Experiment, translate & transform

Sarah de Rijcke

Austrian Platform for Research and Technology Policy Evaluation
24 Jan 2023

RoRI is a partnership initiative

The Wellcome Trust, Digital Science and the Universities of Sheffield and Leiden have joined forces to create RoRI

RoRI launches to enable more strategic, open, diverse, and inclusive research

We're thrilled to announce the launch of the Research on Research Institute (RoRI) – an international consortium of research funders, academic institutions, and technologists working to champion the latest approaches to research on research.

Co-founded by the Wellcome Trust, the universities of Sheffield and Leiden, and Digital Science, the RoRI consortium will undertake transformative and translational research on research (also known as meta-research, science of science or meta-science). By analysing research systems and experimenting with decision and evaluation data, tools

A kinder research culture is possible

Wellcome is right to call out hyper-competitiveness in research and question the focus on excellence. But other funders must follow its move.

The focus on excellence in research can contribute to a negative working culture. Credit: James Brittain/View Pictures/UIG/Getty

RELATED ARTICLES

Some hard numbers on science's leadership problems

Science needs to redefine excellence

"Excellence R Us": university research and the fetishisation of excellence

SUBJECTS

Culture   Funding   Research data

Research management

Wellcome's director Jeremy Farrar didn't hold back. "The emphasis on excellence in the research system is stifling diverse thinking and positive behaviours," he wrote in a blog post last month. "The relentless drive for research excellence has created a culture in modern science that cares exclusively about what is achieved and not about how it is achieved." These are strong words, not least because Farrar acknowledges that the UK biomedical funding charity that he leads helped to create such a focus on excellence.

Wellcome is not alone — excellence is everywhere. Germany plans to spend €533 million (US$581 million) a year on its Excellence Strategy. In the United Kingdom, £2 billion (US$2.5 billion) of public funding is allocated annually to universities through a suite of funds that support "excellence wherever it is found". Australia's research-evaluation system is called Excellence in Research for Australia. Worldwide, research facilities are being named centres of excellence, and excellence is scattered generously in the pages of universities' strategic plans.
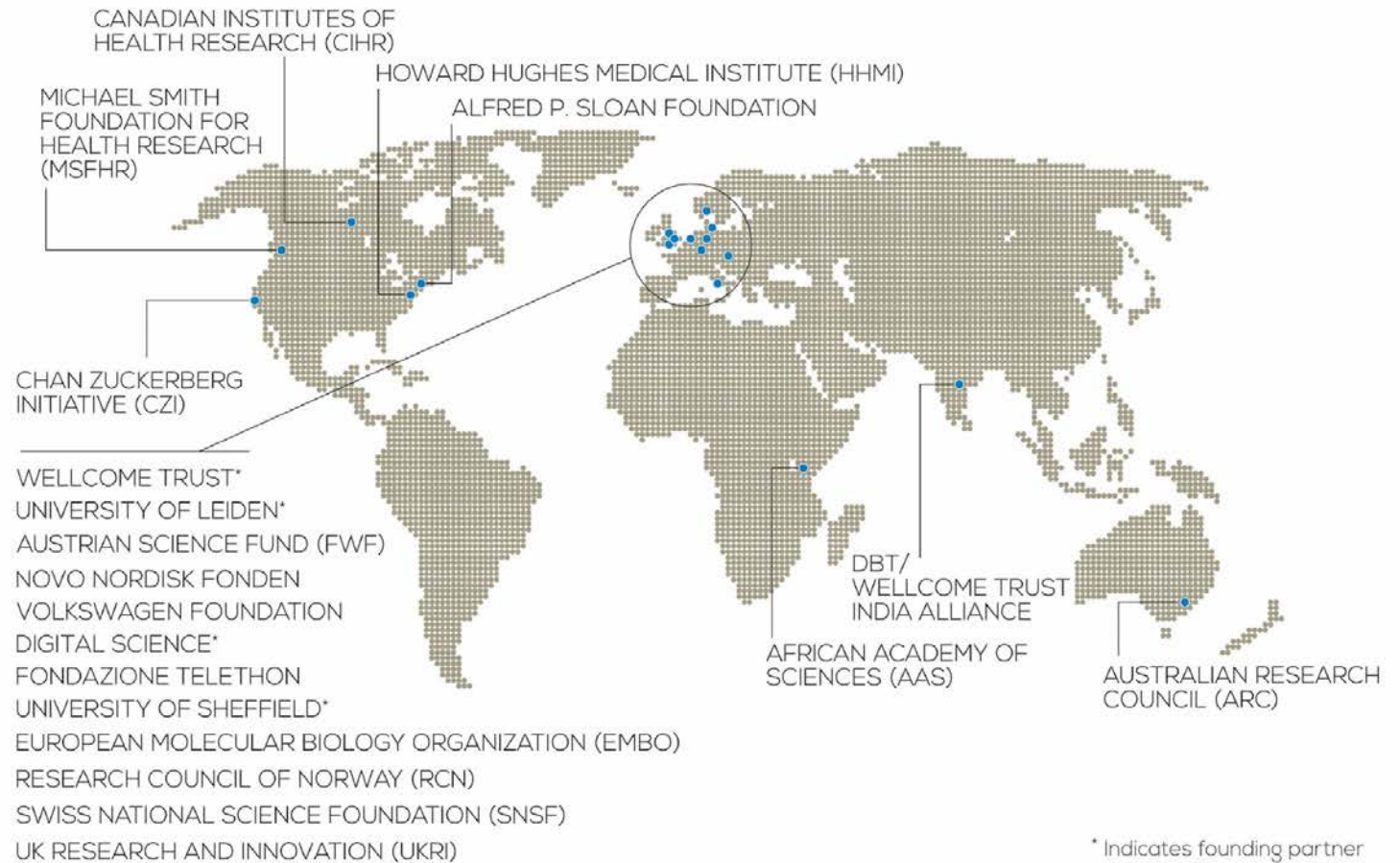
"Wellcome and its partners in RoRI should be commended for taking an important first step. They have recognized that there are problems in research culture and that these need to be fixed. RoRI will help to probe some of the causes of distress, and suggest solutions. Now, other funders and research-management societies must join the mission…"
Nature editorial, 1 October 2019

