D2.1
DISSEMINATION STRATEGY FOR ENVRI-FAIR PROJECT

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Deliverable abstract

This Dissemination Strategy gathers together all information regarding the dissemination of the ENVRI-FAIR project. The Strategy helps to conduct the dissemination and communication activities throughout the project by acting as a practical and regularly updated guide for the project members. The document represents Deliverable 2.1 for the project.

The objective of the Dissemination Strategy is to help ENVRI-FAIR to reach its goals. All dissemination and communication activities aim to raise awareness of the ENVRI-FAIR project, its results and the wider Environmental Research Infrastructures community among identified target groups, and to encourage them to use the products and solutions developed by the project while engaging them in discussions, to ensure that the products and solutions are relevant and suitable for their requirements.

The overall purpose of this document is to specify the scope, vision and means of the project's outreach and communication, including its target audiences, content of the information to be disseminated and communicated, the mechanisms to do this effectively within the constraints of the available budget, and the metrics for assessment of its impact.

DELIVERY SLIP

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DOCUMENT AMENDMENT PROCEDURE

Amendments, comments and suggestions should be sent to the Project Manager at manager@envri-fair.eu.

TERMINOLOGY

A relevant project terminology is included as an Appendix. The latest version of the master list of the terminology is here: https://confluence.egi.eu/pages/viewpage.action?pageId=14452608

PROJECT SUMMARY

ENVRI-FAIR is the connection of the ESFRI Cluster of Environmental Research Infrastructures (ENVRI) to the European Open Science Cloud (EOSC). Participating research infrastructures (RI) of the environmental domain cover the subdomains Atmosphere, Marine, Solid Earth and Biodiversity / Ecosystems and thus the Earth system in its full complexity.

The overarching goal is that at the end of the proposed project, all participating RIs have built a set of FAIR data services which enhances the efficiency and productivity of researchers, supports innovation, enables data- and knowledge-based decisions and connects the ENVRI Cluster to the EOSC.

This goal is reached by: (1) well defined community policies and standards on all steps of the data life cycle, aligned with the wider European policies, as well as with international developments; (2) each participating RI will have sustainable, transparent and auditable data services, for each step of data life cycle, compliant to the FAIR principles. (3) the focus of the proposed work is put on the implementation of prototypes for testing pre-production services at each RI; the catalogue of prepared services is defined for each RI independently, depending on the maturity of the involved RIs; (4) the complete set of thematic data services and tools provided by the ENVRI cluster is exposed under the EOSC catalogue of services.

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Dissemination Strategy for the ENVRI-FAIR Project

Introduction

The ENVRI-FAIR consortium recognizes that dissemination activities are an essential part of the project throughout its duration and also vital for the future sustainability of its outcomes. Dissemination and outreach are therefore integrated across all of the ENVRI-FAIR work packages (WPs).

Coordination of the dissemination and communication activities is a task for WP2. WP2 collaborates closely with all WPs, but particularly with WPs 3−7 which coordinate the liaison activities, development of strategies, policies, training activities, and last but not least, development of the service catalogue. WP2 also collaborates with the project management in WP1, which organizes the internal communication within the project.

This dissemination strategy and the associated work plan is a living document that will be reviewed and updated during the project's lifetime in order to adapt to the changing needs of ENVRI-FAIR and its stakeholders. The planned dissemination activities may therefore change during the course of the project based on its performance metrics, experiences and lessons learned.

The Environmental Research Infrastructure (ENVRI) community[1] has already a long history of working together. All ENVRI-FAIR dissemination and communications activities have a major advantage of earlier experiences, best practices, already existing platforms (such as website and social media presence) and audiences that the ENVRI community has established during earlier joint FP7 (ENVRI) and Horizon 2020 projects (ENVRI PLUS).

This community as such is also a big asset for the project dissemination activities. It is important to notice ENVRI-FAIR dissemination and communication activities will not only engage and target the Research Infrastructures directly involved in the project (11 RIs), but the entire ENVRI community. There are 27 environmental research infrastructures in the community at the time of submission of this deliverable, and they all have their audiences and stakeholders. Thus, the project makes use of the individual RIs by encouraging them to promote and at their part spread the messages of ENVRI-FAIR. In the same time, the goal is to keep a constant dialogue with them to make sure the ENVRI-FAIR outcomes are applicable as wide as possible.

Dissemination activities outlined in this strategy help to further build the ENVRI community, engage the community and ensure the community is sustained after the end of the project. Many important dissemination products will be developed in ENVRI-FAIR that will later be in use of the ENVRI community. These are especially the virtual ENVRI community platform and its wiki collaboration and documentation platforms, as well as its e-learning platform. The sustainability of these platforms will be managed in the later part of the Project.

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[1] **ENVRI community** – is the community of environmental research infrastructures (RIs), including RIs of the environmental and associated fields in the current ESFRI roadmap, leading Impact Innovate Invest (I3) projects, key developing RI networks and specific technical specialist partners as well as new relevant emerging projects and initiatives. The community started to cooperate within the FP7 ENVRI project and will continue to cooperate and to evolve further within the ENVRI-FAIR.

Scope, Goal and Objectives

Scope

The Dissemination Strategy is the first deliverable (D2.1) for WP2 of the ENVRI-FAIR project. This dissemination strategy and associated implementation plan outlines the scope of ENVRI-FAIR outreach and communication. It defines the key objectives, identifies target audiences, elaborates on the tools and channels that best suit the needs of these groups, and defines the approximate timelines and responsibilities for the planned actions. Finally, the document outlines Key Performance Indicators (KPIs) to assess the impact and success of the strategy and planned actions.

