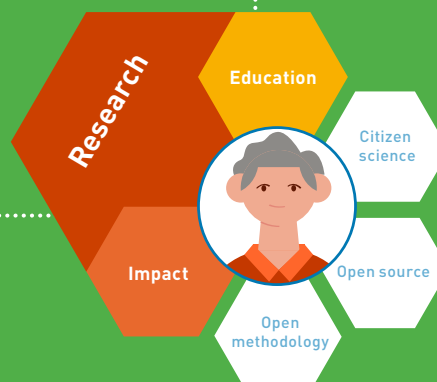
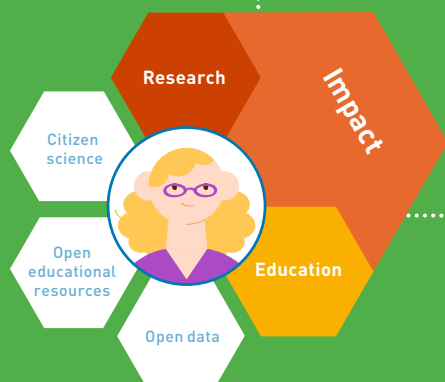
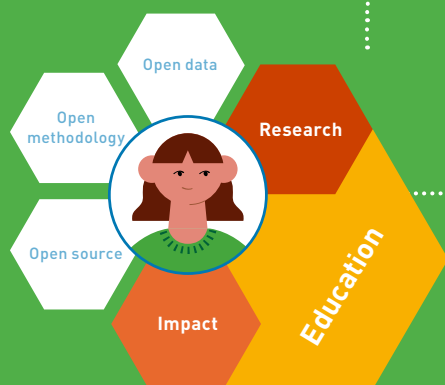


Open Science Guide

Recognition and Rewards



Introduction

Within Recognition and Rewards, ¹ Open Science takes shape in research, education and impact. This guide specifies and supports the use and development of Open Science across the various career profiles and is intended to inspire discussion on this topic. The guide distinguishes between two roles: 'role model' and 'facilitator'. A 'role model' sets an example by applying numerous aspects of Open Science in their own work, helping to make science more transparent and serving as a source of inspiration for others. A facilitator supports and encourages others in applying and developing Open Science.

The 'basic aspects' within these roles are Open Science requirements that every academic must meet. These basic aspects are set out in existing policy. The 'developmental aspects' indicate where someone can demonstrate further development, from Assistant Professor level and, in any case, from Associate Professor level. This guide provides examples for each aspect. It is important to note that there may be differences between disciplines: what is still developing in one field may already be established practice in another.

¹ See: <https://vu.nl/en/about-vu/more-about/recognition-rewards-embracing-diverse-talent>

Roles

Role model

An inspiring example in applying and further developing Open Science.

Facilitator

Encourages others to apply and develop Open Science practices.

