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Gender-Disaggregated Data at the Participating Organisations of the Global Research Council: **RESULTS OF A GLOBAL SURVEY**

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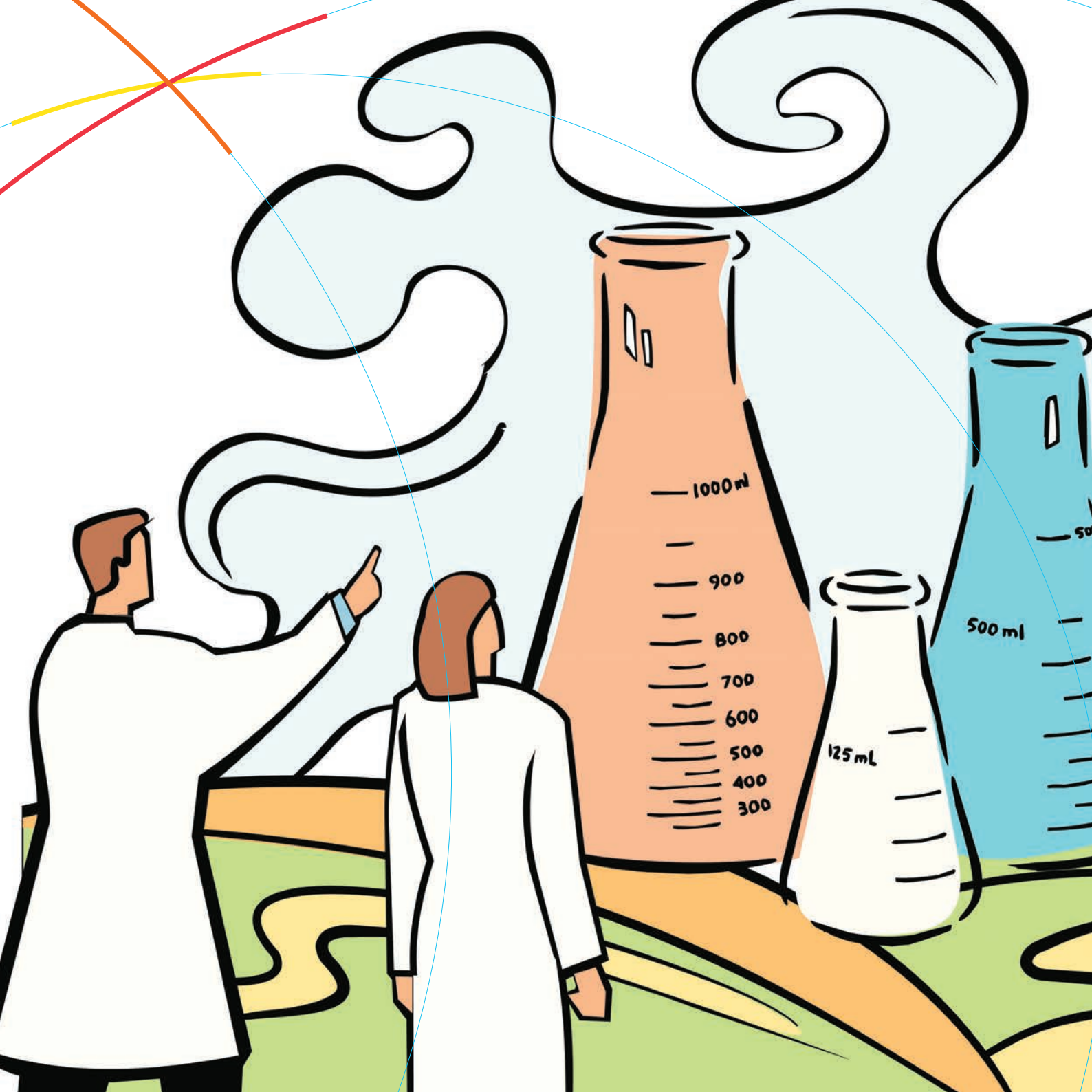
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FOREWORD

The Global Research Council (GRC) is committed to promoting the equality and status of women in research, especially in catalysing conversation and action amongst its participating organisations on this important subject. The GRC's commitment was affirmed through the endorsement and publication of the Statement of Principles and Actions in 2016. The Statement had a specific focus on actions related to the participation and promotion of women in the research workforce, and the integration of the gender dimension in research design and in the analysis of research outcomes. It recognises that the equality and status of women in research should be considered together with broader equality and diversity issues. The GRC Gender Working Group (GWG) champions and advocates for the implementation of the aforementioned Statement of Principles and Actions amongst GRC participating organisations, in partnership with like-minded organisations and initiatives.

This seminal report produced by the GWG underscores the importance of collecting, analysing and reporting gender-disaggregated data. This report marks the first such aggregation of trends, practices and experiences of GRC-participating organisations regarding gender-disaggregated data. It focuses on applications, review and funding; the gender dimension in research; and data at the intersection of equality, diversity and inclusion. Three key findings are put forth in this report underscoring commitment by GRC-participating organisations; the newness of collecting gender-disaggregated data; and methodological differences in our practices:

1. GRC-participating organisations broadly recognise the importance of appropriate actions regarding gender in research and that they have a catalytic role to play.
2. Contextualised to the grant-making function of GRC-participating organisations, there are no specified standards adopted across the organisations regarding the collection and reporting of gender-disaggregated data.
3. The scope of data collected by GRC-participating organisations varies by region and by type of data collected.

To augment these findings, a key dimension to this report is its focus on aggregating key areas of capacity strengthening per GRC region, which complement the GRC mission of peer learning and sharing of practices and experiences. It is our hope that each GRC-participating organisation and region will undertake to use this report, its

findings and recommendations to further catalyse change.

We would like to thank the GRC-participating organisations that participated in the survey and in the regional dialogues in the lead-up to this report's compilation; the researchers at Stellenbosch University (Profs Nelius Boshoff and Heidi Prozesky) for support in analysing the data; and the GWG for its continued effort to champion this subject within the GRC. Finally, we are grateful for the human and financial resources committed by the National Research Foundation (South Africa) to realise this project.

Professor Andrew Thompson (Former International Champion, UK Research and Innovation)
Dr Luiz Eugênio Mello (Scientific Director, São Paulo Research Foundation - FAPESP, Brazil)
GRC Gender Working Group Co-Chair HORCs

MESSAGE FROM THE GRC GENDER WORKING GROUP

The Gender Working Group (GWG) was created in 2017 to advance and coordinate initiatives in support of the 2016 GRC *Statement of Principles and Actions: Promoting the Equality and Status of Women in Research.* It is accountable to the GRC Executive Support Group and composed of representatives of all five GRC regions that are nominated and supported by their respective GRC Heads of Research Councils (HORCs). Working group members serve on a voluntary basis, acting as the lead champions in their respective GRC regions, and, within the working group, support the various workstreams. Bi-annually, two co-chairs representing the Global North and the Global South are selected from amongst its members and are supported by their respective HORCs to lead the GWG.

Since its inception, the GWG's activities have been focused on sharing good practices amongst GRC-participating organisations and providing a space for discussion on how to advance the recommendations from the 2016 Statement of Principles and Actions. These have included strategic discussions and advancement of actions on gender-disaggregated data; collating case studies of practices of funding agencies across actions of the Statement of Principles; advocacy and championing the implementation of the statement of principles across GRC participating organisations; focusing on sexual harassment and bullying; integrating gender and diversity dimensions in research design and content; and diversity and inclusion beyond gender equality. The GWG has convened strategic dialogues at GRC regional and annual meetings which aim to integrate the voices of funding agencies into its work.

In 2019, the GWG produced a booklet entitled, *"Supporting Women in Research: Policies, Programs and Initiatives Undertaken by Public Research Funding Agencies."* It was a significant contribution to a wider understanding of gender and equality issues showcasing the actions of GRC participants to further the equality and status of women in research. In that booklet, a number of actions related to practices and experiences in collecting, analysing and reporting gender-disaggregated data emerged including efforts aimed at understanding the national picture of gender in STEM (Sri Lanka, Zambia); collection of self-identification data, which contributed to agencies' capacity to monitor progress on increasing Equality Diversity and Inclusion (EDI) in programmes, recognise and remove barriers, and design measures to achieve greater EDI in research (Canada); and monitoring funding outcomes for men and women and preparing individual reports to each university on the gender profile of their researchers (Australia). This seminal report on the practices, trends and experiences of collecting and reporting gender-disaggregated data

complements the 2019 booklet. The report deepens the GRC's collective understanding on data, a complex yet necessary component in the optimal functioning of funding agencies. Research funders are aware of and appreciate the importance of investing in good practices of collecting and analysing disaggregated data. The GWG will continue to champion and facilitate the sharing of good practices amongst the GRC participants.

The GWG thanks all GRC participants who supported this project, including the dialogues during the 2019 regional and annual meetings. GWG member, Dorothy Ngila (National Research Foundation, South Africa), is acknowledged for her strategic direction on the GWG's data workstream conceptualisation and implementation, culminating in this report.

Composition of the Gender Working Group

Country	GRC Region	GRC Participating Organisation
Senegal	Sub-Saharan Africa	Ministère Enseignement Supérieur et Recherche
South Africa	Sub-Saharan Africa	National Research Foundation
Brazil (Co-chair)	Americas	Fundação de Amparo à Pesquisa do Estado de São Paulo
Canada	Americas	Natural Sciences and Engineering Research Council
USA	Americas	National Science Foundation
Argentina	Americas	National Scientific and Technical Research Council
New Zealand	Asia-Pacific	Ministry of Business, Innovation and Employment
Sri Lanka	Asia-Pacific	National Science Foundation
Germany	Europe	German Research Foundation
United Kingdom (Co-chair)	Europe	UK Research and Innovation
Oman	Middle East and North Africa	The Research Council
Saudi Arabia	Middle East and North Africa	King Abdulaziz City for Science and Technology
Europe		Science Europe

Professor Ana Maria F. Almeida (São Paulo Research Foundation - FAPESP, Brazil)
Roshni Abedin (UK Research and Innovation)
GRC Gender Working Group Co-Chairs

BACKGROUND

Since 2017, the Global Research Council (GRC) Gender Working Group (GWG) has championed the implementation of the GRC *Statement of Principles and Action Plan: Promoting the Equality and Status of Women in Research.* The aforementioned provides GRC participants with ten actions anchored on two considerations - the participation and promotion of women in the research workforce, and the integration of the gender dimension in research design and in the analysis of research outcomes. Of specific importance to the present report is Action 2 of the Statement of Principles and Action Plan, which posits that GRC-participating organisations should seek to:

> *Collect and make available data (against consistent parameters) for comparative analysis, potentially under the auspices of the GRC. The availability of disaggregated data on participation in research by different groups (for example by gender, age, discipline) would facilitate both benchmarking and a better understanding of the needs of different research systems. Currently data are often not available at a sufficiently disaggregated level.*

The present report is guided by the abovementioned two considerations and presents the trends and practices of GRC-participating organisations in collecting and reporting gender-disaggregated data across all five GRC regions - the Americas, Asia-Pacific, Europe, Middle East and North Africa, and Sub-Saharan Africa. The report presents the findings of the survey under three corresponding headings - applications, review and funding; gender and diversity dimension in research; and other gender-related aspects.

