Innovative EDI Practices by Granting Agencies

Report produced for the Fonds de recherche du Québec by the Québec Interuniversity Equity Diversity Inclusion Network (RIQEDI)

Research and writing :
Mirjam Fines-Neuschild

Editing : Fanny Eugène, Bibiana Pulido, Sophie Brière, Serge Villemure

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2 Introduction

The Fonds de recherche du Québec (FRQ) are committed to strengthening equity, diversity and inclusion (EDI) in research. This commitment is operationalized through their "Equity, Diversity and Inclusion Strategy 2021-2026"[i].

In an effort to accelerate the advancement and sharing of EDI knowledge, the FRQ tasked the Québec Interuniversity Equity Diversity Inclusion Network (RIQEDI) with producing a report on innovative EDI practices implemented by granting agencies around the world.

The RIQEDI is a non-profit organization operating within Québec's university community, whose mission is to promote equity, diversity and inclusion in postsecondary education. The RIQEDI works in collaboration with various stakeholders in the university and college ecosystem, in particular the EDI2 Institute—a pole of expertise in EDI—whose leadership team contributed to editing this report.

This report does not present an exhaustive review of organizations' EDI practices, but rather focuses on innovative approaches that are in line with the objectives of the FRQ's EDI strategy: equitable access to funding, support for inclusive excellence, and the sharing and advancement of EDI knowledge. The objective of this report is to inspire the FRQ in implementing their strategy and to promote the sharing of good practices in EDI through the publication of the report.

2.1 The situation in Canada and Québec

In the Canadian university and college community, groups that have been historically discriminated against are still under-represented and are more likely to report having experienced discrimination or unfair treatment[ii] .

In particular, women, Indigenous people, persons with disabilities, and racialized individuals[1] are poorly represented in management and leadership positions in Canada's research universities [iii]. Among university faculty, people who identify as Indigenous and those who report a disability are under-represented compared to the general Canadian population[iv]. Differences exist between sectors. For instance, women are under-represented in science, technology, engineering and mathematics (STEM) fields and there is a lower proportion of people who identify as visible minorities in the social sciences and humanities than in engineering fields[v].

1 The Commission des droits de la personne et des droits de la jeunesse favours the terms "racialized person" and "racialized group" in order to "emphasize that, far from corresponding to an objective reality, the concept of "race" refers to an essentializing and stigmatizing category applied by the majority group to minorities that were formerly colonized or subject to slavery." Racial profiling and systemic discrimination of racialized youth (2011), note 4, p. 9.

2.2 Definition of equity, diversity and inclusion

Research conducted in universities and colleges must, on the one hand, reflect the interests of the entire population and, on the other hand, be accessible to them. To that end, granting agencies as well as universities and colleges are seeking to integrate the principles of equity, diversity and inclusion in their practices. For the FRQ:

Equity refers to fair treatment, including the elimination of systemic barriers that disadvantage particular groups. Fair treatment is not necessarily the same for everyone, but takes into account different personal realities, both present and historical, to provide all individuals with access to the same opportunities for the promotion and support of research.

Diversity refers to the presence, within the research ecosystem and society, of people from different groups, which promotes the expression of diverse perspectives, approaches and experiences, including those of underrepresented groups.

Inlcusion refers to the establishment of practices that allow all members of society to be and to feel valued, supported and respected, paying particular attention to underrepresented groups within the research community and in research itself[i].

2.3 Methodology used for producing this report

To identify innovative EDI practices within granting agencies, we began our investigation with four recent (i.e., published within the last five years) reviews with an international scope and different investigative strategies. These are:

"Review of diversity and inclusion literature and an evaluation of methodologies and metrics relating to health research" (2017) by the University Of Sheffield and the Wellcome Trust (Sheffield, 2017)[ix].

"Equality, diversity and inclusion in research and innovation: international review" (2019) by Advance HE for UK Research and Innovation (UKRI, 2019)[vi] .

"Supporting Women in Research: Policies, Programs and Initiatives Undertaken by Public Research Funding Agencies" 2019) by the Global Research Council (GRC, 2019)[vii] .

"Practical Guide to Improving Gender Equality in Research Organisations » and the « Summary of Implemented Indicators and Measures" (2017) by Science Europe (Science Europe, 2017) [viii].

These reviews examined, respectively, 246 studies on diversity and inclusion in health research (Sheffield, 2017), 130 initiatives implemented in 19 countries (UKRI, 2019), 53 initiatives in 28 countries (GRC, 2019), and 16 initiatives in 8 countries along with a survey on the implementation of measures, completed by granting agencies in 20 countries (Science Europe, 2017).

Innovative practice 2.3.1

The PROGRESS analysis framework

The "Review of diversity and inclusion literature and an evaluation of methodologies and metrics relating to health research" carried out by the University of Sheffield and the Wellcome Trust uses the PROGRESS-Plus analysis framework to guide the literature review. The eight concepts included in the initial PROGRESS[x] framework are:

- **P** lace of residence
- **R** ace/ethnicity/culture/language
- **O** ccupation
- **G** ender/sex
- **R** eligion
- **E** ducation
- **S** ocioeconomic status
- **S** ocial capital

The framework was renamed PROGRESS-Plus to recognize the need to consider additional factors, such as age and disability[xi]. Applying this analysis framework to the body of literature, the authors note that certain dimensions such as gender/sex and race/ethnicity/culture/language (primarily in the United States) are frequently addressed in the health research literature, while others, such as age, sexual orientation, disability and gender reassignment, are less present.

Several conclusions can be drawn from these reviews. First, the interventions identified primarily focus on promoting gender equality and the status of women in research or, more broadly, EDI in academia. The interventions cover a wide spectrum—training, strategies and policies, career development programs, employer participation and outreach—and the ways in which they are evaluated varies greatly.

