

End of year report 2024 & Work plan 2025-2027

Version 4.0

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1. Mission

The mission of RIOS is to cultivate and strengthen the national and international standing of the VU and Amsterdam UMC regarding research integrity and open science scholarship. This mission can be broken down into 4 pillars:

- Research: To support, interlink, make visible and contribute to a thriving interdisciplinary research community of junior and senior researchers in the topic areas of interest, namely research integrity, research ethics, responsible research and innovation, open science, research culture (including recognition and rewards, as well as inclusion, diversity and social safety), and research fairness;
- 2) **Teaching:** To develop and sustainably embed education, training, and support resources on these topics, as well as facilitate mutual learning in order to guarantee the quality of training within the VU and Amsterdam UMC;
- 3) **Service and outreach:** To contribute to strengthening practices and policies relating to responsible research practices, open science, responsible research and innovation, and a positive research culture within the VU and Amsterdam UMC.
- 4) **Connect:** To create interdisciplinary communities of practice within RIOS' areas of interest, where diverse stakeholders involved in research, teaching, and service and outreach can exchange knowledge and collaborate.

2. Context

For the past 10 years, research integrity has been an important theme at the VU and Amsterdam UMC, which has received a major boost partly due to the appointment of Lex Bouter as Professor of Methodology and Integrity at both organizations (Department of Epidemiology and Data Science within Division 10 of the Amsterdam UMC and Department of Philosophy at the Humanities Faculty of the VU). The VU and Amsterdam UMC have taken the lead in raising the profile of research integrity, through **(a)** a series of national and international research projects on the topic, **(b)** the development and use of teaching materials and courses, and **(c)** penmanship of the Netherlands Research Integrity Network (<u>NRIN</u>) and positions on the boards of international networks (including the <u>World Conferences on Research Integrity</u> and <u>ENRIO</u>). The reputation of The Netherlands in general and Amsterdam in particular in the research integrity landscape is high, as is the level of cooperation with top scholar partners in the international community.

Additionally, with the leadership of Sander Bosch as the Chief Open Science Officer of the VU, the VU Open Science Program has taken a lot of steps to sustainably embed open science (OS) practices in the past years. This has been done in collaboration with Research Data Support of the University Library. Activities include both trainings given to researchers across the institutions, as well as structural changes such as the introduction of faculty data stewards, and a myriad of OS initiatives within and across faculties.

The table below presents an overview of current and past activities taking place at the VU and Amsterdam UMC relating to research integrity and open science.

Table 1: Overview of current and past activities related to research integrity and open science

Pillar	Description					
Research	Several research projects have allowed a group of doctoral students, postdocs, assistant professors and senior researchers to be appointed on a temporary basis and gain international reputation. On average, the deployment in FTEs has been around 10 FTEs over the past five years. It concerns the following externally funded projects and consortia:					
	 Amsterdam UMC department ELH: coordination of two Horizon 2020 projects (ENTIRE and VIRT2UE), WP lead in SOP34RI (until end 2022), and Horizon Europe projects PREPARED (Oct. 2022 - Oct. 2025), IRECS (Oct. 2022-Oct. 2025), CATALISI (Jan. 2023- december 2025), BEYOND (Jan 2023- Jan 2026), TIER2 (Jan. 2023- Jan 2026) and RE4GREEN (Feb 2024- Feb 2027). Prior to starting as head of the department, Mariëtte van den Hoven also coordinated INTEGRITY (Jan 2019-Dec 2021) at Utrecht University. Amsterdam UMC Department EDS: National Survey on Research Integrity (ZonMw), and coordination of OSIRIS (Horizon Europe). Philosophy FGW, Abraham Kuyper Center: interdisciplinary research projects on the responsibilities of universities and scientific progress: The Epistemic Responsibilities of Universities (2016-2019), Epistemic Progress in the University (Sept. 2020-Aug. 2023), funded by the Templeton World Charity Foundation. NWO Rubicon project on responsible PhD supervision. Sociology, FSW: Metascience and Computation Social Science Projects 					
	 ✓ Athena Institute, BETA: <u>Open-ASIA</u> (EC ERASMUS+) and <u>OSCAR 2.0</u> (EC ERASMUS+) are currently taking place. 					
Teaching	 ✓ Both institutions (all VU faculties and Amsterdam UMC): development and promotion of training on research integrity on 3 different levels: 1) Training for PhD candidates (mandatory), 2) Training for novel and experienced supervisors, including 'Superb Supervision', 'Inspired Supervision' and 'MPowering Responsible Supervision', 3) national and international RI education activities via the VIRT₂UE project and the INTEGRITY training materials, and NERQ, the international network for education in research quality (co-coordinated by Amsterdam UMC, dep ELH), and 4) depending on the year, summer and winter optional courses targeted at Master students and PhD candidates, such as the 2025 course on 'Bad Science Detectives' organized by the Sociology Department of the VU. ✓ Philosophy FGW: philosophy course at almost all VU faculties typically include sections on philosophy of science and ethics. These address MA/MSc and 					
	 BA/BSc students as part of their research training. Both institutions: training, support, and information on Data Management Plans (courses, support desk, LibGuide, RDS portal, decision support tools, RDM training development) and Research software – delivered by Open Science program VU and Research Data Support jointly Open Science Program VU: Set-up of VU Software carpentries, Expansion of OS curriculum, OS training for senior staff and students, accessible PhD Lay talks 					

