A Compendium of Good Practices in STI Policy

2025

Solidarity

Equality

Sustainability

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PREFACE

This report, *Science, Technology and Innovation for All: A Compendium of Good Practices in STI Policy*, is a deliverable of the G20 Research and Innovation Working Group (RIWG) under South Africa's presidency of the G20 from 1 December 2024 to 30 November 2025.

The G20 is an international forum of 19 countries, the European Union (EU) and the African Union (AU), representing the world's largest economies. Established in 1999, it works to promote economic stability and cooperation on global issues. Countries from the Global South, including South Africa, play a key role within the group in advocating for developing countries.

The G20 Research and Innovation Working Group was established to address global challenges through research and innovation. Its mandate includes promoting international cooperation, sharing knowledge and best practices, and reducing gaps in access to science, technology and innovation (STI).

Building on work undertaken during India's 2022-2023 presidency of the G20 and Brazil's 2023-2024 term, the themes shaping the RIWG's mandate have evolved. Under South Africa's 2024-2025 presidency, the country's Department of Science, Technology and Innovation (DSTI) proposed for the RIWG the theme: "Equity in science and innovation-based approach to sustainable development." The theme, which aligns with a national focus on "solidarity, equality, and sustainability", has been expressed through the promotion of three priorities:

- Priority 1: Open innovation for development
- Priority 2: Biodiversity for sustainable development
- Priority 3: Diversity, equity, inclusion, and accessibility in science, technology, and innovation

This compendium of good practices in STI policy has been developed in support of **Priority 3**. It is informed by a process of engagement and dialogue among G20 members, invited countries, and knowledge partners, undertaken during a series of RIWG meetings held in South Africa – including in the Free State on 24 February 2025; in Mpumalanga from 26 to 27 May 2025; and online in April and July. The compilation of the compendium was led by South Africa's Human Sciences Research Council, in collaboration with the Organisation for Economic Co-operation and Development (OECD) and the United Nations Educational, Scientific and Cultural Organisation (UNESCO), as key knowledge partners. In particular, the European Commission (EC)-OECD STIP Compass, which is a source for data on STI policy established by the EC and OECD, was the primary source of data on policy initiatives across most of the G20 members and other countries that participated in the RIWG. Data on policy initiatives were also submitted directly by members of the RIWG and their delegations.

In a world facing complex, interconnected challenges, science, technology and innovation must be made universally accessible and should be leveraged to benefit all humanity. This report addresses these imperatives by highlighting policy initiatives aimed at dismantling systemic barriers to access and fostering inclusive ecosystems in which diverse perspectives and talents can thrive.

The authors trust that this document will serve as a practical and inspiring guide for policymakers and stakeholders, catalysing further action and international collaboration to build a more equitable and inclusive future in science, technology and innovation.

ACKNOWLEDGEMENTS

This compendium is the product of a collaborative effort and would not have been possible without the dedication and expertise of numerous individuals and organisations.

The compilation of this compendium was led by the HSRC of South Africa on behalf of the G20 Research and Innovation Working Group. The compendium project team led by Il-haam Petersen included Nicole van Rheede, Setsoheng Mayeki, Gerard Ralphs, Darryn Whisgary and Pilela Majokweni. Expert guidance and supervision were provided by Glenda Kruss.

Under the strategic leadership of the HSRC's CEO, Sarah Mosoetsa, Glenda Kruss and Michael Gastrow coordinated the HSRC's contribution to the G20 Research and Innovation Working Group.

The OECD and UNESCO served as knowledge partners throughout the development of this compendium, from the initial concept stage to its publication. Their guidance and expertise were essential in shaping the compendium's focus and ensuring its quality. In particular, the author's acknowledge the contributions of Alessandra Colecchia (OECD), Ezra Clark (UNESCO), Manuel Ricardo Galindo Moreno (UNESCO), Alice Holt (OECD), and David Howoldt (OECD). The value of the EC-OECD STIP Compass as the core database for the policy initiatives included in this work is also acknowledged. In addition, UNESCO contributed insights on global instruments as collaborative good practices in closing the gender gap in science.

The compendium was informed by a series of engagements and dialogues among G20 members, invited countries, and knowledge partners, throughout the Research and Innovation Working Group's process. Accordingly, the authors acknowledge the contributions of the delegates from all G20 members and invited countries, who contributed their time, insights and policy submissions. Their active participation and willingness to share good practices have enriched this document and underscored the spirit of international cooperation that defines the G20.

Finally, the authors acknowledge the support and guidance of the Chair of the 2025 G20 Research and Innovation Working Group, Daan du Toit, Deputy Director-General: International Cooperation and Resources at the South African Department of Science, Technology and Innovation (DSTI) as well as the DSTI team. Their vision for an equitable and inclusive approach to science, technology and innovation guided this project and made it a reality.

EXECUTIVE SUMMARY

This compendium serves as a resource for policymakers and stakeholders in support of the G20's commitment to 'science, technology and innovation for all.' It is guided by the *G20 Recommendations on Diversity, Equity, Inclusion, and Accessibility in Science, Technology and Innovation*, that were agreed at the G20 Research and Innovation Ministers' meeting held in Manaus, Brazil, on 19 September 2024. These address five areas: promoting diversity, equity, inclusion and accessibility (DEIA) in STI systems; closing the gender gap in science; fostering dialogue between different knowledge systems; transitioning to open science; and combating inequities in STI. Using the EC-OECD STIP Compass as its primary data source, this compendium curates over 1,000 policy initiatives. The data, collected from G20 members and other countries participating in the 2025 Research and Innovation Working Group, is presented in an accompanying Excel database that may serve as a practical and navigable guide for future policy development.

The compendium is organised into four sections. Section one provides an introduction, describes the methodology, and includes an overview of the compendium database, highlighting trends across the policy initiatives. Sections two, three and four analyse the policy initiatives through a focus on closing the gender gap in science, as a widely shared priority among G20 members. Sections three and four include detailed region and country notes on policy approaches and good practices in policy initiatives for each of the participating G20 members and countries.