It can be seen from these reviews that many of the granting agencies' initiatives are aimed at limiting the influence of unconscious bias in peer review. In addition, these reports present many initiatives targeting the natural sciences, engineering and mathematics (STEM) and health sectors, as compared with the social sciences and humanities. Finally, with the exception of the Global Research Council report, these reports focus largely on studies and initiatives from Europe and North America for which information is available in English, with very few initiatives from the global South.

In addition to the above reviews, the websites of 25 granting agencies in 23 countries were searched in different languages[xii]. This search resulted in the addition of another fifteen initiatives. We also added a list of 15 granting agencies with policies for the integration of sex and gender analysis into the design of research, as compiled by the Gendered Innovation Project [xiii].

The results are presented in this report according to themes related to three of the objectives of the FRQ's EDI strategy[i]: equitable access to funding, supporting inclusive excellence, and the sharing of EDI knowledge. It should be noted that the majority of initiatives address equitable access to funding. This report presents a total of 23 initiatives from 15 countries in Africa, North America, South America, Asia, Europe and Oceania.

This report complements and builds on previous reviews. Thus, special attention has been paid to initiatives on issues less covered in the literature (e.g., racialized individuals, LGBTQ+[2] communities, persons with disabilities, Indigenous people) and to initiatives in the global South. Each initiative was selected for its innovative and inspiring nature. Finally, as this report was produced for the FRQ, with the objective of broadening horizons, it focuses mainly on initiatives that are not already in place in Québec and Canada.

In order to provide case studies of initiatives, 10 organizations with inspiring initiatives were contacted directly for interviews. In the end, 60-minute interviews were conducted with five organizations, resulting in more detailed portraits of their initiatives, which are presented in Section 5.

2 However, a large number of practices presented by international organizations as targeting gender equality refer only to men and women, which is reflected in this report

3 Equitable access to funding

Central to their mission, granting agencies administer and distribute research grants and awards. For the research community, this funding is often critical to the completion of research projects, as well as to career advancement and the progression of graduate and postdoctoral students.

In an effort to integrate EDI principles, many granting agencies have introduced initiatives to ensure equitable access to research funding.

These initiatives are presented here under five themes:

- Minimizing bias in evaluation;
- Measuring and increasing success rates for historically discriminated groups;
- Considering special life circumstances;
- Using randomization in the selection process;
- Considering EDI in the development of funding programs.

3.1 Minimizing bias in evaluation

In an effort to promote equitable access to funding, granting agencies focus their EDI actions primarily on training and educating evaluation committee members about unconscious biases that may affect evaluation. Some training tools , such as the interactive unconscious bias training module produced by Canada's federal granting agencies, are available online, making it possible for other organizations to use them.

However, granting agencies cannot limit their EDI actions to unconscious bias training, which is a useful means of raising awareness but is not sufficient, and needs to be part of a set of EDI measures.

Innovative practice 3.1.

Unconscious bias training module

Canada's federal granting agencies provide an online training module on unconscious bias, which is mandatory for peer reviewers. This module, available in French and English, is also used by the FRQ and is referenced on the website of the Austrian Science Fund.

Website: https://cihr-irsc.gc.ca/lms/e/bias/

Other measures can target evaluation committee meetings. For example, the Fonds de recherche du Québec – Santé introduced a pilot project in the winter of 2021 to make evaluation committees more vigilant about biases that can arise during their discussions, by asking some members of each committee to pay particular attention to this issue. For its part the Swedish Research Council regularly conducts observations and a qualitative investigation of review panel discussions.

Innovative practice 3.1.2

Observation of evaluation committee discussions

Since 2012, the Swedish Research Council (VR) has published four reports on gender equality in the allocation of research grants based on observations made during the discussions held in review panel meetings. These observations enable the Council to investigate the possible presence of gender bias in discussions, procedures and assessment criteria, in order to improve its gender equality measures. See Portrait 5.2.

Website : https://www.vr.se/english/analysis/reports.html#?query=gender&year=all&history=true

3.2 Measuring and increasing success rates for historically discriminated groups

A common step in implementing equity measures in access to funding is to collect sociodemographic data on those applying for and receiving funding, and to compare the success rates for different groups. A lower funding success rate for certain groups would point to barriers implicitly built into the system or arising from unconscious bias, which is consistent with research and literature reviews that document the discrimination experienced by under-represented groups.

In the interest of transparency, many organizations make this data publicly available. However, publication must be done with respect for human rights—which are unique to each country or jurisdiction – as well as with respect for the groups involved. While data can be useful, it is important to understand the barriers experienced by groups that are historically discriminated against and to collaborate with them in developing solutions.

Innovative practice 3.2.1

Publishing data on applicants and funded applications

The National Scientific and Technological Research Council of Argentina (CONICET) has developed a digital portal for publishing data on applicants and funded projects. The information provided includes geographic origin, discipline, gender, career level, partner countries, etc., and is available in the form of graphs or tables. Gender data is cross-referenced with other categories, including discipline and career level. However, funding rates are not reported.

Website: https://cifras.conicet.gov.ar/publica/detalle-tags/3

The Austrian Science Fund (FWF) has developed an infographic that is updated annually entitled “Equal Opportunities of Women and Men”. It shows the percentage of men and women by scientific discipline, committee composition, application rates, and funding rates. Data for non-gender-binary individuals is not shown to protect their identity. The data appears to indicate that funding rates are roughly the same for women and men.

