

UNDISCIPLINED workshop & RoRI consortium meeting

Monday 4th & Tuesday 5 December 2023, Hannover, Germany

Meeting summary

Researchers and funding professionals from the RoRI consortium and beyond gathered in snowy Hannover for two days in December 2023 to share evidence and ideas linked to our latest [wave of projects](#). The first day explored the **funding and evaluation of transdisciplinary research**—the focus of RoRI's [Undisciplined](#) project—while the second ranged across initial findings from our other nine projects, new and emerging priorities, and ways to strengthen our collaborative working methods. What follows is a summary of headline points from the two days, together with a participant list and a selection of speakers' slides.

Day One - UNDISCIPLINED: future models of funding & evaluating transdisciplinary research

The first day saw research funders and researchers sharing evidence and insights into new methods of funding and evaluating transdisciplinary research (TDR). We heard about new initiatives from South Africa, the United States and across Europe, being led by a mix of funders, higher education institutions and researchers. The workshop also provided a space for connections and collaborations between those leading these projects. Sessions centred on the role of funding organisations in building more TDR capacity within research systems. We explored how TDR is defined in funding calls; how stronger TDR partnerships can be facilitated; and the most effective ways to support grantees. We shared in advance a draft scoping paper from the [Undisciplined](#) project (to be published in final form soon). The project will run until August 2024.



Jens Gurr



Sarah de Rijcke

The workshop was opened by [Professor Jens Gurr](#) (a member of the [Board of Trustees of the Volkswagen Foundation](#)) and [Professor Sarah de Rijcke](#) (until recently a Co-chair of RoRI and scientific director of CWTS-Leiden) who invited participants to consider the value of TDR as a holistic approach to knowledge production, enabling us to tap into new sources of knowledge.

This was followed by an opening panel on **Making TDR real: the role of funders**, which began with a short presentation by [Sir Peter Gluckman](#) (President of the International Science Council), in which he urged funders to ensure that their funding instruments are compatible with TDR research design and methods. This requires the team-formation and initial development phases of a project to be properly resourced in addition to the research process itself. Sir Peter reflected that the progress the international research



Sir Peter Gluckman (T)

community has made to date in relation to the United Nations' [Sustainable Development Goals \(SDGs\)](#), is unimpressive. He endorsed the importance of 'Mode 1' or traditional academic knowledge, which will always be needed, but argued that externally-engaged 'Mode 2' research, of which TDR is a crucial form, is essential to address complex problems. He cited barriers to the success of TDR such as the need for richer research assessment criteria that recognise and reward academics for participating in this work. TDR has implications for the entire research system. For more on this topic, he

pointed to **three recent ISC reports**: '[Flipping the Science Model](#)'; '[Unleashing Science](#)'; and '[Looking at the Future of Transdisciplinary Research](#)'. **Sir Peter's talk is now online** on RoRI's Youtube page here: <https://www.youtube.com/watch?v=qdQ6faddX34&t=28s>

Sir Peter was followed by **Dr. Cora Schaffert-Ziegenbalg** (Volkswagen Foundation) who outlined three of their funding schemes that support TDR. First, the [Transformational Knowledge on Democracies under change - Transdisciplinary Processes](#). This includes two TRD funding programmes: task forces (€200k, 1 yr); and cooperation projects (€1.3M, 5 yr). Second, the [Transdisciplinary Approaches to Mobility and Global Health programme](#) which funds collaborative projects (€0.5-1.5M, duration 3-5 years; and finally, the [Change! fellowships and research groups](#). This new programme will provide funding of up to €1.8M for 5 years. In each of these programmes, bespoke measures were designed to reflect the type of research being elicited, for example: networking workshops; use of narrative CVs to capture richer applicant information; and two stage funding processes to more readily incorporate pilot studies.

