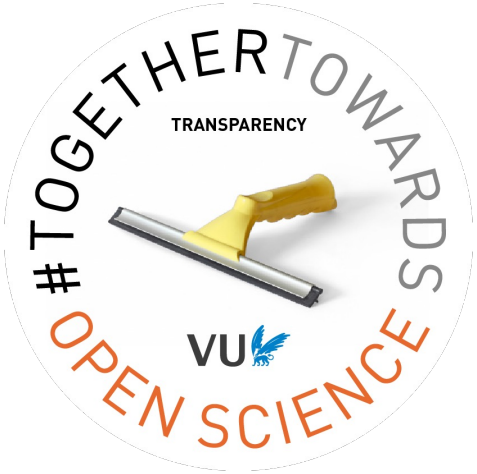
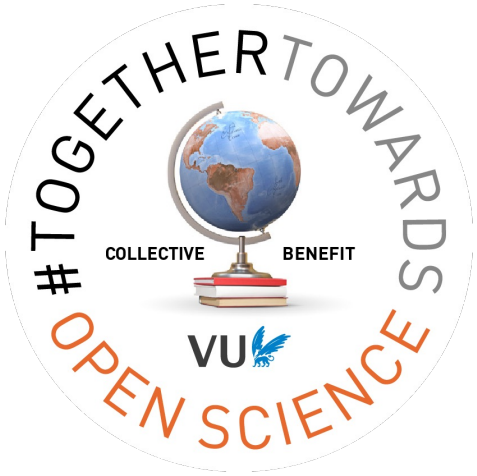
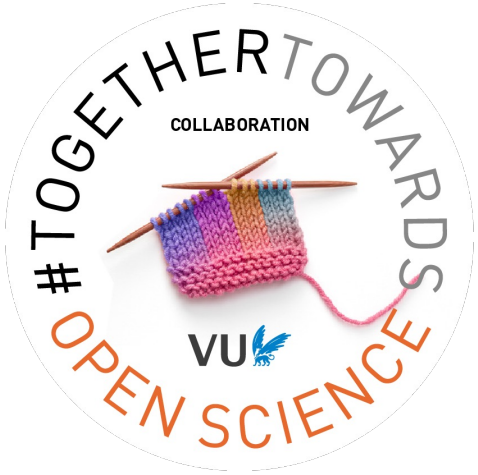
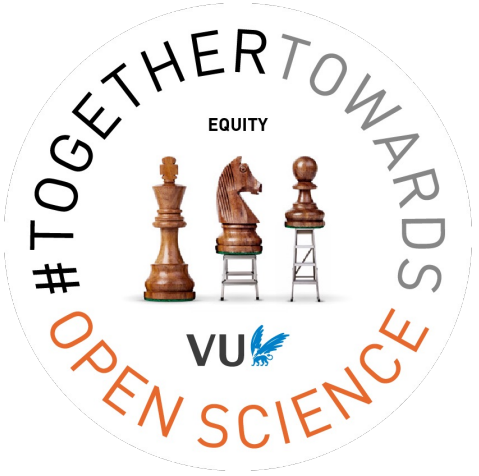
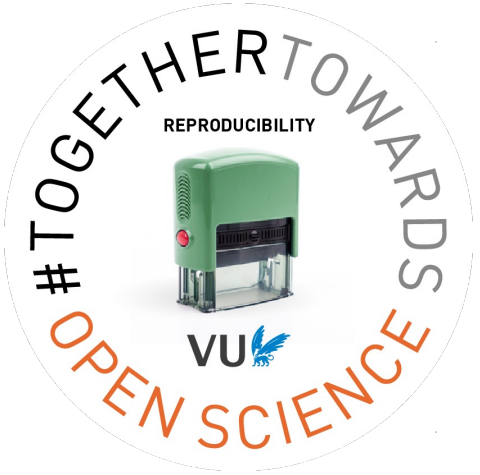
OPEN SCIENCE @VU











DR SANDER BOSCH – S.E.BOSCH@VU.NL

(INTER)NATIONAL CONTEXT

UNESCO Recommendation on Open Science

nationaal programma open science

REGIEORGAAN OPEN SCIENCE NL

European Commission

"'Open science' en 'open education' worden de normen"

"Our vision is that the assessment of research, researchers and research organisations recognises the diverse outputs, practices and activities that maximise the quality and impact of research."

