Research Evaluation & Open Scholarship

Cultural resources, agents of change, and partnerships

Clifford Tatum, 03 July 2020 | KE Openness Profile Workshop

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Outline

- Cultural resources

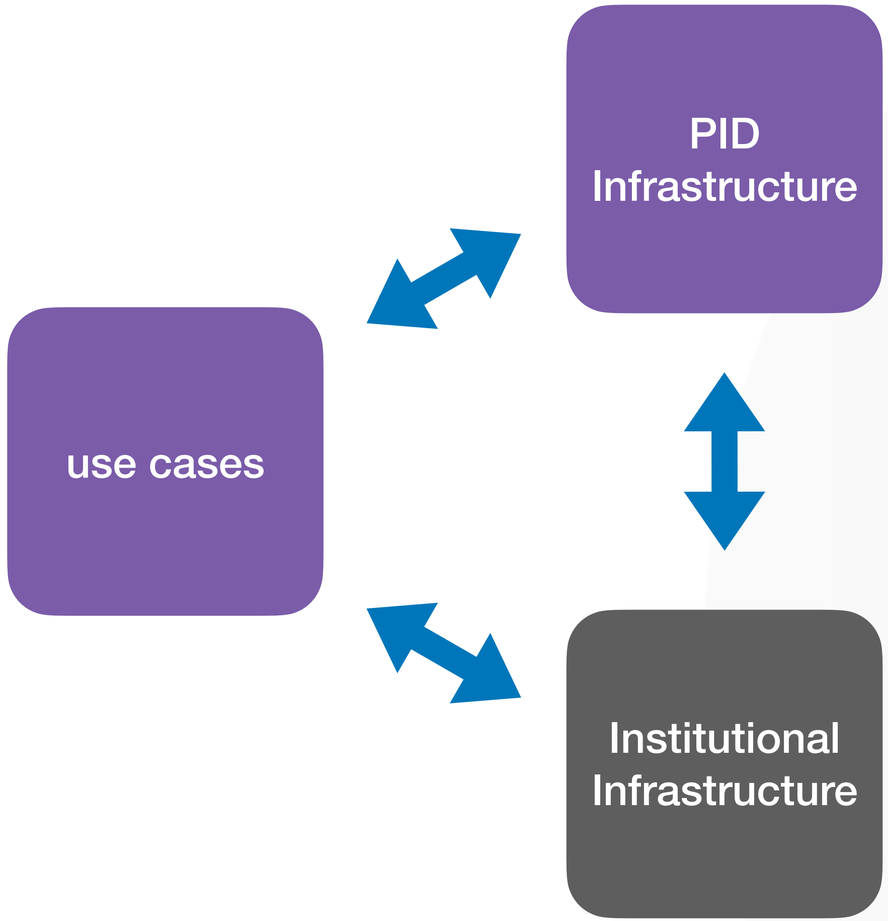
- research policy
- bottom up principles and frameworks

- Agents of Change

- survey of European universities
- institutions as strategic actors

- **Partnerships**

- funder use case
- PID systems


PID
Infrastructure
use cases
Institutional
Infrastructure

Cultural Resources

Situation: Implementation of top-down open science policy initiatives, relies on vast cultural change associated with established recognition and reward systems.

In spite of this, many involved with research already do open science or contribute to it in other ways.

*The idea of open science entails **systemic change** across all stakeholders, **towards sharing and using all available knowledge at an earlier stage in the research process**. (EC 2016)*

*vast cultural change is needed in the transition to **a more comprehensive recognition and reward system incorporating Open Science** (EC July 2017)*

*It is **imperative to strike a balance between top-down efforts** to incentivise open scholarship **and bottom-up resources*** [associated with] *needs, expectations and background knowledge of users on the ground. (EC/Leonelli November 2017)*

Evolving research evaluation landscape (examples)

Principles

DORA—	stop using Journal Impact Factor for evaluation of individuals
Metric Tide—	quantitative assessment should support, not replace, expert judgment
Leiden Manifesto—	Responsible metrics

