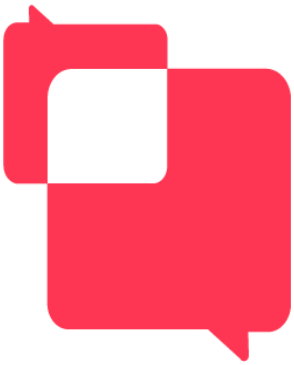


ROSiE

Disclaimer: This deliverable has not yet been reviewed by the European Commission. Its content might therefore change as a result of the view process.

D4.2: Horizontal Coordination and cross-SwafS Stakeholder Forum Report

Authors: Francois Jost, Paul Sorrell

Editor:

Responsible Open Science in Europe

ROSiE

Grant Agreement no.: 101006430
Lead contractor for this deliverable: ECSA

This project has received funding from the European Union's Horizon 2020 research and innovation programme under GA No 101006430

Deliverable factsheet:

Project Number:	101006430
Project Acronym:	ROSiE
Project Title:	Responsible Open Science in Europe
Title of Deliverable:	Horizontal Coordination and cross-SwafS Stakeholder Forum Report
Work Package:	WP 4
Due date according to contract:	28 February 2024
Editor(s):	
Contributor(s):	Francois Jost, Paul Sorrell
Reviewer(s):	Lisa Häberlein
Approved by	Rosemarie Bernabe

ABSTRACT:	This report provides an overview of the Horizontal Coordination and cross-SwafS Stakeholder Forum creation and their subsequent sessions conducted within the framework of the ROSIE project. The Cross-SwafS Stakeholder Forum for Responsible Open Science served as a platform for collaboration among stakeholders from various EU-funded projects. The goal was to broaden participation across the SwafS program by inviting Citizen Science, Open Science (OS), and Responsible Research and Innovation (RRI) practitioners interested in their intersection to join the cross-SwafS Stakeholder Forum for Responsible OS. Through periodic sessions of this forum, the ROSiE project aimed to foster knowledge sharing, address challenges, and enhance understanding of Research Ethics and Research Integrity (RE/RI) in open science and further.
Keyword List:	open science, responsible research and innovation (RRI), citizen science, SwafS, research ethics, research integrity.

This project has received funding from the European Union's Horizon 2020 research and innovation programme under GA No 101006430

This project has received funding from the European Union's Horizon 2020 research and innovation programme under GA No 101006430

Revision history:

VERSION	DATE	Revised by	Reason
0.1	08 February 2024	Paul Sorrell	Internal review
1.0	23 February 2024	Lisa Häberlein	Revision after review

This project has received funding from the European Union's Horizon 2020 research and innovation programme under GA No 101006430

Table of contents

1 The cross-Swafs stakeholder forum sessions for Responsible Open Science 6

1.1 What is the cross-Swafs stakeholder forum for Responsible Open Science 6

1.2 Main objectives of the cross-Swafs stakeholder forum periodic sessions for Responsible Open Science 7

1.3 Structure of the cross-Swafs stakeholder forum periodic sessions 7

- Kick-off meeting – Strategic development 7

1.4 Cross-Swafs stakeholder projects profiles 8

- Projects' thematic priorities 17

2 Results of the Cross-Swafs Stakeholder Forum sessions for Responsible Open Science 20

2.1 1st session – "Identification and selection of topic ideas for the upcoming sessions" – 2 December 2021 20

2.2 2nd session - "What would be the optimal structure of the ROSiE Knowledge Hub?" – ROSiE – 3 February 2022 23

2.3 3rd session - "Exploration of how to systematically merge RRI and crowdsourcing" – JoinUs4Heath – 7 April 2022 25

2.4 4th session - "Regulatory, RE and RI frameworks regarding new technologies: lessons learned from the HYBRIDA mapping" – HYBRIDA – 2 June 2022.....27

2.5 5th session - "Unavoidably implicated: researchers' role in projects promoting 'better science.' (relationship between idea and action in RRI)" – SUPER MoRRI – 1 December 2022.....27

2.6 6th session - "Difficulties in the implementation of an ethical governance system" – ETHNA Systems – 2 February 2023.....29

2.7 7th session – "Vera Platform" – COESO – 6 April 2023.....32

3 Conclusions and lessons learned 33

This project has received funding from the European Union's Horizon 2020 research and innovation programme under GA No 101006430

1 The cross-Swafs stakeholder forum sessions for Responsible Open Science

In this section we will explain what the Cross-Swafs stakeholder forum for Responsible Open Science is, what the main objectives of the periodic sessions and its structure are and finally we will provide together with the description of the stakeholder projects a list of resources each of them shared with us along the sessions.

1.1 What is the cross-Swafs stakeholder forum for Responsible Open Science

The cross-SwafS stakeholder forum for Responsible Open Science is a network of relevant EU funded networks and research projects from SwafS-16-Ethics of Innovation, SwafS-05-Grounding RRI practices, SwafS-16-Ethics of Innovation, SwafS-23-Grounding RRI in society with a focus on citizen science, SwafS-29-Ethics of technologies, among others. In short, it is a stakeholder forum of fellow »open science«, »responsible research and innovation« and »citizen science« practitioners within the Science with and for Society (SwafS) program invited with the overall aim of sharing knowledge and experience, discussing challenges and opportunities, and strengthening the knowledge base about research ethics and research integrity in open science. The forum started in September 2021 with the kick-off-meeting and had seven additional sessions with the last event taking place in April 2023. Besides ROSiE, a total of 18 projects were involved in the forum. The richness and diversity of these EU projects (main focus and objectives) played an important role for the ROSiE project and the other participant projects by providing up-to-date activities and resources relevant to many as well as multi-faceted perspectives and contributions including feedback on the main topics presented during the different sessions. As described in more detail below, these sessions were beneficial to ROSiE in prticular to the WP1 (informing the conceptual framework developed), the WP2 (mapping excercise), and the WP6 and WP8 (Knowledge Hub and overall dissemination of ROSiE's activities and outputs).

This project has received funding from the European Union's Horizon 2020 research and innovation programme under GA No 101006430

1.2 Main objectives of the cross-Swafs stakeholder forum periodic sessions for Responsible Open Science

The overarching objective was to consolidate the knowledge and findings emerging from various SwafS programs, as well as integrating outputs from pertinent EU-funded research projects into ROSiE's project including the mapping exercise and framework development. The idea behind this, was to make use of the diverse projects participating in the forum to support in having (a) a more comprehensive mapping of social and legal implications and challenges related to Open Science for the elaboration of recommendations for addressing social and legal challenges related to OS (D2.3 in WP2, mainly in the recommendations "Addressing social issues"), and (b) a more comprehensive mapping of challenges for the elaboration of the conceptual and normative framework for tackling the ethical, epistemic, disciplinary and RI-related challenges of advancing OS (D1.3 in WP1, mainly in the ethical and research integrity challenges related to citizen science for example).

Therefore, a new forum was established to facilitate the convergence of the Citizen Science, Open Science (OS), and Responsible Research and Innovation (RRI) communities. This space served as a platform for sharing knowledge, exchanging experiences, and addressing challenges and opportunities related to Responsible Research and Innovation in Open Science and beyond.

1.3 Structure of the cross-Swafs stakeholder forum periodic sessions

○ Kick-off meeting – Strategic development

The Kick-off Meeting (KoM) took place on September 30, 2021 with fifteen projects being represented by a total of twenty-two participants. The aim of the KoM was to (1) connect with relevant projects; (2) identify existing spaces for communication and exchange among projects in the areas of interest; (3) reflect on how such spaces could be supported, enhanced, or new ones could be put in place.

First a welcoming and introduction took place by the ROSiE project coordinator Rosemarie de la Cruz Bernabe. Afterwards every project had the chance to introduce themselves, mention the start/end date of the project, their goals, milestones achieved, as well as current main activities they are engaged with and the outputs available for dissemination.

This project has received funding from the European Union's Horizon 2020 research and innovation programme under GA No 101006430

Thereafter, the joint forum was introduced, and its expectations were outlined. Participants disussed its content as well as organization and structure. Based on the participants interest, it was agreed that the Forum would meet every other month, replacing the previous two workshops with bi-monthly periodic online sessions. The structure of these sessions would include a brief recap of the previous session, updates on projects, thematic discussion, and opportunities for members to present and discuss specific topics of interest. This adjustment benefited ROSiE by enabling more frequent interaction with the Community of Practice (CoP) members, providing feedback at various stages of research, strengthening ROSiE's presence and disseminating outcomes effectively, and fostering greater engagement among members, thus sustaining their participation in the project.

1.4 Cross-Swafs stakeholder projects profiles

A general description of each stakeholder project is provided together with the different resources they shared during the different periodic forum stakeholder sessions. Details on the projects' duration, objectives, their activities together with additional information as to how the projects relate to ROSiE's horizontal coordination activities, by engaging in regular exchange with other research ethics and research integrity projects are available in the following link.

