MULTILATERAL DIALOGUE ON PRINCIPLES AND VALUES
IN INTERNATIONAL RESEARCH & INNOVATION COOPERATION

WORKSHOP ON GENDER EQUALITY AND INCLUSIVENESS

4 APRIL 2023

REPORT

Introduction

The European Commission launched a Multilateral Dialogue on Values and Principles for Research and Innovation (R&I) in July 2022 with the aim to work towards a common understanding of principles and values that underpin international research and innovation cooperation. The third online workshop under the dialogue focused on Gender Equality and Inclusiveness in R&I on 4 April 2023, co-organised by the European Commission with Spain, Argentina, Mexico, Chile, AURORA and YERUN.

Ensuring equality and inclusiveness is paramount to increase the competitiveness and societal relevance of R&I[1]. At the European level, as in many other countries, gender inequalities still prevail in the R&I system and a gap persists between the adoption of policies and strategies at national level and their implementation at institutional level. One of the Actions of the European Research Area (ERA) Policy Agenda 2022-2024 is to "Promote gender equality and foster inclusiveness, taking note of the Ljubljana declaration" (Action 5)[2], which entails four interlinked outcome deliverables to support inclusive gender equality policies, including through the instrument of inclusive Gender Equality Plans (GEPs)[3].

By sharing practices on the state of play and adopting a multilateral perspective, this workshop facilitated and promoted the exchange of policies, initiatives, and activities for creating trusted international R&I collaboration, exchange of information and discussion on the challenges and implementation issues for Gender Equality and Inclusiveness as essential principles for R&I activities worldwide. The event attracted around 80 participants from 39 countries and several European and international organisations.

Agenda

After welcoming remarks from Dr Martin Penny, Head of Unit, Directorate for Global Approach & International Cooperation in DG R&I, European Commission, the topic of the workshop was introduced by Dr Armela Dino, Spanish Ministry of Science and Innovation, with a keynote on the state of play. Yolanda Ursa presented the results of the EU funded project *"Gender STI: Gender Equality in Science, Technology and Innovation Bilateral and Multilateral Dialogues"* that investigates how gender equality is taken into consideration in STI bilateral and multilateral dialogues between Europe and 10 selected third countries [4]. A Gender STI survey on gender equality implementation[5] showed that there are a lot of commonalities between European and third countries on what needs to be done to include and improve gender equality

[1] European Commission, DG R&I, Directorate D — People (2022). Approaches to inclusive gender equality in research and innovation (R&I).
[2] European Commission, DG R&I, Directorate A (2021). European Research Area Policy Agenda. Overview of actions for the period 2022-2024.
[3] Inclusiveness in this context refers to intersections with other social characteristics, such as ethnicity, disability and sexual orientation (Approaches to inclusive gender equality in research and innovation (R&I))
[4] Canada, the US, Mexico, Brazil, Chile, Argentina, South Africa, India, South Korea, and China
[5] Survey Report on Gender Equality Implementation in STI Bilateral and Multilateral Agreements. Gender STI (2021). https://www.gender-sti.org/wp-content/uploads/2021/12/Gender-Survey-Report-for-Web-Final-Version-03-12-2021.pdf.

in international cooperation in R&I. The survey concluded that inclusivity and intersectionality aspects related to gender are increasingly considered in bilateral and multilateral STI dialogues and that cultural differences need to be considered to advance the integration of gender equality in dialogues between Europe and third countries.

The research project also revealed that the most significant conditions that prevent the inclusion of gender equality in STI agreements were found to be the underrepresentation of women in decision-making positions, stereotypes, unconscious biases, cultural and societal barriers as well as a lack of belief in the existence of gender inequality in research. Interestingly and contrarily to widely shared beliefs, legal barriers or a lack of negotiation power of women were regarded as far less relevant. The findings disclosed that the most important approach to improve gender equality in scientific careers is to advance equality in recruitment and career progression. By contrast, unequal representation of women in decision-making positions is best countered by appropriate policy measures. Ms Ursa also mentioned the Gender Community of Practice[6] that gathers more than 200 people across Europe and third countries to promote gender equality in STI dialogues and international cooperation.

