Responsible Research Assessment Working Group GLOBAL RESEARCH COUNCIL

GRC Responsible Research Assessment Case Studies

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Foreword

As funders, we have a responsibility not only to support the research enterprise but also to shape the environment in which it thrives. Responsible Research Assessment (RRA) is at the heart of this mission. It reflects our collective commitment to fostering more diverse, inclusive, and impactful research cultures—one that rewards the full breadth of research excellence and creates sustainable pathways for researchers at all stages of their careers.

The Global Research Council (GRC) has long recognised the importance of improving research assessment practices, and the RRA Working Group's work since 2021 exemplifies this commitment. Their 2024 report on the Dimensions of RRA represents a key milestone in this global effort towards a healthier research environment, offering a shared vision for how research assessment practices can evolve to better support the diversity and integrity of the global research enterprise and to enable the most rigorous and high-quality research.

This booklet is a natural next step in that journey. These case studies offer a rich and varied reflection of how funders around the world are translating RRA principles into action. They capture innovative approaches and practical insights, highlighting both the opportunities and the complexities of embedding RRA in different contexts.

On behalf of the GRC Governing Board, I would like to extend my sincere thanks to the RRA Working Group and to all of the individuals and organisations who contributed their experiences and insights to this booklet. Your willingness to share your journeys—both the successes and the challenges—strengthens our collective capacity to advance RRA and to incentivize and reward the breadth of impactful contributions of the researchers that we fund. I invite all funding organizations to submit their own case studies to the RRA working group, who will be continuing to collect and publish these contributions openly as part of a digital library.

Accordingly, let these examples serve not as the conclusion of a conversation, but as a catalyst for further dialogue and action. By learning from each other and adapting these practices into our own contexts, we can accelerate the shift toward more thoughtful and inclusive research assessment. Together, we have the opportunity to build a more inclusive, resilient, and impactful global research system—one that reflects the full richness of research excellence and better serves society as a whole.

Prue Williams

Member, GRC Governing Board Chair of the GRC Programme Committee Ministry of Chief Advisor Science System Ministry of Business Innovation and Employment New Zealand Responsible Research Assessment Working Group

Introduction

The central mission of the GRC's RRA Working Group is to facilitate and support the adoption of RRA globally, by promoting a collective understanding of responsible approaches to research assessment, learning through collaboration, and openly sharing good practices to guide collective advancement.

This case study booklet advances this mission by enabling funding organizations from around world to highlight their examples of RRA implementation, aligned with one of more of the eleven <u>Dimensions of RRA</u> outlined in a report launched at the 2024 GRC Annual Meeting. In many cases, these examples align with the principles and practices championed by other international initiatives with which the RRA working group works closely; such as the Declaration on Research Assessment (DORA), the Coalition for Advancing Research Assessment (CoARA), the Latin American Forum on Research Assessment (FOLEC), and many others.

All case studies contained within this booklet were submitted by members of the RRA Working Group. Each was subject to a quality assurance process to ensure its clarity and alignment with the Dimensions of RRA, however the working group did not assess the practices outlined in each case for their effectiveness. The effectiveness of any particular action may vary based on the context in which it is implemented. Accordingly, these case studies – and the accompanying <u>digital library</u> hosted by the GRC – aim to serve as a reference for funders globally to consider as they explore their own approaches to embedding the Dimensions of RRA.

The case study work does not stop here. There is more to do, and we encourage all GRC member organisations to consider how you can share your RRA practices through a case study. These additional case studies will be published in the GRC's RRA Working Group's digital library, by completing the case study <u>template</u> available on our <u>webpage</u> and submitting their contribution to the RRA working group at <u>GRC-RRA@ukri.org</u>. We encourage the submission of contributions from a greater diversity of funding organisations, across all five regions of the GRC, that demonstrate proactive steps towards the adoption of responsible practices aligned with any of the eleven Dimensions of RRA.

To further highlight good-practice RRA case studies, webinars will be developed. These webinars will be recorded and uploaded alongside the broader library of resources on our webpage, for the benefit of all GRC member organisations and to support global knowledge sharing.

Context

Collective global action towards the adoption of more RRA practices has gained momentum in recent years. The Global Research Council (GRC) contributes to this global movement through its RRA Working Group, established in 2021 to support the promotion and implementation of RRA practices in the international research and innovation system.

The GRC defines RRA as an umbrella term to describe approaches to research assessment, which incentivize, reflect, and reward the plural characteristics of high-quality research, in support of diverse and inclusive research cultures. These practices are intended to address longstanding issues that impede the development of high-quality research and that challenge the sustainability of the global research enterprise. Among these issues is the misapplication of narrow criteria and indicators of research quality and impact, which distorts incentives, creating unsustainable pressures on researchers and exacerbating problems with research integrity and reproducibility. Such narrow application can lead to a reduction of the diversity of research missions and purposes, wherein institutions and researchers adopt similar strategic priorities or focus on lower-risk, incremental work. This misapplication can often lead to systemic biases against those who do not conform to standard career pathways or who do not meet – or choose not to prioritise – narrow criteria and indicators of quality and impact. These biases reduce the diversity, vitality, and representative legitimacy of the research community and are incompatible with an inclusive and equitable global research culture.

In May 2024, the GRC RRA Working Group published a report describing eleven <u>Dimensions of</u> <u>Responsible Research Assessment</u>, which serves to articulate funders' vision of RRA and to provide a framework for future advancements in this area. Building on this framework, the working group developed this case study booklet to provide real-world examples of how funders can embed RRA practices aligned with these Dimensions within their own contexts. In parallel, the RRA Working Group conducted its second Global Survey on RRA in collaboration with the Research on Research Institute, the results of which have been openly published in a report entitled <u>Transforming</u> <u>Assessment: the 2025 Global Research Council survey of funder approaches to responsible research</u> <u>assessment</u>. This report, along with this case study booklet, were unveiled at the 13th Annual Meeting of the GRC in May 2025.

Moving forward, in addition to supporting the publication of new case studies and webinars through the digital library that accompanies this booklet, the GRC RRA Working Group aims to develop a self-assessment tool for funders to understand their own progress towards embedding RRA principles. This tool will be complemented by a roadmap that provides guidance on how funders can make systemic change, overcome obstacles, and implement RRA practices aligned with the Dimensions of RRA.



This booklet includes 15 case studies submitted by funding organisations that are members of the GRC's RRA Working Group, from four of the five regions represented within the GRC. We intend these case studies to act as a valuable resource for collaboration and shared learning among GRC member organizations and among the broader research ecosystem. Each case study features examples of RRA practices embedded by the originating funding organisation which are aligned with one or more of the eleven Dimensions of Responsible Research Assessment, outlined in Table 1:

Guiding principles	Governance and strategy	Process and methodology
[1] Responsible commitment to and promotion of research integrity and the responsible conduct of research.	[5] Responsible administration and monitoring of research assessment processes.	[8] Responsible use and dissemination of research assessment criteria.
[2] Responsible approaches to incentivizing open research.	[6] Responsible approaches to research assessment reform.	[9] Responsible assessment of research contributions and achievements.
[3] Responsible commitment to equity, diversity, and inclusion in research.	[7] Responsible use of influence on institutional policies and practices.	[10] Responsible approaches to impact assessment.
[4] Responsible responses to the effects of global challenges and emergencies on research.		[11] Responsible approaches to reviewer and panel recruitment and training.

Table 1: The Global Research Council's 11 Dimensions of Responsible Research Assessment

While all of these Dimensions are represented within this first collection of case studies, the practices described therein align primarily with three of the eleven Dimensions: **[3] Responsible commitment to equity, diversity and inclusion in research, [7] Responsible use of influence on institutional policies and practices, and [9] Responsible assessment of research contributions and achievements.** These priorities align with other global initiatives related to RRA, most particularly DORA and CoARA, which place a high emphasis on action devoted to identifying more responsible practices related to the assessment of contributions and achievements while avoiding a reliance on journal-based metrics and citation numbers. Comparably, fewer case studies in this booklet report examples aligned with the fourth Dimension of RRA, **[4] Responsible responses to the effects of global challenges and emergencies** and **[10] Responsible approaches to impact assessment.** Further case studies on this topic would be quite important in the future, including to help guide funders as they navigate the opportunities and challenges related to artificial intelligence in research and in research management.

The list of 15 case studies featured in this booklet from funding organisations across four regions of the GRC, and the Dimensions with which each is aligned, are provided in Table 2.

We intend these case studies to act as a valuable resource for collaboration and shared learning among GRC member organizations and among the broader research ecosystem.

Case study Dimensions of RRA											
	1	2	3	4	5	6	7	8	9	10	11
Americas											
Conicet		Х				Х		Х	Х		
NSERC			Х				Х				
Asia Pacific											
NSFC					X						X
MBIE #1			X						X		
MBIE #2							Х				
MBIE #3			Х	X							
Europe			-			-					-
Science Europe		X			X				X		
DFG	х		Х			X			X		
HRB					Х					Х	X
Research Ireland			Х				Х		Х		
FNR	Х		Х				Х	Х	Х		X
SNFS									Х		
UKRI						Х	Х				
Sub-Saharan Africa											
COSTECH	X		X								
Total	3	2	7	1	3	3	5	2	7	1	3

Table 2: Case studies by region, funding organisation, and Dimensions of RRA represented

CONICET

Responsible Research Assessment and the evaluation of researchers' promotions

Lead organisation: CONICET (National Council for Science and Technology) Argentina	Region: Americas
RRA Dimensions:	
Guiding Principles [2] Responsible approaches to incentivizing open research 	
Governance and Strategy [6] Responsible approaches to research assessment reform 	
 Processes and Methodology [8] Responsible use and dissemination of research assessme [9] Responsible assessment of research contributions and ac 	
Funding scheme:	

CONICET funds a scientific career and doctoral and postdoctoral education.

Summary

CONICET funds scientific & technology career (CICyT) and doctoral and postdoctoral education. The evaluation of career trajectories is a core activity for tenure and promotions and, in recent years, CONICET has been engaged in transforming procedures and criteria in terms of RRA.

Background

According to international experience and documents published by CONICET, the near-exclusive use of these bibliometric indicators as part of evaluation criteria reduces and discourages the potential variety of career paths. In particular, it is emphasized that the sole use of bibliometrics, although it is an interesting window for the recognition of researchers in international scientific communities, may produce biases in the following situations:

- When publications are not considered in commercial databases, for example due to the language of publication
- When local and/or regional issues are addressed
- When research has a multi or interdisciplinary approach and/or co-creation together with the beneficiaries of the knowledge produced.

Discussion on the need to modify evaluation has been present in scientific communities for some time and is part of the debate in forums and institutions that carry out performance reviews. The evaluation of "non-traditional" profiles such as those that rely less on peer-reviewed publications can be challenging. Applying an overly narrow set of evaluation criteria undermines the exploration of diverse and innovative research and development horizons that incorporate novel topics and projects. The evaluation must be multidimensional; in accordance with Dimension [9] on the Responsible assessment of research contributions and achievements, publications should be assessed alongside other attributes in order to better appreciate the diversity of trajectories. This includes considering broader activities and technological developments such as teaching, mentoring, management, and the public communication of science and technology. Similarly, it is not appropriate to apply evaluation criteria specific to basic research when evaluating research that is applied and/or oriented towards technological and social development or problem solving, and vice versa. The development of technology does not necessarily lead to publications, nor is it expected that basic research must quickly conclude in a specific technological development. It is key then not to be restrictive in the use of indicators that may be interpreted out of context. Likewise, good quality research can have international as well as national or regional scope.

Implementation of the Dimensions of RRA

CONICET addressed the issue by taking a responsible approach to RRA in the evaluation of science both nationally and internationally. At the national level, it participated in workshops organized by the Ministry of Science, Technology and Innovation (MINCyT) during 2012 and 2013. As a result, changes were introduced to evaluation criteria. In 2020, CONICET became a cosignatory to DORA (Declaration on Research Assessment) and in 2021, it appointed a staff member to the RRA Working Group.

