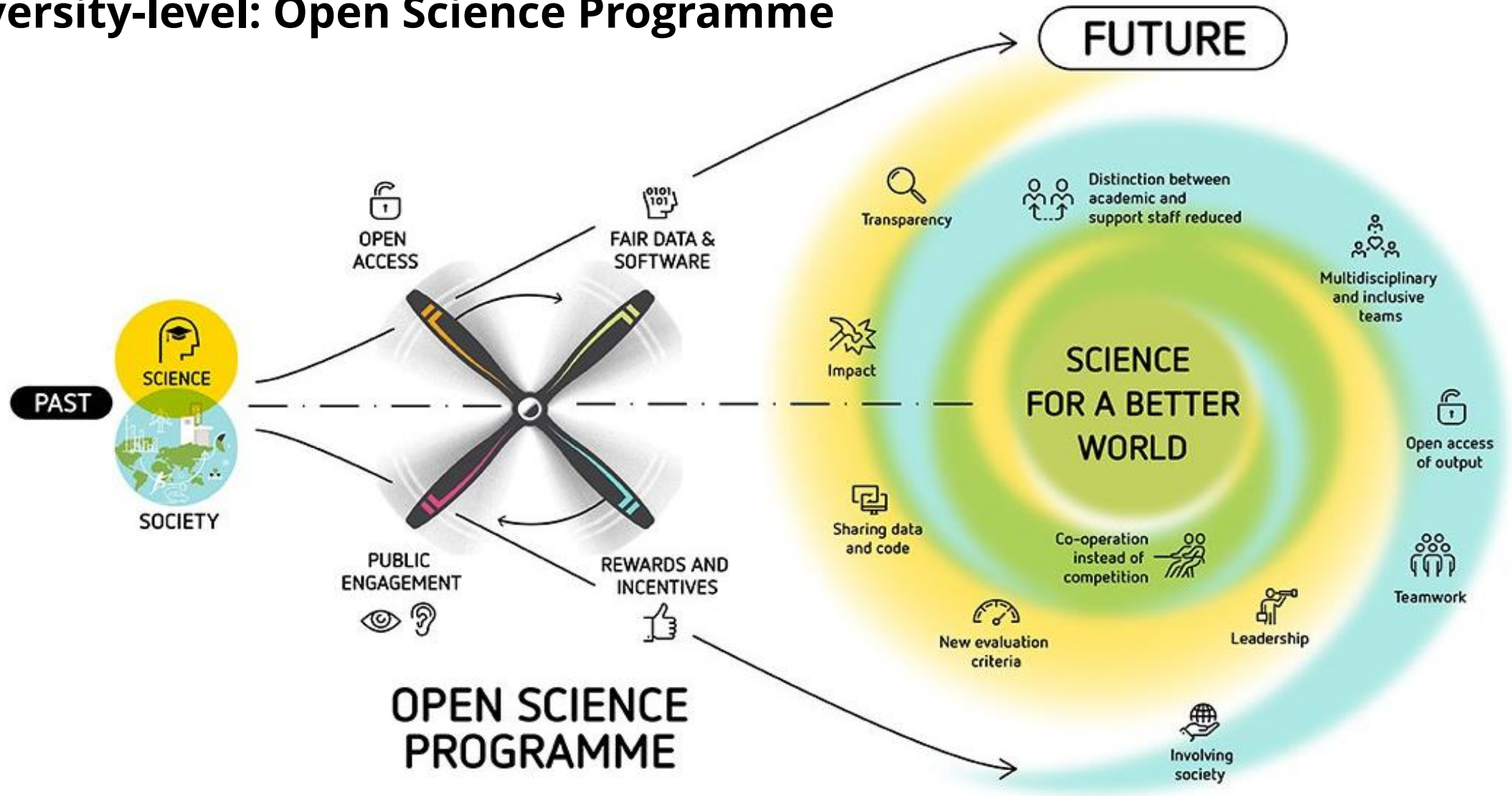


Early insights and questions from assessing open science at Utrecht University

Anestis Amanatidis *Copernicus Institute of Sustainable Development*
Jarno Hoekman *Copernicus Institute of Sustainable Development*
Carolina Castaldi *Human Geography and Spatial Planning*
Jeroen Bosman *University Library*

*Starting point: how does open science matter
in different evaluative contexts?*

University-level: Open Science Programme



Graphical representation of the Open Science Programme's vision. See: <https://www.uu.nl/en/research/open-science>

OS Programme: surveys (2020 & 2022) to monitor open science

Focus on ‘awareness, attitudes and behaviours’ (2022 survey) of open science as:

