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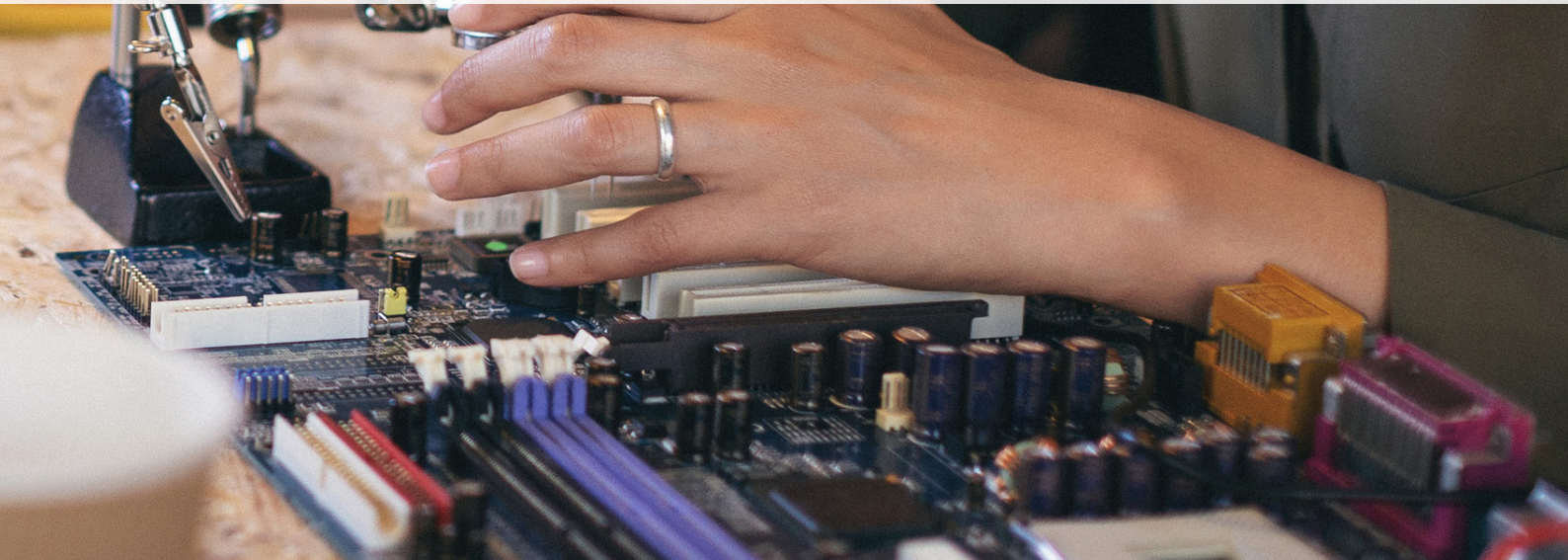
GenderInSITE
Gender in science, innovation, technology and engineering

International Science Council
The global voice for science

Gender Equality in Science: Inclusion and Participation of Women in Global Science Organizations

Results of two global surveys



Gender Equality in Science: Inclusion and Participation of Women in Global Science Organizations. Results of two global surveys.

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About GenderInSITE

Gender in science, innovation, technology and engineering (GenderInSITE) is an international initiative to promote the role of women in science, innovation, technology and engineering. Its mission is to inspire transformative actions and more effective development by understanding the impacts of SITE on women and men and how women and men can contribute to SITE.

GenderInSITE builds partnerships among its members to identify, understand, and develop strategies to apply the gender lens to SITE in six key areas: agriculture and food security; water and sanitation; energy; transportation; climate change and disaster & risk reduction; and science education & the workforce. Its aim is to demonstrate that this can provide deeper insights, more effective programmes and more sustainable outcomes in the context of development.

It engages with networks of researchers and policy-makers, organizing awareness-raising activities and using dissemination tools and resources. Currently GenderInSITE has two regional focal points: in Africa, and in Latin America & the Caribbean.

GenderInSITE is supported by a financial contribution from the Swedish International Development Cooperation Agency (Sida) to the Organization for Women in Science for the Developing World (OWSD), which is hosted by The World Academy of Sciences (TWAS) in Trieste, Italy. Both TWAS and OWSD are considered programme units of UNESCO.

For more information about GenderInSITE see https://www.genderinsite.net and follow GenderInSITE on Twitter https://twitter.com/GenderInSITE.

About the InterAcademy Partnership (IAP)

Under the umbrella of the InterAcademy Partnership (IAP), more than 140 national, regional and global member academies work together to support the vital role of science in seeking evidence-based solutions to the world's most challenging problems. In particular, IAP harnesses the expertise of the world's scientific, medical and engineering leaders to advance sound policies, improve public health, promote excellence in science education and achieve other critical development goals.

IAP's four regional networks in Africa (the Network of African Science Academies, NASAC), the Americas (the InterAmerican Network of Academies of Sciences, IANAS), Asia (the Association of Academies and Societies of Sciences in Asia, AASSA) and Europe (the European Academies' Science Advisory Council, EASAC) are responsible for managing and implementing many IAP-funded projects and help make IAP's work relevant around the world.

For more information about IAP see https://www.interacademies. org and follow IAP on Twitter https://twitter.com/IAPartnership, LinkedIn https://www. linkedin.com/company/interacademypartnership and YouTube https://tinyurl.com/ IAPyoutube.

About the International Science Council (ISC)

The vision of the International Science Council is to advance science as a global public good. Scientific knowledge, data and expertise must be universally accessible and their benefits universally shared. The practice of science must be inclusive and equitable, as should opportunities for scientific education and capacity development.

The International Science Council (ISC) is a non-governmental organization with a unique global membership that brings together 40 international scientific Unions and Associations and over 140 national and regional scientific organizations including Academies and Research Councils.

For more information about ISC see https://www.interacademies. org and follow ISC on Twitter https://twitter.com/ISC, LinkedIn https://www.linkedin.com/company/international-science-council/, Facebook https://www.facebook.com/InternationalScience/, Instagram https://www.instagram.com/council.science/ and YouTube https://www.youtube.com/c/InternationalScienceCouncil.

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Acronyms and abbreviations

AASSA	Association of Academies and Societies of Sciences in Asia
ALLEA	European Federation of Academies of Sciences and Humanities
ASSAf	Academy of Science of South Africa
BMBF	Federal Ministry of Education and Research, Germany
CAETS	International Council of Academies of Engineering and Technological Sciences
CSTD	Commission on Science and Technology for Development
GenderInSITE	Gender in Science, Innovation, Technology and Engineering
GRC	Global Research Council
HLPF	High-Level Political Forum
IANAS	Inter-American Network of Academies of Sciences
IAP	InterAcademy Partnership
ICT	Information and communications technology
ICTP	International Centre for Theoretical Physics
ISC	International Science Council
M&E	Monitoring and Evaluation
NASAC	Network of African Science Academies
OWSD	Organization for Women in Science for the Developing World
RRI	Responsible research and innovation
SAGE	Science in Australia Gender Equity
S&T	Science and Technology
Sida	Swedish International Development Cooperation Agency
STEM	Science, Technology, Engineering and Mathematics
STI	Science, Technology and Innovation
SWAN	Scientific Women's Academic Network
TWAS	The World Academy of Sciences
UK	United Kingdom
UN	United Nations
UNESCO	United Nations Educational, Scientific and Cultural Organization
US	United States
USA	United States of America
WFEO	World Federation of Engineering Organizations
WISE	Women in Science and Engineering

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This study was led by GenderInSITE (Gender in Science, Innovation, Technology and Engineering) in collaboration with the InterAcademy Partnership (IAP) and the International Science Council (ISC). The leadership and staff of the three partners, as well as staff of the host organization of GenderInSITE, namely The World Academy of Sciences (UNESCO-TWAS), are acknowledged for their support of the project. In particular, we would like to thank Ms Fiona Dakin (GenderInSITE), Ms Manuela Lough (TWAS), Ms Eve El-Chehaly (ISC), Dr Lucilla Spini (ISC) and Mr Giovanni Ortolani (IAP).

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- The participating academies and ISC unions and associations that completed the survey.
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Executive summary

Background

This study reports on the results of surveys conducted amongst academies that are members of the InterAcademy Partnership (IAP) and the International Science Council (ISC), as well as amongst international disciplinary unions and associations that are members of the ISC, to ascertain the inclusion and participation of women scientists. The study was coordinated by GenderInSITE (Gender in Science, Innovation, Technology and Engineering), in collaboration with the IAP and ISC. It is a follow-up to a first global survey of science academies conducted in 2015 and funded by the IAP. A key objective of the current study was to ascertain the extent to which progress in gender equality has been made by academies. What makes the present study unique is its broadened focus to include medical academies that became members of the IAP after 2015 and national young academies, as well as ISC-member academies, mainly drawn from the social sciences. In addition, the international disciplinary unions and associations of the ISC were also surveyed, given their potential to play an important role in leading gender transformation in specific disciplines.

Respectively, 85 and 38 valid submissions were received from the academies and the disciplinary unions and associations.

The individual science institutions surveyed, be they academies, disciplinary unions or associations, through their membership of international bodies such as the IAP and ISC, represent a large proportion of global scientific endeavour. In total, they represent over 250 unique organizations that are coordinated at a global level. The survey results therefore provide important baseline information for a transformative action agenda for gender equality in global science.

Survey of academies

Only six out of a total of 72 academies responded that the 2015 survey report, which contained many recommendations for academies, was discussed at a strategic planning session. This failing is addressed in the current report through a stronger and more directed recommendation to bring the results of the current survey to the attention of relevant academy governing bodies. Most appreciated of the previous report were the comparisons related to gender representation between academies. The comparisons were considered enlightening, provided useful statistics for reporting, and prompted both established and new academies into action.

The average share of women's representation in 2020, across the same cohort of academies as in the 2015 survey, is 17%, up from 13% in the 2015 survey. If all senior academies that responded to the 2020 survey are included (26 more than in 2015), the average for women's membership is 16%. All academies showed an increase in women's membership, however, 19 academies still report 10% or less women's membership. Academies of young scientists have the largest shares of women members, with the South African Young Academy of Science in the first position (57%), followed by both the Young Academy Finland and the National Academy of Young Scientists of Pakistan in joint second position (55% each). The average share of women's membership of the 13 young academies is 42%. Ten young academies are ranked ahead of the highest ranked senior academy in terms of number of women members, viz. the Academy of Sciences of Cuba, which has increased its share from 27% in 2015 to 33% in 2020.

For each of nine broad disciplines, the mean share of women members ranges from as high as 28% (biological sciences) and 27% (social sciences, humanities and arts) to as low as 10% (engineering sciences) and 8% (mathematical sciences).

The average share of women serving on the governing body (29% for the 85 academies in 2020) represents an increase over the corresponding share of 21% for the academies that participated in the 2015 survey. Comparing the same cohort of 43 academies that participated in both the 2015 and 2020 surveys, the recent share is slightly lower at 28%. The National Academy of Sciences in the US (67%), together with Academia de Ciencias Físicas, Matemáticas y Naturales de Venezuela (67%) and the Global Young Academy (64%), have the highest representation of women serving on the governing body. This might be indicative of a concerted effort by some academies to involve more women in their governing body. It is noted that both the senior academies in the US and Venezuela have a woman president.

Asked whether the academy had any document (e.g. strategy, policy or founding document) that explicitly mentions the need for increased participation of women in the academy's activities, 30 of the 84 academies (36%) responded in the affirmative. Twenty (24%) of the 84 academies responded that the academy hosts a 'Women in Science' award. Out of 84 academies, 21 (25%) indicated that, since 2015, they had published a report that specifically addresses issues related to women or gender. Nineteen of the 85 academies (22%) have a document of some kind that addresses sexual harassment in the workplace.

Asked if they have any programmes/initiatives on women in science, 39 (46%) of the 84 academies responded positively. The programmes and initiatives mentioned are wide-ranging. For some academies, the relevant programmes and initiatives are informed by their being the regional focal points and/or national chapters of global and regional organizations such as the Organization for Women in Science for the Developing World (OWSD), GenderInSITE and The World Academy of Sciences (TWAS). A few academies also established a commission for women in science, whereas, for others, relevant initiatives relate to the organization of specific events such as summits, international conferences and communication campaigns.

About 40% of academies address women's issues through linkages with one or more international organization(s)/networks that promote(s) women's activities. This is indeed the case for 13 of the 16 academies in the Americas but less so for Europe, where only seven of the 33 academies in that region reported that strategy. In the Americas, the strong focus of IANAS (Inter-American Network of Academies of Sciences), as a regional group, on women in science and their over 20-year history of undertaking gender-focused studies and advocacy, is significant.

Between 74% and 83% of academies either agreed or strongly agreed that their academy is working towards ensuring more women at decision-making levels, and in panels and committees. However, in terms of women's representation in the nomination pool for membership as well as in the nomination pool for prizes and awards, the corresponding figures are lower at 62% and 61% respectively. Overall, the academies' alignment with Sustainable Development Goal 5 (gender equality) of the United Nations is relatively low (46% agreed or strongly agreed, with an additional 20% stating that it does not apply to their academy). A similar finding pertains to the application of a 'gender lens' in the work of an academy (55% either agreed or strongly agreed that it is the case).

Survey of unions and associations

International unions and associations, collectively termed international disciplinary organizations in this report, have an average of 36% women serving on their governing bodies, and this share equals or exceeds 50% for 10 of the 38 disciplinary organizations. Generally, social science organizations are ranked higher in terms of the share of women on the governing body, 67% versus 24% for physical/natural science organizations.

Thirty-seven percent of international disciplinary organizations currently have a woman president and 39% currently have a woman occupying the position of executive director/secretary. Both these percentages have increased when compared with the immediate past percentages, viz. 32% in the case of president and 16% in the case of executive director/secretary.

Asked whether they have any document (strategy, policy, founding document, etc.) that explicitly mentions the need for increased participation by women in their activities, 31 disciplinary organizations responded. Of these, 14 (45%) responded in the affirmative. The documents differ in nature, ranging from strategic plans and mission statements to guidelines for support at scientific conferences and meetings.

Regarding attendance at their last General Assembly, 58% of disciplinary organizations reported that they did not collect gender/sex-disaggregated data for participants. Where such data were available, only in the case of 11% of disciplinary organizations did the percentage of women attendees at the General Assembly exceed 50%.

Twenty-one out of 33 disciplinary organizations (64%) responded that they had published a report that specifically addresses issues related to women or gender.

Disciplinary organizations with a secretariat were asked to indicate whether a policy exists for addressing sexual harassment in the workplace. Of 36 disciplinary organizations that responded, 15 (42%) pointed to the existence of such a policy.

Twelve out of 38 (32%) disciplinary organizations indicated that they have grants, fellowships or awards specifically for women. Nineteen out of 36 (53%) disciplinary organizations reported a committee, research board or similar structure with a specific focus on women in science issues. Twenty-two out of 37 (59%) disciplinary organizations reported an initiative and/or advocacy/networking activity aimed at the promotion of gender equality in science.

The disciplinary organizations' commitment to diversity and inclusivity issues is high (68% agreement) but actions and activities are trailing far behind (32% agreement or below), with only 16% of disciplinary organizations reporting the availability of a budget to implement activities related to gender equality.

Only one disciplinary organization said that it has been evaluated on its performance and action to promote women's participation and gender equality in science. Just over half of the 38 disciplinary organizations (20, or 53%) claimed that they regularly monitor women's participation among their membership.

Recommendations

The individual organizations surveyed, be they academies, disciplinary unions or associations, through their membership of international bodies such as the IAP and ISC, represent a large proportion of the global scientific endeavour. In total, they represent over 250 unique organizations that are coordinated at a global level. The survey results therefore provide important baseline information for a transformative action agenda for gender equality in global science. Both the IAP and ISC are highly influential bodies; together they have the power to be forceful change-makers and leaders, with the potential to create a coalition for gender equality in global science. The recommendations that follow are crafted with such a coalition in mind and chart the way forward for an ongoing collaboration that can lead to meaningful transformation.

Recommendation 1: Extension of survey

A more inclusive and comprehensive understanding of gender equality in global science would be gained by supplementing the results of the current study with results of a survey (where such surveys have not been conducted) distributed to other global science organizations, such as the funding agencies of the Global Research Council (GRC), members of the World Federation of Engineering Organizations (WFEO) and engineering academies that are members of the International Council of Academies of Engineering and Technological Sciences (CAETS). Such an expansion would also serve to build and strengthen the nascent coalition for gender equality in global science.

Recommendation 2: Analysis of gender-related organizational policy, structure and actions

This study has gathered relevant information from the surveyed organizations and hence achieved an important first step in the creation of an inventory of policy documents and actions. The next step should be a detailed analysis of this rich and valuable set of resources with a view towards better understanding (1) the different models and modes associated with each of the three elements; (2) how organizations' thinking around policy, structure and action has evolved; and (3) the identification of best practices in relation to gender and science, technology and innovation (STI).

Recommendation 3: Development of a central repository

There is an urgent need for the development and ongoing maintenance of a central repository of gender-related policies and actions (i.e. projects, interventions, outputs, etc.) of academies, disciplinary unions and associations. This has potential to establish closer linkages between organizations and presents opportunities to learn from each other's best practices. Consideration should be given to the inclusion of evaluations of the efforts. The three partners in this project should discuss the nature of the proposed database, as well as hosting, funding and maintenance responsibilities.

Recommendation 4: Incorporation of regional considerations

Although the focus of this report is on global science organizations, each has a regional footprint that has highlighted some important regional variations, as well as regional shortcomings and opportunities. The regional networks, offices, or national committees present an opportunity to gain regional insights and to coordinate action directed at greater advocacy work amongst national science academies and national committees of disciplinary unions. The partners should develop a plan to utilize this regional presence and differential impacts to gain insights and to advance the gender equality agenda, especially in countries/regions that are lagging.

Recommendation 5: Advancing women to leadership positions

The average share of women serving on the governing body is 29% for academies and 37% for international disciplinary organizations. The three partners in this study should monitor and promote women's leadership and service on governing bodies to ensure women's voices are included in the setting of science agendas.

Recommendation 6: Consideration of diversity and inclusivity

The surveys explored the topics of diversity and inclusivity to gauge levels of awareness of these broader issues. It is concluded that it is best to follow a stepwise approach, whereby the focus on gender equality is retained into the future, while simultaneously raising awareness about the need for transformative action that embraces diversity and inclusivity more generally. The three partners should collaborate to foster a debate about diversity and inclusivity in global science, with a focus on intersectionality and gender considerations. Specific concerns relate to the intersection of race, ethnicity and gender. Organizations should take their cue for transformative action from the discussions.

Recommendation 7: Analysis of discipline-based gender transformation

This study has revealed that gender equality varies across disciplines, implying that discipline-based action is needed to increase the number of women researchers. The under-representation of women in certain disciplines presents a convergence point for the three partners to collaborate on a strategy to enhance not only the number of women researchers, but also the nomination pool of women and the success rate of women elected as members of science academies.

Recommendation 8: Establishment of monitoring and evaluation (M&E) frameworks

The finding that only six academies had discussed the recommendations of the 2015 academy report at a strategic planning session was disturbing and underscores the need for monitoring and evaluation (M&E). A strong recommendation of the 2015 report was for annual collection and reporting of gender-disaggregated data. Surveys should be conducted on a regular basis every five years. The IAP and ISC should commit to the establishment of centralized M&E frameworks that require regular reporting of relevant gender statistics of their member organizations at each of their general assemblies to ensure that gender transformation is tracked. They should also assist their members by providing tools for them to establish their own M&E frameworks.

Recommendation 9: Identification of lessons from young academies

This study has shown that young academies are significantly more gender-balanced than senior academies. The partners should undertake a follow-up collaborative study to understand how the gender transformation journey of senior academies can learn and benefit from the achievements of young academies in respect of gender balance and also to ensure that the balance is not lost as the careers of these young scientists advance and they begin to be nominated for senior academies and appointed to other leadership positions.

Recommendation 10: Shift from a focus on 'numbers' to institutional and knowledge transformation

The gender transformation journey of global science organizations needs to be about more than just 'numbers'; it needs to focus in addition on institutional culture and knowledge production to ensure that the needs and perspectives of women as well as men are considered. The partners should embrace a shift from focusing on 'numbers' to an approach that embraces the incorporation of a 'gender lens' in all their activities.

1. The study context

In 2015, the InterAcademy Partnership (IAP) funded the first global survey of academies to ascertain the inclusion and participation of women scientists in those academies. The survey comprised two parts. The first was a survey coordinated by the Inter-American Network of Academies of Sciences (IANAS) in North America, Latin America and the Caribbean, and the second, a survey that the Academy of Science of South Africa (ASSAf) coordinated, and which studied IAP-member academies in the other world regions. Both surveys were supported by IAP, and the latter also enjoyed the support of the Organization for Women in Science for the Developing World (OWSD) and the Network of African Science Academies (NASAC). The results of the survey were published as a report, entitled: *Women for Science: Inclusion and Participation in Academies of Science*.[I] The report made a number of recommendations, among which was that IAP-member academies should annually collect, analyze and report gender-disaggregated data on their respective membership and activities. Merit-based academies have a dual mandate, to honour scientific excellence and to provide evidence-based scientific advice in support of policy development to their governments and stakeholders. For this dual mandate to be fully realized, the recognition through academy membership and participation of women scientists in academies' science advisory activities are important.

The present study is a follow-up to the 2015 study. It is coordinated by GenderInSITE (Gender in Science, Innovation, Technology and Engineering[II]), in collaboration with the IAP and the International Science Council (ISC). A key objective was to ascertain the extent to which progress in gender equality has been made and to report on recommendations that have been implemented. What makes the present study unique is its broadened focus to include medical academies that became members of the IAP after 2015, national young academies, and ISC-member academies, mainly drawn from the social sciences. In addition, the international disciplinary unions and associations of the ISC were also surveyed, given their potential to play an important role in leading gender transformation in specific disciplines.

Before discussing the survey methodology (Section 3) and main results (Sections 4 and 5), a global overview of women's participation in science is provided. The focus of this brief discussion is on women's share of researchers worldwide.

I The survey report is available at https://www.interacademies.org/publication/women-science-inclusion-and-participation-academies-science. The main findings have also been published as an open access article, downloadable at https://www.sajs.co.za/article/view/3997 (Ngila, D., Boshoff, N., Henry, F., Diab, R., Malcom, S. & Thomson, J. 2017. Women's representation in national science academies: An unsettling narrative. South African Journal of Science, 113, 1-7).
II https://genderinsite.net

2. Global overview of women's participation in science

A global and comparative perspective of the participation of women in science is only as good as the quality and availability of gender-disaggregated data. The online portal of the United Nations Educational, Scientific and Cultural Organization (UNESCO) Institute of Statistics (UIS), as of 1 July 2021, includes data on the share of women researchers per country, for 127 countries. The available figures – reported as headcount shares except for one country for which a full-time equivalent is reported – do not always reflect the most recent year. For 49 of the 127 countries, the most recent reporting year in Figure 1 is 2018, whereas for 62 countries the reporting year ranges between 2015 and 2017, and for the remaining 16 it is between 2013 and 2014. Furthermore, relatively 'large' global players are included among the countries not covered by the UIS as far as the percentage of women researchers (headcounts) is concerned. These include Brazil, China and the United States of America (USA), as well as other countries such as Australia, Benin, Canada, Lebanon, Malawi, Nicaragua and Zimbabwe.

These challenges aside, in 2020, UNESCO released a fact sheet on the representation of women as researchers, based on available UIS figures at that point in time. The fact sheet included, among others, a global map of women's shares of researchers, which has been reproduced as Figure 1.

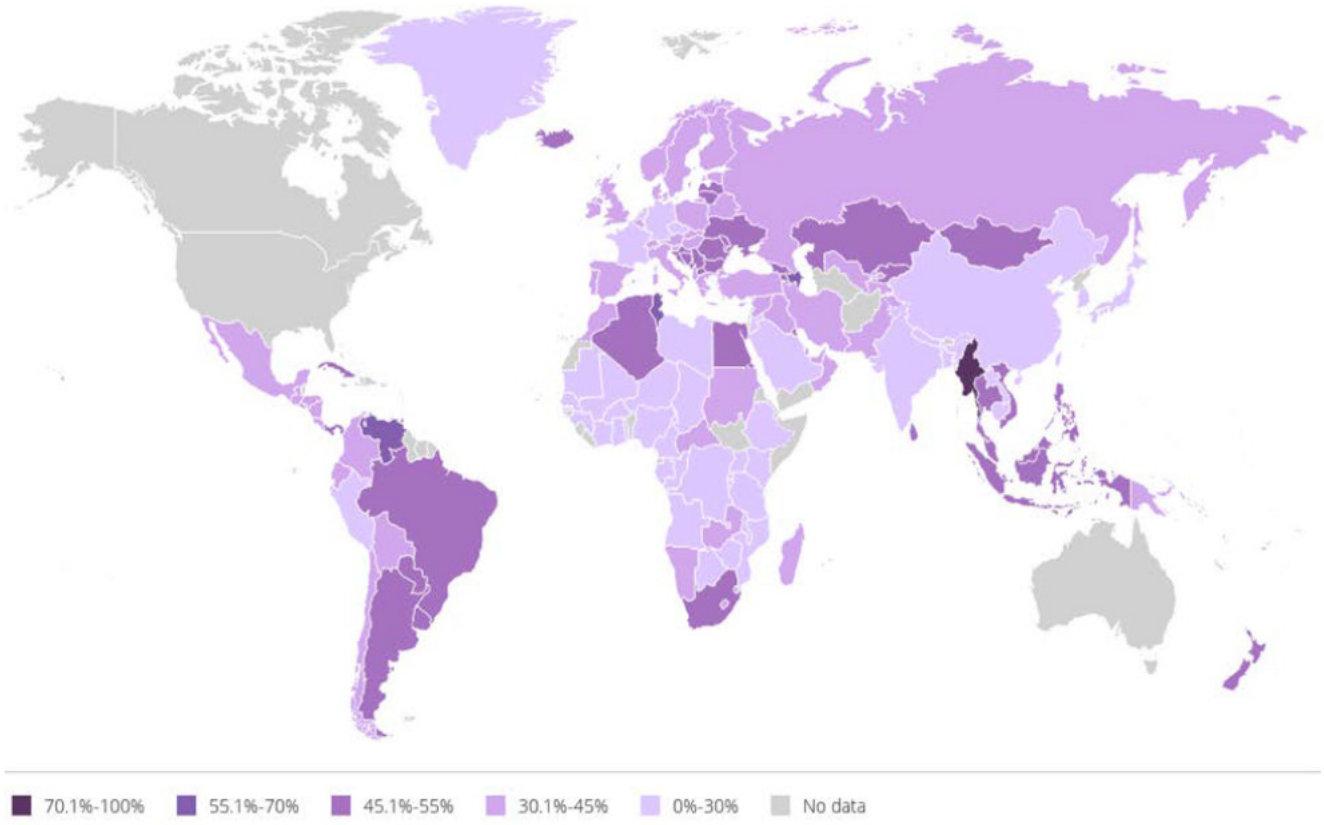

Figure 1: Women as a share of researchers

Source: UIS (2020). Women in science. UIS fact sheet, June 2020, No 60. FS/2020/SCI/60.

At the time of publication of the UIS fact sheet, only five countries in the world reported representation levels of women researchers that were significantly above the 50/50 mark (gender parity) – Myanmar (75.6%), Venezuela (61.4%), Azerbaijan (58.6%), Tunisia (56.1%) and Trinidad and Tobago (55.9%). In addition, 35 countries (out of a total of 143) reported figures of between 45% and 55%. This means that altogether 35 countries either closely approached or exceeded the parity level, with 103 countries falling just below or significantly below the parity level. The three countries with the smallest shares of women researchers were Democratic Republic of the Congo (8.7%, in 2015), Nepal (7.8% in 2010) and Chad (3.4%, in 2018). The report also presents regional averages for 2017 (with a world average of 30%), based on then available data:

- Central Asia: 48.5%
- Latin America and the Caribbean: 45.8%

- Arab States: 40.9%
- Central and Eastern Europe: 39.0%
- North America and Western Europe: 32.9%
- Sub-Saharan Africa: 31.1%
- East Asia and the Pacific: 25.0%
- South and West Asia: 23.1%

For the current report, the online portal of the UIS (http://data.uis. unesco.org) was revisited (in July 2021) and data on the share of women researchers (headcounts) downloaded for all countries listed. Appendix 1 reports the relevant figures.

Relevant figures are available for 127 countries. For only 39 of these countries the share of women researchers exceeds 45%, which, depending on the figure, is either above or just below the parity mark. For a further 31 countries the corresponding figure is less than 30%. For the remaining 57 countries, the share of women researchers ranges between 31% and 44%. This wide-ranging set of figures (at country level) needs to be taken into account when viewing the share of women members of academies in the different countries.

3. Survey methodology

The study comprised two separate but related online surveys – a survey of academies, which are members of either the IAP or the ISC or both, and a survey of international disciplinary unions and associations, which are members of the ISC. The first was administered between November 2019 and March 2020, and the second between May and June 2020. The questionnaire for this academy survey closely matched that of the 2015 academy survey, with some additional questions aimed at determining progress made in terms of women's participation based on the recommendations of the previous report. The ISC disciplinary organization[III] survey followed a somewhat different format to take account of the different organizational structures of the various members, where the representatives can be either countries or individuals, or both. The survey was developed to explore the extent to which ISC international disciplinary organizations have responded to gender equality imperatives in their leadership and implemented activities that are designed to promote greater participation of women and gender-responsive actions in their respective disciplines. The two survey instruments are included in Appendices 2 and 3.

Based on its website[IV], the IAP has 140 member-academies, which are grouped into four broad geographical regions (Africa, Americas, Asia-Pacific and Europe) as well as in a cross-spanning region (global and regional) for academies that are not national academies (e.g. The World Academy of Sciences or TWAS). Included in the IAP membership list are national medical academies. The survey did not target academies of engineering. The ISC, on the other hand, according to its website[V], includes 85 academies among a larger list of other organizational types. The ISC academy membership partially overlaps that of the IAP but also includes some humanities and social science academies that are not members of the IAP.

The actual records used for the sampling frame contained the names and addresses of 215 academies. Of these, 153 were senior academies, 44 young academies and 18 young scientist networks. Eventually, a total of 146 submissions by academies was received in the online survey. Once duplicate submissions were removed (i.e. where the same academy submitted more than one form), 95 unique submissions remained, giving a response rate of 44%. Of these, 10 were not usable (e.g. the academies completed only the demographics section of the questionnaire), resulting in a final total of 85 questionnaires available for analysis.

In the case of the survey of disciplinary unions and associations, a total of 40 submissions were received, of which two were duplicates. As the population comprises 63 disciplinary organizations, the 38 valid submissions indicate a response rate of 64%.

Tables 1 and 2 list the 85 academies that submitted questionnaires that could be used in data analysis. Of these, 80 are national academies. They appear in Table 1 and are arranged by country and classified in terms of world region and their membership affiliation (IAP and/or ISC). The five global or regional academies appear in Table 2, which follows a similar reporting structure. In each case, the young academies (which, except for the Global Young Academy (GYA) are not members of either IAP or ISC) are shaded.

