EOSC-Life: Building a digital space for the life sciences

D10.1 - Strategic Marketing and Stakeholder Mapping Report

Table of Contents

Executive summary

EOSC-Life is a complex project, having started with 12 work packages and now grown to 14, and listing 47 partners. The stakeholders span a broad range of focus areas, and thus the outreach efforts require considerable thought. This deliverable serves to update the milestones MS32 and MS33, Communication Plan and Strategic Marketing and Stakeholder Mapping, respectively, based on input from the work packages during the first half of the project, and considering some changes in orientation due to the COVID-19 pandemic. The corresponding allocated communication tools are also updated to reflect these changes.

In order to provide input, WP10 distributed a survey to each of the work package co-leads. In the survey, they were asked to review the existing Stakeholder Map from MS33 and identify the 5 most important stakeholders from the point of view of their work package, and to shift the stakeholders to different categories or suggest new ones where needed. The results were compiled into an updated Stakeholder Map to be used for the remainder of the project.

Essentially, we reduced the number of stakeholders from 30 to 24 while adding one additional stakeholder that formed in 2020 (EOSC Association). Stakeholders that were prioritized by multiple work packages were moved further to the top of the map, and we will focus out outreach efforts on those in the 2nd half of the project.

The survey also looked at communication efforts of the work packages and which methods they deemed most effective. We took this feedback into account to revise our strategy for using communication tools. The importance of individual communication tools has also shifted due to the COVID-19 pandemic, as in-person events have moved online, and this is reflected in our revision.

Finally, we examined and revised the communication targets or KPIs established at the onset of the project to better monitor the effectiveness of our outreach efforts.

Overall, EOSC-Life interacts with 24 stakeholder groups and will require targeted project communication to reach each group.

Introduction

EOSC-Life is a cluster project funded by the European Union's Horizon 2020 research and innovation programme. The EOSC-Life project brings together biological and medical research infrastructures to create an open collaborative space for digital biology. EOSC-Life aims to publish FAIR (Findable, Accessible, Interoperable, Reusable) life science data resources for cloud use creating an ecosystem of innovative tools in EOSC (European Open Science Cloud) and enabling ground-breaking data-driven research in Europe by connecting life scientists to EOSC.

The organisation of the project is represented in the following pictogram. Here it is easy to see the division between the "technical" work packages in the middle and the "service-oriented" work packages surrounding them, as well as the complex relationships between them.
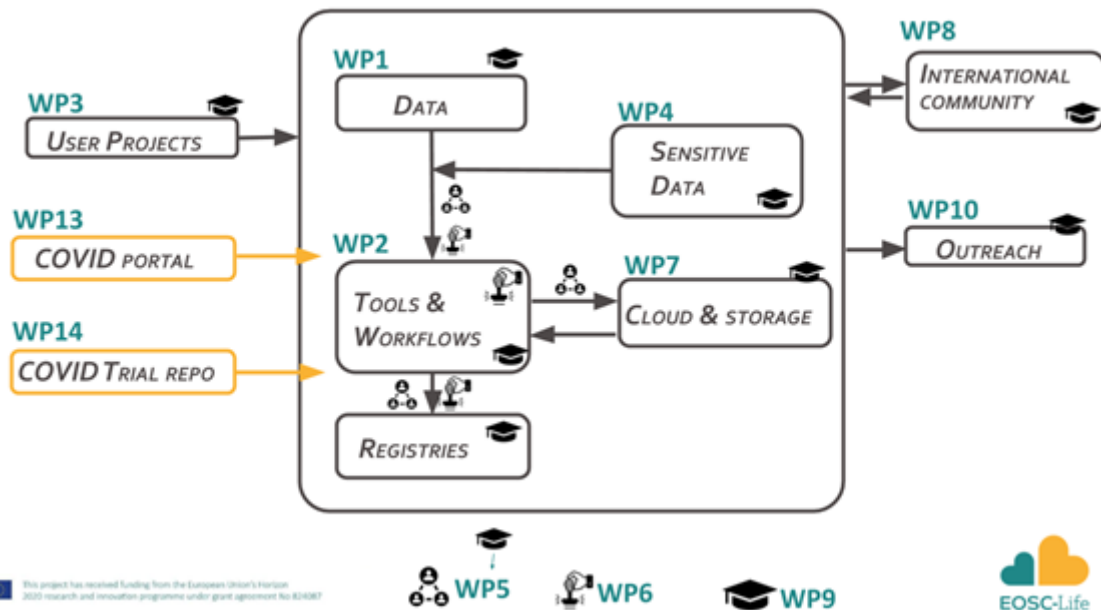
Figure 1: EOSC-Life Work Packages

The project started in March 2019 and as we approach the midpoint of the project, we will take the opportunity in this deliverable to enumerate the marketing and communications actions taken thus far, assess their effectiveness, outline the changes to the project thus far and identify areas in which we can alter and/or improve marketing and communications for the second half of EOSC-Life.

In light of the two new COVID-19-related work packages, as well as general project development, we need to adjust the stakeholder mapping to reflect additional stakeholders and to shift prioritization of existing stakeholders where necessary.

Recent feedback from the Midterm Review highlighted the urgency in disseminating results as they arise in order to maximise the benefit of the project, and we intend to do so in close collaboration with each work package.

The goal of this outreach is to increase the visibility of the activities and developments and attract potential users through transparent and active internal communication within the RI and coordinated intensive external communications between the participants of the consortium and their main stakeholders.

Project Objectives

With this deliverable, the project has reached 3 of the 4 objectives of Work Package 10:

a. Ensure awareness of the project's aims, goals and context with all stakeholders, in particular in relation to the specific role of the participating LS RIs in a coherent and controlled way through the development of a communication strategic map

b. Ensure the promotion and dissemination of project deliverables to all stakeholders through the involvement of each participating RI and the generation of a communication tool kit.
c. Provide active support for the dissemination, visibility and attractiveness of publicly organised events during the project.

Detailed Report on the Deliverable

1. Assessing the Strategic Marketing Plan

In order to define and support the communication strategy, knowledge of the main stakeholders of EOSC-Life is essential. By identifying, grouping and creating liaisons between the stakeholders, we lay the foundation for the preparation of appropriate outreach material.

