UK Reproducibility Network

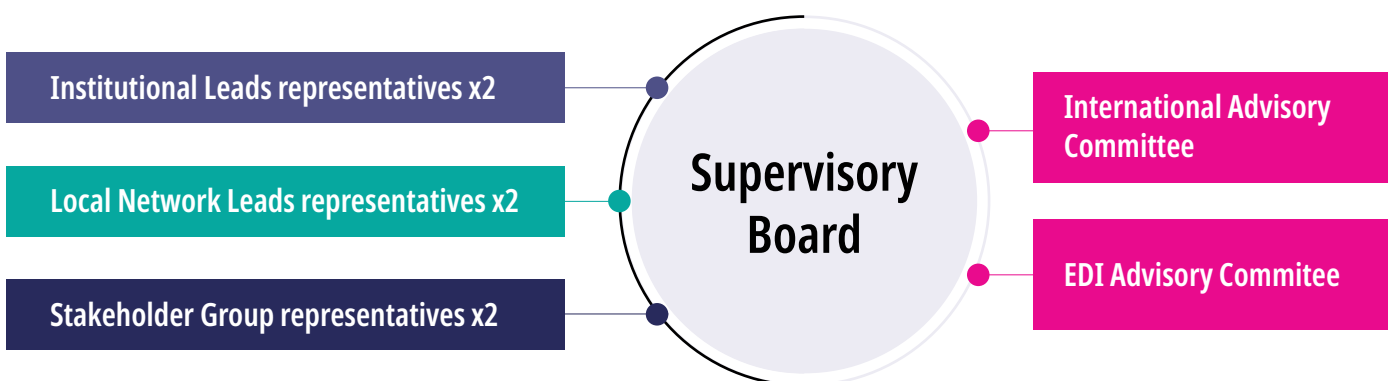# Annual Report

2023-2024

Chair of the Supervisory Board

This year – 2024 – marks the fifth anniversary of the formal launch of UKRN. On the one hand, it feels like time has flown since that exciting day in King's College London. On the other, five years is not a long time, particularly when you're in the business of culture change (which, fundamentally, UKRN is all about). With that in mind, it's extraordinary how much our community has achieved. This report is intended to capture some of that recent activity, and includes the thoughts of key representatives of our various constituencies – our local networks, institutional members, stakeholder group, and advisory committees. As we have grown – we now include 67 local networks and 36 institutional members – our governance framework has needed to develop. Our new governance framework is now in place, and is intended to formalise things like roles, terms of service, and representation. For example, each of these constituencies now has a representative that sits on our Supervisory Board (previously our Steering Group). Our goal is to move UKRN onto a sustainable footing by 2027, with funding streams to support our ongoing core activity. Our governance framework is a first step towards that. I hope and expect that the next five years will be as exciting as the first. I hope you enjoy reading about what we've been doing – including the various projects and initiatives we're supporting or leading – and please remember that we are a community. All our successes are our successes. Together, we can go a long way.

Marcus Munafò

New Governance Structure

Institutional Leads representatives x2

Local Network Leads representatives x2

Stakeholder Group representatives x2

Supervisory Board

International Advisory Committee

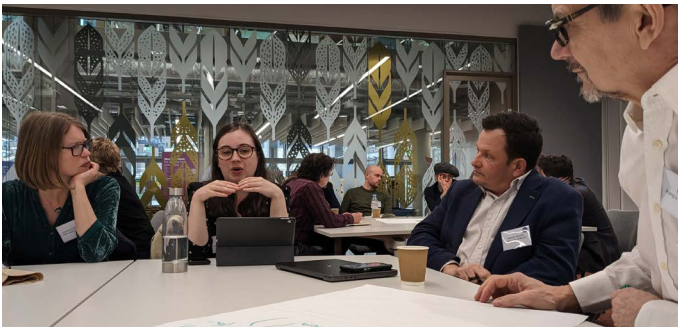| EDI Advisory Commitee |
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Highlights

Convening and Collaborating

Joint research project on sustaining research data

In summer 2022, UKRN brought together over 50 institutions to enable them to share approaches, successes and lessons from their work to improve the research environment and culture. The research environment matters to UKRN because it influences the choices that researchers can make about their research. One strong theme from these events was the challenge for institutions in providing sufficient and sustainable support for open research data. Some 13 UKRN institutions subsequently agreed to pool some of their 'research culture' money to fund a UKRN project on this. The STAR Project is now conducting fieldwork with a representative group of institutions to share practice and identify what steps might help them meet expectations as set out, for example, by the Open Research Data Concordat. The project will report later in 2024, but an initial review of those expectations has recently been published as a UKRN working paper.