Table 1: List of national academies that participated in the 2020 survey

Country	Academy	World region	Membership (IAP and/or ISC)
Argentina	Academia Nacional de Ciencias	Americas	IAP
Australia	Australian Academy of Science	Asia-Pacific	IAP and ISC
Austria	Austrian Academy of Sciences	Europe	IAP and ISC
Bangladesh	Bangladesh Academy of Sciences	Asia-Pacific	IAP and ISC
Belgium	Koninklijke Academie voor Geneeskunde van België	Europe	IAP
Belgium	Koninklijke Academie voor Nederlandse Taal en Letteren	Europe	IAP
Belgium	Koninklijke Vlaamse Academie van België voor Wetenschappen en Kunsten	Europe	IAP
Belgium	The Royal Academies for Science and the Arts of Belgium	Europe	IAP and ISC
Belgium	Young Academy of Belgium	Europe	Neither
Bosnia and Herzegovina	Academy of Sciences and Arts of Bosnia and Herzegovina	Europe	IAP and ISC

III The term "ISC disciplinary organization" is a generic term used for both disciplinary unions and associations that are members of the ISC.
IV https://www.interacademies.org/index.php/network/member-academies
V https://council.science/members/online-directory/

Country	Academy	World region	Membership (IAP and/or ISC)
Brazil	National Academy of Medicine of Brazil	Americas	IAP
Brazil	Brazilian Academy of Sciences	Americas	IAP and ISC
Cameroon	Cameroon Academy of Sciences	Africa	IAP and ISC
Cameroon	Cameroon Academy of Young Scientists	Africa	Neither
Canada	Royal Society of Canada	Americas	IAP
Chile	Chilean Academy of Sciences	Americas	IAP and ISC
Colombia	Colombian Academy of Exact, Physical and Natural Sciences	Americas	IAP and ISC
Croatia	Croatian Academy of Sciences and Arts	Europe	IAP
Cuba	Academy of Sciences of Cuba	Americas	IAP and ISC
Czech Republic	Czech Academy of Sciences	Europe	IAP and ISC
Democratic Republic of the Congo	Academie des Sciences pour les Jeunes en République Démocratique du Congo	Africa	Neither
Dominican Republic	Academia de Ciencias de la República Dominicana	Americas	IAP and ISC
Egypt	Academy of Scientific Research and Technology	Africa	IAP and ISC
Estonia	Estonian Academy of Sciences	Europe	IAP and ISC
Ethiopia	Ethiopian Academy of Sciences	Africa	IAP
Finland	Young Academy Finland	Europe	Neither
France	Académie des Sciences, Institut de France	Europe	IAP and ISC
Georgia	Georgian National Academy of Sciences	Asia-Pacific	IAP and ISC
Germany	Berlin-Brandenburg Academy of Sciences and Humanities	Europe	IAP
Germany	Die Junge Akademie	Europe	Neither
Germany	German National Academy of Sciences Leopoldina	Europe	IAP
Ghana	Ghana Academy of Arts and Sciences	Africa	IAP and ISC
Guatemala	Academia de Ciencias Medicas, Físicas y Naturales de Guatemala	Americas	IAP and ISC
Honduras	National Academy of Sciences of Honduras	Americas	IAP and ISC
Hungary	Hungarian Academy of Sciences	Europe	IAP and ISC
Hungary	Hungarian Young Academy	Europe	Neither
India	Indian National Science Academy	Asia-Pacific	IAP and ISC
Ireland	Royal Irish Academy	Europe	IAP and ISC
Islamic Republic of Iran	Academy of Sciences of the Islamic Republic of Iran	Asia-Pacific	IAP
Islamic Republic of Iran	Iranian Academy of Medical Sciences	Asia-Pacific	IAP
Israel	Academy of Sciences and Humanities	Asia-Pacific	IAP and ISC
Italy	Accademia Nazionale dei Lincei	Europe	IAP
Japan	Science Council of Japan	Asia-Pacific	IAP and ISC
Latvia	Association of Latvian Young Scientists	Europe	Neither
Latvia	Latvian Academy of Sciences	Europe	IAP and ISC
Lebanon	Lebanese Academy of Sciences	Asia-Pacific	IAP
Lithuania	Lithuanian Academy of Sciences	Europe	IAP and ISC
Malaysia	Academy of Sciences Malaysia	Asia-Pacific	IAP and ISC
Mexico	Academia Mexicana de Ciencias	Americas	IAP and ISC
Mongolia	Mongolian Academy of Sciences	Asia-Pacific	IAP and ISC

Country	Academy	World region	Membership (IAP and/or ISC)
Netherlands	Royal Netherlands Academy of Arts and Sciences	Europe	IAP and ISC
New Zealand	Royal Society Te Apārangi	Asia-Pacific	IAP and ISC
Nicaragua	Nicaraguan Academy of Sciences	Americas	IAP
Nigeria	Nigerian Academy of Science	Africa	IAP and ISC
Nigeria	Nigerian Young Academy	Africa	Neither
Norway	Norwegian Academy of Science and Letters	Europe	IAP and ISC
Pakistan	National Academy of Young Scientists	Asia-Pacific	Neither
Palestine	Palestine Academy for Science and Technology	Asia-Pacific	IAP
Peru	Academia Nacional de Ciencias	Americas	IAP and ISC
Poland	Polish Young Academy	Europe	Neither
Republic of Korea	Korean Academy of Science and Technology	Asia-Pacific	IAP and ISC
Republic of Korea	National Academy of Sciences	Asia-Pacific	IAP and ISC
Republic of North Macedonia	Macedonian Academy of Sciences and Arts	Europe	IAP and ISC
Romania	Academy of Medical Sciences of Romania	Europe	IAP
Serbia	Serbian Academy of Sciences and Arts	Europe	IAP and ISC
Singapore	Singapore National Academy of Science	Asia-Pacific	IAP and ISC
Slovakia	Slovak Academy of Sciences	Europe	IAP and ISC
Slovenia	Slovenian Academy of Sciences and Arts	Europe	IAP and ISC
South Africa	Academy of Science of South Africa	Africa	IAP
South Africa	South African Young Academy of Science	Africa	Neither
Sri Lanka	National Academy of Sciences of Sri Lanka	Asia-Pacific	IAP
Sweden	Royal Swedish Academy of Sciences	Europe	IAP and ISC
Tanzania	Tanzania Academy of Sciences	Africa	IAP
Taiwan, China	Academia Sinica	Asia-Pacific	IAP and ISC
United Kingdom	Academy of Medical Sciences	Europe	IAP
United Kingdom	Royal Society	Europe	IAP and ISC
United States of America	National Academy of Medicine	Americas	IAP
United States of America	National Academy of Sciences	Americas	IAP and ISC
Venezuela	Academia de Ciencias Físicas, Matemáticas y Naturales de Venezuela	Americas	IAP
Zimbabwe	Zimbabwe Academy of Sciences	Africa	IAP

Table 2: List of global and regional academies that participated in the 2020 survey

Country	Academy	Membership (IAP and/or ISC)
Germany	Global Young Academy	IAP
Germany	Young Academy of Europe	Neither
Italy	The World Academy of Sciences	IAP and ISC
Jordan	Islamic World Academy of Sciences	IAP
Trinidad and Tobago	Caribbean Academy of Sciences	IAP and ISC

In the 2015 survey, 72 academies submitted usable questionnaires. Of these, 48 also completed the 2020 survey, two completed only the demographics part of the 2020 survey, and 22 did not complete the 2020 survey. The overlap of 48 academies between the 2015 and 2020 surveys is important in that in the 2020 survey instrument, completion of the section about activities and actions that have occurred since the 2015 survey was directed only at academies that had participated in the earlier survey. However, there was a discrepancy between the actual statistics given above and self-reported statistics. Four academies did not participate in the 2015 survey and yet the respondents reported that they did. A total of 28 academies did participate in the 2015 survey but the respondents said they did not or did not know. Hence, there is a subset of only 20 academies that provide the basis for the analysis of the results in Section 4.

There are two results sections. The first (Section 4) is devoted to the findings of the academies' survey and the second (Section 5) to the findings of the survey of disciplinary unions and associations.

4. Results of the academy survey

4.1 Actions and achievements since 2015 IAP survey

Each of the 20 academies that participated in the 2015 survey had to indicate whether the report findings applied to them. They did so by considering four statements, which are presented in Figure 2. As can be seen, the relevant actions were mainly reading of the report by at least one person, and awareness raising among a few senior members. Only six academies responded that the 2015 survey report led to an internal strategic discussion.

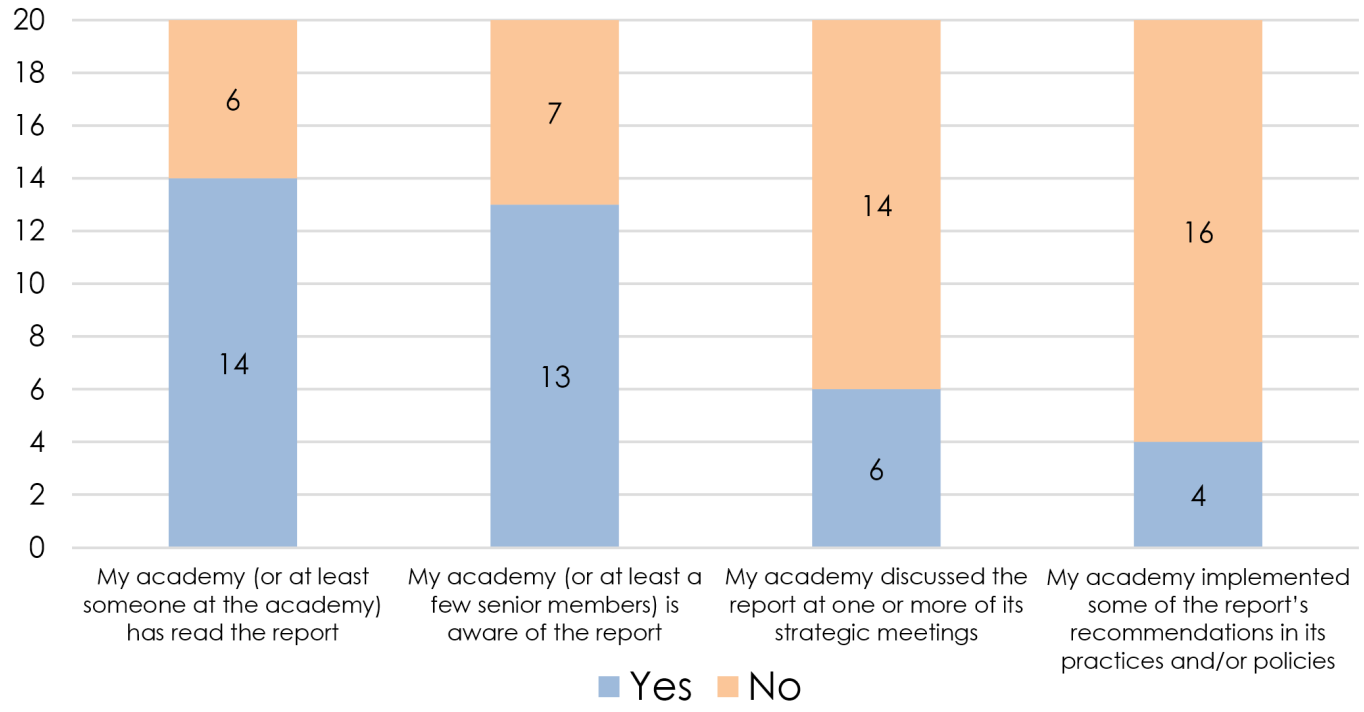

Figure 2: Actions that followed from the 2015 IAP survey report (N=20)

The four academies that implemented some of the report's recommendations were asked to elaborate, and the responses reflect different stages and facets of implementation:

- *Academy of Science of South Africa*: Among the actions undertaken by ASSAf were: the development of a Women and Gender in Science Strategy. Support for the OWSD South Africa national chapter and GenderInSITE Africa regional focal point that are hosted by ASSAf to create awareness and implement activities that promote women in science in the country and beyond. There is an indicator on women in science in the academy's five-year strategic plan and annual plans. Quarterly and annual reports are submitted and monitored by the ASSAf Council, the Department of Science and Technology[VI] and the Parliamentary Portfolio Committee on Science and Technology[VII]. The strategy and awareness activities are continual and ongoing.
- *Cameroon Academy of Sciences*: They targeted more recruitment of women into the academy and more involvement of women in study/workshop activities.
- *German National Academy of Sciences Leopoldina*: New measures have been taken to increase the participation of women. The success can be seen in the increased women's membership rate.
- *Royal Society of Canada*: The academy is in the process of implementing all the report's recommendations.

However, if the responses to the four statements in Figure 2 are extended to include everyone who answered those four statements, whether they were instructed to do so or not, one can see higher incidences of reading and awareness raising but little actual discussion and implementation (Figure 3).

VI Now known as the Department of Science and Innovation
VII Now known as Committee on Higher Education, Science and Technology

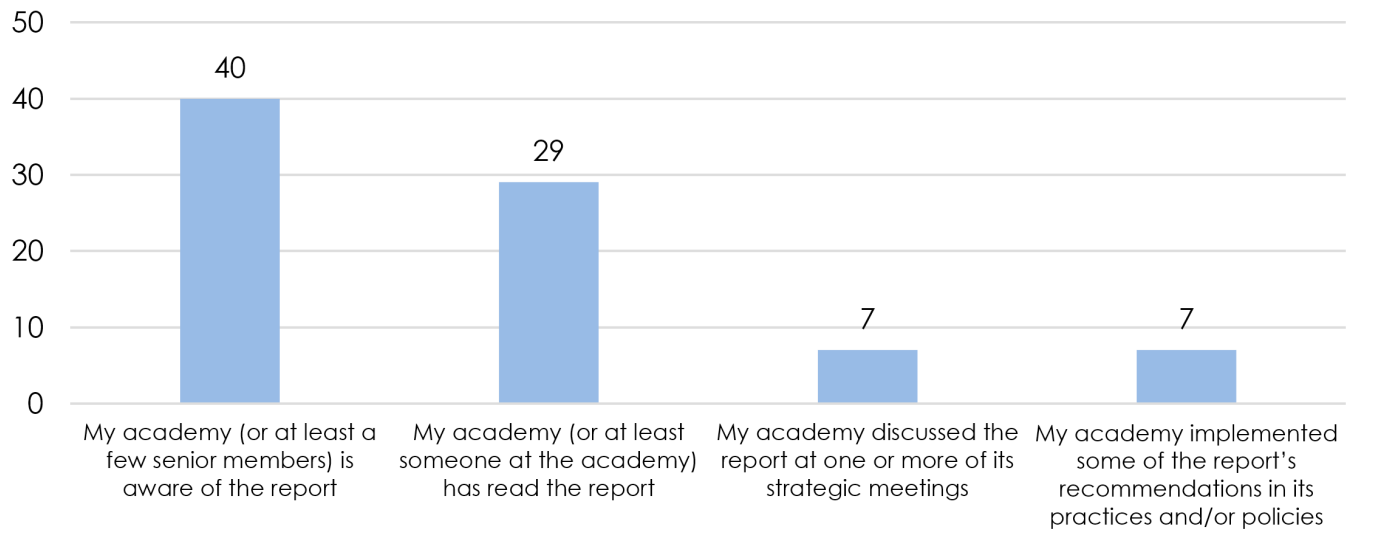

Figure 3: Actions that followed from the 2015 IAP survey report (N=57)

Some additional academies provided details about how the report has informed their actions and decisions. In some cases, the uptake of the report was instrumental (e.g. it informed a strategic plan or led to the appointment of a woman president). In other cases, the report served as a reminder to academies not to lose momentum in the drive towards improving gender equality.

- *Academy of Sciences of Cuba*: The academy has widely disseminated the recommendations of the IAP report, sharing mainly the good position of the Cuban Academy in the figures and comparisons, but also highlighting that there exists the possibility of moving backward if we don't keep the activism and underlining gender issues in the internal life of the academy.
- *Australian Academy of Science*: Since 2014, the academy has been proactive and committed in adopting initiatives that improve gender diversity across all its programmes and activities. Some of the academy's initiatives, such as Science in Australia Gender Equity (SAGE), have now been adopted by many in the research and higher education sector in Australia. Although the academy had started to implement similar activities to those under the "Recommendations" of the 2015 report prior to its publication, the report itself provided an added incentive for the academy to continue its commitment to celebrating excellence in science and supporting equity and inclusion within the fellowship and its numerous programmes and activities.
- *Estonian Academy of Sciences*: In 2017, the Estonian Young Academy of Sciences was established with a female president until spring 2019.
- *South African Young Academy of Science*: Gender concerns are included in the academy's strategic plan. Female members are supported to be part of the academy leadership. Gender issues are included as sub-themes during conferences.
- *Tanzania Academy of Sciences*: The recommendations were considered when formulating the new strategic plan.

Asked what they regarded as the most significant findings of the 2015 report, the respondents highlighted three related themes.

Theme 1: Global comparisons revealed for the first time

- It was a look across countries and across disciplines, which was a welcome approach.
- Extremely helpful data-driven overview of female participation in sister academies.
- Our academy was close to the average percentage of women in academies and the surprising finding that the Cuban Academy had the highest percentage of women.
- The national academy with the largest share of women members is the Cuban Academy of Sciences (27%). The Cuban Academy also has 40% representation of women as members of the governing body (Germany: 10% and 17% respectively).
- The national academies with the highest proportion of female members are the Cuban Academy of Sciences (27%) and the Caribbean Academy of Sciences (26%). The national academies of Mexico, Nicaragua, Peru, Uruguay and Honduras are among the list of the 10 best academies with the highest proportion of female members

Theme 2: Global comparisons provide useful statistics for reporting

- Efforts have been taken to measure the participation of women in academies and actions taken by academies to address the issue of gender diversity. It is significant and useful to provide information on global efforts. International comparisons are included in the academy's President and Chief Executive annual reports to Council, providing data on the diversity of the fellowship and staff. International data are drawn from the IAP report.

Theme 3: Global comparisons present the current status and the relevant evidence has the potential to prompt both established and new academies into action

- The report provides evidence of low representation of women in the academies of science worldwide
- Academies of science should deliberately increase the number of women in their membership and in their leadership.
- Our academy incorporated four women scientists as members in that period.
- It provided the impetus for us as a Young Academy to be aware of these issues and to try and do things differently where possible and take cognizance of the prevailing issues.
- Our academy will only discuss this report in the upcoming General Meeting, as we are still at our early stage of development.

4.2 Academy membership

The academies surveyed were asked to provide two sets of statistics. First, the total number of academy members and, second, the number of women academy members. In both instances a "member" was indicated to represent any person who is elected into the academy based on his/her scientific excellence. It is recognized that various academies use different nomenclature for active members elected into an academy as part of the honorific function of academies. Table 3 reports the share of women members for the 85 individual academies that completed the 2020 survey. It also reports the corresponding shares for the 47[VIII] academies that also completed the 2015 survey. Shaded cells indicate academies that did not participate in the 2015 survey.

With the exception of the Academia Nacional de Ciencias in Peru (zero change between 2015 and 2020) and the Mongolian Academy of Sciences (also zero change), all other academies reported a positive change in the proportion of women's membership between 2015 and 2020. The highest positive increases in the shares of women members are associated with the academies in Venezuela (+17%), Honduras (+12%), Guatemala (+11%) and Japan (+11%).

The average share of women's representation in 2020, across the same cohort of academies as in the 2015 survey, is 17%, up from 13% in the 2015 survey. If all senior academies that responded to the 2020 survey are included (26 more than in 2015), the average for women's membership is 16%, not very different from the average given above. It is noteworthy that there are 19 academies that have 10% or less women's membership. The 19 academies are located in 18 countries. An inspection of the share of women researchers in these countries based on statistics presented in Appendix 1, shows that only in the case of the Ethiopian Academy of Sciences does the share of women academy members (9%) realistically reflect the share of women researchers in the country (11.5%). In other cases, there is a stark contrast between the share of women academy members and the share of women researchers in that country. Examples are the Macedonian Academy of Sciences and Arts (10% share of members versus 53.4% share of researchers), the Lithuanian Academy of Sciences (7% versus 49.5%) and the Mongolian Academy of Sciences (5% versus 48.9%).

As noted in Table 3, the academies of young scientists have the largest shares of women members, with the South African Young Academy of Science in first position (57%), followed by both the Young Academy Finland and the National Academy of Young Scientists of Pakistan in joint second position (55% each). The average share of women's membership of the 13 young academies is 42%. With the exception of three young academies in Africa (Cameroon (23%), Nigeria (16%) and the Democratic Republic of Congo (15%)), all are above 40%.

Ten young academies are ranked ahead of the senior academy with the highest number of women members, *viz.* the Academy of Sciences of Cuba, which has increased its share from 27% to 33%. However, the share of women academy members in Cuba is still markedly below the 49% share of women researchers reported for the country in 2018 (see Appendix 1).

VIII The total is 47 and not 48 because the Academy of Scientific Research and Technology in Egypt, although it participated in the 2015 survey, did not complete this particular question in that survey.

Table 3: Women as a percentage of members of academies, by individual academy (2020 versus 2015)

Academy	Country	2020 survey			2015 survey			Change
		Total members	Women members	% Women	Total members	Women members	% Women	
South African Young Academy of Science	South Africa	49	28	57%				
Young Academy Finland	Finland	74	41	55%				
National Academy of Young Scientists	Pakistan	200	110	55%				
Young Academy of Belgium	Belgium	49	25	51%				
Hungarian Young Academy	Hungary	24	12	50%				
Association of Latvian Young Scientists	Latvia	154	74	48%				
Global Young Academy	Germany	200	89	45%				
Young Academy of Europe	Germany	135	60	44%				
Die Junge Akademie	Germany	50	22	44%				
Polish Young Academy	Poland	32	14	44%				
Academy of Sciences of Cuba	Cuba	375	122	33%	313	85	27%	**+6%**
Koninklijke Academie voor Geneeskunde van België	Belgium	84	26	31%				
Academia de Ciencias Físicas, Matemáticas y Naturales de Venezuela	Venezuela	42	13	31%	50	7	14%	**+17%**
National Academy of Sciences of Honduras	Honduras	35	10	29%	29	5	17%	**+12%**
Nicaraguan Academy of Sciences	Nicaragua	36	10	28%	30	7	23%	**+5%**
National Academy of Medicine	United States of America	2242	631	28%				
Science Council of Japan	Japan	2210	609	28%	2101	361	17%	**+11%**
Caribbean Academy of Sciences	Trinidad and Tobago	150	40	27%	223	57	26%	**+1%**
Academy of Science of South Africa	South Africa	573	155	27%	423	101	24%	**+3%**
Koninklijke Academie voor Nederlandse Taal en Letteren	Belgium	31	8	26%				

Academy	Country	2020 survey			2015 survey			Change
		Total members	Women members	% Women	Total members	Women members	% Women	
Royal Society of Canada	Canada	2273	558	25%	2108	346	16%	**+9%**
Academia Mexicana de Ciencias	Mexico	2832	704	25%	2499	587	23%	**+2%**
Lebanese Academy of Sciences	Lebanon	29	7	24%				
Koninklijke Vlaamse Academie van België voor Wetenschappen en Kunsten	Belgium	295	71	24%				
Cameroon Academy of Young Scientists	Cameroon	40	9	23%				
Academia de Ciencias Medicas, Físicas y Naturales de Guatemala	Guatemala	87	20	23%	68	8	12%	**+11%**
Slovak Academy of Sciences	Slovakia	48	11	23%				
Academy of Scientific Research and Technology	Egypt	600	125	21%				
National Academy of Sciences of Sri Lanka	Sri Lanka	146	30	21%	136	25	18%	**+3%**
Academia Nacional de Ciencias	Peru	116	23	20%	114	23	20%	**0%**
Latvian Academy of Sciences	Latvia	416	85	20%	393	70	18%	**+2%**
Norwegian Academy of Science and Letters	Norway	931	188	20%				
Academy of Sciences Malaysia	Malaysia	376	71	19%	265	41	15%	**+4%**
Academy of Medical Sciences	United Kingdom	1292	248	19%				
The National Academy of Sciences	United States of America	2403	466	19%	2252	294	13%	**+6%**
Royal Irish Academy	Ireland	514	93	18%	480	69	14%	**+4%**
The Royal Academies for Science and the Arts of Belgium	Belgium	338	59	17%				

Academy	Country	2020 survey			2015 survey			Change
		Total members	Women members	% Women	Total members	Women members	% Women	
Berlin-Brandenburg Academy of Sciences and Humanities	Germany	380	63	17%				
Colombian Academy of Exact, Physical and Natural Sciences	Colombia	238	41	17%	190	26	14%	+3%
Académie des Sciences, Institut de France	France	270	45	17%	485	38	8%	+9%
Royal Netherlands Academy of Arts and Sciences	Netherlands	585	102	17%	547	74	14%	+3%
Nigerian Young Academy	Nigeria	43	7	16%				
Austrian Academy of Sciences	Austria	776	126	16%	790	105	13%	+3%
Academy of Sciences and Arts of Bosnia and Herzegovina	Bosnia and Herzegovina	49	8	16%	55	8	15%	+1%
Royal Society Te Apārangi	New Zealand	423	68	16%	446	39	9%	+7%
Academie des Sciences pour les Jeunes en République Démocratique du Congo	Democratic Republic of the Congo	33	5	15%				
Chilean Academy of Sciences	Chile	80	12	15%	75	9	12%	+3%
Brazilian Academy of Sciences	Brazil	938	137	15%	506	64	13%	+2%
Academia Nacional de Ciencias	Argentina	135	20	15%				
Royal Swedish Academy of Sciences	Sweden	622	96	15%	624	78	13%	+2%
Australian Academy of Science	Australia	539	80	15%	479	46	10%	+5%
Academia de Ciencias de la República Dominicana	Dominican Republic	172	24	14%	168	22	13%	+1%
German National Academy of Sciences Leopoldina	Germany	1600	223	14%	1534	152	10%	+4%

Academy	Country	2020 survey			2015 survey			Change
		Total members	Women members	% Women	Total members	Women members	% Women	
The World Academy of Sciences	Italy	1278	177	14%	1141	117	10%	+4%
Ghana Academy of Arts and Sciences	Ghana	125	18	14%	105	12	11%	+3%
Cameroon Academy of Sciences	Cameroon	87	11	13%	83	9	11%	+2%
Academy of Sciences and Humanities	Israel	132	17	13%				
Serbian Academy of Sciences and Arts	Serbia	135	17	13%	141	13	9%	+4%
Islamic World Academy of Sciences	Jordan	104	14	13%	105	9	9%	+4%
Iranian Academy of Medical Sciences	Islamic Republic of Iran	76	9	12%				
Tanzania Academy of Sciences	Tanzania	129	16	12%	130	5	4%	+8%
Academia Sinica	Taiwan, China	282	32	11%				
Georgian National Academy of Sciences	Georgia	96	11	11%	103	8	8%	+3%
Croatian Academy of Sciences and Arts	Croatia	133	15	11%	150	15	10%	+1%
Zimbabwe Academy of Sciences	Zimbabwe	92	10	11%				
Singapore National Academy of Science	Singapore	37	4	11%				
Nigerian Academy of Science	Nigeria	249	24	10%	160	14	9%	+1%
Academy of Medical Sciences of Romania	Romania	161	16	10%				
Royal Society	United Kingdom	1514	146	10%	1419	92	6%	+4%
Accademia Nazionale dei Lincei	Italy	532	51	10%	530	28	5%	+5%
Macedonian Academy of Sciences and Arts	Republic of North Macedonia	40	4	10%				
Czech Academy of Sciences[IX]	Czech Republic	96	9	9%				

IX The Czech Academy of Sciences responded to the 2015 survey but their statistics have not been included here as they were for the full academy and not for the Learned Society of the Czech Republic, which records elected members.

Academy	Country	2020 survey			2015 survey			Change
		Total members	Women members	% Women	Total members	Women members	% Women	
Indian National Science Academy	India	1044	89	9%	864	52	6%	+3%
Ethiopian Academy of Sciences	Ethiopia	243	21	9%	102	5	5%	+4%
Bangladesh Academy of Sciences	Bangladesh	56	5	9%	85	6	7%	+2%
Hungarian Academy of Sciences	Hungary	758	57	8%	776	39	5%	+3%
Estonian Academy of Sciences	Estonia	75	6	8%				
Slovenian Academy of Sciences and Arts	Slovenia	96	8	8%	95	5	5%	+3%
Palestine Academy for Science and Technology	Palestine	80	6	8%	75	5	7%	+1%
Lithuanian Academy of Sciences	Lithuania	224	15	7%				
Korean Academy of Science and Technology	Republic of Korea	487	36	7%				
Mongolian Academy of Sciences	Mongolia	60	3	5%	63	3	5%	0%
National Academy of Medicine of Brazil	Brazil	107	5	5%				
Academy of Sciences of the Islamic Republic of Iran	Islamic Republic of Iran	153	4	3%				
National Academy of Sciences	Republic of Korea	141	3	2%				

The survey included an additional question as to whether the academy admits members in all disciplines or only members in the natural, physical or pure sciences. The share of women for the 64 academies that admit members in all disciplines, including the arts, engineering, humanities and social sciences, is 20.8%. The corresponding share in the case of the 21 academies that admit members only in the natural, physical or pure sciences is 17.3%.

Table 4 compares, for each world region, the mean share of women members in the 85 academies that completed the 2020 survey. On average, the five academies in the global and regional category have the largest share of woman membership (29%). Their relatively high share is primarily because of the Global Young Academy (45% share) and the Young Academy of Europe (also 45%), and to some extent also because of the Caribbean Academy of Sciences (27%), but less so because of The World Academy of Sciences (14%) and the Islamic World Academy of Sciences (13%).

Table 4 also shows the changes between 2015 and 2020 for the 47 academies for which 2015 data are available. All regions reflect a positive change (which ranges between +3% and +5%).

Table 4: Women members as a percentage of total members of academies, by region (2020 versus 2015)

Regions	2020 survey		Matching academies in 2020 & 2015 surveys			
	Number of academies (85)	% Women	Number of academies (47)	% Women 2020	% Women 2015	Change
Africa	12	19%	6	14%	11%	+3%
Americas	16	21%	13	22%	17%	+5%
Asia-Pacific	19	15%	10	14%	10%	+4%
Europe	33	21%	15	16%	11%	+5%
Global & Regional	5	29%	3	18%	15%	+3%

4.3 Academy membership by broad discipline

Respondents were asked to specify the number of academy members, as well as the number of women academy members, in nine broad discipline groups. The groups are as follows:

- Agricultural sciences
- Biological sciences
- Computer sciences/information and communications technology (ICT)
- Earth and environmental sciences
- Engineering sciences
- Mathematical sciences
- Medical and health sciences
- Physical and chemical sciences
- Social sciences, humanities and arts

An "all other" option was included to capture an academy's discipline category when there was no match to any of the nine groups provided.

The mean share of women members for each of the nine broad disciplines across all the academies that completed the relevant question in the survey ranges from as high as 28% (biological sciences) and 27% (social sciences, humanities and arts) to as low as 10% (engineering sciences) and 8% (mathematical sciences) (Figure 4). However, given that there are large size differences between the individual academies as far as the mean share of women members, the median share is also depicted in Figure 4. There are two discipline groups, viz. computer sciences/ICT and mathematical sciences, where the median share of women members per academy equals zero, meaning that at least 50% of the academies reported no women members in these two categories. Appendix 4 reports the statistics in detail.

Table 5 ignores the breakdown by individual academy and reports the share of women academy members by broad discipline group. Women are 'best' represented in the social sciences, humanities and arts (28% of all members in this discipline, across all academies, are women), followed by the biological sciences (20%), and the medical and health sciences (20%). Women's representation as academy members is least in the engineering sciences (8%) and mathematical sciences (7%). However, the survey did not specifically target separate academies of engineering, which means that not all academies in the engineering field are represented.