Yet as the stakeholder landscape, the stakeholder needs or expectations, and the environment of the EOSC-Life project is changing continually, the stakeholder map has to be monitored and revised as well.

Due to our communication efforts, or due to organisational changes with the stakeholders, their impact on the project sometimes changes. This can result in a given stakeholder having more or less power over EOSC-Life, and more or less interest in EOSC-Life. As a consequence, their position on our stakeholder map will shift. This dynamic environment leads to adapting the communication approach to those stakeholders.

During EOSC-Life new stakeholders have also emerged as we gained 2 additional work packages in response to the COVID-19 pandemic: WP13 "Extension of COVID-19 Data Portal" and WP14 "COVID-19 Data Trials". Additional stakeholders need to be described, evaluated, weighted, and placed on the EOSC-Life stakeholder map and communication strategy.

1.1 Summary of initial Stakeholder Mapping

For the initial stakeholder mapping exercise, which constituted Milestone MS33 for our work package in the first year of the project, we set out to identify and group the many stakeholders of EOSC-Life. To start, we took to the results of the stakeholder mapping from the H2020 project CORBEL, in which the same 13 Life Science Research Infrastructures of EOSC-Life participated. Our reasoning was that many of the stakeholders would remain the same, and where there would be shifts in prioritization due to the nature of EOSC-Life as a project, we would make the necessary changes.

In the CORBEL stakeholder mapping, directors of participating RIs had been asked to provide a list of their stakeholders which are also relevant for CORBEL. Feedback was collated and RI directors provided a rating on the stakeholders' level of interest in CORBEL (from the RI point of view) as well as on their power to support CORBEL (from the RI point of view). Ratings were averaged, i.e. the achieved rating points for interest/power for each stakeholder group.

For the EOSC-Life stakeholder mapping, we took the results of the CORBEL mapping and distributed them to each RI director with the request to review the stakeholder categories and note where stakeholder groups should be shifted to one of the other categories (e.g. move Member States from "Key Players" to "Keep Informed"). An additional stakeholder group was suggested: "EOSC-related projects", defined as the "EOSC-Landscape: other EOSC Cluster Projects, EOSChub, etc."

The feedback was then collected into a single document and analysed. WP10 made a final decision based on comments from the RIs; when conflicting opinions arose, we opted to keep rather than delete a given stakeholder.

This resulted in the following table (note that comments and more details can be found in Milestone MS33):

Key players (high power, high interest)	Keep informed (high interest, low power)	Keep satisfied (low interest, high power)	Monitoring (low interest, low power)
Participating RIs (Hubs and Nodes)	Disease-, food- and biotechnology/pharma-oriented scientific communities	Legal, regulatory and normative institutions / authorities	RI users working in Academia/Research (Depositors if samples/data)
Member States (Board / Assembly / Council Delegates)	Research Institutes incl. Technology Transfer Units	Research Funders	RI users working in a clinic as healthcare
EU/ESFRI	RI users working in Industry	EOSC Executive Board, EOSC Executive Board Working Groups, and EOSC Governance Board	Media (including journal publishers)
Executive Board	Ethics Committees		Associations
LS RI Strategy Board	Supra-/ Internat. organisations		Health Research Agencies outside Europe
Scientific and Ethic Advisory Board	Industrial technology developers and manufacturers		
E-Infrastructure Advisory Board	Lobbying groups		
EOSC Cluster Projects	European research community at large		
EOSC Portal Providers	Communities of software developers		
	Patient organisations		
	Horizon Europe Programme Committees		
	EU Infrastructure / Infrastructure projects		
	Other EOSC projects and EOSC Regional Clusters		

Table 1: EOSC-Life Stakeholders as of Jan/Feb 2020

The following are definitions of each of the 4 categories used:

KEY PLAYERS: These stakeholders are integral to the success of the project, due to their high power and high interest. It is essential to identify them, understand their motivations and develop

an engagement strategy to ensure that their needs are met. These stakeholders have to be involved in discussions and, when possible, in decision-making processes.

KEEP INFORMED: This group of stakeholders are highly interested in the project, but have little power to execute. The stakeholders in this group should be involved in the project, as aligning with them can often be very helpful with the details of the project and to ensure that no major issues arise. This can be done e.g. by consulting them in areas of their interest.

KEEP SATISFIED: This group has potential power within the project, but as their interest in the project is low, it is enough to communicate in order to keep their needs satisfied - meaning to communicate on a regular basis, not too often, and to offer a chance to give their feedback. Actions should be taken to raise their interest in the project, with the ultimate goal to re-allocate them to the group of 'Key Players'. To do so, this group of stakeholders should be consulted in areas of specific interest, offering a chance to give feedback and make them more aware of the project.

MONITORING: This group of stakeholders has little power over the project, and they also have low interest in the project. It is sufficient to monitor this group, feeding them some communication without many details. Depending on the progress and the outcome of the project, the level of interest or power may change: via a good information policy these stakeholders may become more interested in the project, placing them in the category of 'Keep satisfied'. Engaging with them at an early stage will ensure smooth progress of the project.

Based on the above mapping we attributed to each group the communication means and frequency, and we determined the contact persons within each group (see subsequent sections for details). These groups will be updated further in the document for the remainder of the project.

2. Analysing survey results

2.1 Review of Stakeholder groups with each work package

Since stakeholder mapping is a dynamic process, we created a survey for representatives of each work package to fill out in order to provide feedback on the strategic marketing and stakeholder mapping efforts thus far in the project and to guide their improvement over the remainder of the project. In January 2021, WP representatives were asked to identify the 5 most important stakeholders from the original Stakeholder Map *from the perspective of their work package* and add any that they deemed to be missing.

Then they were asked about stakeholder-specific dissemination methods and activities, the success of outreach efforts thus far, and their general satisfaction with Work Package 10 collaboration. Finally, they were asked to list 3 stakeholder groups to focus on for the remainder of the project and to include any additional feedback on outreach.

Results of the survey -- filled out partially or completely by 10 work packages -- were compiled into a single document ("Survey Results", Annex 1). WPs 10, 11 and 12 were intentionally left out, and WP13 did not respond due to personnel time constraints. In cases in which a work package

representative did not respond to a question, "NR" for "no response" was entered, or that work package was omitted from the results for better readability.