Website: https://www.fwf.ac.at/en/about-the-fwf/gender-issues/monitoring-equal-opportunities

Some granting agencies use such data to implement equity measures and establish representation targets or quotas. For example, the Australian National Health and Medical Research Council has introduced strategic funding to address gender disparities in funding outcomes. A similar process has also been put in place at the Canadian Institutes of Health Research. Meanwhile the Science Foundation of Ireland, well aware of the under-representation of women in lead investigator positions, has introduced a quota system for candidates nominated by institutions. Finally, the South African National Research Foundation has implemented targets for the student community that better reflect the South African population.

Targets are certainly a good EDI practice. However, it is important to ensure that targets do not reinforce the belief that historically discriminated groups have an advantage because of who they are, rather than their skills. On the contrary, targets help to address longstanding biases through corrective measures, providing the research community with access to a diverse pool of students and researchers, thereby promoting a collective perspective and diverse approaches.

Innovative practice 3.2.2

Establish targets to ensure equitable access to funding

In 2013, the South African National Research Foundation (NRF) introduced the following three guidelines: providing equitable access to graduate education, fostering human capital development, and improving the consistency of funding for graduate and postdoctoral studies. Among other things, the NRF set targets for a workforce that is more representative of the South African population. In its 2020-2025 strategic plan, the NRF sets a goal of increasing the proportion of Black Africans among NRF-funded researchers from 31% to 48%, and among NRF-funded postgraduate students from 74% to 80%.

Website: https://www.nrf.ac.za/wp-content/uploads/2021/05/NRF-Strategic-Plan-2020-2025.pdf

The Australian National Health and Medical Research Council carefully monitors funding rates for men and women in various programs. When these data indicate a gender disparity in funding rates, a special structural priority budget is used to improve the gender balance by funding a number of additional projects with female lead investigators. See portrait 5.1.

Website: https://www.nhmrc.gov.au/womenhealthscience

In 2015, the Science Foundation of Ireland (SFI) introduced a quota system for its Starting Investigator Research Grant program for early-career researchers. Research institutes are incentivized to nominate female candidates by permitting a maximum of 6 (out of a possible total of 12) male candidates. The SFI notes that this initiative has been extremely effective in increasing the number of female recipients and encourages other research agencies to consider this type of measure, in particular in programs where men and women have similar funding success rates, but the application rate for women is low[xiv], as is the case in STEM fields.

Website: https://www.sfi.ie/research-news/publications/SFI-Gender-Data-report-Nov-2018.pdf

3.3 Consideration of special life circumstances

Life circumstances vary between individuals. Disability, illness or parenthood may cause delays or interruptions in research or training activities. To accommodate these situations, some granting agencies offer financial support during interruptions in research and study activities as well as an eligibility extension for funding opportunities with specific deadlines, such as grants for early-career scientists.

Many granting agencies, such as the FRQ, offer financial support to funding holders during an interruption in research activities due to parental leave. There are organizations that list parental leave support offered by different agencies and their conditions, such as Science Europe (17 European granting agencies[vii]) and the Global Research Council (10 granting agencies[vi]). It should be noted that, in addition to support during parental leave, granting agencies should ensure that delays incurred during or after parental leave are taken into account in the evaluation of funding applications. Indeed, having young children can cause delays and impacts long after parental leave has ended.

Less common and widespread than parental leave, several granting agencies offer accommodation in the event of disability or illness. This is true of the FRQ, where funding holders who are unable to pursue graduate or postdoctoral studies on a full-time basis because of a disability have the option of studying on a part-time basis with full payments, when this is permitted by their institution. Others, like the Austrian Science Fund, offer assistance with the funding application process.

Innovative practice 3.3.1

Supporting people with disabilities or chronic illness

The Austrian Science Fund (FWF) places great emphasis on an inclusive funding procedure for people with different backgrounds. To that end, the FWF offers people with disabilities, chronic illness, or difficult life circumstances assistance with the application process.

Website: https://www.fwf.ac.at/en/research-funding/inclusion

Looking at the various work-family balance measures of granting agencies, we note that a large proportion of these extend eligibility for funding to accommodate parental leave, usually offering an extension for the duration of the leave. The Natural Science Foundation of China and New Zealand's Royal Society Te Aparangi have chosen other approaches, either extending the eligibility period for all women (regardless of whether they have taken parental leave) or extending the eligibility period beyond the duration of parental leave.

Innovative practice 3.3.2

Extending the eligibility period for all women

In 2011, the Natural Science Foundation of China extended the eligible age for young female researchers to 40 years for the Young Scientists Fund, compared to 35 years for men. For the Excellent Young Scientists Fund, the age limit is also 40 for women and is 38 for men. Application rates for women to these funding programs has increased since the implementation of this policy. In 2018, the application rate for women reached 51%.

Website: http://www.nsfc.gov.cn/english/site_1/index.html

See also: https://chinainnovationfunding.eu/national-natural-science-fund/

Innovative practice 3.3.3

Extending eligibility beyond parental leave

In 2018, New Zealand's Royal Society Te Aparangi changed the eligibility policies for its Marsden Fund Fast-Start to take into account any career interruptions experienced due to being the primary caregiver for young children. The agency recognizes that career interruptions are often longer than the actual parental leave. The program offers a two-year extension per child, regardless of the length of parental leave and of the person's gender (father, mother or parent).

Website: https://www.royalsociety.org.nz/what-we-do/funds-and-opportunities/marsden/marsden-fund-application-process/submitting-a-proposal/preliminary-proposal-guidelines-for-applicants/

The COVID-19 pandemic accentuated several of the inequalities already present in society[xv] and its impacts have been felt in the research community, where women's careers have been particularly affected[xvi]. Many granting agencies introduced measures to try to minimize these impacts. For example, the FRQ and the Natural Sciences and Engineering Research Council of Canada asked their committees to consider the pandemic's impacts on applicants when evaluating applications. The Global Research Council published a list of resources and initiatives put in place by its member organizations in response to the COVID-19 pandemic[xvii].