A key feature of the compendium is its application of an intersectional lens, to consider how gender intersects with other factors such as age, race, ethnicity, disability, socio-economic status, and geographic location. Recognising that approaches to equity and inclusion vary by country, a broader inclusivity lens was applied to policy initiatives from countries that do not focus on intersectionality. This approach allows for a more nuanced understanding of diversity, equity, inclusion and accessibility, and helps to identify good practices that address complex, overlapping forms of inequality.

Key findings

The study identified a number of policy initiatives that have evolved into sophisticated, multi-pronged strategies that combine targeted interventions and systemic reforms in an effort to support women in the fields of science, technology, engineering and mathematics (STEM), and in relation to research and innovation. In this regard, it was found that five main approaches have been adopted:

1. **Encouraging and supporting women's careers**: A number of policy initiatives have been designed to support women throughout their career pipeline, including in the form of direct financial and institutional support such as scholarships, fellowships, and grants. Such initiatives have also provided support for women returning to the workforce after career breaks due to pregnancy and caregiving responsibilities, and for women in leadership roles.

2. **Dismantling stereotypes and promoting visibility**: A key strategy has been to challenge gender stereotypes from an early age by increasing the visibility of female role models. This has been achieved by establishing awards, public platforms, and media campaigns that celebrate the achievements of women scientists and showcase diversity within STEM fields. Mentorship and networking programmes have also been used to provide support at critical career junctures.
3. **Promoting inclusive workplace environments**: A number of policy initiatives have focused on creating equitable workplaces through:
    - **Targeted financial support**: Grants and fellowships that accommodate life events like maternity leave have been provided.
    - **Institutional change**: Gender equality has been established as a key criterion for funding, and diversity, equity and inclusion (DEI) frameworks have been established. Institutional change also included addressing biases in recruitment and promotion criteria and procedures.
    - **Legal protections**: Frameworks to combat discrimination and sexual harassment have been implemented.
    - **Leadership advancement**: Women's representation in senior roles has been promoted through talent management and dedicated leadership programmes.
4. **Fostering data-driven and intersectional approaches**: There has been a growing emphasis on using data-driven policies and on open data. Many countries now require the collection of gender-disaggregated data, and an increasing number are moving toward an explicit intersectional approach, collecting data on a range of factors such as race, ethnicity, age, and disability. This has allowed for more nuanced policy responses that address the specific challenges faced by diverse groups of women.
5. **Integrating gender into research content**: Policy initiatives have increasingly mandated and incentivised the inclusion of gender-related aspects in the design of research projects. This trend, which has also entailed the application of intersectional and inclusivity lenses, can enhance scientific quality and ensure that research outcomes are relevant and beneficial to all members of society, particularly in emerging fields such as AI. Bottom-up approaches to research and innovation, including citizen science, as well as the prioritisation of open science, have increasingly been emphasised.

Overall, a main trend has been the increasing recognition of the needs of diverse groups of women scientists, academics and researchers as well as women innovators and entrepreneurs in science, engineering and technology fields. There has been a strong emphasis on supporting women at different career stages, from aspiring young scientists and early career professionals to those in senior leadership roles. Policy initiatives highlighted as good practice have targeted the overlapping forms of inequalities faced by diverse groups of women, including women with disabilities, migrant women, indigenous women, Black women and rural women.

In conclusion, the policy initiatives described in this compendium reflect a shift from isolated interventions to efforts to produce systemic, long-term change, recognising that targeted and nuanced approaches are essential for closing the gender gap in science.

G20
SOUTH AFRICA 2025

STI for All
A Compendium of Good Practices in STI Policy

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‘STI FOR ALL’: A COMPENDIUM OF GOOD PRACTICES IN STI POLICY

This section provides an introduction to the compendium. It outlines the compendium’s purpose as a resource for policymakers and stakeholders, in support of the G20’s commitment to ‘STI for all.’

The guiding framework for the compendium is the *G20 Recommendations on Diversity, Equity, Inclusivity and Accessibility in Science, Technology and Innovation*, which are structured around five key areas:

- **Promoting DEIA in STI systems**: Focuses on creating inclusive environments in education and research.
- **Closing the gender gap in science**: A specific area of focus for the compendium, it addresses gender stereotypes, and promoting career encouragement, and workplace policies for women in science.
- **Fostering dialogue between different knowledge systems**: Encourages collaboration with indigenous and local communities.
- **Promoting a transition to open science**: Aims to ensure equitable access to and benefits from open science.
- **Combating inequities in STI**: Promotes broad, equitable partnerships.

This introductory section also describes the methodology used to compile the data, including the adoption of a multi-source approach; the use of an AI assistant for initial synthesis; and the deployment of a validation process involving G20 members and invited countries. It explains the focus on closing the gender gap in science, as a widely shared priority among G20 members, and details the application of an intersectional lens to the policy initiatives, which considers how gender intersects with other factors such as age, race, ethnicity, spatial location and disability. In countries where intersectionality is not a national priority or focus, an inclusivity lens is used. The final part of this introductory section presents an overview of the data and trends, including a breakdown of policy initiatives by country and by the five *G20 Recommendations on DEIA in STI*.

INTRODUCTION

The G20 is committed to promote inclusive science, technology and innovation that leaves 'no one behind.' Promoting equal participation in and access to science, technology and innovation, across all actors can strengthen the impact of science, and expand the reach and benefits of technology and innovative solutions.[1] Moreover, research and innovation based on diverse perspectives and experiences can offer more precise and rigorous insights.[2]

The G20's commitment to inclusivity is expressed in its *Recommendations on Diversity, Equity, Inclusion and Accessibility in Science, Technology and Innovation* endorsed during Brazil's G20 presidency. In 2025, under South Africa's presidency, the aim has been to build on the commitment made in Brazil and support more widescale implementation of the recommendations. As a deliverable of the G20 Research and Innovation Working Group, this compendium was compiled as a knowledge resource for policymakers and stakeholders committed to making 'STI for all' a global reality.