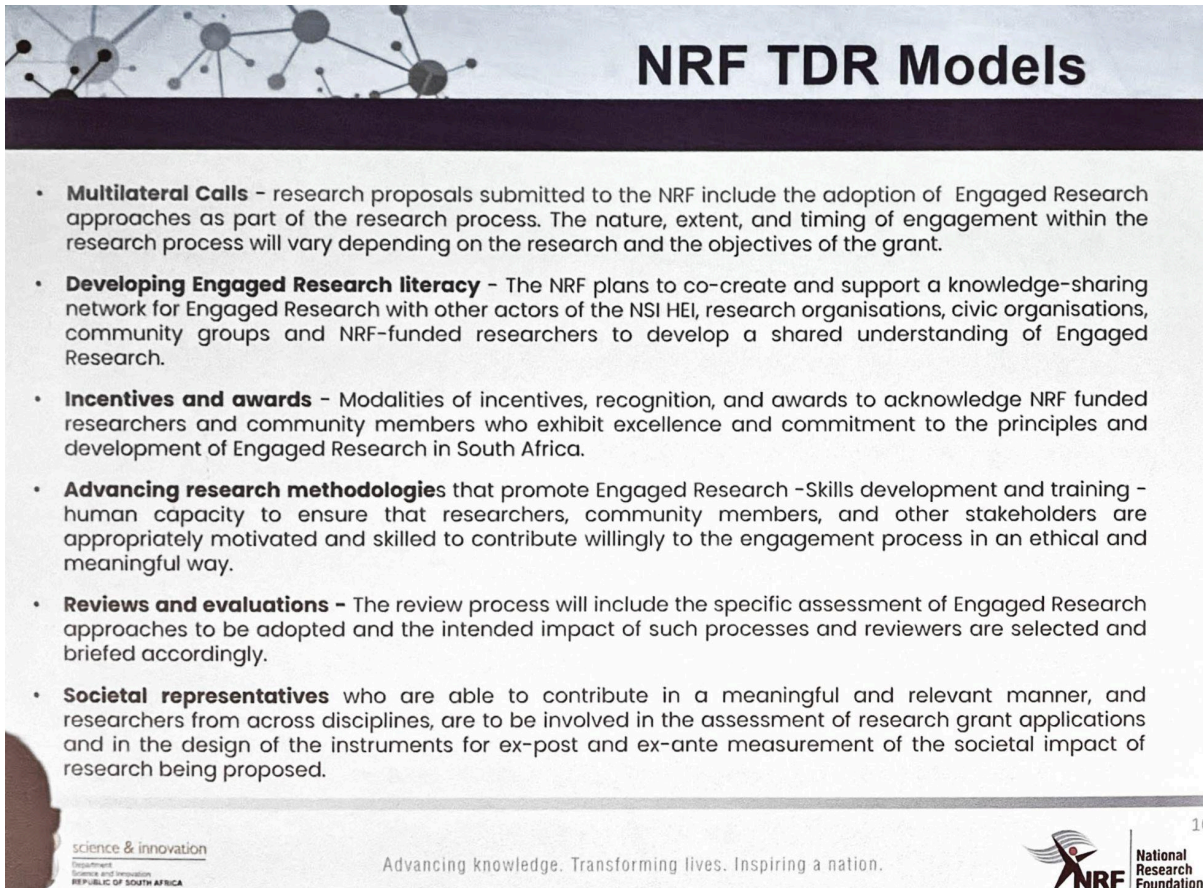
[Dr. Isabel Fletcher](#) (University of Edinburgh) then spoke about the [SHAPE-ID project](#), a 2.5 year Horizon 2020 project, which comprised a systematic literature review, workshops, a validated knowledge framework, toolkit and policy brief to explore the changing dynamics of TDR. Its main output is the [SHAPE-ID Toolkit](#) which targets four key audiences: researchers, research performing organisations, funders/policymakers, and societal partners. The toolkit, policy brief and other useful documents are available on [Zenodo](#), plus a book: '[Foundations of Interdisciplinary and Transdisciplinary Research](#)'.