Frameworks

HuMetricsHSS—	humanities scholars evaluated on the basis of agreed values, such as: Equity, Openness, Collegiality, Quality, Community
INORM's SCOPE—	START with what you value, CONTEXT considerations, OPTIONS for measuring, PROBE deeply, EVALUATE your evaluation
Evaluative Inquriy—	CWTS framework: 'prospective', portfolio approach for group level assessment; mixed methods and engaged

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Frameworks

ACUMEN portfolio (2011-2014)

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Researcher evaluation

ACUMEN portfolio (EC FP7, 2011-2014)

aims to give researchers a voice in evaluation

- evidence based arguments
- shift to dialog orientation
- selection of indicators
- narrative component
- Good Evaluation Practices
- envisioned as web service

http://research-acumen.eu

Open Science Career Assessment Matrix (OS-CAM)

Open Science Career Assessment Matrix (OS-CAM)	
Open Science activities	*Possible evaluation criteria*
RESEARCH OUTPUT	
Research activity	Pushing forward the boundaries of open science as a research topic
Publications	Publishing in open access journals Self-archiving in open access repositories
Datasets and research results	Using the FAIR data principles Adopting quality standards in open data management and open datasets Making use of open data from other researchers
Open source	Using open source software and other open tools Developing new software and tools that are open to other users
Funding	Securing funding for open science activities
RESEARCH PROCESS	
Stakeholder engagement / citizen science	Actively engaging society and research users in the research process Sharing provisional research results with stakeholders through open platforms (e.g. Arxiv, Figshare) Involving stakeholders in peer review processes
Collaboration and Interdisciplinarity	Widening participation in research through open collaborative projects Engaging in team science through diverse cross-disciplinary teams
Research integrity	Being aware of the ethical and legal issues relating to data sharing, confidentiality, attribution and environmental impact of open science activities Fully recognizing the contribution of others in research projects, including collaborators, co-authors, citizens, open data providers
Risk management	Taking account of the risks involved in open science
SERVICE AND LEADERSHIP	
Leadership	Developing a vision and strategy on how to integrate OS practices in the normal practice of doing research Driving policy and practice in open science Being a role model in practicing open science
Academic standing	Developing an international or national profile for open science activities Contributing as editor or advisor for open science journals or bodies
Peer review	Contributing to open peer review processes Examining or assessing open research
Networking	Participating in national and international networks relating to open science

RESEARCH IMPACT	
Communication and Dissemination	Participating in public engagement activities Sharing research results through non-academic dissemination channels Translating research into a language suitable for public understanding
IP (patents, licenses)	Being knowledgeable on the legal and ethical issues relating to IPR Transferring IP to the wider economy
Societal impact	Evidence of use of research by societal groups Recognition from societal groups or for societal activities
Knowledge exchange	Engaging in open innovation with partners beyond academia
TEACHING AND SUPERVISION	
Teaching	Training other researchers in open science principles and methods Developing curricula and programs in open science methods, including open science data management Raising awareness and understanding in open science in undergraduate and masters' programs
Mentoring	Mentoring and encouraging others in developing their open science capabilities
Supervision	Supporting early stage researchers to adopt an open science approach
PROFESSIONAL EXPERIENCE	
Continuing professional development	Investing in own professional development to build open science capabilities
Project management	Successfully delivering open science projects involving diverse research teams
Personal qualities	Demonstrating the personal qualities to engage society and research users with open science Showing the flexibility and perseverance to respond to the challenges of conducting open science

Agents of Change

EUA Survey: Research Assessment in the Transition to Open Science

based on 260 valid responses from universities in 32 European countries

Table 3 – Autonomy to develop and implement research assessment approaches

Based on single-choice survey questions 4 (number of respondents: 197/197), 10 (183/183) and 13 (177/177)