The workshop's discussions on the global challenges in Gender Equality and Inclusiveness in the context of R&I were addressed in four thematic breakout sessions:

1. The under-representation of women in STEM (Science, Technology, Engineering, and Mathematics) fields and employing a STE(A)M approach [7]
2. The under-representation of women in leadership and decision-making positions
3. Gender-based violence including sexual harassment in the R&I system
4. The low integration of a gender dimension in R&I content and ways to enhance diversity and inclusion in R&I activities

In each breakout session, the delegates were invited to discuss how the concerned challenges are affecting their respective institution, country, or stakeholder community, and share best practices and key mechanisms but also initiatives that proved unsuccessful in tackling the respective challenge.

1. The under-representation of women in STEM (Science, Technology, Engineering, and Mathematics) fields and employing a STE(A)M approach

The participation of women in STEM, including Information and Communications Technology (ICT) fields is between 20%-30% in most countries, with some country exceptions and differences between disciplines. For instance, life sciences are usually popular among women while other STEM subjects such as physics, mathematics and chemistry are not. At EU level, less than a third of undergraduate students in science and engineering in the EU are women (31.3%)[8]. Most of the countries, however, reported a slow but steady positive trend in the overall participation of women in STEM fields during the last couple of years.

The under-representation of women researchers in senior positions can be explained through the "leaky pipeline", which means that women leave the career path at different stages and especially after their PhD or their first postdoc due to numerous structural factors. While the proportion of women in academia slightly increases among PhD graduates, the gender gap widens as seniority levels increase, with women

[6] https://www.gender-sti.org/gender-sti-community-of-practice/

[7] The STEAM approach refers to the inclusion of arts, social sciences and the humanities in STEM education, as a transdisciplinary, inclusive, future-oriented approach to learning, EU support to strengthen gender equality in STEM (2023). https://op.europa.eu/s/yDbq

[8] Directorate-General for Research and Innovation, Directorate D — People (2021). She Figures 2021. Gender in Research and Innovation Statistics and Indicators.

holding only 17.9% of full Professorship positions (Grade A) in Engineering and Technology[9]. As a result, an increase in the share of women among graduates (or at a later stage in the career ladder) does not automatically lead to an increase in the share of women among researchers or the share of women holding high-academic positions. This phenomenon exists in most countries.

To improve the conditions, several institutions provide specific support structures for women researchers. Examples include dedicated committees for women, which award research prizes for women early career researchers; committees of women in science established at national level, as well as initiatives relating to STEAM entrepreneurship. Governments often support these activities. There are also professional societies and funding agencies which deliver targeted campaigns including specific funding for women. However, a concern was raised about counting numbers which may have not only an overall negative impact but decrease collective efforts in the future and jeopardise achievements to improve structural conditions.

Many participants also agreed that the low general enrolment rate of young women in fields of science, technology, engineering, mathematics, physics, chemistry, and ICT is a serious concern. Some countries adopted action plans for STEM that go beyond higher education by targeting also lower levels of education and encouraging girls in schools to get interested in STEM subjects.

Gender mainstreaming should be reinforced at higher levels to have an effect. The USA, for example, established a Gender Policy Council[10] (GPC) at the White House to advance gender equity and equality in both domestic and foreign policy development and implementation and established a whole-of-government approach to advance gender equality and gender equity as part of the implementation of the first-ever National Strategy on Gender Equity and Equality[11].

Increasing the representation of women in STEM is not only a concern of national or federal governments, but also a priority of international organisations. An example of how to align the issue from an abstract level to a more granular topic was provided by UNESCO, which adopted the Recommendations on Ethics of Artificial Intelligence[12] in November 2021 as the first global (non-binding) governance instrument on AI. It establishes a comprehensive framework which calls for actions with a special focus on gender.

To conclude, the reported key issues leading to the underrepresentation of women in STEM are:

- Cultural and social norms are unequal for men and women when they choose to follow a career in science
- Traditional gender roles and stereotypes have a great impact on subject preferences and career choices
- The unequal distribution of care work is mostly provided by women and often conflicts with a career as a researcher
- The competitive environment in male-dominated disciplines can have a deterrent effect on women
- Practice not following the law (even where the principle of equality between men and women has been enshrined in the constitution, national laws and regulations, women are not equally represented in practice)

[9] Directorate-General for Research and Innovation, Directorate D — People (2021). She Figures 2021. Gender in Research and Innovation Statistics and Indicators.
[10] https://www.whitehouse.gov/gpc/
[11] https://www.state.gov/deia-strategy/
[12] https://unesdoc.unesco.org/ark:/48223/pf0000381137

Today, the implementation of laws is slow, because stereotypes prevail, also in R&I, and leading positions are not distributed equally among women and men despite constitutional regulations.