CoARA

G7 SENDAI

G7 2023 HIROSHIMA SUMMIT

"The G7 will collaborate in expanding open science with equitable dissemination of scientific knowledge and publicly funded research outputs"

https://en.unesco.org/science-sustainable-future/open-science/recommendation
https://coara.eu/
https://research-and-innovation.ec.europa.eu/strategy/strategy-2020-2024/our-digital-future/open-science_en

VU

WHAT IS OPEN SCIENCE?

unesco

"**Open Science** aims to

- make scientific knowledge openly available, accessible and reusable for everyone — **Quality and integrity**
- increase scientific collaborations and sharing of information for the benefits of science and society — **Diversity, equity, inclusion**
- open the processes of scientific knowledge creation, evaluation and communication to societal actors beyond the traditional scientific community" — **Collective benefit**

https://en.unesco.org/science-sustainable-future/open-science/recommendation

Open Science =

Transparency

Reproducibility

Collective Benefit

Collaboration

Equity

THE SCOPE

FAIR & RESPONSIBLE RESEARCH

(Open Access) Publications

(FAIR) Data & Software

(Open) Research Process

(Open) Evaluation

(Open) Hardware

PUBLIC ENGAGEMENT & IMPACT

Valorisation

Science Communication

Citizen Science

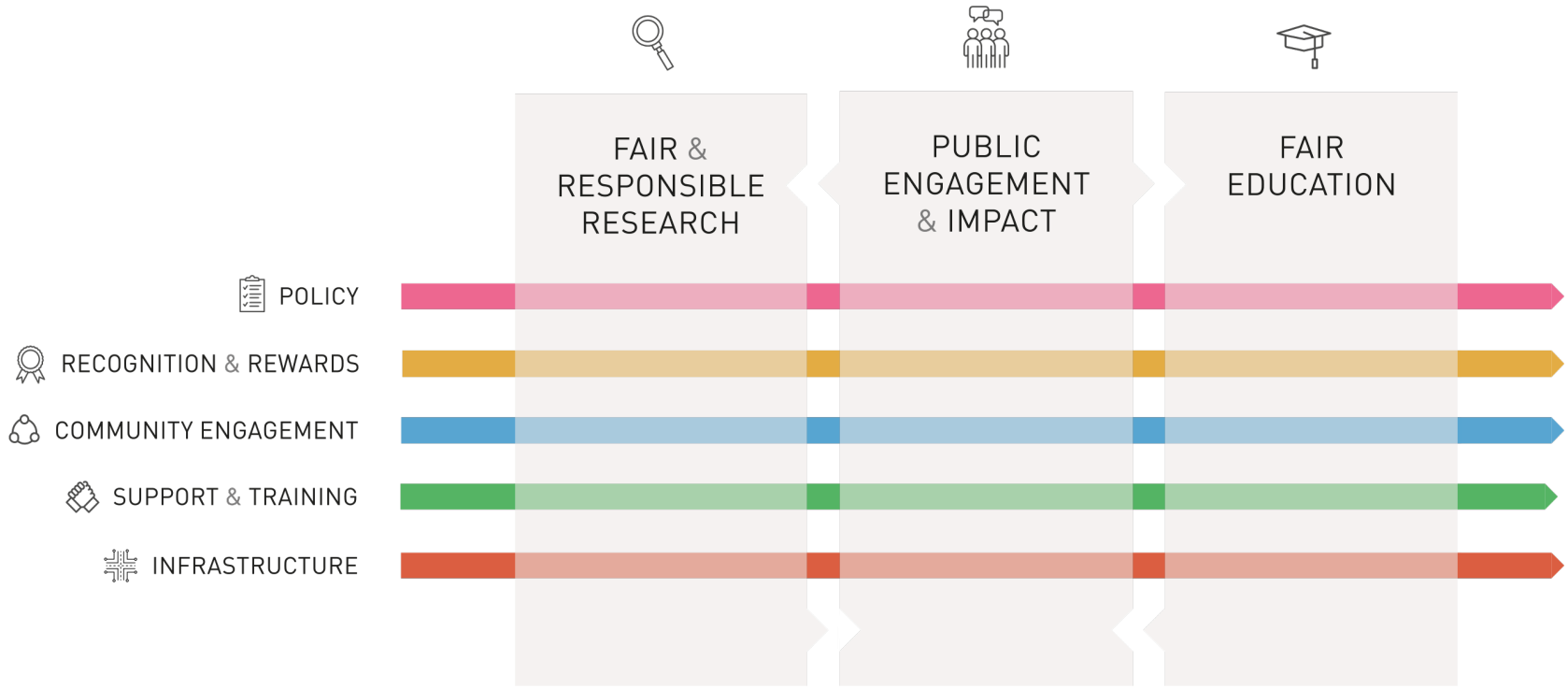
FAIR & OPEN EDUCATION