Reproducibility practices

- pre-registration*
- open research materials*
- open data*

Transparency practices

- pre-printing*
- OA publishing*
- open source software*

Collaboration practices

- public engagement*
- team science*
- societal stakeholder involvement*

Education practices

- open science teaching*
- open education resources*

Departmental level: Copernicus Institute of Sustainable Development

Open science goes by
different terms, namely:

- 'societal impact'
- 'stakeholder engagement'
- 'transdisciplinarity'
- 'transformative research'

More important values
than ideas of open access,
open data and other forms

The screenshot shows the landing page of the Copernicus Institute of Sustainable Development at Utrecht University. The page features a large header image of a tree in a field under a blue sky with clouds. A dark grey box on the right side of the header contains the text "Exploring a sustainable world". Below the header is a yellow banner with the text "Copernicus Institute of Sustainable Development". A black navigation bar contains a home icon and the following menu items: Research, Impact, Education, About us, News & Events, and Contact. The main content area is divided into four columns, each with an image and a text block:

- A positive impact on the transition to a sustainable society**
We develop excellent and relevant knowledge, collaborating with citizens, politicians, policy makers, NGOs and firms to learn from each other and influence decision-making.
- Cutting edge interdisciplinary research**
Our signature cross-topical themes—governance, modelling and transitions—cover central aspects of sustainability research and policy. Our five sustainability challenges, which include circular economy, energy, food, land and water, highlight our research strengths.
- Five research sections**
Our 260 researchers have a home in one of five research sections: Environmental Governance, Environmental Sciences, Innovation Studies, Energy & Resources and the Urban Futures Studio. Together we are the Copernicus Institute of Sustainable Development.
- Transformative education**
Society faces a multitude of complex sustainability challenges which require new ways of thinking and doing. We educate the change agents of the future through our two Bachelor's and six Master's programmes.

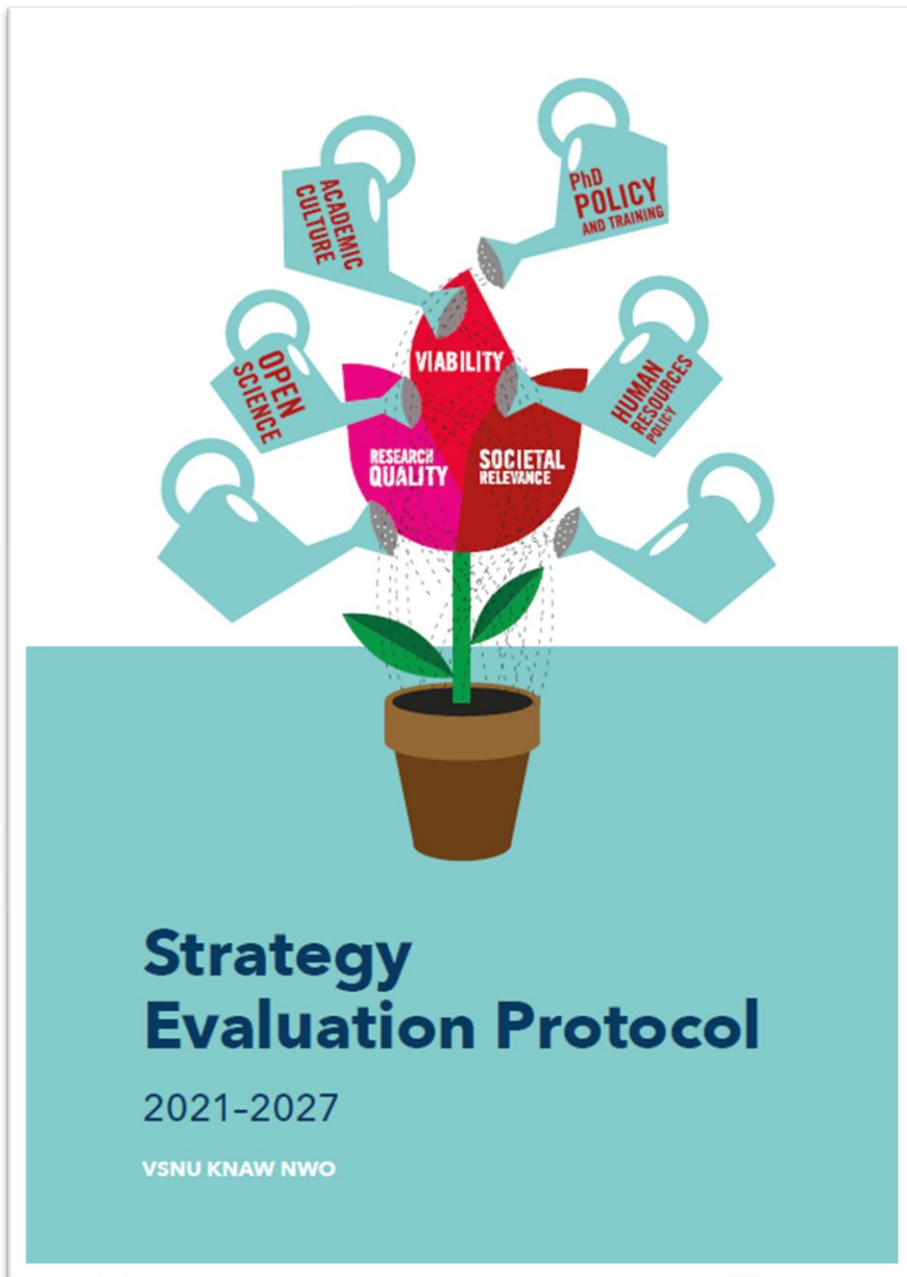
Screen capture of landing page of the [department's website](#), accessed 13.05.2024