[Nosisa Dube](#) (Director of Reviews and Evaluation at the National Research Foundation (NRF) of South Africa) described the shift to TDR as being motivated by a recognition that research alone cannot solve society's problems and there is a pressing need for more coherence, collaboration and cooperation between stakeholders. The NRF's various approaches to TDR are captured in the slide below, and include support for **engaged research literacy** and **multilateral calls**. Nosisa stressed that implementing TDR requires rethinking many aspects of funding (and research) processes.



Anti-clockwise from top: Isabel Fletcher, Nosisa Dube and Megha Sud



NRF TDR Models

- **Multilateral Calls** – research proposals submitted to the NRF include the adoption of Engaged Research approaches as part of the research process. The nature, extent, and timing of engagement within the research process will vary depending on the research and the objectives of the grant.
- **Developing Engaged Research literacy** – The NRF plans to co-create and support a knowledge-sharing network for Engaged Research with other actors of the NSI HEI, research organisations, civic organisations, community groups and NRF-funded researchers to develop a shared understanding of Engaged Research.
- **Incentives and awards** – Modalities of incentives, recognition, and awards to acknowledge NRF funded researchers and community members who exhibit excellence and commitment to the principles and development of Engaged Research in South Africa.
- **Advancing research methodologies** that promote Engaged Research –Skills development and training – human capacity to ensure that researchers, community members, and other stakeholders are appropriately motivated and skilled to contribute willingly to the engagement process in an ethical and meaningful way.
- **Reviews and evaluations** – The review process will include the specific assessment of Engaged Research approaches to be adopted and the intended impact of such processes and reviewers are selected and briefed accordingly.
- **Societal representatives** who are able to contribute in a meaningful and relevant manner, and researchers from across disciplines, are to be involved in the assessment of research grant applications and in the design of the instruments for ex-post and ex-ante measurement of the societal impact of research being proposed.

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10

[Dr Megha Sud](#) (Senior Science Officer at the International Science Council) concluded the panel by highlighting the accumulated experience of ISC, which has been involved in TDR programmes over the last ten years. Key findings from this experience are captured on the slide below:

ISC LESSONS FROM TRANSDISCIPLINARY RESEARCH PROGRAMMES

Between 2014 and 2022: Three TD Programmes: T2S I, T2S II and LIRA 2030

- Codesign is not just preparatory work but is transformational leading to learning and outcomes
- Funding uncertainty, inflexibility and timescale is key obstacle in long-term and deep engagement needed
- Programme design:
 - Eligibility rules decide who participates and how
 - Co-design needs concrete support and time: seed funding or two step application process
 - TD skills are not given or static: capacity building built into projects

The discussion that followed highlighted that **TDR is still a niche activity** in terms of the share of budgets going to this type of research. Novel processes are often required by funders supporting TDR, which creates its own administrative burden. Traditional research assessment may also be a barrier to the participation of some researchers, if anticipated outputs do not correspond to expectations (e.g for journal articles as the primary output). Some of the language used to describe different types of research may be unhelpful; for example, tensioning ‘curiosity-led research’ against TDR may imply that TDR is not fuelled by curiosity or problem-solving. For some disciplinary communities TDR is relatively new, while for others it is a longstanding practice.



Lesley Alborough (L) and Bianca Vienni Baptista (R)

[Dr Lesley Alborough](#) (Social Research Specialist at the Wellcome Trust) opened session two, on **Building Capacity for Transdisciplinary Research**. Our first speaker, **Dr Bianca Vienni Baptista** (ETH Zürich) described **‘toolkitting’** as an unrecognised form of TDR expertise. Creative use of toolkits can make knowledge accessible outside particular communities, enlarge user networks, encourage broader collective action, legitimise expertise, raise quality and create standards for good practice. Numerous such toolkits are available, and Bianca has mapped at least 64 produced by various organisations.

