



## ***D1.4 Dissemination and Exploitation Plan***

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### **Deliverable Abstract**

This document provides an update to the key exploitable results, including aspects such as the definition, value proposition, IP management, exploitation path and dissemination activities and adoption.



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#### TERMINOLOGY

<https://confluence.egi.eu/display/EGIG>

Terminology/Acronym	Definition
<b>EOSC</b>	European Open Science Cloud
<b>KER</b>	Key Exploitable Result
<b>OLA</b>	Operational Level Agreement
<b>UA</b>	Underpinning Agreement
<b>SDS</b>	Service Delivery and Support board
<b>IP</b>	Intellectual Property
<b>IPR</b>	Intellectual Property Rights
<b>HTC</b>	High Throughput Computing
<b>HPC</b>	High Performance Computing
<b>RI</b>	Research Infrastructure
<b>SME</b>	Small Medium Enterprises
<b>GOSC</b>	Global Open Science Cloud
<b>EOSC AG</b>	EOSC Advisory Groups
<b>EOSC TF</b>	EOSC Task Forces
<b>DoA</b>	Description of Action

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## Executive summary

This deliverable document establishes the link between EGI-ACE results and its dissemination and innovation management practices. The document expands on the DoA description of the Key Exploitable Results (KERs) by presenting a plan for promoting and exploiting them by mapping them to the overall project dissemination presented in D2.1 *Communications and Engagement Plan*. The project proposal has identified five key Exploitable Results (KERs) that are presented in more detail in this deliverable. Moreover, the deliverable presents a process for capturing and managing any additional KERs that are identified by project activities. It also covers the template for capturing all the pertinent information for dissemination and exploitation of KERs. The role of the Horizon Results Platform is discussed in detail. While some of the KERs of this project are expected to be relevant only in the EOSC context, capturing all the relevant details using the Horizon Results Platform section will provide maximum flexibility at the end of the project. The document presents a starting point for curating information related to the results, the PM18 version of this deliverable will provide an update and additional details.

# 1 Introduction

## 1.1 Relationship with other project deliverables and outputs

This deliverable complements the Innovation Management section of the deliverable D1.1 *Quality, Risk, and Innovation Management Plan* by describing the process for capturing the project results and supporting the exploitation of them. The deliverable also relies heavily on the analysis of the user communities included in the deliverable D2.1 *Communications and Engagement Plan*.

The deliverable will be updated in project month 18 based on the developments in the project. The Key Exploitable Results (KERs) will also feature in the project outreach materials (presentations, flyers, EGI website and other similar materials).

## 1.2 KER-centric view of project's dissemination and exploitation plans

A Key Exploitable Result (KER) is a project result with particularly high exploitation potential. The KERs might have slightly different meanings depending on the following two considerations:

1. Results that could and should be taken forward in the same application context the project works on, i.e., the EGI/EOSC ecosystem of the EOSC Exchange.
2. Results that could be taken up by anyone outside the specific context of the project.

When focusing on the first category of results, it is possible to make the following assumptions stemming from the EGI/EOSC environment:

1. The services will be provided based on the 'Free at the point of use' model, based on commonly agreed rules of participation that provide basic sustainability or business model parameters.
2. The primary use of the services will be processing varied research data sets that adhere to FAIR principles defined by the user community.
3. The users are - at least in the immediate future - technically skilled, science-literate people capable of performing the tasks in a highly autonomous fashion.

The exploitation potential of the result is thus based on quite clear criteria: fitness for purposes of a particular research task, level of integration with the marketplaces (EGI, EOSC) and awareness of and attitudes towards the solution of the EGI and EOSC user communities. The openness of the platform and the technical skills of the user communities make the retention of users more challenging than in other IT service markets. The perceived 'switching costs' to another solution providing better performance are low.

The results belonging to the second category - results that could be taken up by anyone outside the specific context of the project - present a slightly more multifaceted challenge. A larger set of exploitation opportunities and stakeholder groups is balanced by the need to describe resources in a way that makes them relevant to a much broader range of stakeholders (also outside the project's primary context). These results are typical candidates for inclusion in the EC Horizon Result Platform that is geared more towards

investor groups ranging from private profit-oriented entities to public service and development-oriented organisations (including third-sector entities). This difference in orientation requires taking a broader set of aspects into account in capturing the results and a slightly different approach in disseminating them.

The role of joint ownership agreement is especially important for the KERs falling under this second category, as major project results are typically generated through involvement of several organisations. The Horizon Results Platform<sup>1</sup> requires assigning a partner or partners in the role of ‘Owner for exploitation’ and the joint ownership agreement needs to consider the fair distribution of a much broader range of benefits (investments, partnerships, consulting, paid service provision, among others) than is the case with pure academic use. A lot of this information is already captured in the OLAs, and UAs used by the Service Management System of the project. However, when the potential exploitation approaches go beyond the service provisioning in the EOSC Exchange context, it is important to review the exploitation roles of the partners involved in the development of the result. The Horizon Results Platform also represents a communication challenge: mapping the value propositions of the KERs to Sustainable Development Goals needs careful consideration.