G20 Recommendations on Diversity, Equity, Inclusion and Accessibility in Science, Technology and Innovation as the guiding framework[3]

The *G20 Recommendations on Diversity, Equity, Inclusion, and Accessibility in Science, Technology, and Innovation* aim to address the systemic inequalities that prevent a wide range of people from participating in and benefiting from scientific progress. Their core objective is to dismantle barriers, including those based on gender, race, socio-economic status and geography, to ensure that all individuals have equal opportunities to pursue careers in and access the benefits of STI. The recommendations align with the United Nations' principle of "leaving no one behind," as a universal value guiding the UN 2030 Agenda for Sustainable Development, as well as a number of UN declarations, including the Universal Declaration of Human Rights; the 2007 United Nations Declaration on the Rights of Indigenous Peoples; and the 2001 UNESCO Universal Declaration on Cultural Diversity. The recommendations also reaffirm the 2021 UNESCO Recommendation on Open Science.

The approach promoted by the recommendations is grounded in the recognition that while STI has advanced many aspects of life, there are "asymmetries in the availability of and access to scientific knowledge, technologies, and infrastructures." Accordingly, the overarching goal is to combat these inequalities and "break down gender, social, racial, national, economic, and knowledge barriers." The recommendations emphasise the need to promote equal opportunity as well as equity, that is, resource allocation related to needs.

1 Kalliomäki, H., Kalliokoski, J., Woodson, T. *et al.* (2024). Inclusion as a science, technology, and innovation policy objective in high-income countries: the decoupling dilemma. *Science and Public Policy* 51: 795–807. https://doi.org/10.1093/scipol/scae019

2 Nielsen, M.W., Gissi, E., Heidari, S. *et al.* (2025). Intersectional analysis for science and technology. *Nature* 640: 329–337. https://doi.org/10.1038/s41586-025-08774-w

3 G20 Research and Innovation Working Group Deliverable 5.1 - G20 Recommendations on Diversity, Equity, Inclusion, and Accessibility in Science, Technology, and Innovation. Retrieved from https://www.gov.br/g20/en/documents/sherpa-track (accessed 8 September 2025).

The recommendations are structured around five key areas:

1. **Promoting DEIA in STI systems**: This recommendation emphasises measures to ensure equitable opportunities in education and training, addressing barriers in research environments, and promoting the inclusion of all, by fostering "sustained enabling conditions for persons from historically underserved groups (such as women, underrepresented racial and ethnic groups, minorities, indigenous peoples, persons with disabilities, scholars from less-advantaged countries and those who use low-resource languages)." It also encourages the use of native languages in science and promoting safe, inclusive environments by tackling violence, harassment, and discrimination.
2. **Closing the gender gap in science**: Gender is a specific focus of the recommendations. The approach promotes dismantling gender stereotypes by increasing the visibility of women in science, encouraging girls and women to pursue science careers with scholarships and other incentives, and enacting "evidence-based gender-responsive national and institutional policies to promote workplace environments that attract, retain, and advance women scientists, including in leadership positions." It also emphasises the collection of "data disaggregated by gender and other intersectional factors" to monitor progress, and a commitment to implementing the principles identified in the UNESCO 2024 Call to Action: Closing the Gender Gap in Science.
3. **Fostering dialogue between different knowledge systems**: This involves taking measures to encourage collaboration with "Indigenous Peoples and local communities." The recommendations call for providing capacity support for these groups to manage their own research and for the creation of policies that empower them while preserving their culture and identity.
4. **Transitioning to open science**: This recommendation promotes a common understanding of open science and prioritises equitable access to and benefits from science. It calls for investing in shared, equitable open science infrastructures and aligning incentives for international, multi-stakeholder collaboration. It calls for the implementation and monitoring of the 2021 UNESCO Recommendation on Open Science.
5. **Combating inequities in STI**: This recommendation promotes broader collaboration through "equitable partnerships," including between developed and developing countries. It also supports interdisciplinary approaches to understanding STI, and aims to increase participation among a more "diverse group of learners, researchers and practitioners." It promotes support for the "International Decade of Sciences for Sustainable Development, 2024–2033 as a platform to foster multidisciplinary actionable knowledge, to ensure information integrity and to build trust in science at the nexus of science, policy, and society."

Why this compendium now?

For a number of years, G20 member states have been designing, testing and implementing new STI policy initiatives that translate the goals of diversity, equity, inclusion and accessibility into action. They have done so in diverse ways, aligned with their own development goals and priorities. As a result, there are now multiple nationally and regionally specific foci, processes, target groups and partners, responding to distinct and shared challenges and constraints. In addition, a number of well-established platforms that collect country level STI policies as a resource for public and private sector actors have been created. The UNESCO GOSPIN

platform, a Global Observatory for STI Policy Instruments, provides tools to map and analyse STI policies and their implementation (https://gospin.unesco.org/frontend/home/index.php). The STIP Compass, a joint initiative of the European Commission and the OECD, compiles quantitative and qualitative STI policy trend data (https://stip.oecd.org/stip/). These platforms provide a wealth of data, across multiple dimensions and areas, including but not limited to DEIA.

It was timely, therefore, to gather approaches, models and practices promoting 'STI for all' across G20 members and guest countries participating in the RIWG, and compile a compendium that describes current trends, and draws out good practices in policy initiatives. A compendium is, by definition, a collection of concise but detailed information about a knowledge field or area of practice. In this instance, the intent is to produce a single, navigable document that identifies and maps key approaches, instruments and good practices as a resource for future action.

Specifically, the compendium highlights the efforts undertaken by individual countries and collectively, across groups of countries and regions, in order to indicate the options for action that may be pursued to advance the implementation of the DEIA recommendations.

Compendium focus on gender as a lens to map trends

Individual countries may focus on a wide range of DEIA priorities in different ways, including by transitioning to open science or by fostering dialogue between knowledge systems. To enable in-depth reflection on such efforts, the HSRC in South Africa compiled this compendium, drawing on data resources from knowledge partners, the OECD and UNESCO. In particular, the compendium is focused on closing the gender gap in science, in line with the G20's DEIA in STI Recommendation 2, which is a widely shared priority. Under this recommendation, the G20 noted that countries and regions should:

- Take measures to dismantle gender stereotypes and biases in science through the enhanced visibility of women in science, including in school textbooks, media and popular culture, to establish a positive association between women and science from an early age and recognise women's contributions to science.
- Actively encourage women and girls to consider careers in science, including through the provision of scholarships, awards, and other incentives.
- Enact evidence-based gender-responsive national and institutional policies to promote workplace environments that attract, retain, and advance women scientists, including in leadership positions.
- Ensure the collection of data disaggregated by gender and other intersectional factors on a regular basis at country level to devise evidence-based policies and monitor progress.
- Integrate gender-related aspects into research questions to enhance scientific excellence and the societal relevance of the knowledge produced.
- Support and contribute to the implementation of the UNESCO 2024 Call to Action: Closing the Gender Gap in Science.