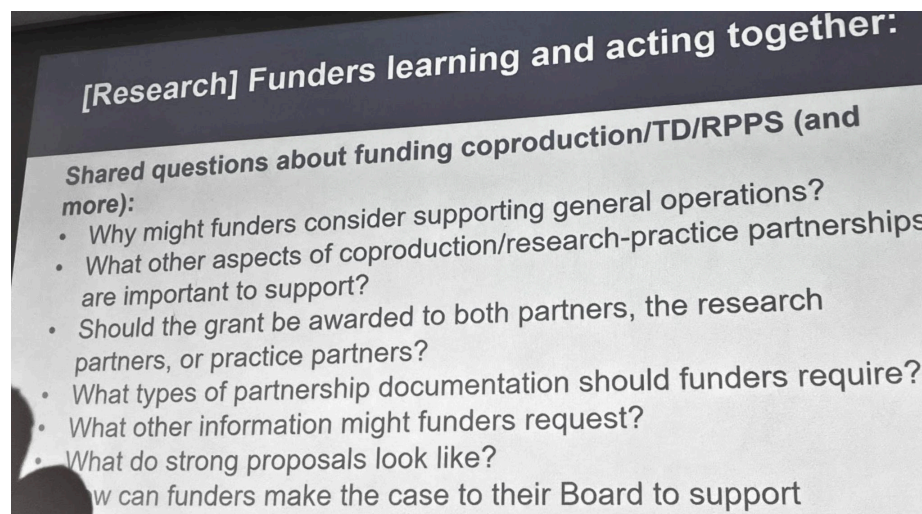
[Professor Jörg Niewöhner](#) (Technical University of Munich) then shared his experiences of supporting postdoctoral researchers in Europe to undertake interdisciplinary and TDR. He spoke about moving beyond the mode 1/mode 2 distinction, and referenced the paper [Creating leadership collectives for sustainability transformations](#) and the **concept of care** for collectives, curiosity, people and the planet. He called for more focus on TDR infrastructures, not just administrative support for evaluation processes within funding organisations, but to facilitate the research itself and the collaborations that underpin it. He also stated the importance of funding and trusting *processes* rather than insisting on outcomes; letting results emerge rather than focusing prematurely on solutions, and ensuring time for reflection and infrastructural learning.

[Dr Angela Bednarek](#) (Pew Charitable Trusts) reflected on **barriers to implementing TDR** on the ground, particularly capacity constraints in networks when partners have limited capacity, and how to work in a way that runs against the grain of many



Angela Bednarek (L) and Jörg Niewöhner (R)

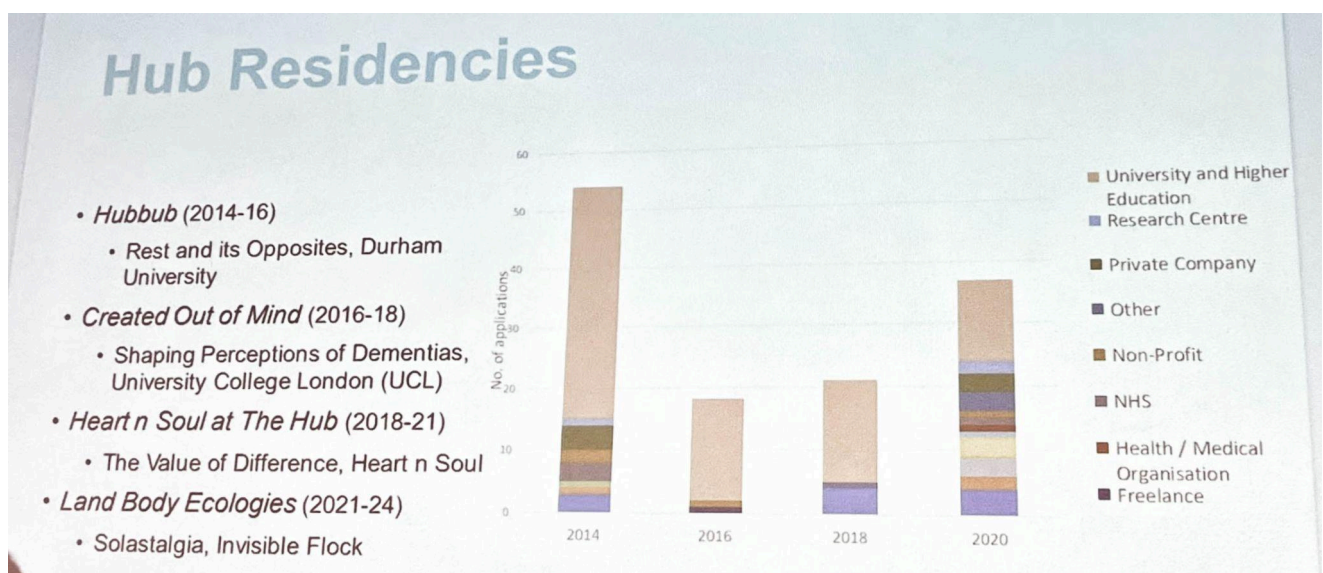
research incentives. She presented shared areas of concern for research funders, in the form of questions (summarised in the slide below):