Open research indicators

Indicators can be useful to plan change and evaluate progress. This is true both nationally, for example for the UKRN Open Research Programme, and for each institution. However, indicators of open research have not always been as robust as the research they purport to monitor. In 2023 UKRN called the sector to prioritise which aspects of open research should be the priorities for monitoring, resulting in a focus on sharing data, using data availability statements, preregistration and acknowledging contributions in published papers. Now in 2024 there are eight pilot projects pursuing these topics, each led by a pair of institutions, involving a total of 15 institutions and five solution provider partners. The work is also engaged with and informed by wider initiatives such as those by UNESCO and the European Open Science Cloud. By the end of 2024 we will have a much better understanding of how to monitor these aspects of open research, and hope to roll out those indicators across Programme partners.

Influencing

Science, Innovation and Technology Committee inquiry

The House of Commons Science, Innovation and Technology Committee launched an inquiry in 2022 into research reproducibility. Each UKRN membership group prepared written evidence that, together with an overarching statement, were submitted to the Committee. Several members of the UKRN community then gave oral evidence, including Jess Butler (Local Network Lead for the University of Aberdeen), Dorothy Bishop (ex-chair of the Advisory Group) and Marcus Munafò (chair of the Steering Group). Our evidence clearly struck a chord, as UKRN was mentioned five times in the report published in May 2023, and many of the recommendations built on work we are already doing. In particular, the Committee endorsed our inclusive definition of 'reproducibility', making the concept relevant across a wide range of research fields and methods. Government responses to the Committee's recommendations were varied, but it did accept that "there is need for action to address the significant problems caused by the prevalence or reproducibility problems in the scientific community". Following the Committee report's release, our members prioritised which of its recommendations UKRN should focus on. The result was published as a short working paper, and has informed the new UKRN strategy and annual plan.

UK Committee on Research Integrity

The UK Committee on Research Integrity (UKCORI) is a major new body in the sector, and UKRN continues to influence its direction. One example is work commissioned by UKCORI to synthesise published evidence on the enablers and inhibitors of research integrity, which UKRN members did in partnership with with the Science Policy Research Unit at the University of Sussex. We expect this to be published by UKCORI shortly. Another example is input from a number of UKRN members to the direction being taken by UKCORI on indicators of research integrity. While this is relevant to the REF (see the UKCORI statement on this), UKCORI is taking perhaps a longer term approach to indicators, informed partly by expertise from UKRN members and partly from our work, such as on open research indicators described above.

Research Excellence Framework

Inevitably perhaps the REF dominates sector discussions on research transparency and rigour. The initial decisions announced by the REF team, and subsequent discussions and consultations, have been noteworthy. Members of the UKRN community produced a response to the initial decisions, broadly welcoming them. That was accompanied by a description of what we consider to be an excellent research environment that is conducive to high quality research. In the engagement with sector bodies that followed, it became clear that UKRN is now seen as a body with an important voice and role and so, when a consortium was put together to bid for work to explore indicators for the People, Culture and Environment section, UKRN was invited to be part of it. We are now part of that project, and our members will be able to influence this difficult but important work from the inside.

Research Culture

Research culture catalogue

Many members of the UKRN community are involved in institutional activities to enhance research culture, because this makes it easier to do rigorous and transparent research. Seeing little sector-wide coordination or sharing of lessons and opportunities between these institutional activities, UKRN convened a series of workshops in the summer of 2022. One of the main things we heard was that those leading these activities did not know who else across the UK was working on a related topic. Therefore, UKRN issued an open call, asking any institution to share descriptions of their work in research culture. The resulting research culture catalogue provided a snapshot resource intended to help promote collaboration.

UKRI: Research culture initiatives in the UK

Following publication of the UKRN research culture catalogue, UKRI commissioned work from a consortium including UKRN to develop a more in-depth study of reseach culture initiatives, via a literature review (led by UKRN), a call for evidence and a series of workshops. A research culture framework was developed by this project, led by Vitae, which UKRI has adopted to frame its work in this area. A key finding from the study was that initiatives to enhance research culture are not typically well evaluated, if they are evaluated at all (most are not), and so they are not informing the evidence base on which future planning can be done. This is one rationale for UKRN's new METEOR project, outlined below.