However, when considering any KER, the following mechanism will be used to ensure consistent dissemination and exploitation approach:

1. Capture the KER in detail.
2. Map its development into project activities (often in a way that is not limited to a single work package).
3. Assign an individual person into the *KER champion* role.

The project proposal has identified five KERs that are described in Chapters two to six. It is possible that the project activities will identify additional KERs in the future that should be subjects of focused dissemination and exploitation activities as well. The basic approach will be based on the following steps:

1. Each KER will have an individual assigned in the role of a ‘KER Champion’.
2. The KER champion is responsible for maintaining – in collaboration with the Innovation Manager – an overview of the KER, including:
  - a. What are the main technical components it is based on?
  - b. IPR issues to be considered in future exploitation activities.
  - c. How should the KER be communicated to different audiences?
  - d. Alternative or complementary exploitation opportunities or approaches related to the KER.
3. The KER champion will report on the status of the KER periodically in the SDS meetings – either as an invited expert or by providing the Innovation Manager updates that can be discussed and noted in the SDS meeting minutes.

Capturing the details of the KERs (both pre-identified and potential new KERs identified during the project lifetime) is based on using the applicable parts of the template developed in the EOSC-hub project (Appendix 3) for collecting information needed for the Horizon

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<sup>1</sup> <https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/horizon-results-platform>

Results Platform. Some extra details will be added, for example information related to work packages and non-public deliverables. The additional details collected are:

- KER Champion name, organisation and email
- Horizon Results Platform entry planned in the near future: yes/no
- Link to the joint ownership agreement
- Link to the dissemination strategy
- Target groups (tick boxes, multiple choices possible)
  - Users
  - Service and content providers for research
  - EOSC Core
  - EOSC Governance
  - Peer initiatives
  - Other
- Other materials (folder link)

### 1.3 Mapping the EGI-ACE stakeholder groups to the Horizon Results Platform ones

The focus of deliverable D2.1 is maximising the awareness of the key stakeholder groups during the project lifetime. It defines the following stakeholder groups based on the type of interaction between the project and them:

1. **Users** that demonstrate the project's positive impact by providing success stories. These include Researchers, International projects and Research Infrastructures (RIs), Industry/SMEs, Public sector.
2. **Service and content providers** for research who provide services that can be encouraged to integrate into the project. These include Academic HTC/Cloud providers, HPC providers, Data Space providers.
3. **EOSC Governance and Core** who need to be aware of the project and its potential to ensure inclusion of EGI-ACE in the future EOSC technical and organisational structure. These include EOSC Association, EOSC AGs/TFs, Providers of EOSC Core.
4. **Peer initiatives** which can be encouraged to align their approaches to increase the overall awareness of the solutions offered. These include INFRAEOSC-7 projects, GAIA-X, EOSC-like initiatives outside Europe (GOSC), EOSC-Future Project.

In contrast, the Horizon Results Platform entry offers the following categorisation:

1. Others/ No specific audience;
2. Public or private funding institutions;
3. EU and Member State Policy-makers;
4. International Organisations (e.g., OECD, FAO, UN, etc.);
5. Other Actors who can help us fulfil our market potential;
6. Research and Technology Organisations;
7. Academia/Universities;
8. Private Investors.



Mapping between these two taxonomies is not straightforward. The following table maps the Horizon Results Platform categories to EGI-ACE stakeholder groups. In practice, each KER will have a subset of EGI-ACE categorisation entities and Horizon Results Platform audiences that is specific to that KER. This further underlines the importance of the KER Champion role. Without a deeper understanding of the situation and goals related to the result, it is impossible to determine which of the target groups are relevant for that KER.

<b>EGI-ACE stakeholder group</b>	<b>Entities in EGI-ACE categorisation</b>	<b>Potentially matching Horizon Results Platform entries</b>
Users	<ul style="list-style-type: none"> <li>• Researchers</li> <li>• International projects and Research Infrastructures (RIs)</li> <li>• Industry/SMEs</li> <li>• Public sector</li> </ul>	<ul style="list-style-type: none"> <li>• EU and Member State Policy-makers</li> <li>• International Organisations (ex. OECD, FAO, UN, etc.)</li> <li>• Other Actors who can help us fulfil our market potential</li> <li>• Research and Technology Organisations</li> <li>• Academia/ Universities</li> </ul>
Service and content providers for research	<ul style="list-style-type: none"> <li>• Academic HTC/Cloud providers, HPC providers, Data Space providers</li> </ul>	<ul style="list-style-type: none"> <li>• International Organisations (ex. OECD, FAO, UN, etc.)</li> <li>• Research and Technology Organisations</li> <li>• Academia/ Universities</li> </ul>
EOSC Governance and Core	<ul style="list-style-type: none"> <li>• EOSC Association</li> <li>• EOSC AGs/TFs</li> <li>• Providers of EOSC Core</li> </ul>	<ul style="list-style-type: none"> <li>• Public or private funding institutions</li> <li>• EU and Member State Policy-makers</li> <li>• International Organizations</li> <li>• Other Actors who can help us fulfil our market potential</li> <li>• Research and Technology Organisations</li> <li>• Academia/ Universities</li> </ul>
Peer initiatives	<ul style="list-style-type: none"> <li>• INFRAEOSC-7 projects</li> <li>• GAIA-X</li> <li>• EOSC-like initiatives outside Europe (GOSC)</li> <li>• EOSC-Future Project</li> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>• Public or private funding institutions</li> <li>• EU and Member State Policy-makers</li> <li>• International Organisations (ex. OECD, FAO, UN, etc.)</li> <li>• Other Actors who can help us fulfil our market potential</li> </ul>