2.2 Revised Stakeholder weighting

Compiling the results of the survey and tallying most important stakeholders resulted in the following table. Stakeholders are listed in order of priority from top to bottom; green indicates those prioritised by 2 or more work packages, whereas light yellow indicates those prioritised by 1 work package. The rest were not prioritised by any work package.

Key players (high power, high interest)	Keep informed (high interest, low power)	Keep satisfied (low interest, high power)	Monitoring (low interest, low power)
Participating RIs (Hubs and Nodes)	Disease-, food- and biotechnology/pharma-oriented scientific communities	Legal, regulatory and normative institutions / authorities	RI users working in Academia/Research (Depositors of samples/data) ** ↑
EOSC Cluster Projects ↑	European research community at large ↑	Research Funders	RI users working in a clinic as healthcare ↓
EU/ESFRI	RI users working in Industry	EOSC Executive Board, EOSC Executive Board Working Groups, and EOSC Governance Board	Media (including journal publishers)
EOSC-Life Executive Board	Communities of software developers		Associations
LS RI Strategy Board	EU Infrastructure / Infrastructure projects		Health Research Agencies outside Europe
Member States (Board / Assembly / Council Delegates)	Industrial technology developers and manufacturers		
E-Infrastructure Advisory Board	Research Institutes incl. Technology Transfer Units		
EOSC Portal Providers	Supra-/ Internat. organisations		
EOSC Association (new)	Horizon Europe Programme Committees		
Scientific and Ethic Advisory Board	Ethics Committees		
	Patient organisations		
	Lobbying groups		
	Other EOSC projects and EOSC Regional Clusters		

Table 2: EOSC-Life Stakeholder Map after Survey Results, Jan 2021

**Note from WP6 to move this to category "Keep satisfied"
↑= increased in importance   ↓= decreased in importance

2.3 Analysis of communication and outreach efforts based on survey

In the same survey, the work packages were then asked a series of questions to track any outreach they perform themselves, and to assess their satisfaction with WP10.

Four of the WPs responded that they did do their own outreach, mostly via direct emails to interested communities or e.g. the WP14 Stakeholder Forum, as well as through teleconferences or webinars.

Direct email, Twitter, and presentations at conferences were mentioned as the most effective methods by the work package leaders.

When asked if they inform WP10 of their achievements for outreach, the responses were the following:

- Always (1)
- Sometimes (6)
- Infrequently (1)
- Never (0)
- No response (3)

Reasons for not always involving WP10 included lack of time, not knowing which activities are directly attributed to the project, or dealing only with internal outputs thus far. For the first issue, we have aligned with the relevant work package to determine a more streamlined process for sharing information. For the second, WP10 co-lead has met with each of the WP co-leads to identify which outputs must be attributed to EOSC-Life and how best to do so.

Four out of 6 responding WPs answered the question "Thus far in the project, how adequately do you feel that your Work Package's achievements/activities/events have been reaching the relevant audiences via WP10's outreach efforts" with "very well". Two of these WPs, WP3 and WP9, and those with which WP10 works most closely. It is clear that investing time in collaboration between our WPs has paid off well.

The complete responses can be found in the Annex.

3. Updated Stakeholder Mapping

3.1 Stakeholders for remainder of project

Considering the results of the survey as well as feedback from the Midterm Review Report to reduce the number of mapped stakeholders, we have removed any stakeholders that were not prioritized by the work packages and moved categories when needed, thus yielding the following updated stakeholder map:

Key players (high power, high interest)	Keep informed (high interest, low power)	Keep satisfied (low interest, high power)	Monitoring (low interest, low power)
Participating RIs (Hubs and Nodes)	Disease-, food- and biotechnology / pharma-	Legal, regulatory and normative institutions / authorities	RI users working in a clinic as

	oriented scientific communities		healthcare
EOSC Cluster Projects	European research community at large	Research Funders	
EU/ESFRI	RI users working in Industry	EOSC Executive Board, EOSC Executive Board Working Groups, and EOSC Governance Board	
EOSC-Life Executive Board	Communities of software developers	RI users working in Academia / Research (Depositors of samples / data)	
LS RI Strategy Board	EU Infrastructure / Infrastructure projects		
Member States (Board / Assembly / Council Delegates)	Industrial technology developers and manufacturers		
E-Infrastructure Advisory Board	Research Institutes incl. Technology Transfer Units		
EOSC Portal Providers	Supra-/ Internat. organisations		
EOSC Association (new)	Horizon Europe Programme Committees		
Scientific and Ethics Advisory Board (SEAB)			

Table 3: EOSC-Life Stakeholder Map for 2021

Overall, we reduced the number of stakeholders from 30 to 24. To prioritise the stakeholders and the efforts of communication invested in them, stakeholders were allocated to specific categories as shown in the chart below.

#	STAKEHOLDER	DESCRIPTION	OBJECTIVE	GROUP
1.	Participating RIs, Hubs and Nodes; Partners and Linked Third Parties	Participants in the EOSC-Life Consortium	Inform regarding all project activity, meet needs and requirements, ensure dissemination of important information to nodes / hubs / network esp. to find end users	Key Players
2.	Member States	Countries (ministries) being a member state of a participating RI	Keep satisfied to ensure funding of the RIs, update on project progress, seek to find out key interests	Key Players
3.	EU/ESFRI	EU and ESFRI group	Align strategies	Key Players
4.	Executive Board (of EOSC-Life)	According to DoA (Description of Action) and CA (Consortium Agreement)	Keep informed of all project progress for decision-making	Key Players
5.	LS RI Strategy Board	According to DoA and CA	Align strategies, keep informed of all project progress	Key Players