SEP Evaluation at Copernicus Institute of Sustainable Development in 2021

On open science:

In the self-evaluation, the research unit reflects on how it involves stakeholders, to which extent the research unit opens up its work to other researchers and societal stakeholders, how it pays attention to other aspects of open science and what its future plans are in this respect.

Screen capture of SEP (2021-2027) open science assessment criterion description. Page 9. Find the protocol [here](#).



Cover page of the [Strategy Evaluation Protocol \(2021-2027\)](#)

Self-assessment of research of
Copernicus Institute of Sustainable Development
2014-2020

Self-assessment of Copernicus Institute of Sustainable Development

“During the past five years we have also witnessed a strong movement towards Open Science [...]. Fortunately, the academic culture within our institute has already been much in line with the university’s Open Science policy, and we have focused for long on inter- and transdisciplinary science.” (p.7)

Self-assessment of research of
Copernicus Institute of Sustainable Development
2014-2020

Self-assessment of Copernicus Institute of Sustainable Development

In practice, systematically gathering evaluative knowledge on open science turned out difficult. The self-assessment report (mainly) included:

- Examples of co-creative projects funded
- 'Marks of recognition' by societal stakeholders (memberships, TV appearances)
- Use of research products by societal target groups (socials, news, Wikipedia mentions)
- Five 'case studies' of societal engagements
- Output 'for' & 'in interaction with' stakeholders
- Share of open access publications

”Societal impact comes with tensions and challenges, takes a long time and is hard to assess, and hence is less easy to capture in metrics that are currently used to measure performance in education and research. At the same time, contributing to a more sustainable and equitable society is what drives many Copernicus staff members.”

Typology of research projects 'with stakeholder engagement(s)' by Boon, Strick & Mattheij (2024):

Design and Goals Inclusion Anticipation Reflection Responsiveness	Outputs Scientific outputs Influencing of public discourse Other research outputs Improvement of dominant practices Influencing of policy Creation of networks
Activities and Processes Participation Learning from each other's values Satisfaction Resolution of conflict	Outcomes Change of knowledge, attitudes, values or behaviours of stakeholders Structural changes that contribute to the challenges facing society

“Consciously considering quality criteria that focus not only on the result (what) but also on the process and collaboration (how), and the intended impact (why), is an important step towards recognising and valuing stakeholder engagement more widely.” (2024)

See p.6, conclusions.
Translated using DeepL software.

What evaluative knowledge is needed?

State of the art (of the GraspOS UU pilot)

How can we think about...

Capturing values

e.g. equitable and sustainable outcomes, justice

Capturing interactions/networks

e.g. engagements with publics, material outputs

Capturing strategies

e.g. capacity building, institutional learning, skills dev.

(...in terms of tools and services for evaluation?)

JOURNAL ARTICLE

Achieving societal and academic impacts of research: A comparison of networks, values, and strategies

Jonna Brenninkmeijer 

Science and Public Policy, Volume 49, Issue 5, October 2022, Pages 728–738,

<https://doi.org/10.1093/scipol/scac022>

Published: 13 May 2022 [Article history](#) ▼

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Abstract

Science policymakers and funding agencies are increasingly interested in the societal impact of research. In practice, this means that, when applying for funding, researchers have to justify the academic impact (e.g. publications and conferences) and the societal impact (e.g. influence on policy and practice) of their proposed research. This paper aims to find out how these requirements relate by comparing two ethnographic case studies of research in health care and health assessment that aim to combine both forms of impact. I analyze the networks, values, and strategies in both research groups, and show that achieving societal and academic impacts are different research practices. Hence, I argue that academic and societal impacts should not simply be added up as requirements for research funding or academic career development but should be understood and appreciated on their own terms.

Issue Section: [Article](#)

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Sharing science,
shaping tomorrow