We have focused on two initiatives that incorporate several elements that support EDI. First, India's Department of Science and Technology initiated a discussion process with a particularly affected group, women scientists, to learn about their needs in the face of COVID-19 and to propose solutions. Second, France's National Research Agency conducted an evaluation of access to funding for women scientists in one of its research funding programs that aimed to study various aspects related to the COVID-19 pandemic.

Innovative practice 3.3.4

Meeting with women scientists to learn about their needs in the face of the pandemic

India's Department of Science and Technology (DST) held an online meeting in July 2020 with 70 women scientists with funding under the Women Scientist Scheme, to discuss the challenges they faced due to the COVID-19 pandemic and to offer various technical and administrative support for their research projects. The Women Scientist Scheme is intended for women scientists between the ages of 27 and 57 who wish to return to science and technology fields. Participants expressed appreciation for the support they received to continue to pursue their research program despite the challenges caused by the pandemic.

Website : https://dst.gov.in/dst-reaches-out-women-scientists-facing-challenges-during-covid-19

Innovative practice 3.3.5

Assessing equity in access to funding for COVID-19 research

In March 2020, France's National Research Agency (ANR) launched a call for projects for the Flash COVID-19 program, aimed at addressing an urgent need for knowledge on four themes: ethics and social sciences and humanities, epidemiological and translational studies, physiopathology of COVID-19, and infection prevention and control. This competition was launched at the beginning of a general lockdown. Considering that several subsequent studies have shown the very different impacts on men and women scientists, the ANR conducted and published an analysis of the accessibility of the Flash COVID-19 call for projects for women researchers. The ANR observed that many more male researchers responded to the call, but female researchers had a much higher funding rate than their male colleagues. In addition, for the funded projects, the average age was significantly lower among female project coordinators than among their male counterparts.

Website: https://anr.fr/fileadmin/documents/2021/Analyse-F-H-Flash-Covid_08mars2021.pdf

3.4 Using randomization in the selection process

There is resistance in the research community to the use of randomization in the selection process, as this method can be seen as a violation of the principle of excellence and merit. Nonetheless, in recent years there has been increasing interest in this approach[xviii, xix].

Randomization has been incorporated into the evaluation process by granting agencies that feel that peer review does not allow for a fair comparison of applications that are considered similar, making selection between these applications more susceptible to unconscious bias[xx] and other evaluation biases. It is important to remember that peer review, while intended to be as objective as possible, always involves some subjectivity.

The Swiss National Science Foundation first applied random selection for applications close to the funding threshold in awarding postdoctoral fellowships. A Health Research Council of New Zealand program to fund cutting-edge, transformative research uses a random process to select among applications deemed "fundable" by peer review. Both granting agencies have published the results of their positive experience with the use of randomized selection[xxi, xxii].

Innovative practice 3.4.1

Using randomized selection to allocate funding

The Swiss National Science Foundation introduced a random selection process for a postdoctoral fellowship program in 2018. In addition to reducing the impact of unconscious bias, this measure also makes the application evaluation process less demanding in terms of time and resources. As a result of this positive experience, the random selection process was included in the organizational regulations as follows: "Funding decisions can be based primarily on evaluation by external experts or, in the case of insufficient funding, lots may be drawn to select proposals that cannot be further differentiated objectively"[xxiii] .

Website: https://www.snf.ch/fr/JyifP2I9SUo8CPxl/news/news-210331-les-decisions-peuvent-etre-prises-par-tirage-au-sort

In an initiative to fund cutting-edge transformative research ideas, the Health Research Council of New Zealand (HRC) introduced an anonymous assessment process and random funding allocation for its Explorer grant applications in 2013. This process aims to reduce bias in the evaluation of this type of projects. See portrait 5.3.

Website: https://gateway.hrc.govt.nz/funding/researcher-initiated-proposals/2021-explorer-grants

3.5 Considering EDI in the development of funding programs

In order to ensure equitable and inclusive research funding, EDI must be taken into account in the development, assessment and revision of funding programs and policies. A systematic analysis of possible differential impacts allows for the identification of barriers that certain rules or conditions may create for different groups in access to funding.

Innovative practice 3.5.1

Gender-based Analysis Plus

Gender-based Analysis Plus (GBA+) examines the potential effects that a policy, measure or program might have on different groups of people because of their sex, gender or other identity factors. Canada's three largest government funding agencies, namely the Social Sciences and Humanities Research Council (SSHRC), the National Science and Engineering Research Council (NSERC) and the Canadian Institutes of Health Research (CIHR), have incorporated GBA+ in the development, assessment and modification of their policies and programs. To this end, GBA+ training is mandatory for all their staff.

Website (SSHRC): https://www.sshrc-crsh.gc.ca/about-au_sujet/publications/drr/2018-2019/gba_plus-acs_plus-fra.aspx

Website (NSERC): https://www.nserc-crsng.gc.ca/NSERC-CRSNG/Reports-Rapports/DP/2021-2022/supplementary/t3_fra.asp

Website (CIHR): https://cihr-irsc.gc.ca/f/51856.html

4 Other EDI practices

4.1 Supporting inclusive excellence

The Congress Advisory Committee on Equity, Diversity, Inclusion, and Decolonization defines inclusive excellence as the affirmation of how "diversity can deepen learning, enhance critical thinking and problem solving, and fuel creativity and innovation [...]"[xxiv] . Inclusive excellence is about supporting and valuing diverse knowledge, methodologies, perspectives, and ways of knowing. One way to foster inclusive excellence is by recognizing the contribution that non-linear or atypical training or career paths can bring to research. When harmonizing the evaluation criteria for their training award programs in 2021, the FRQ added a section in which applicants are asked to describe their academic, professional, and personal background, highlighting the elements that contributed to strengthening their knowledge and skills.