Table 5 also includes a comparison with 61 academies from the 2015 survey that provided field-specific data in that survey. Although the 61 academies (for which field specific data are available) have not been linked one-to-one to the academies from the 2020 survey in Table 8, the table nevertheless reveals positive changes in the overall share of women members between the two time periods. Although the 'other disciplines' category shows a negative change (-9%), the latter can be safely ignored as this category is the least consistent between the two surveys. Different academy representatives from the same academy across the two surveys might have classified their disciplines differently because of the open-ended nature of this category.

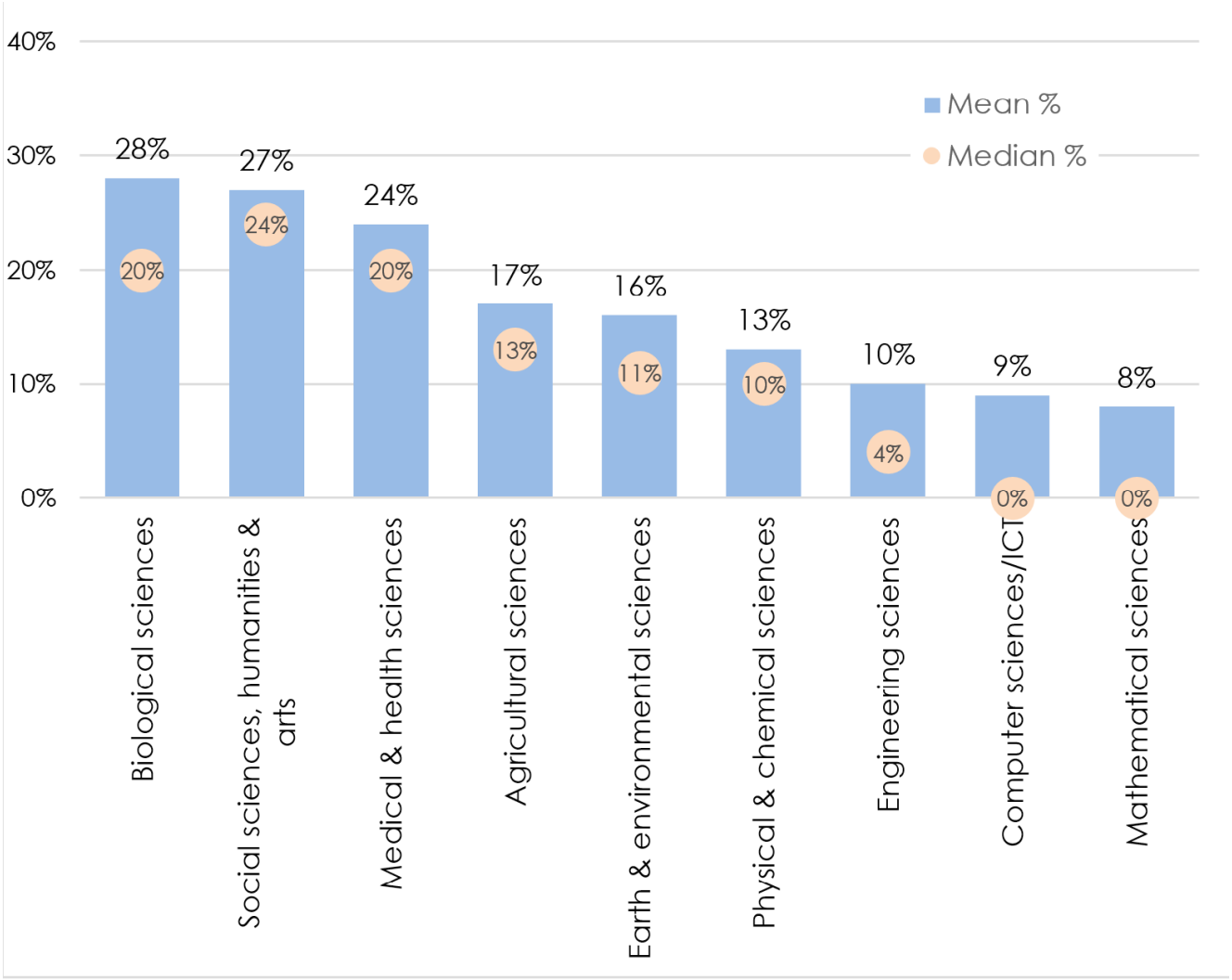

Figure 4: Mean (and median) percentage of women members of academies, by broad discipline group

Table 5: Women as percentage of members of academies, by broad discipline group

Broad discipline	2020 survey (65 academies)			2015 survey (61 academies)			Change
	Total number of members	Total number of women members	% Women members	Total number of members	Total number of women members	% Women members	
Agricultural sciences	1302	241	19%	705	69	10%	+9%
Biological sciences	3717	753	20%	3276	493	15%	+5%
Computer sciences/ICT	417	53	13%	599	43	7%	+6%
Earth and environmental sciences	1428	186	13%	1474	119	8%	+5%
Engineering sciences	2012	154	8%	2044	111	5%	+3%
Mathematical sciences	1458	108	7%	1401	80	6%	+1%
Medical and health sciences	5216	1021	20%	3246	457	14%	+6%
Physical and chemical sciences	4377	477	11%	4351	342	8%	+3%

Broad discipline	2020 survey (65 academies)			2015 survey (61 academies)			Change
	Total number of members	Total number of women members	% Women members	Total number of members	Total number of women members	% Women members	
Social sciences, humanities and arts	5589	1539	28%	5218	858	16%	+12%
Other disciplines	669	83	12%	1142	238	21%	-9%

Note: The broad discipline groups are not always mutually exclusive as the same individuals could have been counted in more than one discipline because of multiple disciplinary classifications.

4.4 Academy governance

Turning to women's representation in the governance of academies, the average share of women serving on the governing body (29%, based on the figures for 2020 in Table 6) is markedly higher than the share of women in the academy membership (16%, based on Table 3). The corresponding median shares are 27% and 16%, respectively. This observation is consistent with what can be found in the academic literature on gender representation, where women are reported to be better represented in service positions than in research positions.

The average share of women serving on the governing body (29% for the 85 academies in 2020) also represents an increase over the corresponding share of 21% for the 46 academies[X] that participated in the 2015 survey. Comparing the same cohort of 43 academies that participated in both the 2015 and 2020 surveys, the recent share is slightly lower at 28%. This might be indicative of a concerted effort by some academies to involve more women in their governing body.

According to Table 6, the National Academy of Medicine in the US (67%), together with *Academia de Ciencias Físicas, Matemáticas y Naturales de Venezuela* (67%) and the Global Young Academy (64%), have the highest representation of women among the governing body. Given that the numbers of people serving on the governing body are generally small, even a small change in its composition can result in large percentage increases (or decreases). The general trend in Table 6 is large increases overall between 2015 and 2020 in the share of women's representation on the governing bodies. However, it is equally possible for an academy to increase its share over time, not because of more women serving on the body, but because of a change in the total number of people serving on the board. The Royal Society of Canada, for instance, increased its share by 17% between 2015 and 2020, although the actual number of women on the board (six) remained the same.

Table 6: Women as percentage of members serving on the governing body, by academy

Country	Academy	2020 survey			2015 survey			Change	How is governing body elected?
		Total	W	% W	Total	W	% W		
United States	National Academy of Medicine	18	12	67%	17	8	47%	+20%	By all members
Venezuela	Academia de Ciencias Físicas, Matemáticas y Naturales de Venezuela	6	4	67%	6	1	17%	+50%	Other
Germany	Global Young Academy	11	7	64%					Other
Finland	Young Academy Finland	8	5	63%					By all members
Belgium	Young Academy of Belgium	10	6	60%					By all members
Cuba	Academy of Sciences of Cuba	10	6	60%	10	4	40%	+20%	By all members
United Kingdom	Academy of Medical Sciences	17	10	59%					By all members
United States	National Academy of Sciences	17	10	59%					By all members
Belgium	Koninklijke Academie voor Geneeskunde van België	7	4	57%					By all members
Hungary	Hungarian Young Academy	7	4	57%					By all members

X The total is 46 and not 48 because the Nigerian Academy of Science and the National Academy of Sciences of Peru, although both participated in the 2015 survey, did not complete this particular question in that survey.

Country	Academy	2020 survey			2015 survey			Change	How is governing body elected?
		Total	W	% W	Total	W	% W		
Pakistan	National Academy of Young Scientists	7	4	57%					By a group of members
Canada	Royal Society of Canada	11	6	55%	16	6	38%	+17%	By all members
Germany	Young Academy of Europe	12	6	50%					By all members
Israel	Academy of Sciences and Humanities	6	3	50%					By all members
Singapore	Singapore National Academy of Science	4	2	50%					By a group of members
United Kingdom	Royal Society	23	11	48%	20	8	40%	+8%	By all members
Australia	Australian Academy of Science	17	8	47%	17	5	29%	+18%	By all members
Ireland	Royal Irish Academy	22	10	45%	22	8	36%	+9%	By all members
South Africa	South African Young Academy of Science	9	4	44%					Other
Malaysia	Academy of Sciences Malaysia	16	7	44%	16	4	25%	+19%	By all members
Belgium	Royal Academies for Science and the Arts of Belgium	21	9	43%					Other
Guatemala	Academia de Ciencias Medicas, Físicas y Naturales de Guatemala	7	3	43%	6	1	17%	26%	By all members
Nicaragua	Nicaraguan Academy of Sciences	7	3	43%	30	7	23%	+20%	By all members
Peru	Academia Nacional de Ciencias	7	3	43%					By a group of members
Germany	Die Junge Akademie	5	2	40%					By all members
Latvia	Association of Latvian Young Scientists	5	2	40%					By all members
Lebanon	Lebanese Academy of Sciences	5	2	40%					By all members
Mexico	Academia Mexicana de Ciencias	5	2	40%	10	3	30%	+10%	By all members
South Africa	Academy of Science of South Africa	13	5	38%	13	4	31%	+7%	By all members
Japan	Science Council of Japan	16	6	38%	16	4	25%	+13%	Other
Belgium	Koninklijke Vlaamse Academie van België voor Wetenschappen en Kunsten	19	7	37%					By all members
Ghana	Ghana Academy of Arts and Sciences	11	4	36%	11	2	18%	+18%	By all members
Czech Republic	Czech Academy of Sciences	17	6	35%	17	4	24%	+11%	By a group of members
Chile	Chilean Academy of Sciences	6	2	33%	6	1	17%	+16%	By a group of members
New Zealand	Royal Society Te Apārangi	9	3	33%	7	1	14%	+19%	By all members
Poland	Polish Young Academy	3	1	33%					By all members
Netherlands	Royal Netherlands Academy of Arts and Sciences	6	2	33%	7	3	43%	-10%	By all members
Germany	Berlin-Brandenburg Academy of Sciences and Humanities	16	5	31%					By a group of members
Cameroon	Cameroon Academy of Young Scientists	10	3	30%					By all members
Norway	Norwegian Academy of Science and Letters	10	3	30%					By all members
Dominican Republic	Academia de Ciencias de la República Dominicana	17	5	29%	17	5	29%	+0%	By all members

Country	Academy	2020 survey			2015 survey			Change	How is governing body elected?
		Total	W	% W	Total	W	% W		
Latvia	Latvian Academy of Sciences	26	7	27%	30	7	23%	+4%	By a group of members
Egypt	Academy of Scientific Research and Technology	15	4	27%	27	2	7%	+20%	By a group of both members and non-members
Sweden	Royal Swedish Academy of Sciences	15	4	27%	15	7	47%	-20%	By all members
Argentina	Academia Nacional de Ciencias	16	4	25%					By all members
Bosnia and Herzegovina	Academy of Sciences and Arts of Bosnia and Herzegovina	16	4	25%	16	3	19%	+6%	By all members
Croatia	Croatian Academy of Sciences and Arts	4	1	25%	5	1	20%	+5%	By all members
Ethiopia	Ethiopian Academy of Sciences	12	3	25%	11	1	9%	+16%	By all members
Tanzania	Tanzania Academy of Sciences	12	3	25%	6	1	17%	+8%	By all members
Trinidad & Tobago	Caribbean Academy of Sciences	12	3	25%	7	2	29%	-4%	By all members
Sri Lanka	National Academy of Sciences of Sri Lanka	17	4	24%	17	4	24%	0%	By all members
Brazil	Brazilian Academy of Sciences	13	3	23%	13	1	8%	+15%	By all members
India	Indian National Science Academy	31	7	23%	31	0	0%	+23%	By all members
Nigeria	Nigerian Academy of Science	18	4	22%					By all members
Republic of Korea	The Korean Academy of Science and Technology	18	4	22%					By all members
Belgium	Koninklijke Academie voor Nederlandse Taal en Letteren	5	1	20%					By all members
Democratic Republic of the Congo	Academie des Sciences pour les Jeunes en République Démocratique du Congo	10	2	20%					By all members
Honduras	National Academy of Sciences of Honduras	5	1	20%	3	1	33%	-13%	By a group of members
North Macedonia	Macedonian Academy of Sciences and Arts	11	2	18%					By all members
Germany	German National Academy of Sciences Leopoldina	12	2	17%	12	2	17%	0%	By a group of both members and non-members
Taiwan	Academia Sinica	72	11	15%					By all members
Bangladesh	Bangladesh Academy of Sciences	13	2	15%	13	2	15%	0%	By all members
France	Académie des Sciences, Institut de France	7	1	14%	7	1	14%	0%	By all members
Georgia	Georgian National Academy of Sciences	14	2	14%	20	1	5%	+9%	By all members
Italy	The World Academy of Sciences	15	2	13%	14	3	21%	-8%	By all members
Slovakia	Slovak Academy of Sciences	15	2	13%					Other
Palestine	Palestine Academy for Science and Technology	23	3	13%	6	1	17%	-4%	By all members
Italy	Accademia Nazionale dei Lincei	8	1	13%	8	0	0%	+13%	Other
Colombia	Colombian Academy of Exact, Physical and Natural Sciences	9	1	11%	7	2	29%	-18%	By all members
Nigeria	Nigerian Young Academy	10	1	10%					By all members

Country	Academy	2020 survey			2015 survey			Change	How is governing body elected?
		Total	W	% W	Total	W	% W		
Zimbabwe	Zimbabwe Academy of Sciences	10	1	10%					By all members
Cameroon	Cameroon Academy of Sciences	11	1	9%	9	0	0%	9%	By all members
Iran	Iranian Academy of Medical Sciences	22	2	9%					By all members
Jordan	Islamic World Academy of Sciences	11	1	9%	11	1	9%	0%	By all members
Slovenia	Slovenian Academy of Sciences and Arts	13	1	8%	13	0	0%	8%	By a group of members
Brazil	National Academy of Medicine of Brazil	15	1	7%					By all members
Hungary	Hungarian Academy of Sciences	30	2	7%	33	1	3%	+4%	Other
Mongolia	Mongolian Academy of Sciences	17	1	6%	17	1	6%	0%	By all members
Austria	Austrian Academy of Sciences	4	0	0%	4	1	25%	-25%	By a group of members
Estonia	Estonian Academy of Sciences	16	0	0%					By all members
Iran	Academy of Sciences of the Islamic Republic of Iran	3	0	0%					By a group of members
Lithuania	Lithuanian Academy of Sciences	8	0	0%					By a group of members
Republic of Korea	National Academy of Sciences	11	0	0%					By all members
Romania	Academy of Medical Sciences of Romania	5	0	0%					By all members
Serbia	Serbian Academy of Sciences and Arts	6	0	0%	13	1	8%	-8%	By all members

Since the survey also collected information on whether the academy admits members in all disciplines or only members in the natural, physical or pure sciences, the additional information was analyzed with the representation of women on the governing bodies in mind. It was found that the share of women on the governing body, in the case of the 21 academies that admit members in selected disciplines only (32.8%), is higher than the corresponding share (28.4%) for the 64 academies that admit members in all disciplines

The leadership profile of academies and women's representation was also probed. Respondents were asked whether the academy is governed by a president/chair and/or co-chairs. Of the 73 academies that are governed by a president/chair, 15 (20%) of them reported a woman currently in that position. Where an academy is governed by co-chairs, as was the case for six of the surveyed academies, all of them reported at least one woman as a co-chair (with one academy reporting two women as co-chairs).

4.5 Gender-related strategies and activities

Academies were asked about the existence of academy-specific documents and initiatives that could accelerate women's participation in the academy's activities. The first was whether the academy had any document (e.g. strategy, policy or founding document) that explicitly mentions the need for increased participation of women in the academy's activities. Of the 84 academies[XI] that answered either question, 36% (or 30) responded in the affirmative.

The 30 academies that confirmed the presence of a gender policy or document that promotes greater participation by women, also provided details about the relevant document, as well as specifying the driving force behind the document. The details appear in Appendix 5 and reveal a wide variety of documents. Strategic plans are frequently mentioned; some are stand-alone strategies or policies for gender and/or diversity issues, whereas others include gender or diversity statements/sections/chapters

XI The Academia Sinica in Taiwan, China, did not answer this question. For all analyses in the rest of Section 4, where the total number of academies equals 84 and not 85, it is because of a missing response by this academy.

in a general strategic plan. Research reports are also mentioned as well as other sets of regulations and procedures for academies, which contain some reference to the need for gender representation and participation. Most of the documents listed are relatively recent, although some date back as far as 1991, 2005 and 2009. In addition, the driving forces for the development of the document appear to be mainly academy-related (i.e. internal to the academy), while a few were driven by government policy.

The second initiative enquired about in the survey was whether the academy hosts any 'Women in Science' award. Twenty (24%) out of 84 academies responded that it was indeed the case. Appendix 6 lists the academies by country and region, together with an indication of how often the award is presented. In most cases it is presented annually.

A third initiative enquired about in the survey was whether the academy has any fellowships or grants specifically devoted to women. Nine (11%) academies confirmed that this was the case. The examples provided appear in Appendix 7.

Asked if they have any programmes/initiatives on women in science, 39 (46%) of the 84 academies responded positively. The programmes and initiatives are wide-ranging, as is evident from the descriptions in Appendix 8. For some academies, the relevant programmes and initiatives are informed by their being the focal points and national chapters of global and regional organizations/initiatives such as OWSD, GenderInSITE and TWAS. A few academies have also established a commission for women in science, whereas, for others, relevant initiatives relate to the organization of specific events such as summits, international conferences and communication campaigns. The nature of the initiatives are both inward looking (e.g. how the academy can improve its gender and diversity representation) and outward looking (e.g. activities to empower the girl child and women in communities, interventions in higher education and research institutions, and the development of national frameworks such as a decadal plan for women in science).

The survey also included a set of statements on women's issues, with one broadening to consider gender awareness, where academies had to indicate whether the statements were reflective of their organization. The six statements and the extent of agreement across all academies are presented in Figure 5. A breakdown of responses by region is provided in Appendix 9.

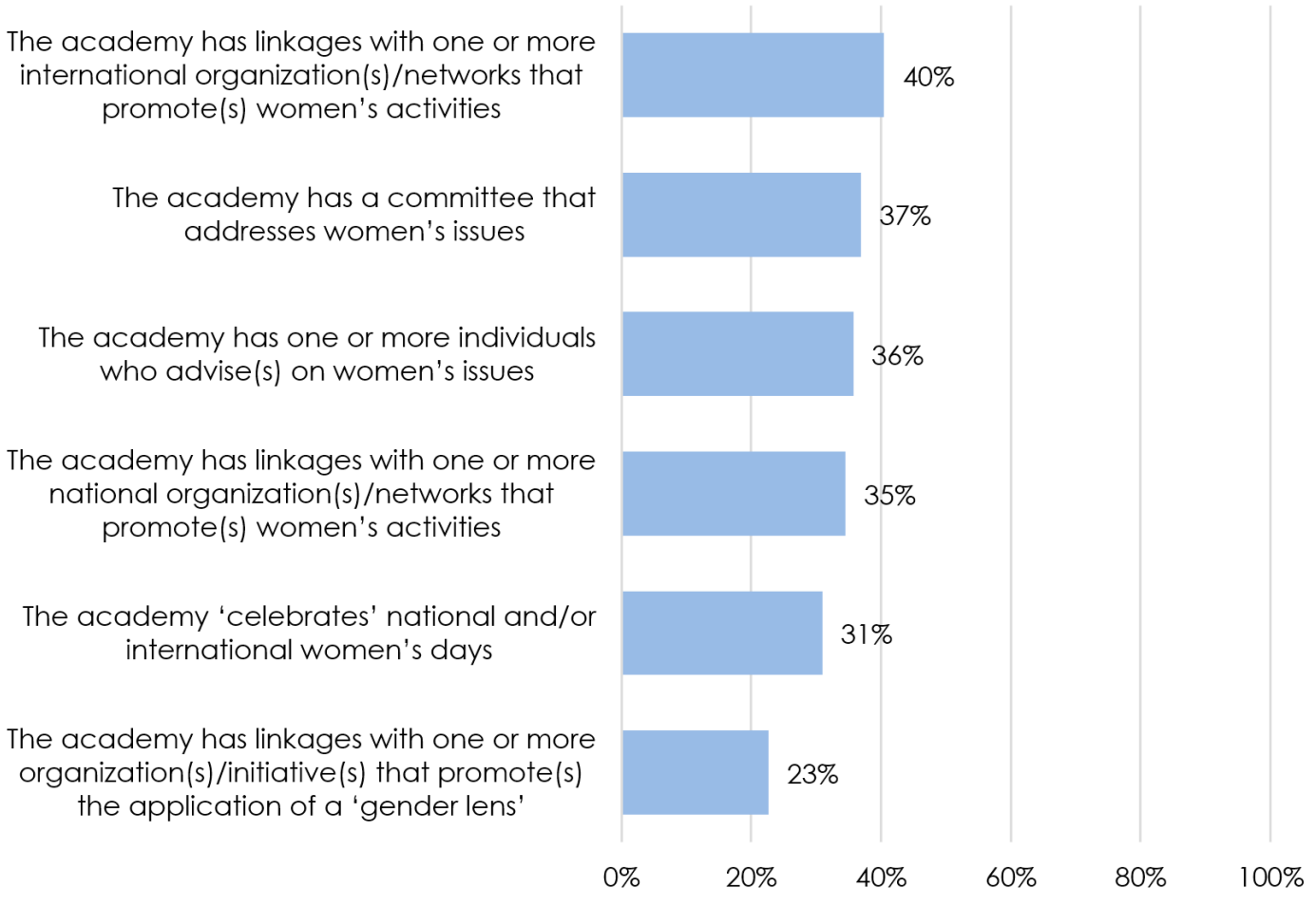

Figure 5: How academies address women's issues (N=84)

About 40% of academies address women's issues through linkages with one or more international organization(s)/networks that promote(s) women's activities. This is the case for 13 of the 16 academies in the Americas (Appendix 10) but less so for Europe, where only seven of the 33 academies in that region reported that strategy. In the Americas, the strong focus of IANAS, as a regional group, on women in science and their over 20-year history of undertaking gender-focused studies and advocacy, is significant. It is noted that there is generally a stronger focus on organizations and issues that promote women's issues than the application of a 'gender lens'.

In terms of the international organizations or networks that promote women's activities in science and with which the academies have linkages (Appendix 10), the typical ones are IAP, IANAS, ISC, OWSD and TWAS. Other organizations mentioned include UNESCO, the European Federation of Academies of Sciences and Humanities, the European Institute for Gender Equality, the International Human Rights Network of Academies and Scholarly Societies, the International Network for Availability of Scientific Publications, and NASAC.

Appendix 11 provides additional information about the committees that address women's issues at academies. Some academy representatives merely listed the name of the relevant committee whereas others provided information about either the composition or activities of the committee. What seems clear is that the committees primarily prioritize women and gender issues. A focus on broader issues of diversity and inclusion, as part of the function and responsibility of a committee, was mentioned by seven academies only. They are the Australian Academy of Science, Austrian Academy of Sciences, Young Academy of Belgium, Royal Society of Canada, Royal Irish Academy, Royal Society in the UK, and the National Academy of Medicine in the US.

Appendix 12 elaborates on the national organizations and networks that the academies link up with to promote women's activities. These include government ministries, societies or networks promoting women in science and gender groups at universities, amongst others.

Information about the national and international women's day celebrations, as mentioned by the survey respondents are elaborated upon in Appendix 13. Two international days of celebration dominate, namely 11 February (International Day of Women and Girls in Science) and 8 March (International Women's Day). The upcoming 50th anniversary of the International Women's Year in 2025 was also mentioned. Some academies also have national celebrations on other days, such as Ada Lovelace Day in the United Kingdom (UK), which is held every year on the second Tuesday of October, and National Women's Day in South Africa, which is on 9 August each year. The forms of celebration are diverse. These include devoting an entire month (as opposed to a single day) to awareness raising, posting celebrations on social media, having award ceremonies for women scientists, facilitating public lectures and talks by prominent and early-career women scientists on their career trajectories, hosting a conference to drive the implementation of a Women in STEM (science, technology, engineering and mathematics) Decadal Plan, and providing for a range of educational and parental engagement activities. In one instance, the female employees of an academy are treated to an all-expenses paid weekend trip, and in another instance, the women receive flowers.

Appendix 14 highlights the organizations that the academies link up with to promote the application of a 'gender lens' in their activities. Many of the organizations listed are international ones already mentioned previously (e.g. GenderInSITE, IANAS, ISC, OWSD, NASAC and UNESCO). Some of them are donor-related (e.g. the link between the Ethiopian Academy of Sciences and the David and Lucile Packard Foundation), whereas others are based on shared national experiences and concerns. Examples of the latter type of linkages are between the Young Academy of Belgium and Belgian Women in Science, the Royal Society of Canada and the Canadian Tri-Councils, and the Royal Netherlands Academy of Arts and Sciences and the Dutch Network of Women Professors.

Of the 84 academies, 21 (25%) indicated that they had published, since 2016, a report that specifically addresses issues related to women or gender. The details about the reports appear in Appendix 15.

Nineteen of the 85 academies (22%) have a document of some kind that addresses sexual harassment in the workplace (Appendix 16). A dedicated (stand-alone) policy on sexual harassment is a very recent development at a few academies, for example, the Ethiopian Academy of Sciences, the Royal Society of Canada, the Australian Academy of Science, and the Academy of Medical Sciences in the UK. What is more common, though, is for sexual harassment to be addressed as part of a human resources policy or workplace policy, under conditions of service or code of conduct. Some academies also made mention of relevant structures dealing with issues of sexual harassment at the academy, such as a committee for sexual harassment of women (Indian National Science Academy), an equal opportunities officer (Die Junge Akademie, Germany) and an external confidential counsellor (Royal Netherlands Academy of Arts and Sciences). It is also noted that in May 2021 it was reported that for the first time the US National Academies of Science had expelled a member who had been found guilty of sexual harassment.[XII]

XII doi:10.1126/science.abj7157

The academies were asked to express their extent of agreement with nine statements about the participation of women in their academy's activities (Figure 6). Although the responses lean strongly to the positive side as more than half of the academies either agreed or strongly agreed with eight of the nine statements, there are issues of concern. For instance, relatively large shares of academies (11% to 29%) prefer to remain neutral about some of the issues raised. It is also evident that there is a stronger drive towards accomplishing female representation (e.g. 'focusing on the numbers'), than a broader focus on integrating a gender dimension into the activities and functions of an academy.

In terms of structures, between 74% and 83% of academies either agreed or strongly agreed that their academy is working towards ensuring more women at decision-making levels, and in panels and committees. However, in terms of women's representation in the nomination pool for membership, as well as in the nomination pool for prizes and awards, the corresponding figures are lower at 62% and 61% respectively. Overall, the academies' alignment with Sustainable Development Goal 5 (gender equality) of the United Nations (UN) is relatively low (46% who agreed or strongly agreed, with an additional 20% stating that it does not apply to their academy). The same concern applies to the application of a 'gender lens' in the work of an academy (55% either agreed or strongly agreed).

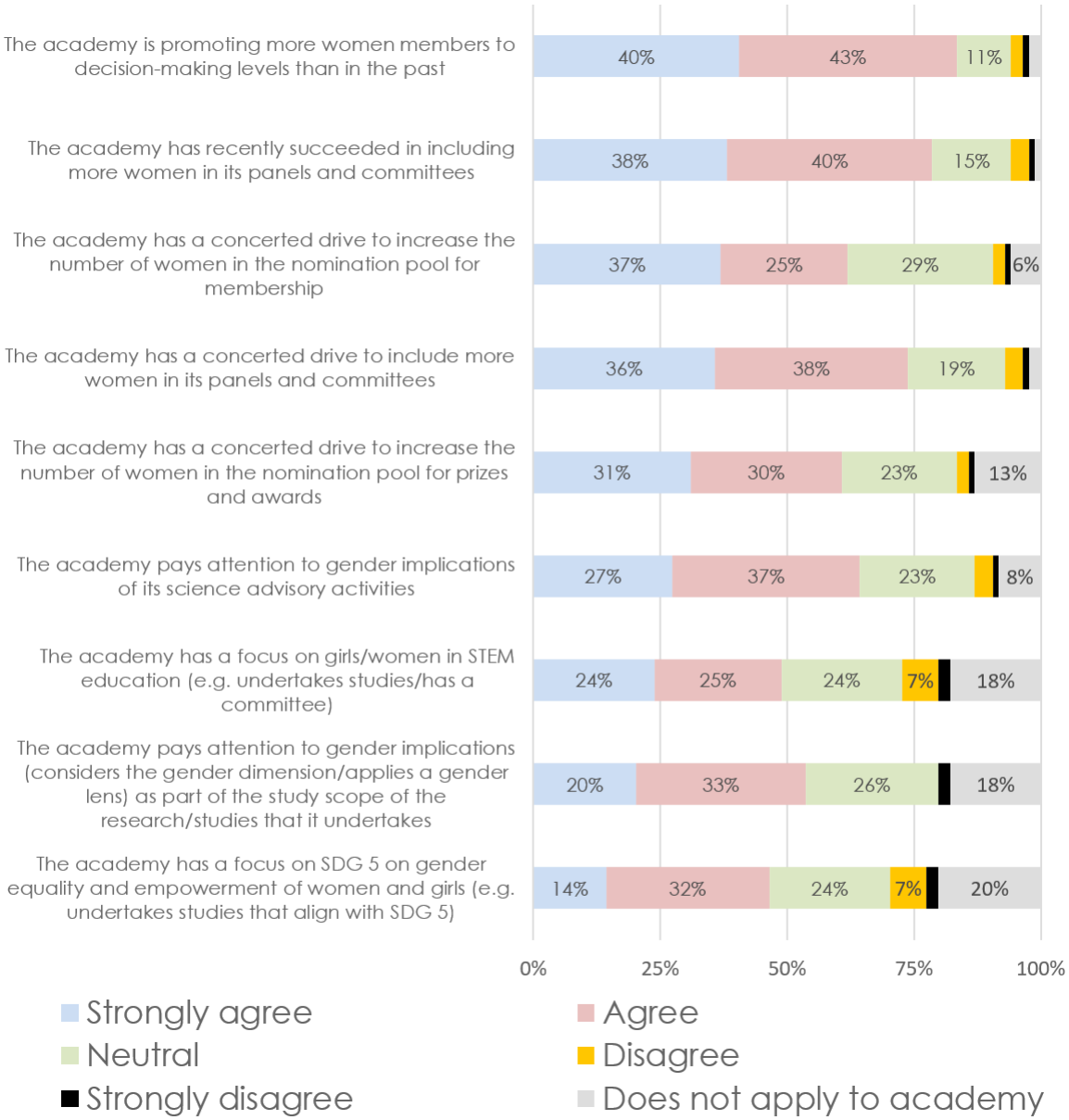

Figure 6: Extent of agreement with statements about the participation of women in academy activities

4.6 Diversity and inclusivity

With regard to diversity and inclusivity issues (Figure 7), there are expressed commitments by relatively small percentages of academies but little action (e.g. the appointment of an advisor on diversity issues; 15%).