Since 2018, concepts related to RRA have been incorporated into procedures and criteria in current institutional documents for the evaluation of trajectories of CONICET researchers. CONICET's approach to reforming RRA practices includes multiple components. This submission focuses on on the integration of considerations for open research and the gradual adoption of a narrative CV together with elements of a traditional CV. For example, in 2023, an approach to a narrative CV was added for the evaluation of promotions.

In 2013, as an approach to incentivizing open research at the national level, Law 26,899 established that science and technology institutions must publish their products (i.e. papers, dissertations, books, etc) and research data through repositories. The CONICET Digital Institutional Repository guarantees Green Open Access to published products and has been active since that year. Data deposits began in 2020 and, by mid-2023, more than 200,000 titles had been up-loaded, including articles, doctoral theses, scientific events, multimedia objects, book chapters and books (Bulletin No. 4 CONICET Digital Institutional Repository, 2023). Researchers and scholarship holders' data can be preserved and consulted for reuse within this repository, which currently holds around 3500 such published data sets (Bulletin No 5 CONICET Digital Institutional Repository, 2024).

The Digital Institutional Repository is one of the sources of information for the evaluation of trajectories and projects processes. CONICET has an in-house management system for evaluations (SIGEVA) and a personal repository so that researchers can access their contributions and projects.

This digital repository is expected to support institutions in appointing members of the evaluation panels. Indeed, it is expected that members possess a strong background in order to be part of a database of evaluators, which is comprised of national and international experts in every field of research that CONICET supports. Members of these panels must follow procedures, including to consider for a broader range of research contributions in a narrative CV alongside elements of a traditional CV. Panel coordinators must also participate in a training workshop, before starting the panel meetings.

Relevant links

- Evaluation Procedures https://evaluacion.conicet.gov.ar/procedimiento/
- Evaluation Criteria <u>https://evaluacion.conicet.gov.ar/criterios-de-evaluacion/</u>
- The Comprehensive Management and Evaluation System (SIGEVA) Procedure Manuals https://evaluacion.conicet.gov.ar/sigeva/
- Disciplinary Advisory Commissions <u>https://evaluacion.conicet.gov.ar/comisiones-asesoras-</u> disciplinarias/
- Qualification and Promotion Board <u>https://evaluacion.conicet.gov.ar/junta-de-calificacion-y-</u> promocion/
- https://evaluacion.conicet.gov.ar/comisiones-asesoras-por-gran-area/
- Large Area Advisory Commissions https://evaluacion.conicet.gov.ar/pares-consultores-externos/
- Approve the Statute of the careers of the Scientific and Technological Researcher and the Personnel of Support for Research and Development. <u>https://www.conicet.gov.ar/wp-content/</u> uploads/ley-20464-ACTUALIZADA-modif-Ley-27385-3-10-2017-.pdf
- CONICET Digital Institutional Repository https://ri.conicet.gov.ar/
- Newsletters https://ri.conicet.gov.ar/wp/novedades/boletines/

Dimensions Canada

Lead organisation: Natural Sciences and Engineering Research Council of Canada (NSERC) Region: Americas

RRA Dimensions:

Guiding Principles

• [3] Responsible commitment to equity, diversity, and inclusion in research

Governance and Strategy

• [7] Responsible use of influence on institutional policies and practices

Funding scheme:

The Dimensions program was initially funded as a pilot through a CAN\$5M investment over 5 years made in the 2018 Canadian Federal Budget. Following the end of the pilot in March 2023, a new phase of the program was announced in Fall 2024 with an annual budget of CAN\$1.5M.

Summary

<u>Dimensions Canada</u> invites postsecondary institutions to take part in a transformation program to increase equity, diversity and inclusion (EDI) and help drive deeper cultural change within the research ecosystem by identifying and eliminating obstacles and inequities. The program has two components: a <u>charter</u> and a <u>recognition program</u>. A <u>cohort of 17</u> Canadian postsecondary institutions co-developed the Dimensions recognition program during a pilot phase to make it uniquely adapted to the Canadian context. There are four stages of recognition, intended to reflect the journey of carrying out EDI work and achieving success.

Dimensions encourages institutions in the recognition program to build collaborative, rather than competitive, EDI efforts. Rather than working toward external targets, institutions self-assess and create action plans to move toward greater EDI. Dimensions supports institutions of different types (colleges, polytechnics, and universities), size, and location, creating a diverse community of practice.

Background

The Natural Sciences and Engineering Research Council of Canada (NSERC) is located in Ottawa, Canada. It is one of the country's three federal granting agencies. It funds visionaries, explorers and innovators who are searching for the scientific and technical breakthroughs that will benefit Canada. NSERC is Canada's largest supporter of discovery and innovation. It works with universities, colleges, businesses and not-for-profits to remove barriers, develop opportunities and attract new expertise to make Canada's research community thrive. NSERC gives Canadian scientists and engineers the means to go further because believes in research without borders and beyond frontiers.

 Evidence clearly shows that increasing equity, diversity and inclusion in research environments enhances excellence, innovation and creativity¹. EDI policies and practices strengthen the research community, as well as the quality, social relevance, outcomes and impacts of research. Dimensions Canada is designed to foster research excellence, innovation and creativity through greater

1. NSERC - NSERC guide on integrating equity, diversity and inclusion considerations in research

equity, diversity and inclusion within the postsecondary sector in Canada, across all disciplines. Dimensions is a leading international program promoting EDI in higher education, along with <u>Athena SWAN</u> in the United Kingdom and Ireland, <u>SAGE</u> in Australia and <u>SEA Change</u> in the United States. Dimensions distinguishes itself from other EDI programs by focusing on five equitydeserving groups (i.e., women, Indigenous Peoples, persons with disabilities, members of racialized groups, and members of LGBTQ2S+ communities), working with all disciplines and by working with all postsecondary institutions.

Implementation of the Dimensions of RRA

Creating a framework

- In 2019, the Minister of Science and Sport launched the Dimensions pilot inspired by the United Kingdom's internationally-recognized Athena SWAN program.
- Dimensions was included as the flagship initiative of the <u>Tri-Agency EDI Action Plan</u> (the organizations that make up the Tri-agency are the Canadian Institutes of Health Research, NSERC and the Social Sciences and Humanities Research Council).
- The charter and basis of the program were developed through national consultations that established the Dimensions charter.
- A cohort of 17 postsecondary institutions was selected to co-create the recognition program with NSERC staff and to make it uniquely adapted to the Canadian context.
- The recognition program is voluntary. Institutions do not receive funding for their participation. Institutions seeking recognition submit an application which was reviewed by a committee of postsecondary researchers and individuals with lived experience and expertise in EDI. Each application was evaluated by a panel of 5 reviewers from a pool of 18 reviewers. The committee determined the level of recognition individual institutions received based on their efforts to support EDI, results of these efforts, self-reflections, and sharing of learning and findings with the research community.

Identifying and recruiting key stakeholders

- NSERC works closely with the Canadian research community and maintains contact lists to ensure broad dissemination when announcing new programs. These were used in the development of Dimensions Canada.
- NSERC leveraged its network of post-secondary associations (i.e. Universities Canada, Colleges and Institutes Canada, Polytechnic Canada, Fédération des cégeps du Québec), the various advisory groups and committees existing under the Tri-agencies, as well as organizations representing members of equity-deserving groups.
- Social media campaigns were used throughout the pilot.
- Two cross-country consultations in 2019-2020 reached over 1000 participants, including visits to 24 cities.
- A peer-reviewed letter of intent process was used to select institutions to be in the pilot cohort. Forty institutions submitted letters of intent and 17 were selected. A program design expert committee composed of experts in the field of EDI was created to support the Dimensions team at NSERC.

Implementation risks and mitigations

• Since Dimensions is a voluntary program, a significant risk included the potential for low interest from the community. A strong communication plan helped maintain ongoing interest in the

program. This included support for all 17 cohort participants, facilitated by virtual tools; numerous presentations to stakeholders and at conferences and events; regular updates on NSERC's website; and regular public communications via social media.

- Achieving a culture change is resource-intensive with regard to time, human and financial resources, which poses another risk. Institutions often want quick results but may not have the resources to attain it. The Dimensions framework provided a clearer pathway to foster such a transformational change and, importantly, during the adjudication process institutions are not compared with each other. Rather, they are evaluated based on their own realities, context, available resources, assets and obstacles.
- The breadth of the program posed a risk; where other countries' efforts focused mainly on women in STEM, Dimensions Canada aimed to include five equity-deserving groups across all postsecondary institutions and for all faculties. The co-design process helped drive understanding on how to implement this program at the institutional level, and adopting an inclusive assessment framework helped to foster buy-in from the community.
- An ongoing risk is resistance to change within institutions. This risk was not fully mitigated and presented a constant challenge for the institutions and the program.

Implementation approach

- The first critical step was to make the decision of creating a pilot cohort to co-develop the program, including the recognition component. Institutional representatives and stakeholders appreciated the inclusive, co-development approach that enabled institutions to learn from each other and contribute to shaping the program.
- The co-development approach was intentional and designed to ensure the program was informed by and reflected the realities and priorities of institutions in the Canadian research ecosystem, particularly as they related to EDI. It encouraged institutions to consider and find creative solutions to long-standing challenges related to EDI in the research ecosystem. The co-development also allowed for much deeper discussions and better collaboration between institutions.
- The co-development of Dimensions resulted in <u>EDI-related resources</u>. Most institutional representatives said they greatly valued the Dimensions resources, including the Dimensions charter, <u>Handbook</u>, webinars, and information sessions to help postsecondary institutions break down systemic barriers and enable them to contribute to creating a culture where EDI is embedded across all aspects of research.
- The co-development brought some challenges. Working collaboratively can take longer, accommodating diverse institutional contexts is complex (different types of institutions have different needs, realities, resources, key area of concerns, etc.), developing and participating at the same time in the program was difficult, and finally it's important to have constant communication with the institutions and respect their time and efforts in this project.
- It took the full length of the pilot (5 years) to implement all the elements of the program.

Challenges during the implementation

- The COVID-19 pandemic caused significant delays. Everyone had to deal with the new reality of working remotely, while trying to implement a new program and foster engagement with the community. Timelines had to be revisited to recognize these impacts.
- It was a challenge for institutions to co-develop the program while implementing their own initiatives and preparing to receive a recognition. X institutions from the cohort did not apply for recognition.
- Minor improvements to the recognition review process were recommended in the pilot program's evaluation report.

Monitoring and evaluation

- An evaluation of the program was conducted after the pilot phase and the comments were very positive.
- From the perspective of responsibly influencing institutional policies, the Dimensions program was considered a success, given the positive reaction of the institutions throughout the program development – even for institutions outside the pilot.
- The recognition program was considered valuable as it validated institutional commitments to EDI principles; provided accountability for institutions' EDI efforts; provided an opportunity to recognize institutions' EDI efforts; motivated institutions and reinforced their commitment to work towards the next recognition stage; and enhanced institutions' reputations.
- All institutions that applied for a Dimensions recognition were successful. Through the review
 process of their application, they received constructive feedback that will help them in their
 ongoing EDI journey.
- The program was successful in its commitment to EDI: the program's unique approach of identifying and addressing systemic barriers for the five equity-deserving groups distinguishes it from similar international programs, underlining its significance in promoting a diverse and inclusive research ecosystem in Canada.
- Evidence from key informants reinforced the relevance of and continued need for the Dimensions program.
- Many institutional representatives noted that, as a program run by the federal government, Dimensions gave legitimacy to EDI and their EDI-related activities within their institution and helped them build on these activities. Others said Dimensions helped expand institutional attitudes towards the role of EDI, for example by rethinking how to consider the voices of equitydeserving groups within institutions.

Post-pilot phase implementation

- The Dimensions program was paused after the pilot phase.
- Dimensions raised the profile of EDI across institutions by bringing people together, increasing awareness about EDI and beginning to shift culture. Institutions had created dedicated EDI positions, offices and committees, changed hiring practices, and used the lessons learned from Dimensions to improve data collection related to EDI and to use these data for evidence-based decision-making.
- Dimensions entered a new phase in October 2024, when the Government of Canada committed resources to expand the program beyond its original pilot phase.
- The work with international partners will continue with the intent that the program will create conditions for a real change of culture within the postsecondary sector.
- NSERC will continue to monitor the outcomes of the program with the community and will continue to engage with them through various forums.