Moreover, in order to better identify in which areas these projects could contribute to ROSiE's outcomes, an overview of their thematic priorities (described by themselves during the 1st stakeholder forum session) is provided in the figures below the projects' general descrption.

CO-CHANGE

Co-Create Change in Research Funding and Performing (CO-CHANGE) project is aimed at building transformative capacity and leadership for RRI through systemic change coalitions around different change labs, that will initiate and implement institutional changes. Seven change labs will co-create and test RRI related practices for institutional change in research funding and performing organisations, allowing the project to co-create and test RRI related practices and in the selected organisations and their ecosystems. (on Stocktaking exercise) In order to achieve this aim, first step is to identify the most important inroads for change by building on previous RRI projects and literature and through connecting with pioneers in the field as a baseline for activities. For this purpose, the aim of this task is to create a robust experience based and conceptual framework for the project. This exercise of collection, analysis and synthesis of data will contribute to the building up of the theoretical and practical understanding of the Co-Change project.

This project has received funding from the European Union's Horizon 2020 research and innovation programme under GA No 101006430

COESO

COESO's vision is to overcome the obstacles that hinder the development of citizen science in the social sciences and humanities. COESO aims to develop and sustain CS research in the SSH. COESO's mission is to enable strong growth of CS projects in the SSH and to support participatory research through a service-first approach. COESO addresses these challenges by building a comprehensive framework that:

-hosts CS pilots reflecting the variety of CS practices in the SSH; supports them with collaborative tools through a specific virtual ecosystem; targets the funding streams needed; provides support and training; produces knowledge on CS co-creation practices in the SSH through a rigorous assessment protocol on collaboration challenges in the pilots.

Project resources:

- VERA platform: https://vera.operas-eu.org/en/home
- Policy Brief 1 - Fostering funding for citizen science in the social sciences and humanities (COESO D.1.4): https://zenodo.org/records/6794982#.Y0fBdOxBzFo

ETHNA System

The project "Ethics Governance System for RRI in Higher Education, Funding and Research Centres", ETHNA System in short, intends to develop and apply an ethics governance system for the use of RRI in higher education, funding and research centres (HEFRCs). The system is composed of an ETHNA office and four tools and work methodologies for RRI: ethical code, ethics committee, ethical hotline and process indicators to report.

The ETHNA System will implement and validate an ethics governance system by integrating an ETHNA office into the management of six organisations from the consortium from Spain, Norway, Estonia, Bulgaria, Austria and Portugal. The purpose is to develop a governance structure that is sustainable over time and can be transferred to other centres, favouring a more responsible research and innovation based on engagement with citizens and society.

Project resources:

- Final ETHNA System Guide: https://ethnasystem.eu/wp-content/uploads/2023/03/D6.2_ETHNA_2023_komplett.pdf
- Report on the ETHNA System Implementation Analysis: https://ethnasystem.eu/wp-content/uploads/2023/01/5.4-Report-on-the-ETHNA-System-Implementation-Analysis-final_181222.pdf

This project has received funding from the European Union's Horizon 2020 research and innovation programme under GA No 101006430

- Report on the difficulties found in the implementation processes: https://ethnasystem.eu/wp-content/uploads/2023/01/5.5-Report-collecting-the-difficulties-found-in-the-implementation-processes-final_181222.pdf
- ETHNA System Implementation Co-design Requirements Guiding Paper – The ETHNA Lab: https://ethnasystem.eu/wp-content/uploads/2022/05/D5.3_ETHNA_lab-method-guide.pdf
- A Guide to the Ethical Governance of RRI in Innovation and Research in Research Performing Organisations and Research Funding Organisations. ETHNA System Project: https://zenodo.org/records/6532789
- Mapping stakeholders and scoping involvement – a guide for HEFRCs: https://ethnasystem.eu/wp-content/uploads/2021/10/ETHNA_2021_d3.1-stakeholdermapping_2110011.pdf
- Stakeholder involvement in ethical governance of R&I – a guide for HEFRCs: https://ethnasystem.eu/wp-content/uploads/2021/11/ethna-d3.3-stakeholder-engagement-guide.pdf
- Gauging the potential societal contributions of research and innovation: https://ethnasystem.eu/wp-content/uploads/2021/12/ETHNA_2021_Guide_3.2-gauging-contributions_final.pdf

GRACE

GRACE project develops a set of specific grounding actions in six RPFOs that will be

the basis for the development of these organization for the next 8 years.

Aim is to produce a set of clearly identifiable institutional arrangements which are built on RFPO's (implementing partner) needs, expectations and specific characteristics.

GRACE further aims to capitalise on the existing knowledge on RRI implementation via co-creation and mutual-learning processes provided by expert partners. For each RFPO, the Grounding Actions (GAs) will be incorporated in an 8-year long "Roadmap towards RRI" to set a solid platform for attaining further institutional changes during the 'after GRACE' 5 year of the roadmap.

Project resources:

- Mutual Learning Plan: http://grace-rri.eu/wp-content/uploads/2019/12/GRACE_D3.1_-Mutual-Learning-Plan.pdf

GRRIP

This project has received funding from the European Union's Horizon 2020 research and innovation programme under GA No 101006430

GRRIP projects´ objective is to embed sustainable RRI practices in 4 research performing organisations (RPO) and 1 dual function RPO and research funding organisation (RPO/RFO) (total 5 RPO&RFO) in the Marine and Maritime (M&M) through Action Plans (AP) for institutional and cultural change. This will be accompanied by establishing a platform for engagement with the Quadruple Helix

(QH) for each RPO&RFO, and a platform for mutual learning between the 5

RPO&RFOs and QHs. The second objective is to examine how funding bodies can positively influence and encourage academia towards Responsible Research & Innovation via its funding policies and interaction (cordis).

Project resources:

- GRRIP Action Plan: https://grrip.eu/grrip-action-plan-launch-video/

HYBRIDA

The main objective is to develop a comprehensive regulatory framework for organoid research and organoid-related technologies. The project aims to address how the conceptual, epistemological and regulatory uncertainties arise in organoid research, and to develop a conceptual and regulatory framework able to overcome the 'persons vs things' dualism. From this follows also the need to communicate the potential and possible pitfalls of organoid research in ways that convey realistic- instead of hyped scenarios.

Project resources:

- Operational guidelines for the field of organoids and organoid-related technologies: https://hybrida-project.eu/wp-content/uploads/2023/01/D5.1-Operational-guidelines.pdf
- Report on the expert interviews and co-creation workshops: https://hybrida-project.eu/wp-content/uploads/2023/05/D4.4.-Report-on-the-expert-interviews-and-co-creation-workshops_Final-version.pdf

INCENTIVE

It aims to demonstrate the potential of CS through the co-creation, establishment and assessment of CS Hubs (CSH) in 4 European Universities. By doing so, the project will accelerate the transition of these institutions to more inclusive, open and democratic innovation and scientific governance, under the principles of Responsible Research and Innovation. Moreover, the project seeks to deliver a legacy to European and international research institutes on how to create and operate their own CSH with the aim to secure a

This project has received funding from the European Union's Horizon 2020 research and innovation programme under GA No 101006430

democratic and collaborative way of designing, implementing and monitoring scientific progress and technological growth.

INTEGRITY

INTEGRITY seeks to empower students for Responsible Research Conduct (RCR) through evidence-based, scaffolded learning. INTEGRITY is a consortium of 11 European partners.

INTEGRITY will combine high quality training in research integrity with innovative modes of engagement in order to bring ethics alive, thereby equipping the next generation of researchers with the capabilities to conduct research in a responsible manner and to address new and unforeseen research challenges.

JoinUs4Health

We pursue our mission to engage study participants, citizens and other social groups from different countries in health research. Thereby we want to achieve an integrative way of innovation and citizen engagement in cohort research. Therefore we combine Responsible Research and Innovation (RRI) with crowdsourcing in a co-creative manner. RRI + Crowdfunding = Innovation and Citizen engagement

Objectives 1./ Establish and review a conceptual framework based on the idea, that diverse societal groups can engage in research directly, turning the world into a living science lab where everybody can participate in a co-creative manner. 2./ Develop, test and apply an open digital platform to facilitate engagement in CS on health research questions in a secure online environment. 3./ Explore, implement and monitor necessary institutional changes to open the scientific world for citizens through information, education, communication, transparency, exchange and some form of reward system for participants. 4./ Advance RRI and CS through education, so everybody can participate and develop a wider.