6.	Scientific and Ethic Advisory Board (of EOSC-Life)	According to DoA and CA	Keep informed of all project progress, seek input on strategy, scientific and ethical issues	Key Players
7.	E-Infrastructure Advisory Board			Key Players
8.	EOSC Cluster Projects	ENVRI-FAIR, PaNOSC, ESCAPE, SSHOC,	Coordination of Joint Stakeholder Forum, alignment of overlapping activities, cross-dissemination	Key Players
9.	EOSC Portal Providers			Key Players
10.	EOSC Association	Legal entity, MoU with EC to advance Open Science	Align strategies	Key Players
11.	Disease-, food- and biotechnology/pharma-oriented scientific communities	e.g. OERTC, EVER, etc		Keep Informed
12.	Research Institutes incl. Technology Transfer Units	Associations with connected independent research institutions, universities (Helmholtz, etc.)		Keep Informed
13.	RI users working in industry		Attract applicants for 2nd Digital Life Sciences Open Call - Industry Track	Keep Informed
14.	Supra-/International organisations	e.g. WHO, UN, OECD, UNESCO, WMA		Keep Informed
15.	Industrial technology developers and manufacturers	Providers of new instrumentation, technologies, software, etc.		Keep Informed
16.	European research community at large			Keep Informed
17.	Communities of software developers			Keep Informed
18.	Horizon Europe Programme Committees			Keep Informed
19.	EU Infrastructure / Infrastructure projects			Keep Informed
20.	Legal, regulatory and normative institutions / authorities	Institutes involved with ELSI issues, certification, ABS		Keep Satisfied
21.	Research funders	National research funders (DFG, BBSRC), other national research		Keep Satisfied

		councils, non-profit organisations (Gates Foundation)		
22.	EOSC Executive Board, EOSC Executive Board Working Groups, and EOSC Governance Board			Keep Satisfied
23.	RI users working in academia/research	RI users working in academia and research institutions		Keep Satisfied
24.	RI users working in a clinic/healthcare	RI users working in clinics providing healthcare		Monitor

Table 4: EOSC-Life Stakeholder Groups with Description and Objectives

3.2 Populating the stakeholder groups

The defined stakeholder groups each require a contact list held in a content management system. At the moment we are using MailChimp to hold newsletter subscribers and have started a GoogleSheet to identify contacts in each area, asking Work Package Leaders, RIs and other partners to mark the list where they have contacts.

Due to GDPR restrictions, we are not asking people to fill in actual email addresses into the GoogleSheet unless these are already public. Rather, they should identify where they have contacts and then disseminate the outreach materials via targeted emails to those groups. For example in the WP3 First Digital Life Sciences Open Call we created an outreach toolkit with sample email texts each person could send to their own contacts. That way, recipients were more likely to open the emails, and contact information was not shared. This was a very successful approach, yielding a large number of applications, and will be repeated for the 2nd Open Call in spring 2021.

We hope that these contacts will eventually opt in to our newsletter and follow us on social media to get updates directly.

4. Assessing communication tools and strategies

The communication tools used by EOSC-Life also need to be modified based on the results of the stakeholder mapping as well as other factors. Depending on the targeted stakeholder group, new communication tools can be deployed or existing communication tools stopped once they are shown to have diminishing effect.

In the milestone submitted in February 2020, we noted that "Changes in the (e.g. political, scientific, digital) environment surrounding EOSC-Life may have an effect on the project that cannot be foreseen at the time of writing." Shortly thereafter, Europe was hit with the COVID-19 pandemic, which indeed affected the project and its communication tools.

Specifically for Work Package 10, all in-person events were postponed, cancelled, or, as time went by, moved online. Physical banners for booths became obsolete, replaced by virtual banners for virtual booths and Zoom backgrounds. Short video clips also became important, as they can easily be clicked on in virtual booths in place of or in addition to a conversation with a project representative.

Though several project deliverables were postponed due to the pandemic, the project progressed steadily, and there have already been many achievements, events and publications to disseminate.

4.1 Intended communication tools and actual use

The following tools were identified in our Communication Plan (MS32) in September 2019. Here we compare our intentions as set out in the Communication Plan with their actual use up until February 2021.

Direct contact

- *Face-to-face*: These meetings are probably the most effective way of communicating, e.g. during scheduled meetings or at an event; feedback from stakeholders is received directly. However, due to the current pandemic face-to-face meetings are completely impossible. Any meetings that may be possible in the future will be extremely carefully planned and only held when a virtual meeting is insufficient and safety concerns minimised.

- *Virtual meetings*: Telephone or video conferences have completely replaced face-to-face meetings at the moment. In addition to being cost-effective, they allow a broader geographical range of participants and helpful recording and chat logs for future reference.

- *Events*: In the first year of the project, nearly all events organised by EOSC-Life were internal, i.e. for consortium members only or addressed to a limited number of invited experts. Thus they were not disseminated publicly. Exceptions were the first AGM in Brussels and a few in-person technical trainings. In the second year as the pandemic struck, some events were moved online and others were cancelled, so our outreach was limited compared to what we had intended. Still, many consortium members presented EOSC-Life at online events.

We can represent EOSC-Life at conferences through scientific talks on EOSC-Life outcomes, by booking a virtual exhibition "booth" as we did at the EOSC Project EXPO in November 2020 , or by the partner RIs promoting EOSC-Life at their own virtual events. In those cases the RI will continue to be provided with appropriate EOSC-Life outreach material and/or given input to use in a talk. For the remainder of the project an emphasis will be put on collecting video materials (e.g. recordings from Demonstrator talks, interviews, animations, etc.) as these are shown to be the most alluring content at virtual conferences.

- *Organisational events*: Project-related events like stakeholder meetings, working group meetings, Annual General Meetings and hackathons will introduce and/or continue dialogue with stakeholders, either in person or online. To reduce the number of attendees it is envisaged to invite so-called *multipliers* of certain stakeholder groups who will forward the information to their communities.

Digital contact

- *Website[1]*: Providing project information with a special focus on the users' needs and expectations on EOSC-Life, Open Calls, success stories, overview of offered services, links to participating RIs and other partners. The website is a living platform and will only be effective when given sufficient input from both the EOSC-Life WPs and the RIs.

The website structure remained similar to the one outlined in our Communication Plan. A few new pages have been added (e.g. Achievements, LS RI Response to COVID-19), and a few were never filled (e.g. Platforms, Glossary). Information and visuals were added as the project progressed.