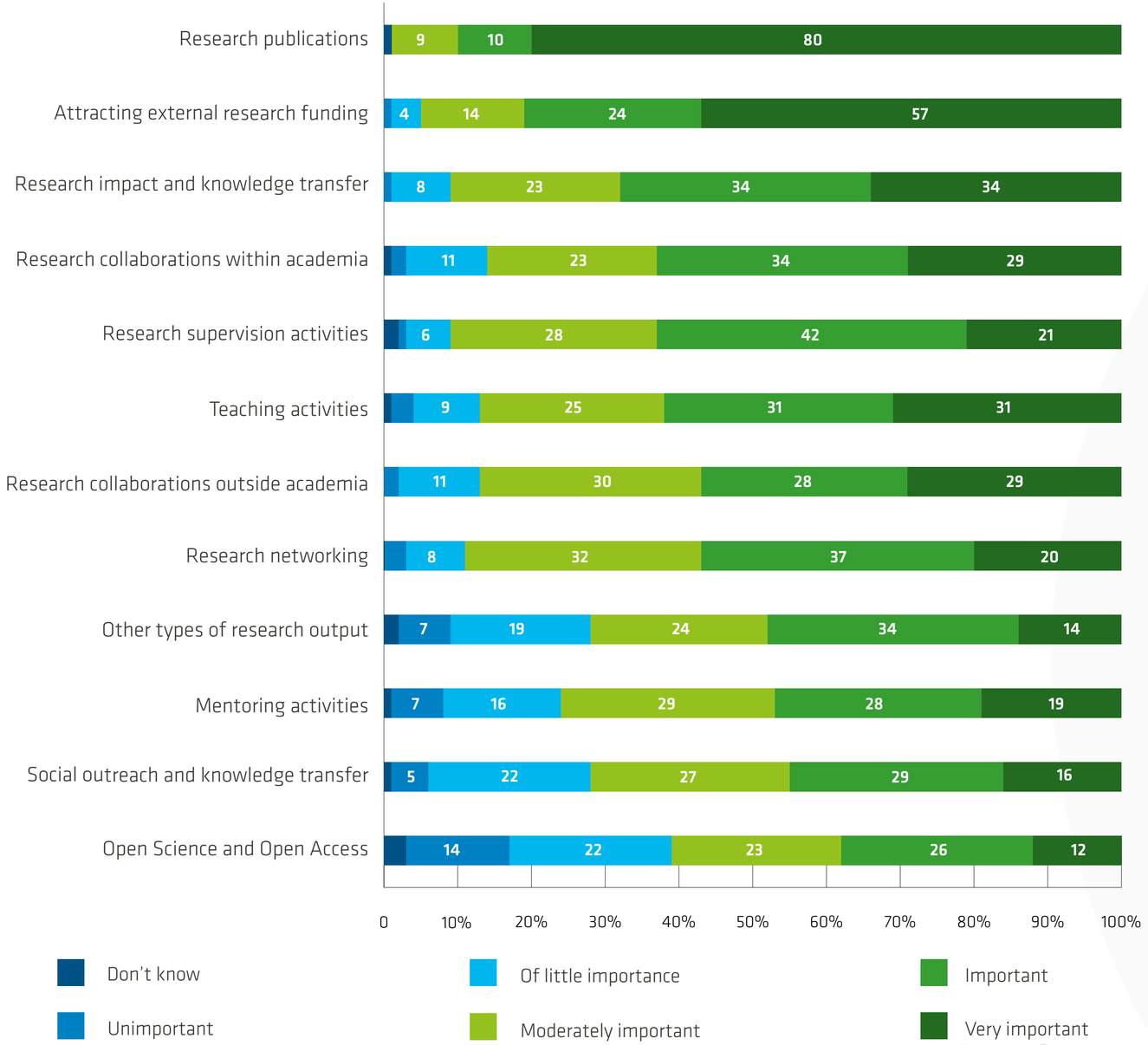
	Research careers (in %)	Performance of research units (in %)	Internal research funding allocation (in %)
Highly autonomous	38	44	55
Mostly autonomous	41	39	35
Some autonomy	17	14	9
Low autonomy	4	3	1

In summary, universities do not develop and implement research assessment procedures in isolation. While responding institutions consider themselves as having significant autonomy to develop and implement procedures, they are also keenly aware of the influence of external actors and conditions, notably governments and research funding organisations. Universities also feel the pressure of the competitive research and innovation environment, which they recognise as affecting their research assessment approaches.