Service and outreach	 VU: In addition to having policies in place regarding complaints about research integrity (such as the presence of confidential counsellors, a research integrity committee and procedures for handling allegations of misconduct), the VU is implementing a policy to address research integrity using a preventative approach focused on improving the research culture. This includes, for instance, the existence of research integrity coordinators within each faculty, as well as requirements on research integrity and supervision training for early and senior career researchers. Amsterdam UMC: Similar to the VU, the Amsterdam UMC has policies in place to deal with research integrity problems, when they arise. Additionally, the Amsterdam UMC recently published its revised <u>Research Code</u>. Both institutions: The <u>Research Data Support network</u> together with the Open Science Program has implemented various policies on research data management and research software. The VU Open Science Program has additionally developed policies on open access. Furthermore, the program is involved in implementing Recognition and Rewards at the VU, optimizing the registration workflow, and piloting an open science monitor. In the past, initiatives have also included an ORCID campaign and an OS seed fund. The Research data support network is also responsible for ensuring that the VU has access to and knowledge of different OS infrastructures such as DMP online, Dataverse NL, Archstore/Darkstore, Research Drive, SciStore 1.0, OSF, Yoda, iThenticate (together with the Open Science Program), Research Cloud, Qualtrics, GDPR registry, Research Cloud, SciStor 2.0, Federated Databases, E-lab journals, Research management services, SRAM and Archstore/Darkstore eol.
Connect	 VU FGW: The Netherlands Research Integrity Network (NRIN) is funded by all Dutch universities and universities of applies sciences. NRIN guarantees a strong national reach for the activities offered from Amsterdam around research integrity for students, researchers, policymakers and policy advisors, responsible conduct of research educators and education developers members of Research Integrity Committees and Research Integrity Confidential Advisors, among others. NRIN's activities are closely aligned with the duty of care that institutions for higher education have since the 2018 version of the Dutch Code of Conduct on Research integrity was published. NRIN has serves to support universities and universities of applied sciences to help them enact the duty of care. Amsterdam UMC, ERH: the <u>'Embassy of Good Science'</u> is a web portal designated by the European Commission as the site with which all EU projects on research integrity and research ethics should collaborate, and which is a main international knowledge hub and meeting place for people working on research integrity, open science, and responsible research and innovation. VU Open Science program, together with Research Data Support, has implemented faculty data stewards/privacy champions to connect researchers with experts on OS and help them with engaging in OS. Furthermore, the program provides an RDM Support community platform and management, and

an OS Community Management, as well as implementing an OS communication
campaign.