The main difference for WP10 was the realisation that the website is used just as much by internal participants as by external participants to gain information - thus we are working to add more work package-specific information for participants to reference. On 13 November 2020 WP10 held an online training for work packages representatives to learn to edit pages and add news and events to keep their work package-specific content updated. As seen in feedback from the work packages, internal participants often look to the website to inform themselves as well; thus we will increase the amount of practical information that can be made public to better serve the consortium. In addition, we will better publicize achievements and outcomes of the project as they arise.

- *External web space (Google Drive) for internal use*: Has been established for internal communication, i.e. exchange of documents, provision of templates, project calendar, etc. Thus far it works well and will continue.

- *Electronic external newsletter*: Dissemination of news from EOSC-Life as well as from the LS RIs, distribution as (html)email, no PDF. We kept the newsletter bi-monthly, with additional issues announcing the First AGM and the Digital Life Sciences Open Call. The content and success of the newsletter is dependent on the provision of information from the WPs and the RIs. So far the newsletter has a high opening rate and has not received any negative feedback; thus we will continue our strategy. When possible, we link to the EOSC-Life website for more information, in order to increase website traffic.

- *Electronic internal newsflash*: Dissemination of news and project information from EOSC-Life as well as from the LS RIs to the project consortium members themselves, many of whom may not attend regular TCs. Distribution as email with attachments or links to documents. In response to requests from consortium members for more frequent email updates, we now send an internal newsflash roughly once a week, promoting events of interest, passing on requests and giving updates from work packages. Feedback from stakeholders is received frequently.

- *Social media*: Social media are an efficient and low-cost way to distribute information. EOSC-Life has an account on Twitter and a LinkedIn page. We generally post our own news on a weekly basis, and several times per week we multiply the posts of the participating RIs, EOSC cluster projects, and other stakeholders. We promote our social media accounts via direct links on the project website, in mail signatures, and via RIs mentioning the EOSC-Life social media presence to their stakeholders.

---

[1] https://www.eosc-life.eu/
[2] https://www.youtube.com/channel/UCWh-og5zm1J27aJ-v2GG_fw/playlists

Our Twitter account is being used as envisaged, though the coordinator does not tweet directly from the account. We tweet at least once a week, sometimes several times.

We use our LinkedIn page as intended, though less often. However, traffic is much lower than we had anticipated. This is likely due in part to infrequent posting and poor response to our posts, as many of our end users do not frequently use this platform.

For YouTube[2], the beginning of the project saw a lack of opportunity to create video content, as most events and results were internal only. In light of the simultaneous organisation of the Life Science Research Infrastructures group beyond CORBEL, we decided with the project coordinator to use the Life Science Research Infrastructures YouTube channel to post all EOSC-Life content under dedicated playlists. That would also ensure the sustainability of the content beyond the end of the project. We currently have 9 uploaded videos resulting directly from EOSC-Life.

- *Targeted email messaging*: When outreach is required to specific segments of our stakeholders, we email them, following GDPR guidelines. This is done especially within each work package or in combination with the work packages to promote outcomes and events of interest to a specific community (e.g. cloud deployment, hackathons). The advantage is that recipients expect a dedicated message and are thus more likely to open the email than a newsletter. If a member of the consortium sends an email directly to his/her contacts, this is even better received than via a newsletter. In fact, direct email was listed by 2 out of 3 respondings WPs in the survey as the most effective means of outreach they did themselves for their WP-specific outreach.

Printed media
This category had the most deviation due to the pandemic. We delayed creating posters, brochures and giveaways until our conference exhibitions in late spring/summer 2020, but these were then all cancelled, postponed or moved online.

- *Public relations material*: Thus far we have not created a brochure due to the cancellation of so many in-person events. However, an Achievements brochure is being designed at the moment for use in virtual settings and ready to print when the in-person events are again possible. Posters, sliders and PowerPoint templates are available in the internal GoogleDrive for consortium members to use. PowerPoint presentation slides have been used at a variety of online conferences and meetings. Additional visual materials were created for a conference booth at the EOSC Projects EXPO in November 2020. We also had a Zoom background created for our Digital Life Sciences Open Call for consortium members to use in their online meetings.

- *Press release*: The procedures regarding press releases should be followed and contain national and international non-scientific articles, adapted to the needs of relevant stakeholders, to bring across the project's vision, Open Calls or other output. Three press releases have been sent out so far (two of which centred on COVID-19-related services by partner organisations). We envision at least one press release around upcoming achievements in the 2nd half of the project, as well as one at the end of the project.

- *Scientific publications*: This contains the publication of peer-reviewed articles on scientific results of EOSC-Life. Please note that the project management should be informed about articles prior to

---

[2] https://www.youtube.com/channel/UCWh-og5zm1J27aJ-v2GG_fw/playlists

publication and articles should be provided as PDF files as well for documentation of outreach. As per H2020 regulations, all publications related to EOSC-Life must be Open Access. Currently, publications are added to the website from the EC Portal, unless the author shares it directly first with WP10. We have a dedicated publications page on the website.[3] We also promote individual publications via social media occasionally and will do so more frequently in the 2nd half of the project.

- *Project reports and deliverables*: All deliverables and project reports are public, i.e. they must be published on the website (as PDF files). Deliverables are published in addition on Zenodo[4], making sure they are findable via a DOI beyond completion of the project. These public documents inform the stakeholder community on progress and achievements of EOSC-Life and are promoted on social media.

4.2 Stakeholder communication

Although all stakeholders have an interest in EOSC-Life, they do not have the same engagement with the project. This means that each stakeholder group needs a different communication approach. It is imperative to contact them in the environment in which they are willing to accept our message, and calibrate to provide sufficient information without overwhelming them or leaving them feeling that their needs are not fulfilled.