Men need to be engaged in the discussion and need to support women in fighting unfair social and cultural norms. It would be a severe misunderstanding to frame the quest for gender equality as a fight of men vs. women. People of all genders need to work together to overcome outdated and discriminating norms, rules, and practices. The inclusion of women in all spheres of life should be understood as a common societal objective.

More suggestions, initiatives, and good practices were shared during the discussions and covered the following range of aspects and approaches:

- Provide fora for networking among women on all career levels
- Implement mentoring schemes for women
- Take measures to alleviate reconciliation of work and family life such as provision of day-care and breast-feeding facilities and create awareness for mental health
- Promote role models in public media

Key take-aways on the under-representation of women in STEM fields:

- Combat the low representation of women in STEM by employing a STE(A)M approach at lower education level and university-based measures
- Implement STEAM mobilisation measures to arouse and maintain the interest and fun of both girls and boys
- Abandon stereotypes, outdated gender norms, unfair hierarchies, and power structures
- Offer better conditions for research jobs in STEM fields for women to enter and remain in academia and improve early career conditions
- Install and monitor safe and inclusive R&I working environments and international mobility conditions

2. The under-representation of women in leadership and decision-making positions

This breakout session is closely connected with the first topic presented above. Obviously, the leaky pipeline in STEM is a major fundamental factor leading to the under-representation of women in leadership and decision-making positions, considering that many women with a degree in STEM do not enter the labour market.

The new eligibility criterion for all public bodies, higher education institutions and research organisations in the EU (and associated countries) to have a Gender Equality Plan is crucial for some countries to break down stereotypes and to increase gender-equal access to management positions.

Still today, there is no gender-balanced representation in top positions globally. The pandemic even showed a regressive effect on gender equality in many countries, with women being the first to provide care work (e.g. family care, children, etc.), which took a toll on having adequate time to perform research or author publications. The participants emphasised that men should be included in the discussion on equal career advancement opportunities for women.

Sometimes even legal measures fall short because of ineffective legal enforcement processes. Often institutional structures and the capacity to provide data that feeds into policy formulations and implementation are lacking. As a prerequisite for evidence-informed policy, institutional structures need to be enforced to deliver the necessary data. The value of diversity, needs to be demonstrated with “hard numbers” and facts to show that diversity contributes to success.

The handling of quota regulations was also discussed. In some countries, public universities are legally required to have 40%, and in some countries even 50% of women in decision-making positions. Through such quota, the participation of women in top positions could considerably improve. In fields, however, where there are no quota regulations, especially in industrial research and non-university research often implemented by non-state actors, hardly any change has been recorded over the last decade. A research funding organisation pointed out that they have introduced quota targets for gender-balanced participation in committees. However, this poses an issue for women because their frequent input in these committees adds an extra layer of tasks as there are so few women taking part. Countries should enlarge the pool of women experts to be able to make use of it.

Key take-aways on the under-representation of women in leadership and decision-making positions:

- Increase understanding of inequalities in career paths, i.e., improving knowledge of intersectionality and the impact of unconscious bias on research careers
- Ensure fair, open, inclusive and gender-equal career paths to facilitate institutional change in R&I performing organisations
- Employ monitoring, institutional audits and evaluation of gender equality policies to assess institutional change
- Pushing for quota has a positive effect
- Appointment committees are crucial gatekeepers, which need to be composed by diverse personnel
- Awareness needs to be raised, role models established, mentoring schemes implemented and incentivised
- Inclusive language is helpful to support a change agenda
- Consider that R&I careers do not necessarily have to be linear

3. Gender-based violence including sexual harassment in the R&I system

Many countries do not (yet) have policies in place to address gender-based violence (GBV) and sexual harassment in R&I. Most lack adequate data to demonstrate the extent of gender-based violence and sexual harassment in R&I.

There was widespread agreement that an evidence base must first be in place to tackle the problem. The University of Luxembourg, for instance, implemented a comprehensive Gender Equality audit three years ago. They have collected data on GBV and sexual harassment both from the field of research and administration providing a baseline at institutional level[13]. The audit will be repeated in 2024 to assess progress.