(Open) Educational Resources

(Open) Educational Formats

(Open) Pedagogy

TOWARDS OPEN SCIENCE



https://vu.nl/openscience

VU

WHAT DO WE DO?

DMP ONLINE

openresearch.amsterdam

OSCA
Open Science Community Amsterdam

OPEN ACCESS POLICY

edusources

OpenAIRE | MONITOR

VU VRIJE UNIVERSITEIT AMSTERDAM

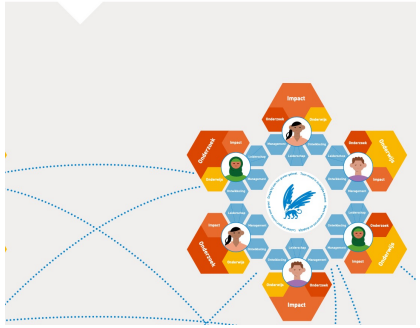
OSF

SIOS
Student Initiative for Open Science

	CS*	MP*	NAS	CBR	MC†	KDH†
Conceptualization	■	■	■		■	■
Funding Acquisition					■	■
Investigation	■	■	■	■		
Methodology	■	■				
Resources					■	■
Software	■	■				
Writing	■	■	■		■	■

*, † these authors contributed equally

Academische Loopbaanpaden



CODE REFINERY

THE CARPENTRIES

Yoda
research data management

VU

INFRASTRUCTURE @VU

Pure	research information system/ publication repository
DMPonline	data management planning
ResearchDrive	storage
DataverseNL	archiving
Yoda	implementation of Yoda for storage/archiving
OSF	research management, possible integration to other services
RDM administration	integration of several overlapping administrative workflows
e-Lab journals	research possible solutions
Storage connections	Development of links between storage solutions

Yoda
research data management

edusources	national platform for open educational resources
CopyRIGHT	tool for teachers
Monitoring of OS	tracking impact/ monitoring OS practices