2.1 Why is RIOS needed?

While there are many past and ongoing research and teaching activities related to research integrity and open science at the VU and Amsterdam UMC, as well as support structures and policy foci present already, they are currently scattered, making it difficult to work together, synergize and learn from each other. Therefore, there is a need for a central dynamic network structure which interlinks and increase the visibility of these activities, not only as a way to ensure that relevant stakeholders can find each other for collaboration purposes, but also to ensure that initiatives build on each other, are grounded in research, and are aligned with each institution's research strategy and do not reinvent the wheel. Furthermore, some research and teaching activities at the moment are branded as relating to 'research integrity', 'open science', or 'data', while they may also intertwine in other relevant areas, resulting in the possibility that these initiatives develop in parallel. It would be desirable, instead, to provide a place where stakeholders involved in research integrity, research ethics, responsible research and innovation, open science, research culture (including recognition and rewards, as well as inclusion, diversity and social safety), and research fairness, can come together to learn from each other and synergize when possible.

Additionally, to ensure that research contributes towards better research integrity and open science practices and awareness at the various levels of the VU and Amsterdam UMC, and that the practices within these institutions are grounded in the evidence, it is important to connect diverse stakeholders engaged with research integrity and open science in different ways within these institutions. For this, broader involvement of VU faculties, divisions within Amsterdam UMC and services such as the University Library is desirable, because research integrity, scientific ethics, responsible science and innovation, open science, and recognition and rewards concern all disciplines. The initiatives developed so far also need to be supported and strengthened to consolidate the national and international leading role of VU and Amsterdam UMC in these fields.

RIOS can address these challenges by providing a structure common to the VU and Amsterdam UMC which makes visible and connects where necessary and possible, all research integrity and open science initiatives. By actively contributing towards research, education, service and outreach, as well as interlinking these domains, RIOS can provide a sustainable platform for interdisciplinary, interfaculty, and multi-stakeholder collaboration, thereby counteracting fragmentation of expertise and resources. This will help the VU and Amsterdam UMC to consolidate and expand their leading role and national and international visibility in the relevant themes with RIOS.

With its current set up, RIOS contributes to the VU 2023-2033 Research Strategy, by serving as a dynamic network which fosters interdisciplinary and transdisciplinary research related to the areas of interest, fostering collaboration across stakeholder groups, as well as contributing to more responsible research at the VU.

3. Governance

3.1 Executive Board

3.1.1 Members

- Professor Mariëtte van den Hoven (Amsterdam UMC) Chair
- Professor Jeroen de Ridder (Faculty of Humanities VU) Chair

- Dr Krishma Labib (Faculty of Humanities VU) Coordinator
- Dr Rita Alves dos Santos (Amsterdam UMC) Project Leader
- Project assistant Currently filled in by T. Honeysett (Faculty of Humanities VU)

3.1.2 Aims

- a) To plan and execute the RIOS' Strategic Work Plan (2024 2027);
- b) To oversee and support the activities of RIOS;
- c) To seek national and international collaborations relevant for RIOS;
- d) To seek the financial sustainability of RIOS;
- e) To report on the annual activities and financial statues of RIOS to the Steering Committee;
- f) To promote and disseminate RIOS at relevant events (e.g. conferences) and to multiple stakeholders.

3.2 Advisory Board

3.2.1 Members

- Professor René Bekkers FSW
- Professor Paul de Lange FGB
- Professor Jacco van Ossenbruggen BETA
- Professor Hans Berends SBE
- Dr Sander Bosch Open Science Program
- Professor Antske Fokkens FGW
- Professor Cees Kleverlaan ACTA
- Professor Bart van Klink RCH

3.2.2 Aim:

The advisory board members will be actively involved in the development of RIOS policy and activities. They will also serve as ambassadors within their faculties for RIOS and its activities, including:

- a) Connecting RIOS with relevant stakeholders
- b) Providing insights to RIOS about developments, specific needs (e.g. training), and ambitions at the faculties.
- c) Providing input on the mission and activities of RIOS;
- d) Providing input on and approving the final version of RIOS' Strategic Work Plan;
- e) Disseminating and promoting RIOS at local, national and international forums.

3.3 Funding and support

RIOS is supported by the Philosophy Department of the Humanities Faculty at the VU, and the Ethics, Law and Humanities Department of the Amsterdam UMC. RIOS receives funding from the Board of Directors of the VU. Funding has been secured up to and including 2029.

4. Identity & Dissemination:

<u>4.1 Identity</u>

A logo for RIOS has been created by a designer (Figure 1). This logo incorporates RIOS' mission of a intertwined approach to develop training on the identified topics and creating a community of practice on RIOS' topics of interest. The RIOS logo will be the brand of RIOS and incorporated in all communications and dissemination of RIOS' activities and events.