Finally in this session, [Harriet Martin](#) and [Alice Carey](#) (Wellcome Hub) described the experience of [The Hub at Wellcome Collection](#) in London. This offers a **Hub Award** of £1m over 2 years and offers time, space, and resources from Wellcome staff. The award also provides seed funding for workshops to help researchers and partners to develop further applications for project funding. Applicants are interviewed by a panel of both Wellcome and external experts. Initial projects are captured on the slide below. University participation has reduced and that of other sectors has increased over time.



Alice Carey (L) and Harriet Martin (R)



Harriet and Alice concluded that funding for TDR needs to invest in capacity to sustain long-term relationships. And they observed that advocacy and activism are central to much of this kind of work, which can be a challenge for some funders.

Thoughts/Provocations

- What are funders willing to give up and where are the secret red lines?
- How to be time critical and not reproduce bad practice?
- What does it actually take to move from optics to practice?
- How do you package the impact so it resonates?

“There’s still huge hierarchies and implicit assumptions about what is more or less valued. So The Hub is asking some quite big existential questions to some degree about what research is and what constitutes quality. Really interesting.”

After the panel, discussion centred on how to build capacity for TDR, with points including:

- The need **to recognise those doing TDR as making intellectual contributions**; not simply engaging in a form of ‘service’.
- How to **support external organisations and publics to engage and feel more comfortable with the academic system**, e.g. by opening up campus facilities, or enabling community organisations to support (or fund) co-produced projects.
- In policymaking, **decision makers often use evidence in ad-hoc or informal ways**, not systematically. For example, in the US, the Evidence Act may be an opportunity to advance TDR.
- How do we **balance objectivity and value-rich researcher perspectives**? What is the role of the ‘honest broker’ or the ‘activist-scholar’. Is it possible to transcend politics in TDR?
- **RoRI itself is an example of TDR in practice**: oriented towards the research funder community.



(L, M) Delegates raise comments and questions during the discussion and (R) the Session Two panel

In the afternoon, we moved into **evidence & skillshare breakouts**. Group 1 discussed defining and delivering TDR in a funding call; group 2 explored effective & equitable partnerships for TDR; and group 3 tackled capacity building and support for grantees.



Group discussions and reporting back during Session Three

The final session of the day explored **Renewing the science-society contract through the funding & evaluation of TDR**. It was chaired by [Sarah Chaytor](#) (UCL), who opened with the following questions: Are we at risk of assuming we know what society wants from research and researchers? How can we make the argument to the non-converted that a dissolution of disciplinary boundaries is a good thing? Have we thought seriously enough about the hard work of co-creation? What does society need from research? Are universities set up to provide this? What is the role of funders?



Sarah Chaytor

[Professor Flurina Schneider](#) then gave a closing keynote which centred on the results of two investigations she led into TDR. Her [first paper](#)¹ produced a **model for TDR funding**, which divided a funding programme into ten stages. This was based on analysis of four Swiss research programmes on themes of national importance. The project also involved a TD learning group, consisting of a mix of programme managers and researchers. It was useful to think about the



Flurina Schneider

¹ Schneider, F., Buser, T., Keller, R., Tribaldos, T., & Rist, S. (2019). Research funding programmes aiming for societal transformations: ten key stages. *Science and Public Policy*, 46(3), 463-478.

whole programme as a TDR project in itself. Flurina's observations were that the **pre-funding stage in TDR programmes is crucial**, and must include all stakeholders; that **synthesis is most fruitful at the initial problem formulation stage**; and that the **impacts of a TDR project may be difficult to measure**. Other funders found the model a useful tool to stimulate thinking in formulating TDR programmes. The aim was not to prescribe all ten stages as necessary for TDR programme development, but to suggest them as useful points for reflection.