Relevant links

- NSERC Natural Sciences and Engineering Research Council of Canada
- Dimensions Canada: NSERC Dimensions
- The Dimensions Pilot Dimensions evaluation pilot

Reviewer performance assessment

Lead organisation: The National Natural Science Foundation of China (NSFC)	Region: Asia Pacific
RRA Dimensions:	
Governance and Strategy [5] Responsible administration and monitoring of research as 	ssessment processes
 Processes and Methodology [11] Responsible approaches to reviewer and panel recruitment 	nt and training

Funding scheme:

Reviewer performance assessment is implemented for the NSFC general program (standard grant), funds for young scientists (early career researchers), funds for less developed regions, and key programs.

Summary

Through implementing a points-based reviewer performance assessment, NSFC intends to monitor the quality of peer review, encourage responsible, constructive, and inclusive assessment of peer reviewers, and identify the most responsible peer reviewers.

Background

Every year NSFC receives over 300,000 proposals and uses a pool of over 70,000 external reviewers. The robustness of research assessment relies heavily on the careful selection of experienced and responsible external reviewers.

From the perspectives of funders and applicants, the most useful peer-review reports are constructive, unbiased, and contain specific suggestions for improvements based on sound scientific reasoning. To encourage such responsible assessment and to identify a group of highly responsible reviewers, NSFC experimented with a "points-based reviewer performance assessment" in 2020 and gradually applied it to most of NSFC's grant assessments.

Implementation of the Dimensions of RRA

The reviewer performance assessment is a performance-based points system. NSFC has a wide range of applicants. NSFC program directors and staff of the NSFC research integrity office are involved in the implementation of the program.

After a funding decision is announced, like many other funding agencies, NSFC will provide peer review comments to the applicants. The applicants will be given the opportunity to rate from 1 to 4 on whether the reviewers provide insightful evaluation, especially whether the review comments help to improve their future proposals.

The NSFC program directors monitor the research assessment processes, including the reviewers. Criteria for these monitoring processes cover both the positive and negative aspects of reviewer feedback. Positive criteria for the reviewer include their willingness to participate, the efficiency of the review process, and the quality of the feedback. Negative criteria include their error rate and the type of errors, as well as whether any evidence of discrimination or bias has been identified.

NSFC research integrity staff keep records of reviewer misconduct, which may be based on allegations and subsequently investigated. Misconduct may include conflicts of interest, violation of confidentiality rules, corruption, and bribery.

However, NSFC is fully aware that peer review is basically a voluntary service of the reviewers for the research community. It would not be appropriate to judge any reviewer based on their voluntary service, and most reviewers would like to be anonymous. Therefore, the reviewer performance assessment points are not made public and is kept only in the NSFC grant evaluation system and used in the selection of reviewers.

During the implementation of this system, NSFC encountered two challenges. Firstly, NSFC found that effective promotion and interpretation of the assessment mechanisms are critical, as insufficient communication can undermine its implementation outcomes and lead to misunderstanding and loss of trust. Second, NSFC found that participation rates in the feedback process were not high enough, in part because funded applicants generally engage more actively in providing feedback compared to unfunded applicants. Such imbalances may risk compromising the effectiveness of the review mechanism.

Following the implementation of this system, NSFC found both positive and negative impacts on reviewers. On this positive front, the new system provided a framework to assess, guide and oversee the work of reviewers, resulting in reviewers finding a stronger sense of responsibility in their assessment work, improved the quality and increased the efficiency of project reviews. On the other hand, reviewers who became anxious and concerned about being evaluated could give conservative or neutral review assessments and the rejection rate for review increased.

It's been five years since NSFC experimented with the reviewer performance assessment. Based on our survey, most applicants have the feeling that the review comments are getting more constructive and useful for project improvement. Moving forward, NSFC aims to promote and explain the reviewer performance assessment mechanism more widely to increase the participation and build trust among funders, reviewers and applicants. NSFC will explore mechanisms to turn qualitative indicators into quantitative ones and develop a long-term, sustainable, effective data recording system for tracking reviewer performance. Establishing such a feedback mechanism would allow reviewers to provide input on the review system and process, helping to refine fund review procedures and monitor responsible reviewer behavior.

Finally, NSFC intends to explore the possibilities of sharing all of the reviewers' feedback on the application with the reviewers themselves to help them enhance the quality of their reviews. This includes aspects like the length of their comments and their ability to identify key flaws in the application.

Relevant links

https://mp.weixin.qq.com/s/QwDIMqJTg0LWSQ1C2wIY5g (in Chinese only)

The Introduction of a Narrative CV in New Zealand's largest competitive fund

Lead organisation: Ministry of Business, Innovation and Employment (MBIE), New Zealand	Region: Asia Pacific	
RRA Dimensions:		
Guiding Principles [3] Responsible commitment to equity, diversity, and inclusion in research 		
 Processes and Methodology [9] Responsible assessment of research contributions and achievements 		

Funding scheme:

The Endeavour Fund https://www.mbie.govt.nz/science-and-technology/science-and-innovation/funding-information-and-opportunities/investment-funds/endeavour-fund

Summary

MBIE introduced the Narrative CV for its largest competitive fund, the Endeavour Fund in 2023. The Narrative CV was introduced to provide a more rounded picture of an individual's career, **their achievements and overall contribution** to research, especially for Māori (indigenous New Zealander) and Pacific Peoples.

The Narrative CV only applies to the Endeavour Fund and is not mandatory. While applicants could still choose to use the more conventional Academic CV, nearly half the applications (49 out of 105) contained Narrative CVs. Those people that supplied Narrative CVs ranged from a Research Associate through to Māori. Assessors were surveyed on the impact of Narrative CVs on the Assessment Process.

The Narrative CV was considered very or somewhat useful by nearly all Assessors surveyed. From the range of applicants who used the Narrative CVs, MBIE has shown a wider range of roles that contribute to research within applications.

Background

In line with the global shift towards a narrative CV, MBIE was keen to introduce a Narrative CV to the Endeavour Fund. MBIE has a Diversity in Science Statement that includes ensuring a **diversity of people and perspectives in advisory, assessment and decision-making bodies.** This links to two key drivers for the narrative CV, which were to broaden the definition of an academic to be inclusive of Māori and Pacific Peoples and to include considerations for familial and community obligations, such as considering career breaks especially for women.

Implementation of the Dimensions of RRA

Planning and Implementation

The process to develop the Narrative CV and then implement it was to:

- 1. Workshop with Research Office staff from Universities and Crown Research Institutes to identify what information a Narrative CV should contain.
- 2. Develop a Narrative CV template and sought feedback from researchers through Research Office staff and several Māori academics.
- 3. Update the Narrative CV template with guidance and developed four example Narrative CVs and tested with assessors.
- 4. Set up a Three Agency Working Group with New Zealand's two other main funders Te Apārangi (the Royal Society) and the Health Research Council to develop a Narrative CV with common elements to make it easier for applicants.
- 5. Meet with global representatives for feedback and involve relevant stakeholders to develop guidance for narrative CV writers.
- 6. Finally incorporate the feedback to develop the template for the Endeavour 2023 Round.

The Narrative CV aligns with the **Dimension [9] for the Responsible assessment of research contributions and achievements** by including the following sections:

- How have you contributed to broader societal engagement and/or knowledge exchange?
- How have you contributed to the generation, revitalisation, preservation, and dissemination of knowledge?
- How have you contributed to the development of individuals, collectives, iwi/hapū?
- How have you contributed to the wider research or professional community?
- How have you contributed nationally or internationally to the development of research and technology impact?

Academic information can still be provided in the section on the most recent/relevant significant qualifications, and/or recognition or merit-based roles, awards, and memberships.

The key risk identified related to the Narrative CV was that it was not mandatory and therefore might not be used by applicants. This was mitigated by ensuring good engagement in the development of the Narrative CV, so that when the Narrative CV was launched as part of the opening of the Endeavour 22 Round it was already well known to applicants.

MBIE received feedback that ensured that guidance was as straightforward and as brief as possible. References to the use of the Narrative CV were also included in nearly all communications around the Endeavour 22 Round, as well as in more general social media posts.

Monitoring and Evaluation

A review of the Narrative CV was conducted once the Endeavour Round had been through the assessment phases but before decisions were announced. A survey of assessors who had received both a Narrative CV and an Academic survey was conducted, and the following conclusions were reached:

- The assessors predominantly see the narrative CV as useful not for academic applicants, but for those with non-academic roles in the projects or for academics with non-traditional careers – an innovation for assessing non-scientists.
- The assessors mostly want to know if the applicants are the right people to execute the proposed projects. They want to understand the expertise, experience, strengths of the applicants in relation to the application.
- Interviews revealed that the usefulness of a such a new CV format depends on what the applicants write in them, and how what the CV offers is integrated with the rest of the application material.
- The assessors do not advocate either strongly for or against narrative CVs. They appreciate its value for certain contexts (especially non-academic/non-traditional careers) but do not see it as a particular gamechanger in how they conduct assessments.
- Even when they thought they reviewed poor narrative CVs, it did not seem to negatively affect the application because there is a limit to how much one CV weighs in the totality of a team-based application.
- A narrative CV can be problematic because it is not always clear whether what is written in it can be trusted as accurate and true. It is seen by some as not sufficiently 'fact-based' and requiring external verification/validation.
- There is a lack of consensus among interviewees on whether the narrative CVs make their assessment tasks easier or harder.

Reviewers do not rely solely on the material provided in the application. The use of open-source information and consulting with others on proposal interpretations seems to be a common practice.

Relevant links

- Diversity in Science https://www.mbie.govt.nz/science-and-technology/science-and-innovation/agencies-policies-and-budget-initiatives/diversity-in-science?q=narrative%20&size=n_20_n
- Narrative CV find information on the Narrative CV at this location <u>https://www.mbie.govt.nz/science-and-technology/science-and-innovation/funding-information-</u> and-opportunities/process/pitau-investment-management-system-portal

New Zealand Research Information System influencing institutional policies and practices

Lead organisation: Ministry of Business, Innovation and Employment (MBIE), New Zealand	Region: Asia-Pacific
RRA Dimensions:	
Governance and Strategy I [7] Desponsible use of influence on institutional policies and	nractices

Funding scheme: Not applicable

Summary

The development of the New Zealand Research Information System (NZRIS) as an open and transparent source of information about the New Zealand funding system that can guide and inform institutional policies and practices.

Background

There are many different New Zealand organisations that provide public funding for research. Although each make funding data publicly available; it is collected in different ways using different specifications and is not linked so a complete picture of New Zealand's funding landscape is very difficult to find.

This lack of a complete picture was identified as a key barrier to understanding how public funding can be invested in ways that deliver the most benefit for New Zealand society, the economy, and environment.

This project aligns with findable, accessible, interoperable and reusable (FAIR) data management principles, as well as with expectations from the Government of New Zealand regarding data management. It brings data on the public funding of research together in one place using a common data specification to provide a system-wide view of the funding landscape. This will inform decision making at the funding agencies involved, allowing them to see what is already funded, by whom, and where gaps/opportunities may exist to direct funding. For research organisations, NZRIS supports strategic alignment of expertise to research priorities, and provides an opportunity to identify new collaborators, and new research directions. The project is led by New Zealand's main public funder MBIE.

As a result, the project to develop NZRIS was established with the goal of linking data on researchers, their projects, outputs, funding sources, and collaborations. This will be achieved through NZRIS collating the following data about the research system:

- Funds (the purpose of the fund, name, establishment and disestablishment dates, allocation method, and the organisation administering the fund)
- Grants (value, start and end date, project title and description, lead researcher and contributor names, recipient organisation name and location details, payment details)
- Outputs (type, name/title, identifiers, location/reference details (e.g., chapter, volume)

Implementation of the Dimensions of RRA

Implementation began by bringing together the government agencies responsible for public funding of research with the purpose of identifying the key questions each organisation had about the research system and the datasets or information each held that could be used to answer these questions. This enabled MBIE to identify gaps and propose options to mitigate these gaps. This work is set out in the 2016 Research Science and Innovation Domain Plan.