The survey was administered between September and December 2019. A total of 94 submissions from GRC-participating organisations were received. Of these, 27 were duplicate submissions, i.e. the same organisation responded more than once, and one incomplete submission, which generated a total of 65 valid responses. *Appendix 1* provides a list of countries and GRC organisations that were represented in the 65 valid responses across the five GRC regions. It is worth noting a number of characteristics regarding the GRC in relation to numbers - it is a virtual organisation where participation is voluntary; and there are two key ways of determining active participation of GRC-participating organisations - attendance at GRC Regional and Annual Meetings. Its foundational document

states that *"...it is expected that GRC participants will actively take part in Annual and Regional Meetings"*, that *"...each country should be represented by a maximum of two organisations"* and that *"...only organisations which actively take part in the Regional Meetings should be invited to the Annual Meeting."* Additionally, there are generally three categories of GRC participants:

i. Active participants;
ii. Those that have been active in the past but have not re-activated their participation in recent times for various reasons; and
iii. Those that may not have been engaged in the past but have expressed interest in participating in future meetings.

Considering all these aspects, there are approximately 112 countries and 128 GRC-participating organisations.

For purposes of this survey, considering the GRC Foundational document, and the timing of the survey, the GWG decided that the measure of participation in the survey would be benchmarked on GRC-participating organisations and countries that had participated in the 2019 GRC Annual Meeting. It needs to be noted therefore that 'population' is defined as the total number of GRC-participating organisations and countries that attended the 2019 Annual Meeting. Table 1 below shows that the survey attracted responses from an overall increased number of countries and GRC-participating organisations. Compared to the number of GRC-participating organisations mentioned above, an overall response rate of 50% was achieved.

Table 1: *Summary of survey response by region (compared to the numbers on participant list for the 2019 Annual Meeting)*

Regions	GRC Participation		2019 Annual Meeting		Survey	
	Number of Participating Countries	Number of Participating Organisations	Number of countries that attended the 2019 Annual Meeting	Number of organisations that attended the 2019 Annual Meeting [A]	Number of countries that responded to survey	Number of organisations that responded to survey [B]
Sub-Saharan Africa	24	24	9	9	14	14
Americas	17	22	7	9	10	12
Asia-Pacific	15	19	8	9	10	12
Europe	45	# 50	17	# 22	16	21
MENA	11	13	3	3	6	6
Total	112	128	44	52	56	65

 # Three supranational European organisations: the European Commission DG Research and Innovation, the European Research Council (ERC), and Science Europe were not invited to participate as they are not affiliated with any single country.

The structure of this report is as follows:

- **Section 1** presents key findings and recommendations from the survey.
- **Section 2** locates the results of the survey within broader practices of GRC-participating organisations, providing the context for data collection and reporting trends and practices.
- **Section 3** presents the survey results on the availability of gender-disaggregated data for funding applications, reviewers and funding outcomes, together with relevant insights from the academic literature. The literature-based insights are derived from a meta-analysis of research articles on gender and research funding.
- **Section 4** focuses on the gender dimension in research and again includes both an academic literature component and a summary of the relevant survey results.

- **Section 5** presents practices regarding two elements - data on any other aspect of diversity or equity-seeking groups, and on sexual harassment and bullying.
- **Section 6** presents a list of possible actions, and therefore an opportunity for collaboration and sharing of experiences per region and as a collective, in order to strengthen the capacities of GRC-participating organisations to collect and report gender-disaggregated data.

It is important to note that the term 'gender', as used in the larger part of this report and specifically in Section 3, reflects what is traditionally understood as 'sex'. In other words, the term refers to the binary classification of individuals as either a woman or a man. The reason for using 'gender' in this way (and not as indicating the social construction of woman/man or femininity/masculinity) is twofold. It corresponds to the majority of uses of the term in the literature review presented herein and it is also how the term was meant to be understood as part of the phrase 'gender-disaggregated data' in the survey instrument. When the term 'gender representation' is used, the focus is also binary (woman versus man). Although the focus is largely on researchers who identify or are classified as woman, it is acknowledged that women researchers and gender-diverse researchers should be mainstreamed through the collection of gender-disaggregated and diversity-related data. Finally, it needs to be noted that in the more nuanced academic literature on the gender dimension in research (in Section 4 of this report), a much clearer separation between the meanings of 'gender' and 'sex' starts to emerge.

SECTION 1: Key Findings and Recommendations

In 2018, the GWG presented an internal synthesis report based on a pilot desktop exercise amongst GRC-participating organisations representing Australia, Canada, the EU, Germany, Oman, Senegal, South Africa, Sri Lanka, Sweden, and the UK which were represented on the GWG at the time. The exercise sought to collate, synthesise, and understand efforts and challenges in collecting and reporting gender-disaggregated data amongst these GRC-participating organisations. The present survey was based on the results of this desktop study and built on a similar exercise implemented and authored by the Science Europe Working Group on Gender and Diversity in 2015 and whose results were published by Science Europe in 2017 in a report entitled *Summary of Implemented Indicators and Measures - Survey results and data on improving gender equality in research organisations.* Additionally, background work as discussion papers towards the development of the GRC statement of principles and action were consulted.[74,75]

The following are key findings from the present survey:

i. GRC-participating organisations broadly recognise the importance of appropriate actions regarding gender in research, and that they have a catalytic role to play.
   - 88% of GRC-participating organisations collect (any) data on the number of men and women, including outside of the grant-making function.
   - The majority of GRC-participating organisations started collecting gender-disaggregated data from 2004 onwards.

ii. Contextualised to the grant-making function of GRC-participating organisations, there are no specified standards adopted across the organisations regarding the collection and reporting of gender-disaggregated data.
   - Practices of GRC-participating organisations seem to be largely influenced by national contexts.
   - 82% collect gender-disaggregated data for funding applications and 77% collect data about the gender of the PI of a funded project. However, there are regional differences with GRC-participating organisations in Sub-Saharan Africa, MENA and Asia Pacific more likely to only collect data on funding applications.
   - The data collection practices are more nuanced with regard to other aspects linked to the research and

grants management process, for example the reviews process, with fewer GRC-participating organisations collecting this type of data.

- Respectively, only 15% and 9% of the 65 organisations that responded to the survey collect data on the integration of sex and gender considerations in the process of research production (research design and methods) and the process of research uptake (dissemination and use of research), with Europe as a leading region in this regard.

iii. The scope of data collected by GRC-participating organisations varies by region and by type of data collected.

- The majority of organisations collect gender-disaggregated data with a focus on performance indicators, with two specific indicators more likely to be a focus: funding applications and PI of a funded project.
- It is a positive trend that a number of GRC-participating organisations, although smaller in percentage, collect data beyond gender, with ethnicity and disability as key aspects related to diversity and equity seeking groups.
- Additionally, a positive trend can be seen with regard to policies and guidelines on sexual harassment and bullying where 54% of the organisations have an internal policy on this and 22% of organisations have taken a stance on harassment or bullying in settings outside the organisation.

The ideal is that each GRC-participating organisation, with time, should eventually respond 'yes' to all aspects enquiring about the collection of gender-disaggregated data for applications, reviewers and funding. This shared ideal provides an opportunity for **GRC-participating organisations to share good practices** with regard to relevant systems and processes.

The successful integration of sex and gender in research is (or should be) another ideal that is shared amongst GRC-participating organisations. To achieve that ideal, **clear guidance and guidelines are required as to the 'how' of successful sex and gender integration**. Although the guidelines to be used by each organisation need to be context-specific, it does not mean that the organisations should develop their own guidelines. **Some toolkits already exist, both within and outside the GRC, and their respective guidance could be extracted, synthesised and made both applicable and available to all GRC-participating organisations.**

GRC-participating organisations, especially those without an in-house business intelligence unit, are encouraged to partner **with research universities and other agencies with these capabilities** in their countries to co-analyse collections of gender-disaggregated data and datasets that allow for a gendered perspective on the processes and outcomes of funded research. The successful integration of gender (and other aspects of diversity and inclusion) is not only about **ensuring the incorporation of a gender dimension in funded research and in the definition of research priorities**, but also about **assessing the success of integrating gender in research, and what can be learned** from those assessments.

The GWG recommends that:

i. GRC-participating organisations should continue to collect gender-disaggregated data on applications, reviews and funding, and mainstream this across the various processes in the research and grants management pipeline.

ii. GRC-participating organisations should develop and continually expand consistent indicators to support efforts to collect and report gender-disaggregated data for comparative analysis. **Informed by this survey, the level of indicators can be focused on applications, reviews and funding; the gender dimension in research; and diversity and other equity-seeking groups.**

iii. GRC-participating organisations should pay attention to, collect data and report on diversity and other equity-seeking groups informed by national context, and in addition to gender-disaggregated data.

iv. GRC-participating organisations should pay attention to emerging scholarly contributions regarding the gender (and other aspects of diversity and inclusion) dimension in research, including the definition of research priorities, and engage in peer learning initiatives on how to contextualise this to the funding agency environment, including the development of a set of guidelines for integrating gender and diversity analysis in research tailored to address the needs of research funders, grant applicants, and peer-reviewers or evaluators in an inclusive way.

v. GRC-participating organisations, especially at the regional level, should continue to share good practices on collecting and reporting gender-disaggregated data, and especially guided by the areas of capacity strengthening outlined in Section 6 of this report. This type of data contributes positively to shaping the notions of impact and research excellence.

SECTION 2: Data within a Broader Context

The survey focused intensively on the collection and reporting of gender-disaggregated data regarding applications, reviews and funding on the one hand, and the emerging aspect regarding the gender dimension in research. The GWG was interested in locating these results within broader trends and practices of GRC-participating organisations.

One broader issue is the availability and use of national statistics on the percentage share of women and men in the researcher pool. In terms of the availability of national statistics on the gender of researchers, 28% left the question unanswered or stated no availability (Figure 1 below). This means that 72%, i.e. 47 of 65 organisations, reported availability of gender-disaggregated statistics for researchers at the national level. A notable smaller percentage of respondents (42%) indicated that the national statistics are also disaggregated by age and field. Further analysis revealed that, of the 47 organisations with relevant statistics available at the national level, only six do not use the national statistics for the analysis of gender equality.

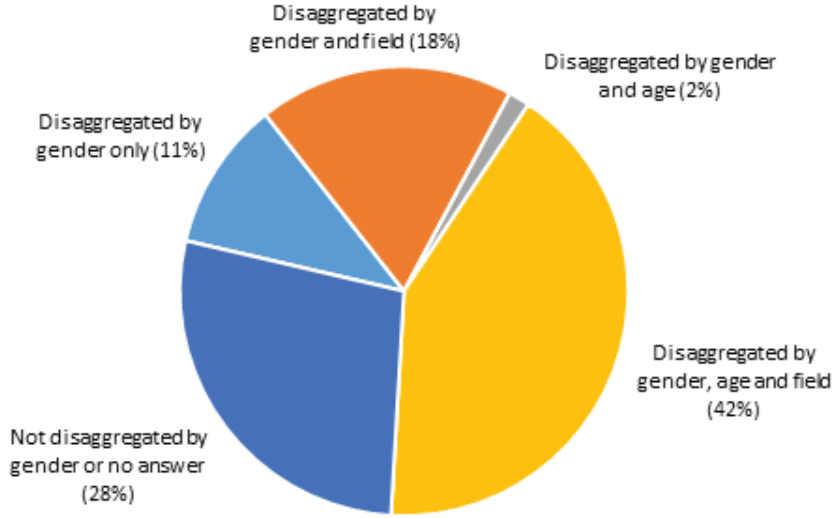


Figure 1: *Availability of national statistics on the percentage share of women and men in the researcher pool, and its disaggregation by age and research field (N=65)*

It needs to be noted that the national statistics referred to above most probably originate from a country's national survey on research and development (R&D), which some of the GRC-participating organisations have responsibility for collecting and reporting on. If one considers not only the 65 valid responses but also the total set of survey responses (74 in total, duplicates included), some lack of agreement between organisational representatives from the same country regarding the availability of gender-disaggregated national statistics and the breakdown by age and research field becomes apparent. Seventeen countries generated more than one survey response in the original dataset of 74 responses. There were only five of these countries where survey respondents from a country provided the same response as to the availability and disaggregation of the national statistics.