Octopus

Octopus.ac is a new, free, publication platform funded by Research England and supported by UKRN, designed to encourage best research practices. Its usage is growing, with nearly 1000 users now registered. Recently, the University of Bristol has published research, commissioned alongside Octopus by Research England, which investigates current research culture and how Octopus might help improve it. It included some sombre findings – such as that 41% of researchers surveyed think that open research practices currently have no influence on research assessment – but also a strong desire from early career researchers to be able to share their work early and safely for feedback from more senior peers: something that Octopus is designed to do. Octopus is now forming partnerships with journals (such as the one it has with Royal Society Open Science), funders, institutions and learned societies. The aim is to keep spreading the word about the platform, whilst also improving the benefits to researchers using it through increased recognition by funders and institutions.

Alexandra Freeman

Open Research Programme Update

Starting in 2021 and running to 2027, the Open Research Programme, funded by Research England, is UKRN's main activity and flagship project at the moment. It is building the capabilities of institutional partners through an extensive range of train-the-trainer sessions and a community of practice for those trainers; we expect to exceed the initial target of nearly 3,000 researchers trained. It is also, through the "OR4" project, leading a national initiative to reform how institutions recruit and promote staff, to better recognise open research; our involvement as a founder member of the UK National Chapter of CoARA is important here. The Programme is also developing an innovative 'living website' to enable institutions to share resources and good practice. Finally, via a major survey and a significant strand of work developing new indicators for open research (see above), it is also enabling both UKRN and partner institutions to be better informed in supporting open research. The Programme's success is perhaps best illustrated by the fact that a further six institutions have opted to join it since it started, seeing its value to them even without a share of the Research England grant.

Neil Jacobs

Community Update

Local Networks

I am Chair of the UKRN's Local Network Leads and a member of the UKRN's Community Project Steering Group (see below). The Local Network Leads (LNLs) promote open, reproducible research at their institutions at a grassroots level by, for example, establishing journal clubs, promoting events that foster a culture of open research, and providing advice and resources to their colleagues who have less experience of engaging with open research practices. As Chair of the LNL group, I try to represent the viewpoints of the LNL community within UKRN (e.g., in terms of how UKRN can best support LNLs) and to other organisations and institutions (e.g., the UK Committee on Research Integrity). The UKRN's Community Project aims to strengthen existing, and to develop new, relationships between LNLs, so that it remains a vibrant community and becomes self-sustaining. As part of the Steering Group on the project, I help to provide oversight for the project and give feedback on issues such as the best metrics to use to evaluate how well the project works.

David Smailes

Institutional Leads

I am Professor of Cognitive Science at the University of Sheffield where I'm also Research Practice Lead – a role created to represent the University at the UKRN and with a remit to encourage researcher engagement with research practices and processes which generate more robust and trusted research. I'm also a senior research fellow at the Research on Research Institute, which aligns my research practice role with a research interest in meta-research topics. The Institutional Leads group brings together the representatives of the 36 member institutions of UKRN. The group allows those leading on the core UKRN work of increasing rigour and transparency in research a forum to bounce ideas off of each other, share what worked, voice concerns and discuss wider strategy. As Chair of the group, my vision is that we can help realise the potential of the UKRN as a network, where although member institutions have different contexts and have different aspects of research practice they are strongest on, we can all benefit from exchanging ideas, sharing from our different institutions and so facilitating adoption of better practice across the UKRN. Recent topics have included how to best prepare to support strong contributions to the REF2029 People and Environment and Culture section, and whether as UKRN members we can play a role in advocating for the important of the expansion of this component of the next REF.

Tom Stafford

Stakeholders

This year the UKRN stakeholder group has developed as a network in its own right, with the UKRN governance offering an advisory and advocacy role for stakeholders in the development of the UKRN programme. Initial information sharing sessions generated enthusiasm and interest amongst a diverse range of stakeholders, who met again to further explore their shared interests under a UKRN banner. There appears to be an appetite for the group to keep in touch in order to make connections and share approaches to how UKRN ambitions are being manifested in stakeholder's organisations. A Chair and Supervisory Board representative for the group were elected in January's meeting. Helen Clare from Jisc was elected Chair and Harvinder Virk from the University of Leicester was elected Supervisory Board member. The governance structure will be tested and adapted as member feel appropriate, to enable meaningful roles for different levels of membership. Priorities for the group this year include continuing to increase group member engagement levels and working with the rest of the UKRN governance structure to improve communication flows.