edusources

OpenAIRE MONITOR

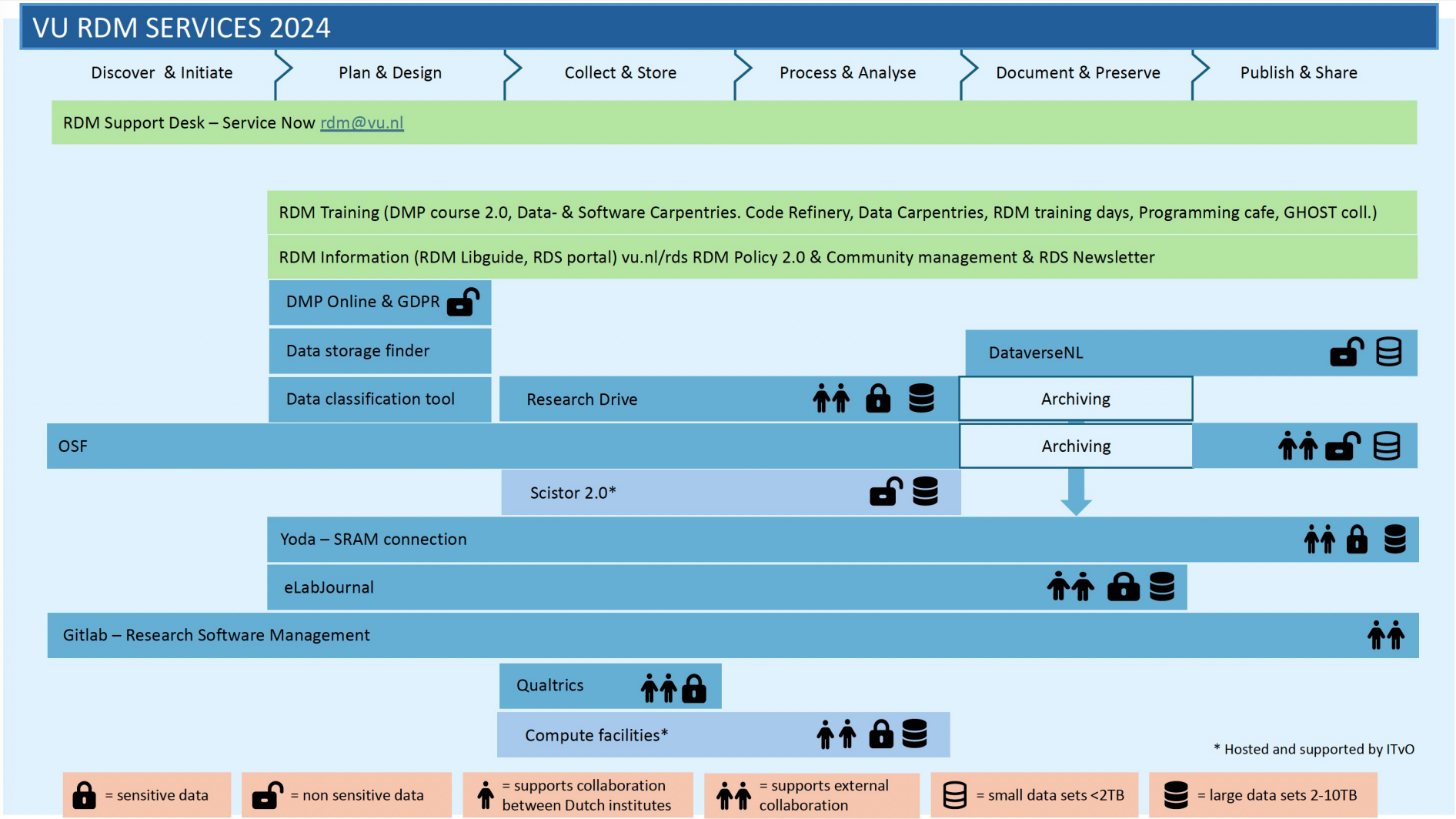
2024

NRDS - RDM-administration (phase 2)
NRDS - E-lab journals (phase 2)
NRDS - Develop RDM-infrastructure (SRAM, ResearchCloud)
NRDS - Federated databases
OS - Wetenschap in de Wolken - infrastructure for citizen science

https://vu.nl/en/about-vu/divisions/university-library/more-about/rdm-tools
https://monitor.openaire.eu/dashboard/aurora
https://vu.nl/nl/over-de-vu/diensten/universiteitsbibliotheek/meer-over/open-leermaterialen

