, infographics, as they are added)*
	Training	Training components	*And relevant content related to user documentation*
	Use Cases	Articles	*Stories about practical uses of EOSC-hub's services, exploitable results*
	Get Involved	Why EOSC-hub services? How to use our services? How industry can join the DIH?	*Stories about practical uses of EOSC-hub's services, exploitable results*
	About	*Intro sentence; Mission; Vision; Fact sheet; Internal briefs*	
		Our goals	*The objectives*
		Partners	*The consortium*
		Governance	*How things are managed*
		Collaborations	*OpenAIRE, GÉANT*
		Contacts	
		Results	*Deliverables, Milestones and Exploitable Results*

Newsfeed (http://eosc-hub.eu/news)

Updated two to four times a month and edited by the Communications Team. The newsfeed is intended to be a public channel to all audiences and will be featured on the EOSC-hub homepage. It will be used to:

- provide factual reports on the project's activities, outcomes
- give visibility to the project's announcements and calls for action
- host the project's press releases (i.e. formal announcements intended to be circulated as official information and forwarded to media outlets)
- promote the achievements of the business pilots and competence centres
- promote the EOSC-hub services and use cases

Internal brief (6 per year)

Issued six times per year to the project's members. The internal brief is edited by the Project Coordinator to keep the EOSC-hub consortium informed of ongoing activities, plans, achievements, updates from the Work Package leaders and other information of note.

The internal brief will be sent by email, using the MailChimp application and archived on the website.

EOSC-hub magazine

Issued three to four times a year as a tool for engagement, dissemination and brand building. Edited by the leader of the engagement task (3.2), the newsletter will feature stories about, for instance, use cases, technical developments, results, guidelines, commissioned within the wider EOSC landscape (i.e., from within the project, but also from outside). The ambition is to establish the EOSC-hub newsletter as the magazine for the European Open Science Cloud.
The newsletter will be sent by email, using the MailChimp application and archived on the website in PDF format.

Publications

EOSC-hub publications will be prepared by the communications team with support from task 3.5. The publications will be issued as required by the dissemination and engagement plans.

The publications' pipeline at time of writing is:

WHAT	***TITLE***	***AUDIENCE***	***OBJECTIVE***
Leaflets	How to access EOSC-hub services	Research Communities	Service adoption, lower entry barriers
Leaflets	Access policies	Research Communities	Service adoption, lower entry barriers
Leaflets	Linking research results	Research Communities + Service providers	OA Collaboration; Increase visibility
Leaflets	EOSC-hub & FAIR	Research Communities	Increase awareness of FAIR
Leaflets	Why join the EOSC-hub service catalogue	Service Providers	Expand the EOSC-hub catalogue
Booklet	EOSC-hub Strategy	Decision makers	Promote long-term vision
Leaflets	Digital Innovation Hub	Industry	Increase awareness of DIH
Leaflets	EOSC-hub	Research Communities Service providers; Industry; Decision makers	
Booklet	EOSC-hub Service Catalogue	Research Communities; Service providers; Industry; Decision makers	Increase visibility
Leaflets	EOSC-hub & Earth Observation	EO researchers	take to EGU 2018
Leaflets	EOSC-hub & Structural Biology	SB researchers	For WeNMR related stuff
Leaflets	EOSC-hub in Space!	Astro researchers	LOFAR, AENEAS, SKA
Booklet	EOSC-hub for Big Science	Research Communities	Engagement with ESFRIs/RCs
Leaflets	Innovation Management / best practices	Service Providers	

Use cases

Use cases will be written to illustrate practical uses of EOSC-hub's services and exploitable results. They are powerful tools to showcase what has been done thanks to the project (dissemination) and

as blueprints of what can be done in the future (engagement). When edited into dedicated publications, use cases are also a very efficient medium to strengthen a brand.