Project resources:

- Report on technical implementation of the platform: https://zenodo.org/records/7598484
- An overview and critical view on ongoing initiatives that adapted RRI in their educational programs to stimulate engagement of citizens in science: https://joinus4health.eu/wp-content/uploads/2022/06/JoinUs4Health_D5.1_Review_RRI_Educational_Programs_v1.0.pdf

This project has received funding from the European Union's Horizon 2020 research and innovation programme under GA No 101006430

- Report on formal and informal educational activities through which the RRI concept is shared across different educational levels: Department of Epidemiology – Erasmus MC: https://zenodo.org/records/7591564

ON-MERRIT

ON-MERRIT is a 30 month project to investigate how and if open and responsible research practices could worsen existing inequalities.
Our multidisciplinary team uses qualitative and computational methods in order to examine advantages and disadvantages in OS and RRI. ON-MERRIT aims at eventually suggesting a set of evidence-based recommendations for science policies, indicators and incentives, which could address and mitigate cumulative (dis)advantages, so called Matthew effects.
The project acronym stands for Observing and Negating Matthew Effects in Responsible Research & Innovation Transition.

Path2Integrity

Path2Integrity will support formal and informal learning methods and will contribute to establishing a culture of research integrity by pursuing the following aims:

- Establish excellent learning paths with research integrity role-models and rotatory role-playing by developing and disseminating a Path2Integrity handbook of instruction;

- Raise awareness of scientific facts about research integrity and role-models in educational organisations through a widespread Path2Integrity campaign;

- Achieve wide-spread implementation of excellent learning paths, by using existing and successful educational practices as a foundation and international collaborations across four continents, along with robust assessment methods;

- Create units for learning research integrity that address everyone either directly or indirectly involved in research, including secondary school students, undergraduates, graduates, and young researchers.

Project resources:

- Teaching Responsible Conduct of Research: https://www.path2integrity.eu/teaching-RI
- RI in Curricula: https://www.path2integrity.eu/ri-curricula
- Campaign materials #MyPath2Integrity: https://www.path2integrity.eu/campaign-materials

This project has received funding from the European Union's Horizon 2020 research and innovation programme under GA No 101006430

- Learning material and courses: https://www.path2integrity.eu/ri-materials
- Outcomes: https://riojournal.com/topical_collection/85/

PRO-Ethics

PRO-Ethics is working with research and innovation funding organisations across Europe to test new, ethical ways to involve citizens in decision making processes.

PRO-Ethics will deliver some very concrete outputs in the form of an ethics framework, together with a set of practical guidelines and actionable criteria for assessing the quality and ethics of participation processes.

Project resources:

- Communities of practice complete their work to co-create codes of practice for industry-academia collaboration and citizen engagement for knowledge valorisation: https://research-and-innovation.ec.europa.eu/research-area/industrial-research-and-innovation/eu-valorisation-policy/knowledge-valorisation-platform/thematic-focus/communities-practice-complete-their-work-co-create-codes-practice-industry-academia-collaboration_en
- Putting Citizens at the Centre of Research and Innovation policy brief: https://pro-ethics.eu/sites/site0229/media/downloads/d6.5_policy_brief_1_final.pdf
- Learnings from Research Funding Organisations' Experiences with Participatory Pilots policy brief: https://pro-ethics.eu/sites/site0229/media/downloads/d6.7_policy_brief_2_final.pdf

Pro-Res

PRO-RES is a project aiming to PROmote ethics and integrity in non-medical RESearch by building a supported guidance framework for all non-medical sciences and humanities disciplines adopting social science methodologies.

The 3 'pillars' that comprise the normative framework include:

- A statement – The Accord – which lays out the principles for ethical research which we hope all stakeholders can sign up to and endorse.

- A Toolbox to supplement and operationalise the Accord for policy makers and advisors to help them identify ethical evidence that supports their decision-making.

- Additional supportive Resources that complement the Accord and the Toolbox.

Project resources:

This project has received funding from the European Union's Horizon 2020 research and innovation programme under GA No 101006430

- Ethical Issues in Covert, Security and Surveillance Research: Volume 8: https://www.emerald.com/insight/publication/doi/10.1108/S2398-6018202108

RESBIOS

ResBios will embed RRI practices within 4 universities and research institutions in the field of Biosciences, through the implementation of RRI Grounding Actions, to achieve sustainable institutional changes. The Grounding Actions will relate to RRI keys, they will dialogue with the MoRRI indicators and will be aligned with SDGs.

Project resources:

- A Manifesto for the Transformation of Science-Society Relations: https://resbios.eu/wp-content/uploads/2022/12/Final-manifesto.pdf
- RRI Explained- A ResBios podcast: https://podcasters.spotify.com/pod/show/christopher-styles4/episodes/RRI-Explained---Ethics-in-RRI-and-the-Biosciences-e19cocl
- Mutual Learning for Responsible Biosciences blog: https://resbiosproject.medium.com/
- Summary report of GAs related to citizens engagement and gender equality: https://resbios.eu/wp-content/uploads/2022/12/ResBios-Del.5.2-1.pdf

SOPs4SRI

SOPs4RI (Standard Operating Procedures for Research Integrity) aims to stimulate transformational processes across European Research Performing Organisations and Research Funding Organisations (RPOs and RFOs). SOPs4RI will deliver an online, freely accessible and easy-to-use 'toolbox' that can help RPOs and RFOs cultivate research integrity and reduce detrimental practice. SOPs4RI will establish an inventory of relevant Standard Operating Procedures (SOPs) and Guidelines that RPOs and RFOs can draw on when developing governance arrangements promoting strong research integrity cultures.

Project resources:

- Toolbox for Research Integrity: https://sops4ri.eu/toolbox/

SUPER_MORRI

In order for the aspirations of RRI to be realised, robust tools must be developed for R&I policy and practice. These tools are in the focus of SUPER_MoRRI which continues the work of MoRRI, ensuring sustained data collection, curation, further assessment and refinement

This project has received funding from the European Union's Horizon 2020 research and innovation programme under GA No 101006430

of previously developed indicators. SUPER_MoRRI complements EU-28 data by monitoring data from selected non-EU countries.

SUPER_MoRRI will also examine the complex and diverse relationships between RRI policies and practices and their societal, democratic and economic benefits. These theoretical advances together with the continuous data stream into the project form the basis of the iterative learning processes needed to create a mature monitoring system with indicators and metrics that are robust, realistic, in themselves responsible, and easy to implement.

TechEthos – Ethics for Technologies with High Socio-Economic Impact

Our vision - Ethics by design (The implementation of ethical, legal, and societal values), or in other words, to bring ethical and societal values into the design and development of technology from the very beginning of the process.

New and emerging technologies (Technologies whose development and application are not completely realised or finished, and whose potential lies in the future) are expected to generate new opportunities and offer a wealth of socio-economic benefits. However, in the early stages of their development, these technologies also pose a number of potential ethical challenges and societal consequences. In light of this problem, it is important to ask: how can we prioritise ethics and societal values in the design, development and deployment of new and emerging technologies, particularly those with high socio-economic impact?

Project resources:

- The TechEthos game: Ages of Technology Impact: https://www.techethos.eu/the-techethos-game-ages-of-technology-impacts/
- Analysis of International and EU Law and Policy: https://zenodo.org/records/7650731
- Analysis of Ethical Issues: https://www.techethos.eu/analysis-of-ethical-issues/

TIME4CS

TIME4CS aims at supporting and facilitating the implementation of sustainable institutional changes in research performing organizations (RPO) to promote CS. aIn other words it aims at facilitating a way in which the scientific ecosystem could better take societal - mindset of people inside the organisation – and the organizational - norms, protocols, procedures, policy - views into consideration by supporting Research Performing Organisations - i.e. research entities such as universities and research centres - in defining and implementing institutional changes that can lead to a better and more effective engagement of citizens in

This project has received funding from the European Union's Horizon 2020 research and innovation programme under GA No 101006430

research and innovation. TIME4CS has identified 4 intervention areas that alone or combined can stimulate the institutional changes necessary to promote public engagement in R&I activities: i) Research; ii) Education and Awareness; iii) Support resources and Infrastructure; iv) Policy and Assessment.

Launched to support dissemination and impact for TIME4CS, the Citizen Science Helix is an international Open Innovation community of specialists in the fields of CS and OS. The Helix supports the TIME4CS project's ambition to contribute towards shaping sustainable institutional changes and promoting CS in Science and Technology.