Following publication of the Domain Plan, MBIE began work to establish NZRIS. Working groups were established with participating organisations to design the system and develop common specifications that aligned with the needs of multiple organisations. An oversight committee (composed of government funders and research organisations) was established to ensure the views of participating organisations were represented and that data requirements reflected the capacity and capability of funding organisations.

MBIE led work to build the IT system and worked with organisations to plan how the system would be populated with data; initially with a small number of data providers. This included ensuring they understood the specifications, matching existing data collection approaches to the new specification, and generally helping them prepare.

Decisions were evaluated against a set of criteria that were developed through the working groups. This included value for money, the ability to generate a system-wide view of funding, ability to implement FAIR criteria, and ease-of-use for both data providers and data users.

During development, MBIE identified concerns around privacy and the unintended consequence that individual researchers could be identified through their work and location details becoming known. MBIE identified that the system may make commercially sensitive research identifiable. This was mitigated by building in the ability to protect records and ensure confidentiality.

In developing NZRIS, MBIE consulted with funders and research organisations, as well as researchers. Working groups ensured the research sector could participate in the project and had a forum to raise issues and concerns. This allowed MBIE to continually test their thinking and approach and develop an understanding of the data issues faced by organisations. Consultations also enabled organisations to gain an understanding of NZRIS and the role funders were expected to play in providing data to the system. This meant organisations were able to build NZRIS requirements into their data systems and put policies and processes in place to supply data when the system is available.

Regular and honest communication with the research sector was very important, as well as taking a collaborative approach that brings people along with the project rather than to simply impose the project on them. Newsletters via email and updated on a website were key communication tools.

Once the project is completed, MBIE intends to launch NZRIS to the sector via a roadshow and hold individual meetings with key organisations to explain and demonstrate the system. MBIE will also provide ongoing support to help data providers prepare and submit datasets and access data.

Relevant links

Domain plan:

https://www.mbie.govt.nz/dmsdocument/1448-research-science-and-innovation-domain-plan-pdf

NZRIS:

https://www.mbie.govt.nz/science-and-technology/science-and-innovation/research-and-data/ nzris

MBIE Science Whitinga Fellowships – a response to the COVID crisis

Lead organisation: Ministry of Business, Innovation and Employment (MBIE), New Zealand	Region: Asia Pacific
RRA Dimensions:	

Guiding Principles

- [3] Responsible commitment to equity, diversity, and inclusion in research
- [4] Responsible responses to the effects of global challenges and emergencies on research

Funding scheme: None

Summary

The fellowships supported early career researchers (ECRs) with the potential to excel in a research environment whose career development was affected by reduced opportunities because of the COVID-19 pandemic.

Candidates were subject to a stringent eligibility test to ensure standards of excellence were met. This included obtaining a recommendation from their PhD supervisor and future host, as well as supporting references illustrating the excellence and potential for success of the candidate.

As part of the implementation, MBIE developed a randomised stratified selection ballot process, including constructing an equity, diversity and inclusion overlay to ensure that fellowships were distributed amongst groups that are traditionally disadvantaged in selection processes. This meant fellowships were awarded to minimum numbers of women, Māori (indigenous New Zealander) and Pacific Peoples.

Background

The post-doctoral (post-doc) pathway is a mechanism for ECRs to gain new skills and knowledge, and often to gain experience overseas. It provides important opportunities for researchers to make connections and form research collaborations. As well as conducting research and producing outputs, post-docs also have roles in training and supporting students, assisting with the administration of the research group, and developing new research pathways.

In March 2020, concerns were raised that measures taken to address the COVID-19 pandemic would impact the career pathways of ECRs. Travel restrictions meant ECRs were unable to take up overseas positions, whilst pressures on research organisations to cut costs further reduced opportunities. This led to concerns that talented future researchers would leave the system.

Thirty MBIE Science Whitinga Fellowships were established to provide opportunities for promising New Zealand ECRs. These two-year fellowships were awarded through a competitive process for research undertaken in any field within New Zealand. The fellowships comprised NZ\$75k per year towards the researcher's salary, NZ\$75k per year towards overheads and NZ\$10k per year in research-related expenses.

Implementation of the Dimensions of RRA

Planning

MBIE began by collating information on the issue. This included gathering reports such as that prepared by the Royal Society Te Apārangi ECR Forum as well as talking to researchers and research groups to try and determine the numbers of affected ECRs and potential impacts for the New Zealand research system.

A steering group was established to set the strategic direction, priorities, and focus, for the work. This included MBIE's Chief Departmental Science Advisor (CDSA) who was able to use his contacts to gather information and identify stakeholder groups to engage with including other funders and research organisations

Key risks identified and their mitigations are summarised below:

Risk	Mitigation
Insufficient resourcing to deliver a selection/ allocation process	Regular communication with decision makers. Use of existing processes and infrastructure
Lack of stakeholder engagement	Regular communication and promotion of the initiative
Under-estimating the size of the issue and the time/resource required to process applications	Robust eligibility criteria to be developed and regular check-ins to ensure adequate resourcing. Investigation of new ways of working to improve efficiency
Possibility of the COVID-19 pandemic causing priorities to change and resourcing to be diverted to other activities	Use of existing processes and infrastructure. Review of steps/process and ensuring it is fit for purpose
Sector disillusionment, especially with delays	Regular communication and progress updates

Implementation

The initiative needed to be implemented quickly so that MBIE could address the issues in a timely manner. MBIE decided to use existing processes and infrastructure set up by another New Zealand funding organisation (the Royal Society Te Apārangi). They administer other fellowships schemes on MBIE's behalf.

Critical steps to implementation included:

- Ensuring there was a clear problem definition and shared understanding with decision makers around the purpose of the intervention.
- Gathering estimated costs and resourcing requirements for this and other options.
- Engaging other funders to understand their thoughts, constraints, and concerns including resourcing requirements.

- Development of clear and concise terms of reference and guidelines.
- Linking the rationale for the stratified selection ballot to overarching strategy and policy statements.

Initially MBIE sought to use existing processes, however these were lengthy and resource-intensive, leading to concerns that they could overly burden both applicants and assessors. Instead, MBIE developed a stratified ballot to select applications with minimum targets based on the proportions of the New Zealand population:

- 5 Māori researchers (8 selected from 20 applications)
- 3 Pacific (Pasifika) researchers (4 selected from 9 applications)
- a total of 15/30 female recipients (18 selected 141 applications)

A total of 239 applications were received. For all stratifications, ballots were returned to the pool meaning it was possible to fund more in each category than the minimum targets.

There was a concern raised around how excellence would be maintained without interviewing applicants and potential reputational impacts of this. To mitigate this, testimonials from previous supervisors and referees were assessed and scored for excellence. Of the 239 applications received, 217 passed the excellence threshold.

A decision was made not to include gender-diversity as a category in the ballot process. There was no data relating to the expected number of gender diverse applicants there might be as collecting diversity data had only recently been introduced in the New Zealand Census. Gender diverse applicants were not excluded from the Māori or Pacific categories.

The applications were screened for eligibility and ranked according to excellence scores, with a cut-off applied to remove applications below standard.

The Ballot Process

In the first ballot, five applicants were drawn who identified as Māori. Next three applicants were drawn who identified as Pacific Persons, including those who were both Māori and Pacific Persons. MBIE noted how many of the eight selected identified as female.

In the general selection ballot, the remaining applicant pool (including any previously unselected Māori and Pacific applicants) was sorted randomly. Then the first applicants on the list were selected identified as female until a total of 15 female fellows were selected. If a gender diverse candidate was randomly listed higher than the 15th female, the cut will include both the required minimum of 15 females and the gender diverse person, making the total 16. Keeping the order constant, we then went back to the top of the list, and selected the remaining fellows (which could include additional female and gender diverse candidates) until the total of thirty fellows had been drawn.

Monitoring and Evaluation

The initiative was deemed successful as all fellowships were filled. Evidence of success was based on feedback from applicants and the wider sector, which was extremely positive. The diversity overlays were particularly well received.

It was difficult to accurately measure the likelihood of losing ECRs or the effect of lost opportunities as New Zealand does not have robust data on its research workforce. At the end of the scheme, MBIE was able to find out what happened to most applicants:

- 14 Fellows were appointed to full-time positions
- 2 received another short-term fellowships in New Zealand
- 2 moved overseas
- 8 continue their research in fixed term positions
- 4 were seeking employment

The MBIE Science Whitinga Fellowship programme was used as a model to develop the one-off Ngā Puanga Pūtaiao Fellowships aimed towards Māori and Pacific STEM researchers (2023), and the redesign and replacement of the Fellowships for Excellence with the Aotearoa New Zealand Tāwhia te Mana Research Fellowships (2024 onwards). The selection process for both were designed to ensure equitable representation of Māori and Pacific Peoples across both programmes, and for women in the case of the latter programme. The Royal Society Te Apārangi administers both programmes.

Relevant links

https://www.mbie.govt.nz/science-and-technology/science-and-innovation/funding-informationand-opportunities/investment-funds/mbie-science-whitinga-fellowship

https://www.royalsociety.org.nz/what-we-do/funds-and-opportunities/mbie-science-whitinga-fellowship/information-for-mbie-science-whitinga-fellowship-tor/

Strategic approaches to, and research assessment of, open science across Europe

Lead organisation: Science Europe	Region: Europe
RRA Dimensions:	
Guiding Principles [2] Responsible approaches to incentivizing open research 	
Governance and Strategy [5] Responsible approaches to research assessment reform 	
 Processes and Methodology [9] Responsible assessment of research contributions and ach 	ievements
Funding scheme:	

Summary

Science Europe embarked on a study to provide a comprehensive insight into the roles played by research funding and performing organisations in advancing and responsibly implementing open science. Science Europe collected information about the strategic approaches of its members through a survey, including on their research assessment, monitoring, and evidence-gathering activities. The findings of the survey are presented in a report that will reinforce the impact of open science in research and innovation policy discussions. Science Europe facilitate mutual learning and promote further policy alignment between Science Europe Member Organisations and research organisations at large.

Background

Science Europe is the organisation representing major public organisations that fund or perform excellent, ground-breaking research in Europe. It brings together the expertise of some of the largest and most respected European research organisations to jointly push the frontiers of how scientific research is produced and delivers benefits to society.

The research policy landscape is evolving rapidly as knowledge advancement and technological solutions change the ways in which research is conceived, conducted, and communicated. The Science Europe study aimed to provide an overview of the state-of-the-art interconnections between open science and research assessment reform: how the research community, research organisations, and policy makers drive necessary changes, and how they work collaboratively towards creating more positive, open, and inclusive research cultures.

As initiatives such as the <u>Coalition for Advancing Research Assessment (CoARA</u>) and the <u>Open Research Europe</u> advance, there is a growing mutual recognition that the higher objectives of open science and research assessment reform are inextricably linked and mutually dependent. Therefore, Science Europe must ensure careful, consistent, and collaborative advances are made to the shared research system, and this Science Europe study contributes evidence to guide these advances.

Implementation of the Dimensions of RRA

The Science Europe study highlights that open science is a key strategic priority for its member organisations. Nearly all members have adopted a documented strategic approach to open science. Most of these strategies are implemented at the organisational level, often within a robust policy framework that extends across organisational, regional, national, and international levels. Additionally, responding members are continuously reviewing their strategies to ensure they remain relevant and aligned with the evolving open science landscape.

The strategic approaches encompass a broad range of open science policies and practices. While the study results highlight a near universal emphasis on open access to research publications and FAIR (findability, accessibility, interoperability, and reusability) data, they also reveal that responding organisations are incorporating a broader range of open science elements into their strategies, including open infrastructures, stakeholder engagement, open-source research software, and citizen science. In addition, a small number of research organisations are expanding their approaches even further with the inclusion of open evaluation, open research methods, service and leadership, open hardware, and open education.