One important goal for all ENVRI-FAIR dissemination activities is to test and develop best practices for the joint communications strategy of the ENVRI community. The ENVRI community will continue their cooperation also after the ENVRI-FAIR project. Thus, the developed best practices will be added and implemented at a later step to the joint ENVRI community communications strategy.

This strategy will focus on dissemination of information related to both ENVRI-FAIR project and the wider ENVRI community. It should be noted that main parts of the community development are included in the deliverable D2.2. *ENVRI community building, engagement and communications strategy* which is the next step of the WP2 strategy development outside of the main project communication activities.

Goal of ENVRI-FAIR

The focus of the dissemination strategy comes from the overall vision and aim of ENVRI-FAIR project as well as the ENVRI Strategy for 2030 that is being developed in frame of ENVRIplus project. This central aim is at the core of all ENVRI-FAIR outreach activities. As the ENVRI community will continue its cooperation after ENVRI-FAIR project, it is important to keep in mind also the overall vision of the community.

ENVRI-FAIR project in a nutshell

ENVRI-FAIR is an abbreviation from *ENVironmental Research Infrastructures building FAIR services Accessible for society, Innovation and Research.* It is a project for developing interoperable data services for the research infrastructures, which follow developed common community standards, policies, and interfaces, creating a backbone for the environmental research data for EOSC.

Central aim of ENVRI-FAIR

After the ENVRI-FAIR project, all participating research infrastructures have built a set of FAIR (findable, accessible, interoperable, reusable) data services. These services will be further connected to EOSC. All RIs will prepare services matching their operations and maturity.

The project will define joint policies and standards for all steps of the data life cycle. Policies will be in line with the wider European policies and ongoing international policy developments. The work is conducted by implementation of prototypes that test the pre-production services of each RI.

Central vision of ENVRI community:

ENVRI community – Studying the environment today to tackle the challenges of tomorrow – *the Earth is our lab*

Our capacity to understand the Planet Earth as a unified system is predicated on our capability to observe, describe and model its various components and their interactions in a systematic way. Only by continuously learning more about our Earth can we hope to be prepared for predicting the effects a changing planet may bring - Planet Earth is the laboratory of Environmental Sciences.

Environmental RIs provide key tools and instruments for the researchers to address specific challenges within their own scientific fields. However, to tackle the grand challenges facing human society (for example climate change, extreme events, loss of biodiversity, etc.), scientific collaboration across the traditional fields is necessary. The Earth system is highly interlinked and *the area of focus for environmental research is therefore our whole planet.*

Objectives

The dissemination activities described in this document have the following specific objectives:

- Support the overall goal of the ENVRI-FAIR project;
- Manage the information flow between ENVRI-FAIR and the wider community and vice versa;
- Increased awareness of the ENVRI-FAIR and its activities, outcomes and relevance across a range of current and future users of environmental RIs and key stakeholders;
- Support the visibility of the ENVRI community and its communications towards EOSC and the projects supporting its development;
- Engage with stakeholders to ensure the products and solutions developed by ENVRI-FAIR continue to be relevant and applicable;
- Support the visibility of the Environmental RI services built in ENVRI-FAIR towards their user groups;
- Assist ENVRI-FAIR and the ENVRI community in communicating joint strategic visions and actions to the national level funding bodies and stakeholders, as well as to European and international strategy and funding bodies;
- Increase the influence of the European environmental RIs in the international Earth system observation landscape (e.g. Belmont Forum, Future Earth, GEO, COPERNICUS, etc.);
- Provide the project partners with the necessary information to perform dissemination and communication activities;
- Identify relevant information and opportunities outside ENVRI-FAIR, and facilitate the uptake of such information by the ENVRI community.

Target Audience

Overview

Different target audiences have varying characteristics and needs. To be effective, it is important to know precisely whom we need to address, and develop tailored messages for each group. The following groups of stakeholders were identified as the target audiences for the ENVRI-FAIR dissemination and communication activities. Each audience is described in detail below:

- ENVRI-FAIR partners
- ENVRI community
- Earth system science community
- EOSC development groups and projects
- FAIR data communities and projects
- Policy/Decision makers
- Research funding bodies
- Industry partners
- Public
- Press and Media

The focus of the dissemination and communication activities for each of the target audiences differs but there are also common elements. It is important to promote the system level approach in Earth sciences (See the ENVRI community vision), which is necessary for common strategic, long-term planning within the ENVRI community, to all of the target audiences.

The main goal of ENVRI-FAIR is to provide solutions that are applicable and suitable for the relevant stakeholder groups. Engagement of stakeholders at all levels is therefore crucial to raise the awareness

of the project and its products and solutions. Many partners within the ENVRI-FAIR consortium have contacts in these groups and the consortium as a whole has a responsibility to disseminate and promote the aims, objectives and outcomes of the ENVRI-FAIR project as widely as possible throughout their own networks. In the same time, they should communicate the usability of the latest developments in the project within their wider network and inside their research infrastructure.

In addition, there are a range of focused dissemination and promotion activities, which are designed to engage with the specific target audiences, which are identified below.

ENVRI-FAIR Partners

ENVRI-FAIR project partners are an important internal stakeholder group for the project. This group includes all the ENVRI-FAIR partner organizations, in total 37 partners. The ENVRI-FAIR dissemination activities will exploit the project partners' existing networks. Hence the dissemination strategy for this group is largely focused on the provision of all the information and resources necessary for the project partners to promote ENVRI-FAIR and its outcomes, and communicate the joint strategic visions to the wider community.

All partners are requested to participate in dissemination activities, for example, by making presentations at conferences and seminars (see section below), publishing articles in journals, using local communication channels, e.g. organizational websites or social media presence, to promote the project and its outcomes. WP2 supports this by providing ready materials such as templates and ready social media posts for the partners.