EGI-ACE stakeholder group	Entities in EGI-ACE categorisation	Potentially matching Horizon Results Platform entries
		<ul style="list-style-type: none"> <li>• Research and Technology Organisations</li> <li>• Academia/ Universities</li> </ul>
Stakeholder categories mostly outside the ones defined in D2.1		<ul style="list-style-type: none"> <li>• International Organisations (ex. OECD, FAO, UN, etc.)</li> <li>• Private Investor</li> </ul>

As noted in the above table, the D2.1 stakeholder groups do not explicitly consider International Organisations or private investors. The former can be either a potential user of the services provided or a supplier of data and other resources that could be integrated into EGI-ACE supported workflows. Separating these two roles is crucial in the day-to-day operations of the project. However, the difference is less crucial when assessing the role of International Organisations as investors (funding or effort) in the exploitation phase.

When considering private investors, the expectations need to be tempered. As most of the project's outputs are licensed under an Open-Source license or under Creative Commons, identifying IP and developing protection mechanisms (e.g. Trademark) and negotiating the details of the governance of the use of this IPR would require considerable up-front investments with very uncertain return. However, using the Horizon Results Platform template as the basis of the KER review with the Champions will ensure that feasibility of this option is assessed systematically.

The following chapters will present the initial assessment of the pre-identified KERs of the project.

## 2 Free at point of use services, IT resources, data, and analytics (KER 1)

### 2.1 KER definition

The value of the KER is based on its ability to support research activities with minimal distractions. As the end users do not need to consider payment details, it allows them to focus on the research tasks at hand and it reduces the barriers to experimenting with new approaches (including interdisciplinary collaborations).

### 2.2 Stakeholder groups

The key D2.1 Stakeholder groups relevant for this KER are Users: Researchers, International projects and Research Infrastructures (RIs), Industry/SMEs and Public sector actors. The primary role of these groups during the project lifetime is to act as consumers of the services provided by the project.

In the broader exploitation context, the following value propositions based on the Horizon Results Platform groups are potentially relevant for the exploitation planning:

1. **Public or private funding institutions:** Both groups can see the EGI-ACE services (or subset of them) as worth replicating in one of the environments they are engaged with. The environment could be an in-house deployment scenario, or the use of the services and their provision model in another cross-organisational setting.
2. **International Organisations (ex. OECD, FAO, UN, etc.):** Like public or private funding institutions, but from a more hands-on perspective (e.g., a project requiring dealing with staff split across several offices, with a large number of external collaborating partners involved).
3. **Research and Technology Organisations:** As above.
4. **Academia/ Universities:** As above.

### 2.3 IP management

The relevant aspects of IPR related to software underlying the services is documented in the OLAs and UAs related to the service, as well as in the Consortium Agreement background definition. Technical documentation is – almost without exception – released under the CC BY 4.0 licence.

Thus, IPR issues are sufficiently well managed in terms of service provision – either in the EOSC Exchange context or in one of the Result Platform scenarios.

## 2.4 Dissemination approaches

The following approaches outlined in the deliverable D2.1 are relevant in the KER1 context:

- User engagement mechanisms
  - Consultancy, training and co-design activities. These are expected to happen primarily during the project lifetime, but can be continued afterwards as externally funded effort (including paid services)
  - Dedicated events (during the project)
  - Open call mechanisms
  - Industry and SME engagement
- Communications
  - KERs will become one of the important communication concepts of the project's overall outreach activities. KER1 will be especially important, as it provides a way to engage with a broad range of user communities and research initiatives to establish long-term collaborations with them.
  - The KER will be relevant to all D2.1 stakeholder groups, so a version of the KER description will be developed for each of the groups.

## 3 Training, handbooks, and consultancy (KER 2)

### 3.1 KER Definition

The KER will speed up and optimise the adoption of the EGI-ACE services by offering support services and self-study materials that will make it possible to adapt the solutions to any research workflow.

### 3.2 Stakeholder groups and value propositions

The KER will be of interest primarily to Users: Researchers, International projects and Research Infrastructures (RIs), Industry/SMEs and Public sector actors. For them, the solutions and services in this category will reduce the efforts needed for adoption or create the initial interest and awareness of EGI-ACE.

With the other stakeholder groups, it is important that there is awareness that the KER exists and represents a rich portfolio of solutions and services. However, this KER is not the primary mechanism to engage with these groups.

### 3.3 IP management

Any project material generated for this purpose is covered by the Consortium Agreement's IPR regime, mandating open licenses except in exceptional circumstances. This includes also the copyright related to collections developed (e.g., selection of open material into collections for specific training modules).