RoRI · RESEARCH ON RESEARCH INSTITUTE

The RoRI pilot consortium

Founding Partners:

Wellcome Trust
Digital Science
University of Sheffield
CWTS, Leiden University

CANADIAN INSTITUTES OF
HEALTH RESEARCH (CIHR)

HOWARD HUGHES MEDICAL INSTITUTE (HHMI)

MICHAEL SMITH
FOUNDATION FOR
HEALTH RESEARCH
(MSFHR)

ALFRED P. SLOAN FOUNDATION

CHAN ZUCKERBERG
INITIATIVE (CZI)

WELLCOME TRUST*
UNIVERSITY OF LEIDEN*
AUSTRIAN SCIENCE FUND (FWF)
NOVO NORDISK FONDEN
VOLKSWAGEN FOUNDATION
DIGITAL SCIENCE*
FONDAZIONE TELETHON
UNIVERSITY OF SHEFFIELD*
EUROPEAN MOLECULAR BIOLOGY ORGANIZATION (EMBO)
RESEARCH COUNCIL OF NORWAY (RCN)
SWISS NATIONAL SCIENCE FOUNDATION (SNSF)
UK RESEARCH AND INNOVATION (UKRI)

DBT/
WELLCOME TRUST
INDIA ALLIANCE

AFRICAN ACADEMY OF
SCIENCES (AAS)

AUSTRALIAN RESEARCH
COUNCIL (ARC)

* Indicates founding partner

Our five aims for the pilot phase (2019-2022)