This table below shows the communication tools for each stakeholder group. A three-star rating is highly recommended, a two-star rating is recommended, a one-star rating is suggested. The table gives a direct overview of the communication efforts per stakeholder group, and the attention accorded to each stakeholder. By combining the media, stakeholder groups and their engagement, we created the following table:

Level of Engagement		Collaborate	Involve	Consult	Inform
Communication tool		Key players	Keep informed	Keep satisfied	Monitoring
Direct contact	Face to face	NA	***	*	
	Virtual	***	**	*	
	Events/Conferences	***	**	*	
	Organizing events	***	**	*	
Digital contact	Website	***	***	***	***
	Newsletter	***	***	***	***
	Social media	**	***	**	*
	Direct email		***	*	*
Printed media	PR materials	**	*	**	
	Press releases	***	*	*	**
	Scientific publications	**	*		
	Project reports	**			

Table 5: Engagement Chart

3 https://www.eosc-life.eu/resources/project-deliverables/
4 https://zenodo.org/

4.3 Goals / KPIs

The Strategic Marketing and Communication Plan set targets by which to measure the success of communication in the project's first year. The target numbers were based on similar size EU projects in similar fields:

KPI	Target by 1 March 2020	Status by 1 March 2020	Status by 9 Feb 2021
Twitter followers	1000	472	922
LinkedIn page followers	750	96[5]	235
YouTube videos posted[6]	2	0	12
Newsletter subscribers	750	467	534
Website - unique page views	2,000	6,342	33,454
Press releases sent	2	1[7]	3[8,9]
Articles published in response	5 per press release	3[10,11,12]	9[13,14,15,16,17,18]

Table 6: Original KPIs

Evidently, we overestimated our social media targets and vastly underestimated the use of our website. As the project has advanced, and due to feedback from the Midterm Review Report, we are adding SMART (Specific, Measurable, Achievable, Results-oriented, Time-bound) KPIs to be monitored for the remainder of the project. In addition, more emphasis will be put on YouTube and website views rather than LinkedIn, as our work package leaders noted that the main end users for this project are generally not engaged on LinkedIn. Therefore we will use that platform for policy-related content, Open Calls and content of general interest.

KPI	Status by 1 March 2020	Status by 9 Feb 2021	Goal by 1 March 2022
Twitter followers	472	922	1372
Twitter - link clicks per month	53	60[19]	67

Twitter - retweets per month	35.7	50.1[20]	65
LinkedIn page followers	96	235	305[21]
YouTube videos posted	0	12	18
YouTube - total views	0	111	222
Newsletter subscribers	467	534	601
Website - unique page views	6,342	33,454	47,010[22]
Press releases sent	1	3	5

Table 7: Updated SMART KPIs

In addition, WP10 will work with the project coordinator and the work package leaders at the upcoming project retreat in spring 2021 to define measurements for the success of individual project outcomes -- such as numbers of users, interests in workshops, etc.

Abbreviations

EOSC European Open Science Cloud

LS RI Life Science Research Infrastructures

WP Work Package

Delivery and Schedule

The deliverable is delayed: no

Adjustments

Adjustments made: none

---

[19] Status as of 1 Feb 2021

[20] Status as of 1 Feb 2021

[21] As mentioned, less emphasis will be placed on LinkedIn to disseminate EOSC-Life results; thus we do not foresee as steep an increase in followers for the next period.

[22] As we do not expect as dramatic an interest in the 2nd Digital Life Sciences Open Call, we expect an increase at a lower rate as the previous year.

Appendices

Appendix 1: Survey on Strategic Marketing for Deliverable D10.1 - Compiled Results

Background

This survey is to be filled out by a Work Package Leader from the following Work Packages:
1, 2, 3, 4, 5, 6, 7, 8, 9, 13, 14
in order to provide feedback on the strategic marketing efforts thus far in the project and to guide their improvement over the remainder of the project.
The survey should take you roughly 20 mins.

Survey

1. Please take a look at the results of the initial Stakeholder Analysis for MS33 performed in late 2019/early 2020.
   a. Highlight in the table the top 5 stakeholder groups relevant to your work package. (When possible provide concrete examples of stakeholders belonging to the group you selected.)
   b. Are there any stakeholders missing from these groups that are very relevant to your work package? If so, please list them here:

EOSC-Life Stakeholders

	Stakeholder	WP3	WP4	WP5	WP6	WP7	WP8	WP9	WP14
7	Participating RIs (Hubs and Nodes)								
4	Disease-, food- and biotechnology /pharma-oriented scientific communities		★★[23]						★★[24]
4	European research community at large		★★[25]						★★[26]
4	EOSC Cluster Projects								
3	Legal, regulatory and normative institutions / authorities				★★				★★
3	RI users working in Industry								
3	Communities of software developers								
3	Research Funders								
2	EOSC Executive Board, EOSC Executive Board Working Groups, and EOSC Governance Board								
2	RI users working in Academia/Research (Depositors of samples/data)				★★[27]				
2	Research Institutes incl. Tech Transfer Units								
2	EU/ESFRI								

2	Industrial technology developers and manufacturers				■	■			
2	EU Infrastructure / Infrastructure projects				■	■			
1	Supra-/international organisations								■
1	EOSC-Life Executive Board						■		
1	Member States (Board / Assembly / Council Delegates)		■						
1	LS RI Strategy Board					■			
1	RI users working in a clinic as healthcare				■				
1	E-Infrastructure Advisory Board				■				
1	EOSC Portal Providers				■				
1	Horizon Europe Programme Committees				■				
1	EOSC Association						■		

2. List the achievements from your work package and which stakeholders can take advantage of your output (e.g. Workflow Hub can be used by A, B, C users and is of interest to X, Y, Z policymakers/research institutions)

WP	Achievement/Output/Product	End users targeted	Also of interest to
1	Complete registry deliverable	RIs and registry developers	Users EOSC
1	Data Experts convened and operational across EOSCLife domains	RIs	EOSCLife call applicants EOSC
1	Completed cloud feasibility assessment of demonstrators	RIs	EOSCLife call developers EOSC
1	Population of EOSCLife registry	RIs and registry developers	EOSCLife call applicants EOSC
2	WorkflowHub	RIs	EOSC Communities of software developers
2	WP2 roadmap	RIs	EOSC cluster proj.
2	LifeMonitor	EOSC	
3	Demonstrator project results	• Participating RIs, • European research community at large, • RI users working in Academia/Research	• Disease-, food- and biotechnology/pharma-oriented scientific communities, • Research Institutes incl. Technology Transfer Units, • Industrial technology developers and manufacturers, • Communities of software developers
3	First Digital Life Sciences Open Call	• Participating RIs, • European research community at large,	• EOSC-Life Executive Board, • LS RI Strategy Board, • EOSC Portal Providers