VU

INFRASTRUCTURE @VU



INFRASTRUCTURE FOR CITIZEN SCIENCE

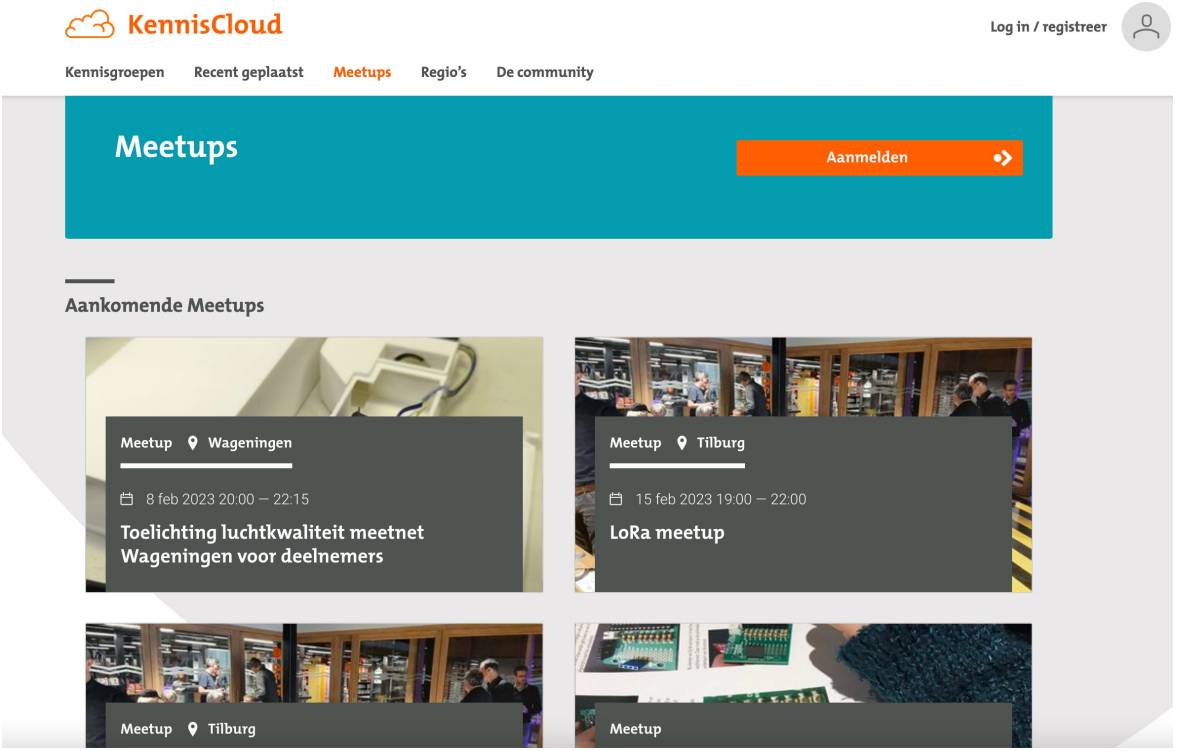
KennisCloud is a network where people, communities and organisations can meet and discuss societally relevant themes

Offline

- Kennisgroepen
- De Bibliotheek Midden-Brabant (Tilburg)
- Community Librarian

Online

https://www.kenniscloud.nl/



KennisCloud VU waag futurelab obd KB nationale bibliotheek

SUPPORT & TRAINING

Network RDS	Strengthening support network at the VU within departments
OS/RDM for staff	Embedding of OS/RDM in leadership training
OS/RDM toolkit	Toolkit with OS/RDM resources for Ba/Ma
Carpentries workshops	Growing a Carpentries community
Research Software Management	Pilot SMP, development of support & information
OER Support	Creation of an OER Support Desk

THE CARPENTRIES

Taxila

2024

NRDS/OS - Build national network on training
NRDS/OS - Discipline-specific training/ guidelines for VU researchers
OS - Support for knowledge platform openresearch.amsterdam
OS - Accessible PhD lay talks

openresearch.amsterdam

https://vu-nl.libcal.com/calendar/universitylibrary?cid=7052&t=g&d=0000-00-00&cal=7052&inc=0
https://openresearch.amsterdam/
https://taxila.nl/

VU

RESEARCH SUPPORT

Coordination/ training	**Library information specialists**
Funder demands	**Grant advisors**
Privacy	**Privacy officers/ legal** **Ethical committees**
Intellectual property	**IP experts**
Knowledge safety	**Policy officers/ Legal**
Documentation	**Library information specialists**
Data/ software management	**Data stewards/ managers** **Research software engineers** **IT**

TRAINING

Training opportunities @VU

DMPonline	Data management planning
YoDa	Storage/ archiving
OSF	Research management
Carpentries	Basic data and software skill training
Coderefinery	Advanced data and software skill training
OS/RDM toolkit	Toolkit with OS/RDM resources for Ba/Ma students