Research role

Translation role

innovation role

Brokerage role

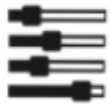**Facilitator role**

2019-2022: 3 themes, 5 *flagship* projects

Decision-making, allocation & evaluation

Balance & prioritisation

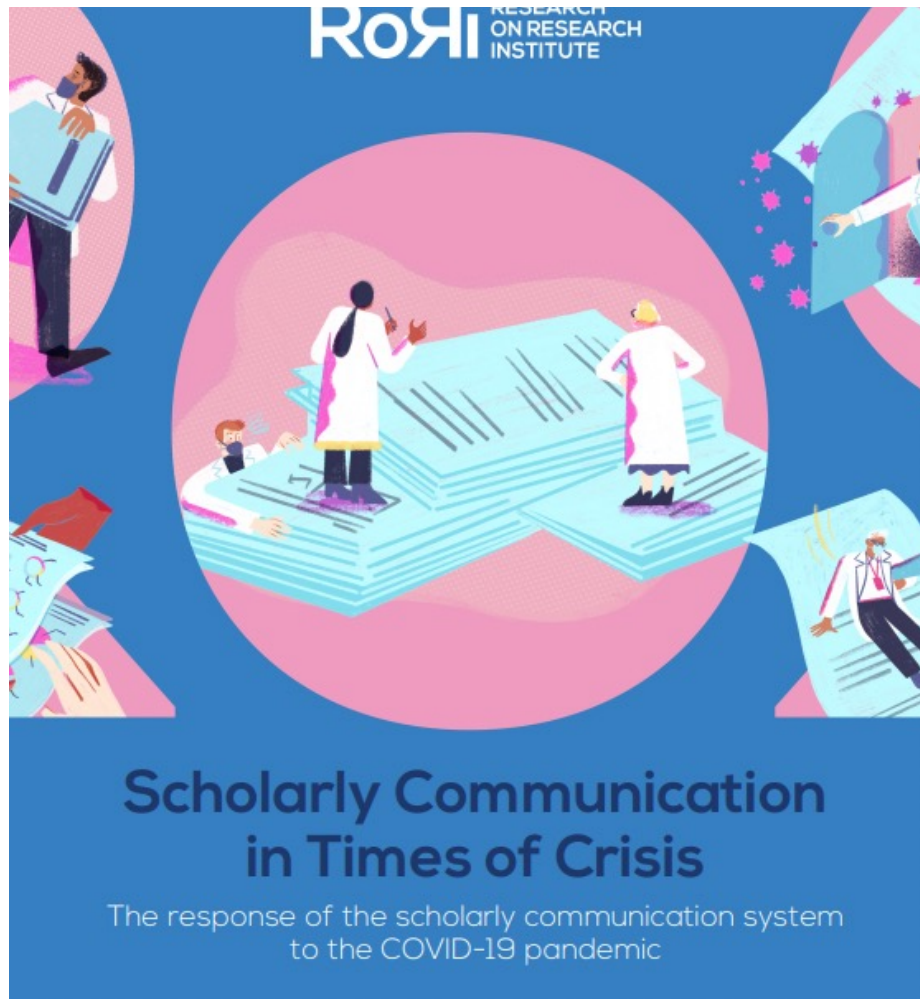Research cultures, open scidence, EDI

CRITERIA   EXCELLENCE   FAIRware   PATHWAYS   RANDOMISATION

Scholarly Communication in Times of Crisis

The response of the scholarly communication system to the COVID-19 pandemic

RoRI Funder Data Platform & CRITERIA project overview
Presentation posted on 20.06.2022
Vincent Traag

Where next for partial randomisation of research funding? T…
Preprint posted on 20.06.2022
Tom Stafford

Research on Research Institute: Independent Review of Pilot Phas…
Report posted on 20.06.2022
Ian Carter

The experimental research funder's handbook (Revised …
Report posted on 20.06.2022
Sandra Bendiscioli

A checklist for funder experiments with partial randomisation
Online resource posted on 20.06.2022
Research on Research Insti…

Can we fix it? Are incremental tweaks to research practices, …
Presentation posted on 25.05.2022
James Wilsdon
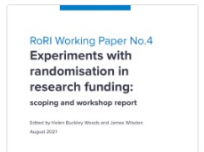
The pandemic veneer: COVID-19 research as a mobilisation of …
Preprint posted on 07.05.2022
Daniel Hook
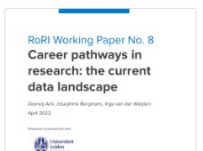
Career pathways in research: the current data landscape (Ro…
Report posted on 18.04.2022
Zeynep Anli
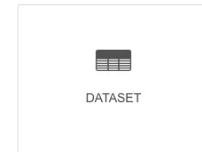
RoRI Working Paper No. 8. Career pathways in researc…
Dataset posted on 18.04.2022
Zeynep Anli

Experiments with randomisation in research funding: …
Report posted on 18.04.2022
Helen Buckley Woods

21st Century PhDs: Why we need better methods of tracking…
Report posted on 18.04.2022
RoRI Institute

The changing role of funders in responsible research assessme…
Report posted on 18.04.2022
Stephen Curry

Responsible Research Assessment – a virtual conference from the Global Research Council

November 23 - 27, 2020

Register Now →

the GRC

...ted to promoting the sharing of
...ctices for high-quality collaboration
...encies worldwide. It recognises the
...s previous work, such as the
...'merit review, for developing a
...ding of the topic of responsible
...nt amongst funders. With the
...ic putting a spotlight on the
...rnational collaboration in scientific
...ocial impact of research becoming
...e is now renewed urgency for
...gether and reconsider how research
...aluated. This conference presents a
...for research funders to come
...ether, learn and look to the future.
...o engaged discussions over the

Professor Andrew Thompson
UKRI Champion for International and GRC Governing Board member