		• RI users working in Academia/Research, • Industrial technology developers and manufacturers, • Research Institutes incl. Technology Transfer Units, • Communities of software developers	
3	Second Digital Life Sciences Open Call (Track for Industry and Sensitive Data)	• Participating RIs, • European research community at large, • RI users working in Academia/Research, • Industrial technology developers and manufacturers, • Communities of software developers, • Research Institutes incl. Technology Transfer Units	• Patient organisations, • Legal, regulatory and normative institutions / authorities, • RI users working in a clinic as healthcare
4	"Fair Enough?" Workshop (4-5 September 2019, Brussels)	• Participating RIs (Hubs and Nodes) • EOSC Cluster Projects • Disease-, food- and biotechnology/pharma-oriented scientific communities • EU Infrastructure / Infrastructure projects • Representations from: FAIRPlus, EOSC-Hub, FAIR4Health, FAIRsFAIR, ENVRIFAIR, GoFAIR	• RI users working in Academia/Research (Depositors of samples/data) • RI users working in a clinic as healthcare • RI users working in Industry • Other EOSC projects and EOSC Regional Clusters • European research community at large
4	"Towards pseudonymised/anonymised health data: methodologies, tools and practical solutions" Workshop (22-23 January 2020, Paris)	• Participating RIs (Hubs and Nodes) • Disease-, food- and biotechnology /pharma-oriented scientific communities • EU Infrastructure / Infrastructure projects	• RI users working in Academia/Research (Depositors of samples/data) • RI users working in a clinic as healthcare • RI users working in Industry • EOSC Cluster Projects • Other EOSC projects and EOSC Regional Clusters • European research community at large

4	WP4 Toolbox: Categorisation system for resources to be referenced in the toolbox for sharing of sensitive data	• Participating RIs (Hubs and Nodes) • Disease-, food- and biotechnology /pharma-oriented scientific communities	Once the toolbox is implemented it will be of interest to the European research community at large.
4	WP4 Toolbox: Pilot study protocol for the evaluation of the categorisation system	• Participating RIs (Hubs and Nodes) • Disease-, food- and biotechnology/pharma-oriented scientific communities	Once the toolbox is implemented it will be of interest to the European research community at large.
6	FAIRsharing.org	• Researchers, • research infrastructures, • EOSC	
6	FAIRassisst	• Researchers, • research infrastructures	EOSC
6	Provenance standard (including Nagoya Protocol support)	• Researchers, • research infrastructures, • EOSC, • organizations bound to implementing Nagoya protocol, • research funding bodies	NR
9	Remote training workshop series	Training & event managers, trainers agnostic of scientific background	
9	Best practice series: Communication & Training	Training & event managers, trainers agnostic of scientific background	
9	OLS-cohort 3	Scientists across domains and career stage	Funders? Looking for concrete OS implementation?
9	Galaxy Admin training	Galaxy community	
14	D14.1 - Strategic plan for the development of a COVID-19 repository including specification of technical requirements, policies and procedures	EOSC-Life partners	
14	EOSC Projects EXPO booth at "Realising the European Open Science Cloud - Towards a FAIR research data landscape for the social sciences, humanities and beyond"	• EOSC Cluster Projects • European research community at large	

3. Have you been doing your own outreach to target stakeholders within your Work Package? If so, please list what you did here:

WP	Achievement/Output/ Product	Stakeholders reached	Method of outreach (e.g. direct email, Twitter, GitHub, etc.)	Notes
1	Participation in pan EOSC activities around registries	Registry developers Experts from other EOSC domains	Workshop participation Feed into EOSC related deliverables	
3	Announcement of the OC in RI Newsletters, website articles, twitter	• Participating RIs • RI users working in Academia/Research • European research community at large	Email list, websites, twitter	Essentially all the outreach we have done was in some way facilitated by WP10 - I'm listing here some things where we were more directly involved but not with the intention of taking sole credit for this.
3	Presentation on the OC	• Participating RIs • RI users working in Academia/Research	Virtual presentation	
3	Demonstrator project success stories	• Participating RIs • European research community at large • RI users working in Academia/Research	Material on EOSC-Life website, seminar, videos on YouTube, Twitter	I can also go through the outreach document and collect more information - particularly for the meetings were something about the OC was presented.
4	"Fair Enough?" Workshop (4-5 September 2019, Brussels)	• Participating RIs (Hubs and Nodes) • EOSC Cluster Projects • Disease-, food- and biotechnology/pharma-oriented scientific communities • EU Infrastructure / Infrastructure projects • Representations from: FAIRPlus, EOSC-Hub, FAIR4Health, FAIRsFAIR, ENVRIFAIR, GoFAIR	Direct e-mails, organisation of physical workshop	
4	"Towards pseudonymised/anonymised health data: methodologies, tools and practical solutions" Workshop (22-23 January 2020, Paris)	• Participating RIs (Hubs and Nodes) • Disease-, food- and biotechnology/pharma-oriented scientific communities • EU Infrastructure / Infrastructure projects	Direct e-mails, organisation of physical workshop	
4	Demonstration of the BBMRI-ERIC ELSI Knowledge	Participating RIs (Hubs and Nodes)	Direct e-mails, demonstration TC	

	Base (27 July 2020)			
4	Demonstration of the RDA DS Wizard (24 August 2020)	Participating RIs (Hubs and Nodes)	Direct e-mails, demonstration TC	
4	UX design webinar (28 September 2020)	Participating RIs (Hubs and Nodes)	Direct e-mails, demonstration TC	
14	D14.1 - Strategic plan for the development of a COVID-19 repository including specification of technical requirements, policies and procedures	WP14 Stakeholder Forum (roughly 60 people)	Direct e-mail	
14	1st Stakeholder Workshop of the COVID-19 repository	The COVID-19 scientific community through representatives in the WP14 Stakeholder Forum (consisting of funders, publishers, regulatory bodies, standardisation bodies, repositories, registries, some COVID-19 initiatives/platforms, trial investigators, legal experts, ethical experts, technical experts, research infrastructures, IT-infrastructures, patient organisations)	• 50 attended workshop • Participating RIs • (Hubs and Nodes) • Disease-, food- and biotechnology/pharma-oriented scientific communities • European research community at large • Research Funders • Journal publishers	

4. Which platforms do you find are most effective for reaching your target audiences?

WP1, 2, 4, 5, 6, 7, 8, 13	WP3	WP9	WP14
NR	Presentations at community conferences/workshops, Twitter	Direct email, twitter	So far, the WP14 outreach is limited by the fact that the COVID-19 repository is not yet developed. Currently direct e-mails to targeted stakeholders has been the most efficient method. Once the repository is launched broader outreach activities are foreseen.