Implementation

The study clearly demonstrates that open science is deeply and widely incorporated across all aspects of assessment processes by responding research organisations. Taking a closer look at different aspects of assessment processes reveals a variety of approaches to aspects such as assessment criteria, other information collection mechanisms, and support provision.

On the open science funding requirements made at application stage, traditional elements of open science predominate with only a few examples of responding organisations including a broader array of open science elements into their funding requirements. Again, dedicated criteria or questions are incorporated into application forms only for the more traditional subset of open science elements (open access to publications, and open and FAIR data). Narrative descriptions within research proposals offer opportunities for the consideration of a wider range of possible open science activities, and the survey results indicate this already enables some organisations to collect information on a wide range of open science elements (science communication, open peer review, etc.). Support to applicants is provided almost universally, most commonly in the form of guidance documents.

For the assessment of researcher track records, there is a clear split between responding organisations that do incorporate open science into these types of assessments and those that do not. Whether this reflects a deliberate action or simply differences in practice maturity levels warrants further exploration, especially noting the difficulties in addressing track record assessments of researchers from backgrounds or regions of greatly different research resources and infrastructure. Of the responding organisations that do already incorporate open science into track record assessments, a wide variety of open science elements are recognised by a high proportion of responding members.

Narrative CV approaches can be seen to play an important role in allowing for this recognition of open science elements, yet there are numerous examples of dedicated questions, sections or criteria being employed to gather information on open science activities. This poses the question of whether organisations are moving towards a more passive approach to information collection, or a more active one, and these approaches should be balanced to allow for effective information gathering whilst ensuring that applicants, reviewers, and administrators are not overburdened by application and assessment processes.

Support for applicants is provided by all responding organisations that include open science in their assessments in various forms, most commonly through guidance documents and support platforms. The assessment of open science is an evolving topic and the majority of responding organisations plan to review and update their policies and practices in the coming years.

Recent reported advances show that these changes are part of continual or periodical processes and are influenced by international initiatives, such as CoARA. The shifting landscape from traditional scholarly publishing to open scholarly communication clearly permeates through the assessment processes of the majority of responding organisations, but there are still noticeable differences in the approaches taken on specific aspects, for instance the inclusion of a broader set of open science elements in track record assessments in comparison to funding requirements.

Monitoring and Evaluation

As open science policies and practices become more widespread and ambitious, expanding monitoring mechanisms and evidence-gathering activities will become an area for further exploration. The survey results highlight specific elements to investigate.

- Extending monitoring beyond traditional elements like open access to research publications and (FAIR) data.
- Making research information openly available.

 Making research information internationally comparable by developing shared methodologies and concepts. Currently, monitoring and evidence-gathering efforts are largely confined to the organisational and national levels, leaving the international dimension underexplored.

Relevant links

Science Europe www.scienceeurope.org

https://scienceeurope.org/our-resources/survey-report-research-assessment-open-science/

Survey results slide-set: <u>https://scienceeurope.org/media/4pge3c4r/202410-survey-graphs-</u>strategic-approaches-research-assessment-open-science.pdf

Recording of the launch presentation: https://www.youtube.com/watch?v=JBJ7Z1hqogM&t=8s&ab_channel=ScienceEurope

Policy package to support a qualitative and multidimensional evaluation of individual researchers

Lead organisation: Region: DFG (Deutsche Forschungsgemeinschaft, German Research Foundation), Germany Europe RRA Dimensions: Europe Guiding Principles • [1] Responsible commitment to and promotion of research integrity and the responsible conduct of research

• [3] Responsible commitment to equity, diversity, and inclusion in research

Governance and Strategy

• [6] Responsible approaches to research assessment reform

Processes and Methodology

• [9] Responsible assessment of research contributions and achievements

Funding scheme: Across all programmes of the DFG

Summary

In September 2022, the DFG's Joint Committee introduced a package of policy measures to support a shift in the culture of research assessment. The measures include the introduction of a mandatory CV template with narrative elements and changes regarding how previous or preliminary work may figure in proposals and CVs.

The newly introduced optional text fields in CVs enable and encourage applicants to give relevant information on previous scientific successes and recognitions, to include relevant scientific contributions of all types, and to give relevant details of their personal circumstances (e.g. times of care for family members, during which scientific activities had to be paused). These changes allow for a wider range of career trajectories, research contributions and achievements. The DFG also made it a point not to include the birth date and not to allow applicants to attach a photo.

The changes regarding the citation of previous or preliminary work have two elements. Firstly, it is made explicit that citable work can include contributions of various kinds and is not restricted to classical formats such as articles published in journals. Secondly, applicants are required not simply to

list their previous work in their proposals, but to briefly discuss its contents and its relevance to the proposal at hand. Reviewers, in turn, are asked to qualitatively assess this account of previous work and its relationship to the current proposal, rather than just consider the number of publications and the prestige of the respective journals.

Background

The package of policy measures expresses the long-standing commitment of the DFG to ensure a qualitative and broad-based mode of research evaluation, which is also recommended by the DFG's Codex "Good Research Practice".

Aligning with Dimension [6] on Responsible approaches to research assessment reform, the policy measures followed the publication of a white paper entitled "Academic Publishing as a Foundation and Area of Leverage for Research Assessment" in 2022, which called for changes in the way published work is described in the assessment of individual researchers.

The white paper addresses different stakeholders in the science sector:

- academic communities are called upon to establish, use and recognise new forms of quality review for publications,
 - to choose the format and type of publications to ensure an optimal transfer of knowledge
 - to strengthen alternative systems of reputational attribution, to ensure that scholarship has control over its own data
- funders of research are called upon to broaden the spectrum of accepted publication formats,
 - to attach greater importance to content-based proof of achievement
 - to strengthen the recipient side the readers of scientific publications.

The package of policy measures represents the response of the DFG as a funding agency to the recommendations spelled out in the white paper.

Implementation of the Dimensions of RRA

In 2020, the DFG's Executive Board formed a working group, consisting of members of the DFG's Head Office and overseen by the Executive Board, to investigate the subject of academic publishing and its role in the assessment of scholarship. In 2021, the working group presented its results to the DFG's Senate, and as a result they decided to publish the white paper "Academic Publishing as a Foundation and Area of Leverage for Research Assessment" whose contents are summarized above.

Along with the publication of the white paper, a dedicated information website was set up, see https://www.dfg.de/en/principles-dfg-funding/developments-within-the-research-system/publishing.

In 2022, the Joint Committee of the DFG began the implementation of the white paper's recommendations through the policy package.

Besides the introduction of a standardized CV template, the policy package consists of changes in the DFG's proposal forms, and the guidelines issued to applicants and reviewers. The introduction of the measures can be viewed as the beginning of the implementation of the measure's aims, as further work and responsibility now lies in the hands of applicants, reviewers, and the DFG's Head Office who contribute to implementing the measures by informing applicants and reviewers (for example, in a series of Webinars between March and May 2024 for the newly constituted Review Boards), by checking the submitted proposals for compliance and by moderating review sessions in a way to ensure an appropriate qualitative appraisal of previous and preliminary work.

The DFG assesses its funding programmes and policies regularly to identify dynamics in the research landscape and to align its programmes and procedures to the changing needs of the scientific communities. Initial probes into the take-up of the standardised CV format have already been conducted and resulted in a slightly updated CV format. Further evaluative activities regarding the CV format are under discussion.

Relevant links

- Policy package: <u>https://www.dfg.de/en/news/news-topics/announcements-proposals/2022/info-</u> wissenschaft-22-61
- The white paper "Academic Publishing as a Foundation and Area of Leverage for Research Assessment" as well as further information on DFG's stance on the publication sector and its role in research assessment: <u>https://www.dfg.de/en/principles-dfg-funding/developments-within-</u> the-research-system/publishing
- DFG's Codex "Good Research Practice": <u>https://www.dfg.de/en/principles-dfg-funding/basics-and-</u> principles-of-funding/good-scientific-practice

Public review of funding applications in parallel to scientific review

Lead organisation: The Health Research Board (HRB), Ireland	Region: Europe
RRA Dimensions:	
Governance and Strategy [5] Responsible administration and monitoring of research ass 	essment processes
 Processes and Methodology [10] Responsible approaches to impact assessment [11] Responsible approaches to reviewer and panel recruitment 	and training
Funding scheme: Public review is implemented across most HRB grant schemes	

Summary

The HRB funds research with the aim of improving health and the delivery of health services. Applicants are asked to provide details on how they engage with the relevant community such as patients (for disease-specific research) or the general public (in areas such as prevention). Applicants are asked how they will work with these groups throughout the research cycle from prioritising the research question, designing the methodology (as far as possible), interpreting data, governance of the study, to dissemination of results beyond the academic sphere.

As part of the HRB's approach to responsible impact assessment, the HRB assesses how well the applicant team has engaged with relevant groups by asking members of the public to assess the Public and Patient Involvement (PPI) elements of an application as well as any plans for interacting with study participants. These public reviews are completed in parallel to the scientific review. Applicants have a time-limited opportunity to respond, and both reviews and response are part of the documentation provided to the selection panel.

Background

There are two main reasons to introduce the public review of funding applications:

- 1. It has been demonstrated that PPI makes health research more effective, increases feasibility, makes research more generalisable, and generates outcomes of greater value. Supporting PPI and completing a public review is part of maximising the value of investment.
- 2. Secondly, PPI provides an additional layer of transparency and accountability for an organisation that is funded by the taxpayer.

As an example for the first point, the recruitment and retention of participants in clinical trials is a global challenge. In a systematic review of 26 studies, <u>Crocker et al</u> (2018) demonstrated that trials which included PPI recruited more participants. They conclude as follows: "To illustrate what our main findings could mean in practice: in a hypothetical sample of 1000 patients, of which typically 100 enrol [...], a PPI intervention [...] would likely lead to between one and 30 (average 14) extra patients being enrolled. As these PPI interventions were mostly restricted to [...] involvement in the design or delivery of patient information, the effect size might be even larger for PPI that begins at earlier stages of trial design."

It would be negligent for the HRB to ignore this increased efficiency. Similar logic applies in other types of research, with a particular importance of making sure that what is measured captures things important for the population (as well as for clinical decision making), and that any new tools or services are designed with the input of those expected to use them.

Implementation of the Dimensions of RRA

In 2016, the HRB was beginning to emphasise the importance of PPI to the funded research. To plan activities, the HRB conducted a survey of how PPI could be supported. This included the option of public review. Whilst researchers were predictably by and large sceptical, the public arm of the survey showed that there would be people interested to act as public reviewers. At that stage, there were individual researchers with well-established PPI practices, but for the vast majority this was a relatively new concept. Awareness raising was the first necessary step. For a funder, nothing raises awareness as much as introducing a new element into the funding selection process.

Public review was first introduced in 2017. The HRB set up an approach to reviewer recruitment and training following a national recruitment drive via national newspapers, local radio and Twitter. Nine hundred contacts were received and 300 of these translated into public reviewers. A process, training and review form for public reviewers had to be developed, which benefitted from conversations with other organisations who have been using this.

The HRB opted to introduce public reviews in a stepwise fashion and allow researchers to learn and become more competent without risk. Public reviews were used only as feedback to applicants for a period of two years. During that time, the public review was deliberately only conducted after the funding decision had been made to emphasise the disconnect between the two.

However, it was always made clear that this would be a time-limited approach and that the public review would become part of the decision-making process thereafter. Importantly, in the HRB's selection process applicants can respond to scientific reviews to take on board recommendations or correct any misperceptions. This was extended to include public reviews.

The HRB did not get any specific negative feedback from researchers about this new form of review. That might not indicate that everybody was happy, however it does demonstrate that they felt they would not have a strong case to make against it.

A repeat survey in 2022 showed 40 percent of researchers supporting public review as a positive way for a funder to support PPI.