A list of the use case categories that will be developed during EOSC-hub is below:

Type	***Story***	***Purpose / Target***	***Qty***
FitSM	How institutions benefit from adopting the FitSM standard	To promote the adoption of the FitSM standard within the project's service providers	1-2
Services	Scientific findings published thanks to EOSC-hub services	To demonstrate the added value to decision makers and service providers; to showcase how researchers are benefitting from the EOSC-hub service offer	1 per service
Business	Digital Innovation Hub (DIH) success stories	To show how the DIH is adding value to business pilots	1 per pilot
Collaboration	How researchers can benefit from EOSC-hub's collaboration with other e-infrastructure projects	To demonstrate the added value to decision makers and service providers; to showcase what researchers can do by combining services	3-4

Social media

EOSC-hub will use social media as a channel to promote the project's activities and outputs. Specifically, social media will be deployed to:

- Broadcast EOSC-hub news
- Promote the activities of the EOSC-hub project
- Engage with project stakeholders and research communities
- Support the other communication channels
- Promote other EOSC-related news & activities

The project will focus on Twitter and LinkedIn, the two networks preferred for interactions in professional environments. All channels should have visible buttons on the website (homepage, footer & other website locations).

Twitter

- Handle: @EOSC_eu
- Hashtags: #EOSChub, #EOSC
- Day-to-day use: Tweet/Re-tweet each time there is something worth mentioning about EOSC-hub and EOSC-related projects and activities, for example announcements, news and blog items – opinions, reports, newsletter articles, etc.
- At events:
    - Tweet about and at EOSC-hub and EOSC-related events: session tweets and event information
    - Live tweets: about the programme, sessions, photos, and social activities
    - Create specific hashtags, depending on the event. For example, #EOSChub18

LinkedIn

- Link: linkedin.com/in/eosc-hub-project
- Posts: share articles each time there is something worth mentioning about EOSC-hub and EOSC-related projects & activities

[1] We follow the definition prescribed by article 2.8 of the "Rules for Participation and Dissemination in Horizon 2020" where *dissemination* means the public disclosure of the results by any appropriate means (other than resulting from protecting or exploiting the results), including by scientific publications in any medium.

3.3 Events

3.3.1 Organizing EOSC-hub Events

The EOSC-hub project will organise a series of events to:

- Raise awareness of the project and disseminate its outputs;
- Promote the uptake of its services and train potential users;
- Bring on board new service providers;
- Influence the policy and research and innovation landscape.

The EOSC-hub project events can be clustered in two categories:

- The EOSC-hub flagship events;
- The training events organised by WP11;
- Tech-Talks.

The EOSC-hub flagship events

The EOSC-hub flagship events (organised by WP3 and taking place at M16[11] and M28) will be the major gathering point for all the EOSC-hub stakeholders. These two/three-day events will be the occasion (1) to showcase the EOSC-hub results to the complete stakeholder landscape; (2) interact with the EOSC-hub community; (3) engage new users and service providers (4) liaise with other European and international initiatives; (5) train the EOSC-hub users and service providers and (6) create awareness on the EOSC-hub offer.

The EOSC-hub flagship events will offer different visibility opportunities to achieve these objectives through keynote and parallel presentations, lightning talks, training courses, poster and demo areas, networking.

Training Events & Webinars

In the context of the EOSC-hub project, WP11 is responsible to manage a training programme to stimulate the knowledge network and facilitate the adoption. In a nutshell, this training programme will:

- Support the implementation of proper Data Management Plan (DMP) for helping researcher communities to manage their research data efficiently;

[11] Please note that in the original plan, the first EOSC-hub flagship event was planned on M12. As an EOSC-hub public day is taking place in April 2018, the DI4R edition is taking place in M10, the RDA plenary in M11 and the satellite EOSC related event in M12 the management agreed to move the EOSC-hub flagship event to year 2.

- Deliver IT Service Management training to learn the fundamentals of IT Service Management processes and support the professional development of EOSC-hub services;
- Define and deliver training contents about common/federated services for supporting scientific activities of Thematic Services, Competence Centres and research communities, operational security forensic and domain-specific training for data providers and data scientists.

By the time of writing, WP11 has started to collect the training needs from the early adopters (WP8) and Thematic Services (WP7) pre-selected during the project preparation and prepare the initial training plan to cover the first year of the project. The WP11 training plan[12] is supposed to be a "live document" where new events can be provided as soon as they become available.