National collaboration on training

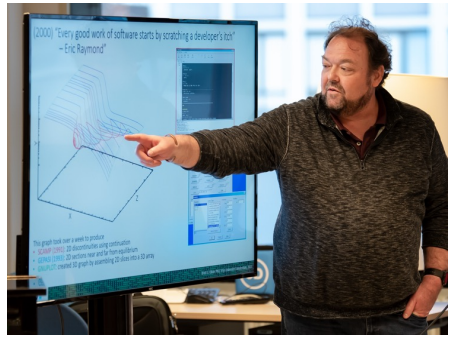
https://taxila.nl/

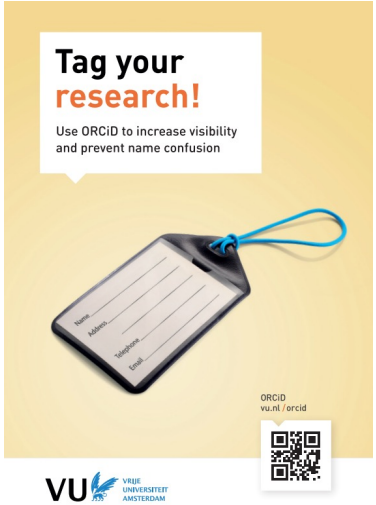
Games of Horror for Open Science Training

COMMUNITY ENGAGEMENT

Community support	Events, Art/Science collaboration!
GHOST collective	OS against humanity!
Engagement campaign	Awareness and engagement campaign for OS/RDM/OER
OS Seed fund	Funding for OS projects, in collaboration with Open Seeds mentoring programme
ORCID campaign	

Games of Horror for Open Science Training





2024

NRDS/OS - RDM/OS Community management
OS – Ambassadors with faculties/departments
OS - Support OSCA/ SIOS (e.g. with OSCAwards)
OS – Community events

https://osc-international.com/osc-amsterdam/
https://studentinitiativeopenscience.wordpress.com/
https://www.artsciencegallery.nl/exhibition/creating-the-commons/
https://vu.nl/nl/nieuws/2023/vu-open-science-challenge-award-2023-voor-8-projecten

VU

OS EVENTS

(2000) "Every good work of software starts by scratching a developer's itch"
– Eric Raymond"

All I want for Christmas is...
pen Science

DATA CONVERSATIONS
Let's talk open science
and research data!

KNOWLEDGE EQUITY!

Knowledge Equity Symposium

20 June 2024, 9:30 - 15:00

Scan the QR code to register

Join us for a day of insightful discussions and reflections on Open Science and knowledge equity as we celebrate signing the **Declaration on Knowledge Equity** and joining the **Knowledge Equity Network**.

The event promises to inspire meaningful discussion and collaborative action towards a more equitable and inclusive scientific landscape.

Register now!

VU VRIJE UNIVERSITEIT AMSTERDAM

Knowledge Equity Network

#TogetherTowardsOpenScience

OPEN SCIENCE COMMUNITIES

Collaboration with the International Network of Open Science Communities (INOSC) – 12-week incubator programme for new communities

"bottom-up learning communities of researchers and students for learning and sharing about Open Science"

OSCA
Open Science Community Amsterdam

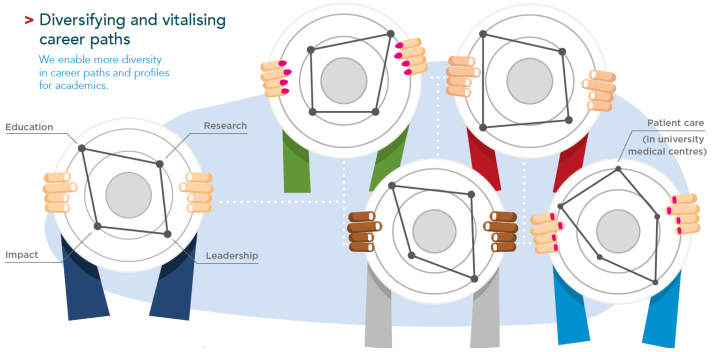
https://osc-international.com/open-science-community-the-netherlands/
https://osc-international.com/start-your-own-osc/