Relevant links

https://www.hrb.ie/funding/funding-schemes/public-and-patient-involvement-in-research/

https://www.hrb.ie/funding/responsible-research-assessment/public-and-patient-involvement-inresearch/

The Narrative CV and DORA Principles

Lead organisation: Research Ireland	Region: Europe
RRA Dimensions:	
Guiding Principles [3] Responsible commitment to equity, dive 	rsity, and inclusion in research

Governance and Strategy

• [7] Responsible use of influence on institutional policies and practices

Processes and Methodology

• [9] Responsible assessment of research contributions and achievements

Funding scheme:

Research Ireland has implemented a narrative-style CV across relevant research funding programme calls, including Investigator-Led programmes such as the <u>Research Ireland</u> Frontiers for the Future Programme, the early-career fellowship <u>Research Ireland Pathway</u> <u>Programme</u>, as well as large-scale, consortia programmes such as the <u>Research Ireland</u> <u>Research Centres programme</u>.

Summary

The implementation of the <u>Research Ireland Narrative CV</u> in relevant research funding programme calls was built upon a foundation of community consultation, numerous funder working group collaborations, and a review of international best practice. Research Ireland is a signatory of the <u>San Francisco Declaration on Research Assessment (DORA)</u> and, as such, is aligning its review and evaluation processes with DORA principles. A narrative-style CV was introduced in 2019, and a new narrative CV template and scoring system was further developed to incorporate modules from the Royal Society's Résumé for Researchers.

Since implementing the Narrative CV, Research Ireland continues to participate in and contribute to relevant forums and working groups on the reform of RRA, supporting its commitments to DORA and CoARA. These groups include:

- The GRC Working Group on Equality, Diversity, and Inclusion
- The DORA Funders Forum
- The CoARA Working Group on Experiments in Assessment
- The CoARA Working Group on Improving practices in the assessment of research proposals.
- GENDERACTIONPlus Research Funding Organisation (RFO) Community of Practice

Guidance and templates relating to the Research Ireland Narrative CV will continue to be informed and strengthened by these groups, as well as iterative consultation with the research community, including Early-Career Researchers. A Narrative CV template for large-scale, team-based grants will continue to be developed and implemented on research programmes where relevant.

A variant of the Narrative CV is deployed in early career researcher programme calls, as well as gender blind peer review and extensions to eligibility windows to account for eligible career breaks/leave.

The Research Ireland Narrative CV does not permit the inclusion of most journal- and publicationbased indicators, in line with DORA guidance and principles. Research Ireland advises applicants that, if these indicators are included, they may be redacted prior to expert review. Research Ireland will explore further methods for discouraging the inclusion of inappropriate journal- and publicationbased indicators in submitted Narrative CVs and proposals more broadly.

Guidance and resources for reviewers on the evaluation of narrative-style CVs will continue to be developed and strengthened. This guidance will be informed by consultation and feedback from the research community, DORA resources, and the CoARA National Chapter (Ireland).

The Research Ireland Narrative CV has contributed to a national shift in conversations in the research and innovation sector from a myopic focus on quantitative publication and research performance indicators/metrics as proxies for research quality to a broader valorisation of diverse research career pathways and outputs.

Background

<u>Research Ireland</u> is the premier competitive research and innovation funding agency in Ireland, established following an amalgamation of Science Foundation Ireland and the Irish Research Council. Research Ireland is an agency of the Department of Further and Higher Education, Research Innovation and Science working in collaboration with higher education institutions and other state agencies such as the Higher Education Authority (HEA), IDA Ireland, and Enterprise Ireland.

As set out in the Research and Innovation Bill 2024, the objectives of Research Ireland are to:

- Promote the attainment and maintenance of excellence in the standard and quality of research and innovation.
 - Support the undertaking of research and innovation in all fields of activity and disciplines by researchers with different levels of knowledge, experience and specialist skills in such fields or disciplines.
 - Promote and support the contribution made by research and innovation to economic, social, cultural and environmental development and sustainability in the State.
- Strengthen the engagement of the research and innovation system with:
 - the Government, Ministers of the Government and bodies (whether statutory or otherwise) which are funded wholly or partly by public moneys, and
 - enterprise, non-governmental organisations, cultural institutions and society generally; to
 promote and develop the reputation of the State internationally as a location that is favourable
 for undertaking research and innovation; to advance the principles of equality, diversity
 and inclusion with regard to opportunities to undertake research and innovation and in the
 undertaking of that research and innovation.

As signatories and members at the Contributor level of DORA, Research Ireland wanted to align its evaluation processes with DORA principles by implementing a Narrative CV on relevant research funding programmes. This is further supported by the Agency's commitment to CoARA and the principles in its External Equality, Diversity, and Inclusion (EDI) Strategy.

Implementation of the Dimensions of RRA

One significant initiative towards achieving the principles of DORA and RRA was the implementation of a narrative-style CV on relevant research funding programmes, which Research Ireland will continue to refine and champion.

Actively contributing as members of the <u>UKRI Joint Funders Group</u> and the <u>DORA Funders Discussion</u> <u>Group</u>, Research Ireland created its Narrative CV – a semi-structured, narrative-style CV format which empowers researchers to articulate their unique career pathway – including periods of leave and time spent away from academic research (e.g., industry experience, Maternity leave, etc.). It includes a section asking researchers to detail a select number of key achievements under four headings:

- Generation of Knowledge
- Development of Individuals and Collaboration
- Supporting Broader Society & the Economy
- Supporting the Research Community

The CV template includes a non-exhaustive list of example outputs under each heading. The Guidance for Applicants document and associated FAQs feature extensive information about the Agency's implementation of DORA principles in its assessment processes, how to craft a Narrative CV, and examples of disallowed indicators/metrics.

Submitted Narrative CVs that include disallowed journal and research performance-based metrics/ indicators (as detailed in the Guidance for Applicants and FAQs), may have these metrics/indicators redacted prior to expert review. By redacting metrics/indicators from Narrative CVs, the Agency aims to provide the community time to understand and adapt to a narrative-style CV while ensuring that the principles of DORA and RRA are upheld in the evaluation process.

To support the research community in crafting a narrative-style CV, Research Ireland serves on the Steering Committee of the Peer Exchange Platform for Narrative-style CVs (<u>PEP-CV</u>) platform. 'PEP-CV is a resource for the research and innovation community developed by a partnership between funding agencies and researchers. The goal of PEP-CV is to become a platform for everyone active in the research and innovation sector to engage in simple peer mentoring exchanges to discuss how to best present a diverse range of experiences, achievements, and career paths in all types of narrative-style CVs'.

Research Ireland continues to engage in iterative consultation with the research community to ensure that its Narrative CV and associated guidance documents are fit for purpose and provide the supports anticipated. Anecdotal feedback received from applicants regarding the Narrative CV has been largely positive, particularly amongst researchers who have taken periods of statutory leave (e.g., Maternity/Parental leave) and those who have spent time in industry roles. Research Ireland programme teams have reported anecdotally that some comments from/discussions amongst expert peer-reviewers about the Narrative CV have been complimentary of the way it provides applicants an opportunity to articulate a diverse range of outputs and experiences.

The Narrative CV supports Research Ireland's commitments to Open Research as signatories to Plan S, and the Narrative CV template encourages researchers to highlight if their chosen outputs are openly available.

The Agency continues to engage with diverse stakeholder groups beyond the research and innovation sector and relevant international forums on the Narrative CV to ensure that applicants' research histories are brought to the fore and reviewers are guided to take a more holistic view of an applicant's achievements, aligning with the goals and objectives in External Equality, Diversity, and Inclusion Strategy 2023-2028 and its CoARA Action Plan.

Relevant links

Further information about the implementation of the Research Ireland Narrative CV, extensive Guidance for Applicants and FAQs, and information about the Agency's commitments to CoARA and the DORA Principles can be found here.

Fostering a holistic responsible research assessment in the FNR's policies and processes

Lead organisation: FNR - Luxembourg National Research Fund - LUXEMBOURG	Region: Europe
RRA Dimensions:	
 Guiding Principles [1] Responsible commitment to and promotion of research integrity and the responsible conduct of research [3] Responsible commitment to equity, diversity, and inclusion in research 	
Governance and Strategy [7] Responsible use of influence on institutional policies and practices 	
 Processes and Methodology [8] Responsible use and dissemination of research assessment criteria [9] Responsible assessment of research contributions and achievements [11] Responsible approaches to reviewer and panel recruitment and training 	
Funding scheme: The FNR has a variety of funding schemes that cover project and people funding, as well	

The FNR has a variety of funding schemes that cover project and people funding, as well as other schemes supporting international collaboration, communication/outreach, and public-private collaboration.

Summary

This case study summarizes a group of initiatives that the FNR has implemented that align with the Dimensions of RRA, to better serve the Luxembourgish landscape in fostering high-quality research at a national level. While the initiatives have different focal points and targets, they all work together towards the fostering of a diverse and inclusive research culture in Luxembourg based on rigorous and international high-quality research.

Background

In 2019 the FNR signed the Declaration on Research Assessment (DORA) and in 2022 joined the Coalition on Advancing Research Assessment (CoARA), with the goal of aligning funding practices and processes to both of these initiatives. The implementation of the Dimensions of RRA is very much aligned with both CoARA and DORA, and the FNR aims to ensure international good practice is followed.

The FNR aims to support a diverse and inclusive research culture in Luxembourg through ensuring that research assessment is based on a fair and responsible process. The FNR believe that RRA enables us to focus on the quality of what is funded while ensuring diversity, robustness, and openness of FNR-funded research.

Implementation of the Dimensions of RRA

The FNR has implemented a variety of initiatives over the past years that work towards supporting the Dimensions of RRA:

1. Research integrity initiatives for good scientific practice (Dimension 1)

The FNR sees research integrity as central to research quality and aligns with international good practice in order to ensure that research funded by the FNR is at the highest standards of responsible research conduct. The FNR provides a resource hub on research integrity for applicants on FNR's website (including the Montreal and Singapore Statements (WCRI), Science Europe guidelines, the revised ALLEA code – European Code of Conduct for Research Integrity, the European Charter and Code of Conduct, and the GRC Statement of Principles for Scientific Merit Review). In addition to this, the FNR has written research integrity guidelines to further support applicants and grant holders. The FNR require training in good scientific practice for PhD candidates funded through grants and have pushed for the creation of the Luxembourg Agency for Research Integrity (LARI) in 2018, a national office that supports all institutions in good scientific practice, training, and investigation of alleged research misconduct. As a result of these initiatives, there is a very low amount of cases where FNR-funded research is found to be at sub-standard levels for research integrity. The creation of LARI as a centralized and national platform in particular can be seen as an outcome of the FNR's focus on research integrity and good scientific practice.

2. Principles of FNR evaluation aligned with responsible research assessment (Dimensions 8, 9, 11)

The FNR has a foundation of qualitative assessment for evaluation processes, based on peer review and panel discussion. This foundation has been strengthened since 2019 towards the values of RRA, based on signing both the DORA declaration and the CoARA agreement. The FNR have adapted their guidelines and processes to restrict the use of improper metrics (e.g. H-index and Journal Impact Factors) in both applications and evaluations and have clear wording in application and reviewer guidelines to value a more diverse range of research outputs and profiles. Evaluation panels are briefed on the values and procedures of RRA, and FNR staff has a mandate to ensure that the evaluation process follows these rules. The FNR has seen a significant reduction in the use of metrics for improper quality evaluation in their evaluations due to these changes, and a further shift towards more qualitative evaluation.

3. Streamlined project reporting (Dimension 7)

Over the years, the FRN has received feedback from national stakeholders that the burden of project reporting was high, with limited value for the FNR. As a result, the FNR developed an initiative to make this process easier for the national research community. In 2023, the FNR streamlined their reporting projects for all grants, with the goal of fostering reporting as a reflective process, reducing burden, and allowing space for a broader range of research outputs to be recognized. This was done in a co-creative process with the national research institutions, to ensure that the final reporting process was accepted by all stakeholders. This new reporting ensures that post-grant follow-up of FNR-funded research is aligned with the values of RRA

in the pre-grant evaluation processes, so that the FNR are asking the same questions of what they want to evaluate and what the FNR are funding. There has been positive feedback on these changes, with both researchers and administrative staff reporting a reduction in effort, but the shift towards a more reflective reporting is challenging for both researchers and FNR staff.