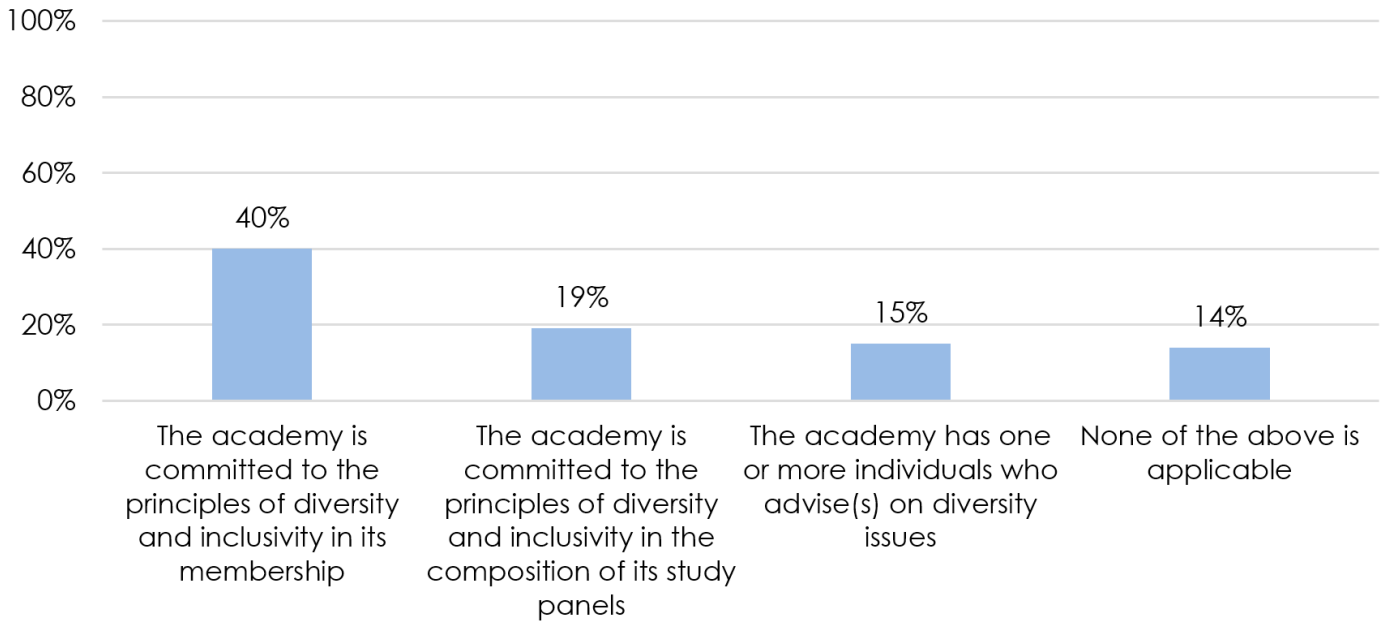

Figure 7: Academies' views on diversity and inclusivity issues

4.7 General remarks about role of women and gender-related issues

Finally, the academies were given an opportunity to make additional comments about the role of women and gender-related issues in their academy's activities (Appendix 17). Some of the highlights are:

- Production of an annual diversity report – UK Academy of Medical Sciences, Australian Academy of Science
- Broadening of gender issues to include a range of characteristics such as ethnicity, race, sexual orientation, geography etc. – UK Academy of Medical Sciences, South African Young Academy of Science
- Assisting government with their reporting on women in science – Academy of Science of South Africa
- Use of images of women scientists in their promotional work – UK Royal Society

The Australian Academy of Science stands out as the academy that has the greatest number of initiatives to address gender equity. These include, inter alia, a pledge for study panel members, communications and outreach strategies that strive for equity of voice, and the offering of grants and in-house care services to encourage greater involvement by those with caring responsibilities. The UK Academy of Medical Sciences also features as a strong champion. It is worth noting that both these countries have embraced the Athena SWAN (Scientific Women's Academic Network) programme.

5. Results of the survey of disciplinary unions and associations

5.1 The participating disciplinary organizations

A total of 38 ISC-affiliated international disciplinary unions and associations completed and submitted questionnaires for analysis. Their names are presented in Table 7, together with other information that will be discussed under separate headings that follow.

Table 7: ISC-affiliated unions and associations that participated in the survey

Organizations	Membership (country and/or individual)	Number of countries in which represented
Association of Science and Technology Centres	I	-
European Consortium for Political Research	C & I	50
International Arctic Science Committee	C	23
International Commission for Optics	C	60
International Council for Industrial and Applied Mathematics	C	50
International Council on Laboratory Animal Science	C & I	55
International Federation of Library Associations and Institutions	C & I	153
International Geographical Union	C	59
International Institute for Applied Systems Analysis	C	24
International Mathematical Union	C	90
International Peace Research Association	I	-
International Political Science Association	C & I	110
International Sociological Association	C & I	65
International Statistical Institute	C & I	113
International Studies Association	I	-
International Union for Pure and Applied Biophysics	C	72
International Union for the Scientific Study of Population	I	-
International Union of Basic and Clinical Pharmacology	C	63
International Union of Biological Sciences	C	30
International Union of Crystallography	C	50
International Union of Forest Research Organizations	C & I	127
International Union of Geodesy and Geophysics	C	73
International Union of Geological Sciences	C	123
International Union of History and Philosophy of Science and Technology	C	45
International Union of Immunological Societies	C	79
International Union of Materials Research Societies	C	14
International Union of Physiological Sciences	C	
International Union of Psychological Science	C	89
International Union of Pure and Applied Chemistry	C & I	54
International Union of Pure and Applied Physics	C & I	60
International Union of Radio Science	I	-
International Union of Soil Sciences	C & I	64
International Water Association	I	-
Pacific Science Association	C	29
Society for Social Studies of Science	I	-

Organizations	Membership (country and/or individual)	Number of countries in which represented
Society for the Advancement of Science in Africa	I	-
Sudanese National Academy of Sciences	I	
World Anthropological Union/International Union of Anthropological and Ethnological Sciences	C & I	80

Note: The Sudanese National Academy of Sciences is a national academy and should have been reported on in Section 4. However, the academy did not complete the academy survey but the union survey and for that reason is included here. Gaps refer to missing responses from organizations.

5.2 Disciplinary organization membership

Membership of unions and associations can be either countries or individuals/individual organizations, or both. Eighteen (47%) have only countries as members, 11 (29%) have both countries and individuals, and 9 (24%) have only individual membership. Table 7 presents the membership details. Those with only countries as members reported, on average, being represented in about 57 countries per disciplinary organization, although there is a wide range between 14 and 153 countries (Table 7). Disciplinary organizations with individuals as members have, on average, about 6 650 members (with a median number of 1 600). Again, there is a wide range in the number of individual members, from 70 to 60 000.

The disciplinary organizations were asked whether their member-countries have national chapters/committees, with 71% responding that their disciplinary organization had a national chapter/committee in more than 20 countries (Figure 8). The disciplinary organizations are best represented in Asia and Europe.

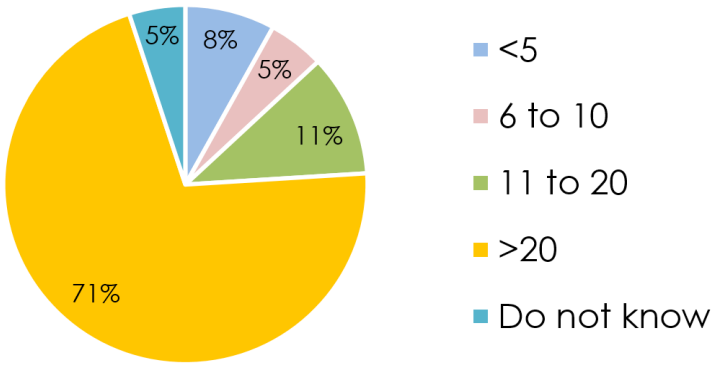

Figure 8: Percent of disciplinary organizations (N=38) reporting the existence of national chapters/committees

5.3 Attendance of General Assembly

Scientific unions have a more decentralized mode of operation than academies and the General Assembly fulfills an important function in gathering members, hence attendance is relevant. Attendance by the disciplinary organizations at their last General Assembly is relatively good, with just less than half of the disciplinary organizations (49%) reporting that at least three-quarters of their members were represented in the last General Assembly (Figure 9).

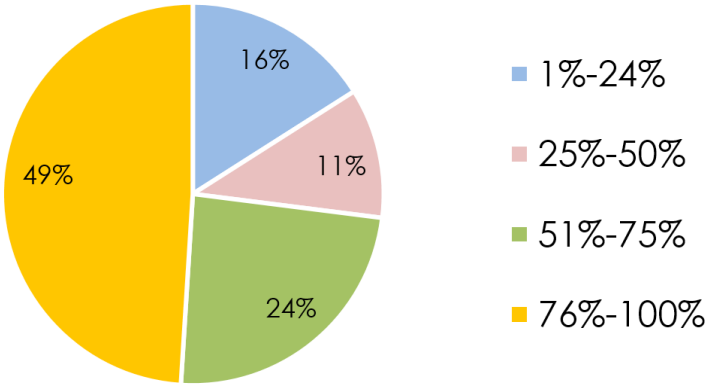

Figure 9: Approximate percentage of members that attended the organization's last General Assembly (N=37)

The collection of sex-disaggregated data for participants at the last General Assembly is not a priority based on responses received. Fifty-eight percent had no such data, and where such data were available, only 11% reported that the percentage of women attendees at the General Assembly exceeded 50% (Figure 10).

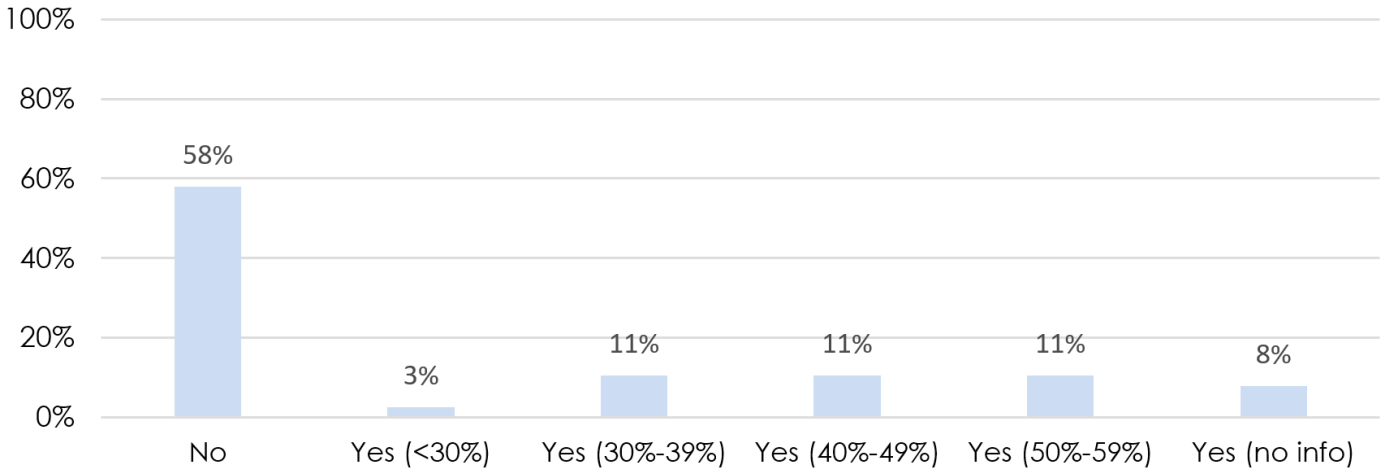

Figure 10: Whether disciplinary organization has gender/sex-disaggregated data for participants at the last General Assembly (if yes, percentage woman attendees in bracket) (N=38)

5.4 Governance of the disciplinary organizations

Table 8 reports the percentage of women serving on the governing bodies of disciplinary organizations. For 10 of the 38 disciplinary organizations, the figure equals or exceeds 50%. Generally, social sciences organizations are ranked highest; the International Union of Immunological Societies is an exception, having 75% women members of their governing body. Disaggregating data for social sciences and physical/natural sciences organizations, the mean share of women on the governing body is 67% for the former and 24% for the latter. Those with less than a 10% share are the International Union of Biological Sciences, the International Mathematical Union, the International Union of Soil Sciences, and the International Union of Radio Science. Of particular concern is the International Union of Biological Sciences (9% women members of their governing body), given women's significant presence and impact in the field.

Table 8: Percentage of women on the governing body of disciplinary organizations

Disciplinary organization	Members on Governing Body	Women members on Governing Body	% Women members	Election of Governing Body
Society for Social Studies of Science	15	12	80%	All members
International Union of History and Philosophy of Science and Technology	4	3	75%	All members
International Union of Immunological Societies	4	3	75%	Group of members
International Sociological Association	21	15	71%	Delegates of national associations and of research networks
International Federation of Library Associations and Institutions	18	12	67%	Group of both members and non-members
World Anthropological Union/International Union of Anthropological and Ethnological Sciences	21	12	57%	All members
International Peace Research Association	25	13	52%	All members

Disciplinary organization	Members on Governing Body	Women members on Governing Body	% Women members	Election of Governing Body
Pacific Science Association	31	16	52%	National Member Organizations select designated representatives to Council
which elects the Executive Board.				
Association of Science and Technology Centres	14	7	50%	Group of members
International Studies Association	50	25	50%	All members
International Council on Laboratory Animal Science	15	7	47%	All members
Society for the Advancement of Science in Africa	11	5	45%	All members
International Union of Psychological Science	14	6	43%	All members
European Consortium for Political Research	12	5	42%	Each member university appoints an official representative who has voting rights
International Union for the Scientific Study of Population	12	5	42%	All members
International Union of Basic and Clinical Pharmacology	8	3	38%	All members
International Water Association	14	5	36%	All members
International Union of Physiological Sciences	20	7	35%	All members
International Council for Industrial and Applied Mathematics	6	2	33%	All members
International Institute for Applied Systems Analysis	24	8	33%	Governing Board is not elected - consists of members nominated by the national member organizations
International Union of Crystallography	9	3	33%	All members
International Union of Forest Research Organizations	21	7	33%	Group of members
International Union of Pure and Applied Chemistry	29	9	31%	Group of members
International Union of Geological Sciences	10	3	30%	All members
International Political Science Association	18	5	28%	Council (represented by all member countries) elects Executive Committee
International Geographical Union	11	3	27%	All members
International Union of Geodesy and Geophysics	16	4	25%	Group of members
International Union of Pure and Applied Physics	16	4	25%	All members
Sudanese National Academy of Sciences	12	3	25%	Group of members
International Commission for Optics	21	5	24%	All members
International Arctic Science Committee	5	1	20%	All members
International Union of Materials Research Societies	20	4	20%	All members
International Statistical Institute	6	1	17%	All members
International Union for Pure and Applied Biophysics	17	2	12%	All members

Disciplinary organization	Members on Governing Body	Women members on Governing Body	% Women members	Election of Governing Body
International Union of Biological Sciences	11	1	9%	Only representatives of national members elect the Governing Body, not scientific members
International Mathematical Union	11	1	9%	All members
International Union of Soil Sciences	25	2	8%	All members
International Union of Radio Science	7	0	0%	Group of members

The frequency of electing a governing body varies as indicated in Figure 11. Most governing bodies meet once a year (40%), with nearly half of the disciplinary organizations meeting more frequently (Figure 12)..

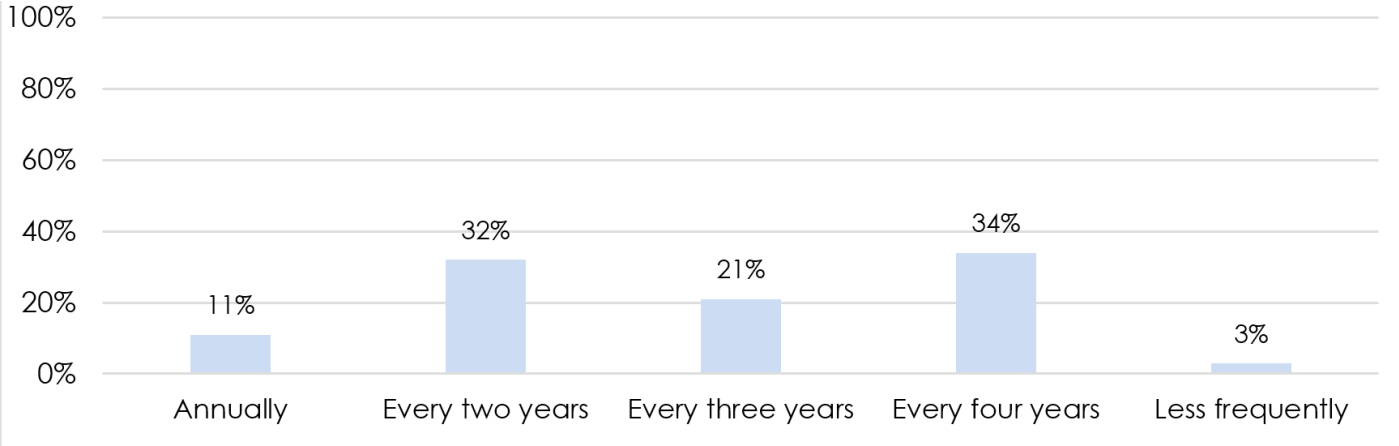

Figure 11: Frequency of electing governing body (N=38)

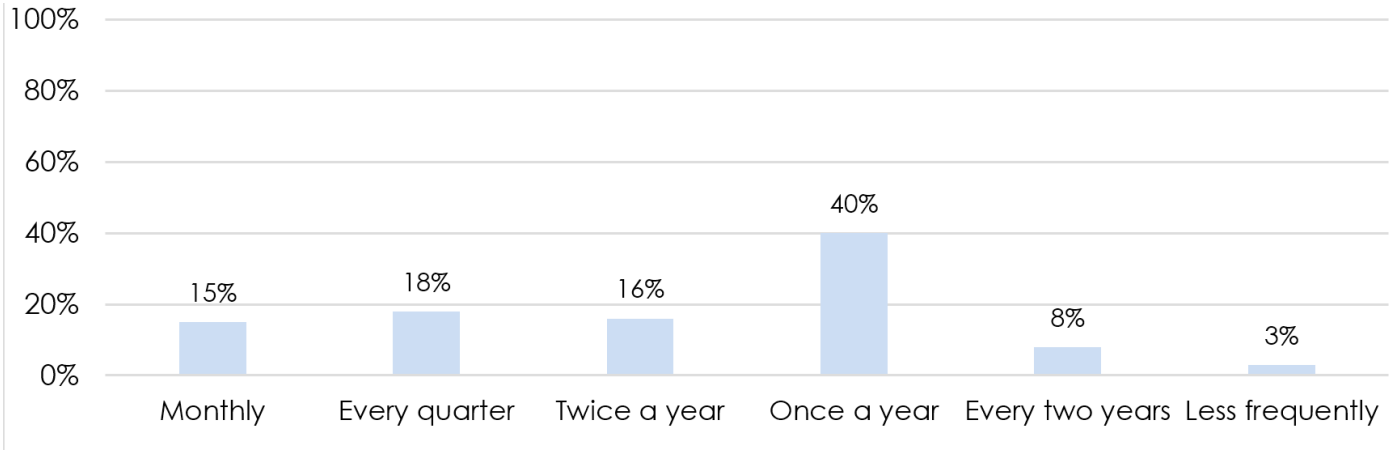

Figure 12: Frequency of meetings of governing body (N=38)

Thirty-seven percent of disciplinary organizations currently have a woman president and 39% currently have a woman occupying the position of executive director/secretary. Both these percentages have increased when compared with the immediate past percentages, *viz.* 32% in the case of president and 16% in the case of executive director/secretary.

5.5 Gender-related strategies and activities

Asked whether they have any document (strategy, policy, founding document, etc.) that explicitly mentions the need for increased participation by women in their activities, 31 of the 38 disciplinary organizations answered the question (yes/no), with 14 (or 45%) responding in the affirmative. Appendix 18 provides the details of the documents referenced.

The documents differ in nature, ranging from strategic plans and mission statements to guidelines for support at scientific conferences and meetings. Four of the disciplinary organizations have established

working groups on women and gender, namely the International Studies Association, the International Union of Immunological Societies, the International Union of Pure and Applied Physics, and the Pacific Science Association. The latter two have the longest commitments, dating back to 1991 and 1999 respectively.

A total of 33 disciplinary organizations responded to the question on whether they had published a report that specifically addresses issues related to women or gender. Of these, 21 (64%) responded in the affirmative. The relevant details for 20 disciplinary organizations appear in Appendix 19. Responses included articles in internal newsletters, an exhibition profiling women researchers (International Commission for Optics), participation in a collaborative ISC-funded project on the Gender Gap in Science, which produced a final report (six unions), reports on gender and diversity related to specific disciplines (e.g. water and forestry), and refereed journal papers.

For disciplinary organizations with a secretariat, they were asked to indicate whether a sexual harassment in the workplace policy exists. Of the 36 disciplinary organizations that responded, 15 (42%) pointed to the existence of such a policy, the details of which appear in Appendix 20.

The disciplinary organizations were furthermore requested to provide a list of current or past projects and activities/workshops where there was a specific gender focus (Appendix 21). The responses revealed another disciplinary organization with a committee that is devoted to gender-related issues, namely the International Institute for Applied Systems Analysis (with its Committee on Cultural Diversity and Building a Positive Work Environment). Such committees and working groups tend to drive projects with a gender focus, as is clear from the responses of the International Sociological Association and the International Union of Pure and Applied Physics.

For disciplinary organizations in the social sciences, gender-related topics appear to be part of the research conducted by those disciplinary organizations' members. This is the case for both the International Peace Research Association and the Society for Social Studies of Science. A close alignment with gender topics also seems to apply to multi-disciplinary areas of research, such as Antarctic research, as the International Arctic Science Committee has specific projects on gender in polar research, and gender equality in the Arctic. Moreover, the World Anthropological Union/International Union of Anthropological and Ethnological Sciences have structures called 'scientific commissions' that bring together related streams of topics dealing with issues of gender (specifically the Commission on Anthropology of Women, and the Commission on Global Feminisms and Queer Politics).

In addition to specific national initiatives with a focus on gender (e.g. those of the Association of Science and Technology Centres), focused meetings, roundtable discussions and symposia (often at conferences) are other popular initiatives, together with publications.

The disciplinary organizations also had to estimate, to the best of their knowledge, the proportion of their projects/activities that are led by women (Figure 13). In addition, they also provided examples of gender-related activities conducted by their national chapters (or their equivalent)(Appendix 22). Many responded that it was not possible to document all the gender-related activities of national chapters as they were so numerous, but clearly initiatives of the international body influence activities undertaken at the national level.

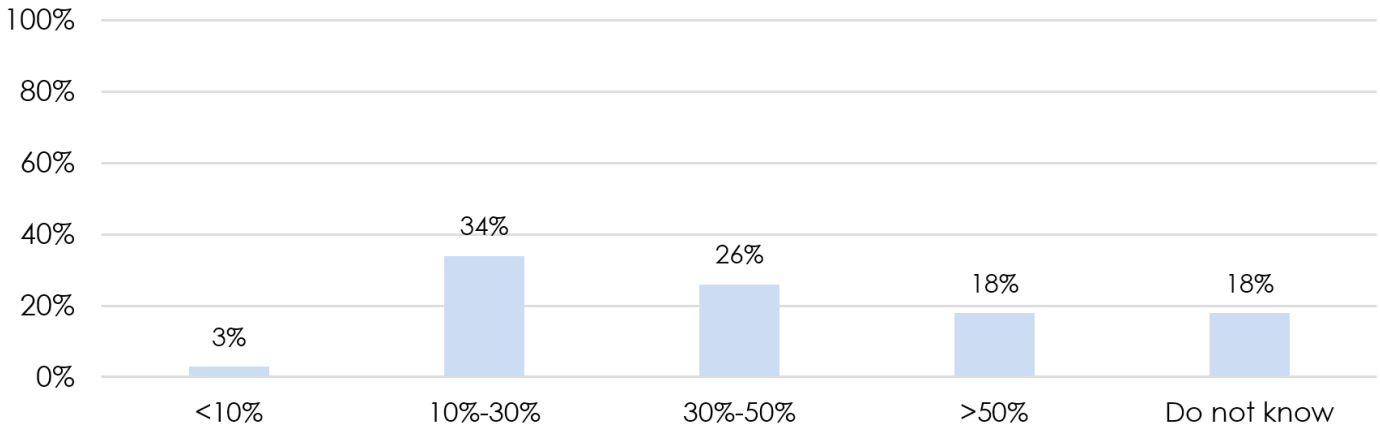

Figure 13: Proportion of disciplinary organizations' projects/activities that are led by women (N=38)

Twelve disciplinary organizations out of 38 (or 32%) indicated that they have grants, fellowships or awards specifically for women. The examples as provided appear in Appendix 23. They include travel grants, awards/prizes and research grants.

Two disciplinary organizations did not answer a question about the existence of any committee, research board or similar structure with a specific focus on women in science issues. Of the 36 that responded, 19

(53%) said, yes, they do have such structures (Appendix 24).

Twenty-two out of 37 disciplinary organizations (or 59%) reported an initiative and/or advocacy/ networking activity aimed at the promotion of gender equality in science. Examples of such initiatives are provided in Appendix 25.

They were also asked whether their disciplinary organizations or the individuals in their governing body participate in international initiatives on gender equality and empowerment of women. They had to select from seven well-known initiatives but could also provide their own. From the provided list (Figure 14), participations in the "International Day for Women and Girls in Science" as well as the UNESCO activities were the most 'popular' (respectively selected by nine and seven out of 38 respondents).

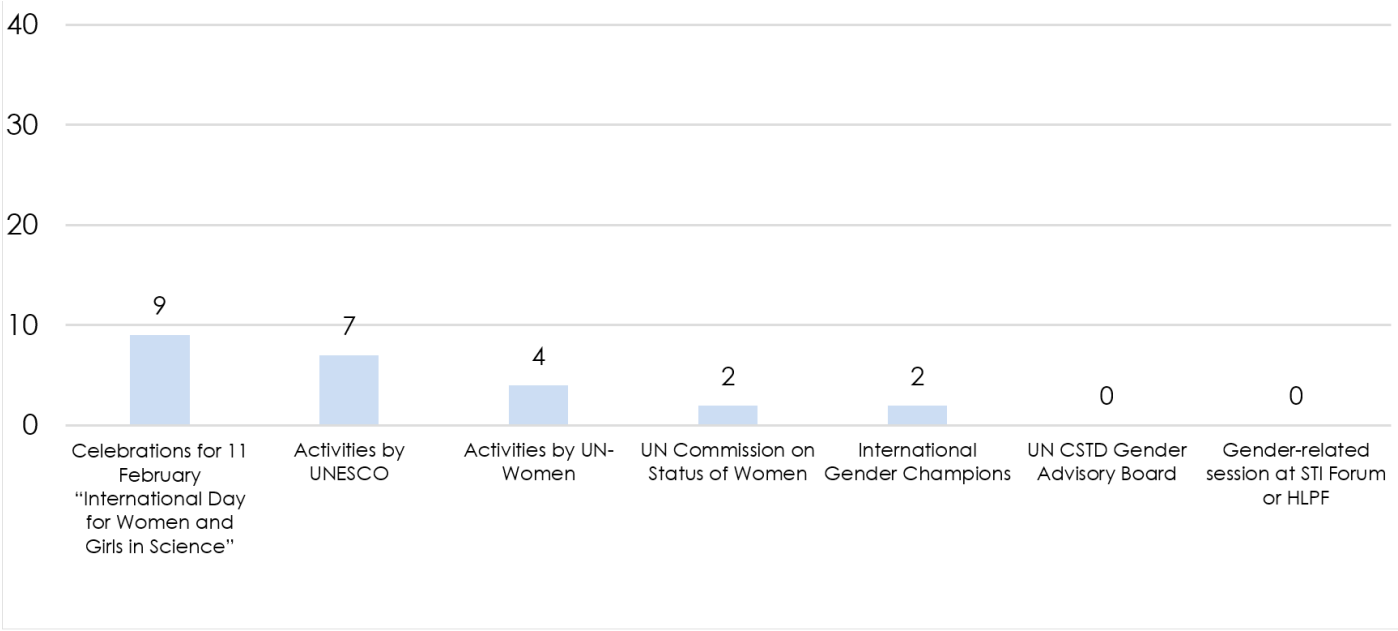

Figure 14: International initiatives on gender equality and empowerment of women in which the disciplinary organizations or the individuals in the governing bodies participate (N=38)

The extent of agreement with five statements about women's inclusion and participation reveals a stronger inclination towards ensuring women's participation and representation in events, committees and governing structures, than to meeting SDG 5 targets or having more women nominated for prizes (Figure 15).

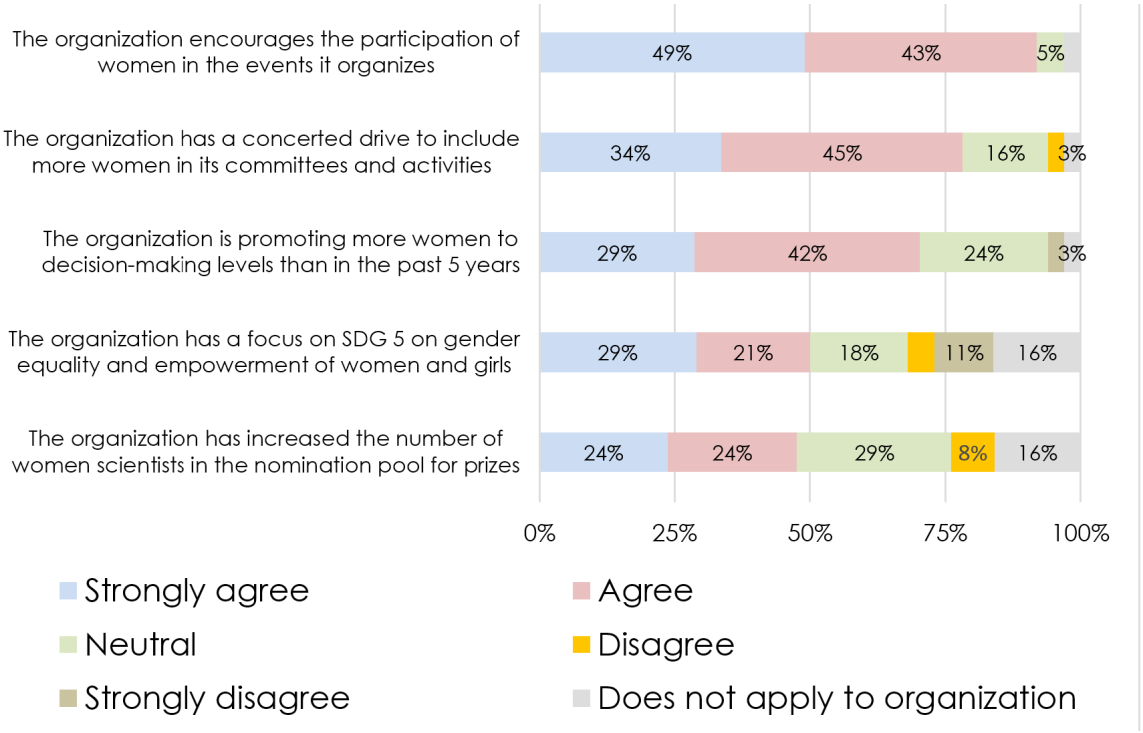

Figure 15: Extent of agreement with five statements about women's inclusion and participation within disciplinary organizations (N=38)

5.6 Diversity and inclusivity

The disciplinary organizations were presented with nine statements related to gender, inclusivity and diversity issues and were asked to indicate for each whether the statement applied to their organization. According to Figure 16, commitment to diversity and inclusivity issues is high (68%), but actions and activities are trailing far behind (32% or below). Only 16% of disciplinary organizations reported the availability of a budget to implement activities related to gender equality. Unless funds are made available to support gender transformation, the risk of policies becoming rhetoric rather than leading to meaningful change, remains high. Twenty-six percent of disciplinary organizations also chose not to answer this question.