The background material can contain elements that are more restrictive, as long as the licensing approach allows use for the training purposes.

The IP generated in this KER could be the basis for a certification scheme where the formal IPR protection based on trademarks would be relevant.

### 3.4 Dissemination approaches

The KER itself largely captures the user engagement mechanism. It is also closely linked with the project communication activities, e.g., providing material to be reused in the communications activities.

The KER itself doesn't have a centralised dissemination strategy, however the components will be promoted individually (also outside the project channels, where relevant) with the intention of them attracting attention to the KER 2 and the project as a whole.

## 4 Service Management System and Tools integrated with Portal (KER 3)

### 4.1 KER Definition

KER 3 covers the central mechanisms of the federated IT Service Management system. It ensures reliability and efficiency of the overall service delivery made possible by the project.

### 4.2 Stakeholder groups and value propositions

The key D2.1 stakeholder groups this KER would be relevant to are Service and content providers for research, EOSC Governance and Core and Peer initiatives. The primary value proposition KER represents is slightly different for each of these categories:

1. KER guarantees a standardised 'access to market' mechanism to service providers with built-in mechanisms to ensure fairness across the group of providers
2. It provides EOSC Governance and Core with a tool to ensure efficiency and effectiveness of the overall service delivery.
3. The peer initiatives can benefit from EGI-ACE experience and build their own federated Service Management Systems.

### 4.3 IP management

The underlying standards and solutions are all available under open licenses. However, the actual system will contain private information that can be exploited only within the constraints of the privacy and confidentiality policies.

However, the IP related to KER 3 will be either fed into the FitSM<sup>2</sup> standard itself as improvements. In this case, the IP is taken up and exploited rapidly by any organisation using FitSM as part of their management processes. The IP will also enrich the material presented in the various FitSM training and consultation activities.

FitSM itself has a certification mechanism supported by the FitSM trademark (the consortium has active links and de facto representation in the organisation that owns the trademark).

### 4.4 Dissemination approaches

The two primary approaches are user engagement and promotion through overall FitSM dissemination approaches. In this case, the users targeted by the engagement activities are a specific subgroup: people interested in or working on IT Service Management in their organisations or projects.

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<sup>2</sup> <http://www.fitsm.eu/>

## 5 Strategy and Interoperability Toolkit (KER 4)

### 5.1 KER Definition

This KER maximises the interoperability of the existing and new services integrated into EGI-ACE, both among themselves and in the context of the broader INFRAEOSC-07 project landscape. It contributes to and enforces the EOSC Interoperability Framework.

### 5.2 Stakeholder groups and value propositions

The KER is relevant to Service and Content Providers for research, EOSC Governance and Core and Peer initiatives. The value proposition is based on the KER's ability to reduce efforts needed to implement and maintain interoperability between services, with the specific areas of emphasis as with KER 3.

### 5.3 IP management

The interoperability framework documents are released under CC BY 4.0.

### 5.4 Dissemination approaches

The dissemination approach is similar to KER 3, with a specific emphasis on individuals involved in software development and maintenance activities.

## 6 Lessons learnt and recommendations (KER 5)

### 6.1 KER Definition

Strategy and recommendations KER collects different high-level analyses of the project's outcomes and their potential as well as observations related to possible optimisations and improvement within the project as well as among the stakeholder groups it interacts with.

### 6.2 Stakeholder groups and value propositions

In addition to the internal use of project consortium (also within possible follow-up activities), the KER is relevant to EOSC Governance and Core, contributing to informed, evidence-based decision making. The KER could also be relevant to the broader group of EU and Member State policy makers.

### 6.3 IP management

Any material that can be made available publicly will be released under a CC BY 4.0 license. Internal and confidential documents will be hosted on the document server used by the project, only accessible for project partners. The use of these materials in EOSC Governance and Core will be based on the specific approaches used for confidential information in the task forces or working groups.

### 6.4 Dissemination approaches

The public outputs will be promoted as part of the project dissemination activities. Where possible, relevant policy groups will be made aware of the results through personal contacts and other engagement activities.



## 7 Conclusions and Future Work

This deliverable expands on the DoA description of the KERs and presents an initial plan for promotion and exploitation of each of the five KERs by mapping to overall project dissemination presented in D2.1. The deliverable also complements the innovation management processes presented in D1.1 by providing a process for capturing new KERs.

The future work includes developing a network of exploitation experts in partner networks and analysing project activities and interactions with the collaborating projects and other external entities (based on the innovation management process). The KER champions to be appointed and dissemination activity will play important roles in this. The results of these activities will be presented in D1.7, due June 2022.