Partners are also encouraged to propose new dissemination activities and highlight potential opportunities to promote the ENVRI-FAIR project.

ENVRI Community

This dissemination strategy seeks to further engage, integrate and develop the ENVRI community. It also defines the role that this group continues to play in serving as a dissemination channel for raising awareness and promoting the ENVRI-FAIR project in the wider community.

The wider ENVRI community includes all current and future European environmental RIs, projects and networks in the field of environmental sciences (e.g. new RIs supported by H2020 Integrating Activity (IA) calls and new RIs added via the ESFRI roadmap update process).

The e-infrastructures also form part of this community and it is important to interact with them to ensure we share the same vision of EOSC and interoperable environmental services, and to support them to understand the challenges and requirements for the ENVRI community.

To ensure that ENVRI-FAIR is serving the entire ENVRI community, a dedicated virtual ENVRI Community Platform (*envri.eu* website) was launched in May 2016.

Another important aspect of the ENVRI community engagement is the collaboration with communication managers working in the different research infrastructures. They need to be aware and understand what ENVRI-FAIR offers, in order to share that information within their own RI communities. This contributes to an easier implementation of ENVRI-FAIR products and services inside the RI.

It is again important to mention D2.2 that will provide a joint communications strategy for all the environmental RIs. The main goal of such strategy is the promotion of the ENVRI community, but will also provide a visibility for its supporting projects such as ENVRI-FAIR.

Earth System Science Community

All of the Earth System Science domains (Atmospheric, Marine, Biodiversity /Ecosystem and Solid Earth) work together in the ENVRI-FAIR project. This allows the project to capitalize on the progress that is being made in the various disciplines, and also strengthen interoperability amongst the participating RIs and domains.

The dissemination activities at this level focus on promoting and supporting cooperation and collaboration among the different Earth system domains.

The Earth System Science community also includes the scientific community in general as well as other relevant projects and initiatives that ENVRI-FAIR seeks to liaise with in order to coordinate activities, develop coherent transdisciplinary activities and share common visions. The initiatives already identified include:

European Level
- ESFRI
- H2020 projects (e.g. other RI clusters, RI-VIS[2], RISCAPE etc.)
- Copernicus
- European Space Agency
- European Environmental Agency
- Joint Programming Initiatives (JPI Climate, JPI Oceans, FACCE JPI etc.)
- National and regional funding agencies

Global level
- GEO
- Other RIs outside the European continent (e.g. NEON, IRIS, TERN, etc.),

Other forthcoming initiatives and projects
- New H2020 projects e.g. Network for the industry liaisons and community officers, new design studies and integrated activities

ENVRI-FAIR will continue to engage with these and other relevant groups and initiatives to avoid overlap, promote the project outcomes, and ensure that its products and solutions are beneficial throughout the entire Earth system data and science landscape.

Tasks 2.2 and 2.4 will support the engagement of the Earth System Science Community through the organization of open community meetings and organization of ENVRI-FAIR service promotion to scientific communities at different events.

This task will also directly support the activities in WP3, specifically in Task 3.3 that organizes ENVRI-FAIR liaison with international stakeholders.

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[2] RI-VIS, *Expanding research infrastructure visibility to strengthen strategic partnerships*, is a H2020 project coordinated by INSTRUCT ERIC.

EOSC Development Groups and Projects

EOSC-hub (-2020)	The EOSC-hub aims to contribute to the EOSC implementation by enabling seamless and open access to a system of research data and services provided across nations and multiple disciplines. The project will offer these resources via the Hub – an integration and management system of the European Open Science Cloud, acting as a European-level entry point for all stakeholders.	**https://www.eosc-hub.eu/**
EOSC Pilot (ended 2019)	The EOSCpilot project supports the first phase in the development of the European Open Science Cloud (EOSC). It will: • Propose and trial the governance framework for the EOSC and contri-bute to the development of European open science policy and best practice; • Develop a number of demonstrators functioning as high-profile pilots that integrate services and infrastructures to show interoperability and its bene-fits in a number of scientific domains; • Engage with a broad range of stakeholders, crossing borders and communities, to build the trust and skills required for adoption of an open approach to scientific research.	**https://eoscpilot.eu**
EOSCsecreteriat (-2021)	EOSCsecretariat.eu addresses the need for the set-up of an operational framework supporting the overall governance of the European Open Science Cloud (EOSC).	**https://www.eoscsecretariat.eu/**
eInfraCentral (-2019)	e-Infrastructures address the needs of European researchers for digital services in terms of networking, computing and data management by fostering the emergence of Open Science. In the context of the European open science agenda there is a need to capitalise on past e-infrastructure investments and develop an e-infrastructure commons (shared commonly and freely available set of base services).	**www.einfracentral.eu**
FREYA (-2019)	The project aims to extend the infrastructure for persistent identifiers (PIDs) as a core component of open research, in the EU and globally. FREYA will improve discovery, navigation, retrieval, and access to research resources. New provenance services will enable researchers to better evaluate data and make the scientific record more complete, reliable, and traceable.	**www.project-freya.eu**
OCRE (-2020)	Open Clouds for Research Environments (OCRE) gives the European research community access to commercial digital services (IaaS, SaaS and PaaS cloud services), as well as Earth Observation (EO) services.	**www.ocre-project.eu**

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FAIR Data Communities and Projects

ENVRI-FAIR has the (sub)objective to create European standards and best practices for FAIR environmental data services. These are not only developed in Europe, and not only in the environmental sciences. The challenges are global and interdisciplinary, and answering them needs interoperability across borders and scientific disciplines. That is why it is necessary to engage these groups and keep dialogue with them about the (future) developments.