Some training events (F2F and webinars) already organized/supported by WP11 are the following:

- FitSM Foundation training events
  - Co-located with the EOSC-hub Kick-off Meeting (8-9 Jan 2018) - Amsterdam
  - During the EOSC-hub Week (19-20 Apr 2018) - Malaga
- INSTRUCT training course: Advanced methods for the integration of diverse structural data, Florence IT, 18-23/01/2018;
- Lightweight Service Management for Research Infrastructures: The FitSM Approach Webinars for the:
  - CORBEL project (6 Feb 2018)
  - ENVRI+ project (20 Mar 2018)
- IEEE Workshop on Big Data Governance and Metadata and Management (BDGMM '2018) co-organized by CLARIN, 19-20/03/2018;
- Develop and deliver three Operational IT-Security training events for FedCloud users, VM Operators and VM Endorsers, 20/03/2018.

Tech-talks

Tech-talks are personalised, focussed, online consultancy events that bring together technical expert and scientific communities. Tech-talks started to be organised by WP10 in collaboration with the community WPs (WP7-8-9). Tech-talks are ~1h webinar-meetups including one/few short presentations about the technical area of the specific topic of that event, followed by short presentations and discussions of the problems that EOSC-hub communities face in that area and possible solutions that technology providers from the project can offer. The first tech-talk was organised about Storage[13], future tech-talks are considered about AAI, Cloud and container computing, etc. While initial tech-talks are aimed at consulting with communities who are already involved in the project, tech-talks from 2019 can be opened for external, new communities too.

3.3.2 Participation to External Events

EOSC-hub will actively participate in a series of events organized by third parties or in collaboration with EOSC-hub to promote its services and results to different target stakeholders. A total target of 45 events will be attended. An internal EOSC-hub event management tool has been set up to collect

[12] https://docs.google.com/spreadsheets/d/1dYZk12kJg3oQM7HjMTG_C7lz0WgSbksHGXQNCfPMdH0/edit

[13] EOSC-hub Storage tech-talk (23/Mar/2018): https://indico.egi.eu/indico/event/3930/

all the relevant event details and to track & monitor event participation[14]. The table gives a non-exhaustive example of target events.

DI4R events: As part of the events co-organised by EOSC-hub, there are the Digital Infrastructures for Research (DI4R) events. These are events jointly organised by the major e-infrastructure players: PRACE, GEANT, OpenAIRE and EOSC-hub. The purpose of these events is to join forces to organise a joint user forum as in many cases the stakeholders overlap. The DI4R events are also a good way to minimize the organisational costs. The plan is to co-organise 3 DI4R events over the duration of the project (DI4R 2018 - October 2018; DI4R 2019 - May 2019; DI4R 2020 - May 2020 - dates to be confirmed).

Participation to the RDA Plenaries: RDA is an international neutral discussion forum to address challenges related to open data sharing. EOSC-hub, at the very beginning of the project, has identified a set of challenges that RDA could support addressing. This is why the RDA Plenary meetings will become a checkpoint of the progress of the EOSC-hub activities mapped into RDA. The following plenaries are planned for the period covered by the project: Plenary 12 - November 2018 - Botswana; Plenary 13 - March/April 2019 - Philadelphia; Plenary 14 - September 2019 - Europe; Plenary 15 - March 2020 - location?; Plenary 16 - September 2020 - USA. A joint EOSC-hub, OpenAIRE Advance, and FREYA co-located event could be organised at the European plenaries.

E-infrastructure days: As mentioned, the EOSC-hub project is driven by three major players in the e-infrastructure landscape: the EGI foundation, the EUDAT CDI and IndigoDataCloud. In parallel to the work going on under the EOSC-hub project, each single initiative is carrying out other activities to better serve their specific community, consolidate their governance models, etc. These initiatives have decided to sponsor one e-infrastructure day per year (to be colocated with the EOSC-hub flagship event) where they can meet their own members and inform the communities about the progress of activities. The first joint EOSC-hub/e-infrastructure day takes place on the 16-17 April 2018 in Malaga Spain.

Participation to Community-related events: The communities are at the heart of EOSC-hub. This is why it is of paramount importance for EOSC-hub to engage with them also through the participation of community specific events. These events will be the opportunity for EOSC-hub to disseminate the outputs within a specific community and engage new potential users. To make the participation to these events the most effective as possible, EOSC-hub will submit abstracts for posters, sessions, (training) workshops and presentations to make sure that EOSC-hub is part of the programme. Participation with exhibition booths will be evaluated case by case as the budget available is limited. Examples of community-specific (third-party) events are the EGU, EPOS, GEOSS, ECCB conferences, the ICRI conference and the ESFRI events.