Dr. Molapo Qhobela
CEO of NRF South Africa and Chair of the GRC Governing Board

RoRI Working Paper No.3

The changing role of funders in responsible research assessment:

progress, obstacles and the way ahead

Stephen Curry, Sarah de Rijcke, Anna Hatch, Dorsamy (Gansen) Pillay, Inge van der Weijden and James Wilsdon
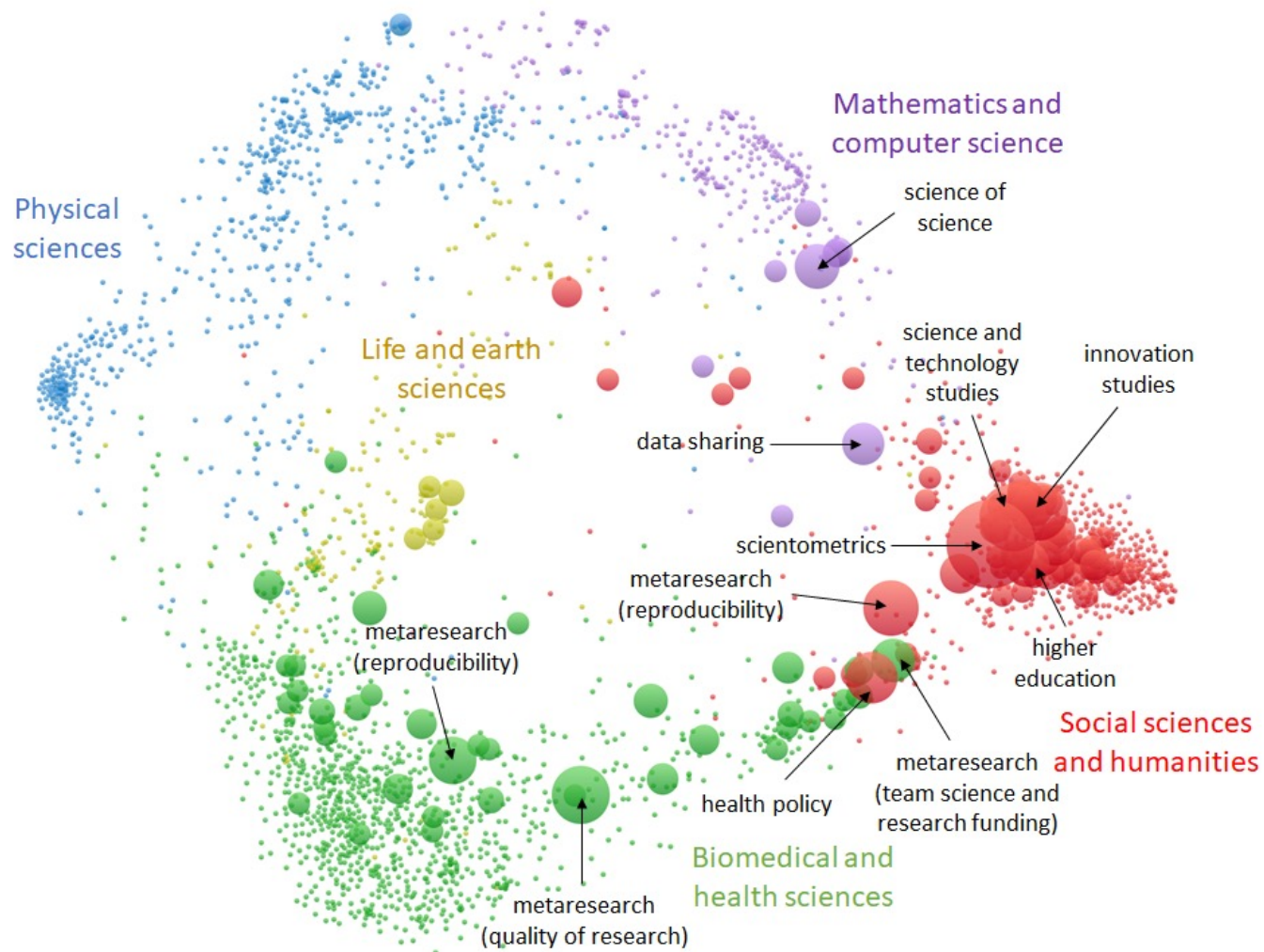
November 2020

Produced in partnership with:

GLOBAL RESEARCH COUNCIL · DORA · UK Research and Innovation · NRF National Research Foundation

Go Meta?
Mapping the changing landscape for research on research

RoRI 2022 and beyond

Mission: Global network for translational RoR – focus on how research is being financed, undertaken, communicated and ëvaluated

Consolidate and extend consortium; horizon 5-10 years

Cross-sector, plural, shared ownership

Transdisciplinary, multi-method, co-design;

Translational work, relevant and applicable by multiple actors;

A safe environment for experiment, taking risks & collaboration;

RoRI — RESEARCH ON RESEARCH INSTITUTE

Phase 2 structure

Core partners

12-15 research funders, universities and technology providers. Together these partners govern and sustain the core functions of RoRI.