Moreover, information was gathered about five practices of GRC-participating organisations that could contribute to strengthening gender equality and equity. The first two actions relate to the collection of (any) data on the number of women and men, and the publishing of (any) data broken down by gender. In both cases the organisations were not asked to explain the data. Relatively large shares of organisations (88% and 78%) responded in the affirmative (Figure 2). However, it is important to note that this does not apply to all GRC-participating organisations. Table 2 shows the numbers of organisations per region that collect and/or publish data about women and men. Also, from Figure 3 it can be seen that almost half of organisations (31) collected their gender-disaggregated data only from 2004 onwards.

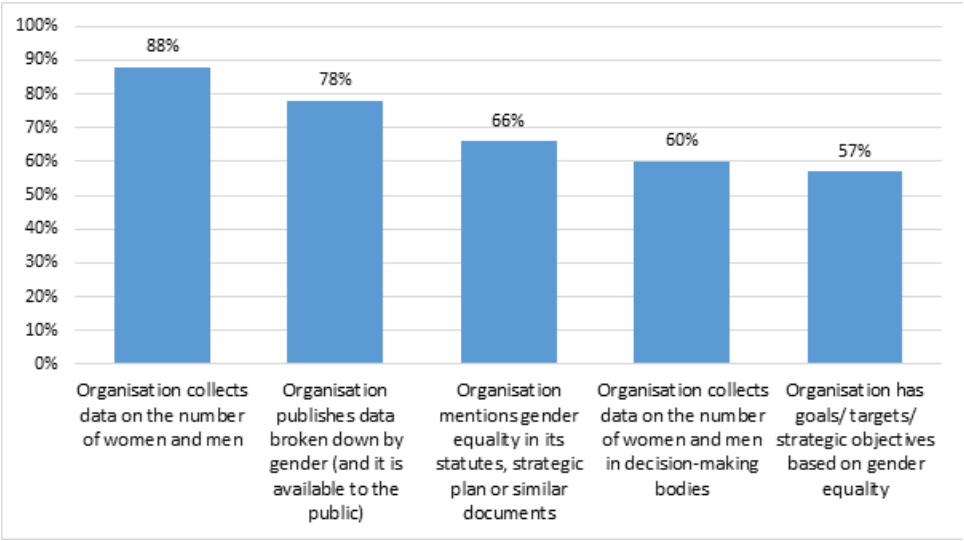


Figure 2: *Actions of GRC-participating organisations that promote gender equality (N=65)*

Equally informative is that only about two-thirds of organisations have references to gender in their strategic documents (Figure 2), with smaller percentages collecting data on the gender breakdown of their decision-making bodies (60%) and setting goals or objectives based on gender equality (57%). However, when asked what mandatory actions organisations are taken if the goals or targets are not met, almost all organisations merely described their goals and aspirations. Only two organisations provided concrete evidence of mandatory actions taken:

i. *"If the responsible colleague for the review process could not meet the target of the peer review group, (1) [they] have to rename additional female reviewers or (2) [they] have to document and give a reason for not being able to find enough female reviewers."*

ii. *"The organisation is subject to the national reporting framework developed by the national treasury (Ministry of Finance and Planning). When targets are not met, the organisation has to explain; put in place mitigation and corrective measures; and, in some cases, develop new programmes or interventions to contribute towards meeting the goals."*

Table 2 provides a breakdown of the responses in Figure 2 by region, showing that much more can be done across the five regions in this regard.

Table 2: *Actions of GRC-participating organisations that promote gender equality, by region*

Actions	Regions				
	Sub-Saharan Africa (N=14)	Americas (N=12)	Asia-Pacific (N=12)	Europe (N=21)	MENA (N=6)
Organisation collects data on the number of women and men	11	12	10	19	5
Organisation publishes data broken down by gender (and it is available to the public)	9	10	9	19	4
Organisation mentions gender equality in its statutes, strategic plan or similar documents	9	9	5	17	3
Organisation collects data on the number of women and men in decision-making bodies	5	8	7	16	3
Organisation has set goals/ targets/ strategic objectives based on gender equality for your organisation	5	7	6	16	3

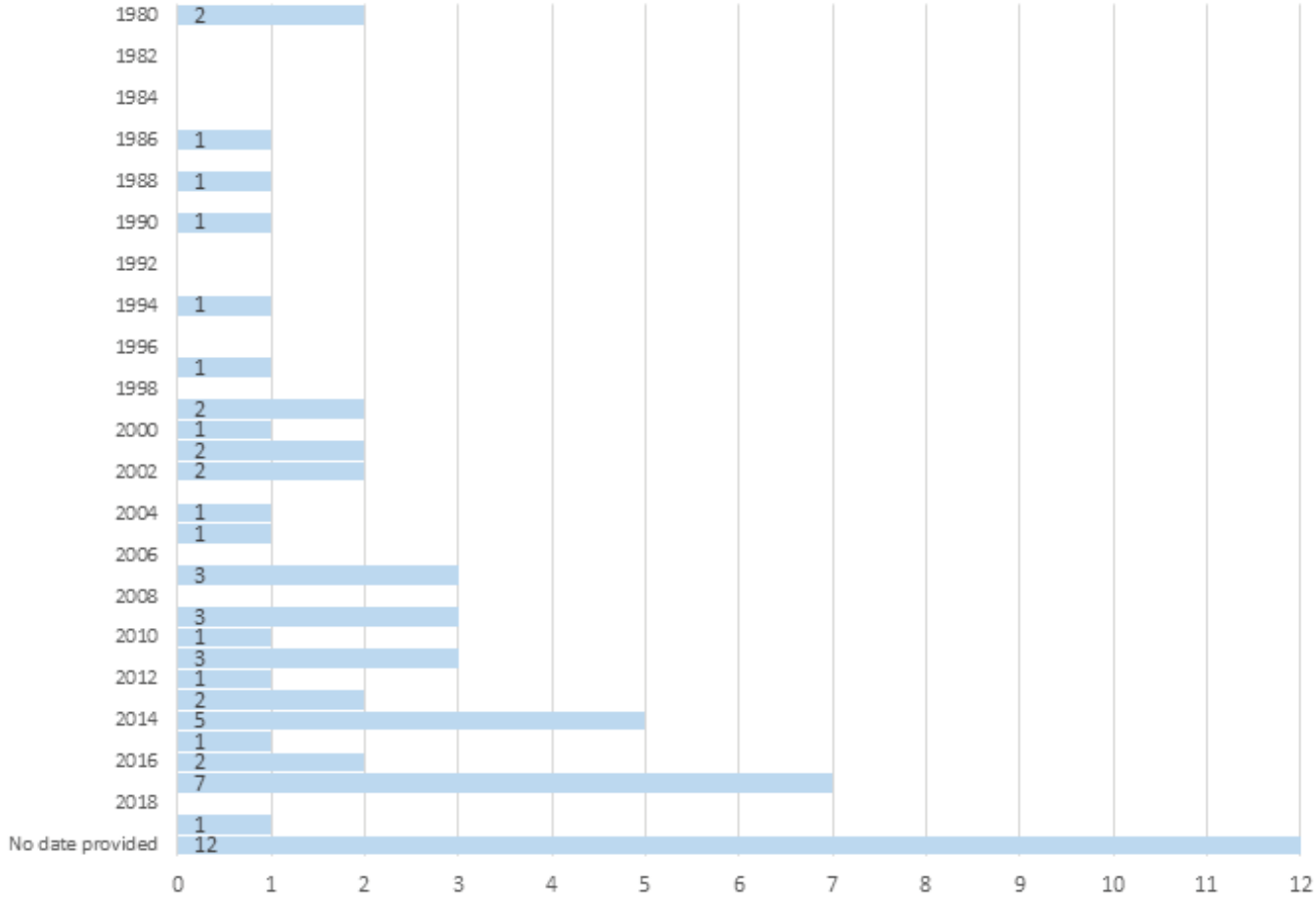


Figure 3: *Year that organisation started collecting data on the number of women and men (N=57)*

Finally, in terms of the frequency of collecting data on the number of women and men, 68% of organisations do so at least once a year. This category includes responses such as 'annually', 'every six months' and 'continuously with every application'.

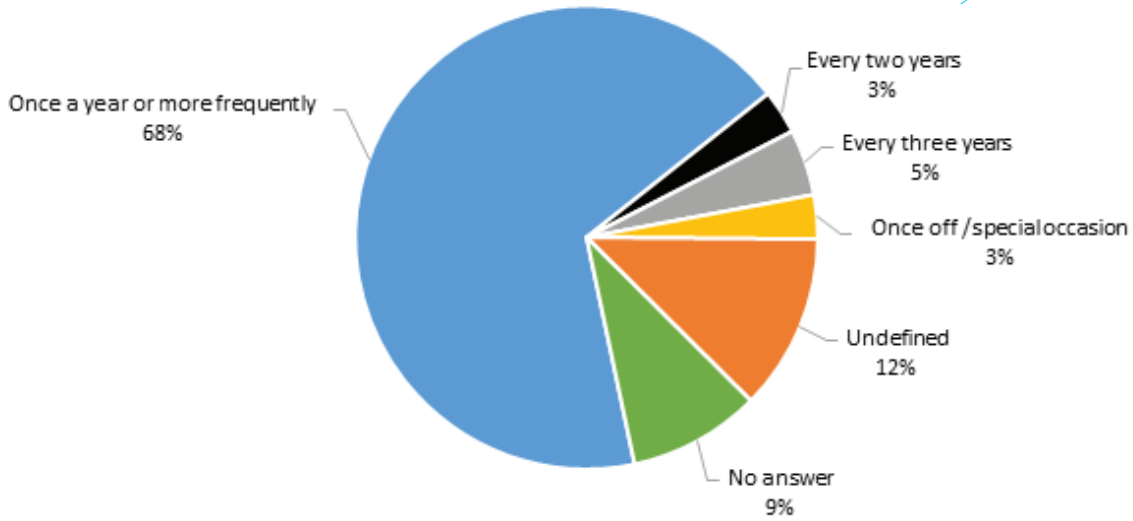


Figure 4: *Frequency of collecting data on the number of women and men (N=65)*

SECTION 3: Applications, Review and Funding

INTRODUCTION

Applying for and obtaining grants are measures of success in research, but, therefore, are also key drivers of inequality in, and attrition from, research careers. In that sense, funding patterns of agencies have ramifications for who participates and advances in research. Understanding the effect of gender on those funding patterns can shed light on the representation and status of women researchers in research. Grant application and success rates can further be used as markers for systematic bias and potential discrimination against women researchers during the grant review process. Interpretation of the outcomes of grant applications and the associated success rates, often heavily debated in the academic literature, highlights whether and how patterns of review and granting of funding applications should be changed in order to increase women's participation in research, and thereby improving the utilisation of human capacity for research.

INSIGHTS FROM THE ACADEMIC LITERATURE

Compared to other dimensions of gender disparities in science, the role of funding has been relatively understudied in the academic literature.[60] A search of the Web of Science database identified 65 publications that report results of empirical research, with publication dates ranging from 1974 to 2020 (46 years), and results covering the last 100 years (1917 to 2018). There are a number of aspects from this relatively small number of publications that are important for GRC-participating organisations and to contextualise the survey results.