Contribution to national events: There are a set of events happening at a national level such as the RDA Europe national node events, the OpenAIRE NOAD events, the GOFAIR events, the EGI NGI events, etc. These national events are a good platform to raise awareness about the EOSC-hub project at a country level and usually are a good platform to engage with national funders and local businesses. Leveraging on its broad network of partners, EOSC-hub will make sure to be represented at a set of national events over the duration of the project to make sure that a European geographical coverage is achieved. Participating to these meetings is also a good way to save some organisational costs.

[14] https://wiki.eosc-hub.eu/display/EOSC/Events

Participation to Policy-related events: The EOSC-hub project will be a fundamental player for the establishment of the European Open Science Cloud. This is why the EOSC-hub representatives will take part to the European policy dialogue contributing to a set of policy events such as: e-IRG events, the EOSC Summit, etc.

Participation to specific industry-related events: Similar to community-specific events, attendance at industry-related events will be a fundamental opportunity for EOSC-hub DIH and individual pilots to promote results and engage new potential users. Events can be broken down into two categories: 1.) European level events with participants from large initiatives that support public private partnerships (aka. multipliers) 2.) Sector-specific events for showcasing pilots or reaching out to potential new pilots). Examples for the first include, but not limited to, events such as BDVA Summits, I4MS annual events, Next Generation Internet forum, FIWARE Global Summit, EC Industry Days, EC Digital Innovation Hub Working Group meetings, European DIGITAL SME Alliance events. Examples of sector specific, to be mainly attended by business pilot representatives include: International Water Association (CyberHAB/Ecohydros); MathSport International (Moxoff); GreenPort Conference & Business2Sea (ACTIONseaport/Bentley); Big Data from Space Conference (DRACO/Hidronav).

The table below gives an overview of the events planned for 2018:

Event	***Date***	***Target Audience***	***Activity***
EOSC-hub public Day & e-infra day	16-17 April	Research Infrastructures, Service Providers, Policy Makers	Presentations, Specific e-infras sessions
EOSC-hub - OpenAIRE-Advance Webinar for national entities: NGIs and NOADs	23 April	National Researchers & Data Practitioners, Research Infrastructures, Policy Makers	Webinar
AfriGEOSS Symposium 2018	25-27 April	GEOSS community	Presentations
EISCAT 3D User Meeting	7-9 May	EISCAT 3D community	Workshop
Webinar on Research Data Management	15 May	Researchers & Data Practitioners, Research Infrastructures	Webinar
DARIAH Annual Event	23-24 May	DARIAH Community	Presentation on EOSC-hub and TS
EODC Forum 2018	23-24 May	Earth Observation community	Presentations
Digital Humanities 2018	27-31 May	DARIAH-CLARIN communities	Poster Presentations
Ecole thématique sur les interactions protéine-protéine	28 May-1 June	Structural Biology community	One day HADDOCK workshop showcasing WeNMR thematic service
Training on the EOSC Marketplace	May	DODAS community	Training on EOSC Marketplace
ELIXIR All Hands Meeting	4-7 June	Life Science community	Presentation of EOSC-hub and CC

			services
EOSC Summit	11 June	Summit explicitly for the Coalition of Doers & Signatories, describe what has happened one year on from the EOSC declaration	EOSC in Practice Stories delivered Presentation from Projects
LifeWatch Italy Annual Conference	25-27 June	LifeWatch community	Presentation of EOSC-hub and EOSC-hub LifeWatch services
ICOS Science Conference	11-13 September	ICOS community	Presentation of EOSC-hub and CC service
ICRI 2018	12-14 September	Researchers, Policy Makers, RIs	Participation
DI4R 2018	9-11 October	Research Infrastructures, Service Providers, Policy Makers	Workshops, presentations, poster, exhibition booth
CORBEL Annual General Meeting	16-17 October	CORBEL cluster	Presentations of EOSC-hub
RDA Plenary 12	5-8 November	Researchers & Data Practitioners, Research Infrastructures, Policy Makers, International Funders	Participation of some representative of EOSC-hub
Supercomputing 2018	11-16 November	HPC community	
EOSC launch & EOSCpilot stakeholder event	Mid November	Researchers, Research Infrastructures, Policy Makers	Presentations
EOSC satellite event	Late November/ Early December	Researchers, Research Infrastructures, Service providers mainly form the area of the Balkans	Presentations, workshops
ICT 2018	4-6 December	Researchers, Policy Makers, Businesses, representative from academia	Exhibition booth Networking session