Partnership board
Core partners (including those who are CIC members)
Strategic direction, priorities, management of funds

Sub-committees of Partnership Board
Including Audit & Finance

Executive team
Day-to-day operations and oversight of projects

RoRI research fellows
Lead individuals from within Core Partners
Dedicated time on RoRI projects

RoRI nodes / labs
Smaller nodes or labs hosted by core partners
Operating at national or regional system level

RoRI Ltd
A Community Interest Company (CIC) under UK law. Brings legal and bureaucratic simplification Holds funds. Owns, manages and preserves infrastructure and other IP. Devolves all other responsibilities to the Partnership Board.

Board of directors
Nominated from CIC members.
Light touch governance: audit, accounts

Infrastructure
Funder Data Platform, FAIRware etc

Project partners
Funders, scholarly communication platforms & publishers; researchers; tech providers.
Ad hoc project participation & support.

International advisory group
Academic, policy, funder & scholarly communication leaders. Source of informal high-level guidance and advice

Associate faculty
Leading researchers from universities and institutions worldwide who collaborate on specific RoRI projects

James Wilsdon, Director of RoRI; Gert V Balling (Novo Nordisk), Katrin Milzow (SNSF), Sarah de Rijcke, Co-Chairs of RoRI

RoRI Phase 2: current partners update

Confirmed Core Partner & Member of the CIC

University of Sheffield

Novo Nordisk Foundation

SNSF

Digital Science

Confirmed Core Partner

Leiden University

Volkswagen Foundation

CIHR

Michael Smith Health Research BC

FNR-Luxembourg

Wellcome

NWO & ZonMW (Netherlands)

Core Partner likely

Chan Zuckerberg Initiative

Project Partners

FWF-Austria
EMBO
NIHR-UK
ARC-Australia

Core or Project – live discussions

NRF-South Africa
UK Research & Innovation (UKRI)
Cancer Research UK
SSHRC-Canada
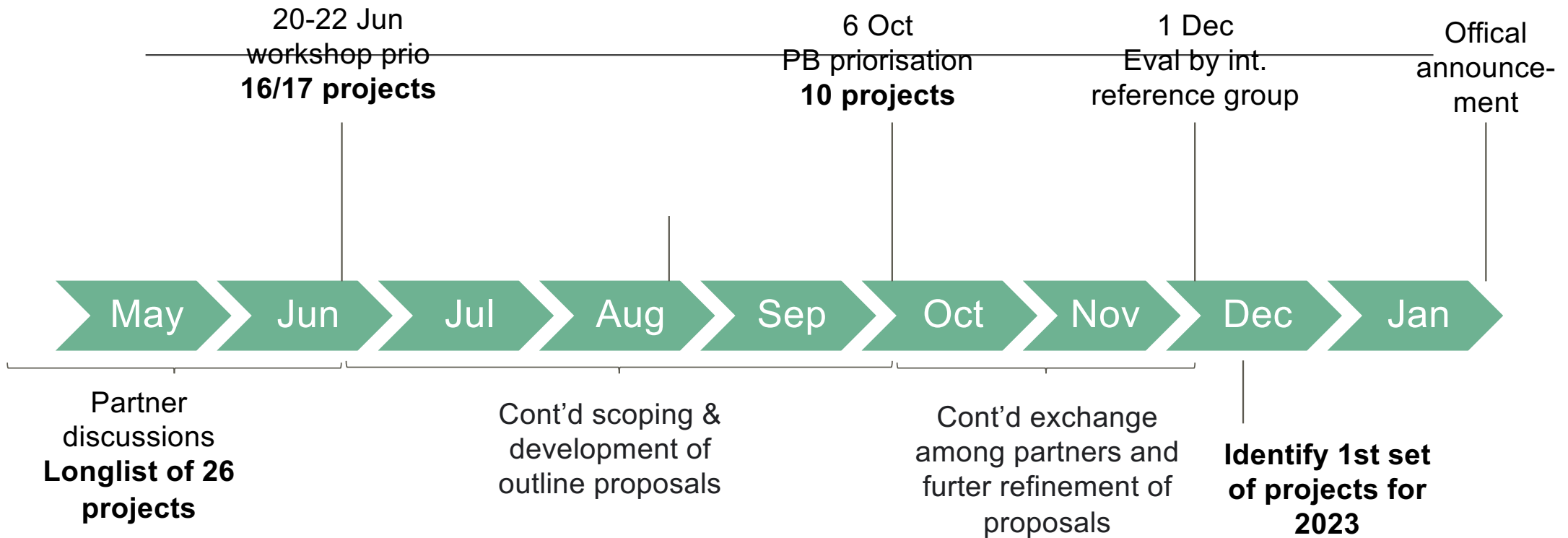British Academy
Sloan Foundation
Moore Foundation (US)
India Alliance
Israel Science Foundation
African Academy of Sciences