Flurina then turned to the findings from [a second study](#)² examining **TDR research capacity in Africa**. The challenges reported by researchers here included inadequate research infrastructures, high teaching loads, and dependance on funding from government (which affects the formulation of topics). Her paper focused on LIRA 2030, a funding programme supporting TDR in Africa, and explored how to build capacity for TDR, particularly for early career researchers, and to empower them to forge a career as TDR scientists. The model from the first paper was also used here to examine the LIRA 2030 programme. The programme increased the international visibility of those African researchers involved, but the challenges of finding work as a TDR researcher persisted afterwards.

Generalising across the two projects, Flurina concluded that working in these ways with academic and societal actors requires more investment in sufficient time for co-design, and ideally two step application processes, with training available to build competences for the later stages of project delivery. To foster TDR careers and transform science systems in more fundamental ways will require **sustained investment of human and financial resources at a programmatic level**.

A discussion followed with contributions from panel members [Professor Carter Bloch](#) (CFA, Aarhus), [Dr Petra Biberhofer](#) (FWF-Austrian Science Fund), [Dr Rachel Parker](#) (Canadian Institute for Advanced Research, CIFAR), Canada) and [Dr Ismael Rafols](#) (CWTS-Leiden) and from other funders in the audience. There was some debate over the trade-offs between spending money on training and capacity-building activities, and on actual project research.

Looking across the stages in a research funding programme as outlined by Flurina, there may also be a



'zero phase' where communities and researchers lobby funders for more TDR programmes and investment. However, budgeting for TDR is more complex and may carry a larger administrative burden, particularly for public funders who have to make this case to governments. More radical proposals to address the relative lack of funding for TDR were to release money by actively defunding research in fields of high concentration, or to fund fewer PhD students. There was also a suggestion that TDR requires novel settings, and that **new institutions** should be formed without the disciplinary and departmental barriers so prominent within universities. Flurina

suggested that TDR could also help to establish different conversations, to foster more systemic thinking, and to surface important 'how questions'. Finally, there was a reminder that in many contexts, it is the research community's responsibility to identify and articulate priorities, rather than the funder's.

² Schneider, F., Patel, Z., Paulavets, K., Buser, T., Kado, J., & Burkhart, S. (2023). Fostering transdisciplinary research for sustainability in the Global South: Pathways to impact for funding programmes. *Humanities and Social Sciences Communications*, 10(1), 1-11.

Day Two - RoRI Consortium Meeting

[Dr Antje Tepperwien](#) (Volkswagen Foundation) and [Dr Katrin Milzow](#) (RoRI Co-Chair & Swiss National Science Foundation) provided opening remarks. The focus of day 2 was to make the most of being together in person, and live up to our co-productive ideals. We also wanted to share updates on current projects, identify how to make them even more relevant, and begin scoping a few new projects.

[James Wilsdon](#) (RoRI & UCL) then introduced a 'Tour d'horizon' in which [Professor Stephen Curry](#) (RoRI & Imperial College) asked 'where next for research on research?'. This was then debated by a panel consisting of [Dr Benjamin Steyn](#) (UK Department for Science, Innovation & Technology), [Dr Angela Bednarek](#) (Pew Charitable Trusts) and [Professor Ludo Waltman](#) (CWTS-Leiden & RoRI). Stephen reflected that research on research is now a fixture on the academic landscape, and RoRI has a particular role to play thanks to its co-creative and action orientated approach.