Saenen, et al. 2019. https://www.eua.eu/component/attachments/attachments.html?id=2444

Figure 9 – Importance of academic activities for research careers

Based on survey question 7, ranking question (cf. Annex 1). Number of respondents: 191-195/197



Saenen, et al. 2019. https://www.eua.eu/component/attachments/attachments.html?id=2444

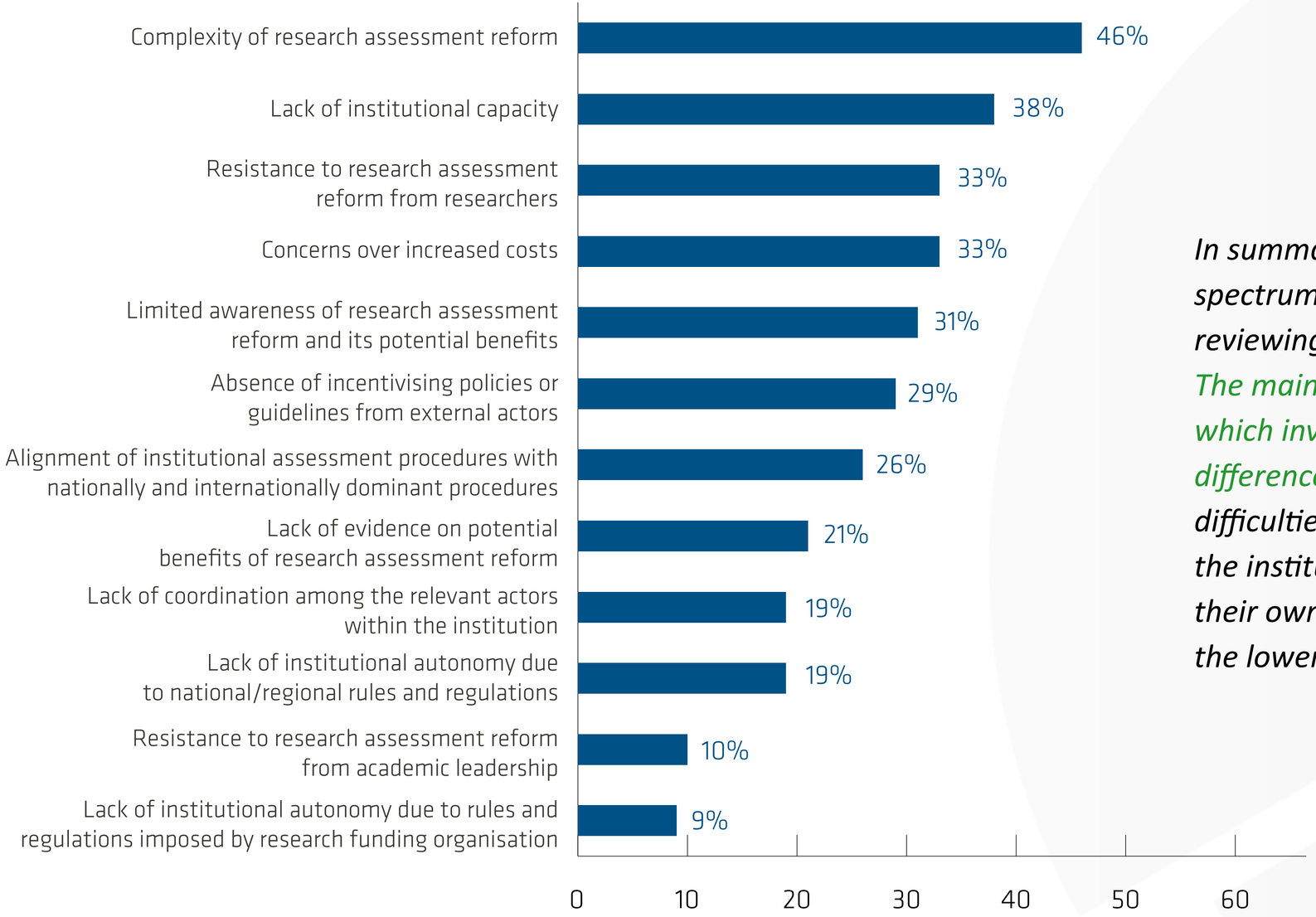
EUA Survey: Careers

In summary, the survey results show that publishing research outcomes and attracting external research funding are the most important academic activities when it comes to building a university research career. A range of other activities such as research impact and knowledge transfer are also commonly, albeit to a lesser extent, acknowledged by respondents. Open Science and Access activities are the lowest ranked category and are only '(very) important' at just over a third of universities, which is roughly on a par with the number of institutions who give little or even no importance to this category when evaluating researchers.