RoRI | RESEARCH ON RESEARCH INSTITUTE

Timeline and Milestones

20-22 Jun
workshop prio
16/17 projects

6 Oct
PB priorisation
10 projects

1 Dec
Eval by int.
reference group

Offical
announce-
ment

| May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan |

Partner
discussions
**Longlist of 26
projects**

Cont'd scoping &
development of
outline proposals

Cont'd exchange
among partners and
furter refinement of
proposals

**Identify 1st set
of projects for
2023**

RoRI Phase 2 ideas

J Jon Griffiths + 5 • 21h

Thinking about themes and projects for phase 2

Experiments with evaluation

wkaltenbrunner 18d

Inventory of challenges with ths implementation of narrative CVs

Key ideas: Create an **inventory of challenges related to the implementation of narrative CVs across different funders, and develop strategies to tackle them** – e.g. inertia of established indicator-centric review practices, resistance to the narrative format by (some) reviewers, inertia of organizational culture, technical difficulties, effects of disciplinary culture on use etc.

Infrastructures & Data Sharing

Helen Buckley Woods 7d

Research on Research on Research: a meta RoRI case study

Key idea(s): What can we learn from our uncommon modes of working as a large scale multi-stakeholder research consortium that will add to knowledge on practice/research co-produced projects? Considering different vectors of engagement, what lessons have we learned about bringing different knowledge types together, conducting co-produced

Research Priorities & Portfolios

J Jon Griffiths 2mo

Engaging the citizen. The impact of crowd knowledge on science

Key idea(s): A research study funded by a Marie Curie grant, led by Cindy Lopez-Bento (Head of Science of Science at FNR and Professor at the University of Leuven). 'The project...aims to increase the understanding we have of crowd science. [...an approach that allows a wide base of (non-scientific) volunteers to participate in research projects.] The project will, for example, use

Impacts, Indicators & Culture Change

J Jon Griffiths 2mo

The productivity and public value of research

Key idea(s): Over the last decade we have seen a tendency to connect more directly the setting of research agendas with the attainment of socio-economic goals through devices such as "grand challenges" and "mission driven research". At the same time, there are some indications that

About

J Jon Griffiths 2mo

About this board

Please comment and vote on the cards, as well as adding your own ideas.

Colour coding:
Orange: Continuation and development of phase 1 projects
Purple: Ideas from pilot phase long-list
White: New ideas
Blue: Infrastructure, networks and capacity-building

👍 0 👎 0   💬 0

Add comment

Members of international reference panel

- Fiona Fidler, Professor & ARC Fellow, University of Melbourne & co-founder AIMOS
- Sergio Salles-Filho, professor at University of Campinas, Brazil
- Chiara Franzoni, Professor in the School of Management at the Polytechnic of Milan
- Chonnettia Jones, President and Executive Director, Addgene
- Vincent Larivière, professor of information science at the University of Montréal.
- Danil Mikhailov, Executive Director, Data.org
- Brian Nosek, Director, Center for Open Science
- Laura Rovelli, Coordinator, Latin American Forum for Scientific Evaluation (FOLEC) and member of the Board of DORA
- Cassidy Sugimoto, Professor and Tom and Marie Patton School Chair in the School of Public Policy at Georgia Institute of Technology

Evaluating a narrative CV pilot project
-- Wolfgang Kaltenbrunner (CWTS)

- SNSF has conducted a narrative CV experiment in 2020

- Narrative sections, no full publication list, regulated use of metrics…

- Lots of data: Survey with applicants and reviewers, interviews, participant observation

Participant observation

- Reviewers regularly fell back on "traditional" information available online

- Narrative elements more used to supplement more traditional types of info

- … but note that panel members were more senior and partly members of SNSF…

Surveys and interviews

- **CV preferences seem to partly be a question of seniority**

  – Applicants and reviewers with less experience expressed systematically more positive opinions about the narrative elements