Significantly, the G20 DEIA Recommendations promote the use of an intersectional lens – looking across social categories of women, race, ethnicity, social class, disability and spatial inclusion – in order to collect disaggregated data that can be used to devise evidence-based policies and monitor progress on policies.

The compendium draws on and considers important regional instruments promoting the safety of women in research and higher education, including the "Zero-Tolerance Code of Conduct on Counteracting Gender-Based Violence, Including Sexual Harassment, in the EU Research and Innovation System", and the "AU Strategy for Gender Equality and Women's Empowerment 2018-2028", among others. Also noted are global and regional publications that can usefully inform evidence-based policymaking, including UNESCO's "The Safety of Scientific Researchers: Data, Trends and a Typology of Threats", and the EU's "She Figures" publication, which serves as a key source of comparable, Europe-wide statistics on gender equality in research and innovation. The compendium further reflects upon instruments and tools dedicated to foster institutional change in research and innovation systems, such as gender equality plans. For example, in the EU, public bodies, higher education institutions and research organisations applying for research and innovation funding are obliged to submit gender equality plans.

DATA AND METHODOLOGY

Compiling a database of relevant policy initiatives

The compendium deployed the STIP Compass to gather policy initiatives and instruments which relate to the theme of 'diversity, equity and inclusivity' and which identify 'women,' 'disadvantaged and excluded groups' and 'civil society' as target groups. In addition, G20 members and guest countries participating in the G20 Research and Innovation Working Group in 2025 were invited to validate and update an initial list of relevant policy initiatives. A different process was followed for G20 members and countries – including the African Union, Singapore, Russia, and Saudia Arabia – which are not currently represented in the STIP Compass database. These countries submitted their policy initiatives and instruments through a Microsoft form designed to cover relevant STIP Compass dimensions and categories, in order to ensure consistency in the database. The final list of initiatives and instruments was analysed to identify and describe good-practice policy initiatives and instruments.

Given the large number of policy initiatives identified, an AI assistant was used to facilitate efficient synthesis and analysis of the data.[4] Specifically, the AI assistant was used to perform an initial synthesis of the list of policy initiatives in the database; and to extract information on their primary objectives, scope, target beneficiaries and intersectional nuance. This process enabled a rapid, comprehensive review of the relevant policy initiatives. Only the policy initiatives already included in the compendium database were analysed and coded using the *G20 Recommendations on DEIA in STI* as a framework. At this stage, given the timeframe, it was not possible to also code and analyse policy instruments systematically. The AI's output was validated by the research team against the information in the compendium database.

[4] Google's Gemini was the main AI assistant used. ChatGPT was used for triangulation; and Microsoft 365 Copilot was used to summarise lists of information, including in relation to the main target groups and types of policy instruments.

The resultant Excel database includes dimensions covered by the STIP Compass: policy initiative name; description; objective(s); responsible organisation(s); target group(s); and policy instrument name and type. An additional four areas were generated to inform the detailed G20 member and country notes in sections three and four: primary objectives; scope; target beneficiaries (specific groups mentioned in the policy initiative text); and intersectional lens/inclusivity lens (identifying intersectional/inclusivity nuance). Furthermore, the *G20 Recommendations on DEIA in STI* was cited. In this regard, and recognising that a policy initiative may respond to more than one G20 Recommendation on DEIA, thematic coding was used to identify the recommendation to which the initiative was most closely aligned, considering its primary objectives and main target groups. Further coding, especially to inform the trends highlighted in section two of the compendium, was undertaken in NVivo, which is a qualitative data analysis programme.

Box 1 Description of the EC-OECD STIP Compass

STIP Compass is a joint initiative of the European Commission (EC) and the OECD. It is a science, technology and innovation policy knowledge resource that is unique in scope, comprising qualitative and quantitative data on national trends in STI policy in more than 60 countries and the EU.

STIP Compass data is generated through the EC-OECD Science, Technology and Innovation Policy survey, which is run every two years. The most recent edition was administered in 2025. The survey is distributed as an online questionnaire to national government officials with responsibility for STI policies in a range of public administration bodies (including ministries and agencies). The survey is wide in scope, covering policy areas of public research; business innovation and entrepreneurship; knowledge transfer; innovation skills; innovation for societal challenges; governance of the STI system; and STI policies for decarbonisation. Respondents list and characterise the policy initiatives they are implementing and provide descriptive texts on recent developments and debates in these different areas.

The resulting dataset consists of self-reported descriptions of (mostly) national STI policy initiatives. While the EC and OECD strive towards a harmonised approach for reporting policy initiatives, countries still vary in the ways they report their STI policies. STIP survey data are freely accessible following the FAIR principles (findable, accessible, interoperable, and re-usable). On the STIP Compass webpage, these data are linked to other open data sources, notably statistics and thousands of publications from the EC, the OECD and academic articles from OpenAlex, a database of research publications, and other sources (https://stip.oecd.org/stip/).

Drafting the country notes, identifying good practices and intersectional nuance

Sections three and four include a series of detailed notes, or 'member/country notes' providing an overview of the policy approaches adopted by each G20 member and guest country participating in the 2025 G20 RIWG. The focus of each note is on *identifying* and *describing* good practices in policy initiatives rather than assessing the direction or reach of the various initiatives.

Similarly, the identification of intersectional nuance in this compendium is meant to raise intersectional considerations rather than offer specific assessments. In this regard, it is noted that, in some countries, the preferred approach to DEIA is to address one dimension of identity, such as gender or disability, at a time, rather than their combined effects. In such cases, where intersectionality is not a policy priority, nuance in the country's approach to DEIA is identified in a more general sense with reference being made to "inclusivity" rather than intersectionality.