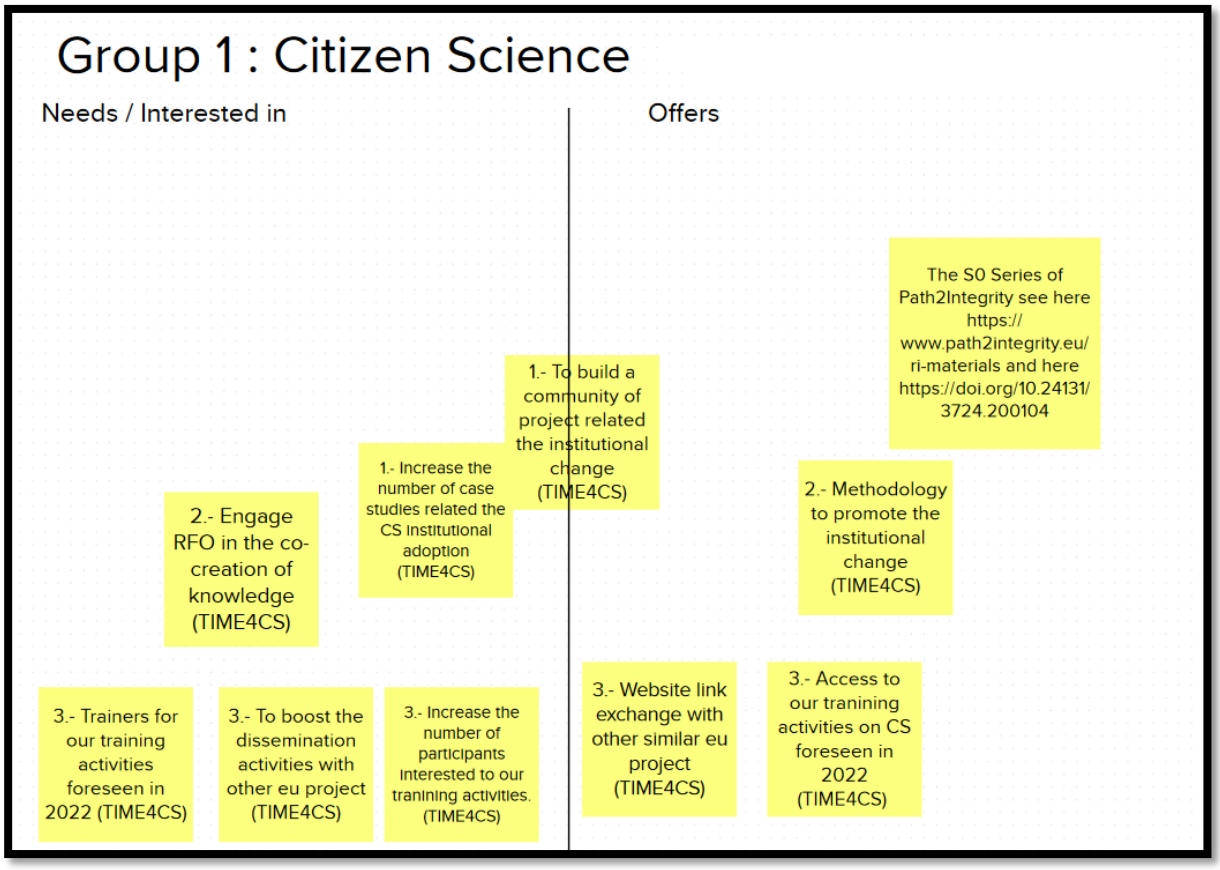
Project resources:

- Evaluation and Impact Assessment Plan: https://zenodo.org/records/5805863
- Compilation of roadmaps and Grounding Actions for the Implementers - First Version: https://zenodo.org/records/5743299
- Other deliverables: https://zenodo.org/communities/time4cs/?q=&l=list&p=1&s=10&sort=newest
- TIME4CS-Case Studies Repository: https://www.time4cs.eu/news/time4cs-case-studies-repository

○ Projects' thematic priorities

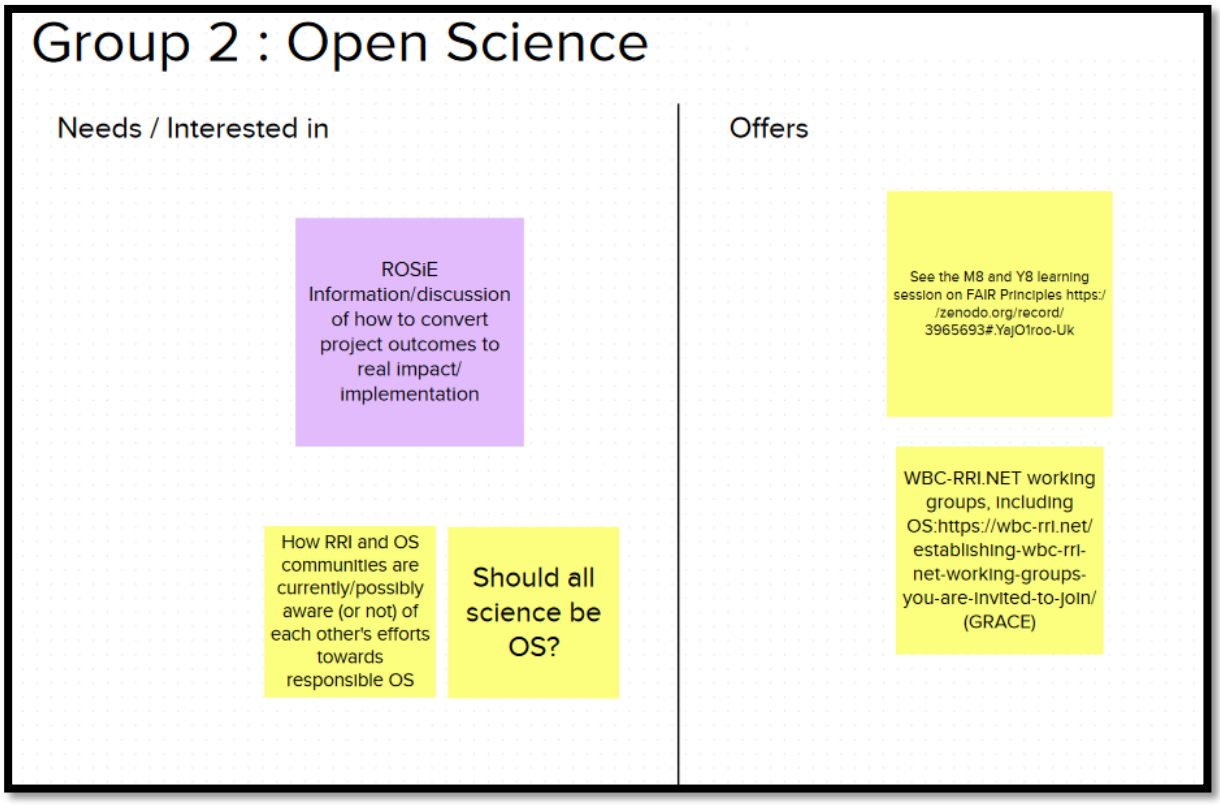
1) Citizen Science

This project has received funding from the European Union's Horizon 2020 research and innovation programme under GA No 101006430



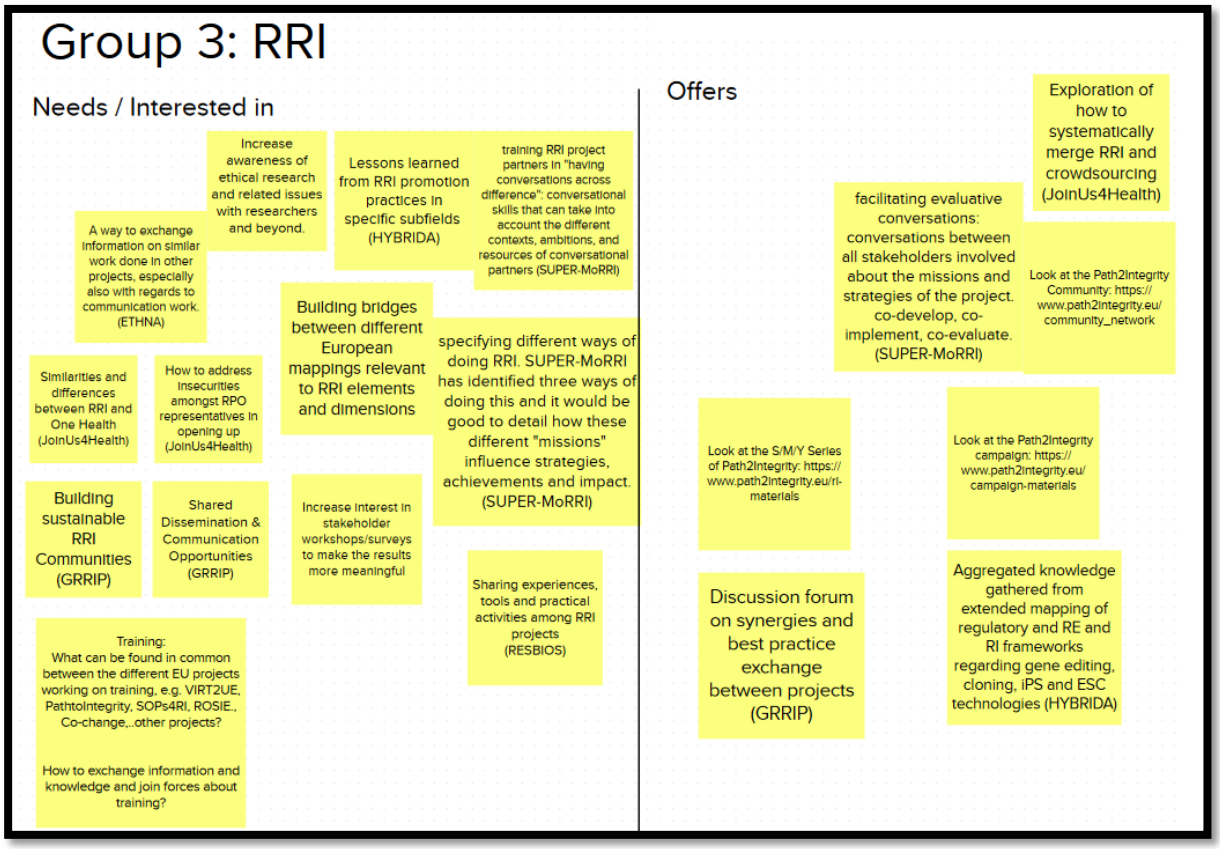
2) Open Science

This project has received funding from the European Union's Horizon 2020 research and innovation programme under GA No 101006430