EUA Survey: Barriers

Figure 15 – Main barriers and difficulties for reviewing approaches to research assessment

Based on survey question 19, multiple-choice (cf. Annex 1). Number of respondents: 233/254



In summary, responding institutions indicated a wide spectrum of barriers and challenges when it comes to reviewing university approaches to research assessment. The main challenge is the overall complexity of this issue, which involves important disciplinary and national differences. Furthermore, the main barriers and difficulties are almost all internal, while issues related to the institutions' autonomy to develop and implement their own research assessment approaches are found at the lower end of the spectrum.

Saenen, et al. 2019. https://www.eua.eu/component/attachments/attachments.html?id=2444

Funder use case: NWO's Narrative CV

The Knowledge Exchange and NWO are in the early stages of exploring a possible link between the Openness Profile and the NWO narrative CV.

“Knowledge sector takes major step forward in new approach to recognising and rewarding academics” (The VSNU, NFU, KNAW, NWO and ZonMw)

This calls for a system of recognition and rewards of academics and research that:

1. Enables the diversification and vitalisation of career paths, thereby promoting excellence in each of the key areas;
2. Acknowledges the independence and individual qualities and ambitions of academics as well as recognising team performances;
3. Emphasises quality of work over quantitative results (such as number of publications);
4. Encourages all aspects of open science; and
5. Encourages high-quality academic leadership.

Stimulating open science

More room for open science is an issue that needs to be addressed specifically. This new approach to science and academia gives others, in addition to the academics themselves, the opportunity to cooperate on, contribute to and make use of the academic process. This means, for example, that academics share the results of their research more broadly with society, that they make research results more accessible and that they can involve society in the research (such as through citizen science). Open science is bound up inextricably with the modernisation of the system of recognition and rewards. It requires time and attention from academics that cannot be automatically translated as traditional academic output such as publications, but which can have a significant impact on society, science and academia (such as sharing research data).

VSNU, NFU, KNAW, NWO and ZonMw (2019) Room for everyone’s talent: Towards a new balance in the recognition and rewards for academics

NWO introduces narrative CV format in the 2020 Vici round

The new narrative CV consists of two parts:

Narrative academic profile: a narrative description of the candidate's narrative profile. This enables candidates to decide what is/is not important to mention in their CV.

Key output: a list of no more than 10 key outputs with a description of why the applicant considers this an important output. The presentation of research output will also take on a more narrative character. Candidates will no longer be asked for exhaustive publication lists. As a result, people on a dynamic career path will be given an equal opportunity.

Quality over quantity: How the Dutch Research Council is giving researchers the opportunity to showcase diverse types of talent

November 14, 2019

The Dutch Research Council (NWO) is piloting a narrative CV format in the Veni scheme, its major funding instrument for early career researchers. The format advances showcasing diverse types of talent and encourages assessment of quality rather than quantity.