## Appendix 1: Stakeholder group definition (as defined in D2.1)

<i>Stakeholder category: Users</i>	
<b>Stakeholder group</b>	<b>Main motivation for engagement with the project</b>
<b>Researchers</b>	This group wants to access services provided by the project for <b>short</b> term use (< 1 year).
<b>International projects</b>	This group wants to access services provided by the project for mid-term use (<3 years).
<b>Research Infrastructures (RIs)</b>	This group is interested in the service offerings of the project for long term, customised use (>3 years).
<b>Industry/SMEs</b>	The group wants to use the EOSC Compute platform for prototyping applications, and to receive technical support for the integration of applications/platforms with EOSC Compute continuum.
<b>Public sector</b>	This group is an early adopter of academic compute services and could use the project to access services in the EOSC Compute platform and to receive technical assistance for architecting and implementing compute-setups.
<i>Stakeholder category: Service and content providers for research</i>	
<b>Academic HTC/Cloud providers</b>	This group will make use of the project's wider reach to ensure their services are used across borders.
<b>HPC providers</b>	This group will be interested to learn about the project's HPC integration and guidelines and follow them to become providers in EOSC.
<b>Data Space providers</b>	This group will be interested in how to interact with the services offered by the project to offer data spaces (i.e. scientific datasets and applications all integrated on scalable compute platforms.)
<i>Stakeholder category: EOSC Governance and Core</i>	
<b>EOSC Association</b>	This group will benefit from the contributions of the project to the EOSC and will be interested in learning about the results, impact and development of the EOSC Compute Platform also with respect to competing/complementing solutions 'out there'.
<b>EOSC AGs/TFs</b>	This group will be interested in receiving expertise from the project for specific topics to collaborate seamlessly on EOSC matters.
<b>Providers of EOSC Core</b>	This group will be eager to receive feedback and requirements on the services to continuously develop them.
<i>Stakeholder category: Peer initiatives</i>	
<b>INFRAEOSC-07 projects</b>	This group will benefit from the joined activities, promotion and collaboration to further serve the EOSC mission and raise awareness.
<b>GAIA-X</b>	This group will be interested in learning about approaches to similar activities.
<b>EOSC-like initiatives outside Europe (GOSC)</b>	This group will be interested in learning about practices and technical solutions used/delivered by EGI-ACE to adopt those for the support of computing for Open Science.
<b>EOSC-Future Project</b>	This group will share a similar motivation as the 'INFRAEOSC-7 projects' and is interested in integrating their activities with that of the project where relevant

## Appendix 2: External events of interest (as identified in D2.1)

Event	Date	Target Audience	Activity
EGI Conference 2020	4 November 2020	Research communities, service providers, policy makers, end-users	Presentation introducing the project during the closing plenary of the conference
SZTAKI Information Day	17 December 2020	IT providers	Presentation
OpenAIRE-Nexus public launch	10 March 2021	INFRA-EOSC07 projects	Presentation
IWAPP - Innovative Workflows in Astro- & Particle Physics	10 May 2021	Researchers	Presentation
EISCAT 3D Access workshop	12 March 2021	Developers, service admins, end-users	Workshop
Virtual DIRAC Users' workshop	11 May 2021	Developers, service admins, end-users	Presentation
Pujiang Innovation Forum 2021	2 June 2021	Scientists, E-infrastructure providers, Policymakers	Presentation
EOSC Symposium 2021	15-18 June 2021	Research communities, service providers, policy makers, INFRA-EOSC07 projects	Presentation
EGI Conference 2021	19-21 October 2021	Research communities, service providers, policy makers, end-users	Presentations, sessions, demonstrations

## Appendix 3: Horizon Results Platform Template

The platform is available at the following link,

<https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/horizon-results-platform>

Any H2020 or FP7 beneficiary can (and is encouraged) to submit project results by clicking the link *Publish my Result* (requires access to an account that is defined as a participant contact).

Result Title, Target Audiences and Needs	Instructions, suggestions	Answers
Title of result (120 characters)	Ideally a punchy name that makes sense to someone who hasn't heard about EOSC, e-Infrastructures or Cloud technologies. Writing acronyms (like EOSC) out might be a good idea.	
Message/ Teaser to potential user (1000 characters)	From the help text:  <i>"Please state what your result is, what it is for, what makes it special in terms of adding value or knowledge, what is your purpose of making it public, and what is your target audience."</i>  Essentially a 5W summary of the result: <a href="https://en.wikipedia.org/wiki/Five_Ws">https://en.wikipedia.org/wiki/Five_Ws</a>	
Video/ image section	Upload an image (primary goal: visually attractive item to draw attention and trigger curiosity) or add a link to a YouTube/Vimeo video.	
Result Type	Dropdown list with a few options. <sup>3</sup>	
Target Audience	Select max three from the list; somewhat start-up-oriented list, but includes e.g. policy makers and other. <sup>4</sup>	
Our needs are	Another dropdown list, max three choices. Heavily geared towards investors/funding sources and entrepreneurship-related training. <sup>5</sup>	
We specifically need/ are looking for (600 words)	Freeform description of what the result owners are looking for (more specifically than the selection from the list) from the members of the target audiences selected.	