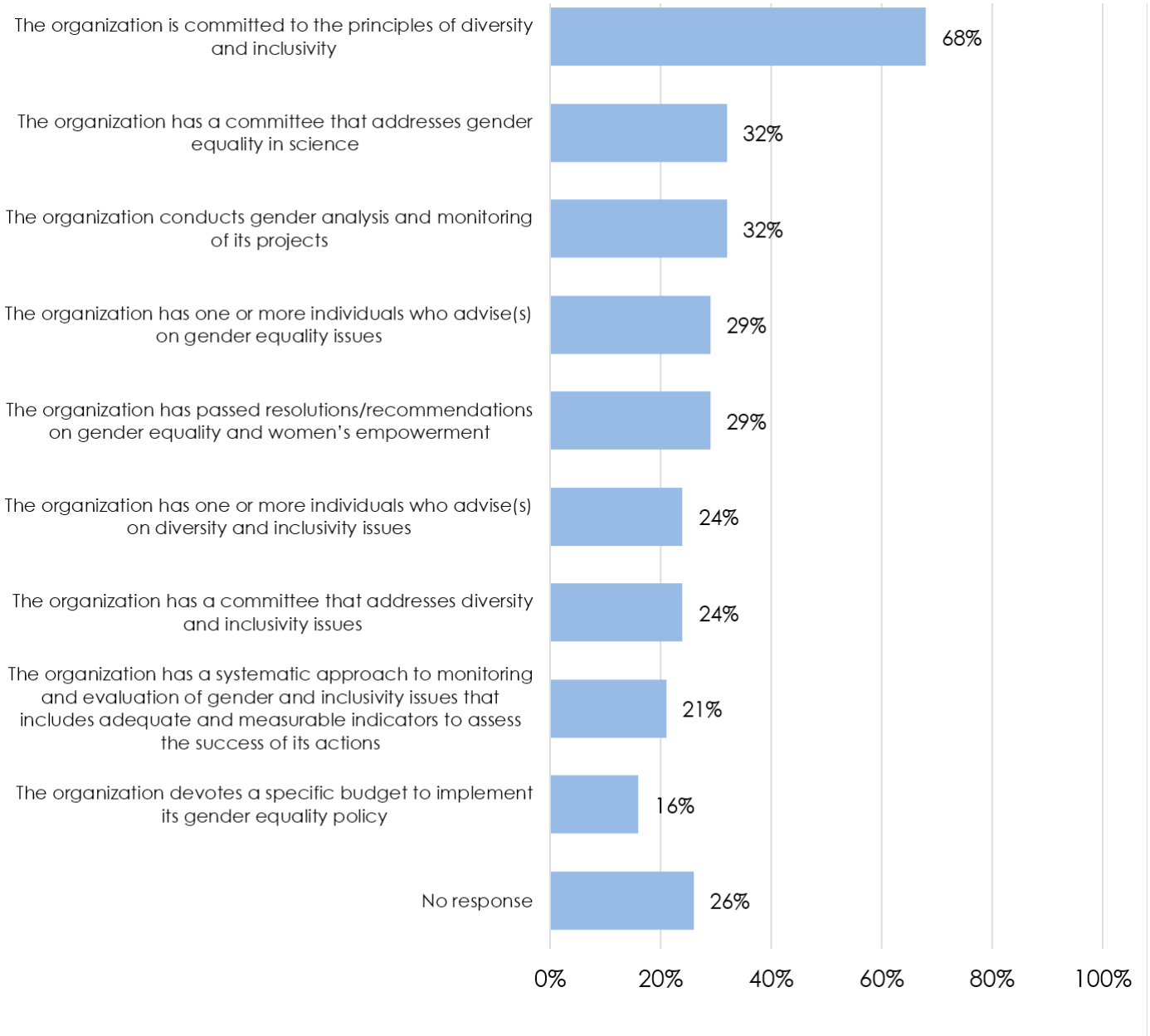

Figure 16: Whether disciplinary organizations address gender/diversity issues (N=38)

Examples of how they address gender/diversity issues are provided in Appendix 26, either through a committee, policy, practice, etc. Additional comments provided about the role of women or gender-related issues in the disciplinary organization's activities appear in Appendix 27.

A focus on intersectionality in disciplinary organizations means that gender is not the sole diversity issue for consideration. According to the International Union of Forest Research Organizations, regional representation is equally important and if both region and sex are considered, the result will be an under-representation of women in certain regions because of the small numbers of women in forestry in those regions. The International Union for the Scientific Study of Population raised a similar point in regard to the numbers of men and women researchers in population studies in certain regions. Age or career stage is another variable of intersectionality. For the International Union of Pure and Applied Physics, the average age of women scientists in a certain field (e.g., more younger or early career scientists in Physics)

has an effect on the nomination pool for prestigious awards that are typically associated with established scientists.

The International Union of Pure and Applied Chemistry underscores the fact that attitudes and activities on gender issues differ according to regions and cultures. As the disciplinary organization has members across the different regions, incorporating different cultures, they cannot enforce a single 'one size fits all approach', but would need to consider regional initiatives. Similarly, the respondent from the International Union of Materials Research Societies answered that the different national member adhering bodies, rather than the board of the global disciplinary organization, have the responsibility for addressing gender equity issues in their own midst.

5.7 Monitoring and evaluation

Only one disciplinary organization stated that it had been evaluated on its performance and action to promote women's participation and gender equality in science. The International Political Science Association regularly publishes a Gender and Diversity Monitoring Report (https://www.ipsa.org/publications/ipsa-gender-diversity-monitoring-report). Slightly more than half of the 38 respondents (20, or 53%) claimed that they regularly monitor women's participation among their membership.

Disciplinary organizations with a structure for dealing with women's issues tend to be more likely to regularly monitor women's participation among its membership than those without such a structure (58% versus 47% respectively). However, the inverse is also true – even with a relevant structure in place, 42% of disciplinary organizations still do not monitor.

6. Conclusions and recommendations

This report presents the results of both a survey of academies and a survey of international disciplinary unions and associations in terms of gender equality. It was spearheaded and coordinated by GenderInSITE and represents a collaboration with IAP and ISC. Together, the individual organizations surveyed, be they academies, disciplinary unions or associations, through their membership of international bodies such as IAP and ISC, represent a large proportion of global scientific endeavour. In total, they represent over 250 unique organizations that are coordinated at a global level.

As mentioned in a previous GIS report[XIII], these global organizations, such as IAP and ISC, "define the international landscape by convening national science bodies (e.g. academies of sciences), disciplinary bodies (e.g. scientific unions) and regional mechanisms/frameworks (e.g. regional networks) to mobilise international science to tackle global challenges. These organisations have significant upward influence over high-level policy frameworks, including within the UN as reflected for instance, in the ICSU ISSC WFEO co-organisation of the Scientific and Technological Community (STC) Major Group to the UN. They also exert downward influence in shaping how gender is conceptualised in lower levels of the scientific system around the world."

The survey results therefore provide important baseline information for a transformative action agenda for gender equality in global science. Both IAP and ISC are highly influential bodies: together they have the power to be forceful change-makers and leaders, with the potential to create a coalition for gender equality in global science. The recommendations that follow are crafted with such a coalition in mind and chart the way forward for an ongoing collaboration that can lead to meaningful transformation.

- **Extension of survey**

This study involved distributing surveys to members of two large global science organizations, IAP and the ISC. While ambitious in scope, it excluded some important actors in the global science arena, such as the agencies of the Global Research Council (GRC), members of the World Federation of Engineering Organizations (WFEO) and engineering academies that are members of the International Council of Academies of Engineering and Technological Sciences (CAETS). A more inclusive and comprehensive understanding of gender equality in global science would be gained by supplementing the results of the current study with results of a survey distributed to the above-mentioned organizations (where such surveys have not been conducted)[XIV] to broaden our knowledge of gender equality in global science organizations and to gain further comparative insights. Such an expansion would also serve to build and strengthen the nascent coalition for gender equality in global science.

Recommendation 1:

The partnership among GenderInSITE, IAP and the ISC should be expanded to include the GRC, the WFEO and CAETS. The survey instrument should be adapted to suit each of the afore-mentioned organizations and distributed among the members of each organization not previously surveyed to gain a more comprehensive picture of gender equality in global science organizations.

- **Analysis of gender-related organizational policy, structure and actions**

he current study has served to highlight examples of three elements in relation to gender, viz. organizational policy, organizational structure and organizational action. It has gathered relevant information from the surveyed organizations and hence achieved an important first step by creating an inventory of policy documents and actions. The next step must be a detailed analysis of this rich and valuable set of resources with a view towards better understanding: (1) the different models and modes associated with each of the three elements, and (2) how the organizations' thinking around policy, structure and action has evolved. The evolution should specifically address whether the organizations' thinking has evolved (or not) from gender representation to the incorporation of a 'gender lens', to consideration of the broader dimensions of diversity and inclusivity. The analysis should also identify best practices that can be adopted easily by organizations that have not yet generated policy documents or initiated any gender-related actions.

Recommendation 2:

The three partners should initiate a collaborative study aimed at a better understanding of global organizational policy, structure and actions in relation to gender; how the organizations' thinking around policy, structure and action has evolved; and the identification of best practices in relation to gender and STI.

- **Development of a central repository**

XIII Pathways to Success: bringing a gender lens to the scientific leadership of global challenges (p 42)
XIV It is noted that the GRC published a report titled 'Gender-Disaggregated Data at the Participating Organizations of the Global Research Council: Results of a global survey' in 2021. (https://www.globalresearchcouncil.org/fileadmin//documents/GRC_Publications/Survey_Report___GRC_Gender-Disaggregated_Data.pdf).

In concert with the analysis of gender-related organizational policy, structure and action, there is an urgent need for the development and ongoing maintenance of a central repository of gender-related policies and ensuing actions of academies, disciplinary unions and associations. Having a central database of actions (i.e. projects, interventions, outputs, etc.) in relation to gender has significant potential to establish closer linkages between organizations and opportunities to learn from each other's best practices. Consideration should be given to the inclusion of evaluations of the efforts. Similarly, a central and shared database of gender-related policies could allow for existing policies and documents to be tailored by others to suit their own setting and context. Development of a decadal plan for women in STEM, for instance, does not need only to be an activity of the Australian Academy of Science, but could also be taken up by other academies through formalized processes of information sharing and mutual learning.

Recommendation 3:

The three partners should discuss the nature of the proposed database, including meta data, as well as hosting and maintenance responsibilities, and thereafter establish a central repository which is openly accessible.

- **Incorporation of regional considerations**

Although the focus of this report is on global science organizations, each has a regional footprint that has highlighted some important regional variations, as well as regional shortcomings and opportunities. For example, women's membership of science academies has a regional expression; in the Asia-Pacific region, women's membership averages only 15%, whereas in Europe and the Americas it averages 21%. There is a striking difference in awareness of gender equality and related activities regionally. Academies in the Americas score the highest, with 81% responding that they have links with international organizations that promote women's activities. The survey did not probe regional expressions in the case of ISC members as only the global bodies were targeted. The international disciplinary unions operate in environments that are multi-cultural, diverse and dynamic. They also have national committees that present an opportunity for a deeper level of analysis. The regional networks, offices, or national committees present an opportunity to gain regional insights and to coordinate action directed at greater advocacy work amongst national science academies and national committees of unions.

Recommendation 4:

The three partners should develop a plan to utilize this regional presence and differential impacts to gain insights and to advance the gender equality agenda, especially in countries/regions that are lagging.

- **Advancing women to leadership positions**

The average share of women serving on the governing body is 29% for academies and 37% for ISC member organizations. In terms of leadership, 21% of academy presidents/chairs are women and 37% of international discipIinary organizations currently have a woman president. While below parity, the academy survey showed that there had been an improvement since the earlier study. GenderInSITE's report on 'Pathways to Success' (https://genderinsite.net/resources) underscored the importance of the gender dimension of global science and the inclusion of women's voices in global scientific leadership and in the setting of science agendas.

Recommendation 5:

The three partners should monitor and promote women's leadership and service on governing bodies to ensure women's voices are included in the setting of science agendas.

- **Consideration of diversity and inclusivity**

Over and above their central focus on gender, the surveys administered in this study touched on the topics of diversity and inclusivity. This was done intentionally to determine, at an exploratory level, the degree of awareness of these broader issues and indeed, of global trends and opportunities to transform organizations, as well as to indicate whether there was a need for a larger discussion about diversity and inclusivity. The commitment to the principles of diversity and inclusivity was certainly higher amongst unions and associations (68%) than amongst academies (40%), perhaps because disciplinary unions have a global footprint, where such issues become paramount, as opposed to national science academies where they may be less relevant. It was noteworthy that fewer organizations, including academies, have inclusivity and diversity committees than gender committees or committees that address women's issues. The comparative figures for international disciplinary organizations were 32% for gender committees and 24% for diversity and inclusivity committees. A critical matter for this study on gender equality in global science organizations is whether a recommendation at this juncture to broaden to a consideration of diversity and inclusivity would dilute or strengthen gender equality achievements. The conclusion is that at this stage it is best to follow a stepwise approach, whereby the focus on gender equality is retained,

while simultaneously raising awareness about the need for transformative action that embraces diversity and inclusivity more generally. It is recognized that regional and cultural perspectives need to be factored into the debate and that the conversation is more complex and multifaceted for merit-based academies where membership is dependent on an election process and not only the outcome of a policy process. The findings of the study proposed under Recommendation 2 should also inform the future approach. It is acknowledged that context-specific targets for achieving equity must be developed and that any gender-specific target must be realistically aligned with the targets set for other under-represented social categories, specifically those based on race and ethnicity, and equity-seeking groups.

Recommendation 6:

The three partners should collaborate to foster a debate about diversity and inclusivity in global science, with a focus on intersectionality and gender considerations. Specific concerns relate to the intersection of race, ethnicity and gender. Organizations should take their cue for transformative action from the discussions.

- **Analysis of discipline-based gender transformation**

This study has revealed that gender equality varies across disciplines. For instance, average academy membership of women ranges from only 7% in the mathematical sciences, 8% in engineering sciences to 27% in the social sciences, humanities and arts and 28% in biological sciences, implying that discipline-based action is needed to increase the pool of women researchers who are eligible for nomination to academy membership. Information gathered on gender-related actions taken by the international disciplinary unions reveals differences in the extent to which gender equality in each discipline has been promoted. Some have established gender committees/working groups, others have focused on increasing the numbers of women participating in meetings and committees, while a few mentioned increasing the numbers of women in the STEM pipeline as a goal. None mentioned the aspiration of increasing the number of women in their discipline who are elected as members of science academies. The under-representation of women researchers in certain disciplines presents a convergence point for IAP and the international disciplinary organizations to collaborate on a strategy to enhance the representation of women. This would be an ideal follow-up initiative for the ISC unions that participated in the ISC-funded Gender Gap in Science project.

Recommendation 7:

The three partners should collaborate on a strategy to enhance not only the number of women researchers, but also the nomination pool of women and the success rate of women elected as members of science academies.

- **Establishment of monitoring and evaluation (M&E) frameworks**

The finding that only six academies had discussed the recommendations of the 2015 academy report at a strategic planning session was disturbing. One of the recommendations of the 2015 academy report pertained to annual collection and reporting of gender-disaggregated data. It underscores the need for monitoring and evaluation (M&E) to ensure that recommendations are implemented and that gender transformation is tracked. A strong recommendation of the 2015 report was for annual collection and reporting of gender-disaggregated data. Surveys should be conducted on a regular basis every five years to monitor progress. In the case of academies, there is a need to examine trend data to determine if there is a steady increase over time, especially over recent time. It is recognized that it takes a long time to realize a 'shift in share' as one has to overcome an established base when there were few women elected to membership. 'Moving in the right direction' is an important indicator.

Recommendation 8:

IAP and ISC should commit to the establishment of centralized M&E frameworks that require regular reporting of relevant gender statistics of their member organizations at each of their general assemblies to ensure that gender transformation is tracked. They should also assist their members by providing tools for them to establish their own M&E frameworks.

- **Identification of lessons from young academies**

This study has shown that young academies are significantly more gender-balanced than senior academies. Ten out of 12 young academies that responded have a higher percentage of women members than the highest-ranked senior academy, viz. the Academy of Sciences of Cuba, at 33%. Hence, it is important to understand whether the gender equality achieved by young academies is part of a natural process that has evolved from a more transformed cohort of young academicians (i.e. whether the young academies were born balanced) or whether it is the result of explicit interventions. It is also important to determine whether there are any lessons that senior academies can learn from the achievements of young academies.

Recommendation 9:

The three partners should undertake a follow-up collaborative study to understand how the gender transformation journey of senior academies can learn and benefit from the achievements of young academies in respect of gender balance and also to ensure that the balance is not lost as the careers of these young scientists advance and they begin to be nominated for senior academies and appointed to other leadership positions.

- **Shift from a focus on 'numbers' to institutional and knowledge transformation**

This study was primarily focused on women's participation in global science and was heavily dependent on 'numbers' of women represented. However, the gender transformation journey of global science organizations needs to be about more than just 'numbers'; it needs to focus in addition on institutional culture and knowledge production to ensure that the needs and perspectives of women as well as men are considered. Essentially it means the incorporation of a 'gender lens' at every opportunity so that we do not perpetuate a male-dominated approach that marginalizes women and deprives science of needed talent and perspectives.

Recommendation 10:

The three partners should embrace a shift from focusing on 'numbers' to an approach that embraces the incorporation of a 'gender lens' in all their activities.

Appendix 1
Shares (%) of women researchers (headcount), by country

Country	%	Year
Albania		
Algeria	47.1	2017
American Samoa		
Angola	28.7	2016
Argentina	53.7	2018
Armenia	50.4	2018
Australia		
Austria	30.1	2017
Azerbaijan	58.6	2018
Bahrain	39	2014
Bangladesh		
Belarus	39.3	2018
Belgium	34.8	2017
Benin		
Bermuda	37.8	2018
Bolivia	37.6	2014
Bosnia and Herzegovina	47.1	2018
Botswana	29.6	2013
Brazil		
Brunei Darussalam	45.2	2018
Bulgaria	47.4	2017
Burkina Faso	17	2017
Burundi	14.3	2018
Cabo Verde	45.8	2014
Cambodia	23.7	2015
Cameroon		
Canada		
Central African Republic		
Chad	3.4	2018
Chile	34.4	2017
China		
China, Hong Kong		
China, Macao	38.7	2018
Colombia	37.4	2017
Congo		
Costa Rica	45.2	2018

Country	%	Year
Côte d'Ivoire	17	2016
Croatia	48.4	2017
Cuba	49	2018
Cyprus	38.1	2017
Czechia	26.6	2018
Democratic Republic of the Congo	8.7	2015
Denmark	35.8	2017
Dominican Republic		
Ecuador	41.1	2014
Egypt	45.6	2018
El Salvador	39.8	2018
Estonia	42.2	2017
Eswatini	41.4	2015
Ethiopia	11.5	2017
Faeroe Islands		
Finland	33.2	2017
France	28.3	2017
Gabon	28.2	2014
Gambia	27.2	2018
Georgia	53	2018
Germany	27.9	2017
Ghana	26.1	2015
Greece	37.8	2017
Greenland		
Guam		
Guatemala	47.3	2018
Guinea	9.8	2013
Honduras	36.4	2017
Hungary	30.5	2017
Iceland	46.4	2017
India	16.6	2018
Indonesia	45.8	2018
Iran (Islamic Republic of)	31.2	2017
Iraq	38.1	2018
Ireland	36.3	2017

Country	%	Year
Israel		
Italy	34.3	2017
Jamaica	49.1	2017
Japan	16.6	2018
Jordan	19.5	2018
Kazakhstan	52.8	2018
Kenya		
Kuwait	53.2	2018
Kyrgyzstan	55.7	2018
Lao People's Democratic Republic		
Latvia	52.2	2017
Lebanon		
Lesotho	36.4	2015
Libya		
Lithuania	49.5	2017
Luxembourg	28.1	2017
Madagascar	33	2018
Malawi		
Malaysia	49.2	2018
Mali	15.1	2017
Malta	30.9	2017
Mauritania	24.5	2018
Mauritius	43.7	2018
Mexico	33	2013
Monaco		
Mongolia	48.9	2018
Montenegro	49.9	2017
Morocco	33.8	2016
Mozambique	28.9	2015
Myanmar	75.6	2017
Namibia	38.7	2014
Nauru		
Nepal		
Netherlands	26.4	2017
New Zealand		
Nicaragua		
Niger	17	2013
Nigeria		
North Macedonia	53.4	2018
Norway	38.1	2017
Oman	36.4	2018

Country	%	Year
Pakistan	38.8	2017
Palestine	22.6	2013
Panama	51.8	2013
Papua New Guinea	33.2	2016
Paraguay	48.5	2018
Peru	28.6	2018
Philippines	51.2	2015
Poland	38.1	2017
Portugal	43.7	2017
Puerto Rico		
Qatar	34.1	2018
Republic of Korea	20.4	2018
Republic of Moldova	48.6	2018
Romania	46.7	2017
Russian Federation	39.2	2018
Rwanda	22.6	2016
Saint Helena		
Saint Lucia		
Saint Vincent and the Grenadines		
Saudi Arabia	23.2	2013
Senegal	29.3	2015
Serbia	51.4	2018
Seychelles	34.9	2016
Singapore	30.1	2014
Slovakia	41.2	2018
Slovenia	32.3	2017
South Africa	44.9	2017
Spain	40.5	2017
Sri Lanka	45.3	2017
Sudan		
Sweden	32.6	2017
Switzerland	34.9	2017
Syrian Arab Republic	34.9	2015
Tajikistan	37.5	2018
Tanzania	29.8	2013
Thailand	49.7	2017
Togo	11.2	2018
Trinidad and Tobago	56.5	2018
Tunisia	56.1	2018
Turkey	37	2017
Uganda	29.8	2014

Country	%	Year
Ukraine	44.7	2018
United Arab Emirates	33.3	2018
United Kingdom	38.7	2016
United States of America		
United States Virgin Islands		

Country	%	Year
Uruguay	49.3	2018
Uzbekistan	40.8	2018
Venezuela	61.4	2016
Vietnam	44.8	2015
Zambia		
Zimbabwe		

Notes:

Headcounts of researchers are reported in all instances, except for India, where the reporting unit is the number of full-time equivalent researchers.

Researchers are professionals engaged in the conception or creation of new knowledge, products, processes, methods and systems, and in the management of the projects concerned. The share of women researchers among total researchers in all institutional sectors is shown.

Shaded cells mean that no statistics on the shares of women researchers could be obtained for that country from the source consulted.

Source: UNESCO Institute of Statistics (http://data.uis.unesco.org/)

Appendix 2: Survey: women's participation in academies

OVERVIEW

This survey on women's participation in academies and gender-related policies and activities of academies is being coordinated by GenderInSITE (Gender in Science, Innovation, Technology and Engineering) on behalf of the InterAcademy Partnership (IAP) and the International Science Council (ISC).

It is a first step in an envisaged larger project that will aim, inter alia, to build on our knowledge and understanding of gender equality in academies and other kinds of scientific institutions so as to identify best practices to advance the status of women in science systems

This is a revised version of a previous survey undertaken by the IAP in 2015, the results of which were published in a 2016 report titled "Women for Science: Inclusion and Participation in Science Academies" (https://www.interacademies.org/29832/). The new version includes a few additional questions on gender-related issues and is being sent to a large group of Academies that includes both ISC and IAP members.

CONSENT TO PARTICIPATE

I hereby agree to participate in this survey, titled: Women's Participation in Academies. I understand that I am participating freely and without being forced in any way to do so. I also understand that I can stop completing the questionnaire at any time and withdraw as a participant in the research.

Although the results will be summarised in a written report that will be openly accessible, my name will be treated as confidential and will not be mentioned in any report. I understand that direct quotations from my Academy's completed questionnaire may be used, but without mentioning my name in order to protect my anonymity.

I have received the details of a person to contact should I need to voice any concerns that may arise from this survey.

If you agree with all of the above, please select "Yes" and proceed

Yes, I agree – take me to the survey	
No, I do not agree – take me out of here	

A. GENERAL INFORMATION

1. Name of your Academy:
2. Country where Academy is located:
3. Is your Academy a member of IAP and/or ISC? (*Tick the appropriate box/es*)

IAP	
ISC	

4. Your title, name and surname:
5. Your email address:
6. Postal address:
7. Telephone:
8. Skype:
9. URL/ web link to your Academy's website:

B. ACADEMY MEMBERSHIP

NOTE: A 'member' represents any person who is elected into the Academy. Some Academies may use the term 'fellow' instead.

10. How many members are there in your Academy? (Write the number in the space provided.)

11. How many of these members are women? (Write the number in the space provided.)

12. Which ONE of the following best describes your Academy? (Tick the appropriate box.)

The Academy admits members in all disciplines including natural/ physical/pure sciences/medical sciences/humanities and social sciences and engineering	
The Academy admits members in selected disciplines. In this case, specify the disciplines that apply	

13. How many members does your Academy have in the broad discipline groups listed below? (*Approximate if you don't know the exact number. It is recognized that not all academies follow this breakdown. Please use the space below to provide explanatory notes pertaining to your Academy*)

Broad discipline group	TOTAL number of members in discipline	Number of FEMALE members in discipline
Agricultural Sciences		
Biological Sciences		
Computer Sciences/ICT		
Earth & Environmental Sciences		
Economics		
Engineering Sciences		
Mathematical Sciences		
Medical and Health Sciences		
Physical and Chemical Sciences		
Social Sciences		
Humanities & Arts		
Other (please specify)		

Explanatory notes:

14. Do the above figures include "double counts"? In other words, are the same individuals counted in more than one broad discipline group because of multiple disciplinary classifications? (*Tick the appropriate box.*)

Yes	
No	

15. Do members of your Academy have to pay for membership? (*Tick the appropriate box.*)

Yes	
No	

16. Approximately what percentage of your members attended the last Annual General Meeting? (*Write the percentage in the space provided.*)

C. GOVERNANCE OF ACADEMY

17. Is your Academy governed by a president/chair or by co-chairs? (*Tick the appropriate box.*)

President/chair	
Co-chairs	

If your Academy has a president/chair, answer Question 18 and proceed to Question 21.

If your Academy has co-chairs, answer Question 19 and proceed to Question 21.

If your Academy is an umbrella for subsidiary Academy structures, then please provide details of the leadership of these Academies in Question 20.

18. Is the current president/chair of your Academy a man or a woman? (*Tick the appropriate box.*)

Man	
Woman	

19. How many of the co-chairs are women? (*Tick the appropriate box.*)

None	
One	
Two	

20. Details of the leadership of any subsidiary Academies:

NOTE: Questions 21 to 25 ask about your Academy's Governing Body. The latter is sometimes referred to as the Board, Council or Governing Council (or Executive Committee in the case of a Young Academy) and determines the strategic direction of the Academy.

21. How many members sit on the Governing Body? (*Write the number in the space provided.*)

22. How many of the members on the current Governing Body are female? (*Write the number in the space provided.*)

23. How often does the Governing Body meet? (*Tick only ONE box.*)

Monthly	
Every quarter	
Twice a year	
Once a year	
Every two years	
Less frequently	

24. How often is the Governing Body elected? (*Tick only ONE box.*)

Annually	
Every two years	
Every three years	
Every four years	
Less frequently	

25. How is the Governing Body elected? (*Tick only ONE box.*)

All members elect the Governing Body	
A group of members elects the Governing Body	
A group of both members and non-members elects the Governing Body	
Other, specify:	

D. ACTIVITIES OF ACADEMY

26. Does your Academy have any document (strategy, policy, founding document, etc.) that explicitly mentions the need for increased participation by women in your Academy's activities?

Yes	
No	

If YES, answer Question 27 and continue with Question 28.

If NO, skip Questions 27 and 28 and answer Question 29.

27. Provide details of the document (name, year in which developed, web link if available)

28. What was the driving force (e.g. government policy, particular individual, global trend etc.) for the development of the document? (*Write your answer in the space provided*)

29. Does your Academy have any awards/prizes devoted specifically to women?

Yes	
No	

If YES, answer Question 30 and continue with Question 31.

If NO, skip Question 30 and answer Question 31.

30. How often does your Academy present this women's award? (Tick only ONE box.)

Annually	
Every two years	
Every three years	
Less frequently	

31. Does your Academy have any fellowships and/or grants devoted specifically to women?

Yes	
No	

If YES, answer Question 32 and continue with Question 33.

If NO, skip Question 32 and answer Question 33.

32. Provide details of the fellowships and/or grants in the space below.

33. Does your Academy have any initiative(s)/programme(s) on Women in Science? (*Exclude awards and fellowships that are specifically for women*)

Yes	
No	

If YES, answer Question 34 and continue with Question 35.

If NO, skip Question 34 and answer Question 35.

34. Please provide details (e.g. name and focus; web link) about the initiative(s)/programme(s):

35. Does your Academy address women's/gender issues? (*Please tick all boxes that are applicable and provide explanatory notes in the space provided*)

This question has been broadened since the last survey to include gender awareness, in addition to a focus on women's issues. Gender refers to the identity of a person or the identity that a person perceives themselves to be.

	The Academy has a committee that addresses women's issues (*Specify name, nature of membership and role*)	
	The Academy has one or more individuals who advise(s) on women's issues (*Provide the name of the individual if possible*)	
	The Academy has linkages with one or more **national** organization(s)/networks that promote(s) women's activities (*Specify names of organizations/ networks*)	
	The Academy has linkages with one or more **international** organization(s)/networks that promote(s) women's activities (*Specify names of organizations/networks*)	
	The Academy has linkages with one or more organization(s)/initiative(s) that promote(s) the application of a 'gender lens' (*Specify the names of organizations/initiatives*)	
	The Academy 'celebrates' national and/or international women's days (*Specify the names and the manner of celebration*)	
	None of the above are applicable	

36. Has your Academy published any report(s) since 2015 that specifically address issues related to women or gender?

Yes	
No	

If YES, answer Question 37 and continue with Question 38.

If NO, skip Question 37 and answer Question 38.

37. Please provide details (e.g. name and focus; web link) about the report(s):

38. Does your Academy have a policy that addresses sexual harassment in the work place?

Yes	
No	

If YES, answer Question 39 and continue with Question 40.

If NO, skip Question 39 and answer Question 40.