Gender representation among funded scientists

Women, compared to men, hold fewer grants,[26,60,64,83,84] or have fewer funded studies,[35] especially as principal investigators (PIs).[20,42] The proportion of women among funded scientists remains low when taking into account their proportion among potential applicants,[84] or among first-grant awardees,[26,30,64] and at different career stages.[30] The proportion of women among funded scientists is lowest in academic fields where men are in the majority, e.g. engineering and natural sciences,[84] and it decreases with increasing seniority[4] or age[20]. It warrants mention that

a relatively small number of these publications (eight) argued that taking into account other factors (women's representation among potential applicants,[76,78] rank[84] or other characterises of scientists,[64] type of grant,[65,76] and representation among the largest research teams or groups[77] related to gender) in some cases removes or even changes around the observed gender difference. Of these, two studies indicated that women authors' presence is higher among funded research[19,77] and an additional study found no significant difference over eight decades in the proportion of women and men who received financial support.[3] Two further studies also report developments towards gender parity in the form of an increase in the percentage of grant awards to women[5] and in women award holders.[72] However, it should be noted that a significant downward trend in the number of women with grants, when compared with the trend of their male counterparts, was reported in one instance.[51]

Gender representation among grant applicants

Most of the studies reviewed support the argument that the minority of research grants are awarded to women. Women constitute a lower percentage of applicants[2,57,68,83] and submit fewer applications than men,[23,63] especially as lead applicants[53]. Three studies reported indication of gradual increases in women's representation among applicants[4,5] or that application conduct does not differ by gender[10] or is similar to gender differences in the applicant pool[23,84]. It also needs to be taken into account that women's representation among applicants varies by number of gender-related factors. For example, it is lower among biomedical than behavioural sciences,[2] as well as among basic sciences,[68] and feminised fields.[84] The percentage of women applicants is also lower for prestigious grants,[34] for those for which only tenured researchers are allowed to apply,[57] and for basic research grants compared to personnel, human resources, or mentored awards.[18,30,70] These patterns can be alluded to the notion of a "leaky pipeline" where fewer women researchers are represented in the established researcher pool.[70] Indeed, women and men have been found to be equally represented among applicants in the postdoctoral career stage,[20] and in the youngest age cohorts,[2] while they are under-represented among lead applicants.[53] When academic rank is accounted for, there is little difference between women and men in terms of application rate.[43] In fact, women in some ranks (full professor, associate professor and assistant professor) have been found to be more likely to apply than their male colleagues.[84] However, results are not consistent - women's application rates have been found to be lower than men's from the earliest career stage,[24] and significantly lower at the lowest faculty rank.[23] In addition, men with previous experience as grantees had higher subsequent application rates than women at similar career points,[30] and women seem to be less likely to resubmit when their proposals were rejected.[4]

Success rates (evaluation scores and approval rates) by gender

With regard to the evaluation of applications, the available evidence shows that women's applications obtain lower scores than those of men,[57] even after controlling for advanced degree.[24] One study found no gender difference in the case of evaluations of research potential in an early-career competition.[68] The focus of an evaluation is an important aspect to consider. Three studies found that women receive less favourable assessments of their quality as applicants, but not if the quality of their proposed research is evaluated.[6,47,81] Only one study found the opposite result.[68] Studies of a qualitative nature provide an even more nuanced perspective on the way in which gender stereotypes may operate in grant peer review. Two textual analyses of reviewers' critiques showed differences due to applicant gender, despite similar application scores (or funding outcomes). The first of these studies found that reviewers offered more praise and acclamation for women's applications, while critiques for male applicants contained significantly more negative words. This is consistent with stereotype-based assumptions (lower performance expectations for women), and these cause a subtle adjustment of evaluation standards, because it may require more proof of a man's lack of competence for him to be deemed incompetent.[44] The second textual analysis of grant applicants found that men were described as ''leaders'' and ''pioneers'' in their ''fields,'' with ''highly innovative'' and ''highly significant research.'' By comparison, women were characterised as having ''expertise'' and working in ''excellent'' environments. If reviewers more easily view men than women as scientific leaders with significant and innovative research, they would score their applications more competitively.[58] Gendered language in evaluation materials that are provided to reviewers is likely to exacerbate the operation of gender stereotypes during the review process. One study found the use of such gendered language, favouring male applicants, in evaluation sheets and instructions for reviewers. More specifically, the prevalence of masculine-gendered wording was most clearly visible in the main evaluation criteria.[47] There are only two studies that found no evidence that gender of the applicant had an impact on ratings by reviewers.[8,71]

With regard to the rate at which funding applications are approved, the published studies, including two narrative reviews of research found in some cases, women's applications are less successful than those of men, and in others very little or no significant gender differences in this rate.[2,4,5,22,24,27,30,31,48,49,57,67,83] It is worth noting here that methodological differences make it difficult to make consistent conclusions. A quantitative meta-analysis of 21 studies published between 1987 and 2005, and referring to periods between 1979 and 2004, provided evidence that men have statistically significant greater odds of receiving grants than women.[12] There have been additional

studies that have taken into account gender-related variables including track record of applicants, type of grant,[18,64] highest degree,[20] and career stage[20,30] of applicants, country, and discipline with results that are inconsistent where gender differences are found in some studies and not in others. There are too few studies that have studied the effect of the gender of peer reviewers on women's funding outcomes. However, one study did find that differences in assessments of men and women applicants disappeared after the funding agency introduced a reviewer training module in an attempt to reduce potential reviewer biases.[82]

Gender differences in size of funding (amount and duration) awarded and/or requested

By far the majority of studies on gender differences in the amount of funding awarded, found that women's funding amounts were smaller than those of men,[2,4,14,23,34,35,40,42,53,62,65,80,84] in both absolute and in relative terms,[35,66] and when direct and indirect costs are considered.[5] This disparity exists even in certain ranks where women receive more awards,[84] and does not seem to be affected by a range of other factors that researchers took into account.[14,32,34,35,66,78,84] Fortunately, the amount of funding awarded to women seems to have increased over time[35] at a greater rate than the case is for men, as two studies showed.[5,62] The gender difference in funding amounts awarded tend to be greatest at the lower ranks[23,40] or in early career stages, amongst those with 10 or fewer years of experience.[40] However, it was also found to be greatest amongst those older than 49,[39] those who hold a PhD,[40] in academic fields where men are in the majority,[84] and for the highest-funded grant types.[78] The gender gap in the amount of funding awarded is small or absent in a few instances, e.g. in particular sub-fields,[35] for smaller grants,[39] and when seniority, advanced degree, or academic rank is taken into account.[5,24,43] Only two studies reported that women received larger awards than men.[30,78] In both cases, the results were found for the US National Institute of Health's R01 grants – the most frequent awards for first-time awardees. Some of the research reviewed in this area further shows that women do request smaller awards than men do,[2,5,23,24] or are more likely to apply for smaller grants, or those with constrained budget limits.[5] In addition to being awarded smaller funding amounts,[14,23,32] women's funding awards also tend to be of shorter duration than those of men.[4,5,23,39,76]

In addition, a search of the Web of Science (WoS) database, focussing on the last 10 years (2011 to 2020), identified 29 English-language articles that report the results of empirical research on gender and research funding. Each of the 29 articles was classified in terms of whether the funding data reported on were publicly available or not, and in terms of a number of data-related aspects (Article title (authors, year), topics covered, database used, data on

gender indicated, and limitations of the studies).

A number of key findings relevant to GRC-participating organisations warrant mention in this regard. Firstly, on the choice of databases used to inform studies indicated in the 29 articles:

- Academic studies that report analyses of publicly available funding data seem to be concentrated in health research.
- Overall, data from countries in North America and Europe dominate the English-language published academic literature on research funding and gender.
- Developing countries are largely understudied and presumably covered in the funding data obtained from development aid organisations and charitable organisations.

Secondly, on determining the gender of the funding applicants and recipients in the available data records, three methods can be observed from these 29 articles:

- The study authors assigned gender manually based on the names and pronouns of the individuals concerned and by consulting external data, e.g. institutional websites, biographies and photos. This means that gender was decided according to typical names of women and men, and based on facial appearances (where photos were used).
- A second but related method is where the assignment did not occur manually but was determined algorithmically from the first names of funding applicants and recipients. The algorithms operated on the assumption that women and men have names that are clearly distinguishable.
- In other instances, self-reported data were used. Arguably, self-reporting allows best for self-identification in terms of gender, depending of course on the list of options used for constructing gender in the data collection templates, i.e. binary or not. Unknown or withheld responses appear to be excluded in most analyses.

In conclusion, there are a number of observations regarding these insights from academic literature. Firstly, there are too few studies that have been conducted regarding gender and funding, including in relation to applications,

reviews and success rates for funding. There are even fewer studies that take into account factors or characteristics related to gender. Secondly, based on the few studies available, there is consistency in findings that:

i. Women, compared to men, hold fewer grants, or have fewer funded studies, especially as principal investigators (PIs);
ii. The minority of research grants are awarded to women;
iii. With regard to the evaluation of applications, the available evidence shows that women's applications obtain lower scores than those of men;
iv. There are too few studies to reach conclusive results with regard to gender differences in the rate at which funding applications are approved;
v. Women's funding amounts are smaller than those of men;
vi. More on gender and funding has been studied in the developing North; and
vii. There are methodological differences in determining the gender of funding applicants and recipients.

A general observation is that funding data, when related to gender, tend to be analysed in 'silos' - a focus on a specific funding agency; a specific funding programme; a specific field; a specific time-period. From the point of view of a funding agency, however, and even more so from a research policy perspective, a more comprehensive and dynamic view is required. Such a view would include, for instance, a systematic comparison of research fields, where the comparison is informed by data that are routinely collected according to gender-sensitive categories in order to enable both monitoring and longitudinal data analysis.

SURVEY RESULTS

Six items in the GRC-GWG survey enquired whether organisations collect any gender-disaggregated data on funding applications, reviewers and funding outcomes. The individual items are:

- Applications
  - *Organisation collects data on the number of applications from women and men (yes/no/no answer)*
  - *Organisation collects data on the number of successful applications from women and men (yes/no/no answer)*
- Reviewers
  - *Organisation collects data on the number of women and men reviewers (yes/no/no answer)*
  - *Organisation collects data on the number of women and men review panellists (yes/no/no answer)*
- Funding
  - *Organisation collects data on the gender of principal investigators of funded research projects (yes/no/no answer)*
  - *Organisation collects data on the average size of grants awarded to women and men (yes/no/no answer)*

Figure 5 below shows the percentages of GRC-participating organisations that responded 'yes' to each item. Most organisations (82%) collect gender-disaggregated data for funding applications, which means that 18% of organisations do not ('no' or 'no answer'). In a few instances, it seems as though the gender-disaggregated data for funding applications has become 'un-associated' with the data about funded projects (82% of organisations collect data on the gender of successful applicants, whereas 77% collect data about the gender of the PI of a funded project – the latter data should have been available for 82% of organisations). Gender-disaggregated data for reviewers (57%) and review panellists (59%) are the least likely to be collected.