European level
- FAIRsFAIR

Global level
- Enabling FAIR Data
- Research Data Alliance
- ICSU World Data system
- CODATA
- EarthCube
- DataOne

Policy / Decision Makers and Research Funding Bodies

It is important to engage with policy makers and funding agencies in order to potentially attract resources for the ENVRI community and it actions to support the vision outlined in the ENVRI Strategy for 2030. Engaging this group in dialogue about how research-funding and EOSC policies can be adapted to foster the scientific and innovation capabilities of environmental RIs is also useful for the ENVRI-FAIR project and its future sustainability.

The activities in ENVRI-FAIR WP3 (Strategy for alignment with national and international stakeholders, community development and innovation activities, specifically Task 3.1 organizing BEERI and connecting the cluster with the national stakeholders) is also of direct relevance to this user group. The outcomes of the BEERi are pertinent to this audience and should therefore be clearly communicated as part of the ENVRI-FAIR dissemination strategy.

Industry Partners

One of the goals of ENVRI-FAIR is to foster the innovation potential of research infrastructures. In more detail, WP2 will directly support the objective of Task 3.4, which is to spur innovation by strengthening ENVRI innovation-related cooperation with industry in the development of key RI data services areas- products, technologies and training.

General Public

The general public should be aware of the importance of RIs in the quest to understand the complex Earth system, and their role in addressing the global challenges for society as a whole. The ENVRI-FAIR dissemination activities will thus focus rather on bridging the gap between the general public and the ENVRI community than on communication of the ENVRI-FAIR project activities and outcomes. These activities are focused on raising public awareness of the ENVRI community and its role in a clear, positive and optimistic vision-based manner.

Press and Media

Press and Media represent an important stakeholder group through which we can affect all the other stakeholder groups. In this way it can be considered rather as a channel and medium.

Channels and Tools

How to Reach the Audience

All target audiences have different needs and they are mainly interested in different issues. This is why the methods used for dissemination and communication by the ENVRI-FAIR project will depend on the target audience being addressed.

The appropriate tools and channels will be selected for each dissemination activity individually depending on the information being conveyed, the target audiences and their perceived capabilities.

To support the ENVRI-FAIR dissemination and communications activities, the project has created a visual project identity. This identity includes a logo, colors and fonts and a standard template for example for documents and presentations. The identity is to be used in any communications material of the project. The role of the identity is to build an ENVRI-FAIR brand that is easily related to ENVRI community.
Thus, the visual identity builds on the previous identities of the ENVRI community and its supporting projects. This helps both the community itself and wider audiences to recognize the connection between different projects and strengthen the ENVRI community's identity.

Table 1 provides an initial mapping of the mechanisms that will be used to reach different target audiences. However, due to the rapidly changing nature of communication and the evolving capabilities of both the audiences and technology, decisions regarding the mechanisms for dissemination and promotion are regularly reconsidered based on an evaluation of their effectiveness and the information to be communicated.

All dissemination material includes information on the EU funding mechanism for ENVRI-FAIR by (a) displaying the EU logo and (b) using the following text:
"This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 824068".
When displayed together with another logo, that of the EU has appropriate prominence.

Audience	Why is this audience of importance?	Key message(s) to this audience	Main channel(s)	Responsible for interaction
ENVRI-FAIR partners	Internal key stakeholder	Internal information flow	E-mails, Redmine, Teleconferences, Website	WP1, WP2
ENVRI community	Internal key stakeholder	Internal information flow, reports from the BEERi meetings, promoting the news from the different RIs, informing the entire community about the developments in the project (esp. WP8-WP11)	E-mails, Network of Communications managers from different RIs, BEERi, Newsletters, Website	WP2, WP3
Earth system science community	External key stakeholder	Promoting the ENVRI community, data and services provided by RIs, promoting FAIR data and system approach in the Environmental science	Website, Event organization, Organization of conference booths and conference side events / Townhall meetings, Printed material, Social media	WP2
EOSC Development Groups and Projects	External key stakeholder	Promoting the outcomes of the project, Promoting the role of ENVRI cluster in EOSC, promoting the service catalogue	Printed material, Social media, Participation at the events	WP2 supporting WP3, WP4 and WP5
FAIR data communities	External key stakeholder	Inform about the latest developments in the project,	Website, Social media, newsletter, Participation	WP2 supporting WP3, WP4, WP5

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Audience	Why is this audience of importance?	Key message(s) to this audience	Main channel(s)	Responsible for interaction
and projects		facilitate the discussions on compliance of our FAIR data policies with other international initiatives, promoting the training activities	at the events, Organization of conference booths and conference side events / Townhall meetings, Printed material	and WP6
Policy/decision makers	External key stakeholder	Promoting the ENVRI community, data and services provided by RIs, promoting FAIR data and system approach in the Environmental science, highlighting funding needs	Website, Social media, Printed material, Newsletter	WP2 supporting WP1 and WP3
Industry partners	External Stakeholder	Promote the ENVRI innovation potential and related cooperation with industry, promote RI data services, products, technologies and training	Website, Social media, Printed material, Participation at events, Newsletter	WP2 supporting WP3, WP5 and WP6
General public	External Stakeholder	Raising public awareness of ENVRI community, its RIs, and importance of the system approach in the Environmental science	Website, Social media	WP2
Media	Channel	Using the media as a channel to reach all the other stakeholders	Press release, Social media, Website	WP2

TABLE 1 MAPPING OF MECHANISMS FOR DISSEMINATION ACCORDING TO THE TARGET AUDIENCE

Channels

Website

ENVRI-FAIR will not set up a whole new website. Instead, it builds on and develops the already existing *www.envri.eu* website, which is both cost-wise and wise in a sense that the website already has an established audience and platform. The website is regularly updated to ensure it is relevant and reflects the current progress and activities. The platform also contains links to previous ENVRI (project.envri.eu) projects.