Basic Open Science requirements

In accordance with existing policy



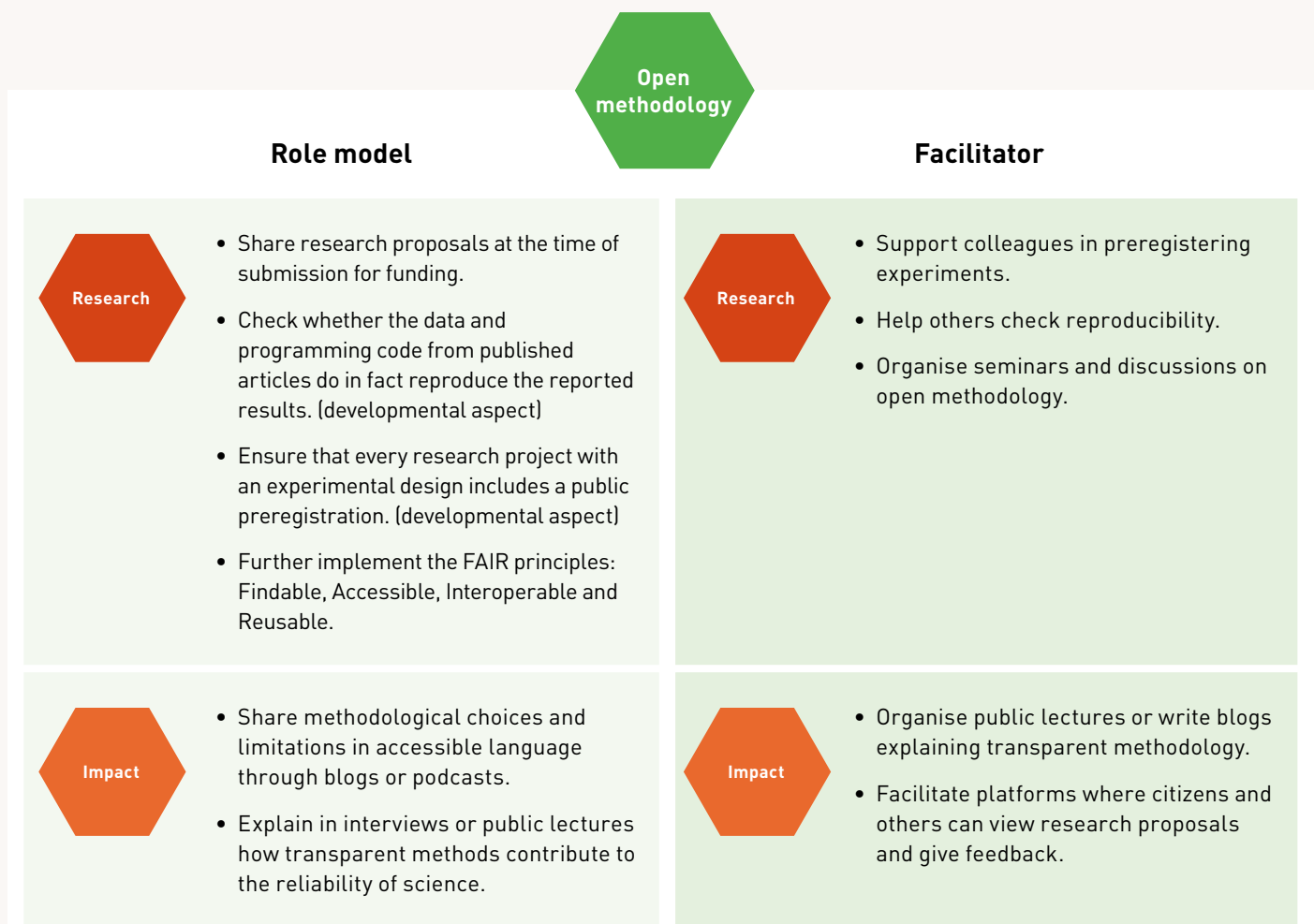
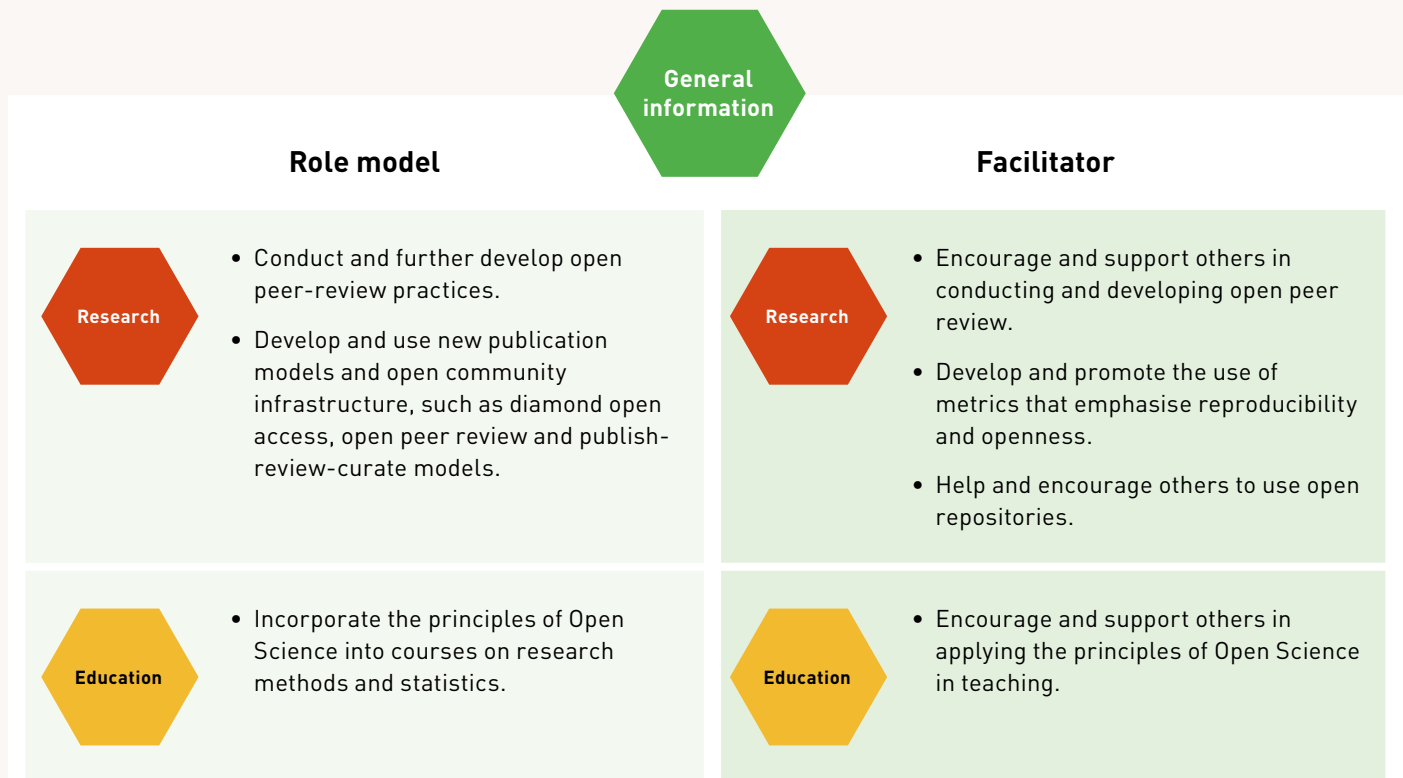
- Academic publications must ²:
 - be registered in the current research information system;
 - be made Open Access immediately under an open licence, where possible;
 - remain under the author's copyright, where possible;
 - be made available through the VU Repository.
- If a patent application may be possible, contact IXA-GO before publication.
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- Archive all research data and software that lead to a publication, whether in an article or another narrative form, in a trusted repository for at least ten years after publication, unless statutory provisions, discipline-specific guidelines or contractual provisions prescribe otherwise.³
The date of publication is taken to be the date on which the work is first made available online.
- Publish all research data and software that lead to a publication, whether in an article or another narrative form, for scholarly reuse. This means that these materials can be found online and have a unique, persistent reference. The level of access to the data and/or software must be determined during the publication process.
If data or software contain confidential information, information subject to intellectual property rights or personal data, an assessment must be made as to whether these data can be made available for reuse and, if so, under what conditions.
- Describe archived and published data and software in VU Amsterdam's Current Research Information System (CRIS). In most cases, this happens automatically. Education en impact: zie ontwikkelaspecten.
- Researchers must be able to describe information about data and software in an availability statement.
- Education and impact: see developmental aspects.