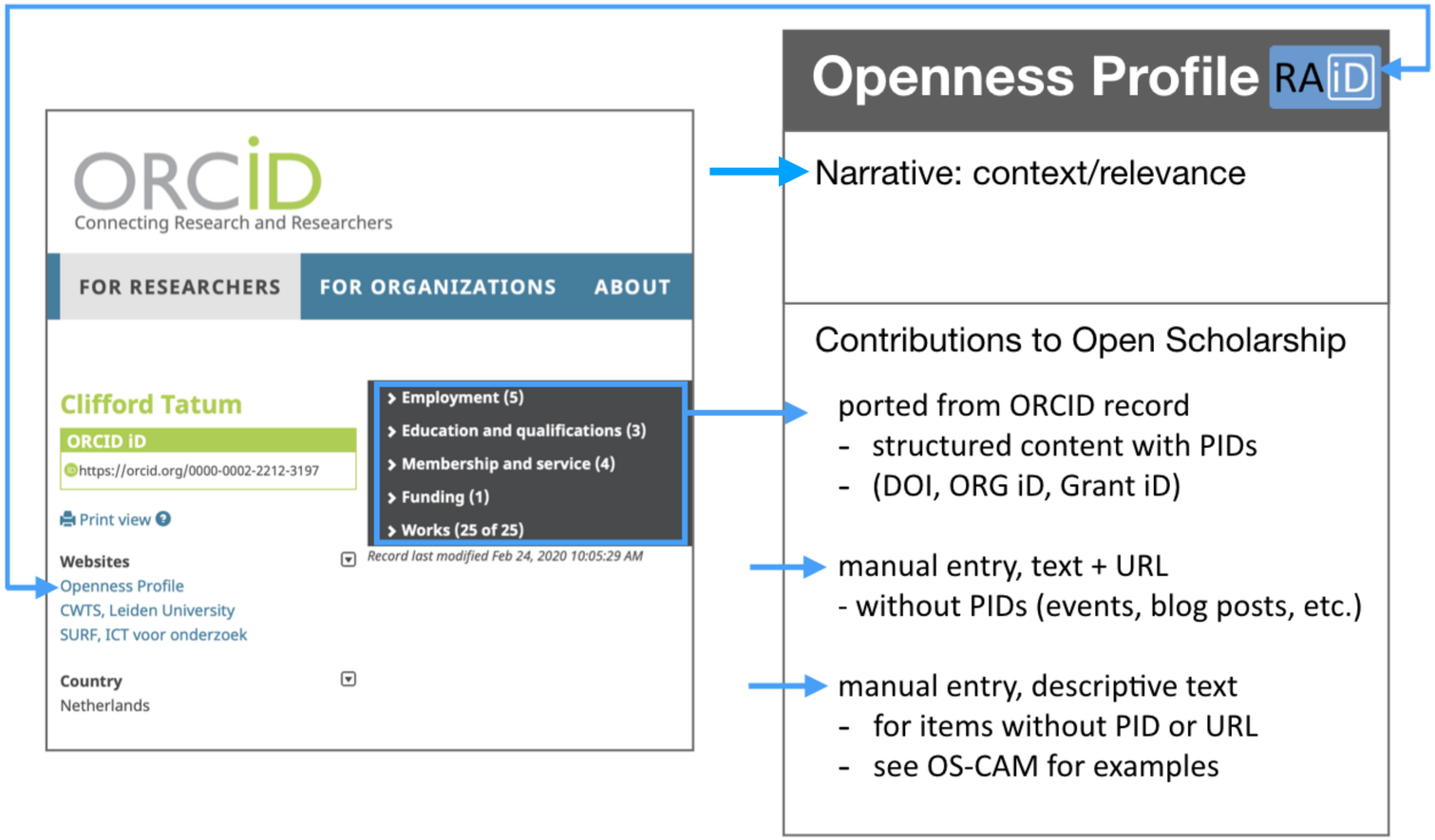
By Kasper Gossink-Melenhorst – Dutch Research Council (NWO)

Special attention is paid to contributions to open science; candidates are required to indicate which outputs are openly available. (SF DORA blog)

Webpage: NWO introduces narrative CV format in the 2020 Vici round

Partnerships

Openness Profile (concept)



Openness Profile, content categories

Category	Content	Source
Narrative	The narrative enables the contributor to provide a more textured account of their contributions by for example developing an evidence-based argument about the relevance of the provided content	User
Sample items ported from one's ORCID record.	DOI – OA Publication DOI – OA presentation DOI – OA Dataset Org ID – service contribution Org ID – OS affiliation Grant ID – OS project Open Peer review	ORCID record: works ORCID record: service ORCID record: affiliation ORCID record: Grant awards ORCID record: peer review
Sample user-entered items with URLs that point to the contribution	URL – software URL – OS tools URL – event URL – course curriculum URL – art exhibit URL – (social) media mentions	e.g. Git Hub e.g. website, repository e.g. webpage, blog post, etc. Institution webpage Institution, persona webpage Various
Sample user-entered items that cannot be evidenced with public documentation	Descriptive text; provide references as appropriate	see OS-CAM matrix (page 15) for contribution types that may not have a URL

Openness Profile PID group (present composition)

- Pre meeting with ORCID and RAiD last April
- Next meeting: gap analysis with full PID group

Thank you!

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