Helen Clare

EDI Advisory Committee

The new Equality, Diversity and Inclusion Advisory Committee (EDIAC) was set up in November 2023 and plays a vital role in ensuring that UKRN's work is informed by principles of equity and inclusion. The committee, made up of experts from a diverse set of backgrounds, feeds into the UKRN strategic plan and key ongoing projects to ensure that UKRN utilises all possible levers to enhance representation within the open-research ecosystem. This year the group has advised on enhancing EDI consideration within the shortlisting criteria for the Dorothy Bishop Prize, started to review UKRN's approach to partnership, and enhancing inclusion of ongoing calls for funding and participation. The committee was appointed through an open call and is in its formative stages. As the committee becomes more established, it will begin to propel the inclusion-focused elements of the UKRN's mission and purpose. The EDIAC feeds into the Supervisory Board through their Chair but also through a joint annual meeting which ensures that EDI is at the core of UKRN's work.

Shraddha Chaudhary
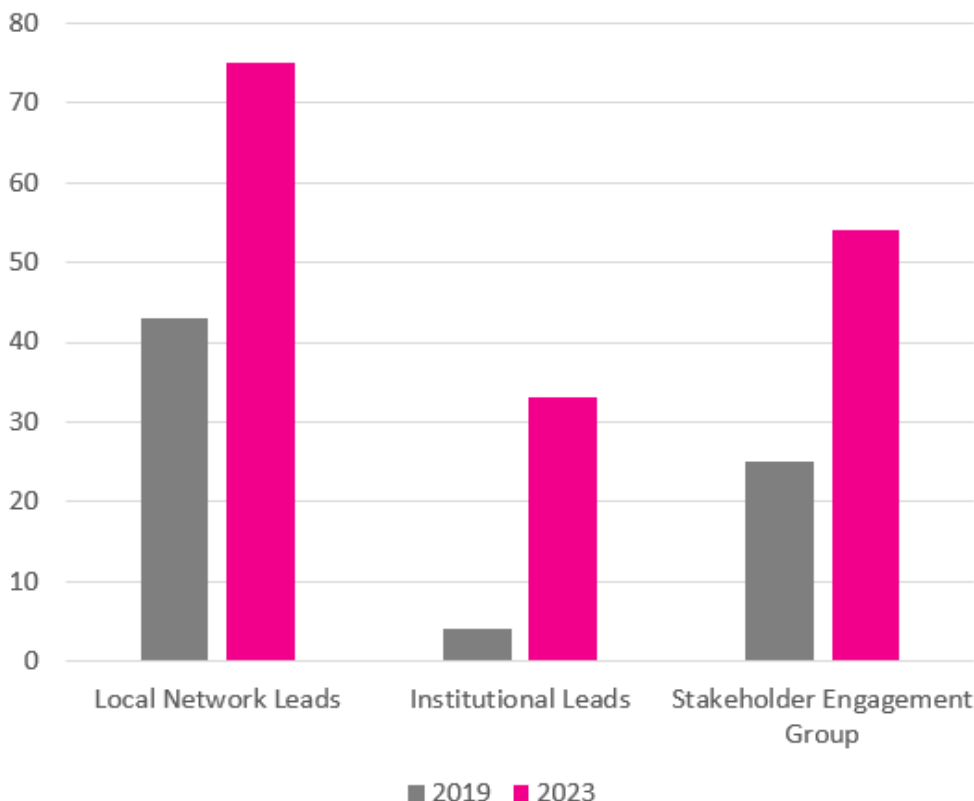
International Advisory Committee

The International Advisory Committee (IAC) is tasked with providing critical input and strategic advice on the overall direction and activity of the UKRN. Its eight members, located on four continents, combine expertise across various sectors of the research ecosystem. This diverse international makeup ensures that the UKRN's efforts are informed by a broad array of scientific traditions, perspectives, and regulatory environments. The committee meets quarterly to review and advise on the UKRN leadership's current plans and strategies. Additionally, the IAC oversees the Dorothy Bishop Prize, which recognises significant contributions by early-career researchers working to promote open research and improve research culture. The committee is responsible for reviewing nominations and compiling a shortlist for the award, now in its third year. Members of the IAC, including the Chair, are appointed by the Supervisory Board from recommendations within the UKRN community for an initial one-year term, with the possibility of a two-year extension. The IAC both responds to inquiries from the Supervisory Board and proactively contributes insights and updates. To facilitate more dynamic exchange, the IAC Chair occasionally participates in Supervisory Board meetings and engages with other group Chairs as needed, ensuring a cohesive and informed approach to advancing the UKRN's mission.