3) Responsible Research and Innovation

This project has received funding from the European Union's Horizon 2020 research and innovation programme under GA No 101006430



2 Results of the Cross-Swafs Stakeholder Forum sessions for Responsible Open Science

In this section we will display the accomplishments of the Cross-Swafs sessions for Responsible Open Science. We will talk about the attendance and the impact of the meetings as well as the fruitful open discussions and collaborative efforts that have emerged from these sessions.

2.1 1st session – "Identification and selection of topic ideas for the upcoming sessions" – 2 December 2021

Fourteen projects represented by twenty-two people were present at the meeting.

This project has received funding from the European Union's Horizon 2020 research and innovation programme under GA No 101006430

After a recap of the kick-off meeting and the customary project updates, the participants split into break out rooms, where they could discuss three different topics in smaller groups. The topics were 1) Citizen Science, 2) Open Science and 3) Responsible Research and Innovation. In these groups there was a particular focus on finding out what the participants are interested in, what their needs are and what they can offer related to those topics. A calendar with topics was also shared among the participants, so that they could fill it in with topics to discuss in the next sessions.

Summary of topic ideas for future meetings

GROUP 1. CITIZEN SCIENCE

Needs / is interested in	Who
1.- To build a community of project related the institutional change	TIME4CS
1.- Increase the number of case studies related the CS institutional adoption	TIME4CS
2.- Engage RFO in the co-creation of knowledge	TIME4CS
3.- Trainers for our training activities foreseen in 2022	TIME4CS
3.- To boost the dissemination activities with other EU project	TIME4CS
3.- Increase the number of participants interested to our training activities.	TIME4CS
Can offer	**Who**
The S0 Series of Path2Integrity see here https://www.path2integrity.eu/ri-materials and here https://doi.org/10.24131/3724.200104	Path2Integrity
1.- To build a community of project related the institutional change	TIME4CS
2.- Methodology to promote the institutional change	TIME4CS
3.- Website link exchange with other similar EU project	TIME4CS
3.- Access to our training activities on CS foreseen in 2022	TIME4CS

GROUP 2. OPEN SCIENCE

Needs / is interested in	Who
Information/discussion of how to convert project outcomes to real impact/implementation	ROSiE
How RRI and OS communities are currently/possibly aware (or not) of each other's efforts towards responsible OS.	All
Should all science be OS?	All
Can offer	**Who**
See the M8 and Y8 learning session on FAIR Principles https://zenodo.org/record/3965693#.YajO1roo-Uk	Path2Integrity

This project has received funding from the European Union's Horizon 2020 research and innovation programme under GA No 101006430

WBC-RRI.NET working groups, including OS: https://wbc-rri.net/establishing-wbc-rri-net-working-groups-you-are-invited-to-join/	GRACE

GROUP 3. RESPONSIBLE RESEARCH AND INNOVATION

Needs / is interested in	Who
Increase awareness of ethical research and related issues with researchers and beyond.	Did not specify
Lessons learned from RRI promotion practices in specific subfields	HYBRIDA
Training RRI project partners in "having conversations across difference": conversational skills that can take into account the different contexts, ambitions, and resources of conversational partners	SUPER-MoRRI
A way to exchange information on similar work done in other projects, especially also with regards to communication work.	ETHNA
Building bridges between different European mappings relevant to RRI elements and dimensions	Did not specify
Specifying different ways of doing RRI. SUPER-MoRRI has identified three ways of doing this and it would be good to detail how these different "missions" influence strategies, achievements and impact.	SUPER-MoRRI
Similarities and differences between RRI and One Health	JoinUs4Health
How to address insecurities amongst RPO representatives in opening up	JoinUs4Health
Building sustainable RRI Communities	GRRIP
Shared Dissemination & Communication Opportunities	GRRIP
Increase interest in stakeholder workshops/surveys to make the results more meaningful	Did not specify
Training: What can be found in common between the different EU-funded projects working on training, e.g. VIRT2UE, Path2Integrity, SOPs4RI, ROSIE., Co-change, or other projects? How to exchange information and knowledge and join forces about training?	Did not specify
Sharing experiences, tools and practical activities among RRI projects	RESBIOS
Can offer	**Who**
Exploration of how to systematically merge RRI and crowdsourcing	JoinUs4Health
Facilitating evaluative conversations: conversations between all stakeholders involved about the missions and strategies of the project. co-develop, co-implement, co-evaluate.	SUPER-MoRRI
Look at the Path2Integrity Community: https://www.path2integrity.eu/community_network	Path2Integrity
Look at the S/M/Y Series of Path2Integrity: https://www.path2integrity.eu/ri-materials	Path2Integrity

This project has received funding from the European Union's Horizon 2020 research and innovation programme under GA No 101006430

Look at the Path2Integrity campaign: https://www.path2integrity.eu/campaign-materials	Path2Integrity
Discussion forum on synergies and best practice exchange between projects	GRRIP
Aggregated knowledge gathered from extended mapping of regulatory and RE and RI frameworks regarding gene editing, cloning, iPS and ESC technologies	HYBRIDA

2.2 2nd session - "What would be the optimal structure of the ROSiE Knowledge Hub?" – ROSiE – 3 February 2022

Seventeen participants from nine different projects were present at this meeting.

Panagiotis Kavouras, WP6 and WP8, presented the structure of ROSiE's Knowledge Hub and requested feedback from the participants, specifically related to the structure of the Knowledge Hub and in general to gather their initial thoughts at this early stage. The aim of the Hub is to provide a space where all ROSiE outputs will be linked in a way that will facilitate targeted knowledge sharing, to provide an open forum linked to the ROSiE community of OS/CS practitioners, and to provide in a structured and automated manner recommendations to end users. The discussion was particularly interesting because other projects find themselves in similar positions regarding creating hubs or platforms. During the open discussion following the presentation on the ROSiE project's Knowledge Hub, several important points and questions were raised:

• Sustainability of the Platform: Concerns were raised about the sustainability of the platform beyond the project's funding period. The presenter reassured that efforts were being made to keep the ROSiE website and Knowledge Hub online, including discussions with other entities for potential collaboration and sharing.

• Integration with Other Platforms: There were inquiries about integrating the Knowledge Hub with other platforms through APIs, allowing for the exchange of content and ensuring its relevance and sustainability. This idea received positive feedback and highlighted the importance of technical integration for broader reach and impact.

• Feedback Mechanisms and User Experience: Participants emphasized the importance of user-friendly interfaces and suggested reducing the amount of text on the opening page, making it more graphical and intuitive. Additionally, there were discussions about the format of user interactions, whether through Q&A sections, decision trees, or forums, and the potential for expert involvement in filtering responses and moderating discussions.

• Disciplinary Focus and Interdisciplinary Approach: Questions were raised about how the platform would handle disciplinary focus and interdisciplinary research. Participants suggested a balance between discipline-specific information and overarching approaches to accommodate interdisciplinary collaboration effectively.

This project has received funding from the European Union's Horizon 2020 research and innovation programme under GA No 101006430

• Perceptions of Openness across Disciplines: Participants discussed the varying perceptions of openness across different disciplines, emphasizing that it's not only about the practices of open science but also about how openness is perceived within each discipline. This highlighted the complexity of focusing on a specific disciplinary approach and the need for a nuanced understanding of openness.

• User Interaction and Contribution: Participants questioned whether users would be able to contribute to the Knowledge Hub. Suggestions were made for allowing users to upload existing guidelines or suggest new ones, which sparked discussion about the platform's structure and potential for user contributions.