VU

RECOGNITION & REWARDS

Diversification and vitalisation of career paths
Finding a balance between the individual and the collective
Focus on quality
Stimulating **Open Science**
Encouraging academic leadership

More focus on qualitative assessment
Broader definition of scientific output and success
Open Science as a pillar for assessment (e.g. Hong Kong Principles)



CoARA

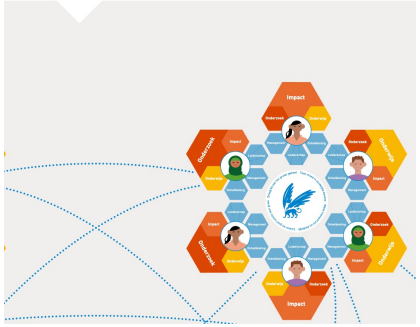
https://vsnu.nl/files/documenten/Domeinen/Onderzoek/Position%20paper%20Room%20for%20everyone%E2%80%99s%20talent.pdf
https://www.vsnu.nl/files/documenten/Domeinen/Onderzoek/SEP_2021-2027.pdf
https://journals.plos.org/plosbiology/article?id=10.1371/journal.pbio.3000737
https://credit.niso.org/
https://assets.vu.nl/d8b6f1f5-816c-005b-1dc1-e363dd7ce9a5/de3480c3-3962-4a3e-a934-b61fe6deb90e/Academic%20Careerpath%202023%20VU_EN.pdf

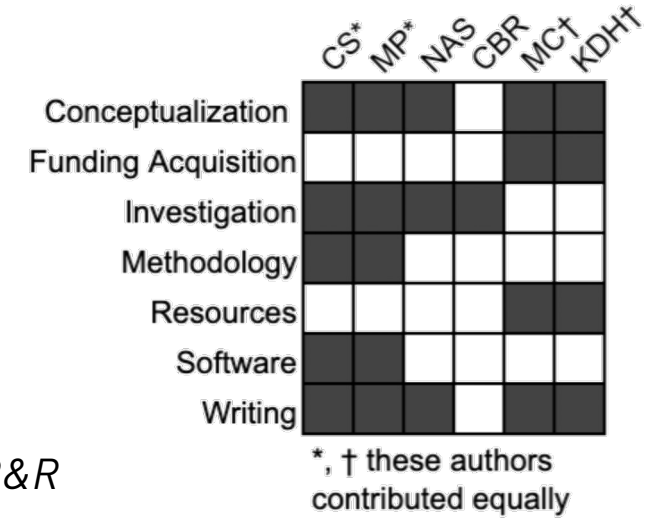
VU

RECOGNITION & REWARDS

Road show	Discussions within faculties/ services
Art of Engagement	Leadership/ team membership workshop
Tenure-track policy	Align tenure-track policy with R&R
Commitment	To R&R/ DORA/ Open Science
Registration workflows	Which information do we want to register in our Current Research Information System (CRIS)?

Academische Loopbaanpaden





2024

Implement assessment procedures in line with R&R
Roadmap for registration of new information
Recognition & Rewards for early-career academics
Pilot CRediT
Aurora Open Science Monitor

https://credit.niso.org/
https://assets.vu.nl/d8b6f1f5-816c-005b-1dc1-e363dd7ce9a5/de3480c3-3962-4a3e-a934-b61fe6deb90e/Academic%20Careerpath%202023%20VU_EN.pdf

POLICY

Fund for innovations on Open Access
Retrospective green Open Access

Cost analysis OA/RDM
Commitment for structural change

Guidelines for software management

2024
Fund for innovations on Open Access
Open Education policy
Revision of RDM Policy
Involvement in implementation of
Open Science NL