CENTER FOR Research integrity and open science

Figure 1 RIOS logo

4.2 Dissemination

All information related to RIOS will be disseminated through its website: <u>www.rios-vu.nl</u>. The RIOS website will be the hub to connect VU and Amsterdam UMC researchers with an interest in the identified topics, as well as inform the national and international community about RIOS' activities. The website will work as a network platform to promote active engagement of the community of practitioners with an interest in acquiring and sharing learning in RIOS' topics of interest. Additionally, the creation of this hub will facilitate the engagement of researchers from the different faculties with a mutual interest in these particular areas to join forces in co-creating new resources, tools, projects, etc., diminishing the fragmentation that has currently been observed between the two institutions. Finally, the website will be the forum where relevant content and the dissemination of the latest activities and events will be shared.

Activities and events organised by RIOS (also those in collaboration with other organisations) will also be shared through the RIOS social media channels (Youtube and LinkedIn) and RIOS Newsletter.

4.3 Collaboration with other Networks

RIOS will seek collaborations with other networks whose mission and activities are aligned with RIOS' aims. In that regard, a close collaboration will be maintained with the Netherlands Research Integrity Network (NRIN). While NRIN is a national organization, RIOS will serve the interests of stakeholders at the VU and Amsterdam UMC. NRIN's national visibility within the Dutch and international communities will offer an opportunity for researchers at Dutch universities and international to engage with RIOS' community of practices in the topics of interest. In addition to NRIN, RIOS will seek collaboration with other relevant networks such as the Network for Education on Research Quality (NERQ), the Framework for Open and Reproducible Research Training (FORTT), Promovendi Netwerk Nederland (PNN), POSTDOCNL, AP-NET, the Netherlands Reproducibility Network (NLRN) and OpenScience.nl. RIOS will specifically address the need to share best practices related to research integrity and open science, and build and support a network of stakeholders, while seeking opportunities for research collaborations.

5. Activities in 2024

Pillar	Activities - Setting up website (www.rios-vu.nl) - Establishing branding and mission - Making a 3 year plan							
General								
Research	 Apply for grants Amsterdam UMC innovation grant proposal on raising open science practices at the Amsterdam UMC (RAISE) of 180 000 euros was submitted in September. In November, we were informed that the proposal will not be granted. CoARA 60 000 euro institutional change grant proposal on integrating diversity into evaluation and assessment of researchers (IDEA) was submitted in June. In November, we were informed that the proposal will be granted, with the project starting in Jan 2025. OpenScienceNL 50 000 euro recognition and rewards grant proposal about hiring a data steward to integrate open science into the researcher assessment processes at the AmsterdamUMC was submitted in September. In December, we were informed that the proposal will be granted, with the project starting before June 2025. Contribute to an interview study on the research culture at Amsterdam UMC together with the CATALISI¹ project (to be completed in 2025) Start a 3 year mixed methods evaluation study of the Humanities Faculty PhD course on research integrity at the VU Start a scoping study to explore how research fairness is addressed by research integrity and open science codes of conduct, together with researchers at the Department of Ethics, Law and Humanities of the Amsterdam UMC 							
Teaching	 Conduct a mapping of the research integrity training available at the VU and Amsterdam UMC to different target groups (e.g. PhD candidates and supervisors) Develop training materials for the MPowering Responsible Supervision course, together with the CATALISI project Coordinate the research integrity course for PhD candidates at the Humanities faculty 							
Service and outreach	 Network with stakeholders across the VU and Amsterdam UMC to learn about needs, and look for collaboration opportunities. Secure funding and plan a series of theatre plays at the VU faculties on the topic of research culture followed by workshops to raise awareness on fostering a 							

The table below provides an overview of the activities carried out in 2024.