• Moderation and Participation: Participants raised concerns about moderation and participation in the open discussion forums. Ideas whether the forum should be open for unfiltered discussion or whether some level of moderation was necessary to ensure constructive dialogue were discussed. Concerns were also raised about the level of participation and the potential reluctance of users to engage in the forum on certain topics.

• Gathering Knowledge: There were discussions about the challenges of the ongoing process of gathering knowledge through the Knowledge Hub in the longer term. The presenter emphasized the need for time to collect knowledge and assemble deliverables, highlighting the importance of structuring the knowledge hub to accommodate future knowledge accumulation.

• Dissemination and Communication: The importance of dissemination and communication in increasing participation and sustainability was highlighted. Participants discussed strategies for making the project visible and engaging stakeholders in co-creation and consultation processes. This included leveraging existing networks and initiatives to promote the Knowledge Hub and encourage involvement.

• Incorporating Ideas into the Knowledge Hub: Participants were invited to share their ideas on what they would like to see incorporated into the Knowledge Hub.

This project has received funding from the European Union's Horizon 2020 research and innovation programme under GA No 101006430

ROSiE Knowledge Hub: https://rosie-project.eu/knowledge-hub/

2.3 3rd session - "Exploration of how to systematically merge RRI and crowdsourcing" – JoinUs4Heath – 7 April 2022

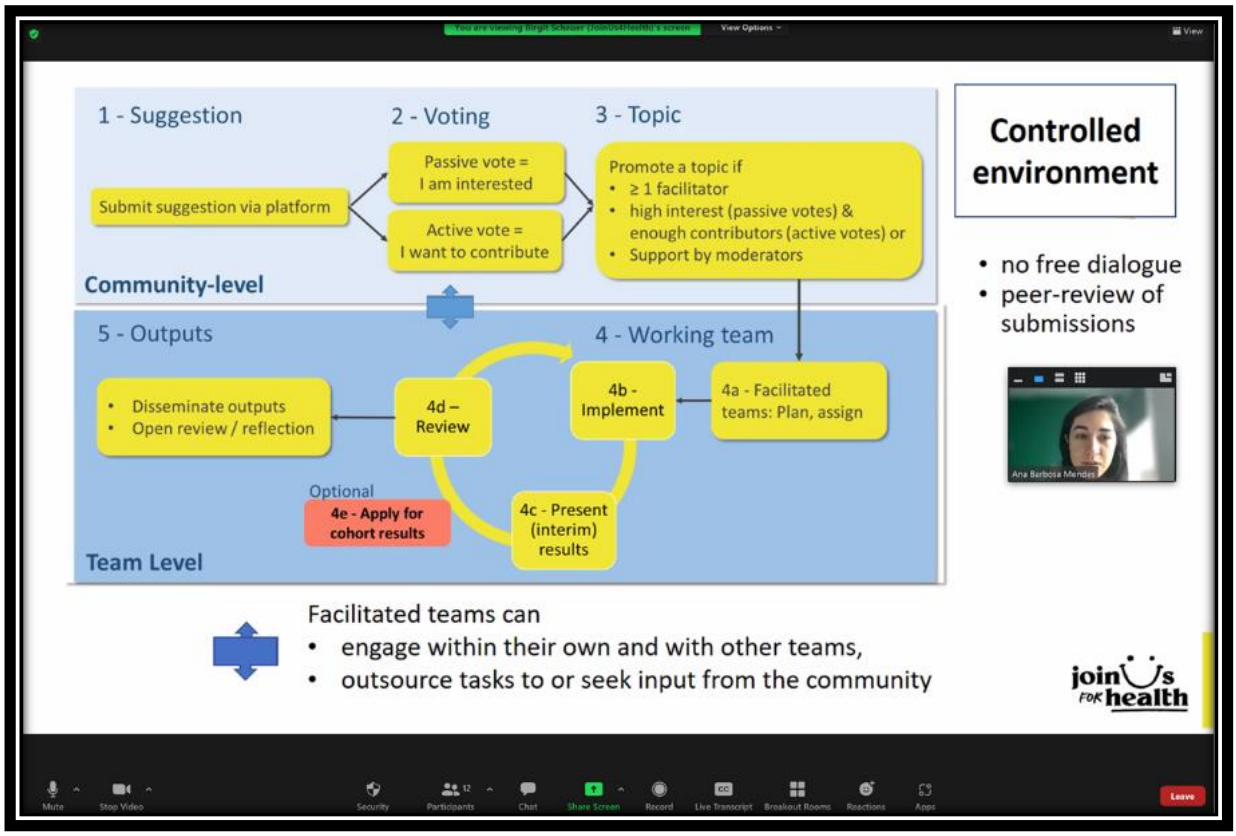
Ten participants from eight different projects joined this meeting.

Birgit Schauer (Coordinator and Head of Work Packages "Ethics requirements", "Technical implementation" and "Management, monitoring and evaluation") and Ana Barbosa Mendes (project contributor from the Erasmus University Rotterdam to the work package "RRI - methodological issues") from JoinUs4Health introduced the project and methodology. The project used crowdsourcing as a form of citizen science to involve people in the entire research process (Open Research), leveraging web 2.0 technologies for interactions with large communities. The responsible crowdsourcing methodology developed by the project encourages intense co-creation and deliberation within the community to address pressing challenges. The mechanics of the methodology involve community members submitting

This project has received funding from the European Union's Horizon 2020 research and innovation programme under GA No 101006430

suggestions, which are then screened, categorized, and promoted within the platform. Suggestions gaining traction can be turned into topics for collaborative work by the community. Working groups are formed, and volunteers are recruited to address the topics, with interactions encouraged throughout the process. The platform provides a controlled environment with peer review applied to all contributions to foster civil and fruitful collaboration. A brief overview of the platform was also provided, demonstrating how suggestions are submitted, topics are created, and volunteers are recruited to address tasks within the community. Feedback from participants for testing and improvement of the platform was encouraged.

After the presentation, participants provided some feedback highlighting the language barriers and inclusivity, with suggestions including multilingual platforms, language simplification tools, and offline facilitation for communities with limited internet access. Strategies for promoting diversity within teams were later discussed, such as quotas for inclusion and gradual integration of diverse perspectives. The importance of both social and epistemic diversity was emphasized, with suggestions to incorporate these principles into project designs and codes of conduct.



JoinUs4Health resources: https://joinus4health.eu/about/for-researchers/

This project has received funding from the European Union's Horizon 2020 research and innovation programme under GA No 101006430

2.4 4th session - "Regulatory, RE and RI frameworks regarding new technologies: lessons learned from the HYBRIDA mapping" – HYBRIDA – 2 June 2022

Twelve participants from eight projects were represented in this session.

Dr. Panagiotis Kavouras (senior researcher) and Vana Stavridis (junior researcher) both from the School of Chemical Engineering at the National Technical University of Athens and working in WP3, WP7 and WP8 in The HYBRIDA project presented a contribution about organoids technology, the ethics and research integrity of this kind of research. The presentation began with a description of organoid research as a new and innovative research field. Beyond the potential applications of the research, the operational guidelines and legal frameworks to be created/established for organoid research were discussed, taking into account various ethical, moral, and philosophical issues. Moreover, the methodology for organoid research was outlined and the nature of organoid tissue was discused raising ethical issues regarding biobank governance, informed consent for tissue donors, and intellectual property.

During the open discussion participants discussed briefly about issues regarding science communication, science mistrust, digital literacy, AI, governance, bias in the sense of societal bias (due to belief and culture), having a difference between reality and categories in a dataset and algorithms. The project presentation and following discussion focused more on RRI aspects rather than open science, being probably more related to other SwafS projects than ROSiE. Nonetheless, among their contributions we could find that they produced a code of responsible conduct for researchers, an enhancement of existing ethics and normative frameworks, and a supplement to the European Code of Conduct, all of which is in line with several ROSiE's tasks.

HYBRIDA resources: https://hybrida-project.eu/deliverables/

2.5 5th session - "Unavoidably implicated: researchers' role in projects promoting 'better science.' (relationship between idea and action in RRI)" – SUPER MoRRI – 1 December 2022

Thirteen participants from eleven projects were represented in this session.

This project has received funding from the European Union's Horizon 2020 research and innovation programme under GA No 101006430

Anestis Amanatidis, junior researcher at the Centre for Science and Technology Studies at Leiden University, from the SUPER MoRRI project led the session. The presentation addressed the context and factors surrounding the idea of 'good science' in open and citizen science. Anestis proposed that structures of knowledge production are based on the logic of top-down control, restricting inclusiveness and allowing for injustice. The structures change are hesitant to change, and change only gradually. This top-down structure influences what research is valued, and how it is performed and funded. Often research deemed to have a productive value is prioritized, and there is a need to shift to inclusive, just and sustainable research. He also highlighted that project activities are often not sensitive to local dynamics, which can lead to obstacles within a project. The embedded logics of projects, timings, deliverables and objectives influence our routines, frameworks, regulations and ideas of 'good science', as well as how research is conducted and where value is assigned.