Horizon scanning is not so easy, as there is rarely an unfettered view. But there are lots of intersections between open scholarship, EDI and research assessment, which fall under the umbrella of research culture. The desire for societal engagement with research has always been there, so in some respects, RoRI's future challenges are old challenges. Earlier visions of open science have yet to be fully realised and we will have to work with the realpolitik of academia and in the context of global challenges such as war and climate change. Amidst such complexity and a plurality of perspectives on research there are opportunities for RoRI to influence the scientific system, perhaps by going back to basics and asking what research is for and why are we paying for it? Is there scope to revisit Merton's scientific norms or to update Gibbons et al.'s work on Mode 1 & Mode 2 knowledge production?

In the discussion that followed, Ben Steyn stressed **the importance of aligning metascience with government priorities** if it is to be useful and used. In the UK government's new metascience unit, initial work will include an external metascience grant programme for the UK community and an internal experimentation programme working in conjunction with UKRI. Angela Bednarek reflected on the value of being together and being able to discuss research on research over two days. Within the [Transforming Evidence Funders Network \(TEFN\)](#) that she convenes, the main focus is on research on research use. Many



Clockwise from TL: Antje Tepperwien, Katrin Milzow, Stephen Curry and James Wilsdon



The Session One panel

of the questions, which arise are similar to those discussed here. For example, an appreciation of a long history of cooperative and engaged research across disciplines and fields. It is important to realise that this work is going on but in different networks, and with different labels. We need to learn from different professional areas: for example, education funders who have included young people within their review panels for many years. It is also important that opportunities for funding or collaboration are cross-posted across networks.

Ludo shared a review process conducted at [CWTS-Leiden](#) where they decided to move away from disciplinary or community labels (e.g. STS; scientometrics) and instead organise their work by **RoR problems or topics**, such as academic culture and openness. He also shared an evergreen internal debate over what is most important: to understand a topic; to intervene in it; or to practise research in a particular way? At CWTS they also have an ambitious open research agenda and are committed to basing their work on open data and open algorithms.

Ludo also observed that **technological advances** mean that science systems are likely to look entirely different in twenty years time. What will the role of researchers of research then be? If data is openly available, will metascientists be redundant? Perhaps institutes like RoRI and CWTS will still be needed to provide the bigger picture. There was further discussion on this point, and the benefits of technology to democratise access to meta-research data and practices. However, these fields are already widely distributed so this will merely expand the number of questions. There was also a discussion of **research use**, in that some researchers in these fields (as elsewhere) can have a naive understanding of how policy is made or evidence is used in policy formulation. Different governments have a range of ideological positions, but can all make evidence-informed policy, drawing upon different research literatures.

Further questions of **impact measurement, research policy and funder experimentation** were discussed, for example, the potential to study the impacts of policy interventions in new ways. Retrospective impact assessment, as takes place through the Research Excellence Framework (REF) in the UK still reflects a rather linear view of knowledge production into use, but other models are now being explored – for example, in Sweden, where research impact is understood through processes of collaboration.

There is a difference between **collaborative working** as a means to an end, and an end in itself. Research can impact society without being co-produced, and can be co-produced but not impactful. In supporting the capacity for experimentation, funders might wish to open up research to a wider community, but universities traditionally see funders as serving them. As a consequence it will take time, energy and resources to bring in new funding approaches or to pilot initiatives.

Finally, we heard from [Canada's SSHRC](#) and the [International Science Council \(ISC\)](#) about some of their new initiatives. An internal project is beginning at SSHRC on the intersections between peer review, research cultures, EDI and open science. The ISC operates at globally, so is well placed to provide insights into geographical and cultural differences on RoR topics such as open science.



Ben Steyn (L) and Ludo Waltman (R)

The group then spent time engaging and exploring current projects through a **Project Bazaar**.



After lunch, [Sarah De Rijke](#) (CWTS-Leiden) facilitated a session on **Deeper Partnerships** to discuss how RoRI works as a consortium and ways to improve our communication and interactions. We then broke into three groups, which made the following points.