4. Initiatives towards Equality, Diversity, and Inclusivity (EDI) (Dimension 1, 3)

There are multiple national and European initiatives to improve EDI aspects in research, and the FNR believes that increasing equality, diversity, and inclusivity in various processes will lead to higher quality research (and evaluations). The FNR has a group of policies and processes around EDI, centered around an Action Plan on Gender, Equality, Diversity, and Inclusion. This plan aligns with the requirements of the European Commission and outlines a set of measures and actions that promote gender equity and inclusion. This includes ensuring diversity in evaluation panels (with regards to gender, geography, and other aspects) and policies within funding schemes meant to improve gender balance in FNR-funded research. In addition, the FNR has a peer-reviewed award for "Outstanding Mentorship in Research" since 2020, supports international mentorship schemes (e.g. PEP-CV) as well as provides funding for coaching and mentoring within the FNR's funded projects. The outcomes of these initiatives are varied but positive. Evaluation committees are more diverse, and there is good diversity in the research the FNR funds. In addition, the Luxembourg research institutions are creating their own EDI initiatives, collaborating with each other and the FNR to achieve these goals.

5. Narrative CV across all FNR funding schemes (Dimension 9)

Previously, FNR proposals had no template or page limit in the CVs requested from applicants, leading to critical feedback from evaluators due to the large effort (and low value) of the high documentation submitted. In 2021, the FNR introduced (inspired by other funding agencies) a narrative-style CV template (together with mandatory ORCID profiles) for Principal Investigators requesting funding from FNR programmes, in order to have a structured and simplified format while allowing applicants to demonstrate a broader range of contributions to science and society. The template was based on existing work (namely the Royal Society's Resume for Researchers, as well as the templates from other funding agencies using narrative-style CVs) and supported by a communication and training package to both the national research ecosystem as well as evaluators. This change was accompanied by a feedback survey and reports, which showed positive acceptance of the new CV format from both applicants and evaluators. The Narrative CV is now normalized across the Luxembourg research landscape, and learnings are used by others across the world in discussions and development of narrative CVs.

6. DORA-FNR video on responsible research assessment (Dimensions 8, 9, 11)

As the focus on RRA is normally on applicants and researchers performing their activities, there was a gap in guidance for evaluators on how to take these aspects into account in evaluations. In 2021, the FNR co-produced a video (with accompanying 1-page infographic) with DORA that could be used by research funders and institutions to help guide evaluators in RRA. The video has six concrete suggestions for evaluators in how to consider evaluation of research projects and researchers in terms of biases, group accountability, considering a broad range of contributions, balancing qualitative and quantitative information, and conflicts of interest. This publicly-available video is shown at every FNR panel, and is in use by other funders around the world.

7. New bibliography to complement narrative CV (Dimension 9)

In 2024, the FNR complemented the narrative CV with a modified bibliography in proposals for project funding. The traditional bibliography was supplemented with a section asking for important outputs from the applicant consortium as well as context that explains why the outputs are important.

Text from the application guidelines asks for up to five of the most important outputs from the consortium that are relevant to the proposal. These outputs should include:

- The name of the output, with a link to it if possible (e.g. Digital Object Identifier or similar).
- A short description of the output, and why it is important and relevant to the proposed project.
- A short explanation of the consortium member's contributions to the output how were they involved in the process around the creation of the output.

Relevant links

- <u>https://www.fnr.lu/our-funding-policies/</u> general funding policies, including research integrity, gender equality, Open Access Policies, Doctoral Training Framework, Research Data Management.
- https://www.fnr.lu/narrative-cv/ reports and support material for narrative CV implementation
- <u>https://www.fnr.lu/new-video-resource-for-funders/</u> Video/1 pager Practical guide for research evaluators around Responsible Research Assessment
- www.lari.lu Luxembourg Agency for Research Integrity website
- <u>https://fnrlu.sharepoint.com/:f:/s/Website/ElpoJhgjhgpJqEPVhBquH4EBevIsaY-YiezjLHe-</u> V8NORQ?e=V6tliq – Narrative CV template and guidelines
- <u>https://fnrlu.sharepoint.com/:f:/s/Website/Epr8jAJId0FIs</u> e5liKVi1gBWZRYTvFWi0Wqqgh1480URA?e=RiGwhA - New reporting guidelines
- https://www.fnr.lu/fnr-gender-equality-plan/ FNR Gender Equality Plan
- <u>https://www.fnr.lu/fnr-awards-new/</u> FNR Award categories: Outstanding Mentorship, Outstanding Promotion of Science to the Public
- https://pep-cv.mariecuriealumni.eu/ Peer Exchange Platform for Narrative-Style CVs

Introduction of a new standardised narrative CV format in the SNSF funding schemes

Lead organisation: Swiss National Science Foundation (SNSF)	Region: Europe
RRA Dimensions:	
 Processes and Methodology [9] Responsible assessment of research contributions and achievements 	
Funding scheme:	

All SNSF Funding Schemes

Summary

In 2022 the SNSF introduced a new narrative CV format in all its funding schemes with the objective to focus assessment processes more on the content and quality of applicants' work and increase compliance with DORA. The concept for the new CV was based on the experiences and learnings after a pilot narrative CV was introduced in 2020. The pilot was evaluated externally. The evaluation included a broad consultation process plus information on what had worked well and not worked well for other funding agencies who had introduced a narrative CV. The new CV format was then introduced on the SNSF online submission platform along with guidance information. The new CV format collects information about career progression, academic age and major achievements in a standardized and partly narrative structure. The focus is on information pertinent to the assessment of the applicants' scientific qualifications. The results of an ongoing evaluation of the new CV format are to be expected in the second half of 2025.

Background

The SNSF is mandated by the Federal Government to support excellent research in all academic disciplines and sets itself very high standards in terms of the quality, independence and fairness of its evaluation procedures. As a signatory of the DORA declaration and a member of the Coalition for Advancing Research Assessment (CoARA), the SNSF is committed to the assessment of the quality of research and researchers that recognizes the diverse outputs, practices and activities, supported by responsible use of quantitative indicators where appropriate. Evaluating the track record of researchers is an integral part of the scientific assessment at the SNSF. However, the structure and content of CVs submitted to the SNSF was very heterogeneous and often contained citation metrics, journal rankings, institutional rankings, or other proxy indicators of scientific quality, which were suboptimal for an equal and fair comparison of applicants, and which often encouraged non-DORA compatible evaluations (e.g. counting of publications). The aim of the new CV format is to increase compliance with DORA and focus on the actual wider contributions of an applicant rather than relying

on quantitative metrics in respect to research outputs. The standardized and partly narrative way of showcasing researchers' qualifications and contributions removes potential biases and barriers and provides a more holistic evaluation to recognize and fund talented individuals from diverse backgrounds and foster a more inclusive and equitable research system.

Implementation of the Dimensions of RRA

Planning and Implementation

A pilot was set up to test a new CV format and different CV elements, which was followed by an external evaluation of the pilot project (see results here: <u>SciCV</u>, the Swiss National Science <u>Foundation's new CV format | bioRxiv</u>). The conclusion of the external evaluation stated that the "SciCV was a relevant and successful initiative for the SNSF, which showed that the implementation of a new, well-structured CV format is not only feasible but also something that many stakeholders welcome. The extensive experience and results obtained during the change process formed the basis for the development of SciCV 2.0 at the SNSF. It also offers a basis and guidance for other funding organisations planning similar initiatives."

The development of a concept for a new CV format considered:

- the learnings of the pilot project
- input from the entire Research Council (RC) (i.e. the SNSF's academic body), and its Specialised Committees (SC) and the SNSF's administrative office
- Iterature and experiences of other funding agencies that experiment with new CV formats.

Based on the results an SNSF internal project group, which was accompanied by a sounding board of RC members (i.e. researchers based in Switzerland) identified nine major CV elements and –topics², which were central to the further development of the CV format. The project group followed a multistep procedure, comprising two workshops and regular consultations with the RC to ensure a concordant concept for the new CV format.

Implementation

Implementation of the new CV format on the SNSF online submission platform <u>portal.snf.ch</u>. This allows for better compliance of the new requirements and for better monitoring of the data and content of the CVs (machine-readable, etc.), as compared to providing the CV format as templates. For applicants, it allows re-use of data and integration with their ORCID account.

Dissemination of guidance and information to (potential) applicants and evaluators (webinars, <u>FAQs</u>, talks in research performing organisations, etc.) including reference to the <u>mentoring platform</u> Peer Exchange Platform for Narrative-style CVs (PEP-CV).

Provision of internal training and guidance for SNSF evaluators was provided.

 ⁽i) Narrative elements, (ii) non-publication output, (iii) metrics, (iv) ORCiD/employment- and education history, (v) funding history, (vi) academic age, (vii) research output list, (viii) timeframe of research contributions to be highlighted in the CV, (ix) funding instrument- and discipline specific adaptations.

Monitoring and Evaluation

- The SNSF <u>mandated an external partner</u> for an evaluation. The report and results will be published in the second half of 2025.
- SNSF Data Story on Achievements and Works
- Participation in Narrative CV project with the Research on Research Institute (RoRI)
- Collaboration with University College Dublin to analyse the content of peer review reports before and after reforms, including the new CV format (ongoing work)
- SNSF Analysis on Academic Age (in preparation)

Relevant links

Funding Schemes SNSF funding schemes

SNSF Website on the CV format: Your curriculum vitae - all about the CV format

Reforming the UK's national research assessment framework

Lead organisation:

Research England (part of United Kingdom Research and Innovation), Scottish Funding Council, Medr Commission for Tertiary Education and Research, Department for the Economy, Northern Ireland Region: Europe

RRA Dimensions:

- Governance and Strategy
- [6] Responsible approaches to research assessment reform
- [7] Responsible use of influence on institutional policies and practices

Funding scheme: Not applicable

Summary

The Research Excellence Framework (REF) is the system for assessing research in UK universities. Its results inform the allocation of approximately £2 billion of block grant research funding each year. In early 2021, the UK's four higher education funding bodies ('the funding bodies') decided to undertake a programme of activities to review the REF. The funding bodies were keen to ensure that their policy decisions were robust, evidence based and made in collaboration with research communities.

In June 2023, the funding bodies published their initial decisions on the high-level framework for the next exercise, which will take place in 2029. These included policy changes to:

- Move away from assessing individuals and towards assessing institutions, disciplinary groupings and teams
- Encourage broader contributions to research and research processes
- Place increased focus on research culture and environment
- Reduce the focus on research outputs as the sole means to demonstrate excellence.

Background

The reform of the REF aligns primarily with **Dimensions [6] Responsible approaches to research assessment reform** and **[7] Responsible use of influence on institutional policies and practices.** The Future Research Assessment Programme (FRAP) to reform the REF sought to identify approaches to research assessment that would:

- encourage and strengthen the emphasis on delivering excellent research and impact,
- support a positive, productive research culture, while
- simplifying and reducing the administrative burden on the Higher Education sector.

By implementing the dimensions, the funding bodies wanted to ensure that the programme of reform followed a responsible and robust methodology. The REF is a high-profile project that attracts significant attention from the sector and government. It was imperative that efforts to reform the REF were undertaken in a robust and transparent way to command sector confidence. The direct and indirect costs of REF 2021 were estimated to be approximately £450m. Redesigning the UK's national research assessment exercise offered an opportunity to reshape the incentives within the research system and rethink what should be recognised and rewarded at a national level. Through consultation, the funding bodies sought to identify and mitigate against policy decisions that might have a negative impact on research culture and careers as well as maximising the positive influence of the exercise.

Implementation of the Dimensions of RRA

Planning and implementation

At the outset a Programme Board was established, comprising members of the four UK higher education funding bodies. The Board offered oversight of the Programme's activities and final outputs.