The *www.envri.eu* website is considered to be the main reference point for external communication and the community building platform, and will ideally remain functional beyond the project's lifetime. The platform is also integrated into the Learning platform (https://training.envri.eu) that is already existing, but will be further developed by ENVRI-FAIR WP6.

The Website is home to all ENVRI-FAIR material which is then further distributed to social media channels, newsletters etc.

The project specific www.*envri-fair.eu* website (integrated in the ENVRI website) will only serve as an information source for project related issues and news. Broader community-relevant information, documentation and news will be accessible from envri.eu.

In addition to the external website, the ENVRI-FAIR consortium also uses the Redmine system as its own internal workspace.

Newsletter

A project newsletter will be produced "on-demand", summarizing the updates on relevant project activities, findings and outcomes. The newsletter is disseminated using the ENVRI community mailing list. The mailing list is a valuable tool for dissemination since the list has been growing during the

previous ENVRI community projects (ENVRI and ENVRIplus). This means that the newsletter reaches many people specifically interested in the subject.

The newsletter will be also distributed through the ENVRI community platform and through social media in order to reach an audience as broad as possible. Users can subscribe to the Newsletter on the project website. The service provider for the newsletter is MailChimp, which is a GDPR proof system.

Social media
The ENVRI-FAIR project uses social media as a key element of its outreach and community building strategy. Because of the cluster-like structure of the project, social media offers great opportunities: all content can be re-shared by the project partners and wider community, which ensures that the content spreads as wide as possible.

ENVRI-FAIR does not start new social media accounts, instead it will continue using the already existing accounts from previous ENVRI community projects. The accounts have been renamed to reflect on representing the ENVRI community – which is a much longer-term entity than what a project usually is. It is of further advantage that these accounts already have existing audiences. All social media channels in use have their own good analytics tools, which the project is actively using to monitor the success of the shared content.

Social media channels of ENVRI-FAIR are listed below.

Twitter
ENVRI-FAIR uses Twitter by the name @ENVRIcomm. The account has about 1,100 followers. Twitter is the main account for sharing information on the project actively. There is one named person (WP2 leader) who has the main responsibility to update Twitter, but any WP leader is allowed to use the account. If it is not used directly, it is advised to use the following handle and hashtags: @ENVRIcomm, #ENVRIFAIR #ENVRIsolutions.

Twitter is especially good at reaching other scientists and experts, other projects and decision makers.

twitter.com/ENVRIcomm

LinkedIn
On LinkedIn ENVRI-FAIR admins a group called ENVRI Community. There are about 124 members in the group. Even though the audience is not too big, it allows us to reach people who are not present on Twitter and other social media. The ENVRI-FAIR dissemination activities will focus on growing the number of engaged LinkedIn users.

LinkedIn is especially popular among industry and business people.

www.linkedin.com/groups/8315118/

Facebook
On Facebook ENVRI-FAIR admins a community group called ENVRI Community. The group has about 150 members. Even though the audience is not too big, it allows us to reach people who are not present on Twitter and other social media. The ENVRI-FAIR dissemination activities will focus on growing the number of engaged Facebook users.

www.facebook.com/ENVRIcomm/

YouTube
All video material produced in the project is uploaded to ENVRI Community's YouTube Channel. This gathers all videos in one place and from there they are easily shared to other platforms.

www.youtube.com/channel/UCkeJI2v7MowHZW5g4m5SAqQ

SlideShare
All relevant presentations will be uploaded to SlideShare, where they are easily found at one place. It is also easy to re-share presentation from there and track their analytics.

https://www.slideshare.net/ENVRI-FAIR

Flickr
Project related photos are uploaded to Flickr to ensure they can be found in one place.

https://www.flickr.com/photos/envriplus/albums

Events
Both participating in and organising of the events are a good way of promoting the project and its outcomes.

Participation to events
Members of the ENVRI-FAIR consortium are encouraged to promote the project at various meetings and conferences using materials, such as presentations or brochures that reflect the project identity. Whenever participating to an event, the participant is also encouraged to produce dissemination material, such as Twitter posts or news, from the event.

All partners participating at relevant ENVRI-FAIR events, or those where the project was promoted, are asked to fill in a short on-line report accessible at ENVRI-FAIR internal work space Redmine (see Annex 1).

These reports may be used to develop short news items for the ENVRI-FAIR website. They can also potentially form the basis of an article for the project newsletter to inform partners and the wider ENVRI community about the outreach and networking activities including any possible future impacts (such as possible collaboration, new opportunities for liaison, funding, and new technical developments relevant to ENVRI-FAIR etc.). These reports are also used by WP2 and WP1 for the purposes of monitoring the promotion and dissemination activities carried out by all partners which form part of the periodic review process.

Organization of events
Conferences and special events help to develop project awareness, visibility and image. Workshops and informal meetings also help to establish and enhance partnerships, which can initiate future joint activities and increase or reinforce commitment and support for the ENVRI-FAIR project.

The means for organizing events is described more in detail in the section on Tools.