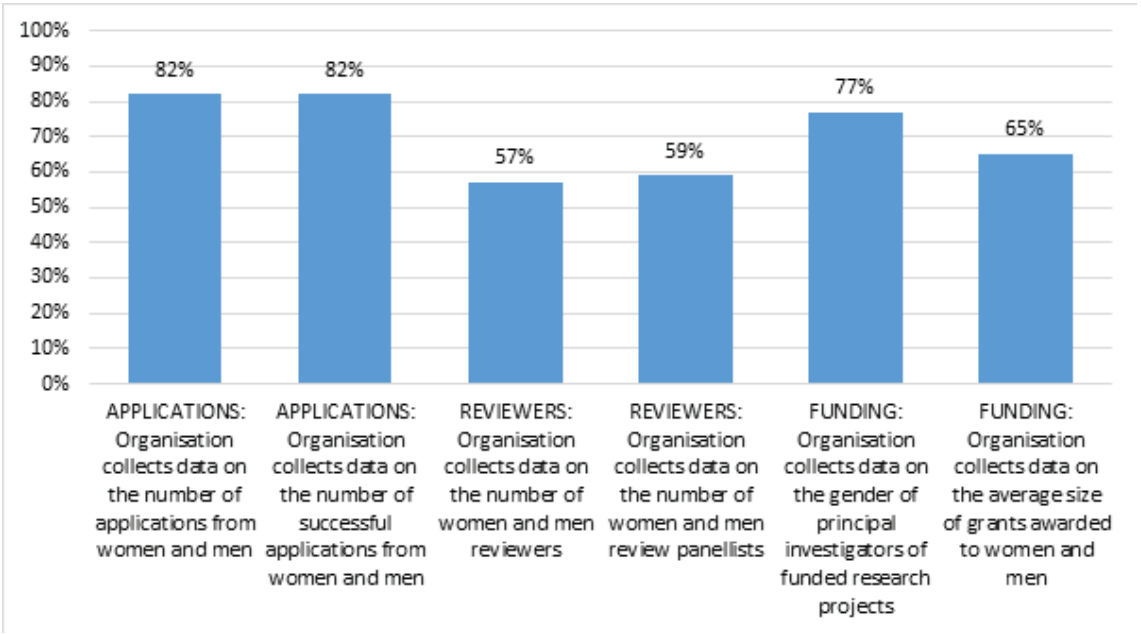


Figure 5: *Percentages of GRC-participating organisations that collect gender-disaggregated data for applications, reviewers and funding (N=65)*

Table 3 reports the numbers of organisations, per region, that collect gender-disaggregated data. In each of the Sub-Saharan African, American and Asian-Pacific regions, at least one organisation collects data on the number of successful applications from women and men but does not do so on the number of women and men among the PIs of funded projects. Organisations in the MENA region (Middle East and North Africa) are least likely to collect gender-disaggregated data on reviewers and review panellists.

Table 3: *Number of GRC-participating organisations that collect gender-disaggregated data for applications, reviewers and funding, by GRC region*

	Regions				
	Sub-Saharan Africa (N=14)	Americas (N=12)	Asia-Pacific (N=12)	Europe (N=21)	MENA (N=6)
APPLICATIONS					
Organisation collects data on the number of applications from women and men	11	10	9	17	6
Organisation collects data on the number of successful applications from women and men	11	11	8	17	6
REVIEWERS					
Organisation collects data on the number of women and men reviewers	8	7	6	16	0
Organisation collects data on the number of women and men review panellists	7	6	7	17	1
FUNDING					
Organisation collects data on the gender of principal investigators of funded research projects	9	10	8	17	6
Organisation collects data on the average size of grants awarded to women and men	7	7	7	16	5

Figure 6 reports figures only for the items on applications and funding. Figure 2 is similar to Figure 5, except that, for each instance of gender-disaggregated data, it shows whether the data intersects with data about funding scheme and research field. As can be seen, this intersection is evident in most cases. For instance, 65% of organisations collect gender-disaggregated data for successful funding applications where the data can be broken down by both funding scheme and research field. Another 8% and 6% respectively collect gender-disaggregated data for successful applications, where the data intersect with either funding scheme or research field. However, instances of three-fold data classification, across the four cases, never exceed three-quarters of cases, i.e. 67%, with the lowest figure (49%) associated with gender-disaggregated data about grant size that can also be disaggregated in terms of the other two variables.

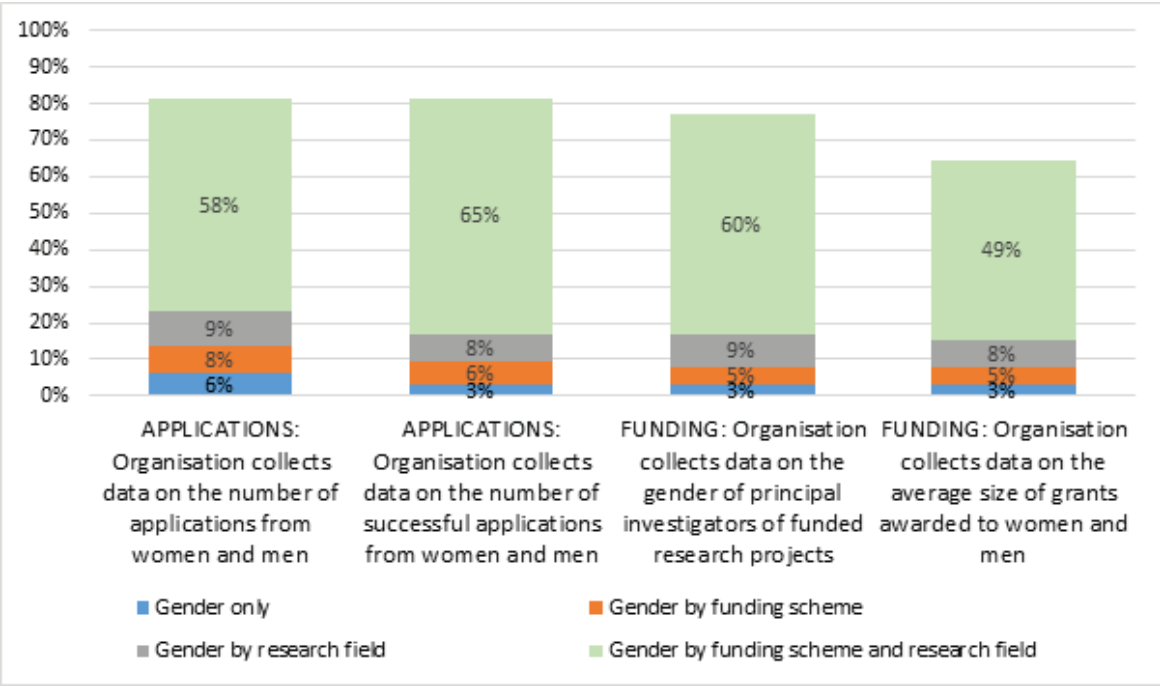


Figure 6: *Percentages of GRC-participating organisations that collect gender-disaggregated data, and the intersection with other data on funding scheme and research field (for applications and funding)*

Table 4 shows how the collection of gender-disaggregated data intersects with data about funding scheme and research field in each of the five regions. The Americas, as a region, ranks first in three of the four cases. For instance, 83% of the 12 organisations in the region collect data on the number of successful applications from women and men, where the data can be broken down by funding scheme and research field. On the other hand, in terms of collecting data on the average size of grants awarded to women and men, also by funding scheme and research field, the European region is most prominent (62% of the 21 organisations reported this form of intersectionality).

Table 4: *Percentages of GRC-participating organisations that collect gender-disaggregated data, and the intersection with other data on funding scheme and research field, by GRC region*

	Regions				
	Sub-Saharan Africa (N=14)	Americas (N=12)	Asia-Pacific (N=12)	Europe (N=21)	MENA (N=6)
APPLICATIONS: Organisation collects data on the number of applications from women and men					
Gender only	7%	8%	8%	0%	17%
Gender by funding scheme	14%	0%	0%	14%	0%
Gender by research field	14%	0%	0%	5%	50%
Gender by funding scheme and research field	43%	75%	67%	62%	33%
APPLICATIONS: Organisation collects data on the number of successful applications from women and men					
Gender only	7%	8%	0%	0%	0%
Gender by funding scheme	7%	0%	0%	14%	0%
Gender by research field	14%	0%	0%	5%	33%
Gender by funding scheme and research field	50%	83%	67%	62%	67%
FUNDING: Organisation collects data on the gender of principal investigators of funded research projects					
Gender only	7%	0%	8%	0%	0%
Gender by funding scheme	0%	8%	0%	10%	0%
Gender by research field	14%	0%	0%	10%	33%
Gender by funding scheme and research field	43%	75%	58%	62%	67%
FUNDING: Organisation collects data on the average size of grants awarded to women and men					
Gender only	0%	0%	0%	0%	33%
Gender by funding scheme	7%	0%	0%	10%	0%
Gender by research field	7%	0%	0%	5%	50%
Gender by funding scheme and research field	36%	58%	58%	62%	0%

NOTE: *The sum of percentages is less than 100% in some columns because either no gender-disaggregated data is collected or no answer was provided.*

SECTION 4: Gender Dimension in Research

INTRODUCTION

The gender dimension is considered an important criterion for quality research. The most recent framework programme of the European Commission, i.e. Horizon 2020, for instance, under the heading of 'excellence', required funding applicants to describe how a sex or gender analysis is incorporated in their project's content.[17] Integrating a gender dimension in the contents of research means that sex and gender analyses are mainstreamed throughout all stages of the research process – from research conceptualisation, design and execution to the dissemination of research, including the services and products that result from research and innovation (R&I).

An evaluation of gender equality as a crosscutting issue in Horizon 2020 studied, among others, the implementation of the gender dimension in the R&I content of projects submitted.[17] The study qualitatively analysed 111 out of 263 projects associated with gender-flagged topics. The evaluation team coded the projects into three categories as illustrated in Table 5 below. What the coding exercise showed, is that only 15% of the study projects had successfully integrated the gender dimension in their research content. The majority of projects made only brief references to the gender dimension (44%) or had misinterpreted it as implying gender balance in project teams. The evaluation report made a number of recommendations to improve the incorporation of the gender dimension in the contents of R&I projects (*see Box 1*).

Table 5: *Table 5: How R&I projects in Horizon 2020 addressed the gender dimension of research*

Coding categories	Count
Projects carry out a full gender analysis and a sex analysis where appropriate, take the gender dimension seriously into account and integrate gender in a good sense throughout the whole project. They integrate the gender dimension into a significant part of their activities, at various levels, such as in theoretical background, methodology, and the impact and dissemination sections. The result is a clear vision of how the gender dimension will be integrated into the research content, and good internal coherence within the project. These projects tend to include good gender expertise and, more generally, social science expertise in the teams.	17 (15%)
Projects discuss gender dimension in a few lines, with no further development. Some of these projects develop to some extent a sex analysis but miss the gender analysis while it is relevant.	49 (44%)
Projects only mention (generally rapidly) gender balance in the team and completely miss any gender dimension in their research.	45 (41%)

SOURCE: *European Commission (2017: 24, Table 11) (Note: the percentages in the original report are incorrect and have been corrected here.)*

BOX 1: Suggestions to better integrate the gender dimensions in the content of R&I projects of the European Commission

- Further efforts need to be made to improve the understanding of the notion of "gender dimension in research and innovation content" at applicant level, among evaluators and among Commission and Agency personnel.
- Topics need to be very explicit, explaining how the gender dimension should/could be included, and at all levels. A minimum of two lines of text is a good criterion. Topics should also include an argument for why gender is important to the call.
- Topics should encourage having social scientists as coordinators – this often leads to better integration of the gender dimension.
- The inclusion of gender expertise in consortia should be further encouraged.
- For the applicants, simple guidelines for the inclusion and evaluation of the gender dimension in research content should be developed (based on comprehensiveness: if gender is well integrated, it appears in the different dimensions of a proposal). There is already very good material available. A specific tool to help applicants draft research proposals would nevertheless be useful.
- Offering the possibility of having gender training as an eligible cost is not sufficient. It should be further incentivized. Terminology may be an issue for scientists ("gender workshops" or "capacity building workshops" could be more appropriate than "training".)
- Beneficiaries should be requested to provide information on how much money is spent for gender training or for sub-contracting external gender expertise.
- Regarding evaluation panels, the evaluators – and moderators – should be trained on how to consider the gender dimension but also on how to improve quality of evaluation, for instance by avoiding unconscious biases.

Source: European Commission (2017: 38)

A few toolkits have already been developed to guide the integration of the gender dimension in research (*see Box 2)*.