For regions and countries where intersectionality is considered in policy, an intersectional lens was applied to each policy initiative through the use of an AI assistant to identify potential intersectional considerations specific to the policy initiative. Each entry was systematically reviewed and edited by two researchers in order to identify and compare the nuance of the intersectional considerations generated. Intersectional nuance refers to how a policy initiative's potential impact and effectiveness are shaped by the overlapping and interacting nature of different social and identity categories, beyond gender. An intersectional approach asks: Does this policy initiative address the specific needs of women from different racial and ethnic backgrounds, and from diverse socioeconomic classes, as well as the needs of women with disabilities? The approach looks at how these categories intersect to create unique experiences of disadvantage or privilege. Drawing on the work of Kimberlé Crenshaw,[5] who coined the term "intersectionality", the approach also considers structural and systemic barriers. For example: Do digital literacy programmes consider the fact that a person's access to technology and digital skills can be influenced not just by gender, but also by their age, disability, or geographical location? An intersectional approach considers how an institution collects and analyses data, with an emphasis on the collection of disaggregated data, not just by gender but by other factors such as ethnicity, socioeconomic status, and disability in order to foster an understanding of nuanced disparities. Policy outcomes were considered in relation to potential unintended consequences for marginalised or underserved groups. For example, while AI guidelines can represent a good practice, an intersectional lens would consider whether they are robust enough to prevent algorithmic bias from disproportionately affecting, for instance, women of colour, who might be underrepresented in the datasets used to train the artificial intelligence being deployed.

Quality and validation

The data included in the Excel database and the country notes were checked for accuracy at three levels. First, before compiling the compendium, participating G20 members and guest countries were invited to

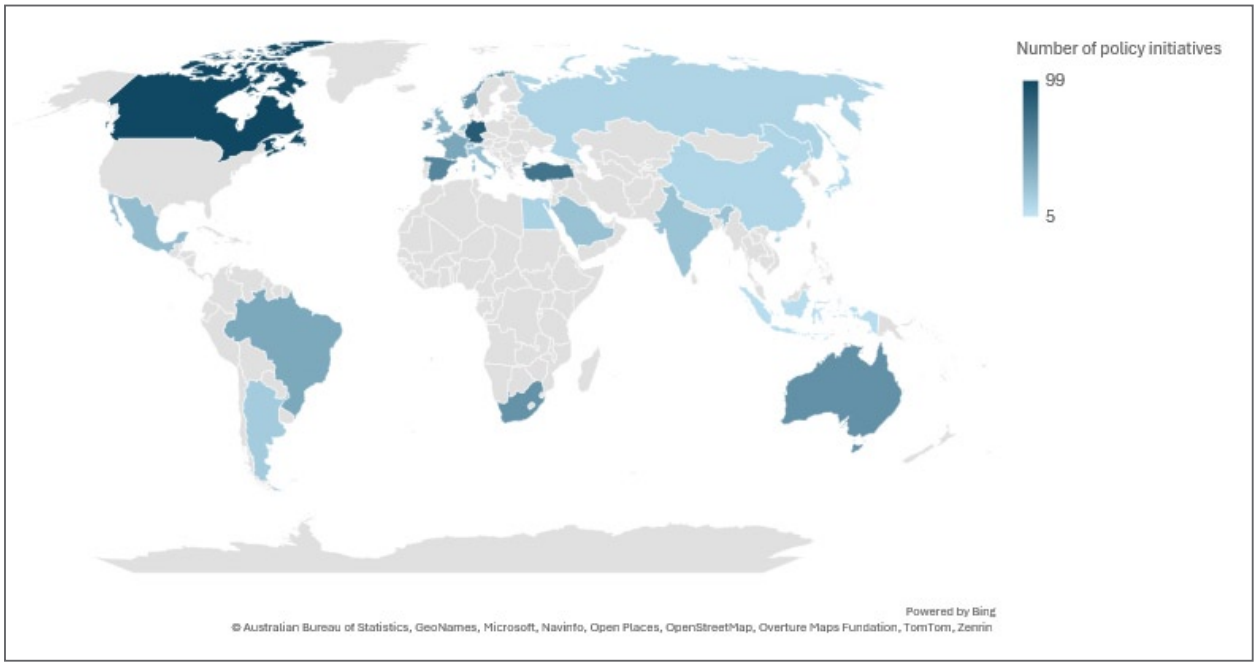
[5] Crenshaw, K. (1989). Demarginalising the intersection of race and sex: a Black feminist critique of antidiscrimination doctrine, feminist theory, and antiracist politics. *University of Chicago Legal Forum* 1: 138–167.

validate and edit the initial database of policy initiatives. Second, the initial region and country note drafts were reviewed by the project lead. Third, revised drafts were validated by the participating G20 members and invited countries.

TRENDS IN STI POLICY INITIATIVES

The compendium includes data on STI policy initiatives for all G20 members, except the United States, and countries participating as guests in the G20 RIWG, including Egypt, Ireland, Norway, the Netherlands, Spain, Singapore and Switzerland. The distribution of the policy initiatives included in the compendium database is illustrated in Figure 1. It should be noted that the compendium presents a selection of policy initiatives identified as relevant. The list is not exhaustive.

Figure 1 Number of policy initiatives included in the compendium database, by country



As shown in Table 1, the compendium covers more than 1,000 policy initiatives addressing the *G20 Recommendations on DEIA in STI*. While each policy initiative is assigned to only one recommendation, identified as most suitable, the policy initiatives may also be relevant for other recommendations. For example, the African Union and countries such as Canada have broad policy initiatives addressing "Recommendation 1: Promoting diversity, equity, inclusion and accessibility in STI systems", which also make mention of female scientists and researchers as target beneficiaries, thereby also contributing to "Recommendation 2: Closing the gender gap in science."