To support inclusive excellence, granting agencies can also encourage the research community to implement actions to promote EDI, for example by integrating EDI into evaluation criteria, as the Fonds de recherche du Québec – Nature et technologies has done in its grant programs. One of the best-known initiatives to encourage the research community to improve its EDI practices is the Athena SWAN charter, which has existed for over fifteen years and has inspired several other initiatives, such as the SEA Change program in the United States.

Innovative practice 4.1.1

Encouraging research institutions to adopt EDI principles

Funded by the American Association for the Advancement of Science, the STEMM Equity Achievement (SEA) Change program seeks to inspire, equip, and support culture change toward equity, diversity and inclusion in postsecondary science, technology, engineering, mathematics, and medicine in the United States. SEA Change member institutions "commit to equity and full participation of each individual across gender, race, ethnicity, disability status, socioeconomic status, sexual orientation, age, familial history of higher education, and any other factor that is unrelated to ability and has been the target of bias and unequal treatment" [xxv].

Established in 2018, SEA Change was inspired by the Athena SWAN charter, which has existed in the UK since 2005 and is funded by Advance HE. Other initiatives based on the Athena SWAN model have been implemented in other countries, including SAGE in Australia and Dimensions EDI in Canada.

Website (SEA change): https://seachange.aaas.org/

Website (Athena SWAN): https://www.advance-he.ac.uk/equality-charters/athena-swan-charter

Website (Dimensions EDI): https://www.nserc-crsng.gc.ca/NSERC-CRSNG/EDI-EDI/Dimensions_Dimensions_fra.asp

Website (SAGE): https://www.sciencegenderequity.org.au/

4.2 Sharing and advancement of EDI knowledge

Cataloguing all EDI measures implemented in granting agencies, colleges and universities in all countries would be a useful but daunting task. A few organizations have done so at the national level or for a specific topic. First, Germany's Leibniz Institute for the Social Sciences has taken over a database of innovative gender equality practices developed by the German Science Foundation. The database provides German research and education institutions with ideas and inspiration for the adoption of EDI measures. The Gendered Innovation project also provides a list of granting agencies that require the integration of sex and gender analysis in research projects and is working on a policy review of 50 research agencies.

Innovative practice 4.2.1

Tools for disseminating good EDI practices

The STARQ project's INKA database at the Leibniz Institute for the Social Sciences lists concrete examples of gender equality measures in German research and education institutions. See portrait 4.4.

Website: https://www.gesis.org/starq/inka/recherche?locale-attribute=en

Gendered Innovation (GI) has compiled a list of 14 granting agencies that require the integration of sex and gender analysis in research projects. All of these granting agencies are in Europe or North America. The GI team conducted an initial review and now encourages granting agencies that would like to be added to the list to contact the organization. Additionally, GI collaborated with the Wellcome Trust to examine policies and practices related to sex, gender, and diversity analysis in 22 research funding agencies around the world. They built a framework that can be used by funders to develop or improve their own policies [xxvi].

Website: http://genderedinnovations.stanford.edu/sex-and-gender-analysis-policies-major-granting-agencies.html

Contributing to the advancement of EDI knowledge also means investing resources to learn about emerging initiatives and the effectiveness of measures already in place. UK Research and Innovation for instance has published two reviews, one national and the other international. Science Europe has also published the results of a survey of member organizations on the measures put in place and the indicators used to evaluate gender equality in their activities.

Innovative practice 4.2.2

Studying the implementation and effectiveness of EDI measures

UK Research and Innovation (UKRI) is particularly proactive in studying the implementation and effectiveness of EDI measures. In addition to publishing a lengthy report on EDI in research and innovation from an international perspective in collaboration with Advance HE, UKRI has conducted the same type of review at the national level entitled "Equality, diversity and inclusion in research and innovation: UK review", published in 2019.

Website: https://www.ukri.org/about-us/policies-standards-and-data/good-research-resource-hub/equality-diversity-and-inclusion/

Published by Science Europe, the "Summary of Implemented Indicators and Measures" presents the results of a 2015 survey of Science Europe members examining the implementation of measures to promote gender equality. Responses were obtained from 35 of the 47 member organizations representing 19 countries, the vast majority of which were granting agencies. The survey focused on 1) indicators used to assess gender equality; and 2) measures implemented to avoid unconscious bias in peer review. On the one hand, the results show that the majority of the granting agencies consulted collect and publish data on the gender of individuals who apply for funding, obtain funding, or serve on application review bodies. However, only half of the granting agencies monitor the size of grants awarded according to gender. On the other hand, about two-thirds of the organizations surveyed report having implemented measures to reduce unconscious biases that may affect evaluation, primarily in relation to gender.

Website: https://www.scienceeurope.org/media/fpxksyci/se_surveyresults_gender.pdf

The majority of the reviews report on initiatives from Europe and North America, but it is important to also look at organizations advocating for global South and Indigenous populations. While there are many such associations and organizations, we note the work of the Te Kāhui Amokura committee in supporting Māori research and scholarship, and the Organization for Women in Science for the Developing World, which is a key network for women in STEM in the global South.

Inspiring practice 4.2.3

Organizations that advocate for historically discriminated groups

Te Kāhui Amokura is a Universities New Zealand committee tasked with advancing and promoting the success of Māori students, Māori university staff and Māori scholarship in New Zealand universities. See portrait 5.5.