BOX 2: Examples of existing tools to guide the integration of the gender dimension in research

(IGAR = Recommendations for Integrating Gender Analysis into Research
http://igar-tool.gender-net.eu/en

Gendered Innovations in Science, Health and Medicine, Engineering, and Environment
http://genderedinnovations.stanford.edu/

Canadian Institutes of Health Research (CIHR) – a set of online training modules on how to integrate sex and gender in health research.
https://cihr-irsc.gc.ca/e/49347.html

Toolkit: Gender in EU-funded research.
https://op.europa.eu/en/publication-detail/-/publication/c17a4eba-49ab-40f1-bb7b-bb6faaf8dec8

INSIGHTS FROM THE ACADEMIC LITERATURE

In the academic literature, studies and overviews of the incorporation of a gender dimension in research seem to be largely confined to health research. These are often domain- or field-specific, focussing among others on the gender dimension in clinical research;[37,59] research in the basic life sciences;[28] anaesthesia research;[41] pharmaceutical policy research;[25] pharmacy practice research[50] and food allergy research.[15] Studies of the gender dimension in research outside health are also fast emerging. Examples include studies in fisheries research,[36] forestry research,[45] geographical research[69] and information systems research.[1]

Although gendered-processes in research are ever-present, they largely escape the eye of researchers.[29] At the same time, the subtle working of gendered-processes in research should be made explicit and cannot be ignored. In health, for instance, the incorporation of gender and sex considerations in research are important to ensure that health treatments deliver expected benefits to both men and women. Also in health, it is believed that the

integration of sex and gender in research will lead to better research evidence. It is further recognised that activities to integrate gender in health research are in much need of improvement. A number of challenges, as experienced by health researchers, emerged from a study of a Canadian research agency that supports researchers to improve the quality of integrating a gender dimension in research.[13]

- The first challenge experienced by researchers was a confusion of terminology, as sex and gender are used inconsistently and incorrectly in different publications and sources. Agreements on terminology is therefore an important first step for better integration[13] (*see Box 3*).
- A second challenge relates to the application of the two concepts in specific contexts. Each concept (sex and gender) has limited explanatory power and should ideally not be considered in isolation. Concepts from additional contexts also need to be considered in order to strengthen the explanatory power of sex and gender. Intersectionality, therefore, becomes important as gender and sex intersect with other variables, e.g. race, age, socio-economic status, to influence health outcomes.[13] Also, systems of inequity (sexism, classism, racism, homophobia, etc.) intersect to create complex power relations so that there is a need to focus on the diverse realities of groups and individuals that are situated within multiple power structures and systems of oppression.[63]
- The influence of gender, sex and intersectionality on research evidence should always be recognised, even in settings where such influences might be perceived as irrelevant, e.g. in laboratory studies or in studies that involve non-human subjects. Often researchers consider the gender dimension as an add-on or a form of tokenism, whereas it is crucial for better health outcomes – a message that needs to be emphasised.[13]
- The availability of relevant data to analyse sex and gender presents another challenge. This is particularly the case where researchers do not collect primary data but rely on secondary data. Although existing datasets might allow for sex-disaggregated data, variables required for a gender analysis, e.g. household composition and caregiving responsibilities, might not necessarily be available.[13]

BOX 3: Distinguishing between sex and gender

Sex refers to the biologically determined characteristics of men and women in terms of reproductive organs and functions based on chromosomal complement and physiology. As such, sex is globally understood as the classification of living things as male or female.

Gender refers to the social construction of women and men, of femininity and masculinity, which varies in time and place, and between cultures. The notion of gender appeared in the seventies and was put forward by feminist theorists who challenged the secondary position of women in society. It departs from the notion of sex to signal that biology or anatomy is not a destiny. It is important to distinguish clearly between gender and sex. These terms are often used interchangeably while they are conceptually distinctive.

Source: European Commission (2011: part1.2)

Another overview study, in health systems research, brought to light additional insights concerning the integration of a gender analysis in the contents, processes and outcomes of research.[52] In terms of research content, three requirements seem evident.

- The first is the availability of sex-disaggregated data. This means that the data must include sex as a variable, and ideally allow for other response categories, e.g. intersex, other than the female-male binary, in addition to other social stratification variables such as age, socio-economic status, disability and geographic location.[52]
- The second requirement is a need to pay attention to gender frameworks, given that such frameworks can serve as analytical guides to highlight the key domains that define gender power relations in a research study. The domains can, for instance, be understood through the lens of a gender framework that asks four questions:
  i. Who has what (resources and access to resources);
  ii. Who does what (division of labour and everyday practices);
  iii. How values are defined (norms, values and beliefs); and
  iv. Who makes the decisions and sets the rules.

  These four broad questions can deliver insights as to how power relations are constituted and negotiated.[52]

- The third requirement is the need for more specific gender analysis questions, as probes to the four broad categories of questions in the gender framework. For instance, pertaining to the 'who does what' question, more specific gender analysis questions would probe, for instance, service delivery (how do women's social roles affect their access to health facilities); human resources (to what extent are women more likely to work in management positions than men); health financing (to what extent are health budgets debated by political parties and are these parties dominated by men or women); etc.[52]

In terms of the integration of a gender analysis in the research process, the focus is on power balances (or imbalances) that manifest in the process of knowledge creation. For example, in reflecting on practices of data collection, which is one of the stages in the research process, attention needs to be paid to who participate as respondents and under what conditions. Are the process of selecting respondents, for instance, introducing gender power imbalances in cases where only the most visible or the most opinionated or those with less gatekeeping restrictions are included? How does the time of the day set aside for data collection affect the participation of women? Also, how does the presence of others during data collection influence the truthfulness of responses from women and men respectively?[52]

In terms of research outcomes, a main question is who is empowered or disempowered by the results of health systems research, and how gender power relations are transformed through the research. The ideal is to ensure that existing, negative gender and health outcomes are not sustained through the research but positively transformed.[52]

Finally, an evaluation of an Austrian funding programme that integrates the gender dimension in its research contents, and which focuses on gender-sensitive topics, revealed a number of positive research outcomes associated with attention being paid to the gender dimension.[56] These include an increased gender competence of researchers (better research proposals for other funding schemes) and competences regarding gender that can be included in teachings and trainings. The inclusion of a gender expert as a collaboration partner also contributed to new and sustainable collaborations being developed.

SURVEY RESULTS

Six survey items reflected on the gender dimension in research, three of which enquired about the nature of guidance provided, and the other three about data collection with a gender dimension in mind.

In terms of guidance, only 28% of the 65 GRC-participating organisations have a policy or guideline on the gender dimension in research (Figure 7). Even smaller percentages of organisations provide instructions for applicants and reviewers (23% and 19%, respectively) on the gender dimension in research.

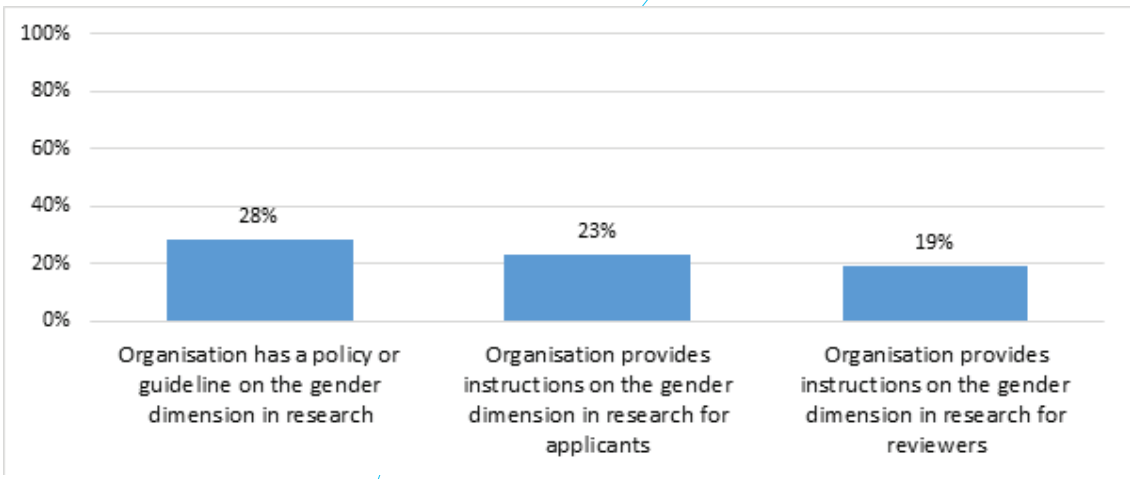


Figure 7: *Guidance provided by the GRC-participating organisations on the gender dimension in research (N=65)*

Figure 8 shows the distribution of percentages, in terms of guidance provided on the gender dimension in research, by region. For all three items on guidance, the European region is the most likely to exhibit that guidance (percentages of between 38% and 57%). The MENA region is the least likely to do so as none of the surveyed organisations (0%) in that region provides guidance on any of the three aspects of interest.

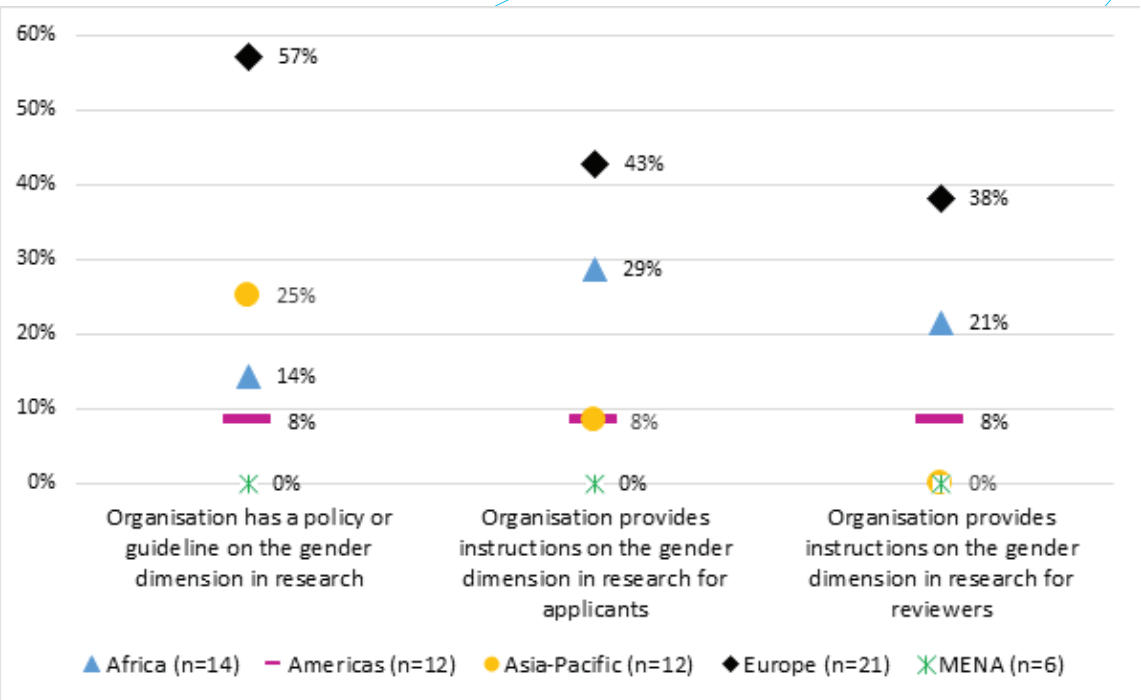


Figure 8: *Guidance provided by the GRC-participating organisations on the gender dimension in research, by region*

In Table 6 below, the respective responses to the three items have been combined to reflect a set of mutually exclusive categories. Ten organisations indicated that all three items apply to them, namely that they have a policy or guideline in place and that they also provide instructions to both applicants and reviewers. Two of the organisations are outside Europe, namely the Natural Sciences and Engineering Research Council in Canada (Americas) and the National Science and Technology Council of Zambia (Sub-Saharan Africa). Instructions about the gender dimension in research, where those exist, are communicated mainly as written guidelines (Table 7).