The <u>SCOPE framework</u> developed by INORMS provided a helpful tool in designing the approach to assessment reform and implementing the dimensions. The framework's five stages formed the basis for their programme plan, which comprised four workstreams:

- 1. Learning the lessons from REF 2021. A wide-ranging <u>evaluation package</u>, including analysis of submissions to REF 2021, independent analyses e.g. of the cost/benefits of REF 2021, and consultation with institutions and individuals on their experiences of REF 2021.
- 2. Understanding international practice in national research assessment. The funding bodies established an <u>International Advisory Group</u> to help us understand what is done elsewhere, what works well and reflect on how the UK system looks from the outside. The group acted as critical friends throughout the programme of reform and produced a final report and recommendations. Their work was complemented by their ongoing engagement with other international initiatives such as CoARA and the GRC RRA Working Group.
- 3. Developing alternative models and enhanced approaches to research assessment, including radical change and more evolutionary options. As part of this the funding bodies commissioned an experiment to explore the use of Al in REF assessment processes and a report on the potential use of metrics in future research assessment. Towards the end of the Programme, the FRAP team

developed a detailed options analysis that assessed potential options against a number of key criteria/considerations:

- ability to fulfil the stated purposes of the exercise
- robustness of outcomes
- impact on research culture
- level of bureaucratic burden.

The team also undertook an equalities impact assessment before decisions were finalised.

4. Listening to views, concerns and perspectives on national research evaluation from a range of stakeholders. The funding bodies began by holding several exploratory workshops with key stakeholders to discuss what characterises an excellent research system and which of these elements should be recognised and rewarded in a national research assessment exercise. The FRAP team undertook an initial stakeholder mapping exercise, and worked with national academies, research funders and subject associations to gather a broad range of people from a variety of disciplines, career stages and research roles. The funding bodies ran a formal written consultation, which received approximately 280 responses, largely from universities. In addition, the funding bodies commissioned a large-scale review of researchers' perceptions of REF 2021 exercise that collected feedback on attitudes to the REF in real time as UK institutions prepared their submissions.

The majority of the FRAP's activities took place across two years, although some of the elements, such as the 'real-time review' of the REF were already in train before the FRAP was launched.

A key risk associated with the FRAP was that its outcomes would not carry the confidence of the research community or government. This was addressed through regular communication with stakeholders and meaningful consultation to encourage buy-in and create a shared vision for the research system that their assessment system should underpin. The FRAP team engaged extensively with a broad range of stakeholders throughout the process. However, reflecting on the process, more could have been done to engage directly with very senior stakeholders (e.g. Vice Chancellors) rather than rely on discussions taking place within institutions.

Monitoring and Evaluation

It is too early to evaluate the success of the efforts to reform the REF, as the current exercise is still under development. However, the REF 2029 team are currently planning evaluation activities, working with several former members of the FRAP team.

Some initial reflections on the process of reforming the REF have led to changes in future policy development. For example, in designing REF 2029, the funding bodies were keen to ensure that all evaluation of REF 2021 had been completed and published before announcing their policy decisions. Although this approach ensured that decisions were based on robust evidence, this caused delays to policy announcements, creating some uncertainty and anxiety in the sector. To avoid this in future, the funding bodies are currently developing the open access policy for REF 203X (the REF after 2029) and aim to publish this in 2025/26. The REF 2029 team have also adopted a <u>'modular' approach</u> to publishing policy decisions, announcing decisions as they are made, rather than waiting to publish a full set of guidance. This is intended to allow universities more time to prepare their REF submissions and reduce the anxiety caused by uncertainty.

It should be noted that the changing political and economic landscape has presented challenges to the REF team in implementing the FRAP recommendations. Increasing financial constraints on universities have led to calls to scale back the reforms and reduce the burden of change on the sector. In response, the funding bodies have paused additional open access requirements for long-form outputs and have launched a pilot to better understand the cost of some of the proposed changes.

Relevant links

The Research Excellence Framework (REF): https://www.ref.ac.uk/

REF: https://2029.ref.ac.uk/

FRAP: https://www.jisc.ac.uk/future-research-assessment-programme

SCOPE: https://inorms.net/scope-framework-for-research-evaluation/

Strengthening the capacity of female researchers to manage research and to promote research integrity

Lead organisation:

Tanzania Commission for Science and Technology (COSTECH)

Region: Sub-Saharan Africa

RRA Dimensions:

Guiding Principles

- [1] Responsible commitment to and promotion of research integrity and the responsible conduct of research
- [3] Responsible commitment to equity, diversity, and inclusion in research

Funding scheme:

African Centre for Technology Studies (ACTS)

Summary

Implementation of GRC RRA Dimensions in COSTECH's Food Security Project

One of COSTECH's functions is to solicit funds for the promotion of science, technology, and innovation in Tanzania. COSTECH collaborates with national and international partners to promote research activities. The African Centre for Technology Studies (ACTS) is a pioneering development research think tank that focuses on harnessing science, technology, and innovation policies for sustainable development in Africa.

Funding was made available through the ACTS scheme to strengthen the capacity of female researchers to manage research focusing on food security.

COSTECH has a rigorous process for managing research. Funding for this project followed a structured process that included planning, issuing the call for proposals, assessing submissions, providing feedback, conducting an inception meeting (training of researchers towards the required outputs and outcomes), awarding grants, performing due diligence, and monitoring project implementation.

Background

COSTECH's mandate is to provide advice to the government on Science, Technology, and Innovation (STI). It coordinates, regulates, and promotes science, technology, and innovation in Tanzania.

COSTECH is committed to strengthening the capacity of women to manage research in seven types of grants, including:

- 1. Standard grants (open to any eligible researcher)
- 2. Grants for young scientists (young women scientist are encouraged to apply)
- 3. Women grant (Principal Investigator must be a woman, with team members of any gender)
- 4. Research chair grants (women scientist are encouraged to apply)
- 5. Center of excellence grants (women scientist are encouraged to apply)
- 6. Infrastructure grants (women scientist are encouraged to apply)
- 7. Professional research grants (women scientist are encouraged to apply)

Women scientists are underrepresented in academic research. COSTECH is committed to mainstreaming Gender equality and equity in the research and innovation ecosystem as stipulated in the National Framework for Mainstreaming gender equality and equity. In STI, women research grants target women researchers in Science, Technology, Engineering, and Mathematics (STEM).

The aim of the project was to raise the rate of female participation in research activities, which improved from 29% to 36% between 2020 and 2024.

COSTECH has developed a research integrity framework that guides researchers and funders in research management. Research projects managed by COSTECH are submitted to ethical review boards to ensure compliance with:

- 1. Ethical standards, including informed consent, honesty, conflict of interest management, confidentiality, and plagiarism.
- 2. Risk-benefit analysis, including preventing unethical submissions, detecting duplicate funding, and ensuring the ethical use of animals in research.
- 3. Scientific validity, including evaluating the PI's expertise, project team roles, and specialized knowledge.

Ethical considerations are essential to maintaining stakeholder trust, protecting participants, and ensuring the accuracy and reliability of research outcomes. After obtaining ethical clearance certificates, proposals are submitted to the National Research Registration Committee for screening of:

- 1. National and institutional reputation risks
- 2. National safety and security concerns
- 3. Social and cultural issues
- 4. Geopolitical risks
- 5. Alignment with national interests and priorities
- 6. Legal risk

Funded projects are subjected to effective governance and strategies to ensure that project achieve their milestones successfully. Leadership and structured decision-making committee including COSTECH management, research ethical committee, National Funds for Advancement of Science and Technology (NFAST) committee and commission body are essential to aligning project activities with strategic goals.

Before issuing a research call, COSTECH prepares a call advert stipulating eligibility criteria, requirements, and application procedures. The call is advertised through COSTECH's website and media outlets. Applications are submitted via an online system guided by a specified template, which includes CVs of research team members, an institutional endorsement letter, a declaration confirming the proposal had not been previously funded unless objectives were different or upgraded and a project proposal, where proposal has over 25% similarity in plagiarism tests were disqualified.

Submitted proposals pass an eligibility check, guided by COSTECH's research and innovation grant manual. Screening team members sign confidentiality agreements and declare any potential conflicts of interest. Eligible proposals undergo an external review to evaluate scientific and technical merits, and the proposed budget to ensure cost-effectiveness

The review process includes an individual Review in which each application is assessed by multiple reviewers and then a panel meeting where reviewers convene to harmonize scores and reach consensus.

Evaluation criteria include:

- 1. Relevance to the call's objectives
- 2. Potential societal impact in Tanzania
- 3. Gender equality and inclusivity considerations
- 4. Knowledge accessibility and sharing
- 5. Research integrity adherence
- 6. Sustainability of the proposed research
- 7. Scientific quality, novelty, and originality
- 8. Applicant's merit and project feasibility

Approved projects undergo a Pre-Award Assessment (PAA) at the host institution before agreement execution and funding disbursement. The PAA addresses governance, HR, risk management, finance, procurement, and audit compliance.

Implementation of the Dimensions of RRA

To strengthen female research capacity COSTECH implemented a well-structured plan to focus on female researchers to manage food security research projects. Key planning steps include:

- 1. COSTECH aligned the initiative with its 2021-2026 Strategic Plan, which includes a targeted goal to increase female participation in research activities.
- 2. During the annual work plan, COSTECH identified the need to enhance women's capacity to manage research due to low female participation rates in research activities.
- Food security was selected as the project's central theme, recognizing that Tanzania faces significant challenges related to low food productivity and security, exacerbated by climate change.

4. In the call for proposals, COSTECH emphasized the following dimensions:

- Applicants were required to demonstrate clear strategies for maintaining integrity and avoiding misconduct.
- COSTCH promoted open access research by requiring researchers to make their findings publicly available to enhance knowledge sharing and community impact.
- COSTECH created special provisions for female researchers to be the PI and encourage them to apply

- COSTECH introduced clear criteria for evaluating research proposals, emphasizing fairness, transparency, and accountability.
- COESTCH prioritized innovative approaches, multidisciplinary collaboration, and societal impact.
- Applicants were required to outline the anticipated impact of their projects on food security, local communities, and gender equity.

The implementation's key stakeholders included Research and Development Institutions (R&D) and higher learning institutions affiliated with COSTECH.

Communication was managed through publicizing calls for proposals on the COSTECH website and media channels. Researchers frequently visit COSTECH's website for updates on proposal calls.

Identified risks included unethical submissions such as excessive plagiarism and duplicate funding. Mitigation strategies include:

- 1. Plagiarism checks
- 2. Intensive screening processes
- 3. Comprehensive literature reviews
- 4. Ensuring strict adherence to ethical and legal research standards

The key steps of the ACST funding call are as follows:

- 1. Call preparation and promotion
- 2. Assessment of the application: Initial screening by secretariate, technical review by external reviewers (3 or 5 per proposal), Panel review and harmonization of reviewers scores.
- 3. Training of successful researchers to abide with the objective of the call, theory of change, milestones, accounting issues, auditing issue, risk issues etc
- 4. Due diligence to assess the project host institution

Following the implementation of these new considerations in this call, COSTECH observed that most of researchers forgot to include some ethical considerations:

- 1. obtaining an ethical clearance certificates,
- 2. lack of endorsement letters from the head of institution and
- 3. plagiarism.

To reduce barriers, COSTECH reminds applicants to search for the appropriate application documents to continue to build the capacity of female researchers for research management and proposal writing .

To monitor the impacts of these interventions, COSTECH has adopted the following monitoring and evaluation elements:

- 1. Researchers submit periodic progress reports/final reports detailing milestones achieved, challenges faced, and outcomes related to food security and female empowerment.
- 2. COSTECH conducts field visits twice a year to monitor project implementation, ensuring compliance with research integrity and ethical standards.
- 3. COSTECH audits reports to help track the utilization of funds.
- 4. COSTECH develops Key Performance Indicators to measure female researcher participation, improved research quality, and measurable contributions to food security were tracked.
- 5. COSTECH facilitates knowledge dissemination at public events, workshops, and publications to share successful research outcomes, ensuring visibility and knowledge transfer.

Relevant links

Website: https://www.costech.or.tz/

The African Center for Technology Studies https://acts-net.org/about-acts-2/









Visit the RRA webpage Visit the digital library

Contact: GRC-RRA@ukri.org