First, it is important within RoRI that **operations and communications** priorities are allocated and delivered efficiently. Once the new operational team is in place (from early 2024) this will become far easier. Our new communications manager may wish to consult RoRI partners on their preferences. It may be useful to use ‘Slack’ as a general RoRI channel, and have more space for intra-partner conversations.

Second, there was broad agreement that **in-person meetings of the entire consortium** at least once a year are beneficial and that pairing this with a project workshop is a good format, providing a topic ‘lens’ through which to focus discussions. Another option would be to hold regional hub meetings with a general consortium meeting to follow online. It was suggested that we map **how RoRI interacts with larger strategic bodies** such as the ISC, Global Research Council, OECD and UNESCO, and to consider how RoRI can participate more in large international meetings.



Session Three discussion groups

Third, within projects, it is important to consider that partners are in **diverse time zones** and to rotate meeting times if a compromise slot can’t be found that suits everyone. And although project briefings are typically shared with funder partners at the beginning and end of the project, there is value in providing

more interim updates. It may also be useful to **open up project working groups** to the entire consortium once or twice a year, or to invite members of other project groups to attend and share learning.

Fourth, funders typically hold a lot of **valuable meta-research data** within their organisations. Drawing on experiences to date with our [Funder Data Platform \(FDP\)](#), we may want to do more to investigate the barriers preventing greater use of this data within RoRI project groups and beyond. Questions we might explore systematically include: what data do organisations collect and for what purposes?; who holds the data?; what are the legalities of the data sharing?; what kind of analysis has already been done?; what data do they collect that others don't know how to collect?; how might this data help us answer research questions?; and what persistent identifiers and research classification systems do we need to make this data usable? It will be important for RoRI to engage with the data scientists in each of our partner organisations and welcome them into the consortium. We also need to think through who is responsible for promoting and engaging partners with the FDP, to build trust and shared understanding of this resource.



Shaun Leamon

Finally we discussed how the [RoRI consortium](#) could remain manageable if it were to expand. For example, if we were to attract more partners from the USA, Latin America, Africa or Asia, how would this work with our current structures of a core team, project groups and a Partnership Board?

The last session invited thoughts on **new priorities and projects** to get underway when we expect to have more capacity (from late 2024 onwards). **Stephen Curry** chaired, and after a recap of the project development process for phase two from [Helen Buckley Woods](#) (RoRI & UCL), we heard about a potential new project on **Fast & Flexible Funding Models** introduced by [Shaun Leamon](#) (Health Foundation & RoRI). Such models may flow from a desire to reduce bureaucracy, or to ensure a balanced funding portfolio. There was interest in further discussing how fast/flexible models -- some developed in the urgency of the Covid-19 pandemic -- might be re-engineered for more 'normal' times. We also reflected on the autonomy of programme managers in making funding decisions, as in the [US DARPA](#) (and now [UK ARIA](#)) model which promises greater flexibility and speed.

In terms of future RoRI possibilities, it was noted that not all need to be research projects; some could be **infrastructure projects**, or we could revisit those that didn't make the initial shortlist for phase two, or consider new ideas developing out of current work. It was also observed that in the US there are relatively few contacts between public and private funders, and this might be something RoRI could contribute to.

Other ideas floated in this session included: changing dynamics of research communication; what does 'high risk / high reward' research look like in practice; how to train the next generation of researchers to be managers and leaders; 'risk versus recklessness' in panel deliberations; a glossary of how funders measure impact; how research roles are changing through the impact of AI; the growth of 'third space' roles in research and what career pathways are emerging for these hybrid roles.



Another specific proposal was to **map the changing landscape of philanthropic funding for research**, in association with [Philea \(Philanthropy Europe Association\)](#), and possibly other groups, such as the Science Philanthropy Alliance).

The meeting was brought to a close by **James Wilsdon** and **Katrin Milzow** who thanked everyone for their contributions, and particularly to our hosts, the [Volkswagen Foundation](#), for their generous hospitality in holding the meeting at their wonderful facility, the [Xplanatorium Herrenhausen in Hannover](#).



Participants at the close of the RoRI consortium meeting