<sup>3</sup> Options: Policy Related Results, Scientific or Technological R&D results (including HW), ICT Software Digital Solution, Other Intangible Results, Services, Other

<sup>4</sup> Options: Others/ No specific audience, Public or private funding institutions, EU and Member State Policy-makers, International Organisations (ex. OECD, FAO, UN, etc.), Other Actors who can help us fulfil our market potential, Research and Technology Organisations, Academia/ Universities, Private Investors

<sup>5</sup> Options: Business partners - SMEs, Entrepreneurs, Large Corporations; Incubators / Accelerators; Marketing Mentoring or Coaching; Financing Expertise; Technology Transfer Expertise; Legal / IPR advise; I/we wish to transfer my/our IPR to an interested party; Investor readiness training; Investor introductions; Business plan development; Expanding to more markets /finding new customers; Executive Training; Business Angels; Venture Capital; Crowd-funding Equity; Other type of Investment

<b>Result Title, Target Audiences and Needs</b>	<b>Instructions, suggestions</b>	<b>Answers</b>
	Ideally it would be possible to present engagement as something that is in the self-interest of the target audience members.	
<b>ABOUT US</b>		
Main project	EC-funded project that was the main contributor	
Other related projects	Optional – won't be visible in the entry	
Result Contributors	The partners that contributed to the result. Dropdown list with full partner names (may need GA to map short names to long ones)	
Owners for exploitation	Partners that will serve as contact points for further exploitation. Less important for open EOSC services (in which case entries would probably imply a commitment to user onboarding and support). In case the business model is based on licensing of IPR, this needs more care (either single owner or parties to a joint ownership agreement)	
Start-up created for further exploitation?	Yes/no	
Logo	Not applicable unless there's a startup in the works	
<b>TESTIMONIALS/ REFERENCES</b>		
Title	Title of the success story collection (should at least contain material that is not created by the contributors or owners).  You can add several entries on this section (click <i>Add information</i> )	
Link	URL	
<b>FIND US ON</b>		
Description	No help text, but this could be e.g., homepage or EOSC marketplace entry.  As with testimonials, it is possible to add more than one line: homepage + marketplace entry ideal solution.	
Link	URL	
<b>RESULTS DESCRIPTION AND INFLUENCE</b>		
Result description (1200 characters)	More detailed description of the result, freeform.  N.B. The form seems to calculate characters in bulleted lists wrong (effective character limit seems to be lower with formatting than without it).	
Business Sector(s)/ Policy Area(s)	Dropdown list, several options <sup>6</sup> , select max 3.	
Tags/ Keywords	From the help text:	

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<sup>6</sup> Options: Agriculture and rural development; Banking and financial services; Borders and security; Budget; Business and industry; Climate action; Competition; Consumers; Culture and media; Customs; Digital economy and society; Economy, finance and the euro; Education and training; Employment and social affairs; Energy; Environment; EU enlargement; European neighbourhood policy; Food safety; Foreign affairs and security policy; Fraud prevention; Home affairs; Humanitarian aid and civil protection; Institutional affairs; International cooperation and development; Justice and fundamental rights; Maritime affairs and fisheries; Migration and asylum; Public health; Regional policy; Research and innovation; Single market; Sport; Statistics; Taxation; Trade; Transport; Youth

Result Title, Target Audiences and Needs	Instructions, suggestions	Answers
	We would recommend that you use keywords to describe the technology, science, sector, content or nature of the result and very importantly, keywords to denote potential uses or applications of your result. Please note that, by default, you will see in your submission form all keywords linked to the main project you had chosen for declaring this result. This is to help you get started. Feel free to remove those keywords irrelevant to this result.	
<b>YOUR RESULT'S CONTRIBUTION TO SUSTAINABLE DEVELOPMENT</b>		
Contribution to UN Sustainable Development Goals	Dropdown list with the goals listed (compulsory, includes <i>not applicable</i> as one of the answers. Max three  For background, see: <a href="https://www.un.org/sustainabledevelopment/sustainable-development-goals/">https://www.un.org/sustainabledevelopment/sustainable-development-goals/</a>	
Radical Innovation Breakthrough? (optional)	Refers to a specific list of Radical Innovation Breakthroughs (RIBs) defined by the Commission based on a study. Details can be found at <a href="https://ec.europa.eu/info/research-and-innovation/strategy/support-policy-making/shaping-eu-research-and-innovation-policy/foresight/activities/horizon-scanning-study-future-radical-innovation-breakthroughs_en">https://ec.europa.eu/info/research-and-innovation/strategy/support-policy-making/shaping-eu-research-and-innovation-policy/foresight/activities/horizon-scanning-study-future-radical-innovation-breakthroughs_en</a> - list of RIBs copied to Appendix 4	
Are you a member of the 'World Alliance for 1000 Solutions'?	Yes/no – the alliance homepage is at <a href="https://solarimpulse.com/world-alliance">https://solarimpulse.com/world-alliance</a>	
<b>YOUR RESULT'S INFLUENCE ON POLICY</b>		
Has your result had or you expect it to have significant influence on policy-making?	Yes/no – e.g. I would imagine results related to natural hazards would automatically have at least a moderate impact on policy. Error in the helpdesk, so exact definition is a bit unclear	
<b>OTHER INFORMATION/ DATA TO SHARE</b>		
Title (optional, one or more links to further information)	Open access publications, presentations	
Link	URL	
<b>RESULT AND BUSINESS MATURITY AND EXPLOITATION OUTLOOK</b>		
Result Maturity	TRL ( <a href="https://en.wikipedia.org/wiki/Technology_readiness_level">https://en.wikipedia.org/wiki/Technology_readiness_level</a> ) rating <i>market deployment</i> or <i>not applicable</i> . Anything onboarded on EOSC marketplace should be at least TRL 8-9.	
Current Stage and Next Steps	More details/justification of the maturity. Investor perspective noted in the help text.	
Do you already have customers for this result?	Yes/no. If yes, see next:	
Number of existing customers	Categories (1-5, 6-30, 31-50, 51-100, 101-500, 501-1000, >1000)	