Ireland launched a similar exercise in April 2021 with the focus on academic staff, and students, which reported high levels of sexual harassment. As a result, advocacy groups were established which included NGOs working in this area. A recommendation report was published, and a national implementation plan was launched. It was stressed that the success of such an initiative depends also on political and legislative context and support. In the Irish case, the minister wrote to the rectors to establish institutional plans on GBV. The plans included reporting requirements, which is however a highly sensitive issue in the context of power relations. Additionally, training on GBV and sexual harassment including hate speech was provided. However, it was observed that a lot of people shy away from such training[14].

[13] A summary of the University's Gender Equality Policy: https://wwwen.uni.lu/university/about_the_university/our_values/gender_equality/policy#statistics

[14] The Report on the 'National Survey of Staff Experiences of Sexual Violence and Harassment in Irish HEIs' https://hea.ie/assets/uploads/2021/04/Full-report-Staff-Jan-2022.pdf. All surveys to students and staff and more

As another example, France launched a national plan[15] in 2021 against GBV to train the entire higher education and research community in the fight against GBV; strengthen the hearing and reporting units set up in the institutions; communicate at national level on the notion of sexual consent; and support students' initiatives.

The available figures on GBV and sexual harassment from the survey on "Student Living Conditions" conducted in 2020 by the National Observatory of Student Life show that 4% of students declare having been victims of sexist and sexual violence during the academic year (2% of male students and 5% of female students), i.e., approximately 150,000 students each year.

During the discussions, the issue of precarious relationship between students and professors and sexual harassment among the staff of universities and research institutions was mentioned. One participant reported that based on incidents that were also reported by the media, the government adopted laws and regulations to protect women rights and interests and clearly defined sexual harassment. Based on this legislation, universities, institutes, and companies have now the obligation to protect students and staff against harassment. Preventing GBV and sexual harassment should be regarded a matter of leadership in organizations. Changes are visible at university level for example, an "open door policy" was introduced when talking with students to increase transparency and safeguard students.

Another country mentioned specific contact points in each ministry who oversee all forms of unethical behaviour, including GBV and sexual harassment. Data are collected by these contact points, but not shared openly.

The lack or inadequacy of legal foundations was intensively discussed. The non-signing of the Istanbul Convention was mentioned which leads to a lack of reference to an internationally binding defined terminology. Terms and definition of GBV, however, would be important for national law, which often just refers to domestic violence or serious offences such as rape. If GBV is not in the law, then it is difficult for universities to go much further, because they lack a legal reference. This legal deficit is also a problem for other areas (such as sports). The same refers to the lack of a broader definition of sexual harassment.

Although it was widely acknowledged that the state needs to fulfil its regulatory role as legislator to provide a legal basis and kick-off multi-level implementation processes, politicians are sometimes scared to make any regulation in this area. For the government of another country, which is in general well advanced in terms of gender equality, it was a shock when one year ago 600 women researchers, who experienced GBV, published a letter on this issue. This has initiated some political movement. Another participant confirmed that existing regulations are sometimes gender-blind. It took major scandals, especially in the entertainment industry, to finally prompt the government to appoint a High Commissioner for GBV and sexual harassment. It is also important to overcome the fragmentation between police, legislative, mental health organisations etc. It was also emphasised that instead of a binary understanding of gender, it is helpful to apply an intersectional understanding that also takes LGBTQI+ dimensions into account.

Adequate legislation and Gender Equality Plans (GEPs) that were set as an eligibility criterion for accessing Horizon Europe funding need to be implemented. In this context, a country reported that its Parliament

information about the process: https://hea.ie/policy/gender/national-survey-of-the-experiences-of-students-in-relation-to-sexual-violence-and-harassment/. The implementation plan on 'Ending Sexual Violence and Harassment in Higher Education Institutions' https://hea.ie/assets/uploads/2021/04/HEA_ESVH_Implementation_Plan_FINAL.pdf.

[15] More information on this can be accessed here: https://www.enseignementsup-recherche.gouv.fr/fr/une-nouvelle-etape-dans-la-lutte-contre-les-violences-sexistes-et-sexuelles-dans-l-enseignement-51410#:~:text=Le%20plan%2C%20pluriannuel%2C%20mobilisera%20une,sur%20la%20p%C3%A9riode%202021%2D2025.&text=Ce%20plan%20marque%2C%20par%20sa,de%20lutte%20contre%20ces%20violences.

had already adopted a law on gender equality a few years ago, which also included aspects of GBV, but that they had to establish a committee to improve its implementation.