4. Measuring progress and success - Key performance indicators

Measuring performance of Stakeholder engagement, Communication and Events: WP3 Activity metrics with expected targets by the end of 2018, 2019, 2020

- Number of visitors on the website (and other web stats...)
- Number of events organised (by type) and the number of people attended these
- Number of externally organised events with EOSC-hub contribution (per year) - 30, 50, 60
- Number of entries in the Stakeholder tracking system (by stakeholder category)
    - Research Infrastructures (external to EOSC-hub) - 10, 15, 20
    - ESFRI clusters
    - EOSCpilot demonstrators
    - H2020 e-infrastructure projects
    - Scientific-service provider institutes
    - Business organizations
    - Research communities (incl. Individual)
- Number of people subscribed to EOSC-hub newsletter

WP3 will contribute to several high level project impact metrics. Some of these metrics will be produced by WP3, others will be produced by other WPs. For all these metrics WP3 will have to monitor the values and - in collaboration with other relevant WPs - will have to fine-tune the stakeholder engagement and communication activities if the metrics don't indicate positive moves.

The most important project impact metrics that WP3 should monitor are:

- Number of new services in the EOSC-hub catalogue (Measured by WP2 for Service portfolio management)
- Number of external marketplaces where services making use of EOSC-Hub services are advertised (Should be measured by WP3)
- Number of papers with EOSC-hub acknowledgement (captured by WP3 from an OpenAIRE 'Community dashboard' that should be setup by EOSC-hub)
- Number of service orders received through the EOSC-hub Marketplace (Measured by WP4)
- Number of established partnerships/collaborations with industry via the DIH and published business success stories (Measured by WP9)
- Number of new users of EOSC-hub services (Measured by WP13 for Virtual Access)

5. Conclusions

In this document we have described the landscape of the EOSC-hub prospective stakeholders and the means foreseen to engage with them. In view of the complexity and the many actors involved in the interactions with stakeholders, we have also designed a plan to track and follow on the progress on a database using the Confluence tool of the project.

The thematic services, competence centers and business pilots involved in the project will act as showcases in the engagement program at different levels. The thematic services, being in the most advanced status, can provide both success stories, and examples of community based service deployments. The thematic services are the pillars, in the sense of having the showcasing potential, for our communication and engagement strategy.

Competence centers are potential subject of success stories, and on the other hand are subject, in the course of the project as technical requirements become more clear, to become additional service providers as well. Business pilots on the other hand will showcase towards industry, notably SMEs, what is the potential of using EOSC-hub services to facilitate industrial processes via an established Digital Innovation Hub. SMEs can be consumers of generic or thematic services that suit their specific needs as well as service providers.

Attending and supporting the attendance of researchers involved already in the EOSC-Hub thematic services to key community events is crucial in the communication strategy. Showcasing the added value in terms of scientific productivity of using EOSC-hub services at such events is one of the most effective ways to engage more researchers. Following on the impact of attending events seems in this respect a sensitive way to proceed in order to priorize the efforts of attending future ones.

A list of key events for the upcoming year is described in this document. The events that have been identified as interesting for EOSC-hub stakeholder engagement purposes are registered in a database which is updated regularly: https://wiki.eosc-hub.eu/display/EOSC/Events

As a summary, at this initial stage in the project, and as outlined in this document, we are making sure that there is a plan to address prospective stakeholders. A strategy that builds on thematic services experience, competence center developments, and business pilot showcasing is designed. The communication and key events are identified as well. In this respect when a prospective stakeholder wishes to engage with EOSC-hub, we will have in place the tools to support the engagement and induction process from both a human and technical perspective.