39. Please provide details (e.g. name of policy; whether it is a dedicated policy or part of an employee relations policy):

40. Please rate your extent of agreement with EACH of the following statements. (*Tick only ONE box for each statement.*)

Statements	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Does not apply to Academy
The Academy is promoting more women members to decision-making levels than in the past						
The Academy has a concerted drive to include more women in its panels and committees						
The Academy has recently succeeded in including more women in its panels and committees						
The Academy has a concerted drive to increase the number of women in the nomination pool for membership						
The Academy has a concerted drive to increase the number of women in the nomination pool for prizes and awards						
The Academy pays attention to gender implications (considers the gender dimension/applies a gender lens) as part of the study scope of the research/ studies that it undertakes						
The Academy pays attention to gender implications of its science advisory activities						
The Academy has a focus on girls/ women in STEM education (e.g. undertakes studies/has a committee)						
The Academy has a focus on SDG 5 on gender equality and empowerment of women and girls (e.g. undertakes studies that align with SDG 5)						
Gender features as an important element of your country's STI policy						

41. Is there anything else about the role of women or gender-related issues in your Academy's activities that you would like to raise? Please do so in the space provided.

42. Does your Academy address diversity and inclusivity issues? (*Please tick all boxes that are applicable and provide explanatory notes in the space provided*)

Diversity is a generalized term that encompasses for example, race, gender, ethnic group, sexual orientation etc.

	The Academy is committed to the principles of diversity and inclusivity in its membership (*Provide details of initiatives/interventions*)	
	The Academy is committed to the principles of diversity and inclusivity in the composition of its study panels (*Provide details of initiatives/interventions*)	
	The Academy has one or more individuals who advise(s) on diversity issues	
	None of the above are applicable	

E. ACTIONS AND ACHIEVEMENTS SINCE LAST IAP SURVEY

43. Did your Academy participate in the last IAP survey on women's participation in science academies that was undertaken in 2015?

Yes	
No	
Don't know	

If YES, answer Question 44 and continue with Question 45.

If NO, skip Question 44 and answer Question 45.

44. Please indicate which of the following statements apply to your Academy in respect of the 2016 report that was published on *Women for Science: Inclusion and Participation in Science Academies* (https://www.interacademies.org/29832/), following the IAP survey? (Please tick all those that are applicable)

My Academy (or at least a few senior members) is aware of the report	
My Academy (or at least someone at the Academy) has read the report	
My Academy discussed the report at one or more of its strategic meetings	
My Academy implemented some of the report's recommendations in its practices and/or policies. Please provide details about the action(s) taken:	
Other, specify:	

45. Please indicate what your Academy thinks was most significant about the 2016 report.

THE END

THANK YOU FOR TAKING THE TIME AND EFFORT

Appendix 3: ISC SURVEY

Women for Science: Inclusion and Participation of women in international disciplinary Unions and Associations

OVERVIEW

This survey on *women's participation in international disciplinary Unions and Associations and gender-related policies and activities of Unions and Associations* is being coordinated by GenderInSITE (Gender in Science, Innovation, Technology and Engineering) on behalf of the International Science Council (ISC).

It is a first step in an envisaged larger project that will aim, inter alia, to build on our knowledge and understanding of gender equality in international disciplinary and Associations and other kinds of scientific bodies, such as academies, to identify best practices to advance the status of women in the global science system.

This survey is being sent to a large group of international disciplinary Unions and Associations that are ISC members.

This survey builds upon a first survey conducted with academies in early 2020; this was a revised version of a previous survey undertaken by the InterAcademy Partnership (IAP) in 2015, the results of which were published in a 2016 report titled "Women for Science: Inclusion and Participation in Science Academies" (https://www.interacademies.org/29832/-Women-for-Science-Inclusion-and-Participation-in-Academies-of-Science).

CONSENT TO PARTICIPATE

I hereby agree to participate in this survey aimed at assessing the inclusion and participation of women in international ISC-member Unions and Associations.

Although the results will be summarised in a written report that will be openly accessible, my name will be treated as confidential and will not be mentioned in any report. I understand that direct quotations from my organization's completed questionnaire may be used, but without mentioning my name in order to protect my anonymity.

If you agree with all of the above, please select "Yes" and proceed

Yes, I agree – take me to the survey	
No, I do not agree – take me out of here	

A. GENERAL INFORMATION

1. Name of the international disciplinary organization:

2. Your name and surname:

3. Your role in the organization:

4. Your email address:

B. INTERNATIONAL DISCIPLINARY ORGANIZATION MEMBERSHIP

5. The members of your organization are (tick appropriate box and indicate the number of countries and/or number of individuals):

Countries		Individuals		Both	

6. Please indicate the regions in which your members' network is present (*Please use the space below to provide the information.*)

Region Tick appropriate box(es)

North America	
South America	
Central America & Caribbean	
Europe	
Sub-Saharan Africa	
North Africa and Middle East	
Asia	
Australasia	

7. How many of the countries in your membership have national chapters/members/committees? (*Tick appropriate box*)

<5	6-10	11-20	>20	Do not know

8. Approximately what percentage of members attended your organization's last main governance meeting (General Assembly)? (*Write the percentage in the space provided*):

9. Does your organization have gender/sex-disaggregated data for participants at the last main governance meeting?

Yes	
No	

If yes, please indicate the percentage of women attendees (*Write the percentage in the space provided*):

10. Does the membership application process for your organization involve an explicit statement on gender equality and women in science principles?

Yes	
No	

If yes, please specify the format of such statement (formal letter, agreement signature...) in the space provided:

If yes, does your organization share the results of the analysis with its members?

Yes	
No	

C. GOVERNANCE OF THE ORGANIZATION

NOTE: Questions 11 to 18 ask about the governing body, such as a Board, an Executive Committee, or Governing Council, that determines the strategic direction of your organization.

11. How many individuals sit on the Governing Body? (*Write the number in the space provided.*)

12. How many of the members on the current Governing Body are women? (*Write the number in the space provided.*)

13. How often does the Governing Body meet? (Tick only ONE box.)

Monthly	
Every quarter	
Twice a year	
Once a year	
Every two years	
Less frequently	

14. How often is the Governing Body elected? (Tick only ONE box.)

Annually	
Every two years	
Every three years	
Every four years	
Less frequently	

15. How is the Governing Body elected? (*Tick only ONE box.*)

All members elect the Governing Body	
A group of members elects the Governing Body	
A group of both members and non-members elects the Governing Body	
Other, specify:	

16. Is the current president (or equivalent) of your organization a man or a woman? (*Tick the appropriate box.*)

Man	
Woman	

16b. Is the past president of your organization a man or a woman? (*Tick the appropriate box.*)

Man	
Woman	

17. Is the current executive director/secretary (or equivalent) of your organization a man or a woman? (*Tick the appropriate box.*)

Man	
Woman	

18. Is the past executive director/secretary of your organization a man or a woman? (*Tick the appropriate box.*)

Man	
Woman	

D. ACTIVITIES OF THE ORGANIZATION

18. Does your organization's constitution address gender equality issues? (Please tick all boxes that are applicable)

	YES/NO	Details (e.g. name and focus; web link)
The organization has a document (strategy, policy, founding document, etc.) that explicitly mentions the need for increased participation by women in its activities.		
The organization has published report(s) that specifically address issues related to women or gender.		

19. If your organization has a Secretariat, is there a policy that addresses sexual harassment in the workplace?

Yes	
No	

If yes, please provide details in the space below (e.g. name of policy; whether it is a dedicated policy or part of an employee relations policy):

20. Please indicate in the space below a list of current or past projects and activities/workshops where there was a specific gender focus. (If reports were published, please provide the links)

21. To the best of your knowledge, how many of your organizations' projects/activities are led by women? (Tick the appropriate box)

< 10%	10% – 30%	30%-50%	>50%	Do not know

22. Please indicate in the space below any gender-related activities conducted by national chapters (or equivalent) that you are aware of:

23. Does your organization have any grants, fellowships or awards specifically for women?

Yes	
No	

If yes, please provide details (e.g. name and focus; web link; frequency of award) about the grant/ fellowship:

24. Does your organization have any committee, research board or similar structure with a specific focus on women in science issues?

Yes	
No	

If yes, please provide details (e.g. name and focus; web link):

25. Does your organization have any initiatives and/or advocacy/networking activities aimed at the promotion of gender equality in science?

Yes	
No	

If yes, please provide details (e.g. name and focus; web link) about the initiative(s)/networks, campaign:

26. Does your organization address gender/diversity issues? (*Please tick all boxes that are applicable*)

	Yes or No	If yes, provide details and/or website
The organization has a committee that addresses gender equality in science		
The organization has one or more individuals who advise(s) on gender equality issues		
The organization has passed resolutions/ recommendations on gender equality and women's empowerment		
The organization devotes a specific budget to implement its gender equality policy		
The organization is committed to the principles of diversity and inclusivity		
The organization has a committee that addresses diversity and inclusivity issues		
The organization has one or more individuals who advise(s) on diversity and inclusivity issues		
The organization conducts gender analysis and monitoring of its projects		
The organization has a systematic approach to monitoring and evaluation of gender and inclusivity issues that includes adequate and measurable indicators to assess the success of its actions		
None of the above are applicable		

27. Does your organization or do the individuals in your governing body participate in international initiatives on gender equality and empowerment of women?

Initiative	Tick the appropriate box(es)
UN CSTD Gender Advisory Board	
UN Commission on Status of Women	
Gender-related session at STI Forum or HLPF	
Activities by UN-Women	
Activities by UNESCO	
Celebrations for 11 February "International Day for Women and Girls in Science"	
International Gender Champions	
Other please specify	

28. Please rate your extent of agreement with EACH of the following statements. (*Tick only ONE box for each statement.*)

Statements	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Does not apply
The organization is promoting more women to decision-making levels than in the past 5 years						
The organization has a concerted drive to include more women in its committees and activities						
The organization has increased the number of women scientists in the nomination pool for prizes and awards						
The organization encourages the participation of women in the events it organizes						
The organization has a focus on SDG 5 on gender equality and empowerment of women and girls (e.g. undertakes activities that align with SDG 5)						

29. Is there anything else about the role of women or gender-related issues in your organization's activities that you would like to raise? (*Please do so in the space provide*)

E. MONITORING AND EVALUATION

30. Has your organization been evaluated on its performance on, and action to promote women's participation and gender equality in science? (*Tick appropriate box*)

Yes	
No	
Do not know	

If yes, please provide further details (dates, format) and link to the evaluation report, when available. (Please do so in the space provided)

31. Does your organization regularly monitor women's participation among its membership?

Yes	
No	

THE END

THANK YOU FOR TAKING THE TIME AND EFFORT

Appendix 4: Descriptive statistics for women as percentage of members of academies, by broad discipline group

	Agricultural sciences	Biological sciences	Computer sciences/ ICT	Earth & environmental sciences	Engineering sciences	Mathematical sciences	Medical & health sciences	Physical & chemical sciences	Social sciences, humanities & arts
Number of academies	45	56	34	49	52	51	58	57	55
Number of total members (men and women) of academies									
Mean number per academy	29	66	12	29	39	29	90	77	102
Median number per academy	14	17	4.5	10	19	9	37	18	32
Standard deviation	42	118	16	39	57	40	186	135	196
Minimum number	1	1	1	1	1	1	2	1	1
Maximum number	204	618	55	160	342	167	1292	711	1289
Number of women members of academies									
Mean number per academy	5	13	2	4	3	2	18	8	28
Median number per academy	1	4	0	2	1	0	5.5	3	8
Standard deviation	11	28	3	6	6	4	35	17	64
Minimum number	0	0	0	0	0	0	0	0	0
Maximum number	57	158	9	32	38	17	248	113	416
Women as % of members of academies									
Mean % per academy	17%	28%	9%	16%	1%	8%	24%	13%	27%
Median % per academy	13%	20%	0%	11%	4%	0%	20%	10%	24%
Standard deviation	19%	24%	13%	22%	20%	19%	18%	16%	19%
Minimum %	0%	0%	0%	0%	0%	0%	0%	0%	0%
Maximum %	75%	100%	50%	100%	100%	100%	100%	64%	75%

Note: The standard deviation refers to the (1) variation in the numbers of members reported by the individual academies in each broad discipline group, and the (2) variation in the shares of women members reported by the individual academies in each broad discipline group.

Appendix 5: Documents that mention the need for increased participation by women in the academy's activities

Country	Academy	Details of the document	Driving force for the development of the document
Africa			
Cameroon	Cameroon Academy of Sciences	Strategic Plan, 2005, Internal Regulations, 1991, http://www.casciences.org	Recommendation of the National Council for Higher Education and Scientific Research (presided over by the Head of State followed by action of concerned scientists inspired by the African Academy of Sciences).
Ethiopia	Ethiopian Academy of Sciences	The Academy has a gender policy which makes reference to increased representation of women in decision-making bodies. The human resources policy/manual mentions the Academy's equal employment opportunity policy in employing minorities, women and people with disabilities. These documents were revised in 2019 and approved by the Board. These are internal documents and are not available online.	These documents were initially developed as part of the process of institutional building. In time, the Board recommended revision as per the identified gaps.
Nigeria	Nigerian Academy of Science	Strategic Plan 2018-2022	The Academy's Executive.
South Africa	Academy of Science of South Africa	Gender Strategy, November 2017. This document was revised in 2019 to the Women and Gender in Science, Technology and Innovation Strategy.	Executive Officer of the Academy at the time and the Executive Committee of the OWSD South Africa National Chapter.
South Africa	South African Young Academy of Science	Strategic Plan 2017-2021	Due to the country's segregation in the past, cognisant of gender disparity as well as race and geographical representation. Given further support by the senior Academy.

Country	Academy	Details of the document	Driving force for the development of the document
Tanzania	Tanzania Academy of Sciences	One of the strategic objectives of the Rolling Strategic Plan 2017-2022 is to increase membership and active participation. One of the outcomes is to have more women and younger members elected into the Academy.	Government policy and the Academy's analysis of the situation in Tanzania.
Americas			
Canada	Royal Society of Canada	Strategic plan, 2018-2021 (https://rsc-src.ca/sites/default/files/RSC_StrategicPlan_EN_web_0.pdf).	The governing Council of the Royal Society of Canada.
Cuba	Academy of Sciences of Cuba	Agreement of 1999 - creating the Commission of Women in Sciences of the Cuban Academy.	Political will of the Cuban government since 1959 to include women in all spheres of social and economic development. The world UNESCO-ICSU Conference of Science, Budapest 1999, was catalytic in highlighting gender issues inside the Academy and in the Cuban scientific community.
Guatemala	Academia de Ciencias Medicas, Físicas y Naturales de Guatemala	A commission of women in science composed of women members was created.	Global trend.
Mexico	Academia Mexicana de Ciencias	Document named "Women in Science in Mexico" was developed and used as a presentation when the topic is about Women in Science.	The document was developed by vice-president of the Mexican Academy of Sciences, Dr. Susana Lizano, who became president in July 2020. Former president Morán also encourages women´s participation.
United States of America	National Academy of Medicine	Many internal documents that reference increasing demographic diversity in the election of new members and volunteer participation.	The Council has explicitly focused on the need for a more diverse membership body since 2004.
United States of America	The National Academy of Sciences	A report on progress in this area is made regularly at governance meetings.	The institution and its leadership recognized the need to change. Also, Marcia McNutt, the Academy president, wants to see more women as members, on committees, and in leadership roles.

Country	Academy	Details of the document	Driving force for the development of the document
Asia-Pacific			
Australia	Australian Academy of Science	Strategic Plan 2018-2022 (https://www.science.org.au/about-us/academy/strategic-plan). Commits to champion and support diversity and equity in science	Academy will be a national leader in diversity, equity and inclusion in the science sector
India	Indian National Science Academy	The Academy has published a report on "Science Careers for Indian Women" (www.insaindia.res.in). In collaboration with sister Academies published a vision document in 2016 on "Women in Science & Technology".	Efforts are made to increase women's participation in every programme of the Academy. The Academy has elected its first woman President and one of the Vice-Presidents and 5 Council members are women. Chairs of 2 of subject sectional committees are also women. The Academy has selected 34 women Young Scientist Awardees, 260 women INSPIRE faculty fellows, 14 women Teachers' Awardees during past 5 years. Presently 89 fellows of the Academy are women.
Islamic Republic of Iran	The Iranian Academy of Medical Sciences	Strategic plan for women's health scientific group in Academy (in Persian): http://www.ams.ac.ir/index.php	Governance policy of Academy.
New Zealand	Royal Society Te Apārangi	All Fellowship evaluation and section documentation (in-house and confidential as opposed to listing on website).	A commitment to greater diversity among the fellowship, award winners etc.
Europe			
Austria	Austrian Academy of Sciences	Development Plan, 2018-20) (https://www.oeaw.ac.at/fileadmin/NEWS/2017/PDF/EP_2018-2020.pdf) Frauenförderplan, 1.1.2019 (https://www.oeaw.ac.at/fileadmin/NEWS/2019/PDF/OeAW_Frauenfoerderplan_2018-2020_online.pdf)	Strategic goal of the Academy.

Country	Academy	Details of the document	Driving force for the development of the document
Belgium	Koninklijke Academie voor Nederlandse Taal en Letteren	Decreet betreffende de Koninklijke Academie voor Nederlandse Taal en Letteren (12 Oct. 2018)	Decree of the Flemish Government.
Belgium	The Royal Academies for Science and the Arts of Belgium	Regulations of the Academy, updated in 2018, state that for the elections of fellows: If there is a tie between 2 candidates, the candidate of the least represented sex wins; if the two candidates are of the same sex, the youngest candidate wins. (art. 7). (http://www.academieroyale.be/fr/l-academie-royale-statuts-rapports-annuels-reglement-general/).	Statutes and regulations of the Academy needed to be updated.
France	Académie des Sciences, Institut de France	Road map at the beginning of the year states that for every open position, out of 3 candidates, at least 1 should be a woman.	Government and world pressure.
Germany	Die Junge Akademie	Rules of Procedure for Equality between Women and Men in the Leopoldina Office (https://www.leopoldina.org/fileadmin/redaktion/Ueber_uns/2017-08-09_Verfahrensordnung_Gleichstellung_BMBF.pdf).	The office of an Equal Opportunities Officer is mandatory when number of employees exceeds 100. Hence the Rules of Procedure for Equal Opportunities were drawn up with the BMBF, which regulates the equal opportunities work at the Leopoldina (for employees, not for members and the content of the Academy's work).

Country	Academy	Details of the document	Driving force for the development of the document
Germany	German National Academy of Sciences Leopoldina	In 2005, the Senate of Leopoldina decided not to take selected female scientists into account for the number of places to be filled in a class per year (thus encouraging the nomination of women). This agreement was to be applied only until 2020. In addition, the Presidium decided that the percentage of women nominees for membership in a class must be at least as high as the percentage of women at the C4/ W3 professorships of the respective field of expertise.	Leopoldina is obliged to appoint an Equal Opportunities Officer when the number of employees exceeds 100. Together with the BMBF rules of procedure were drawn up, which govern the equal opportunities work at Leopoldina's office. Equally, the Senate has put into place a number of rules to increase women's participation.
Hungary	Hungarian Academy of Sciences	Gender Equality Framework Programme.	Internal movement among members of the Academy to reverse the trend of low women's membership. Also influenced by recommendations of Helsinki Group on Gender in Research and Innovation.
Ireland	Royal Irish Academy	Strategic Plan, 2019-2023 (https://www.ria.ie/strategic-plan). The Academy is also preparing a stand-alone Diversity Statement for release in 2020.	Embedded within the Academy's current strategic plan and building on the previous plan is a commitment to increase the diversity of its awards and membership. Specifically, the 2019-2023 Strategic Plan commits to increasing the diversity of the Academy's membership and to ensure greater gender, disciplinary, institutional and overall diversity among members of the Academy and Academy Committees and working groups.

Country	Academy	Details of the document	Driving force for the development of the document
Norway	Norwegian Academy of Science and Letters	In the statutes, it is written "The Academy will represent the breadth and quality of Norwegian research through its members. The academy shall strive to ensure that its members have a good academic breadth, geographical distribution and reasonable gender balance, and will cooperate with other academies."	Government policy, particular individual, and global trend.
United Kingdom	Academy of Medical Sciences	Representation of women within the Academy's Fellowship - full report 2012. (https://acmedsci.ac.uk/file-download/35277-136118550861.pdf). What can Fellows do to support women in the biomedical workforce? 2015. (https://acmedsci.ac.uk/file-download/38368-569e4afccb8de.pdf). Diversity section on website. (https://acmedsci.ac.uk/about/governance/equality-and-diversity).	Work driven by responses from fellowship and staff.
United Kingdom	The Royal Society	Diversity Strategy, 2019-22. (https://royalsociety.org/-/media/policy/topics/diversity-in-science/2019-09-Diversity-strategy-2019-22.pdf?la=en-GB&hash=3C2C52DE55E915B0FC394A05400ACFFB).	Diversity Strategy sets out how the Royal Society will use its convening power and leadership, in partnership with others, to increase diversity in STEM and support, create and develop a more inclusive scientific community. It builds on the aims and achievements of the previous Diversity Strategy, 2015 – 2018, as well as the strategic priorities and wider activities of the Royal Society.

Country	Academy	Details of the document	Driving force for the development of the document
Global and regional			
Germany	Global Young Academy	The constitution calls for the removal of obstacles to the participation in science for women. See paragraph 2.2.2. (https://globalyoungacademy.net/constitution/).	The founding Academy members.
Italy	The World Academy of Sciences	As part of UNESCO, gender is one of the two global strategic priorities on which we report on every year. It is also part of the TWAS Strategic Plan 2016-2020 and reiterated in official Academy meetings. The TWAS Gender Advisory Panel has prepared two reports (2016 and 2018) on the number of women represented in TWAS at all levels including in prizes, membership, committees, council and on panels and as speakers and chairs during the TWAS General Meeting. The report is presented during the TWAS General Meeting.	UNESCO Member States and the UNESCO Executive Board for the UNESCO global strategic priority. The TWAS Council, which helped set the Academy's priorities, for the TWAS Strategic Plan, 2016-2020. The TWAS Gender Advisory Panel report to TWAS was prepared for the TWAS Gender Advisory Panel by co-chair Roseanne Diab, OWSD Coordinator Tonya Blowers and OWSD Secretariat Lucia Fanicchi.

Appendix 6: Academies that present a 'Women in Science' award, and how often the award is presented

Region	Country	Academy	Frequency
Africa	Egypt	Academy of Scientific Research and Technology	Annually
Africa	Nigeria	Nigerian Young Academy	Annually
Americas	Brazil	Brazilian Academy of Sciences	Annually
Americas	Canada	Royal Society of Canada	Annually
Americas	Chile	Academia Chilena de Ciencias	Annually
Americas	Cuba	Academy of Sciences of Cuba	Annually
Americas	Mexico	Academia Mexicana de Ciencias	Annually
Americas	Peru	Academia Nacional de Ciencias	Annually
Americas	Venezuela	Academia de Ciencias Físicas, Matemáticas y Naturales de Venezuela	Annually
Asia-Pacific	Australia	Australian Academy of Science	Annually
Asia-Pacific	Georgia	Georgian National Academy of Sciences	Annually
Asia-Pacific	India	Indian National Science Academy	Every three years
Asia-Pacific	Islamic Republic of Iran	The Iranian Academy of Medical Sciences	Annually
Europe	Belgium	The Royal Academies for Science and the Arts of Belgium	Every three years
Europe	Czech Republic	Czech Academy of Sciences	Annually
Europe	Hungary	Hungarian Academy of Sciences	Annually
Europe	United Kingdom	The Royal Society	Annually
Global and regional	Italy	The World Academy of Sciences	Annually
Global and regional	Trinidad and Tobago	Caribbean Academy of Sciences	Every two years

Appendix 7: Descriptions of fellowships and grants devoted to women

Country	Academy	Descriptions
Italy	The World Academy of Sciences	Through its sister organization OWSD, hosted by TWAS: - OWSD PhD fellowships; OWSD Early Career fellowships; OWSD-Elsevier Foundation awards.
Israel	Academy of Sciences and Humanities	The Ruth Arnon Postdoctoral Fellowships.
Mexico	Academia Mexicana de Ciencias	L'ORÉAL-UNESCO-AMC Grants for Women in Science past few years; AMC-Conacyt Scholarships for Women in Social Sciences and Humanities.
Cuba	Academy of Sciences of Cuba	3 Sophia Kovalievskaia Prizes for women in Exact Sciences, awarded every two years.
Canada	Royal Society of Canada	Canada-Ukraine Annual Fellowships (2 awards per year, at least one to a woman) for scholars younger than 45 years of age, Canada-Japan Women in Science Program.
Egypt	Academy of Scientific Research and Technology	Program for empowering women - "women-up".
Islamic Republic of Iran	The Iranian Academy of Medical Sciences	Several research grants during the past 10 years for women's health issues, e.g. women's health status in Iran; model for women's health determinants in Iran; women's health national strategies in Iran.
Hungary	Hungarian Academy of Sciences	Call to support female researchers (those raising children under 14 and single parent researchers raising children under 18) who are writing their dissertation as candidature for the title of Doctor of the Hungarian Academy of Sciences. The Doctor of the Hungarian Academy of Sciences is a career stage preceding becoming a member of the Academy.
Austria	Austrian Academy of Sciences	L'ORÉAL-UNESCO fellowships.

Appendix 8: Descriptions of programmes/initiatives on Women in Science

Country	Academy	Descriptions
Africa		
Cameroon	Cameroon Academy of Young Scientists	Train girls (high school students) on leadership skills as a means of empowering them. Organize seminars on entrepreneurship for women in poor neighbourhoods. Embark on community health initiatives together with selected communities to identify their needs and create and implement solutions.
Ethiopia	Ethiopian Academy of Sciences	The academy is preparing to launch an initiative called the Gender Learning Forum in February 2020. It is aimed at addressing gender inequity at higher learning and research institutions. It is a membership-based initiative and aims to include all higher educational, research institutions and individuals. INASP, which is an international development charity, is a major partner in the initiative.
Ghana	Ghana Academy of Arts and Sciences	Women in Science and Engineering
Nigeria	Nigerian Academy of Science	In 2019, the Academy organized a Women in Science Summit focused on the role of Nigerian women scientists in the nation's sustainable development. The Summit was attended by about 100 women scientists, as well as policymakers and development partners.
Nigeria	Nigerian Young Academy	The Academy specifically encourages women to apply for membership and the cut-off age is 45 years as against 40 for men.
South Africa	Academy of Science of South Africa	The OWSD South Africa National Chapter is hosted by ASSAf. The aim is to increase and promote female participation in science and technology professions, in scientific leadership, and in decision-making processes at the national level. It also promotes recognition of the achievements of women. (https://www.owsdsa.org.za/). ASSAf hosts the Africa regional focal point of GenderInSITE. (https://genderinsite.net/).
Americas		
Argentina	Academia Nacional de Ciencias	The Academy set up a special ad hoc Advisory Commission called "Women for Science" dedicated to promoting the participation of women at all stages of their career, in activities of the Academy and of the national research institutions of Argentina.

Country	Academy	Descriptions
Brazil	Brazilian Academy of Sciences	The actions developed by the Academy (most of them through its Working Group on Women for Science) regarding gender equity aim at enhancing the participation of women in science and technology (S&T) careers, and increasing the awareness of society, the scientific community, S&T institutions and governmental agencies on the importance of promoting a more favourable environment for the participation of women in S&T in Brazil. The Academy organizes meetings with sessions where the empowerment of women in science is discussed. Gender balance is a concern in the meetings organized by the Academy. Additionally, the Brazilian Academy of Sciences actively participates in the IANAS Women for Science Programme.
Canada	Royal Society of Canada	Canada-Japan Women in Science Programme. The Academy is active in the IANAS Women for Science Programme. The Academy has a College of New Scholars, Artists and Scientists with gender parity in its membership.
Chile	Academia Chilena de Ciencias	In the last 10 years there has been a strong interest in electing similar numbers of women and men in the election of new members.
Colombia	Colombian Academy of Exact, Physical and Natural Sciences	Colombian Network of Women Scientist Advisors in the L`Oreal Women in Science Prize.
Guatemala	Academia de Ciencias Medicas, Físicas y Naturales de Guatemala	The created commission is in charge of some activities such as: increasing the number of women in the Academy, biographies of women scientists, conferences, panels, forums to motivate girls to take up science, STEM seminars to primary and secondary school teachers.
Honduras	National Academy of Sciences of Honduras	The Academy has a focal point for the IANAS Women for Science Programme. Undertake activities in high schools to encourage women to choose STEM careers.
Mexico	Academia Mexicana de Ciencias	Participate in the IANAS Women for Science Programme and have a dedicated focal point appointed to this program.
Peru	Academia Nacional de Ciencias	The Academy has a Women for Science Programme, which is part of IANAS. Bring together researchers from the academic institutions of Peru to generate a network of women scientists to promote the development of knowledge in S&T. Promote the comprehensive training of women scientists in the various regions of the country and the recognition of their professional participation. Promote the formation of multidisciplinary and inter-institutional research teams, and the inclusion of the female gender, for the benefit of science and social development of Peru. (http://www.ancperu.org/).
United States of America	National Academy of Medicine	The Academy has a Council-related Diversity Committee that focuses on increasing demographic diversity of incoming member classes.

Country	Academy	Descriptions
Venezuela	Academia de Ciencias Físicas, Matemáticas y Naturales de Venezuela	There is a specific programme named "Women in Science". The scope is to identify and incorporate women with relevant scientific contributions, first as corresponding members and later on as fellow academicians, to participate and support the academy programmes.
Asia-Pacific		
Australia	Australian Academy of Science	The Academy has been leading national efforts to improve gender equity in STEM. Together with the Australian Academy of Technology and Engineering, the Academy is seen as a national leader in diversity and equity, spearheading the development of critical national frameworks that provide transformative, systematic and sustained change in Australia's STEM sector including: authorship of the Women in STEM Decadal Plan—a 10-year strategy to lift the participation of girls and women in STEM education and careers. The Academy is committed to the implementation of the decadal plan by developing the Decadal Plan Champions initiative. They aim to encourage all STEM organizations to join us champions, to harness gender equity efforts and collaborate more deeply to reach a shared vision. (https://www.science.org.au/support/analysis/decadal-plans-science/women-in-stem-decadal-plan). The Academy has developed the Science in Australia Gender Equity (SAGE) initiative—a transformative accreditation and gender equity improvement program for STEM higher education and research organizations based on the successful UK Athena SWAN accreditation initiative (https://www.sciencegenderequity.org.au/). The Academy recently led the following initiatives: development of STEM Women launched in August 2019, to provide a unique tool to allow everyone to discover and benefit from the breadth of women working in STEM, providing a national database of women in STEM that provides a platform for expert women to be discovered and creates opportunities to progress their careers and personal capabilities. The database currently has over 2000 profiles (www.stemwomen.org.au); and recently supported the development of a best practice guide for improving diversity in prizes and awards by the Early- and Mid-Career Researcher Forum. (https://www.science.org.au/files/userfiles/support/emcr/documents/emcr-improving-diversity-web.pdf).
India	Indian National Science Academy	The Academy has constituted a panel on women in science. In addition an Inter-Academy Panel on women in science was constituted jointly by three Academies in India, with the aim of ensuring inclusion of women in S&T in all possible and pragmatic ways.