Scientific journals and other publications
Members of the ENVRI-FAIR consortium are encouraged to publish papers/articles in peer reviewed journals and other suitable publications to disseminate project results as widely as possible. Each beneficiary must ensure open access (free of charge online access for any user, i.e. "Golden model") to all peer-reviewed scientific publications relating to its results, unless special permission to use other publication models ("Green Model") is given by the ENVRI-FAIR Executive Board. In this case:

- a machine-readable electronic copy of the published version or final peer-reviewed manuscript accepted for publication will be deposited in a repository for scientific publications (preferably the ENVRI-FAIR internal work space at https://www.redmine.org/) as soon as possible, and on publication at the latest. The beneficiary must also aim to simultaneously deposit the associated research data needed to validate the results presented in the scientific publication with either the publisher of the manuscript or with an approved repository which will be defined in the ENVRI-FAIR Data Management Plan.
- ensure open access to the deposited publication via the repository at the latest:
  - on publication, if an electronic version is available for free via the publisher, or
  - within six months of publication in any other case;
  - ensure open access to the bibliographic metadata that identify the deposited publication via the repository.

The bibliographic metadata must be in a standard format and must include all of the following information:

- the terms "European Union (EU)" and "Horizon 2020";
- the name of the action, ENVRI-FAIR acronym and grant number;
- the publication date, length of embargo period (if applicable), and a suitable persistent identifier both for the publication and the author.
- ENVRI-FAIR data products are to be published as openly as possible in publicly available data repositories. The data should be citable and well documented, preferably using the data citation and metadata methods developed within the ENVRI-FAIR project, or commonly used by rest of the scientific community at the time of data publication (will be defined in the ENVRI-FAIR Data Management Plan.

Press release

Whenever there is an important statement to be made or development to be promoted within the project, it is important to inform media about it. ENVRI-FAIR may utilize ICOS distribution channel (Meltwater) for the release of the statement to media around the globe. If the statement is relevant on the national level, WP2 will utilize the PR/Communications units or departments in the partners' organizations.

Other channels

Face-to-face conversations, group discussions, e-mail exchanges, internet debates, discussions within the internal project work space on Redmine and other networking activities are also considered very important for the purposes of dissemination and communication as they are very flexible, cost-effective and provide an easy means of gathering input. All ENVRI-FAIR partners are encouraged to engage with these activities to maximize impact and effectiveness and report back to the consortium.

Other channels can also be identified and take into use during the project if it seems relevant.

Tools and Concepts

Here we describe a few key tools and concepts for dissemination and communication. The overall philosophy for the dissemination is that all activities are designed to arouse the interest of the targeted audience or stakeholder and to meet the goals for the activity. This means that all channels and tools are chosen case by case. The aim is to share all produced content in all social media channels and/or newsletters.

Printed and digital materials

A range of printed and digital materials (brochures, booklets, flyers, posters, roll-ups, etc.) that reflects the ENVRI-FAIR identity (see above) will be produced. The content of these resources will be tailored to specific audiences and/or the type of dissemination activity, for example, conference, or exhibition. These dissemination materials will also be updated at regular intervals during the project to include the latest information on progress and achievements.

Besides promoting ENVRI-FAIR, special attention will be paid to promoting the environmental RIs as such. A concrete material that will be developed will be decided once Task 2.3 finalizes the joint Communications plan for the environmental RIs.

News

News will be published at the *www.envri.eu* website. News can be related to upcoming events, trainings, events the project partners have participated in, news on the progress of the project. Each news is shared various times in project's social media channels and newsletter. The aim of news pieces is to arouse and maintain interest in the project and its subjects.

Blog posts

The wide community around ENVRI-FAIR is an excellent source for blog posts. The project will publish a post in every two weeks which makes a total of around 25 blog posts a year. The responsibility for writing posts is divided among project partners and the opportunity to write is also offered to the

wider community. This ensures that the time and other resources related to blog writing are not only on one shoulder.

A common guideline for the blog will be written and shared to writers. A schedule for writers will be agreed at once so everybody knows when it is their time to write a post and they can prepare for it.

The topics of the blog posts can vary and each writer (or writers) can agree a topic themselves. However, some common topics can be agreed to help and facilitate the writing process. For example:
a) What is the most interesting finding/progress so far?
b) Takeaways from a conference/seminar/event/training attended
c) Open data related news

Through the blog the writers and the community can build an expertise reputation on open data and FAIR data issues.

Videos
The WP2 will maintain the ENVRI community channel on YouTube. All the community and project relevant videos (e.g. recordings of events, live streaming, training recordings, etc.) will be shared there.

As mentioned above Task 2.3 is also aiming at developing the joint Communications plan for the environmental RIs. It is envisioned at the moment that developing a video animation representing all the ENVRI community RIs will be included in the plan. The video will most likely show an animated version of the Earth and the role of the RIs in the system. The video will act as a digital, audio-visual business card for the community. It can be shown in different events that the project organizes and in occasions where the community members present the community. It will also be uploaded to the project website as well as shared on social media.

Conference booths
The ENVRI community has good experiences in organizing joint conference booths. This means that in conferences instead of many individual booths for different research infrastructures, the community organizes one big booth. This ensures better visibility, efficient use of costs and ability to demonstrate the multidisciplinary sciences and necessity of the system level approach towards the Earth system.

The WP2 will coordinate an ENVRI-FAIR presence at key conferences (e.g. EGU, AGU, GEO, ICRI, ESA etc.) including organizing an exhibition booth at these events. These joint RI communication activities have already been a part of the proposal. The work will be facilitated by task 2.3.

ENVRI-FAIR will organize a large exhibition booth which aims to showcase both the project and the participating environmental RIs. These joint booths provide better visibility for the component RIs and demonstrate the collaboration among them. The booth is also considered to be a meeting place for the community, encouraging a dialogue and information exchange.

ENVRI-FAIR will organize several different dissemination events including some that are targeted at specific audiences. The events organized by ENVRI-FAIR will be promoted on its website, via social media as well as through other communication channels (e-mail lists, flyers, etc.) and with the help of the community.