Table 1 Number of policy initiatives included in the compendium database per G20 member/guest country in relation to the G20 Recommendation on DEIA in STI (as at 6 September 2025)

G20 member / guest country	**G20 Recommendations on Diversity, Equity, Inclusion, and Accessibility in STI**					
	1. Promoting diversity, equity, inclusion and accessibility in STI systems	2. Closing the gender gap in science	3. Fostering dialogue between different knowledge systems	4. Transition-ing to open science	5. Combating inequities in STI	**Total**
African Union	4	1		3	1	**9**
Argentina	13	3		2	2	**20**
Australia	21	16	4	3	11	**55**
Brazil	18	5	7	6	5	**41**
Canada	28	23	21	13	14	**99**
China	5	3	1	4	1	**14**
Egypt*	5	3		4	4	**16**
European Union	17	23		22	15	**77**
France	14	11		10	7	**42**
Germany	33	9		20	25	**87**
India	6	10	3	2	4	**25**
Indonesia	5		1	1	2	**9**
Ireland, Republic of*	26	9	1	1	12	**49**
Italy	13	1		5	9	**28**
Japan	1	5		3	1	**10**
Korea, Republic of	22	6		4	27	**59**
Mexico	17	1		6	5	**29**
Netherlands*	16	1		6	3	**26**
Norway*	18	6	2	8	19	**53**
Russia	7	5	1	2		**15**
Saudi Arabia	8	17			1	**26**
Singapore*	1	4				**5**
South Africa, Republic of	34	4	3	2	11	**54**
Spain*	25	11	1	14	11	**62**
Switzerland*	7	11	1	2	3	**24**
Türkiye	42	4	1	17	8	**72**
United Kingdom	11	4	1	12	7	**35**
Total	**417**	**196**	**48**	**172**	**208**	**1041**

*Countries participating in the Research and Innovation Working Group as guest countries in 2025

Target groups

Identifying the main target groups of a policy initiative provides insight into the priorities of that initiative and potential intersectional approaches thereof. The word cloud in Figure 2 illustrates the main target groups of the relevant initiatives, with the top ten groups including researchers, the public, institutions, students, governments, women, community, industry and policymakers.

Figure 2 Word cloud illustrating the main target groups of the policy initiatives

Key types of policy instruments

The STIP Compass groups policy instruments into a number of broad categories:

- **Governance**: Strategies, agendas and plans; creation or reform of governance structures or public bodies; policy intelligence (for example, evaluations, reviews and forecasts); formal consultation with stakeholders or experts; horizontal STI coordination bodies; regulatory oversight and ethical advice bodies; standards and certification for technology development and adoption; and public awareness campaigns and other outreach activities.
- **Direct financial support**: Institutional funding for public research; project grants for public research; grants for business R&D and innovation; centres of excellence grants; procurement programmes for R&D and innovation; fellowships and postgraduate loans and scholarships; loans and credits for innovation in firms; equity financing; and innovation vouchers.

- **Indirect financial support**: Tax or social contributions relief for firms investing in R&D and innovation; tax relief for individuals supporting R&D and innovation; and debt guarantees and risk-sharing schemes.
- **Collaborative infrastructures (soft and physical)**: Networking and collaborative platforms; dedicated support to research and technical infrastructures; and information services and access to datasets.
- **Guidance, regulation and incentives**: Technology extension and business advisory services; science and technology regulation and soft law; labour mobility regulation and incentives; intellectual property regulation and incentives; and science and innovation challenges, prizes and awards.

STRUCTURE OF THE COMPENDIUM

The compendium is divided into four sections. This first part outlines the compendium's rationale, how it came to be developed, and some key data points. The second part focuses on good practices in policy initiatives across the participating G20 members and invited countries towards closing the gender gap in science. It highlights commonalities in how these good practices contribute to this goal. The third and fourth sections provide detailed notes on how regions and countries have sought to close the gender gap in science through diverse policy initiatives and instruments.

GOOD PRACTICES TOWARDS 'CLOSING THE GENDER GAP IN SCIENCE'

This section provides an overview of the policy initiatives described in the detailed region and country notes in sections three and four. The aim is to highlight trends in approaches, focus areas and types of policy initiatives and instruments promoting the goal of closing the gender gap in science. It is organised into six main sub-sections:

1. Encouraging women and girls to pursue science careers
2. Dismantling gender stereotypes and biases in science
3. Promoting workplace environments that attract, retain, and advance women scientists
4. Collecting disaggregated data for evidence-based policies
5. Integrating gender-related aspects into research content
6. Implementing the UNESCO 2024 Call to Action: Closing the Gender Gap in Science

The section concludes with comments on the approaches to intersectionality – or inclusivity, if intersectionality is not a national priority – adopted in the policy initiatives with the aim of closing the gender gap in science.

INTRODUCTION

Across the G20 members and countries that participated in the 2025 G20 Research and Innovation Working Group, policy initiatives for closing the gender gap in science have evolved into sophisticated, multi-pronged approaches, combining targeted interventions with systemic reforms. In this context, progress in increasing the participation of women in science is described in Box 2.

Many countries have adopted strategies that address the entire career pipeline. These strategies include targeted funding initiatives, institutional reforms, and grassroots programmes to encourage female participation. Policy initiatives address women at specific career and life stages, including by targeting learners and students from early childhood development to higher education; early career researchers; women in leadership; women with families; and women re-entering the workforce.

There are also efforts to embed gender equality within broader, national or continental development strategies, recognising that women's full participation is essential for economic and societal progress. Such efforts include the implementation of legal and policy frameworks that embed gender equality into national development plans and legislation.

A significant trend is the increasing emphasis on intersectionality, reflecting a shift from a gender binary focus to consider how other factors such as race, age, disability, and socioeconomic status can compound inequality. The intersectional strategies differ according to the national and regional contexts, with some countries also emphasising indigeneity, migration and spatial location. This approach leads to more nuanced policies that address the specific challenges faced by diverse groups of women.

Box 2 Status and trends of women in science

While women's participation in higher education has increased globally, women remain less likely to pursue studies in STEM. According to UNESCO's 2025 Status and Trends of Women in Science factsheet, women account for only 35% of STEM graduates. This gap widens along the research pipeline: women represent less than one-third of professional researchers worldwide. Progress over the past decade has been slow and uneven, reflecting persistent structural barriers that hinder women from entering, remaining, and advancing in science.

Regional differences are notable. For example, gender parity has been reached in Central Asia as well as in Latin America and the Caribbean.[6] In South and West Asia, women's participation in research rose markedly, from 18.9% in 2012 to 26.9% in 2022. By contrast, Central and Eastern Europe saw a decline, from 40.1% to 37.9%. Gaps are also sectoral: women are more present in academia and the public research sector than in the private sector.