Many countries have expressed hope that the GEPs will bring about change, although it is too early to say anything about their effectiveness for addressing GBV and sexual harassment[16]. The GEPs usually include a lot of self-obligation to improve the situation and introduce or plan new institutional practices, e.g., data collection on harassment cases (still, it is not easy to record them and there remain many non-reported 'dark' cases). Many GEPs have put formal procedures in place to provide help. There is common understanding that GBV cases must be worked separately and anonymity must be guaranteed. Although usually only small steps are implemented at institutional level, resistance, especially hidden ones (e.g., no showing or passive behaviour) occur. To avoid pushbacks, the implementation of the GEPs should be handled with care.

Key take-aways on gender-based violence (GBV) including sexual harassment in the R&I system:

- GBV in higher education, research and innovation is a serious and under-recognised issue with severe negative impacts on study and career outcomes
- Definitions, terminology and a corresponding legal basis to combat GBV and sexual harassment is needed (e.g. through ratification of the Istanbul Convention)
- Consistent policy support and an encouraging atmosphere over policy cycles need to be ensured, not at least to prevent pushbacks and 'gender fatigue'
- Accountable Gender Equality Plans are important instruments for institutional change, but should increasingly include or refer to provisions against GBV and sexual harassment
- Studies and data on GBV and sexual harassment are important to provide a basis for interventions
- It is important to establish a cohesive infrastructure and procedures for preventing and tackling gender-based violence at various institutional levels
- Responsible authorities, GBV/sexual harassment experts and contact-points, ombudspersons, gender-sensitive protocols and reporting procedures need to be introduced

4. The low integration of a gender dimension in R&I content and ways to enhance diversity and inclusion in R&I activities

The topic of this session referred to the need of considering possible differences between men and women as well as boys and girls in the R&I content, both in terms of biological characteristics as well as social and cultural features.

Integrating a gender dimension in R&I content is not to be confused with gender balance or the representation of women in research at different hierarchical positions. However, the under-representation of women in STEM can create a problem in the integration of the gender dimension in R&I content and therefore both topics are interlinked: for example, in the field of Artificial Intelligence, teams are typically not diverse, which leads to low integration of the gender dimension in this field as the teams are often unaware of some of the challenges in AI, notably in the need of having gender-representative and bias-free datasets for machine learning and deep learning models.

With regards to good practices and suggestions on how to facilitate the integration of the gender dimension into R&I content it was emphasised that as a first step raising awareness for this dimension is key. This can be done through communication campaigns and outreach measures, as well as promoting

[16] Taking measures against gender-based violence including sexual harassment is one of the recommended thematic areas to be covered by GEPs, Horizon Europe guidance on gender equality plans (2021).

and applying existing material from the European Commission[17]. As there are no 'one-size-fits-all' solutions, targeted campaigns at universities and other research institutions are needed.

Participants stressed that there needs to be more systematic support for gender studies and funding for the field to grow. Several countries, especially those located in Latin America and Asia, have only small communities of researchers in gender studies. In Europe, several countries have no thematic programmes in place. Yet, whilst there is little gender and diversity expertise in the process of proposal assessment, this may again jeopardise the integration of gender aspects in funded research. 'Excellent research' may need redefinition in relation to gender and diversity.

Furthermore, it was highlighted to take into account in the funded research intersectional aspects, i.e., factors such as racial or ethnic origin, age, socioeconomic status, sexual orientation, or disability, which intersect with sex and gender to shape a person's or a group's experience and social opportunities, thereby influencing the form of discrimination and inequality encountered. Otherwise, there is a risk that policies favour only one demographic group (e.g., in the evaluation of proposals). A sole focus on (binary) genders can be limiting in terms of understanding people's position. Understanding needs to comprise different dimensions and R&I policies need to open up in that regard. In this respect, the human dimension must be taken into account as much as the policy dimension. "Inclusion nudges"[18] can be applied to impact unconscious judgement and lead to behavioural change.

In terms of intersectionality, it also plays a crucial role in which context gender is discussed and how it gets related and subordinated to other topics, for instance across Europe, gender and diversity are treated in two different categories; in the UK gender is part of diversity.

Several research funding organisations have included a specific field in applications to indicate whether sex- and/or gender-based analysis is part of the proposal and researchers must justify why this is the case. In Canada, a mandatory question on the gender dimension in R&I content is in place since 2006, and since then the policy approach towards gender equality has evolved to be more inclusive, i.e. beyond binary understandings of gender, considering other identity factors such as minorities, people with disabilities and LGBTIQ+.