Website: https://www.universitiesnz.ac.nz/about-universities-new-zealand/unz-committees-and-working-groups/te-k%C4%81hui-amokura

The Organization for Women in Science for the Developing World (OWSD) is an international organization founded in 1987 and based at the offices of the World Academy of Sciences. The OWSD brings together eminent women scientists from the developing world with the objective of promoting their representation in scientific and technological leadership roles. The OWSD provides research training, career development opportunities and networking opportunities for women scientists throughout the developing world at different stages in their career.

Website: https://owsd.net/

The advancement of EDI knowledge also requires funding for research on topics specific to groups that have been historically discriminated against or marginalized. In particular, many health research funding agencies offer targeted funding opportunities, for example, on women's health, Indigenous health, or health in racialized or LGBTQ+ populations. However, through our work on this review we have noticed that these funding opportunities often lack visibility on granting agencies' websites. The Health Research Council of New Zealand is a notable exception, giving high visibility to research funding on Māori and Pasifika (indigenous Pacific Islander) health research.

Inspiring practice 4.2.4

Showcasing research funding related to discriminated groups

The Health Research Council of New Zealand (HRC) website provides high visibility for Māori and Pasifika health research funding programs right on its home page. The pages dedicated to Māori and Pasifika health research feature the various funding programs, dedicated health committees, and key Māori and Pasifika organizations. In addition, the general funding opportunities page includes links to the dedicated Māori and Pasifika health research pages.

Website: https://hrc.govt.nz/

5 Emerging EDI practices: Portraits of 5 initiatives

In this section we present portraits of five initiatives of interest for which we conducted interviews with organization members. These portraits provide a more in-depth look at the implementation of these EDI measures, their challenges, and their successes.

5.1 Australian National Health and Medical Research Council: Strategic funding

Overview : As part of its gender equity action plan, in 2017 the Australian National Health and Medical Research Council (NHMRC) implemented structural priority funding for projects led by women, with the goal of achieving gender equality in funding rates.

Presentation : The NHMRC has several gender equality action plans, whose objectives include achieving equal funding rates for men and women. For its largest grant program (Project Grant), between 2001 and 2017, funding rates for teams led by women were significantly lower that those for teams led by men. To promote equity in funding, the NHMRC monitors the gender disparity in funding rates for its various competitions and uses this data to establish an additional budget envelope of structural priority funding for female-led applications.

The evaluation and award process is as follows: peer review committees assign a score to each application. NHMRC staff then rank the applications by score, and funding is awarded starting at the top of the ranked list up to the limit of the baseline budget. The structural priority budget is then used to fund, in rank order, meritorious female applicants and female-led teams (i.e., who obtained a high score) whose applications fell below the funding cut-off.

This NHMRC initiative is part of a more global approach that also includes training for review teams and agency staff, the establishment of a Women in Health Science committee, two-year follow-ups with universities on gender equality requirements, and a roadmap for improving the health of Australia's Aboriginal and Torres Strait Islander population. With regard to the latter, the NHMRC has a funding target of 5% for research to improve health outcomes for Aboriginal and Torres Strait Islander people and communities. This funding rate has been achieved since 2008.

Assessment : The differences in funding rates are measured each year, making it possible to determine which programs will be allocated structural priority funding the following year. Structural priority funding will be discontinued when funding rates are the same for male and female researchers.

Strengths: This is a method based on quantitative data that reduces disparities between funding rates for men and women, thus helping to minimize the impact of gender bias in evaluation.

Challenges : This initiative focuses solely on gender equality. However, the NHMRC is in discussions to extend it to other target groups.

Website : https://www.nhmrc.gov.au/research-policy/gender-equity/structural-priority-funding-and-gender-equity

5.2 Swedish Research Council: Gender equality reports

Overview : The Swedish Research Council (Vetenskapsrådet, VR) publishes regular reports on gender equality in the research funding allocation process. These qualitative reports are based on observations made during review committee meetings.

Presentation : The Swedish Research Council is Sweden's largest governmental research funding body. Its gender equality strategy includes the following objectives:

- Achieve and maintain an equal gender distribution in its review panels;
- Ensure that the percentage of female and male applicants for grants correspond to the percentage of women and men among potential research grant applicants;
- Ensure that women and men have the same success rates and receive the same average grant amount.

In addition to the quantitative data used to assess the achievement of these objectives, every two years the VR carries out a qualitative examination of the funding application evaluation process. At this time, a team of observers attends review panels and monitors the discussions. Among other things, their observations focus on the group dynamics within the committee, the use and interpretation of evaluation criteria, and bias related to the gender of applicants.

An analysis of the discussions leads to recommendations for improving the evaluation procedures and the instructions given to committee members

Assessment : The regular observation of committee discussions and the production of gender equality reports is a form of self-assessment that makes it possible to assess the effectiveness of other measures put in place by the VR.

Strengths : With several qualitative analyses spread over almost a decade, the VR can better target its interventions. Also, concrete examples taken from these reports are used in staff and review committee training.

Challenges : The analysis is based solely on gender. In addition, challenges remain in bringing the proportion of female to male applicants in line with their proportion in the potential pool of research grant applicants.

Website : https://www.vr.se/english/analysis/reports.html#?query=gender&year=all&history=true

5.3 Health Research Council of New Zealand: Anonymization and randomization

Overview : To better support innovative research, the Health Research Council of New Zealand (HRC) introduced anonymous applications and a randomization process for allocating funding under its Explorer grant in 2013.

Presentation : The HRC seeks to improve the health and well-being of all New Zealanders by identifying and funding high quality, high impact research in the health sciences.