Bridging these gender gaps is not only a matter of fairness; it matters for the quality of science itself. To address this, building on the momentum of the 2024 UNESCO Call to Action "Closing the Gender Gap in Science", in fall 2025 UNESCO has launched a new initiative, "Strengthening Institutional Capacity for Participation and Leadership of Women in Science: Evidence and Best Practice", with the aid of a grant from the International Development Research Centre, Canada. Implemented with the Organisation for Women in Science for the Developing World (OWSD), this project seeks to strengthen institutional support systems and policy environments that enable greater participation and leadership of women in science, particularly in underrepresented regions, by promoting gender-responsive practices in research and innovation.

[6] Gender parity is considered as women accounting for 45-55% of the research workforce.

ENCOURAGING WOMEN AND GIRLS TO CONSIDER CAREERS IN SCIENCE

Actively encouraging women and girls to consider careers in science, including through the provision of scholarships, awards, and other incentives. (G20 Recommendations on DEIA in STI)

A common strategy is to provide direct financial and institutional support to women at key points in their academic and professional journeys, from scholarships to grants for established researchers. Three main types of initiatives were identified: financial awards and fellowship programmes; support for career breaks; and support for academic and leadership progression.

Financial awards and fellowship programmes: Many countries offer targeted funding to help women overcome financial barriers and career interruptions. Examples include early career fellowships and scholarships supporting female PhD graduates transitioning into academic research, a point at which many women leave the pipeline. Some of the policy initiatives under this category are more targeted, addressing structural barriers to higher education, including through the scholarships for graduates from specific migration and racialised backgrounds and from indigenous groups, as well as people with disabilities. In recognising the additional maternity and caregiving challenges women face, some funding instruments make special allowances such as allowing more time to complete studies. The financial awards also extend to entrepreneurship programmes supporting a diverse range of business owners.

Support for career breaks: Recognising that family and caregiving responsibilities often lead to career interruptions, some policy initiatives are designed to help women re-enter the workforce. These include programmes that facilitate women's return to work in STEM-related sectors by providing support to update their skills and by offering networking opportunities. Other initiatives include fellowships to single mothers, to complete their studies, directly addressing socioeconomic barriers that disproportionately affect them.

Support for academic and leadership progression: Programmes designed to support female professors aim to close the gender gap within academia's highest ranks. Other initiatives focus on driving systemic change by providing long-term support to female scientists and engineers. Some countries have implemented national strategies which, while not focused specifically on women in STI, seek to improve women's economic advancement by, for example, encouraging flexible and remote work options. Beyond academia, policy initiatives are encouraging women to pursue entrepreneurial ventures in STEM and are working to create a more inclusive environment. These include training and mentorship programmes, and funding to help women start and grow their own business ventures.

DISMANTLING GENDER STEREOTYPES AND BIASES IN SCIENCE

Taking measures to dismantle gender stereotypes and biases in science through the enhanced visibility of women in science, including in the school textbooks, media, and popular culture to establish a positive association between women and science from an early age and to recognise women's contributions to science.
(G20 Recommendations on DEIA in STI)

A range of policy initiatives and measures are being implemented to dismantle gender stereotypes and biases in science, including through: engagement to challenge gender stereotypes at an early age in relation to science; the establishment of public platforms and prestigious awards as tools for increasing women's visibility in the sciences; and mentorship and other support for women at critical junctures in their scientific studies and careers in science.

Early intervention to change public perception of who can be a scientist: This approach focuses on highlighting female role models and challenging stereotypes from a young age, before they become deeply ingrained. It has entailed initiatives that engage schoolchildren in STEM fields, in classroom activities, participation of women and girls in science days, science weeks and science weekends. Science museums and other platforms offer accessible, youth-inclusive experiences that actively challenge stereotypes. Such platforms may engage families, extending the engagement beyond the classroom setting.

Prestigious awards and public platforms to celebrate women's achievements: Challenging public perceptions of who can be a scientist, such initiatives actively promote women in leadership and media and celebrate the achievements of female scientists (see the example in Box 3). These initiatives create visible role-models for younger generations. Public platforms highlight female researchers, normalising their presence in science.

Networking and mentorship support: Mentorship programmes offer concrete support at stages during which women are most likely to leave the scientific pipeline. Examples include initiatives connecting female students with leading female scientists, and initiatives supporting female students through structured research internships and career mentoring. Targeted support for women at critical career junctures includes the provision of support to single mothers in higher education, extension of maternity leave to PhD students, and the provision of research grants and fellowships for women with career breaks due to family and caregiving responsibilities. Such initiatives encourage women to complete their studies and continue their careers, and contribute to dismantling the perception that a career in science is incompatible with family life. Policy initiatives also focus on creating inclusive science, technology and innovation ecosystems and fostering women's engagement in entrepreneurship by providing training and funding for female-led ventures, as well as enabling women not to only enter but also become leaders in scientific and technological fields.

Box 3 L'Oréal–UNESCO For Women in Science programme

A flagship initiative to address the gender gap in science is the L'Oréal–UNESCO *For Women in Science* programme, a long-standing partnership between UNESCO and the Fondation L'Oréal launched in 1998.

Today, women still represent only one third of researchers worldwide, a persistent disparity that the L'Oréal–UNESCO Programme seeks to address under its guiding motto "The world needs science, and science needs women."

Each year, the L'Oréal–UNESCO International Awards honour five outstanding women scientists in life sciences and physical sciences, mathematics, and computer science. Laureates are celebrated not only for their groundbreaking research but also as role models for younger generations and as ambassadors of UNESCO's commitment to advancing science, fostering international cooperation, and promoting gender equality. Seven of these laureates have received Nobel prizes, underscoring the programme's role as an international benchmark for scientific excellence.

In addition to the International Awards, the global network of 50 national and regional "Young Talents" Programmes, implemented by L'Oréal subsidiaries with the support of UNESCO National Commissions and Field Offices, encourages and promotes young women researchers by supporting their work in institutions at home or abroad.

Together, these initiatives have supported more than 4,700 women scientists across over 140 countries and territories at different stages of their careers, helping to shape the future of science and ensuring that women's contributions are fully recognised in building a more sustainable and inclusive world.