Table 6: *Guidance provided by the GRC-participating organisations on the gender dimension in research, by region*

Categories (mutually exclusive)	Regions					
	Sub-Saharan Africa	Americas	Asia-Pacific	Europe	MENA	Total
Policy or guideline on the gender dimension in research	1	0	2	3	0	6
Instructions on the gender dimension in research for applicants	1	0	0	0	0	1
Policy or guideline on the gender dimension in research and instructions on the gender dimension in research for applicants	0	0	1	1	0	2
Instructions on the gender dimension in research for both applicants and reviewers	2	0	0	0	0	2
Policy or guideline on the gender dimension in research only and instructions on the gender dimension in research for both applicants and reviewers	1	1	0	8	0	10
None of the above	9	11	9	9	6	44
Total	**14**	**12**	**12**	**21**	**6**	**65**

Table 7: *How instructions about the gender dimension are communicated to applicants and/or reviewers*

Responses	Count
Written guidelines	12
Face to face training	1
Online training modules	1
Approved funding guidelines	1
Clearly stipulated on the gender policy, reviewer's guideline, research and innovation grants manual	1
During call for applications, women are encouraged to apply. Call requirements encourage applicants to apply in teams that would involve women researchers as an affirmative action.	1
It is part of the review criteria	1
Webpage	1

Collecting data on the gender dimension in research is largely the exception rather than the rule (Figure 9). Respectively 15% and 9% of the 65 organisations collect data on the integration of sex and gender considerations in the process of research production (research design and methods) and the process of research uptake (dissemination and use of research). In terms of the number of funded projects that include a gender dimension, the figure of 23% is somewhat higher but still represents less than a quarter of organisations.

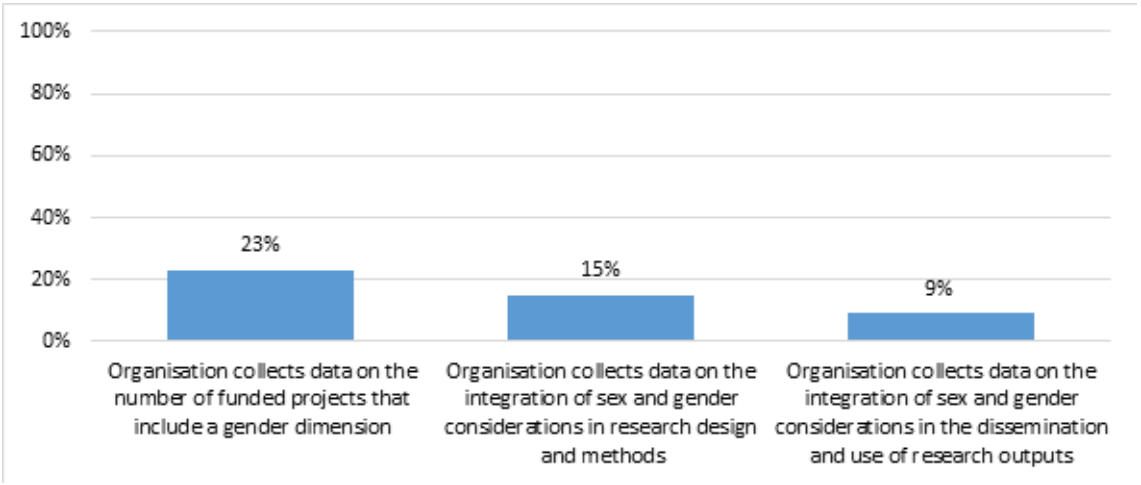


Figure 9: *Data collected by the GRC-participating organisations on the gender dimension in research (N=65)*

According to Table 8, more organisations in Europe are inclined to collect data, in one form or other, with the gender dimension of research in mind (only 11 out of the 21 European organisations reported that they do not do so). In the other four regions, almost all organisation do not collect any data on the gender dimension of research (based on figures in the 'None of the above' cells in Table 8). Six exceptions are the National Science and Technology Council of Zambia (Sub-Saharan Africa); the Uganda National Council for Science and Technology (Sub-Saharan Africa); the International Development Research Centre in Canada (Americas); the National Commission for Scientific and Technological Research in Chile (Americas); the National Science Foundation of Sri Lanka (Asia-Pacific); and the National Council for Scientific Research in Lebanon (MENA).

Table 8: *Table 8: Data that GRC-participating organisations collect on the gender dimension in research, by region*

Organisation collects data on (mutually exclusive categories)	Regions					
	Sub-Saharan Africa	Americas	Asia-Pacific	Europe	MENA	Total
Number of funded projects with a gender dimension	1	0	0	4	1	6
Integration of sex and gender considerations in research design and methods as well as in dissemination and use of research outputs	0	0	1	0	0	1
Number of funded projects with a gender dimension, and integration of sex and gender considerations in research design and methods	0	1	0	3	0	4
Number of funded projects with a gender dimension, and integration of sex and gender considerations in research design and methods as well as in dissemination and use of research outputs	1	1	0	3	0	5
None of the above	12	10	11	11	5	49
Total	**14**	**12**	**12**	**21**	**6**	**65**

Some organisations provided additional information about the data that they collect or the technicalities of their data collection efforts:

i. *"Qualitative information provided by the applicants." (State Research Agency of Spain, Europe)*

ii. *"The amount of applications funded in gender studies and disability studies. We can also search our database by the research fields and key words mentioned in the applications." (Academy of Finland, Europe)*

iii. *"We collect the reviewers' comments on this area specifically, so that we can analysis how well reviewers are addressing the gender dimension in research. This text box is separate in our reviewers evaluation form. We had launched the sex and gender considerations in all of our calls in 2019. We will be monitoring the integration of sex and gender considerations in the dissemination and use of research outputs, but these grants have not completed their first reporting period." (Irish Research Council, Europe)*

SECTION 5: Disaggregated Data at the Intersection of Equality, Diversity, Inclusion

Increasingly, it has become important for conversations and actions regarding the status of women in research to be expanded, in acknowledgement of the importance of the discourse on equality, diversity and inclusion. The *GRC Statement of Principles and Actions: Promoting the Equality and Status of Women in Research* acknowledges that actions to promote and support gender equality in order to harness the diversity of research talent should recognise *"...that the equality and status of women in research should be considered together with broader equality and diversity issues."* In this regard, the GWG was interested in understanding the extent to which GRC-participating organisations collect and report data on two key elements: data on any other aspect of diversity or equity-seeking groups, and on sexual harassment and bullying.

The results are summarised in Table 9 and reported by GRC region on whether GRC-participating organisations **collect data on any other aspect of diversity or equity-seeking groups,** except for gender. Ethnicity seems prominent as it was mentioned by 13 organisations (mostly in combination with other diversity aspects). However, ethnicity might hold different meanings for different organisations, referring, for instance, to indigenous people in the case of Australia and Canada, or to race in the case of South Africa. Disability seems equally salient, as it was mentioned by 10 organisations. Only one organisations mentioned LGBTQ2+ (lesbian, gay, bisexual, transgender, queer and two-spirited) as an aspect of diversity relevant to their data collection. It is acknowledged that collecting data on other aspects of diversity or equity-seeking groups may have legal implications in some countries or regions.

Table 9: *Data collected on aspects of diversity (other than gender), by region*

Aspects of diversity (mutually exclusive categories)	Region					
	Sub-Saharan Africa	Americas	Asia-Pacific	Europe	MENA	Total
Disability only	1	1	0	1	0	3
Disability; socio-economic status	0	0	1	0	0	1
Disability; ethnicity	2	0	0	1	0	3
Disability; ethnicity; LGBTQ2+	0	1	0	0	0	1
Disability; ethnicity; socio-economic status; type of organisation	1	0	0	0	0	1
Disability; ethnicity; type of organisation	0	1	0	0	0	1
Ethnicity only	0	2	2	1	0	5
Ethnicity; career stage	0	0	1	0	0	1
Ethnicity; socio-economic status	0	1	0	0	0	1
Nationality only	0	1	0	2	1	4
Socio-economic status only	0	0	1	0	0	1
Type of organisation only	0	0	1	0	0	1
None other	10	5	6	16	5	42
Total	**14**	**12**	**12**	**21**	**6**	**65**

The GRC-participating organisations were asked whether they have any organisational policy or strategy document on **sexual harassment and bullying**. They were also asked about a policy or strategy that stipulates the organisation's stance on sexual harassment and bullying at grantee organisations, field sites or anywhere where their funded research is conducted. Just more than half of organisations (54%) responded positively to the first (Figure 10). However, the organisation-based policies seldom extend beyond the organisation to also apply to the study sites of funded research – only 22% of organisations have taken a stance on harassment or bullying in settings outside the organisation. Table 10 gives a breakdown by region, where the co-occurrences of the two sets of documents (as reflected in four mutually exclusive categories) are considered.