¹ The CATALISI project is a Horizon Europe funded project, which strive towards supporting institutions to to implement transformation through the adoption of acceleration services. Every partner in CATALISI has its own specific goals, with the goals of the Amsterdam UMC being to 1) develop and provide training to research supervisors, and 2) contribute towards a positive research culture at the institution. More about the project can be found here: https://catalisi.eu/

	positive research culture at the VU and Amsterdam UMC. This initiative is aligned with the CATALISI project and will be completed in 2025
Connect	 Hold the first Community of Practice for Research Ethics Committees Organize the first Community of Practice for Research Integrity training

6. Plans for activities 2025-2027

While the overall mission of RIOS is very ambitious, the plans for the next 3 years will have to focus on prioritizing those aims that help bring momentum to RIOS, make it visible and known, as well as obtain goodwill from the Amsterdam research integrity and open science community. The concrete plans for RIOS for the next 3 years are outlined per pillar, below. We will write yearly reports to evaluate the progress of the activities of each year and make plans for the next year.

6.1 Research

RIOS will contribute in different ways towards the research integrity and open science research community in Amsterdam:

a) Maintaining a hub for all research integrity and open science researchers at the VU and Amsterdam UMC

RIOS will maintain an overview of all current research integrity and open science research projects running in Amsterdam on the RIOS website. To bring researchers together, RIOS will hold two research symposia a year starting in 2025 focusing on different themes within research integrity and open science.

b) Conducting research

RIOS will conduct several small research projects focusing on research integrity and open science practices and experiences at the VU and Amsterdam UMC, using existing funding, to increase its visibility and gain momentum. To begin with, these research projects, resulting in journal articles, will include:

- Continuing the already started 3 year mixed methods evaluation study of the Humanities Faculty PhD course on research integrity at the VU
- Research on the development of the MPowering Responsible Supervision course at the VU
- Continuing the interview study on the research culture at Amsterdam UMC together with the CATALISI² project, and developing and administering a survey, as well as workshops to stimulate research culture at each faculty
- Continuing the scoping review on how fairness is addressed in research integrity and open science codes of conduct
- Research on integrating diversity into the recognition and rewards program at the VU, as part of the IDEA project (funded by CoARA)
- Research on the experiences of RIOS in setting up and establishing itself

² The CATALISI project is a Horizon Europe funded project, which strive towards supporting institutions to to implement transformation through the adoption of acceleration services. Every partner in Catalisi has its own specific goals, with the goals of the Amsterdam UMC being to 1) develop and provide training to research supervisors, and 2) contribute towards a positive research culture at the institution. More about the project can be found here: https://catalisi.eu/

- Setting up an open access journal on responsible conduct of research, together with the CATALISI project

As these research projects end, RIOS will continuously seek possibilities for other research projects to be done locally in Amsterdam. Any research financed by RIOS will always mention RIOS as a contributor in addition to the specific people involved.

c) Applying for research grants

RIOS will look for opportunities to apply for additional funding for conducting research. This includes:

- Looking for possibilities to collaborate on writing a proposal for a European call together with research integrity researchers at the department of Ethics, Law and Humanities at the Amsterdam UMC, and international collaborators.
- Apply for funding from Open Science NL. In particular, it would be good to apply for a call from cluster 4 of the current work program of the funder (Evidence base for Open Science) together with the Open Science Program of the VU, once the call is open.

6.2 Teaching

For the first 3 years, RIOS' teaching activities will focus on bringing together research integrity trainers, delivering and evaluating research integrity trainings:

RIOS will contribute to supervision trainings for research supervisors (including Mpowering Responsible Supervision currently being developed by the CATALISI project). Furthermore, RIOS members (KL and RS) will deliver the mandatory research integrity course offered to PhD candidates at the Humanities Faculty. In addition, RIOS will reach out to other faculties' trainers to connect them, and provide support wherever needed. For instance, RIOS can contribute towards the research integrity courses offered to PhD candidates at the Amsterdam UMC as part of guest lectures and individual sessions. Similarly, RIOS will form discussions with the Open Science Program at the VU to see where and how we can contribute to and support research integrity and open science trainings.

Many of the research integrity courses at the VU and Amsterdam UMC already have evaluations embedded in them. As RIOS, we will collate the results of these to provide a yearly evaluation of the trainings offered at the VU and Amsterdam UMC, together with the relevant parties at both institutions. This document will also be published on the RIOS website and help to improve future courses.

Furthermore, RIOS will explore possibilities of harmonizing and improving research integrity training at all levels of education, including bachelor and master students, together with the library and other relevant stakeholders.