ENVRI community meetings
Task 2.2 organizes Open ENVRI community meetings every year. These meetings aim at bringing together the entire ENVRI community, including e.g. H2020 projects supporting the RIs, starting communities supporting the environmental science, RIs outside the Europe, or e-infrastructures. The idea is to involve the relevant players outside the ENVRI-FAIR partnership, engage them in a discussion and disseminate ENVRI-FAIR results to them.

Townhall and side event meetings
Task 2.4 will organize eight sessions in international scientific and environmental (science) policy related conferences to reach out to the scientific user community of ENVRI-FAIR services. The goal of these sessions is to establish a dialogue between the project and the scientific community, disseminating results from the project and its applications in the various scientific domains, but also to collect

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opinions, needs and suggestions on these provided services in ENVRI-FAIR. The main conferences considered are: EGU (European Geoscience Union General Assembly), AGU (American Geophysical Union meeting), the GEO plenaries, RDA plenaries (Research Data Alliance) as well as domain specific major scientific conferences.

WP2 colleagues have gathered an experience of organizing such events during the ENVRIplus project and they proofed to be a very efficient concept for reaching out towards different stakeholder groups.

Dissemination event

The preceding project of ENVRI-FAIR, ENVRIplus organized a final dissemination event in June 2019. The event has acted as a pilot. The aim of the event was to disseminate the end results of ENVRIplus, promote the ENVRI Community and interact with key stakeholders for the community.

The event was a one-day interactive event combining talks, panel discussions, and science market format – all discussing the European environmental RIs and the results of their joint collaboration.

The event and its organization will be evaluated so that the concept can be further developed and implemented also for ENVRI-FAIR.

Network of communications managers

In order to better disseminate the ENVRI-FAIR results, WP2 will keep organizing so called "Network of Communications Managers" and if possible resource-wise, organize workshops for this network. The idea of these workshops is to bring together Communication managers/officers from all the Environmental RIs – to discuss, share the best practices and learn from each other how we could improve RI dissemination practices. In the same time, the focus is on informing the communication practitioners about the tools, services and products developed by ENVRI-FAIR. The communications managers are well positioned to inform their own RI communities about the results of ENVRI-FAIR, and thus, they can actively help to implement the project's solutions within their own RIs. The communication managers from different RIs will also contribute to development of Joint communications strategy for environmental RIs facilitated by Task 2.3.

Content of the Information to be Communicated and Disseminated

The content of the information to be disseminated and communicated will be determined by the information needs of the individual target audiences. During the first phase of the project, before the outcomes and products of the project are delivered, the focus will primarily be on enhancing the visibility of ENVRI-FAIR and its mission (recognition, branding, visibility), and further developing the ENVRI community. Content will be timely, user-oriented, tailored to the needs of different audiences and balanced in terms of resources, specific themes and domains.

In the initial phase of the project the content has largely focused on highlighting the mission and the strategy of ENVRI-FAIR project, presenting project's structure, promotion of the website and ENVRI community website, promotion of the relevant events and organization of the ENVRI-FAIR and ENVRI community presence at different events and conferences and last but not least, Information related to latest developments in FAIR data and connection to EOSC.

Once the ENVRI-FAIR project progresses and the outcomes will become available, the dissemination and communications activities will increasingly focus on promoting the ENVRI-FAIR findings, products, catalogues and trainings.

Work Plan

Responsibilities

The dissemination and communication for ENVRI-FAIR is managed by WP2 "ENVRI-FAIR communications strategies and tools". This WP is also responsible for providing the strategy for engagement with current and potential ENVRI-FAIR stakeholders both within the cluster of environmental RIs and across the wider community. It should be noted that WP2 needs to work closely with all ENVRI-FAIR WPs. WP2 is led by partner ICOS ERIC (Task leader 2.1, 2.2 and 2.3.), together with collaborators from UKRI (Task contributor to 2.3) and UvA (Task leader of 2.4).

All tasks will be carried throughout the entire lifetime of the project.

Deliverables and Milestones

All the responsibilities for Task 2.1, 2.2 and 2.3 lay with ICOS ERIC, with UKRI mostly supporting the organization of the ENVRI community booths at different events. UvA is responsible for task 2.4 with the support of ICOS ERIC.

WP 2 will very closely cooperate with the WP1 (Project Management) to support the internal communication within the project and to bring up the information that is relevant more broadly also to the external audience.

Delive-rable number	Deliverable title	Description	Due date	Responsible organization
D2.1	Dissemination strategy for ENVRI-FAIR project	The report will provide the ENVRI-FAIR dissemination strategy as the basis for WP2 dissemination activities	M4	ICOS ERIC
D2.2	ENVRI community building, engagement and communications strategy	The report will provide the ENVRI community building, engagement and communi-cations strategy as the basis for respective WP2 activities.	M10	ICOS ERIC
D2.3	Summary report on landscape mapping and ENVRI community meetings	The report will summarise the results of the landscape mapping and of ENVRI community meetings held during the course of ENVRI-FAIR.	M42	ICOS ERIC
D2.4	Report on science community sessions promoting ENVRI-FAIR	The report will summarise the activities on science community sessions promoting ENVRI-FAIR and respective outcomes.	M44	UvA
MS1	ENVRI-FAIR website launched and first set of communications materials available		M3	ICOS ERIC
MS2	Agenda and material for the first ENVRI community meeting developed		M10	ICOS ERIC
MS3	First joint ENVRI community exhibition booth organized		M12	ICOS ERIC
MS4	First science community session promoting ENVRIFAIR organized		M12	UvA

TABLE 2 DELIVERABLES AND MILESTONES

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Monitoring and Performance Measures

Dissemination activities are a fixed agenda item for Executive Board (EB) and General Assembly (GA) meetings to allow all partners to provide input on:
- The efficiency of the dissemination activities
- Identification of opportunities for dissemination activities (e.g. forthcoming events, calls for papers, etc.)