<b>Result Title, Target Audiences and Needs</b>	<b>Instructions, suggestions</b>	<b>Answers</b>
What type of customers/users do you have?	Different types of for-profit/public sector entities + individuals <sup>7</sup> (number of choices doesn't seem to be limited)	
Which Business Sectors do your customers mainly come from?	Many categories <sup>8</sup> ; allows more than three options.	
Unique value proposition	Help text suggests mapping this to the teaser (consistency). The Wikipedia page on the topic might offer some food for thought and help to get from scientific communications mode to shameless self-promotion: <a href="https://en.wikipedia.org/wiki/Unique_selling_proposition">https://en.wikipedia.org/wiki/Unique_selling_proposition</a>	
Do you have a scalable business model?	The help text offers some help, but as a rule of thumb: for a business model to be scalable, staffing requirements should grow in a strongly sublinear fashion and/or the revenue per customer (or end-user) should remain relatively stable.  Grant-based sustainability is usually not scalable, nor is consulting. Franchising, licensing and platform business models can be.	
Is your result replicable?	Judgement call, some help from the instructions available.  Possible rule of thumb: if you can move all the staff members involved in the result to a new project with only a minor dip in customer/client satisfaction, the result is replicable. Web-based self-service solutions can be replicable, training probably not.	
Please elaborate on the Replicability	Justification for a claim for replicability	
Is your result and your business model sustainable in the long-term?	The help text doesn't make much sense – the site linked to it talks about sustainability in the ecological sense, but I would interpret this in the economic sense.  Rule of thumb might be a weaker version of scalability: if you assume you can generate revenue to cover the costs, you are probably sustainable. Even grants- or donations-based revenue models can be sustainable, but would probably need elaboration (e.g. plan on creating a brand, goodwill to overcome donor apathy – Oxfam/Wikipedia sustainability model)	

<sup>7</sup> Options: Individuals; SMEs; Big corporations; Academia; R&T organisations; Public Institutions and Authorities; Governments; Commerce; Manufacturers

<sup>8</sup> Agriculture and rural development; Banking and financial services; Borders and security; Budget; Business and industry; Climate action; Competition; Consumers; Culture and media; Customs; Digital economy and society; Economy, finance and the euro; Education and training; Employment and social affairs; Energy; Environment; EU enlargement; European neighbourhood policy; Food safety; Foreign affairs and security policy; Fraud prevention; Home affairs; Humanitarian aid and civil protection; Institutional affairs; International cooperation and development; Justice and fundamental rights; Maritime affairs and fisheries; Migration and asylum; Public health; Regional policy; Research and innovation; Single market; Sport; Statistics; Taxation; Trade; Transport; Youth

<b>Result Title, Target Audiences and Needs</b>	<b>Instructions, suggestions</b>	<b>Answers</b>
Please elaborate on Sustainability	Justification to claim the solution is sustainable.	
Are you targeting geographical markets?	Market areas, can also be global	
<b>INVESTORS CORNER</b>		
What level of investment (EUR) are you currently looking for?	Levels of funding sought: if a € sum is chosen, additional tick boxes explaining what potential investors would receive	



## Appendix 4: Radical Innovation Breakthroughs

From report, 100 Radical Innovation Breakthroughs for the Future<sup>9</sup>, published at Horizon scanning study: *Future Radical Innovation Breakthroughs*<sup>10</sup>.

(Areas of high potential relevance to EOSC-related activities in bold)

2D Materials	Bioluminescence	Energy Harvesting	Lab-On-A-Chip
3D Printing of Food	Bionics (medicine)	Epigenetic Change Technologies	Marine and Tidal Power Technologies
3D Printing of Glass	Bioplastic	Exoskeleton	Metamaterials
3D Printing of Large Objects	Bioprinting (of human parts)	Flexible Electronics	Microbial Fuel Cells
4D Printing	Blockchain	Flying Car	Microbiome
Airborne Wind Turbine	Brain Functional Mapping	Gene editing	Molecular Recognition
Aluminium-based Energy	Brain Machine Interface (BMI)	Gene Therapy	Molten Salt Reactor
Antibiotic Susceptibility Testing	Carbon Capture and Sequestration	Genomic Vaccines	Nano-LEDs
<b>Artificial Intelligence</b>	Carbon Nanotubes	Geoengineering and Climate Engineering	Nanowires
Artificial Photosynthesis	Chatbots	Graphene Transistors	Neuromorphic Chip
Artificial Synapse/ Brain	Computational Creativity	High-precision Clock	Neuroscience of Creativity and Imagination
Asteroid Mining	Computing Memory	Harvesting Methane Hydrate	Optoelectronics
<b>Augmented Reality</b>	Control of Gene Expression	Holograms	Plant Communication
Automated Indoor Farming	Desalination	Humanoids	Plastic-Eating Bugs
Biodegradable Sensors	Driverless	Hydrogels	Precision Farming
Bioelectronics	Drug Delivery	Hydrogen Fuel	<b>Quantum Computers</b>
<b>Bioinformatics</b>	<b>Emotion Recognition</b>	Hyperloop	<b>Quantum Cryptography</b>