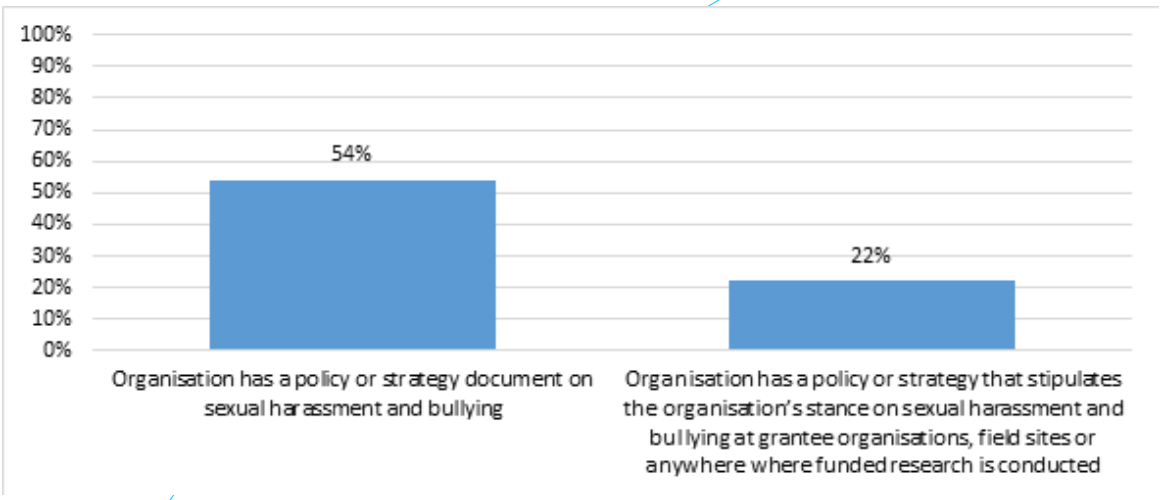
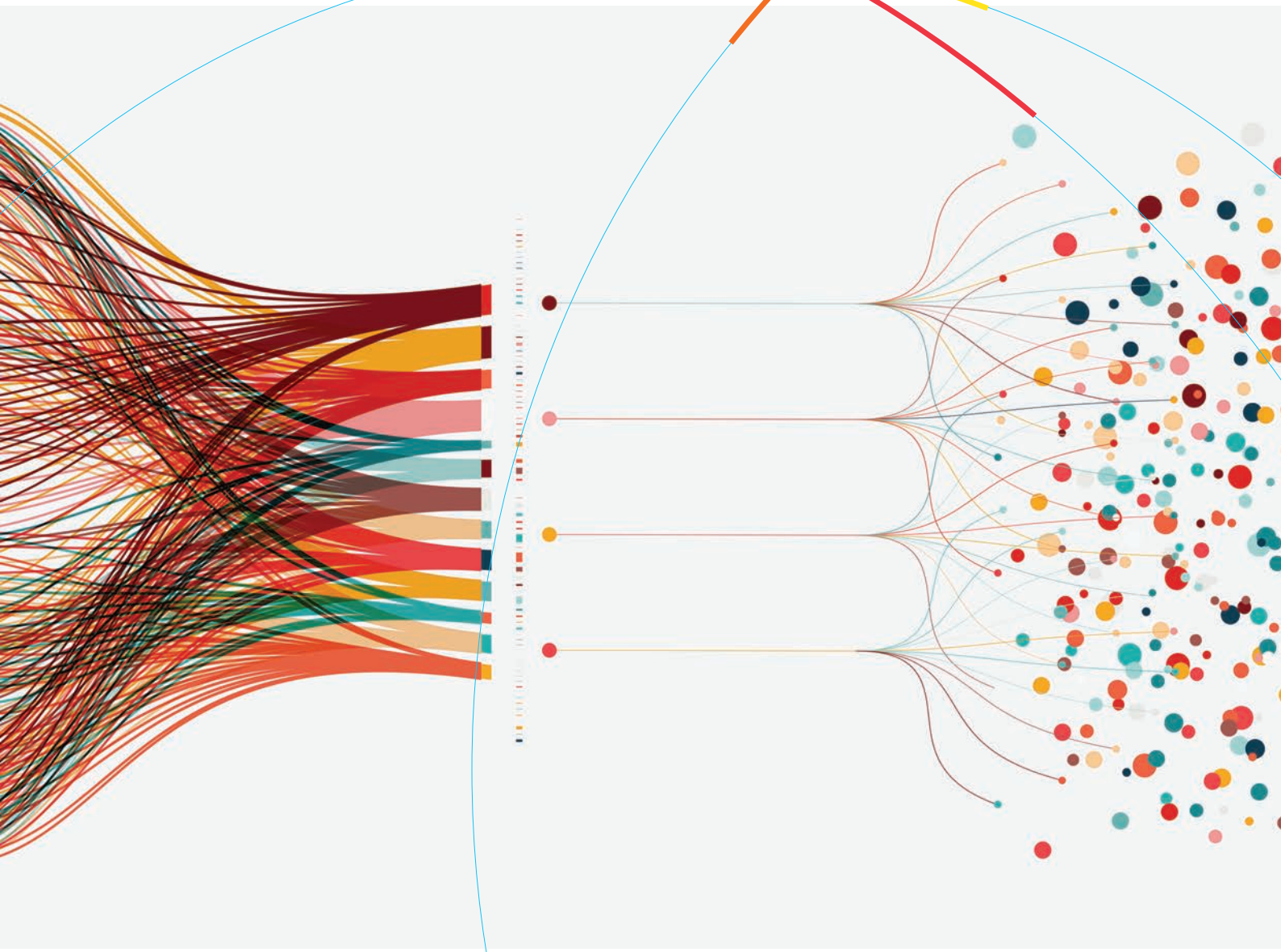


Figure 10: *Organisational policies on sexual harassment and bullying (N=65)*

Table 10: *Organisational policies on sexual harassment and bullying, by region*

Organisation has ...	Regions					
	Sub-Saharan Africa	Americas	Asia-Pacific	Europe	MENA	Total
A policy or strategy document on sexual harassment and bullying	4	5	4	8	1	22
A policy or strategy that stipulates the organisation's stance on sexual harassment and bullying at grantee organisations, field sites or anywhere where funded research is conducted	0	0	0	1	0	1
Both of the above	3	4	1	4	1	13
None of the above	7	3	7	8	4	29
Total	**14**	**12**	**12**	**21**	**6**	**65**



SECTION 6: Strengthening Capacities for Data Collection and Reporting

The GRC-participating organisations were asked to comment on areas where they face challenges with regard to collecting, analysing and reporting gender-disaggregated data. The individual responses aggregated per region are presented in Table 11. An immediate observation is that organisations have different needs and experiences because of the different institutional and national contexts in which they operate. Some organisations are experiencing systemic challenges in accessing national databases, others lack adequate data systems that are fit-for-purpose, while others experience challenges in collecting even basic data for a given field. For other organisations, however, the challenges are mainly on deciding which new forms of data to collect and which new data collecting procedures and protocols to implement. Specific challenges relate to decisions about which diversity aspects to include in research, and what data to collect regarding the processes, beneficiaries and impacts of the funded research, and how to analyse and report these using a gender lens. Table 11 presents this list of challenges as possible future actions, and therefore an opportunity for collaboration and sharing of experiences per region and as a collective, in order to strengthen the capacities of GRC-participating organisations to collect and report gender-disaggregated data.

Table 11: *Areas in which GRC-participating organisations face challenges with regard to collecting, analysing and reporting gender-disaggregated data by GRC region*

Sub-Saharan Africa
• Implementing tools and systems to collect and store gender-disaggregated data

• Collecting gender-disaggregated data about funding applicants and recipients, which also:
  • intersect with research field (especially fields important for national development, e.g. agriculture and health)
  • intersect with organisation
  • intersect with R&D expenditure

• Obtaining gender-disaggregated data from:
  • Researchers in general
  • International co-workers on research projects

• Collecting data on the gender dimension in research that include: • Gender-disaggregated data for the beneficiaries and users of research

• Reporting gender-disaggregated data:
  • In the national plan
  • In relation to research impact

• Improving data management practices

Americas

• Collecting gender-disaggregated in the absence of:
  • An obligation for researchers to do so
  • A regulatory framework that institutionalise the importance of gender issues

• Harmonising the requirements of different data collection systems that are in operation at a single organisation

• Improving the tools/templates for collecting gender-disaggregated data with a focus on:
  • Appropriate classifications and required variables
  • More differentiation in the data collection that goes beyond the category of applicant, region and amount financed

• Analysing and reporting gender-disaggregated data
• Improving the organisational culture by preventing sexual and labour harassment
Asia-Pacific
• Linking and aligning gender-disaggregated data from different national agencies across different national datasets
• Reporting gender-disaggregated data for a small number of cases, especially when other variables also come into play, as the intersection of variables will reveal the identity of applicants (privacy violated)
• Addressing the lack of gender awareness nationally and the low levels of attention paid to gender issues at the level of research institutes
Europe
• Analysing and reporting gender-disaggregated data by funding scheme
• Collecting data on diversity, especially data that are considered as private or sensitive, e.g. disability, socio-economic status and sexual orientation

• Collecting, analysing and reporting data on the gender dimension in research, specifically:
  • Methods, e.g. text analyses, to identify gender relevant research projects
  • Templates to collect both quantitative data (numbers and yes/no answers) and qualitative data, e.g. impact narratives, in relation to the gender dimension

• Addressing the lack of gender-disaggregated data at university level
Middle East and North Africa

• Collecting gender-disaggregated data:
  • That intersect with scientific discipline
  • That applies to the private sector

• Accessing gender-disaggregated data that are centralised and based at a national statistical agency

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APPENDIX 1: Respondents to the Survey by Country and GRC-participating Organisation

	Country	Organisation	Region
1	Botswana	Department of Research Science and Technology	Sub-Saharan Africa
2	Burkina Faso	*Fonds National de la Recherche et de l'Innovation pour le développement*	Sub-Saharan Africa
3	Côte d'Ivoire	*Programme D'appui Stratégique a la Recherche Scientifique en Côte d'Ivoire*	Sub-Saharan Africa
4	Kenya	National Research Fund	Sub-Saharan Africa
5	Malawi	National Commission for Science and Technology	Sub-Saharan Africa
6	Mozambique	*Fundo Nacional de Investigacao*	Sub-Saharan Africa
7	Namibia	National Commission on Research Science and Technology	Sub-Saharan Africa
8	Rwanda	National Council for Science and Technology	Sub-Saharan Africa
9	Senegal	Ministry of Higher Education Research and Innovation	Sub-Saharan Africa
10	South Africa	National Research Foundation	Sub-Saharan Africa
11	Tanzania	Tanzania Commission for Science and Technology	Sub-Saharan Africa
12	Uganda	Uganda National Council for Science and Technology	Sub-Saharan Africa
13	Zambia	National Science and Technology Council	Sub-Saharan Africa
14	Zimbabwe	Research Council of Zimbabwe	Sub-Saharan Africa
15	Argentina	National Scientific and Technical Research Council	Americas
16	Brazil	*Conselho Nacional de Desenvolvimento Científico e Tecnológico*	Americas
17	Brazil	Sao Paulo Research Foundation	Americas
18	Canada	International Development Research Centre	Americas
19	Canada	Natural Sciences and Engineering Research Council	Americas
20	Chile	*Agencia Nacional de Investigación Científica y Tecnológica*	Americas
21	Colombia	*Departamento Administrativo de Ciencia, Tecnología e Innovación - Colciencias*	Americas
22	Mexico	National Council of Science and Technology	Americas
23	Panama	National Secretariat of Science, Technology and Innovation	Americas
24	Paraguay	National Council of Science and Technology	Americas
25	Peru	*Consejo Nacional de Ciencia, Tecnología e Innovación Tecnológica*	Americas
26	United States	National Science Foundation	Americas

	Country	Organisation	Region
27	Australia	Australian Research Council	Asia-Pacific
28	China	National Natural Science Foundation of China	Asia-Pacific
29	India	Science and Engineering Research Board	Asia-Pacific
30	Indonesia	Indonesia Institute of Sciences	Asia-Pacific
31	Iran	Iran National Science Foundation	Asia-Pacific
32	Japan	Japan Science and Technology Agency	Asia-Pacific
33	Japan	Japan Society for the Promotion of Science	Asia-Pacific
34	Korea	National Research Foundation of Korea	Asia-Pacific
35	New Zealand	Ministry of Business Innovation and Employment	Asia-Pacific
36	Sri Lanka	National Science Foundation	Asia-Pacific
37	Thailand	Thailand Science Research and Innovation	Asia-Pacific
38	Thailand	National Research Council of Thailand	Asia-Pacific
39	Austria	Austrian Science Fund	Europe
40	Belarus	Belarusian Republican Foundation for Fundamental Research	Europe
41	Belgium	*Fonds de la Recherche Scientifique*	Europe
42	Croatia	Croatian Science Foundation	Europe
43	Finland	Academy of Finland	Europe
44	France	*Centre National de la Recherche Scientifique*	Europe
45	Germany	*Deutsche Forschungsgemeinschaft*	Europe
46	Germany	Leibniz-Association	Europe
47	Ireland	Irish Research Council	Europe
48	Ireland	Science Foundation Ireland	Europe
49	Norway	The Research Council of Norway	Europe
50	Poland	National Science Center	Europe
51	Poland	Foundation for Polish Science	Europe
52	Russia	Russian Foundation for Basic Research	Europe
53	Spain	*Consejo Superior de Investigaciones Científicas*	Europe
54	Spain	*Agencia Estatal de Investigación*	Europe
55	Sweden	The Swedish Research Council Formas	Europe

	Country	Organisation	Region
56	Sweden	*Vetenskapsrådet*	Europe
57	Switzerland	Swiss National Science Foundation	Europe
58	The Netherlands	Netherlands Organisation for Scientific Research	Europe
59	United Kingdom	UK Research and Innovation	Europe
60	Egypt	Academy of Scientific Research and Technology	Middle East and North Africa
61	Kingdom of Saudi Arabia	King Abdulaziz City for Science and Technology	Middle East and North Africa
62	Kuwait	Kuwait Foundation for the Advancement of Sciences	Middle East and North Africa
63	Lebanon	National Council for Scientific Research	Middle East and North Africa
64	Qatar	Qatar National Research Council	Middle East and North Africa
65	Sultanate of Oman	The Research Council	Middle East and North Africa

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