These points raised in the presentation align closely with ROSiE's efforts to address open science challenges in low and middle-income countries (LMICs). ROSiE emphasizes the importance of promoting ethical research behavior and fostering research integrity in LMICs by adhering to local data protection standards, customizing informed consent forms to meet local requirements, and disseminating research results back to local communities. Moreover, these suppport the following ROSiE's main recommendations resulting from the analysis of the consultation process (D3.4):

• Recognize the potential for global inequities in access to Open Science infrastructure and act to promote global justice and support the needs of researchers in low- and middle-income countries.

• Re-evaluate current institutional and national level incentives and evaluation systems to align them with Open Science practices.

• Recognize and reward researchers for their contributions to Open Science, such as data sharing, publication of preprints, citizen science, and open-access publications.

• Analyse and address the potential for gender-, ethnicity-, age-, disability-related, and other biases in research and act to ensure that responsible Open Science practices promote equality and diversity.

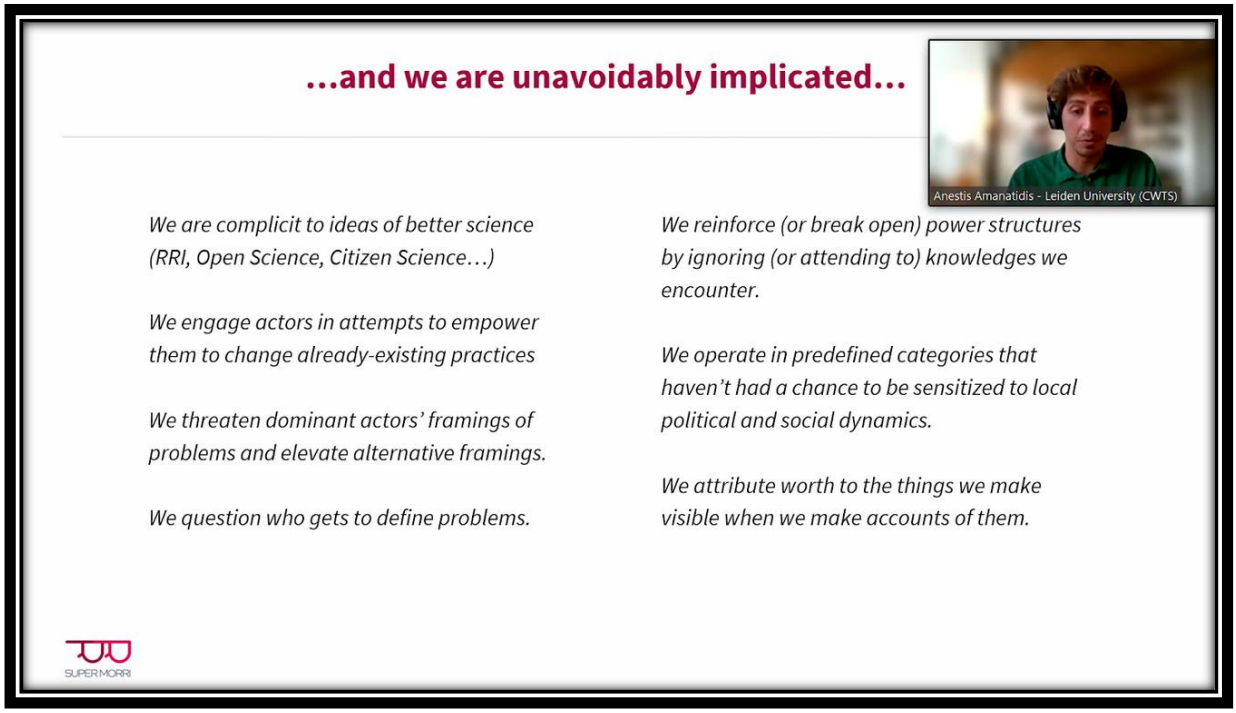
A discussion followed on the question of 'What role do we play in the elevation of nice things / disempowerment of people who hold considerable power in keeping infrastructures in place?' Consortium members posited that the selection of stakeholders for engagement activities in EU-funded projects often favor those who are already powerful to the detriment of stakeholders who are typically disempowered. These risks elevate stakeholders who already have power in order to maximize the reach and impact of a project. Problems such as this arise from the pursuit of project goals and ends, with the relatively short life-span of

This project has received funding from the European Union's Horizon 2020 research and innovation programme under GA No 101006430

projects playing a role in these structures. It was agreed that there is a need to address the inherent bias in stakeholder selection.

To counteract these risks, after identifying potential biases in the outcomes from stakeholder consultations conducted by UNESCO (2020), where findings were likely specific to high-income countries (given their better access to technical infrastructure, such as the European Open Science Cloud, and technical equipment), the ROSiE project specifically addressed challenges faced by low and middle-income countries (LMICs), highlighting the importance of tailoring open science initiatives to their contexts.

Therefore, with the purpose of providing additional perspectives from low and middle income countries on open science, interviews were also conducted as part of the stakeholder consultation of WP3. These interviews not only focused on issues related to the research environment but also on other research ethics and integrity issues of open science in low and middle income countries.



SUPER MoRRI resources: https://super-morri.eu/

2.6 6th session - "Difficulties in the implementation of an ethical governance system" – ETHNA Systems – 2 February 2023

This project has received funding from the European Union's Horizon 2020 research and innovation programme under GA No 101006430

Fourteen participants from eleven projects were represented in this session.

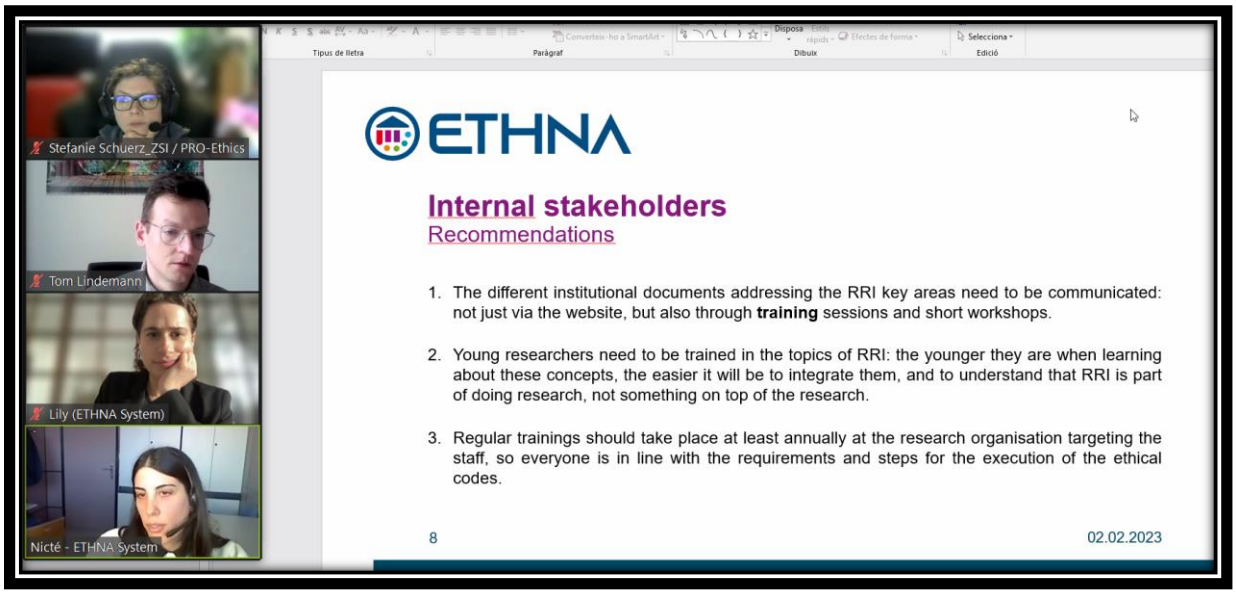
ETHNA System representatives Nicté García-Soria (member of the coordination team at the Universitat Jaume I) and Lily Teitelbaum (member of the communication and dissemination team at BIOCOM AG) gave a presentation on the difficulties in the implementation of ethical governance systems within Higher Education, Funding and Research Centres. Nicté reported on the results of the ETHNA Legacy workshops which gathered feedback from ETHNA System implementers and internal stakeholders. The workshops were designed to create a common space to reflect on experiences with the ETHNA System and pursue dialogue, interactions and qualitative input from respondents.

Information gathered from implementing partners and internal stakeholders through the workshops focused on two areas: challenges and recommendations.

Implementing partners, who were defined as lab managers and responsible research and innovation (RRI) officers, identified challenges to implementing the ETHNA System as: senior researchers being resistant to change; difficulty adapting ETHNA system to existing structures; and the methodology of the system as too rigid. They recommended adapting the implementation method to be co-created through a bottom-up approach; building more flexibility into the implementation method; targeting specific research performing organisations (RPOs); providing regular training for young researchers and new employees; and dedicating staff to execute and monitor the program.