The leader of WP2, in consultation with the contributing partners, is responsible for developing an activity report, which will be reviewed by the ENVRI-FAIR EB and the GA. The reviewers will assess and give their feedback including:
- Information delivered and visual appeal of the ENVRI-FAIR /ENVRI community website
- Activity and effectiveness of the ENVRI-FAIR presence on social media
- Effectiveness of engagement with new stakeholders
- Visibility of ENVRI-FAIR beyond the project consortium
- Quality, content and effectiveness of the printed dissemination material

The EB and GA will also be asked to provide recommendations on:
- How to improve the impact of dissemination activities?
- Which actions need to be taken in order to enhance the dissemination activities?
- Where to put increased/decreased effort?

Monitoring

In order to evaluate the impact of the dissemination and outreach activities outlined in this strategy, there is a need to establish regular monitoring of the various channels used for these purposes. The evaluation gives valuable information on activities and their effectiveness, which also helps to update the dissemination plan if needed. Task 2.1 will collate a report of these activities that will be evaluated by EB and GA, and also used as the basis for a contribution to the periodic report to the EU.

The EB and GA will assess the success of the dissemination and communication activities based on:
- Website - website traffic, number of page views, document downloads, comments received, page shared on social media, feedback;
- Newsletter – number of subscribers, number of opens and clicks;
- Social media: engagement measures (number of tweets, posts, likes, members, comments, amount of followers, most popular posts, biggest influencers of the followers);
- Video: Number of views;
- Printed material (number of brochures, flyers and posters distributed, number of events where they were presented);
- Journal Articles and other publications – number of articles published, number of downloads;
- Press releases – number of press releases sent out;
- Events organized by ENVRI-FAIR - number of events organized, number of participants, range of target groups;
- Events attended by ENVRI-FAIR partners or where ENVRI-FAIR was presented – number of events attended, number of abstracts submitted, number of short reports submitted by ENVRI-FAIR partners;
- Stakeholders feedback.

Performance Measures

Specific targets (KPIs) for the dissemination activities will be used as a metric to assess the effectiveness and impact of the various dissemination activities. These KPIs will also be used as a metric for identifying any modification to existing activities or additional ones that may be necessary as the project progresses. They have been built based on the experience and knowledge gathered from the previous ENVRI community supporting projects.

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KPI No.	Activity/ channel	Description	Target	Target audience	Time Scale
1.	Website	Number of page views	3.500 views	All stakeholders	Per month / on average
2.	Website	Number of page views	80.000 views	All stakeholders	The entire project life span
3.	Website	Number of unique visitors	800 visitors	All stakeholders	Per month / on average
4.	Website	Number of unique visitors	25.000 visitors	All stakeholders	By the end of the project
5.	Social media (Twitter)	Number of followers	2.000 followers	Science community Policy makers Decision makers Research funding bodies Other projects and initiatives	By the end of the project
6.	Social media (Twitter)	Number of new followers	20 new followers	Science community Policy makers Decision makers Research funding bodies Other projects and initiatives	Per month
7.	Social media (Twitter)	Number of impressions	15.000 impressions	Science community Policy makers Decision makers Research funding bodies Other projects and initiatives	Per month
8.	Printed media (brochures)	Number distributed	600	All stakeholders	Per year
9.	Newsletters	Number issued	500	All stakeholders	Per issue
10.	Joint ENVRI community booth	Number of attendees (Actively engaged)	800	Science community/ ENVRI community/ Other projects and initiatives	EGU2020

TABLE 3 KEY PERFORMANCE INDICATORS

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Appendices

Appendix 1 – Report on Communication Actions

REPORT ON COMMUNICATIONS ACTIONS

Partner/Beneficiary	
Title	
Author(s)	
Presenter(s)	
Description/Abstract	
Activity type	Conference participation Conference paper Poster Social media (LinkedIn, Facebook, etc.) Presentation Articles published in the popular press other
Title	
Event / source name	
Target group	• Earth system science community • EOSC development groups and projects • FAIR data communities and projects • Policy/Decision makers • Research funding bodies • Industry partners • Public • Press and Media
Size of audience	
Date/period	
Venue/Place	
Link/source	include a weblink if available
Pictures	include a picture, screenshot if available
Countries addressed	
Language	
Status	(accepted, submitted, published, pending, etc.)
Comments	Add some remarks on particularly interesting contents, new connections, strategic or technical/ scientific importance of the meeting, what information has been obtained that can be useful for the ENVRI-FAIR partners, etc.

Appendix 2 - List of Acronyms

BEERi   Board of European Environmental Research Infrastructures - is an internal advisory board representing the needs of environmental Research Infrastructures

CA   Consortium Agreement - Legal contract between the ENVRI-FAIR beneficiaries

DL   Deliverable / Deadline

DMP   Data Management Plan

DMT   Data Management Team

DoA   Description of Action

DPO   Data Protection Officer

EB   Executive Board - supervisory body for the execution of the Project

EC   European Commission - is the executive body of the European Union responsible for proposing legislation, implementing decisions, upholding the EU treaties and managing the day-to-day business of the EU

ESFRI   European Strategy Forum on Research Infrastructures

GA   (1) Grant Agreement - Contract between Coordinator and Commission

           (2) General Assembly - GA is the ultimate decision-making body of the consortium

GDPR   General Data Protection Regulation

JSC   Juelich Supercomputing Centre

KPI   Key Performance Indicator

PM   Person Month

PMT   Project Management Team

POPD   Protection of Personal Data

PWG   Policy Working Group

RI   Research Infrastructure

ToR   Terms of Reference

WP   Work Package