Country	Academy	Descriptions
Islamic Republic of Iran	The Iranian Academy of Medical Sciences	Ongoing projects: ''establishment of women's health research network''; ''developing "women's health national strategies in Iran IR" which contains policy and actions on women in medical sciences and women's health research and knowledge advancement.
Israel	Academy of Sciences and Humanities	The Israel Young Academy is holding an international conference on "Women in Science" in 2020.
Pakistan	National Academy of Young Scientists	The Academy has a Women in Science Working Group which has over 50 members.
Sri Lanka	National Academy of Sciences of Sri Lanka	An OWSD National Chapter was established under the auspices of the Academy.
Europe		
Belgium	Young Academy of Belgium (Jonge Academie)	Communication campaign about Gender in Academia. Worked on a new Charter for Gender in Academia together with Council of Flemish Universities.
Czech Republic	Czech Academy of Sciences	Centre for Gender & Science at the Institute of Sociology of the Academy (https://genderaveda.cz/en/gender-and-science/).
Hungary	Hungarian Academy of Sciences	The Gender Equality Framework Programme requires that all calls of the Academy for scholarships, fellowships and grants that have an age limit, extend the age limit by 2 years for each child (max 4 years) under 10 for female researchers and male researchers who certify that they stayed with their child/ren on parental leave. From 2016, extended the scope of the programme to single parents raising minors as well.
Hungary	Hungarian Young Academy	Provide speakers for programmes related to the topic organized by other bodies.
Ireland	Royal Irish Academy	Women in Leadership masterclasses, where outstanding women leaders share their experiences. An initiative sponsored by Accenture. (https://www.ria.ie/women-leadership-masterclass-series). Women on Walls initiative which seeks to make women leaders visible through a series of commissioned portraits, (https://www.ria.ie/women-walls-0). Participating in the ALLEA initiative "Women in European Academies' which will profile leading female European academicians. (www.allea.org).
Latvia	Association of Latvian Young Scientists	Encouraging girls in schools to choose careers in science.
Latvia	Latvian Academy of Sciences	Annual L'OREAL stipend Women in Science.
Lithuania	Lithuanian Academy of Sciences	Partner in award of L'Oréal Baltic fellowships For Women in Science, (https://www.forwomeninscience.com/en/home).
Poland	Polish Young Academy	Annual programme for younger female students promoting science as a career.
Slovakia	Slovak Academy of Sciences	Participation in Framework Programme project "Women and Youth in Science".

Country	Academy	Descriptions
United Kingdom	Academy of Medical Sciences	SUSTAIN – a year-long programme which enables female researchers to thrive in their independent research careers. (https://acmedsci.ac.uk/grants-and-schemes/mentoring-and-other-schemes/sustain). Project to increase women experts in the media. (www.medscilife.org).
United Kingdom	The Royal Society	Member of, and provides secretariat for, the Athena Forum, an independent and expert voice on the issues of women's career progression and their representation in higher education and research.
Global and regional		
Germany	Global Young Academy	Working Group Women in Science. (https://globalyoungacademy.net/activities/women-in-science/)
Italy	The World Academy of Sciences	Through its sister organizations OWSD and GenderInSITE, hosted by TWAS.
Trinidad and Tobago	Caribbean Academy of Sciences	Membership in IANAS Women in Science Programme. Workshops in STEM and inquiry-based science education.

Appendix 9: How the academy addresses women's issues, by region (N=84)

	Africa (12)	Americas (16)	Asia-Pacific (18)	Europe (33)	Global and regional (5)
The academy has linkages with one or more international organization(s)/networks that promote(s) women's activities	6 (50%)	13 (81%)	6 (33%)	7 (21%)	2 (40%)
The academy has a committee that addresses women's issues	4 (33%)	10 (63%)	7 (39%)	9 (27%)	1 (20%)
The academy has one or more individuals who advise(s) on women's issues	3 (25%)	11 (69%)	5 (28%)	9 (27%)	2 (40%)
The academy has linkages with one or more national organization(s)/networks that promote(s) women's activities	6 (50%)	9 (56%)	4 (22%)	9 (27%)	1 (20%)
The academy 'celebrates' national and/or international women's days	3 (25%)	9 (56%)	5 (28%)	8 (24%)	1 (20%)
The academy has linkages with one or more organization(s)/initiative(s) that promote(s) the application of a 'gender lens'	6 (50%)	4 (25%)	3 (17%)	5 (15%)	1 (20%)

Appendix 10: Details provided for "The academy has linkages with one or more international organization(s)/network(s) that promote(s) women's activities"

Region	Country	Academy	Names of organizations/networks
Africa	Egypt	Academy of Scientific Research and Technology	Global Research Council, OWSD
Africa	Ethiopia	Ethiopian Academy of Sciences	INASP, Packard Foundation
Africa	Ghana	Ghana Academy of Arts and Sciences	Women in Science and Engineering, NASAC
Americas	Argentina	Academia Nacional de Ciencias	IANAS
Americas	Canada	Royal Society of Canada	L'Oréal-UNESCO Women in Science
Americas	Colombia	Colombian Academy of Exact, Physical and Natural Sciences	IAP and IANAS Women for Science Program
Americas	Cuba	Academy of Sciences of Cuba	IANAS, ISC regional office, TWAS, OWSD and the Iberoamerican Program for Science, Technology and Development
Americas	Dominican Republic	Academia de Ciencias de la República Dominicana	IANAS
Americas	Peru	Academia Nacional de Ciencias	IANAS
Americas	United States of America	The National Academy of Sciences	ISC and many of its discipline-specific unions (including the ones involved in the Gender Gap project).
Asia-Pacific	Australia	Australian Academy of Science	Member of IAP for Science, the IAP for Research and the IAP for Health. Founding member of the Association of Academies and Societies of Sciences in Asia (AASSA). Responsible for Australia's representation on ISC. Professor Cheryl Praeger, former Foreign Secretary of the Australian Academy of Science, chairs the AASSA Special Committee for Women in Science and Engineering (WISE).
Asia-Pacific	Islamic Republic of Iran	The Iranian Academy of Medical Sciences	Various UN bodies
Asia-Pacific	Palestine	Palestine Academy for Science and Technology	OWSD, IAP and TWAS
Europe	Belgium	Young Academy of Belgium (Jonge Academie)	500 Women Scientists. (https://500womenscientists.org/)
Europe	Czech Republic	Czech Academy of Sciences	ALLEA, International Human Rights Network of Academies and Scholarly Societies
Europe	Finland	Young Academy Finland	European Women Rectors Association
Europe	Germany	German National Academy of Sciences Leopoldina	IAP

Europe	Hungary	Hungarian Academy of Sciences	UNESCO, ISC, IAP, ALLEA and European Institute for Gender Equality
Europe	United Kingdom	The Royal Society	Partners with academies and institutions throughout the scientific community to maximise the effectiveness of diversity initiatives

Appendix 11: Details provided for "The academy has a committee that addresses women's issues"

Region	Country	Academy	Nature of membership and role
Africa	Cameroon	Cameroon Academy of Sciences	Participation in consensus studies and workshops.
Africa	Cameroon	Cameroon Academy of Young Scientists	Participate in conference/debate during the International Women's Day on the role of women scientists and the development of the country.
Africa	Egypt	Academy of Scientific Research and Technology	National committee for Women in Science.
Africa	South Africa	Academy of Science of South Africa	Quarterly updates on women in science activities of the Academy to Council. Executive Committee of OWSD National Chapter provides leadership on women in science matters.
Americas	Argentina	Academia Nacional de Ciencias	Women for Science ad hoc Advisory Commission.
Americas	Brazil	Brazilian Academy of Sciences	Working Group on Women for Science is composed of members and non-members of the Academy. It develops activities that enhance the participation of women in S&T careers and promote a more inclusive environment for women.
Americas	Canada	Royal Society of Canada	Committee that sets targets for equity, diversity and inclusion. Also founded a College of New Artists, Scholars and Scientists who elect equal numbers of men and women.
Americas	Cuba	Academy of Sciences of Cuba	Permanent Commission of Women in Sciences, promoting and monitoring the presence of women in all scientific activities held in the Academy.
Americas	Guatemala	Academia de Ciencias Medicas, Físicas y Naturales de Guatemala	Commission of Women in Science that carries out annual planned activities.
Americas	Nicaragua	Nicaraguan Academy of Sciences	Academy Vice President is the focal point for the IANAS Women for Science programme.
Americas	Peru	Academia Nacional de Ciencias	Senior academician is the focal point for the IANAS Women for Science programme.
Americas	United States of America	National Academy of Medicine	Committee on Diversity and Inclusion. Often engage in specific women-related issues in health and medicine in consensus and convening activities.
Americas	United States of America	The National Academy of Sciences	Committee on Women in Science, Engineering and Medicine (https://sites.nationalacademies.org/pga/cwsem/).
Americas	Venezuela	Academia de Ciencias Físicas, Matemáticas y Naturales de Venezuela	Women in science award for women in science, young women scientists.

Region	Country	Academy	Nature of membership and role
Asia-Pacific	Australia	Australian Academy of Science	The Equity and Diversity Reference Group is an advisory body to the Academy Council. It promotes diversity, for example, of gender, ethnicity, age, geographical distribution and scientific disciplines, and the principles of inclusion, equal opportunity, fairness and transparency in Academy policies and procedures. Member of Council is designated as the spokesperson for Diversity and Inclusion on the Executive Committee (a subset of Council).
Asia-Pacific	India	Indian National Science Academy	Panel on women in science. Also member of IAP panel on women with sister academies.
Asia-Pacific	Islamic Republic of Iran	The Iranian Academy of Medical Sciences	Women's health scientific group.
Asia-Pacific	New Zealand	Royal Society Te Apārangi	Academy Executive Panel.
Asia-Pacific	Republic of Korea	The Korean Academy of Science and Technology	Woman Scientists Committee. Members consist of male and female scientists.
Asia-Pacific	Sri Lanka	National Academy of Sciences of Sri Lanka	OWSD National Chapter.
Europe	Austria	Austrian Academy of Sciences	Working Group on Non-Discrimination deals with all issues relating to equal treatment of women and men, the promotion of women as well as equal treatment without distinction on the grounds of ethnic, social or geographic affiliation or origin, religion or belief, age or sexual orientation. Also conduct a mentoring programme on advanced career development for the Academy's younger generation of researchers, as well as organising public lectures on Gender and Diversity.
Europe	Belgium	Young Academy of Belgium (Jonge Academie)	Temporary working group ran a gender in academia campaign (see earlier question). Now convening around the theme "inclusive university", being broader than only gender.
Europe	Germany	German National Academy of Sciences Leopoldina	Women's issues are discussed in the Presidium and Senate.
Europe	Hungary	Hungarian Academy of Sciences	Presidential Committee on Advancing Women's Academic Career at the Hungarian Academy of Sciences was convened in 2017.
Europe	Ireland	Royal Irish Academy	Diversity Committee.
Europe	Italy	Accademia Nazionale dei Lincei	Equal Opportunity Committee.
Europe	Latvia	Latvian Academy of Sciences	Research on women issues.
Europe	Serbia	Serbian Academy of Sciences and Arts	Editorial Board which aims to publish an Edition about the influence and contribution of female members of the Academy.
Europe	United Kingdom	The Royal Society	Diversity Committee.
Global and regional	Italy	The World Academy of Sciences	The TWAS Gender Advisory Panel.

Appendix 12: Details provided for "The academy has linkages with one or more national organization(s)/network(s) that promote(s) women's activities"

Region	Country	Academy	Names of organizations/networks
Africa	Cameroon	Cameroon Academy of Sciences	Higher Women in Science.
Africa	Ethiopia	Ethiopian Academy of Sciences	Society for Ethiopian Women in Science and Technology.
Africa	Ghana	Ghana Academy of Arts and Sciences	Women in Science and Engineering.
Africa	South Africa	South African Young Academy of Science	OWSD South Africa National Chapter.
Africa	Zimbabwe	Zimbabwe Academy of Sciences	OWSD Zimbabwe National Chapter.
Americas	Argentina	Academia Nacional de Ciencias	Academy of Exact, Physical and Natural Sciences, Museo Histórico.
Americas	Canada	Royal Society of Canada	Canada's Tri-Councils (funding agencies), Office of the National Science Advisor Canadian Science Policy Forum, Let's Talk Science.
Americas	Colombia	Colombian Academy of Exact, Physical and Natural Sciences	Colombian Network of Women Scientists.
Americas	Cuba	Academy of Sciences of Cuba	Ministries, enterprises, universities, national scientific societies, and Centre of Women Studies of the Federation of Cuban Women.
Americas	Dominican Republic	Academia de Ciencias de la República Dominicana	IANAS Women for Science programme.
Americas	Guatemala	Academia de Ciencias Medicas, Físicas y Naturales de Guatemala	IANAS Women for Science programme.
Americas	Nicaragua	Nicaraguan Academy of Sciences	Gender studies group of the Universidad Centroamericana.
Americas	Peru	Academia Nacional de Ciencias	National Council of S&T, IANAS.
Americas	United States of America	The National Academy of Sciences	American Association for the Advancement of Science; American Chemical Society; American Physical Society; American Mathematics Society; and many other professional societies and many federal agencies.
Asia-Pacific	Australia	Australian Academy of Science	Collaborates with Australian Academy of Technology and Engineering to roll out the SAGE pilot, which has been adapted from the Athena SWAN Charter. (https://www.sciencegenderequity.org.au/). Also linkages with a range of national gender equity organizations and activities.

Region	Country	Academy	Names of organizations/networks
Asia-Pacific	India	Indian National Science Academy	National Academy of Sciences, India and Indian Academy of Sciences.
Asia-Pacific	Islamic Republic of Iran	The Iranian Academy of Medical Sciences	Vice Presidency for Women and Family Affairs, Office of Women's Affairs in Ministry of Health, Office of Women's Affairs in all Universities of Medical Sciences.
Europe	Belgium	Young Academy of Belgium (Jonge Academie)	Belgian Women in Science (http://www.bewise.be); Rosa vzw (centre for expertise on feminism) (https://www.rosavzw.be/nl/); Institute for the Equality of Women and Men (https://igvm-iefh.belgium.be/en); Informal network of gender & diversity officers at the universities and other research institutes.
Europe	Finland	Young Academy Finland	Ministry for Education and Culture, Council of Finnish Academies (incl. sub-committee on human rights).
Europe	Germany	German National Academy of Sciences Leopoldina	German Research Foundation, Junge Akademie at the Berlin-Brandenburg Academy of Sciences and Humanities.
Europe	Hungary	Hungarian Academy of Sciences	Association of Hungarian Women in Science, the Hungarian National Commission for UNESCO.
Europe	Hungary	Hungarian Young Academy	Association for Women in Science (www.nokatud.hu).
Europe	Netherlands	Royal Netherlands Academy of Arts and Sciences	Dutch Network of Women Professors.
Europe	United Kingdom	Academy of Medical Sciences	Academy is a member of Equality, Diversity and Inclusion in Science and Health (https://edisgroup.org/) and the Athena Forum (https://www.athenaforum.org.uk/).
Europe	United Kingdom	The Royal Society	Member of, and provides secretariat for, the Athena Forum.
Global and regional	Trinidad and Tobago	Caribbean Academy of Sciences	Institute for Gender and Development Studies at University of West Indies.

Appendix 13: Details provided for "The academy 'celebrates' national and/or international women's days"

Region	Country	Academy	Names and manner of celebration
Africa	Cameroon	Cameroon Academy of Young Scientists	4 members of the Academy were panellists in the conference/ debate organized by the Ministry of Scientific Research and Innovation for international Women's Day.
Africa	South Africa	Academy of Science of South Africa	National Women's Day - use the entire month of August to raise awareness of the women members of the Academy and their contributions. Participate in the South African Women in Science annual awards
Africa	South Africa	South African Young Academy of Science	Dedicated social media posts.
Americas	Brazil	Brazilian Academy of Sciences	International Women's Day (8 March) mainly through social media accounts.
Americas	Canada	Royal Society of Canada	Annual celebration of achievements by women and planning for 50th anniversary of the International Woman's Year in 2025.
Americas	Colombia	Colombian Academy of Exact, Physical and Natural Sciences	International Day for Girls and Women in Science (11 February) and International Women's Day (8 March).
Americas	Cuba	Academy of Sciences of Cuba	International Day for Girls and Women in Sciences (11 February) and International Women's Day (8 March). Organize panels, roundtables, invite prominent and young women in sciences to speak about their trajectories, experiences, life stories.
Americas	Dominican Republic	Academia de Ciencias de la República Dominicana	An activity is organized that enhances the work of academics.
Americas	Guatemala	Academia de Ciencias Medicas, Físicas y Naturales de Guatemala	International Women's Day (8 March). Organize a conference.
Americas	Mexico	Academia Mexicana de Ciencias	Contests about "My favourite Woman Scientist": 1. Making videos 2. Children's drawings.
Americas	Peru	Academia Nacional de Ciencias	International Women's Day (8 March). Present the publications of the Women for Science Programme and give recognition to academics for their outstanding careers and contribution to research.
Americas	Venezuela	Academia de Ciencias Físicas, Matemáticas y Naturales de Venezuela	International Day of Women and Girls in Science (11 February). Give an award given to outstanding women in science.

Region	Country	Academy	Names and manner of celebration
Asia-Pacific	Australia	Australian Academy of Science	International Day of Women and Girls in Science (11 February). Provide a range of educational and parental engagement activities. In collaboration with SAGE, also hosting 'Catalysing Gender Equity 2020: Be Part of the Solution'. Aim is to drive the implementation of the Women in STEM Decadal Plan. (https://aas.eventsair.com/catalysing-gender-equity/). International Women's Day (8 March).
Asia-Pacific	India	Indian National Science Academy	Lectures by eminent women scientists.
Asia-Pacific	Islamic Republic of Iran	The Iranian Academy of Medical Sciences	National Women's Day, Women's Health Day and week celebrations by Ministry of Health and Medical Education and all Medical Sciences Universities.
Asia-Pacific	Mongolia	Mongolian Academy of Sciences	International Women`s Day is a national holiday and the Academy follows the country regulation.
Asia-Pacific	Pakistan	National Academy of Young Scientists	International Day of Women and Girls in Science (11 February)..
Europe	Austria	Austrian Academy of Sciences	International Women's Day (8 March) - public lecture. National Girls' Day - events organized by institutes of the Academy.
Europe	Belgium	Young Academy of Belgium (Jonge Academie)	International Day for Women and Girls in Science (11 February). Kicked off gender in academia awareness raising campaign.
Europe	Finland	Young Academy Finland	International Day for Women and Girls in Science (11 February) and International Women's Day (8 March). Social media campaign to promote female members.
Europe	Hungary	Hungarian Academy of Sciences	3 prizes for Women in Excellence in Science. Award takes place on International Women's Day since 2013. The award ceremony takes place at the Palace of the Academy connected to Women's Day.
Europe	Lithuania	Lithuanian Academy of Sciences	International Women's Day (8 March). Women are congratulated with tulips.
Europe	Republic of North Macedonia	Macedonian Academy of Sciences and Arts	Day or weekend field-trip is organized for all female employees at the Academy (exclusively), and the costs are covered by the Academy.
Europe	United Kingdom	Academy of Medical Sciences	International Women's Day through social media channels, blogs on website and publication of report. Publication of #MedSciLife profile in 2019. Also held a SUSTAIN Celebration Event. (https://acmedsci.ac.uk/sustain).

Region	Country	Academy	Names and manner of celebration
Europe	United Kingdom	The Royal Society	International Women's Day 8 March), Ada Lovelace Day and International Day of Women and Girls in Science (11 February).
Global and regional	Italy	The World Academy of Sciences	TWAS and OWSD organize celebrations for International Day of Women and Girls in Science (11 February) on the ICTP campus in Trieste and attend the UN celebrations in New York.

Appendix 14: Details provided for "The academy has linkages with one or more organization(s)/initiative(s) that promote(s) the application of a 'gender lens'"

Region	Country	Academy	Names of organizations/initiatives
Africa	Cameroon	Cameroon Academy of Sciences	Higher Women in Science
Africa	Ethiopia	Ethiopian Academy of Sciences	Packard Foundation
Africa	Ghana	Ghana Academy of Arts and Sciences	NASAC
Africa	Nigeria	Nigerian Academy of Science	GenderInSITE Africa and the OWSD Nigeria National Chapter.
Africa	South Africa	Academy of Science of South Africa	GenderInSITE - the Academy hosts the regional focal point for Africa.
Africa	South Africa	South African Young Academy of Science	OWSD South Africa
Americas	Canada	Royal Society of Canada	Canadian Tri-Councils
Americas	Cuba	Academy of Sciences of Cuba	UNESCO in Latin America and the Caribbean and GenderInSITE
Americas	Peru	Academia Nacional de Ciencias	IANAS
Asia-Pacific	Australia	Australian Academy of Science	Researchers and other academics across Australia's higher education and research sector apply a gender lens in research and teaching approaches.
Asia-Pacific	Islamic Republic of Iran	The Iranian Academy of Medical Sciences	Deputy of Research and Technology, Ministry of Health and Medical Education, and related research centres in Medical Sciences Universities,
Europe	Belgium	Young Academy of Belgium (Jonge Academie)	Belgian Women in Science (http://www.bewise.be). European Commission, RRI (Responsible Research and Innovation) focus as cross-cutting issue in Horizon 2020, of which gender lens to research content is one of the 6 pillars.
Europe	Finland	Young Academy Finland	Together with Nordic and Baltic Young Academies, issued a statement on gender equality in research in 2019. Hosted an event on gender in research.
Europe	Ireland	Royal Irish Academy	ALLEA, ISC
Europe	Netherlands	Royal Netherlands Academy of Arts and Sciences	Dutch Network of Women Professors
Europe	United Kingdom	The Royal Society	Work in partnership with academies and institutions throughout the scientific community to maximise the effectiveness of diversity initiatives.
Global and regional	Italy	The World Academy of Sciences	GenderInSITE

Appendix 15: Details about the reports that specifically address issues related to women or gender

Region	Country	Academy	Details
Africa	Cameroon	Cameroon Academy of Sciences	The Problems of Urbanization in Cameroon: Strategies for Solutions, pages 35 - 36: Gender dimensions of food systems in urban development in Cameroon. (http://www.cascienc es.org).
Africa	Nigeria	Nigerian Young Academy	Report of Workshop for Early Career Women Scientists (2017).
Africa	South Africa	Academy of Science of South Africa	Pathways to Success: Bringing a Gender Lens to the Scientific Leadership of Global Challenges (2018). Gender and Innovation: Implications for Sustainable Development (2017). Women for Science: Inclusion and Participation on Academies of Science (2015). Inquiry-Based Science Education: Increasing Participation of Girls in Science in sub-Saharan Africa Policy-makers' Booklet (2011). (http://research.assaf.org.za /browse?value=SDG+5&type=subject).
Africa	South Africa	South African Young Academy of Science	(https://www.sayas.org.za/wp-content/uploads/2017/08/Gender-in-Research-Round1-Report.pdf). Other reports always have a sub-theme on gender.
Americas	Cuba	Academy of Sciences of Cuba	Various articles and interviews. TWAS Newsletter, Special issue, the next 30 years, Vol. 27, No. 1, 2015; (http://www.oei.es/historico/divulgacioncientifica/?Receta-Se-puede-sonar-y-ser-una-mujer-cientifica-y-no-morir-en-el-intento); (http://periodicos.utfpr.edu.br/cgt); (https://youtu.be/n1sM6Dc-j-M); (http://mediccreview.org/cubas-women-of-science-of-glass-ceilings-velvet-circles-and-pink-collar-ghettoes-lilliam-alvarez-ms-phd/).
Americas	Guatemala	Academia de Ciencias Medicas, Físicas y Naturales de Guatemala	Survey to determine names and scientific activities of women scientists in Guatemala. 67 biographies will be posted on the web page.

Region	Country	Academy	Details
Americas	Peru	Academia Nacional de Ciencias	Information on the activities of the Peruvian Focal Point in Academy Bulletin. (http://www.ancperu.org/). Women for Science Digital Bulletin, Decentralized Workshops. (https://es.calameo.com/read/005100307d7be99cc0304).
Americas	United States of America	The National Academy of Sciences	Many. See www.nap.edu
Asia-Pacific	Australia	Australian Academy of Science	Academy co-authored the Women in STEM Decadal Plan with the Australian Academy of Technology and Engineering to provide a 10-year strategy to lift the participation of girls and women in STEM education and careers and provide information on the current context of participation of girls and women in STEM. (https://www.science.org.au/support/analysis/decadal-plans-science/women-in-stem-decadal-plan).
Asia-Pacific	India	Indian National Science Academy	Collaborative publication with other Indian academies on "Women in Science & Technology" in 2016.
Asia-Pacific	Islamic Republic of Iran	The Iranian Academy of Medical Sciences	Report on a survey on women's health research publications in Iran.
Europe	Belgium	Young Academy of Belgium (Jonge Academie)	Charter Gender in Academia 2019, by Young Academy & University Council VLIR (Dutch only: (https://jongeacademie.be/wp-content/uploads/2019/06/Gendercharter_VLIR-JA.pdf)).
Europe	Czech Republic	Czech Academy of Sciences	(https://genderaveda.cz/en/publications/monitoring-reports/).
Europe	Germany	Die Junge Akademie	Before 2015: Gleichstellung als Grundbedingung für Offenheit, Freiheit und Wettbewerb in der Wissenschaft (Equality as a basic condition for openness, freedom and competition in science) 2008; (https://www.diejungeakademie.de/fileadmin/user_upload/Dokumente/aktivitaeten/wissenschaftspolitik/stellungsnahmen_broscheuren/901_Positionspapier_Gleichstellung.pdf).
Europe	Hungary	Hungarian Academy of Sciences	'Year of Women' at the Hungarian Academy of Sciences - Efforts to Promote Women's Academic Career.
Europe	Hungary	Hungarian Young Academy	Report on the state of young researchers in Hungary. (https://mta.hu/data/dokumentumok/fiatal_kutatok_helyzete_felmeres_eredmeny.pdf.)

Region	Country	Academy	Details
Europe	United Kingdom	Academy of Medical Sciences	Representation of women within the Academy's Fellowship - full report 2012. (https://acmedsci.ac.uk/file-download/35277-136118550861.pdf). Women in STEM careers: Response to House of Commons Science & Technology Committee inquiry 2013. (https://acmedsci.ac.uk/file-download/34740-525e971c66677.pdf). What can Fellows do to support women in the biomedical workforce? 2015. (https://acmedsci.ac.uk/file-download/38368-569e4afccb8de.pdf). Annual diversity report. (https://acmedsci.ac.uk/about/governance/equality-and-diversity/annual-diversity-report).
Global and regional	Trinidad and Tobago	Caribbean Academy of Sciences	Part of IANAS initiatives. Joint Publication with National Institute of Higher Education Science & Technology. Published booklet on Women in Science.

Appendix 16: Details about the policies of academies that address sexual harassment in the workplace

Region	Country	Academy	Details
Africa	Ethiopia	Ethiopian Academy of Sciences	Dedicated "Sexual harassment policy". Policy was revised last year and is now approved by the Board.
Africa	Nigeria	Nigerian Academy of Science	The Academy's Conditions of Service has a section that addresses sexual harassment in the workplace.
Americas	Canada	Royal Society of Canada	Policy developed by the Governance and Ethics Committee.
Americas	United States of America	National Academy of Medicine	Statement on Sexual Harassment and Other Prohibited Types of Harassment (applies to all volunteers and employees). Code of Conduct (applies to all members).
Americas	United States of America	The National Academy of Sciences	Statement on Sexual Harassment and Other Prohibited Types of Harassment. (https://janus.nas.edu/cs/idcplg?IdcService=GET_FILE&dDocName=NASOWC072253&Rendition=Primary&noSaveAs=&RevisionSelectionMethod=latest&filetypeGSA=.pdf)
Asia-Pacific	Australia	Australian Academy of Science	Code of Conduct (https://www.science.org.au/about-us/governance/code-conduct). The Academy has the following policies for all secretariat staff, which are each available on the staff intranet: - Harassment, Discrimination and Bullying Policy -Harassment, Discrimination and Bullying Procedure - Sexual Harassment Procedure
Asia-Pacific	India	Indian National Science Academy	Committee on sexual harassment of women in the workplace.
Asia-Pacific	Islamic Republic of Iran	The Iranian Academy of Medical Sciences	Women's health national strategies in Iran include policies on violence against women as a dedicated policy.
Asia-Pacific	Israel	Academy of Sciences and Humanities	Part of an employee relations policy, as required by law.
Asia-Pacific	New Zealand	Royal Society Te Apārangi	Acceptable behaviour at events.
Europe	Germany	Die Junge Akademie	Equal Opportunities Officer at Leopoldina
Europe	Germany	German National Academy of Sciences Leopoldina	The Equal Opportunities Officer and Work Council. Rules of procedure for equality between women and men does not address sexual harassment explicitly but the Federal Equality Act which also applies to the Leopoldina does.
Europe	Ireland	Royal Irish Academy	Dignity and Respect in the Workplace Policy.

Region	Country	Academy	Details
Europe	Netherlands	Royal Netherlands Academy of Arts and Sciences	Employee relations policy and external confidential counsellor.
Europe	Slovakia	Slovak Academy of Sciences	Code of Ethics.
Europe	Sweden	Royal Swedish Academy of Sciences	Part of the workplace policy.
Europe	United Kingdom	Academy of Medical Sciences	Internal Bullying and Harassment Policy that covers staff and Code of Conduct for Fellows with accompanying disciplinary procedure: (https://acmedsci.ac.uk/more/news/new-code-of-conduct-for-fellows-working-on-academy-of-medical-sciences-business); (https://acmedsci.ac.uk/file-download/27337666); (https://acmedsci.ac.uk/file-download/73029576).
Global and regional	Italy	The World Academy of Sciences	Subject to UNESCO ethics and standards of conduct, which includes a policy on sexual harassment in the workplace.

Appendix 17: Additional remarks about the role of women or gender-related issues in the academy's activities

Academy	Remarks
South African Young Academy of Science	Given the country's past, there is not just a focus on gender but on achieving race and geographical representation as well.
Australian Academy of Science	In addition to the contributions to both diversify the academy fellowship and leadership, as well as the academy leading a range of projects and activities that drive gender equity in STEM, the academy has taken the following actions: • All members of the academy council have agreed to take the panel pledge and encourage other fellows to do so. By taking the pledge, a Male Champions of Change initiative, fellows will seek to ensure equity of voice is considered in panels and conferences they are involved in, reserving the right to withdraw if an inclusive approach is not evident, and work with organisers of panels and conferences to take gender diversity into account. • The academy's president and chief executive annually report to council data on the diversity of the fellowship and staff which inform deliberations at the highest levels. The academy is developing tools to measure gender equity across the breadth of its activities. • Currently two awards, the Dorothy Hill Medal and Nancy Millis Medal, are awarded to women researchers. Efforts are underway to include more women-only awards, recognise the outstanding commitment of women to science by naming an open award after a women researcher, and encourage more women to apply for all awards. • The academy aims to build public awareness and understanding of science. This occurs through multiple avenues including through our events, social media and science information website, Curious. We have highly effective communications and outreach strategies that showcase the diversity of expertise across the STEM sector and strive for equity of voice in both the participants who deliver our content and those who review our reporting of science to ensure its accuracy. We are developing tools to measure these efforts and report to our leadership on progress. We would like to improve the gender diversity of our audience on social media platforms, noting the cultural and accessibility barriers that exist and the role that platforms and media outlets themselves play in appealing to more diverse audiences. We have developed targeted communication products to encourage greater diversity in our activities and in our fellowship, including video and written materials (https://youtu.be/K-xjxgKWseg). • We strive for gender balance in our sponsored events and outreach activities. For example, the 2019 Canberra Speaker Series consisted of 12 speakers, of which nine were women representing a range of career stages, expertise and academic and industry engagement. • To reduce the barriers for participation in our events, we regularly offer grants and in-house carer services to enable greater involvement for those with caring responsibilities or other challenges that may otherwise prevent their participation. • As the custodian of the Shine Dome in Canberra, the academy is also encouraging organizations that wish to hold events at the Shine Dome to ensure they have considered equity in voice in planning their event. STEM organizations offered a discounted venue hire are asked to demonstrate efforts to address gender diversity in their event, or at the very least, acknowledge the absence of it and publicly discuss mechanisms to address it in their discipline (https://www.science.org.au/about-us/shine-dome). • A biannual staff survey is conducted to ensure these measures meet the requirements of the secretariat and adjust if necessary.