Anne Scheel

Growth in Membership 2019 to 2023

Looking Ahead

Global RNs

Many others around the world have emulated the approach pioneered by the UKRN. There are now RNs in around 20 countries worldwide; it is hard to be precise as more are surfacing all the time. Most are in Europe, but there are also RNs in Brazil, Africa, Australia and Canada. Unsurprisingly, diverse national research systems and circumstances give rise to varied RNs, though all based on the UKRN model. For example, resource constraints in Africa mean that, for now, one RN will aim to foster growth across this vast continent. In countries like Australia and the US, active national open science networks are doing related work, but in slightly different ways. The Brazilian network has just received a major grant for its activities, and we are hopeful that the same will be true soon for the European networks. In the meantime, UKRN continues to convene all the RNs and has led agreement between them on a common statement of what an RN is, and on how a loose global federation of RNs will add value to their work. We expect this area of UKRN's work both to accelerate, for example acting as a mentor to younger networks and sharing resources with them, but also to be increasingly shared with the other networks as they grow and mature.

Community Project

The UKRN Community Project is a one-year project funded by UKRI (October 2023 – September 2024) and run by Will Gawned (Project Manager) and Diane Hird (Project Coordinator) both based at the University of Bristol. This wide-ranging initiative works within and between the UKRN member groups and with other national Reproducibility Networks to fill gaps in community support, enable them to share evidence and insight, and better support high quality research. There is a particular focus on empowering our grassroots community of Local Network Leads (LNLs), enabling them to be more effective agents of change both locally and nationally, and to be better recognised in this role. Throughout 2024 we are creating opportunities for them to meet and work with fellow LNLs, to strengthen existing relationships and build new ones, all with a view to creating a vibrant and resilient LNL community. This work includes developing guidance and resources for advocating from within institutions, specialist workshops, regional roadshows and supporting special interest groups. The project team is working with research institutions and UKRN stakeholders, including funders and publishers, to explore new opportunities to work with UKRN and each other. This includes exploring new ways to collaborate to enable and promote rigorous, reproducible and transparent research. Working globally, the team will also enable national

Reproducibility Networks to cohere into an effective inter-network. The outputs of this project will demonstrate the impact of community support, will contribute to the sustainability of UKRN as a community-led and community-based network, and will be used as the basis of an application for longer term financial support for the team.

Will Gawned and Diane Hird

New Projects

This year has seen an exceptional growth in the diversity of UKRN projects. Examples include the STAR Project on open research data, mentioned above. Another project, METEOR, is now building from our work on research culture, also described earlier, to investigate the extent to which institutions use meta-research evidence when making decisions that affect research culture. This is important for UKRN because any continual improvement process needs to generate insights and adapt as new evidence becomes available. Knowing when, how and why institutions use research evidence in particular will enable UKRN to plan our work more effectively, as well as helping institutions be better at this.

Another new project is being done by a Story Associate, as part of the AHRC-funded StoryArcs programme. This research project started with a UKRN webinar in 2023, on whether research communication can be more about persuading readers than about informing them. This is potentially a huge question, and a 'wicked problem' with little prospect for easy solutions. However, the UKRN Story Associate will aim to take a first step, which is to assess whether, and how, researchers are able to discriminate between academic texts that inform and persuade in different ways.

Thank You!

As we moved to our new governance framework, we sadly had to say goodbye to some long-serving members of our Steering Group and International Advisory Board (now Supervisory Board and International Advisory Committee).

From the Steering Group, Chris Chambers, Alexandra Collins and Laura Fortunato all elected to take a well-earned break from their roles. Chris and Laura were founding members of UKRN, whilst Alex joined very shortly afterwards and provided a very different perspective, both in terms of career stage and discipline. We are extremely grateful for all their hard work and support over the years.

From the International Advisory Board, we said goodbye to the Chair, Sarah De Rijcke (replaced by Anne Scheel), as well as John Climax, Uli Dirnagl, Fiona Fidler, and Ben Marwick. All have provided us with enormously valuable advice and support over the years, and again we are very grateful for their time spent working with us. They will remain part of the wider UKRN family of course.

All those who stepped down – both from the Steering Group and the International Advisory Board – received Doscars (the Lego minifigure of Dorothy Bishop we award to our Dorothy Bishop Prize winners) as a small (but exclusive!) token of our gratitude.