Internal stakeholders identified challenges as: senior management resistance; junior researcher resistance; and a lack of awareness of the ethical codes and documents. They recommended: training sessions or workshops to address and communicate key RRI areas; training for young researchers on RRI; and annual training for staff to ensure execution of ethical codes

This project has received funding from the European Union's Horizon 2020 research and innovation programme under GA No 101006430



After the presentation concluded, two questions were given to the session participants in order to gain their perspectives on fostering change in research culture:

1. In your experience, what are the barriers that stand in the way of efforts to change the research culture?
2. What are your Dos and Don'ts when trying to affect organisational culture changes?

The Cross-SwafS participants provided the following feedback to the questions:

Ad 1)

Resistance to change; lack of understanding; workload; lack of senior leadership support; funding; lack of time; established opposing mentality; lack of acknowledgement; lack of knowledge on RRI; lack of institutional vision; inflexibility; lack of willingness for culture of change; existing publish or perish cultture; other priorities; establishes institutional structures; existing power structures; lack of education/training; economic/quantitative KPI; crisis of reproducibility; "elite science"; insecurities of how to; lack of incentives.

Ad 2)

Do:

- Be clear and consistent in your message.
- Involve stakeholders in the process.
- Focus on creating a positive environment.

This project has received funding from the European Union's Horizon 2020 research and innovation programme under GA No 101006430

- Make sure your actions align with your words.
- Use incentives and rewards to motivate participation.
- Make sure to measure and track progress.
- Celebrate successes.

Don't:

- Just rely on top-down directives.
- Ignore feedback from employees.
- Make unrealistic promises or commitments.
- Make sudden or drastic changes.
- Forget to recognize individuals for their contributions.
- Isolate yourself from the process.
- Be afraid to ask for help.

ETHNA system: https://ethnasystem.eu/about-ethna/the-project/

2.7 7th session – "Vera Platform" – COESO – 6 April 2023

Fourteen participants from ten projects were represented in this session.

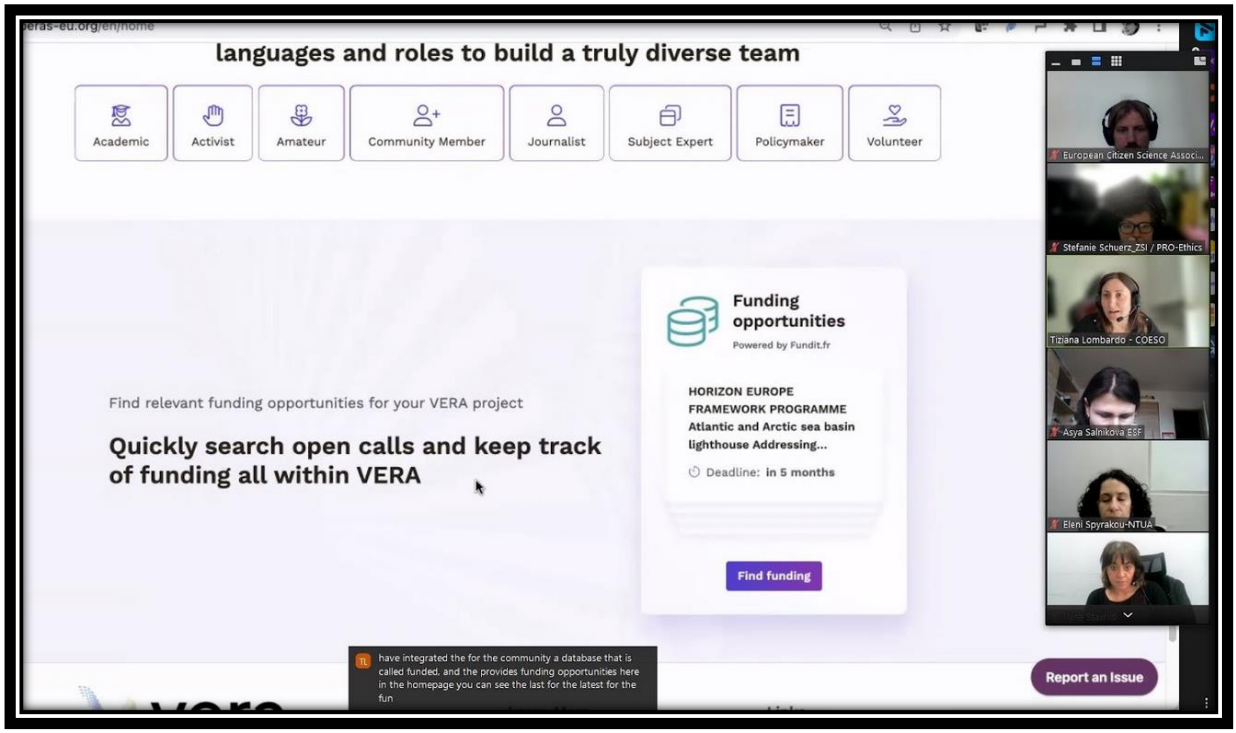
Tiziana Lombardo, project manager at Net7 and manager of the Virtual Ecosystem for Research Activation (VERA) platform development process as part of the COESO project, presented an overview of the VERA platform.

VERA, is an online platform developed as part of the COESO project, which aims at facilitating collaboration and project creation in social sciences and humanities, particularly focusing on citizen science initiatives. It's an online hub where a diverse set of actors (incl. researchers and "engaged stakeholders" such as organizations and community leaders) can build social science and humanities research projects together (Open Research). VERA addresses the challenges of user engagement, integration of existing tools, and co-design by involving users in the platform's development. The platform's homepage offers project updates and funding opportunities, serving as a means of increasing visibility and recognition of SSH projects. Various features available in VERA were presented, including profile customisation options with collaboration preferences, and project creation options involving guided steps for setting up details and team collaboration. Future updates were mentioned including matchmaking features and suggesting funding opportunities based on project descriptions, with ongoing efforts to gather user feedback for further enhancements.

During the open discussion following the presentation, a participant expressed keen interest in the platform's potential for collaboration, particularly in the humanities, and

This project has received funding from the European Union's Horizon 2020 research and innovation programme under GA No 101006430

inquired about its openness to individuals from diverse fields like engineering for interdisciplinary projects. Tiziana affirmed the platform's inclusivity, though its current focus lies within the social sciences and humanities. She noted that as citizen science projects often span multiple disciplines, they foresee the community expanding to include individuals from various backgrounds. Additionally, the significance of technical expertise was emphasized, suggesting that those with technical backgrounds could fill essential roles within consortia. Another participant raised the question of contacting institutions directly and the potential for institutional profiles on the platform. Tiziana acknowledged this, indicating that while the platform initially centered on individual users, they are exploring the possibility of incorporating institutional profiles in response to user input, with plans for implementation in the near future.



VERA platform: https://vera.operas-eu.org/en/home

3 Conclusions and lessons learned

The Cross-SwafS sessions proved to be an excellent forum for the presentation of the various research areas, goals and tools of EU-funded projects, as well as for collaboration and exchange.

This project has received funding from the European Union's Horizon 2020 research and innovation programme under GA No 101006430

Session participants provided a useful network of individuals that were able to provide feedback for those presenting to the sessions. Given that such networks are often absent from projects, Cross SwafS meetings helped with problem-solving faced by projects. The regularity of the sessions also allowed for participants to exchange ideas in a reliable forum with minimal organisational effort. Tools, guidelines and other resources developed by EU-projects often benefit greatly from external feedback, however these tend frequently to be missing as self-organising an online session to gather input is time consuming and labor intensive. The ROSiE cross-SwafS sessions removed this barrier to participants and provided them with a ready-made space for collaboration.

However, while the benefit of the sessions was in part due to the number and backgrounds of the participants and their projects, this proved not to be entirely sustainable. The Cross-SwafS sessions were attended by representatives of various EU-funded projects, who participated in their capacity as representatives of their projects. While the knowledge and experience they brought to the sessions were indeed valuable, as the ROSiE project advanced numerous of the participating projects ended, thereby shrinking the number of available participants over the course of the sessions. Toward the end of the Cross-SwafS sessions, attendance was averaging between eleven and fourteen participants – down from a peak of twenty-two – of which approximately a third were from the ROSiE project itself. The drop in attendance had a direct impact on the decision to end the Cross-SwafS sessions in mid-2023. Solving the participation issue in future project-based Cross-SwafS programs would require active engagement with individuals and organisations outside of the project consortium itself to maintain participation as consortium members' projects come to an end. While this would entail an extra level of work, the benefit of a more robust, far reaching network would certainly benefit all projects and participants involved.

This project has received funding from the European Union's Horizon 2020 research and innovation programme under GA No 101006430