Academy	Remarks
Academie des Sciences pour les Jeunes en République Démocratique du Congo	Academy is in its infancy and does not yet have a focus on gender, but with this kind of awareness campaign, we will definitely consider it in future plans.
Nicaraguan Academy of Sciences	Unwritten policy of promoting greater participation of women. Recently, 4 women have joined the Academy.
Polish Young Academy	No institutionalised and formally targeted activities / laws are in place, but previous governing body composed exclusively of women and election of members takes account of need and benefits of including more women.
Latvian Academy of Sciences	STEM is a topic for L'OREAL prize for Women in Science.
Academy of Science of South Africa	Academy has been requested twice by government to report on Women in Science for the UN and Africa-wide protocols or frameworks like the Convention on the Elimination of All Forms of Discrimination Against Women.
Israel Academy of Sciences and Humanities	Academy has female leadership – President, Director General, Director of International Affairs, Director of External Affairs, and the heads of both academic divisions, and the publishing house.
Academy of Medical Sciences in the UK	Equality, diversity and inclusivity work focuses on a broad range of characteristics including gender, ethnicity, disability and sexual orientation as well as regional, subject, sector and specialty diversity. Serious about learning both from successes and failures and believe that transparency is key for sector-wide improvement. Publish an annual diversity report spanning all activities. (https://acmedsci.ac.uk/about/governance/equality-and-diversity/annual-diversity-report).
The Royal Society in the UK	Increased the number of images of women scientists in the public areas of its London offices. Collect archive material on women scientists for promotional work.
Macedonian Academy of Sciences and Arts	Female inclusivity in all decision-making positions seems a very distant goal. All leading positions are occupied by males and there is no single initiative towards improving the existing imbalance.
Young Academy of Belgium (Jonge Academie)	Without any efforts, do not experience any problems with gender balance in membership. Acknowledge that there may be a problem in senior academies.

Appendix 18: Details of document (that explicitly mentions the need for increased participation by women in its activities)

Organization	Details
Association of Science and Technology Centres	Commitment to diversity, accessibility, inclusion, and equity. (https://www.astc.org/about/equity/).
European Consortium for Political Research	Undertake annual gender study that reports on women's participation in events, research groups, governance, and operations. In 2018, published a Gender Equality Plan with targets to reach gender parity across all areas of the organization. Follow up on progress against targets.
International Union of Crystallography	Strive to achieve gender balance in all institutions and activities bearing in mind other diversity needs and obligations to geographic and academic discipline representation. Statement approved in 2017. Those seeking support from the Union for Congresses, meetings, workshops and schools will also have to demonstrate their efforts to address gender balance.
International Peace Research Association	Gender equality, empowerment, combatting gender discrimination and engendered peace building.
International Political Science Association	Mission statement (https://www.ipsa.org/organization/mission-statement).
International Studies Association	Committee on the Status of Women formed in 2007 and tasked to analyze membership data and provide recommendations to the Governing Council that will increase the status and visibility of women in international studies. (https://www.isanet.org/ISA/Governance/Committees/Status-of-Women).
International Union of Biological Sciences	Application form for conference grants specifies women's representation in the organizing committee and gender balance in the invited speakers. Young scientists' conference grant requires equal number of males and females.
International Union of Forest Research Organizations	Strategy (2020-2024) currently in approval process. Network cooperation: Increase equity, inclusiveness and communication.
International Union of Geodesy and Geophysics	Guidelines for applications for support of scientific meetings - adopted in 2008, modified in 2011, and 2015. (http://www.iugg.org/meetings/guidelines.php).
International Union of Geological Sciences	Statutes and by-laws.
International Union of Immunological Societies	Gender Equality Committee established in 2020, with mission to encourage promotion of women immunologists around the world and to help with career development issues of women and young scientists. (https://iuis.org/committees/gec/). Also include a statement in application letter.
International Union of Pure and Applied Physics	Working group on women in physics created in 1999. Since then all general assemblies have approved resolutions and recommendations to increase the participation of women. Sponsored conferences have to fulfill conditions on the fraction of women on committees and among invited speakers and must include a statement on harassment in conference material. A statement (Waterloo Charter) is up for approval at the next general assembly.

Organization	Details
Pacific Science Association	By-laws acknowledge the importance of increasing the participation of women, young scientists, Pacific Island scientists, and other underrepresented group. In 1991, held the first Session on Women and Development and created Scientific Working Group on Human Resources for the Future, which addresses inequities in science. 4 years later held a meeting on women and science at the congress in Beijing. At most congresses there is a strong series of sessions on women and other underrepresented groups in science, increasingly over the years, led my local organizers.
Society for the Advancement of Science in Africa	Subscribes and encourages gender equality in all aspects of its structure and activities.

Appendix 19: Details of report(s) that specifically address issues related to women or gender

Organization	Details
Association of Science and Technology Centres	Girls RISEnet published "Girls, Equity, and STEM in Informal Learning Settings". (http://girlsrisenet.org/sites/default/files/SAVI%20Lit%20Review%20Sept%202013.pdf).
International Commission for Optics	Women in Light Science - an exhibition that celebrates the scientific contribution of 12 women researchers who have made fundamental discoveries in Optics and Photonics. (http://e-ico.org/node/319).
International Council for Industrial and Applied Mathematics	Member of Gender Gap in Science project. (https://gender-gap-in-science.org), Published report. (https://gendergapinscience.files.wordpress.com/2020/02/final_report_20200204-1.pdf).
International Federation of Library Associations and Institutions	Special Interest Group on Women, Information and Libraries (https://www.ifla.org/women-information-and-libraries) that regularly produces papers at annual conferences. (http://library.ifla.org/view/divisions/div4=5Fmol=5Fwom.html).
International Institute for Applied Systems Analysis	Regular internal reports on gender issues to Governing Council.
International Mathematical Union	Member of Gender Gap in Science project. (https://gender-gap-in-science.org), Published report. (https://gendergapinscience.files.wordpress.com/2020/02/final_report_20200204-1.pdf).
International Peace Research Association	Several books and scientific articles.
International Political Science Association	(https://www.ipsa.org/publications/ipsa-gender-diversity-monitoring-report).
International Sociological Association	Research Committee on Women in Society focusses on issues related to women and gender. (https://www.isa-sociology.org/en/research-networks/research-committees/rc32-women-gender-and-society).
International Studies Association	Committee on the Status of Women. (https://www.isanet.org/ISA/Governance/Committees/Status-of-Women)
International Union for the Scientific Study of Population	Article in online news magazine. (https://www.niussp.org/). Various papers in union series with Oxford University Press - pre-2005 Women in the Labour Market in Changing Economies; Women's Empowerment and Demographic Processes; Women, Poverty and Demographic Change.
International Union of Biological Sciences	Member of Gender Gap in Science project. (https://gender-gap-in-science.org), Published report. (https://gendergapinscience.files.wordpress.com/2020/02/final_report_20200204-1.pdf).
International Union of Forest Research Organizations	"Gender and Forestry". (https://www.iufro.org/de/science/divisions/division-6/60000/60800/publications/). "Gender Research in Forestry". (https://www.iufro.org/de/science/divisions/division-6/60000/60800/60801/publications/). Background study on forests, peaceful and inclusive societies, reduced inequality, education, and inclusive institutions at all levels prepared for 14th UN Forum on Forests. (https://researchportal.helsinki.fi/en/publications/forests-peaceful-and-inclusive-societies-reduced-inequality-educa).

Organization	Details
International Union of Geodesy and Geophysics	Anti-harassment guidelines. (http://www.iugg.org/meetings/Anti_harassment_guidelines.pdf).
International Union of History and Philosophy of Science and Technology	Member of Gender Gap in Science project. (https://gender-gap-in-science.org), Published report. (https://gendergapinscience.files.wordpress.com/2020/02/final_report_20200204-1.pdf).
International Union of Pure and Applied Chemistry	Member of Gender Gap in Science project. (https://gender-gap-in-science.org), Published report. (https://gendergapinscience.files.wordpress.com/2020/02/final_report_20200204-1.pdf). Also publications by individuals.
International Union of Pure and Applied Physics	Member of Gender Gap in Science project. (https://gender-gap-in-science.org), Published report. (https://gendergapinscience.files.wordpress.com/2020/02/final_report_20200204-1.pdf). Working group produces annual reports on activities. In 2011, created position of Vice President with gender champion duties.
International Union of Radio Science	Column on 'Women in Radio Science' in quarterly magazine 'The Radio Science Bulletin'. (http://www.ursi.org/publications.php#tab-section3).
International Water Association	"The Untapped Resource: Gender and Diversity in the Water Workforce". (https://iwa-network.org/publications/untapped-resource-gender-diversity-water-workforce/).
Pacific Science Association	Special issue of the "Pacific Science Information Bulletin", as well as other organization publications and journal papers.

Appendix 20: Details of policies that address sexual harassment in the workplace

Organization	Details
Association of Science and Technology Centres	The purpose of the policy is to prohibit harassment of any employee on the basis of sex or gender. Sexual harassment is defined broadly. Also have a Conference Code of Conduct (https://www.astc.org/conferences-and-events/code-of-conduct/).
European Consortium for Political Research	Part of the Human Resources and Health & Safety Handbook for all staff. Also have a Code of Conduct for all members/others interacting with the organization. Clearly defined process for reporting breaches of the Code and complaints. (https://ecpr.eu/ContentPage.aspx?ID=626). (https://ecpr.eu/complaints/complaintsprocess).
International Institute for Applied Systems Analysis	Code of Conduct for a Professional Working Environment.
International Mathematical Union	Weierstrass Institute for Applied Analysis and Stochastics regulations, as well as German regulations
International Political Science Association	Follow sexual harassment policy of host organization, Concordia University. (http://www.concordia.ca/content/dam/common/docs/policies/official-policies/PRVPA-3.pdf).
International Statistical Institute	Part of staff regulations.
International Studies Association	Code of Conduct. (https://www.isanet.org/ISA/Governance/Policy-and-Procedures/ID/9/ISA-Code-of-Conduct).
International Union for the Scientific Study of Population	Employee handbook.
International Union of Basic and Clinical Pharmacology	Secretariat is in the USA and hence must have a policy that addresses sexual harassment.
International Union of Geodesy and Geophysics	Anti-harassment guidelines. (http://www.iugg.org/meetings/Anti_harassment_guidelines.pdf).
International Union of Immunological Societies	Part of secretariat's company policy.
International Union of Pure and Applied Physics	Secretariat adopts the sexual harassment policy of the host institution. Have a policy on sexual harassment related to conferences sponsored by the union.
International Union of Radio Science	Part of the employee relations policy.
Society for Social Studies of Science	A general ethics document that indicates the organization does not tolerate sexual harassment or other forms of harassment at our annual meetings.
Society for the Advancement of Science in Africa	Policy being developed.

Appendix 21: Current or past projects and activities/workshops with a specific gender focus

Organization	Projects and activities/workshops
Association of Science and Technology Centres	IF/THEN IF/THEN® is a national initiative to advance women in STEM by empowering current innovators and inspiring the next generation of female pioneers. ASTC is working with IF/THEN® to increase representation of women in STEM fields, make positive representations of women available to informal STEM learning organizations, and inspire and engage young women to pursue STEM courses and careers. There are several resources and opportunities associated with the project that will help to increase the representation of women in science centres and museums: ASTC's IF/THEN® Gender Representation Toolkit helps science centres collect data on their visual representation of women and gender minorities in the images and videos in their museum content, including exhibits, websites, program materials, signage, and more. These data will be used to inform changes at individual museums and contribute to a field-wide report on the state of gender representation in science centres to identify areas of improvement and better determine the resources needed for growth. This toolkit will also prompt conversations between museum staff about gender equity through guided discussions and training sessions. IF/THEN® Grants are have been awarded to museums in order to advance a project that addresses gender equity in their museum. There will be two rounds of IF/THEN® grants awarding a total of $650,000 to science centers and museums. ASTC is working with the National Girls Collaborative Project on the IF/THEN® Collection, a digital library of free photos and videos featuring inspiring women in STEM that museums and educators can use to increase their representation of women. Girls RISENet was a partnership between the Patricia and Phillip Frost Museum of Science, the Association of Science-Technology Centres, and SECME, Inc. Girls RISEnet strengthened the professional capacity of informal science educators to engage and motivate minority girls in grades 6-12 to explore and pursue S&T careers. The project addressed the national need to cultivate diversity in preparing the next generation of female scientists and engineers. Objectives included: Utilized the national network of science centres and museums to raise awareness and broaden access for girls underrepresented in STEM. Developed linkages between organizations with the common purpose of increasing the pipeline of minority female engineers. Facilitated translation of gender and diversity research into practice through a unified training program. Provided ongoing services, access to program materials, and tools to broaden the ability of science centres to provide relevant and engaging programming for girls.
International Arctic Science Committee	Current projects: Gender in Polar Research, Gender Equality in the Arctic.
International Commission for Optics	Women in Light Science, an exhibition that celebrates the scientific contribution of 12 women researchers who have contributed to fundamental discoveries in Optics and Photonics. http://e-ico.org/node/319
International Council for Industrial and Applied Mathematics	Several workshops linked to the 'Gender Gap in Science' project, funded by ICSU. The ICIAM Olga Taussky-Todd Lectures in every one of our main congresses, every four years.
International Institute for Applied Systems Analysis	Since 2013, IIASA has been committed to addressing diversity issues and has made a number of changes including establishing a Committee on Cultural Diversity and Building a Positive Work Environment, introducing a Code of Conduct policy, addressing the gender pay gap, providing family benefits to all IIASA employees, and working towards a fair parental leave policy.
International Peace Research Association	Decolonised peace, engendered peace, human, gender and environmental security and peace.

Organization	Projects and activities/workshops
International Sociological Association	ISA Research Committee on Women in Society focusses on issues related to women and gender https://www.isa-sociology.org/en/research-networks/research-committees/rc32-women-gender-and-society.
International Statistical Institute	On May 12, 2020 launched the International Year on Women in Statistics and Data Science (launched at the 200th anniversary of Florence Nightingale) https://www.isi-web.org/index.php/florence-nightingale-working-group.
International Statistical Institute (ISI	Roundtable at General Conference - 'Gender, Inclusivity and the Good Profession' https://ecpr.eu/Events/Event/Content?ID=503&EventID=123. We are also due to publish a symposium shortly in our professional journal European Political Science on gender bias in our academic journals, written as a result of analysis of data and peer review processes by the editorial teams of our EJPR, EPS and EPSR journals.
International Studies Association	See examples references gender and women at https://www.isanet.org/Conferences/Archive/Workshop-Grants.
International Union for Pure and Applied Biophysics	Focused meetings to take place in 2021.
International Union for the Scientific Study of Population	See publications from committees. IUSSP has several scientific panels that address issues of gender and women's access to reproductive health services and abortion.
International Union of Biological Sciences	A Global Approach to the Gender Gap in Mathematical, Computing, and Natural Sciences - How to Measure It, How to Reduce It?
International Union of Geological Sciences	IGCP by UNESCO and IUGS.
International Union of History and Philosophy of Science and Technology	Symposia of the Commission on Women and Gender in Science, Technology and Medicine at our quadrennial congresses.
International Union of Immunological Societies	Multiple awards and workshops - https://iuis.org/committees/gec/.
International Union of Pure and Applied Chemistry	1. A Global Approach to the Gender Gap, IUPAC Women's Breakfast, 2. Awardees of the IUPAC Distinguished Women in Chemistry or Chemical Engineering, 3. 3. A Global Approach to the Gender Gap in Mathematical, Computing, and Natural Sciences: How to Measure it, How to Reduce It?
International Union of Pure and Applied Physics	The IUPAP has been a very active participant of the Gender Gap in Science project, https://gender-gap-in-science.org/. It has not only been involved in the definition of the project (being its initial promoter), but its representatives were directly involved in the organization and realization of its main tasks, the Global Survey of Scientists that was responded to by about 32,000 people from over 150 countries in the world. The Working Group on Women in Physics of the IUPAP (wgwip.df.uba.ar) organizes the International Conference on Women in Physics (ICWIP) triennially (see, e.g. https://wp.csiro.au/icwip2020/) and supports the participation of female physicists at early stages of their careers in conferences, schools and related activities with travel grants. Reports on the activities can be found on the working group website, http://wgwip.df.uba.ar/, and in the IUPAP newsletters.
International Water Association	We try to have more gender balance in conferences and organize events with a gender focus. We have also just changed the steering committee rules such that from now on a balance of regions, gender and age needs to be respected.

Organization	Projects and activities/workshops
Society for Social Studies of Science	A significant portion of research produced by members of the society is about gender in science.
Society for the Advancement of Science in Africa	Women in Science Seminar.
World Anthropological Union/ International Union of Anthropological and Ethnological Sciences	We have "IUAES Commission on Anthropology of Women" and "IUAES Commission on Global Feminisms and Queer Politics." They hold panels etc. at congresses. (https://www.waunet.org/iuaes/comm/list.phtml).

Appendix 22: Examples of gender-related activities conducted by national chapters (or equivalent)

Organization	Examples
Association of Science and Technology Centres	Under the IF/THEN Initiative, 26 member museums across the USA have received grant funding to implement projects designed to increase representation of women and gender minorities in STEM.
European Consortium for Political Research	Standing Group on Gender and Politics.
International Commission for Optics	Women in Light Science exhibition that celebrates the scientific contribution of 12 women researchers who have contributed to fundamental discoveries in Optics and Photonics. (http://e-ico.org/node/319).
International Mathematical Union	World Meeting for Women in Mathematics.
International Union of Forest Research Organizations	Many activities. e.g. Forests in Women's Hands International Conference, (https://www.forstfrauen.at/en/konferenz-2021); Mentoring Women in Forestry, (https://bfw.ac.at/rz/bfwcms.web?dok=11114); Canadian Federal Investment in Women in Forestry, (https://www.canada.ca/en/status-women/news/2018/11/new-federal-investment-will-help-boost-number-of-women-in-canadas-forestry-sector.html).
International Union of Immunological Societies	Women's Initiatives and female speaker databases and mentoring programmes in at least 20 member organizations.
International Union of Materials Research Societies	Many have policies on gender equity on conferences and meetings, as well as member Executive Committee and other boards.
International Union of Pure and Applied Physics	Working Group on Women in Physics has led to the organization of similar groups at country level.
Society for the Advancement of Science in Africa	Encouragement of high school level girls to aspire to STEM careers.
Sudanese National Academy of Sciences	Sudanese Women in Science; OWSD Sudan National Chapter.
World Anthropological Union/ International Union of Anthropological and Ethnological Sciences	Most of the 54 national associations are engaged in gender-related activities.

Appendix 23: Examples of grants, fellowships or awards that organizations have specifically for women

Organization	Examples
European Consortium for Political Research	Awarded via Standing Group on Gender and Politics. (https://ecpr.eu/Prizes/PrizeDetails.aspx?PrizeID=9).
International Council for Industrial and Applied Mathematics	Olga Taussky-Todd Lectures in congresses held every four years. (http://www.iciam.org/iciam-olga-taussky-todd-lectures).
International Institute for Applied Systems Analysis	Women in Science Fund to provide financial support to women scientists at all career levels. (https://iiasa.ac.at/web/home/about/giving/Women_in_Science_Fund.html)
International Mathematical Union	Grants administered by Committee for Women in Mathematics and Emmy Noether Lecture at the International Congress of Mathematicians.
International Peace Research Association	Senesh Fellowship for women from the Global South, Peace research projects.
International Studies Association	Susan S. Northcutt Award. (https://www.isanet.org/Programs/Awards/Susan-Stoudinger-Northcutt).
International Union of Geodesy and Geophysics	Union sponsors scientific meetings. (http://www.iugg.org/meetings/guidelines.php).
International Union of Immunological Societies	Prizes. (https://iuis.org/news/menarini-prize-for-outstanding-woman-immunologist/ - once every three years). (https://iuis.org/news/announcement-of-a-new-travel-for-expertise-travel-grant-program/ - every year, multiple awards).
International Union of Pure and Applied Chemistry	Distinguished Women in Chemistry or Chemical Engineering awards.
International Union of Pure and Applied Physics	Travel grants for early-career female physicists from developing countries at early stages of their career. (http://wgwip.df.uba.ar/).
International Water Association	Women in Water Award. (https://iwa-network.org/iwa-women-water-award/), every two years.

Appendix 24: Examples of committees, research boards or similar structures with a specific focus on women in science issues

Organization	Examples
European Consortium for Political Research	Standing Group on Gender and Politics.
International Federation of Library Associations and Institutions	The Women, Information and Libraries Special Interest Group focuses both on services to female users, and to women within the library profession.
International Geographical Union	Commission on Gender and Geography. (https://igugender.wixsite.com/igugender).
International Institute for Applied Systems Analysis	Women in Science Club. (https://iiasa.ac.at/web/home/about/alumni/WISC.html).
International Mathematical Union	Committee for Women in Mathematics. (https://www.mathunion.org/cwm).
International Peace Research Association	Gender and peace.
International Political Science Association	2 Research Committees that focus on gender and diversity - Women and Politics in the Global South (https://www.ipsa.org/page/rc07-women-and-politics-global-south) and Gender Politics and Policy (https://www.ipsa.org/page/rc19-gender-politics-and-policy).
International Sociological Association	Research Committee on Women in Society. (https://www.isa-sociology.org/en/research-networks/research-committees/rc32-women-gender-and-society).
International Statistical Institute	Committee on Women in Statistics. (https://cw-isi.org/).
International Studies Association	Committee on the Status of Women. (https://www.isanet.org/ISA/Governance/Committees/Status-of-Women).
International Union of Biological Sciences	Working group on gender gap.
International Union of Crystallography	Women in Crystallography. (https://ecm2019.org/programme/microsymposia/general-interest/gi-ms47-women-in-crystallography/).
International Union of Forest Research Organizations	Research Group "Gender and Forestry" ;Working Party "Gender research in Forestry" (https://www.iufro.org/science/divisions/division-6/60000/60800/60801/); Working Party "Gender, Education and Forestry" (https://www.iufro.org/science/divisions/division-6/60000/60800/60802/); Task Force "Gender Equality in Forestry" (https://www.iufro.org/science/task-forces/gender-equality-in-forestry/members/).
International Union of History and Philosophy of Science and Technology	Commission on Women and Gender in Science, Technology and Medicine. (http://dhstweb.org/structure/historical-commissions).
International Union of Immunological Societies	Gender Equality Committee. (https://iuis.org/committees/gec/).
International Union of Pure and Applied Physics	Working Group on Women in Physics.
Pacific Science Association	Working Group on Human Resources for the Future.

Organization	Examples
Society for the Advancement of Science in Africa	Committee on Women in Science.
World Anthropological Union/International Union of Anthropological and Ethnological Sciences	Commission on Anthropology of Women and Commission on Global Feminisms and Queer Politics. These Commissions do not directly address "women in science" but broadly cover gender-related issues.

Appendix 25: Examples of initiatives and/or advocacy/networking activities aimed at the promotion of gender equality in science

Organization	Examples
European Consortium for Political Research	Gender Equity Plan. (https://ecpr.eu/Filestore/CustomContent/Membership/Gender%20Equality%20Plan_2018.pdf).
International Arctic Science Committee	Fellowship Programme, Gender in Polar Research project (https://www.ethnologie.uni-hamburg.de/forschung/aktuelle-forschungsprojekte/gender-in-the-arctic-research-network.html).
International Commission for Optics	Women in Light Science. (http://e-ico.org/node/319).
International Council for Industrial and Applied Mathematics	Participated in Gender Gap in Science project. (https://gender-gap-in-science.org/). Set up a Standing Committee on Gender Equality in Science.
International Institute for Applied Systems Analysis	Women in Science Club mentoring programme. https://iiasa.ac.at/web/home/about/alumni/WISC_mentoring_program.html
International Mathematical Union	Committee for Women in Mathematics. (https://www.mathunion.org/cwm).
International Political Science Association	Published 3 Gender and Diversity Monitoring Reports since 2011. (https://www.ipsa.org/publications/ipsa-gender-diversity-monitoring-report). Appointed a Special Representative for Gender and Diversity for 2018-2020 and adopted first Gender and Diversity Action Plan. Aim is to make every aspect of association more inclusive and diverse. Over past 20 years, women's representation in activities and committees increased from 20.3% to 37.5%. IPSA Gender and Diversity Monitoring Report:
International Statistical Institute	International Year on Women in Statistics and Data Science (launched at the 200th anniversary of Florence Nightingale). (https://www.isi-web.org/index.php/florence-nightingale-working-group).
International Union of Biological Sciences	A Global Approach to the Gender Gap in Mathematical, Computing, and Natural Sciences - How to Measure It, How to Reduce It?" (https://gender-gap-in-science.org).
International Union of Crystallography	Conference support given only given to organizations that adhere to the gender equality statement.
International Union of Forest Research Organizations	Forests in Women's Hands International Conference, (https://www.forstfrauen.at/en/konferenz-2021).
International Union of Geodesy and Geophysics	Anti-Harassment Guidelines. (http://www.iugg.org/meetings/Anti_harassment_guidelines.pdf).
International Union of Immunological Societies	Gender Equality Committee. (https://iuis.org/committees/gec/).
International Union of Pure and Applied Chemistry	1. 2019 GWB https://iupac.org/100/global-breakfast/ "Empowering Women in Chemistry: A Global Networking Event" 2. 2020 GWB https://iupac.org/global-womens-breakfast/ "Building Bonds to Create Leaders" 3. ISC's project "A Global Approach to the Gender Gap in Mathematical, Computing, and Natural Sciences: How to measure it? How to Reduce it"

Organization	Examples
International Union of Pure and Applied Physics	Besides the network of women physicists referred to above, the IUPAP has been an active participant of the Gender Gap in Science Project. This was an international and interdisciplinary project whose aim was to collect data and analyze the gender gap in STEM to generate proposals to reduce it that could be used by "players" at various levels, from individuals to institutions. The project was mostly funded by the International Science Council through the end of 2019. Because most unions think that it is important to continue the work initiated with this project, we are now discussing the signing of a memorandum of agreement among the unions to guarantee the continuation of this excellent joint effort.
Society for Social Studies of Science	Some research of society members focuses gender in science. We also are affiliated with and have provided some support to a feminist journal on science and technology.
Society for the Advancement of Science in Africa	Women in Science seminars.
Sudanese National Academy of Sciences	SNAS supports Sudanese Women in Science group

Appendix 26: Examples of how disciplinary organizations address gender/diversity issues

Organization	Examples
International Arctic Science Committee	International Arctic Science Committee: Gender Statistics. (https://www.dropbox.com/s/ovk44c8ei34omuv/A8%20-%20IASC%20Gender%20Statistics.pdf?dl=0).
International Institute for Applied Systems Analysis	Association for Women in Science 500 Women Scientists (@500womensci) pledges to build an inclusive scientific community dedicated to training a more diverse group of future leaders in science. Homeward Bound (@homewardboundprojects) is a leadership, strategic and science initiative for women, set against the backdrop of Antarctica. The initiative aims to heighten the influence and impact of women with a science background in order to influence policy and decision-making as it shapes the planet, within 10 years.
International Mathematical Union	Committee for Women in Mathematics https://www.mathunion.org/cwm Statutes for Prizes and Awards https://www.mathunion.org/imu-awards/imu-awards-prizes-and-special-lecture.
International Sociological Association	ISA Statutes Article Ten: Nominations and Elections "In drawing up their slates the Nominating Committees shall consult their constituencies, and give due consideration to the diversity of fields within sociology, to geographical representation and to gender as well as to candidates' experience in organising international activities, liaising with each other to promote these ends."
International Statistical Institute)	Community principles and conduct policy https://www.isi-web.org/index.php/about-isi/policies/community-conduct.
International Union for the Scientific Study of Population	In the past, some council members have been involved in UN commissions on Status of Women and Activities by UN-Women.
International Union of Forest Research Organizations	There are no specific individuals assigned responsibility for gender and inclusiveness; however, all members of the governing body contribute to this topic and sometimes research teams specialized in those topics asked for advice or to share information and scientific evidence to support the governing body in improving gender balance, inclusiveness, and empowerment of women in the organization I have insufficient information about the activities of members of our governing body to answer this question with certainty. We do participate in celebrations of "International Day for Women and Girls in Science".
International Union of Materials Research Societies	A few of our member adhering bodies are involved in several of the above but not specifically IUMRS.
International Union of History and Philosophy of Science and Technology	Commission on Women and Gender in Science, Technology and Medicine.
International Union of Pure and Applied Chemistry	When granting IUPAC endorsement on international scientific conference, gender equity in the composition of committees, speakers and as members of the International Advisory Board (IAB) is required.
World Anthropological Union/International Union of Anthropological and Ethnological Sciences	Those who advise on gender equality issues are not in a specific position for that role, but they are vocal and always give advice on gender-related issues.

Appendix 27: Additional comments provided about the role of women or gender-related issues in the disciplinary organization's activities

Organization	Examples
International Council on Laboratory Animal Science	Never made any difference between genders. Always treated women equally.
International Institute for Applied Systems Analysis	In 2019 appointed female Deputy Director General and female Chief Operations Officer. Women occupy 2 out of 3 executive positions.
International Mathematical Union	Much activity to address gender equality in national member societies.
International Peace Research Association	Focus on the use of women's bodies during wars and armed conflicts (sexual and gender violence).
International Union for the Scientific Study of Population	Strong focus on gender issues and role of women in society in 1990s and early 2000, but by mid-2005 gender issues had become mainstreamed. Specific programmes focusing on women and gender were not necessary but should be included as part of all members' research.
International Union of Forest Research Organizations	Sponsor participation of scientists from economically least advantaged countries through a Scientist's Assistance Program (SAP), which sponsors minimum of 50% (sometimes more) women to participate in scientific meetings/conferences.
International Union of Materials Research Societies	The member adhering bodies, rather than the Board, have the responsibility for gender equity issues. Intend to raise issue at next executive committee and general annual meeting to propose a more pro-active role by union.
International Union of Pure and Applied Chemistry	Wide range of attitudes and activity on gender issues across countries and cultures. Solutions and initiatives need to consider regional context.
International Union of Pure and Applied Physics	Been very active trying to increase the participation of women in physics. However, many times it is the community that needs to change for these policies to have an effect. With regard to prizes, women are more likely to receive young scientist awards than most prestigious ones (related to career achievements).
International Water Association	Decision-making body, the management team is male-dominated with only 1 woman and 7 men. Women employees are poorly paid.
World Anthropological Union/ International Union of Anthropological and Ethnological Sciences	All individuals, males or females, are equal. Do not see any need to specifically favour women. The majority of executive board members are women (https://www.waunet.org/iuaes/about/leadership), as well as the majority of our members.

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