- **CV preferences partly a question of status (type of reviewer)**

  – Conflict about the authority to decide how peer review should be done

  – Reviewers who are members of SNSF were much more negative about narrative elements and other innovations than guest reviewers and external reviewers (who screened individual applications)
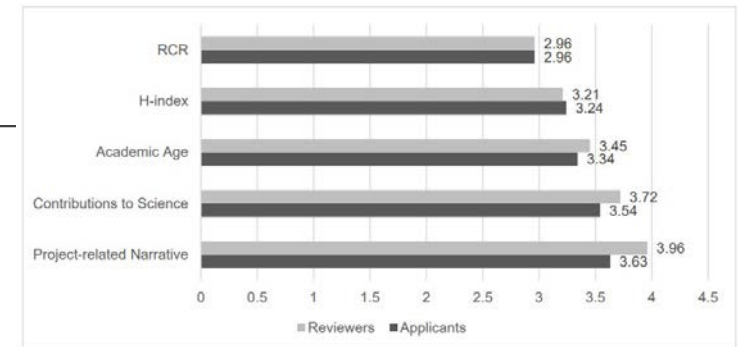
Fig 1 Mean ratings of usefulness per SciCV elements | The figure shows the mean usefulness ratings per SciCV element by applicants and reviewers on a scale from 1 (not at all useful), 2 (slightly useful), 3 (moderately useful), 4 (very useful), to 5 (extremely useful).

	Applicants		Reviewers					
	Experience[1]		Experience[2]				Type	
SciCV element	Junior	Senior	1st time	Junior	Senior	External reviewer	Panel member	RC member
Project related narrative	3.87	3.44	4.13	4.05	3.53	4.14	3.56	3.05
Contributions to science	3.79	3.34	3.72	3.79	3.56	3.86	3.33	3.05
Academic Age	3.57	3.17	3.46	3.40	3.54	3.43	3.89	3.36
H-index	3.30	3.19	3.02	3.33	3.19	3.22	3.56	3.00
RCR	2.98	2.94	2.80	3.19	2.69	2.91	3.43	2.95
Omission of publication list	3.91	3.97	4.41	4.13	3.19	4.27	4.33	2.32
Overall usefulness for assessment	-	-	4.02	3.78	3.26	3.93	3.67	2.64

[1] For applicants "junior" is defined as <2 preceding SNSF project applications and "senior" as ≥ 3 preceding SNSF project applications.

Conclusions so far

- Changing CV practices will involve rethinking the entire design of review process, incl. composition of panels, time available for review

- Practices are malleable, but are likely to change only slowly

- Need to disentangle the politics of reform from the politics of peer review

- We don't know how learning effects on the applicant side will affect new CV practices once they stop being experiments

- **… but this is just the beginning!**

Funder Data Platform & CRITERIA
Vincent Traag (CWTS)
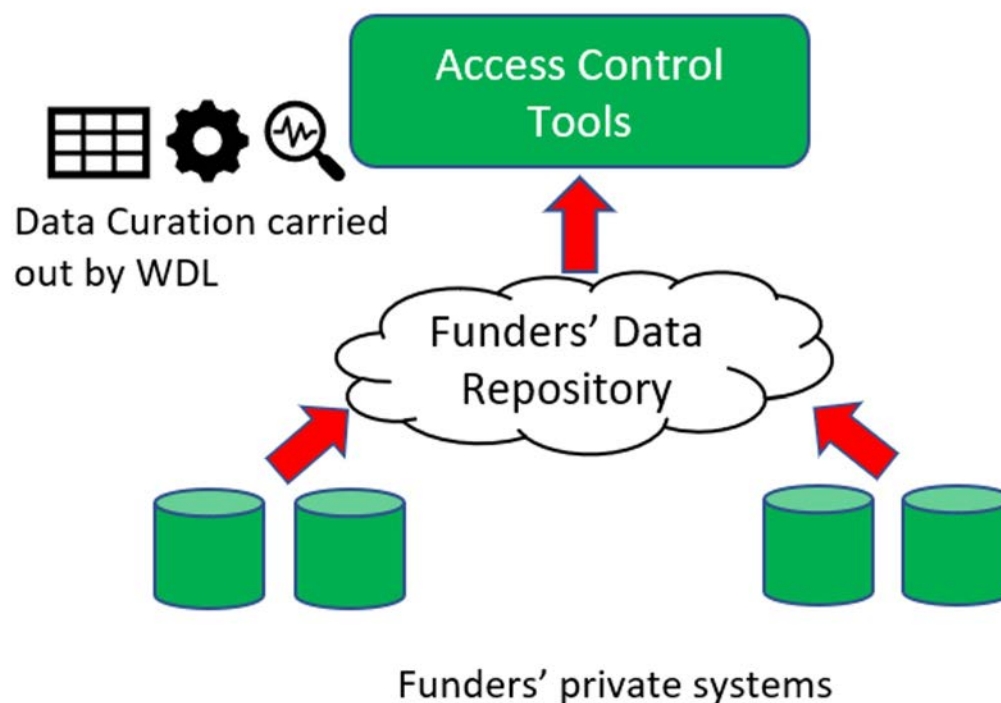
CRITERIA project
Gender differences in research funding