6.3 Service and outreach

RIOS, in collaboration with the CATALISI project, will execute its plan to have 9 theater plays, followed by workshops, at the VU in 2025, focused on research culture.

RIOS will maintain strong and close connections with the policy advisors on topics related to research integrity and open science at the VU and Amsterdam UMC, ensuring contact with them at least twice a year. To foster the interaction between policy stakeholders and researchers, we will ensure that policy stakeholders are always included in some way in our events (for instance as speakers or guest lecturers or participants). As part of the IDEA project, RIOS will be actively engaged with the recognition and rewards representatives at the VU, the VU Diversity Office, as well as other policy stakeholders to integrate diversity into researcher assessments at the VU. Additionally, RIOS will take responsibility for public outreach with regard to the RIOS' topics of interest. More specifically, if there is considerable public or media interest in one of RIOS' topics (e.g. due to new developments in research, new laws, or possible cases), RIOS will take a proactive approach in reaching out to the public and the media.

In addition to the public, RIOS also aims to reach out to bachelor and master students at the VU and Amsterdam UMC, both directly and indirectly (e.g. via course teachers). Since students are highly impressionable and are the future of research, it is important to not only address them in teaching activities, but also potentially involve them in research and outreach that we take part in. We will develop a strategy for how to engage with students, together with advisory board.

6.4 Connect

To connect the diverse stakeholders involved in research integrity and open science at the VU and Amsterdam UMC, we will create and support topic specific communities of practices with diverse stakeholders. Our focus in the first year will be the communities of practice on research ethics committees and research integrity training. In the second half of 2025, we will evaluate these communities of practice and see whether we have the capacity to add additional ones, and whether that would be needed or desirable. The table below provides some examples of activities that both the two starting communities of practice, but also potential additional ones, could engage in.

Table 4: Example activities within both communities of practice

Community of Practice	Example of Activities
Research Integrity Training	- Exchange of practices and needs in RI training
(fall of 2024)	 Collaborate in delivering RI training at the VU and Amsterdam UMC – multi-faculty collaboration
	- Engage with the relevant stakeholders (e.g. VU CTL) in developing and delivering new training in RI (or update in
	the current training offer), based on identified needs
	 Research on the quality of current RI training at the VU and Amsterdam UMC
	- Collaborate with RI Policy Officers and RI Coordinators in the optimisation of training at the VU and Amsterdam
Research Ethics Committees	- Engage members of the different Ethics Committees to share experiences, practices and needs – e.g. meetings to
(fall of 2024)	discuss anonymised cases.
	 Promote training in research ethics and identify the needs at the institutional level
	 Research on Research Ethics: how research ethics is perceived and applied at each faculty
Supervision	 Engage supervisors of PhD students to share practices and needs in training
(to consider later)	 Assess current training available for supervisors and needs for further developments
Open Science	 Exchange of practices and needs in OS training
(to consider later)	 Engage with relevant stakeholders (e.g. VU CTL) in developing and delivering training
	- Engage with external stakeholders (e.g. Open Science NL, NL Reproducibility Network) in the development of
	events, resources, training, etc.
Research culture	- Exchange of knowledge and experiences
(to consider later)	 Engagement with the research community for community building

7. Timeline 2025-2027

Activity		2025)26			2027			
Quarter	1	2	3	4	1	2	3	4	1	2	3	4
Research												
IDEA project research – integrating diversity into researcher assessment												
OpenScienceNL project focused on open science and recognition and rewards												
Conduct research on RI training at HUM faculty												
Interview study, survey and workshops on research culture												
Scoping review – fairness and research integrity and open science codes												
Research on the development of the MPowering Supervision training												
Article about setting up and establishing RIOS												
Setting up a diamond open access journal												
Applying for grants												
Teaching												
Delivery of trainings and development of training materials												
Exploring how to reach bachelor and master students												
Evaluation of trainings												
											┢━━╋	
Service and outreach												
Developing action plan with policy staff on integrating diversity into researcher assessments												_
Exploring outreach to students												
Communities of practice											$ \rightarrow$	-
Establishing communities of practice on research ethics committees and training												
Evaluating possibility to establish anew communities of practice												
Potentially starting new communities of practice												