Explorer grants support research ideas that have the potential to make a revolutionary change to New Zealand's health sector. They are available in any health research discipline for a term of up to 24 months. The projects sought are transformative, innovative, exploratory, unconventional, and have potential for major impact. Applications to this program are first anonymized. During the assessment process, committee members who recognize a project or team may temporarily withdraw. The committee assesses applications to determine whether the proposal meets the two selection criteria: potential to be transformative and project viability. Applications are not scored or ranked. All applications that meet both criteria are equally likely to receive funding. A random number generator is then used to rank the proposals

Assessment : In 2020, Liu et al. published a study on the acceptability of using a lottery to allocate Explorer[xix] grants. Of the 126 survey respondents, all of whom had previously applied for funding from HRC, 63% agreed that randomization is an acceptable method for allocating Explorer Grant funds. Support for the method was higher amongst those who had received Explorer funding. However, there was less support (40%) for using randomization for other types of HRC funding. The study indicates that, for other grant types, there was more support for randomization if only applied to applications considered to be of comparable quality. Finally, 89% of respondents agreed with the anonymization of applications for the Explorer grant. More informally, the HRC team has observed that the anonymization process is linked to an increase in the diversity of applicant backgrounds.

Strengths : The anonymization and randomization process has been in place for several years and has been evaluated. This procedure is part of an effort to better evaluate risky and ambitious projects, where a comparison between proposals can be difficult and therefore subject to various types of bias.

Challenges : Random allocation of funding does not appear to reduce the amount of time spent preparing funding application. In the Liu et al. (2020) study, 75% of respondents said they spent the same amount of time as if there had been no randomized selection because of the need to meet the eligibility criteria.

Website : https://gateway.hrc.govt.nz/funding/researcher-initiated-proposals/2021-explorer-grants

Similar initiative : https://www.snf.ch/fr/JyifP2I9SUo8CPxI/news/news-210331-les-decisions-peuvent-etre-prises-par-tirage-au-sort

5.4 Leibniz Institute for the Social Sciences: INKA database

Overview : The INKA database at the Leibniz Institute for the Social Sciences (GESIS) lists concrete examples of gender equality measures in German research and education institutions.

Presentation : The INKA database was initially created in 2009 by the German Research Foundation (Deutsche Forschungsgemeinschaft; DFG) and was taken over in 2019 by GESIS as part of the Standards, Guidelines and Quality Assurance for Gender Equality in Academia (STaRQ) project. Available in English since 2013, the INKA database presents gender equality measures found in German research and education institutions. Each submitted measure is reviewed before being added to the database. Between 200 and 300 measures are listed in the database, which is revised every two years and can be easily consulted online.

Filters make it possible to search for specific fields of action or by institution type, target group, subject group, or federal state. Users can also search for particularly outstanding measures identified as “innovative models” by GESIS. To limit duplication of the same measure implemented in multiple institutions, only one measure per type is listed, with similar measures linked to it in the database.

Assessment : The STaRQ project team uses a number of parameters to evaluate the effectiveness of the database including the number of unique visitors to the site, referencing on university websites, and a community survey.

Strengths: The INKA database enjoys high visibility in Germany, which facilitates the reproduction of measures. The measures are easily and freely accessible. To facilitate communication despite possible staff changes within institutions, the database requires that a permanent generic contact address be provided.

Challenges : Keeping the database up to date is resource intensive. When it was under the DFG, there was a certain prestige to being listed in the database, which encouraged institutions to contribute by submitting their measures. Recently, there have been few “new” measures added to the database.

Website (English): https://www.gesis.org/starq/inka/recherche?locale-attribute=en

Similar initiative : http://www.genderportal.eu

5.5 Te Kāhui Amokura: A Universities New Zealand – Te Pōkai Tara committee

Overview : Te Kāhui Amokura is a committee created within Universities New Zealand – Te Pōkai Tara to advance and promote the collective interests of New Zealand's universities to improve outcomes for Māori university students, Māori university staff and Māori scholarship.

Presentation : Established in 2004, Te Kāhui Amokura is part of Universities New Zealand – Te Pōkai Tara, an organisation that represents the interests of New Zealand's eight universities, coordinates education policy, and administers scholarships. Te Kāhui Amokura comprises the Deputy Vice-Chancellor Māori, Assistant Vice-Chancellor Māori or Pro-Vice Chancellor Māori from each of the eight universities.

Te Kāhui Amokura developed a strategic plan in 2015 to foster Māori success at New Zealand universities. This plan focuses on three areas:

1. Improving outcomes for Māori students (tauira) by:

    - Improving university graduation rates of Māori tauira
    - Ensuring that tauira are supported to study and succeed as Māori
    - Boosting the number of young Māori (rangatahi) eligible to attend university

2. Improving outcomes for current and future Māori university staff, by ensuring that the Performance Based Research Fund produces positive outcomes for Māori researchers.

3. Increasing universities' role in the revitalisation of the te reo Māori language

In practice, Te Kāhui Amokura encourages initiatives that promote university access for Māori students. Such measures include a bonus system in funding for universities, which receive a bonus for every Māori student enrolled in graduate studies. The bonus is higher when the students choose to do their work in the Māori language.

In addition, Te Kāhui Amokura works to promote international exchanges between Indigenous peoples, including encouraging Māori students to gain university experience in an Indigenous community abroad. Te Kāhui Amokura also established the Global Indigenous Network, which led to the co-organisation, in collaboration with South American Indigenous groups, of a 2019 summit on Indigenous language revitalization, sovereignty policies, and Indigenous knowledge in the university curriculum.[xxvii]

Assessment : Te Kāhui Amokura compiles and publishes statistical data on its student populations.