5. Measuring impact: Can you provide us with any data on outreach efforts, e.g. number of inquiries to an open call, number of attendees to a workshop, number of responses to a survey, number of downloads of key documents, etc.

WP	Activity	Number of interested persons	Method of measurement
1	Workshop participation		EOSCLife content inti other projects
2	Inquiries from WP2 open call		WP3 metrics
9	WP9 Training need survey	35	Responses

9	WP 9 Open call		# of institutions, spread across RI (in addition to total submission)
9	WP 9 Training events		See # is spreadsheet
3	Open Call first enquiries	120	Count
3	Open Call submitted projects	72	Count
3	Presentation of OC at virtual seminars	35	
4	"Fair Enough?" Workshop (4-5 September 2019, Brussels)	30 attendees *invitation only	
4	"Towards pseudonymised/anonymised health data: methodologies, tools and practical solutions" Workshop (22-23 January 2020, Paris)	32 attendees *invitation only	
4	WP4 Toolbox: Categorisation system for resources to be referenced in the toolbox for sharing of sensitive data	107 views 68 downloads	Zenodo publication. This document aims to describe the proposal for a categorisation system to be used for the Toolbox for sensitive data sharing currently developed in WP4.
4	WP4 Toolbox: Pilot study protocol for the evaluation of the categorisation system	70 views 40 downloads	Zenodo publication. This document aims to provide a protocol for a pilot study carried out among the RIs participating in WP4 for validating the categorisation system proposed for the toolbox.
7	Questions from WP1 Open Call		
7	Questions from WP3 open Call	NR	NR
7	4 Cloud Resource requests outside of open calls		
14	D14.1 - Strategic plan for the development of a COVID-19 repository including specification of technical requirements, policies and procedures	Views: 308 Downloads: 186 (assessed 12/01/2020)	Views and Downloads provided by Zenodo: https://zenodo.org/record/4141619#.X_2OGUBFyH3
14	1st Stakeholder Workshop of the COVID-19 repository	50 attendees (under invitation)	

Do you inform WP10 in advance of your achievements and events?

	WP1	WP2	WP3	WP4	WP5	WP6	WP7	WP8	WP9	WP13	WP14
Always (1)											
Sometimes (6)											
Infrequently (1)											
Never (0)											
No response (3)											

If only "Sometimes" or "Never", why not? (E.g. workshops were internal, or last-minute planning, forgot?)

WP1	WP2	WP4	WP7	WP8	WP14
There is no clear process for	Don't know what counts as	Yes when broad outreach and	Our remit is internal to the	Last-minute planning, forgot	WP14 kicked-off retrospectively

| informing WP10 and lack of time. We will modify this by documenting notable achievements and sharing minutes with WP10. | achievement that warrants reporting vs internal activities Not sure what is attributable to EOSC-Life vs "normal" activity (e.g. many contributions not funded by the project) | dissemination is required, no for outputs/events concerning a small part of stakeholders, in which case outreach is performed by WP4 and its members. | project. We are not public but a service organisation to others. | | on the 18th March 2020 and most of the activity started during the summer period. The so-far achievements and events concerned only very specific stakeholders (the COVID-19 scientific community e.g. a s potential data contributors and data requestors). More outreach efforts will be required in the other half of the project and after the launch of the repository. |

7. Thus far in the project, how adequately do you feel that your Work Package's achievements/activities/events have been reaching the relevant audiences?

	WP1	WP2	WP3	WP4	WP9	WP14
Via my own work package's outreach efforts	poorly	adequately	very well	very well	well	very well
Via WP10's outreach efforts	not enough	don't know	very well	very well	very well	very well

Comments:

WP2: Don't know what the relevant audiences would be in this case.

WP3: The support of WP10 has been invaluable in our outreach efforts. For our WP successful outreach played a big role in achieving success for our tasks and therefore the WP10 support was critical in that success too.

WP4: Most of the current outputs concern the EOSC-Life community handling sensitive data. The outreach to the participating RIs has been satisfying so far.

Further outreach to broader stakeholders is expected once the Toolbox for sensitive data is developed and once the legal landscape analysis is completed. Broader outreach is also expected for the EOSC-Life Open Call on sensitive data.

WP7: Lack of understanding by WP3 as to the other WPs has been a disaster over the last open call. I see this more of an issue with WP3 change over rather than a WP7 or WP10 issue.

WP14: Planned to work closely with WP10 for the Task 14.4: Outreach, partnerships and scalability

8. List concrete stakeholder groups (from the above list, or add new ones) we should focus on more in the second half of the project:

WP	Stakeholder group 1	Stakeholder group 2	Stakeholder group 3
1	Wider EOSC	Users of the EOSC-Life infrastructure	RIs
2	RI nodes and their user communities	EOSC Zoo	
3	RI users working in a clinic as healthcare	Industrial technology developers and manufacturers	Communities of software developers
4	• Member States (Board / Assembly / Council Delegates) • Legal, regulatory and normative institutions / authorities28	• Participating RIs (Hubs and Nodes) • Disease-, food- and biotechnology/pharma-oriented scientific communities • European research community at large29	
7	Open call projects from WP1 and WP3		
9	In general with the start of the e-learning users/external will become a bigger focus		
14	Disease-, food- and biotechnology/pharma-oriented scientific communities and European research community at large to capture the attention of potential data providers/requestors.	Supra-/ Internat. organisations for scaling up the impact	Research Funders for providing incentives for data sharing

9. Any other input for WP10?
WP1: Would like to see the comms strategy and understand our role in it
Current website doesn't convey the scientific nature of the project