Diamond

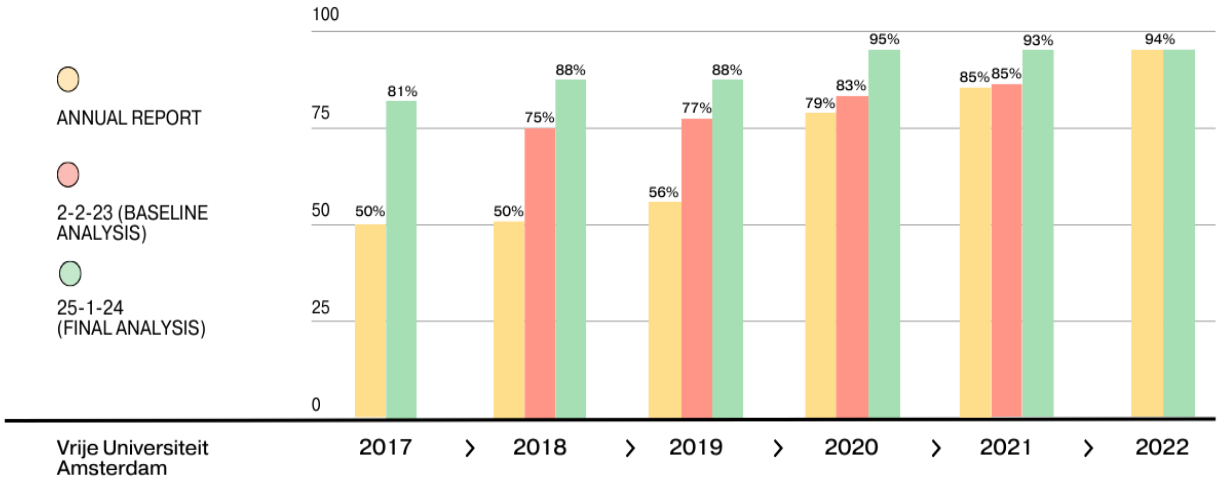
Gold

Green

OPEN ACCESS PERCENTAGES

During the Retrospective Open Access project:

- the Open Access percentages increased with an average of 9,75 percentage point. Baseline analysis could not be performed for 2017 and 2022.
- about 4100 publications in total were made Open Access.
- the average response rate of authors to a requested .pdf was 35%.



https://vu.nl/en/news/2023/vu-open-access-innovation-fund-supports-open-free-and-equitable-publishing

VU

NL UNIVERSITIES' OPEN SCIENCE AGENDA

Universiteiten van Nederland

Open Infrastructures

1. Federated network repositories
2. Central warehouse for open metadata
3. Public platform for scientific works

Support & Training

4. Embedding Open Science in research curriculum & training
5. Strengthening capacity for FAIRification
6. Strengthening capacity for societal engagement

Community Engagement

7. Open Science in education
8. Strengthening Open Science Communities
9. Open Science-practices in quality standards
10. Making OS normative through international collaboration

Recognition & Rewards

11. Reward Open Science in HR-policy
12. Incorporate Open Science in institutional and national policy
13. Accelerate Open Science

Policies & regulations

14. Development of funding instruments for Open Science
15. Strengthen Open Science via laws and regulations
16. (Inter)national conditions for purchase or development of digital services
17. Strengthening university policy
18. National monitoring of progress of Open Science

https://zenodo.org/records/10362465

VU

OSNL WORKING PROGRAMME 2023-2025

REGIEORGAAN OPEN SCIENCE NL

Capacity building	1.1 National training for support staff	4.8M€
	1.2 Strengthen L/TDCCs	15.3M€
	1.3 Citizen Science Hubs	2.0M€
	1.4 Enabling Open publishing	0.3M€
Infrastructure	2.1 Fund for pilot and implementation projects	17.5M€
Robust research processes	3.1 Replication studies	5.2M€
	3.2 Software sustainability	6.0M€
Evidence base for OS	4.1 Research on OS	2.8M€
	4.2 Participatory citizen science calls	0.1M€
	4.3 Monitoring and evaluation	0.4M€
Empowering communities	5.1 OS Festival	0.3M€
	5.2 OS meetings	0.6M€
	5.3 OS Communities	1.1M€
	5.4 CSNL	1.1M€
	5.5 Recognising and Rewarding Open Science	1.4M€

https://www.openscience.nl/sites/open_science/files/media-files/Work%20programme%202024-2025%20v18_W3_WIM.pdf

VU