It was pointed out that these approaches can challenge reward systems in science and, most prominently, the definition of "scientific excellence". To implement a gender dimension in the scientific reward system is regarded as a difficult task. It was argued by some delegates that the integration of the gender dimension should depend on the research area only.

It was also noted that there is still a widespread lack of understanding of what 'the gender dimension in research' can really mean and how gender bias influences research processes and outcomes. The importance of integrating the gender dimension in R&I can be compared to the integration of research ethics: both dimensions are central to research but not everybody acknowledges their importance equally.

Several countries reported that the respective national science governing and/or funding bodies have recently implemented action plans, recommendations, policies, strategies, and analysis on equality and non-discrimination in R&I, i.e., the Academy of Finland's equality and non-discrimination policy[19], the UK

[17] European Commission, DG R&I, Directorate D — People (2020). Gendered Innovations 2: How inclusive analysis contributes to research and innovation: policy review.
European Commission, DG Justice and Consumers (2020). A Union of Equality: The Gender Equality Strategy 2020-2025
EEAS (2020). Gender Action Plan - putting women and girls' rights at the heart of the global recovery for a gender-equal world, Brussels, 25 November 2020

[18] Nielsen and Kepinski (2015). Inclusion Nudges. Impacting better decision making & behaviour change for inclusiveness

[19] https://www.aka.fi/en/research-funding/responsible-science/equality-and-non-discrimination/

Research and Innovation's 'Equality, Diversity and Inclusion' strategy from 2023[20], Canada's CIHR SGBA in Research Action Plan[21], the UK Research and innovation (R&I) workforce survey report 2022[22], and finally the WMHD report, which provides insights of the STEM workforce in the United States[23].

Key take-aways on low integration of the gender dimension in R&I content and ways to enhance diversity and inclusion in R&I activities:

- Establish a clear terminology on the integration of sex (biological), gender (socio-cultural) and intersectional analysis in R&I content. This should create an added value to R&I in terms of excellence, rigour, and reproducibility for production of goods and services better suited to all citizens
- Develop principles for the integration and evaluation of the gender perspective in R&I content in cooperation with research funding organisations
- Ensure that allocation of funding is not affected by gender biases in research and research assessment procedures
- Support exchange of good practices within and beyond Europe
- Monitor the integration of gender dimension in the content of research proposals and scientific publications

Conclusions and closing remarks

The focus of the final discussion concluded that the issues are interrelated in many ways and partly interdependent. Therefore, a coordinated meta-approach to strengthen gender equality and inclusiveness in R&I is called for. Several points of discussion referred to all breakout sessions that

- there are a lot of commonalities between all countries participating in the dialogue
- there is a common agreement to eliminate visible and invisible barriers that hinder the attainment of gender equality and inclusiveness in line with the SDGs
- Intersections between gender and other social categories need to be more systematically considered

Maria-Cristina Russo, Director for Global Approach & International Cooperation in R&I at European Commission, concluded that ensuring equality and inclusiveness is paramount to increase the competitiveness and societal relevance of R&I. She stated that gender equality is a high priority of the European Commission with new specific requirements that apply to Horizon Europe (such as Gender Equality Plans being an eligibility criterion for entities wanting to receive funding from Horizon Europe and the mandatory integration of the gender dimension in R&I content), the EU's main funding programme for Research and Innovation and invited international partner countries to continue the discussion.

The next online workshop on open science will take place on 25th April 2023.

[20] https://www.ukri.org/what-we-offer/supporting-healthy-research-and-innovation-culture/equality-diversity-and-inclusion/edi-strategy/
[21] https://cihr-irsc.gc.ca/e/50837.html
[22] https://www.gov.uk/government/publications/research-and-innovation-ri-workforce-survey-report-2022
[23] https://ncses.nsf.gov/pubs/nsf23315/report

ANNEX: Participating Countries and Organisations

Armenia
Australia
Austria
Belgium
Brazil
Canada
Chile
China
Cyprus
Czech Republic
Denmark
Egypt
Estonia
Finland
France
Georgia
Germany
Hungary
Ireland
Italy
Japan
Latvia
Lithuania
Luxembourg
Malta
Mexico
Moldova
Netherlands
New Zealand
Portugal
Republic of Korea
Slovak Republic
Slovenia
South Africa
Spain
Switzerland
Turkey
United Kingdom
United States of America

OECD
UNESCO
AURORA
The Guild
YERUN
European Commission