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[https://ec.europa.eu/info/sites/info/files/research\\_and\\_innovation/knowledge\\_publications\\_tools\\_and\\_data/documents/ec\\_rtd\\_radical-innovation-breakthrough\\_052019.pdf](https://ec.europa.eu/info/sites/info/files/research_and_innovation/knowledge_publications_tools_and_data/documents/ec_rtd_radical-innovation-breakthrough_052019.pdf)

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[https://ec.europa.eu/info/research-and-innovation/strategy/support-policy-making/shaping-eu-research-and-innovation-policy/foresight/activities/horizon-scanning-study-future-radical-innovation-breakthroughs\\_en](https://ec.europa.eu/info/research-and-innovation/strategy/support-policy-making/shaping-eu-research-and-innovation-policy/foresight/activities/horizon-scanning-study-future-radical-innovation-breakthroughs_en)

Bioluminescence	Energy Harvesting	<b>Hyperspectral Imaging</b>	Regenerative Medicine
Bionics (medicine)	Epigenetic Change Technologies	Lab-On-A-Chip	Reprogrammed Human Cells
Bioplastic	Exoskeleton	Marine and Tidal Power Technologies	Self-healing Materials
Bioprinting (of human parts)	Flexible Electronics	Metamaterials	Smart Tattoos
<b>Blockchain</b>	Flying Car	Microbial Fuel Cells	Smart Windows
Brain Functional Mapping	Gene editing	<b>Microbiome</b>	Soft Robot
Brain Machine Interface (BMI)	Gene Therapy	Molecular Recognition	<b>Speech Recognition</b>
Carbon Capture and Sequestration	Genomic Vaccines	Molten Salt Reactor	Spintronics
Carbon Nanotubes	Geoengineering and Climate Engineering	Nano-LEDs	Splitting Carbon Dioxide
<b>Chatbots</b>	Graphene Transistors	Nanowires	Swarm Intelligence for undertaking practical tasks
Regenerative Medicine	Spintronics	<b>Touchless Gesture Recognition</b>	<b>Neuroscience of Creativity and Imagination</b>
Reprogrammed Human Cells	Splitting Carbon Dioxide	Underwater Living	<b>Technologies for Disaster Preparedness</b>
Self-healing Materials	<b>Swarm Intelligence for undertaking practical tasks</b>	<b>Warfare Drones</b>	Targeting Cell Death Pathways
Smart Tattoos	Targeting Cell Death Pathways	Wastewater Nutrient Recovery	Neuromorphic Chip
Smart Windows	Technologies for Disaster Preparedness	Water Splitting	High-precision Clock
Soft Robot	Thermoelectric Paint	<b>Computing Memory</b>	Computational Creativity
Speech Recognition	Harvesting Methane Hydrate		

The following categories are not available on the Participant Portal; however they are listed here for completeness sake – they could be good keywords and topics for the policy-impact.

#### **List of Radical Social Innovation Breakthroughs (RSBs)**

<b>Access/Commons-Based Economy</b>	Life Caching	Car-free City	<b>Owning and Sharing Health Data</b>
Alternative Currencies	Local Food Circles	<b>Collaborative Innovation Spaces</b>	Read/Write Culture: diversifying information gatekeepers

Basic Income	<b>New Journalist Networks</b>	Gamification	<b>Reinventing Education</b>
Body 2.0 and the Quantified Self			

### List of Global Value Networks (GVNs)

Carbon retention for climate change mitigation	Individualised manufacturing close to the customer	<b>Smart transport</b>	Sustainable use of materials
Decent and meaningful life for elderly people	Peer to peer based consumption decisions	Space as a global commons	Sustainable use of water systems and resources
<b>Enabling mechanisms for self-organising communities</b>	Planning and infrastructure for liveable human settlements	Sustainable energy solutions	<b>User data markets</b>
Global Capacity for Social Innovation	Pro-active health and self-care approaches	Sustainable food for all	<b>Valid information and knowledge co-creation</b>
Human and social security	<b>Remote interaction with people and machines</b>	Sustainable housing	<b>Virtual citizen interaction for entertainment</b>
<b>Individualised manufacturing close to the customer</b>	Security network against military and criminal attacks	Sustainable tourism	<b>Art and culture</b>
Peer to peer based consumption decisions	Smart transport	Sustainable use of materials	