Funding programmes

Single applicants only
(i.e. not team-based)

Focused on research
(i.e. not equipment,
infrastructure, travel)

Open to all research
(i.e. not specific call on
specific topic)

Minimum data
availability

In total 44 funding programmes across 9 funders

Two tracks

Off-platform track

On-platform track

VS

- No personal details
- Only funding rates per gender

- Personal details
- Funding decision (yes/no)
- Enriched by linking to Dimensions
  - Publication statistics
  - Citation statistics
  - Field information
  - Matched institutional information

Simple model, no controls

Model with control variables

Comparison

Odds ratio of funding men over women

$$\left\{ \begin{array}{ll} > 1 & \text{men more likely to be funded than women} \\ \approx 1 & \text{men equally likely to be funded as women} \\ < 1 & \text{men less likely to be funded than women} \end{array} \right.$$

No clear gender differences
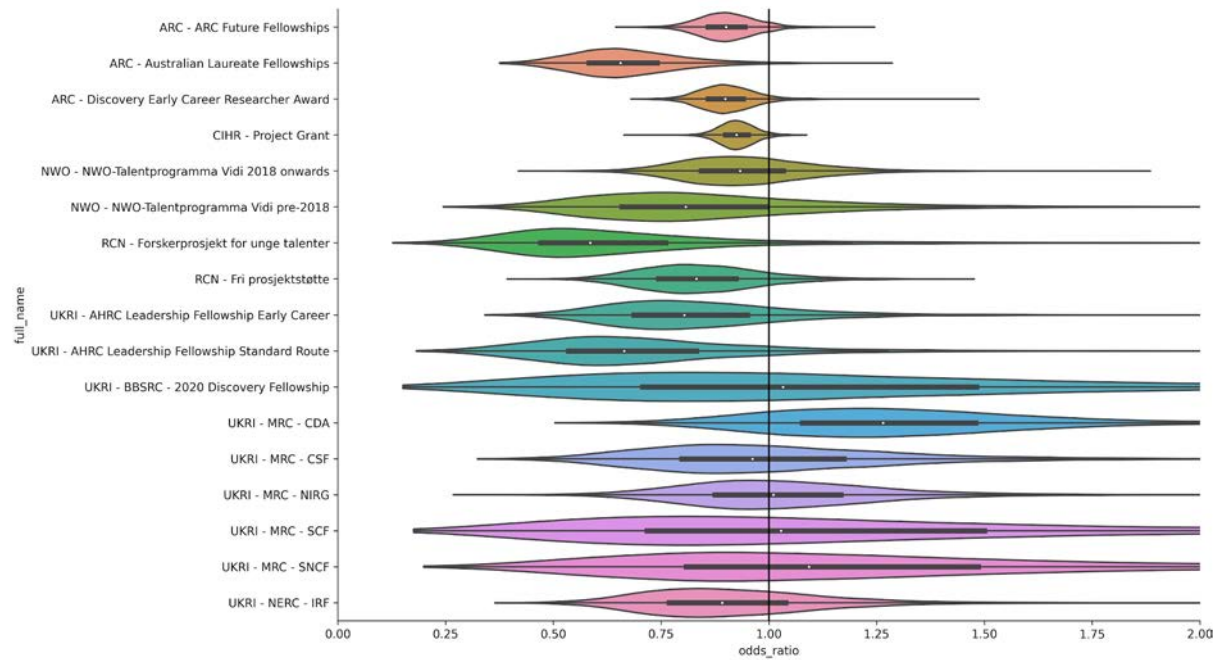
Criteria that may affect gender differences

Interview stage

Letter of recommendation

Explicit diversity measures

Thank you for your attention!

Join us: www.researchonresearch.org

Sarah de Rijcke

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▦ cwts.nl/people/sarah-de-rijcke

🐦 @sarahderijcke