² VU Open Access Policy (2023): https://assets-us-01.kc-usercontent.com/d8b6f1f5-816c-005b-1dc1-e363dd7ce9a5/b5556da5-6c2d-41f9-a77e-3f4b590b1d49/D_UB_VU%20Open%20Access%20Policy%201.0.pdf, with further information available at <https://vu.nl/en/employee/open-access>.

³ VU Research Data and Software Policy (2024): <https://rdm.vu.nl/public/policies-regulations/RDSM-policy-VU-NL-v3.0.pdf>; see also: VU Minimal Metadata Guide. In principle, the richer the metadata, the better. However, the metadata used in this standard can be applied across a wide range of platforms, tools and other systems, and provide the minimum characteristics that must be described for research data.

Developmental aspects of Open Science

Examples of development.



Open Data

Role model

Education

- Teach students that they should make programming code available, for example in R and Python.
- Teach Research Master's students to document and publish the data they collect in a clear and understandable way.

Research

- Help others gain access to data, including partially identifiable personal data, such as qualitative personal data.
- Take part in the RIOS RepliClub, which examines the robustness of results reported in published articles.
- Further implement the FAIR principles: Findable, Accessible, Interoperable and Reusable.

Impact

- Work with societal partners to use data for policymaking or innovation.

Facilitator

Education

- Include an explanation of the data used for each empirical chapter in dissertation portfolios, for example in a Data Accountability Statement.
- Encourage and monitor clear documentation of data and programming code (between DMP and publications).

Research

- Organise code-check workshops where researchers test whether they can use each other's programming code.
- Teach researchers how to document and publish the data they collect in a clear and understandable way.
- For managers: make more research time available to researchers who make data and programming code available.
- For managers: provide drop-in sessions where data stewards help researchers document and make their data available in a clear and understandable way.

Impact

- Work with societal partners to use data for policymaking or innovation.
- Organise hackathons using open data.

Open Source

Role model

Education

- Teach Research Master's students to document and publish the programming code they write in a clear and understandable way.

Research

- Make research outputs, such as articles, data, programming code and other materials, accessible prior to review by journals and conferences.
- Develop a plan for each research project to document and publish data and code in a clear and understandable way.
- Conduct a public power analysis for every research project involving statistical analysis.

Impact

- Make software and tools freely available and promote reuse by companies, NGOs and educational institutions.

Facilitator

Education

- Make Open Science contributions, such as software documentation, count as full dissertation contributions and carry the same weight as SCI publications.

Research

- Teach researchers how to document and publish the data they collect and the code they write in a clear and understandable way.

Impact

- Make software and tools freely available and promote reuse by companies, NGOs and educational institutions.
- Encourage open-source contributions as part of societal projects.

Citizen Science

Role model

Research

- Develop research designs and collect data collaboratively.

Impact

- Work with academics, citizens, institutions and companies in an open network centred on knowledge sharing.
- Develop projects in which citizens actively contribute to data collection and analysis.

Facilitator

Research

- Develop research designs and collect data collaboratively.

Impact

- Ask PhD candidates to include an alternative chapter in each dissertation that links the research to practice.
- Create platforms where citizens can suggest research questions.

Open Educational Resources

Role model

Education

- Develop and use open educational materials.
- Use textbooks and articles that explicitly address the principles of Open Science.

Facilitator

Education

- Support and encourage others in developing and using open educational materials.

Impact

- Support schools and societal organisations in using open educational resources.

Next steps

This guide has been developed to specify and support the use of Open Science across the various career profiles. It is also intended to inspire the further development of Open Science. You can use this information, for example, to prepare for your annual review or another career development meeting.

More information about Open Science and Recognition and Rewards:

[Open Science Vrije Universiteit Amsterdam \(vu.nl\)](https://vu.nl/open-science)

[Recognition and Rewards Vrije Universiteit Amsterdam \(vu.nl\)](https://vu.nl/recognition-and-rewards)

[Academic career paths \(VU.nl\)](https://vu.nl/academic-career-paths)

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