Strengths : Te Kāhui Amokura connects Māori scholars who may be isolated within their own institutions. Its strength lies partly in its relationships with other Indigenous groups and government bodies. Te Kāhui Amokura has an uncompromising commitment to tauira success and focuses its actions to that end.

Challenges : Te Kāhui Amokura notes an increase in tauira enrolment and completion rates, but considers that the situation is not yet satisfactory, since it was particularly bad initially. Moreover, the fact that the university system remains colonial and therefore still requires some form of identity negotiation is a source of concern. In some cases, the decision to leave an academic environment that does not correspond to their aspirations should therefore not be seen as a failure.

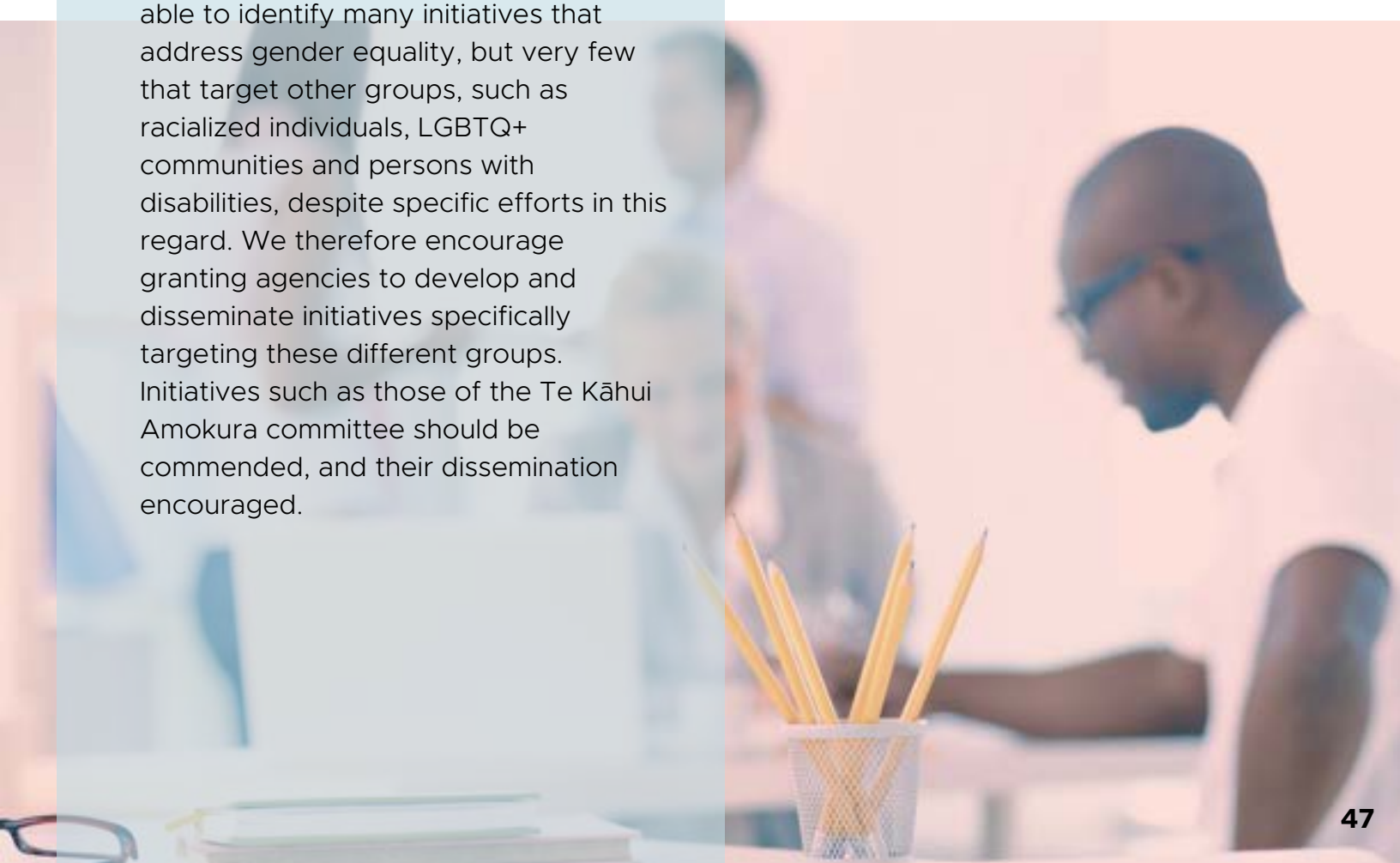
Website : https://www.universitiesnz.ac.nz/about-universities-new-zealand/unz-committees-and-working-groups/te-k%C4%81hui-amokura

6- Conclusion

In this report, we present 23 initiatives implemented in 15 countries around the themes of equitable access to funding, supporting inclusive excellence, and the sharing and advancement of EDI knowledge. Certain trends can be observed. First, many of the initiatives are specific to research in STEM or health-related fields, while initiatives for the social sciences seem to be more often integrated into overall plans. We therefore encourage granting agencies to develop and disseminate initiatives for the social sciences and humanities, where the issues are just as important.

In the course of our research, we were able to identify many initiatives that address gender equality, but very few that target other groups, such as racialized individuals, LGBTQ+ communities and persons with disabilities, despite specific efforts in this regard. We therefore encourage granting agencies to develop and disseminate initiatives specifically targeting these different groups. Initiatives such as those of the Te Kāhui Amokura committee should be commended, and their dissemination encouraged.

Through discussions with the teams we interviewed, we observed a great interest in the sharing of EDI practices. Moreover, we emphasize the importance of sharing and learning from innovative practices implemented in the global South. It is therefore essential that granting agencies become involved in EDI networks and that they organize and take part in meetings to discuss the EDI measures implemented by the various organizations.



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