PROMOTING WORKPLACE ENVIRONMENTS THAT ATTRACT, RETAIN, AND ADVANCE WOMEN SCIENTISTS

Enacting evidence-based gender-responsive national and institutional policies to promote workplace environments that attract, retain, and advance women scientists, including in leadership positions. (G20 Recommendations on DEIA in STI)

The policy initiatives promote equitable scientific workplaces through four main areas. First, targeted support is provided to women through financial grants and fellowships that accommodate life events such as maternity leave. The second approach focuses on transforming institutional cultures by making gender equality a key criterion for funding, establishing diversity, equity and inclusion (DEI) frameworks, and promoting flexible work policies. Third, institution level change is facilitated through legal and institutional protections against discrimination and harassment. The fourth focus is on increasing women's representation in leadership roles in higher education and research institutions.

Targeted financial and career support: Several countries have implemented policies that offer targeted financial and career support to help attract and retain women in science. Under such policies, grants are made available to provide flexible support to young women researchers, including those on maternity leave. Other initiatives aim to provide a financial safety net for women who take a career break due to maternity or childcare responsibilities. These may offer financial grants and subsidies for childcare and a child's education, and flexible work options after birth and adoption to promote work-life balance for researchers. In addition, funding agencies are adjusting their policies to be more inclusive. Strategies include relaxing the age limit for female applicants, extending grant timeframes to allow for childbirth and childcare, and parental leave coverage for grant awardees. Equity is also achieved through introducing special measures to achieve gender balance among grant awardees, for example, through a mandatory requirement for a female co-principal investigator in research projects, ensuring collaborative female leadership.

Fostering inclusive institutional and workplace cultures: A second key trend is promoting systemic and institutional change to create more equitable workplaces. Initiatives aim to establish DEI as a fundamental value in higher education institutions, recognising and rewarding these institutions for their commitment to DEI. Focusing on systemic barriers rather than individual issues, such initiatives entail assessing gender equity at the institutional level to guide improvement plans, and customising recruitment and retention strategies to better support women scientists – thus framing equity and diversity as a strategic imperative for management. Higher education institutions are required to collect data and develop evidence-based action plans tailored to their contexts. In some instances, such efforts represent a mandatory eligibility criterion for funding. Some initiatives emphasise enhancing gender balance among senior academic and research leaders. Moving beyond the boundaries of higher education, a number of initiatives encourage companies to implement specific policies that attract and retain female talent.

Establishing legal and structural protections: Legal and policy frameworks are important instruments to prevent discrimination and harassment, and contribute to ensuring fair treatment in the workplace. Examples include institution-level equality committees and missions; laws that make specific provisions to protect the rights of female workers; legal frameworks promoting job security for pregnant workers and new mothers; and legal reforms and gender audits to identify and eliminate discrimination. Many such initiatives emphasise the need to combat sexual violence in higher education and research, through training and reporting on sexual violence and institutional codes of conduct to counteract gender-based violence. Through such initiatives, countries aim to foster safe and supportive workplace environments for research and innovation.

Promoting leadership and advancement: Many initiatives have been introduced to encourage organisations to promote gender equity as a core strategy, including through improving workplace culture and strengthening leadership teams. Some programmes tie funding to an institution's commitment to gender equality, providing an incentive not only to hire women but also to foster a gender-equitable culture. Other national initiatives explicitly aim to promote equality for women and other underrepresented groups in terms of access to senior positions. Some initiatives create formal talent management programmes with the potential to open up leadership pathways for women scientists. Initiatives have also been launched to create additional senior positions so that gender balance at the highest levels of academia and other professions may be promoted. The establishment of dedicated academies and awards for women in STEM contributes to leadership development and recognises female achievements, helping to address the lack of visible role models. Furthermore, collaborative bodies and dialogues promote women's leadership and influence by directly involving them in discussions and decision-making at the highest levels.

COLLECTING DISAGGREGATED DATA FOR EVIDENCE-BASED POLICIES AND TO MONITOR PROGRESS

Ensuring the collection of data disaggregated by gender and other intersectional factors on a regular basis at country level to devise evidence-based policies and monitor progress. (G20 Recommendations on DEIA in STI)

An emerging trend is the use of data-driven policy. One approach is to make the collection of disaggregated data a mandatory operational requirement for higher education and research institutions. Examples of this approach are initiatives that tie such data reporting to funding and institutional self-assessment efforts.

Many countries have established centralised data and monitoring systems to effectively track progress. These national observatories and platforms act as hubs for collecting, managing, analysing, and publicly

sharing data related to participation in science, technology, and innovation. This practice of centralising data helps to create a comprehensive picture of the landscape, which in turn can facilitate the formulation and implementation of relatively effective policy interventions. Some countries also leverage existing statistical departments to serve this purpose.

Few countries have specialised platforms or publications that regularly collect and share disaggregated data on gender or intersectional factors in support of the development of evidence-based policies, and to monitor progress on the implementation of such policies.

A notable shift across many policy initiatives has been the move from a binary gender focus to an explicitly intersectional approach that collects data on multiple identity factors. This includes the incorporation of intersectional markers – including age, disability, ethnicity, racialised groups, gender and socio-economic status – in national surveys and institutional reports, enabling more nuanced policy responses. Some countries have introduced data systems that allow researchers to self-identify as "nonbinary," indicating a further openness to capturing gender diversity.

A robust digital infrastructure and good data governance are required to make data more accessible for analysis, promoting transparency and accountability in policy development, without infringing on individual rights to privacy and data confidentiality. Legal frameworks for data protection and privacy ensure ethical and secure handling of sensitive data, which is crucial as the collection of intersectional data requires the sharing of multiple sensitive identifiers such as race, ethnicity, sexual orientation, disability status, and religion. The increasing interest in open data, across countries and regions, can promote principles of transparency and accountability in meeting the needs of diverse groups. Many countries have invested in open data portals or other digital platforms to make data and research freely available for anyone to access, use, reuse, and share.

It has been found that strong research ethics frameworks and processes are crucial to the proper collection and use of disaggregated data. For example, research ethics frameworks and committees at higher education and research institutions emphasise obtaining informed consent, considering the gender dimension in the data being collected, and using the data only for the purpose for which it was collected. By requiring the implementation of specific data protection and use controls, research ethics frameworks help to mitigate the risk of disaggregated data being used to profile or discriminate against marginalised groups and reinforce biases. This is discussed in more detail in the next sub-section.

INTEGRATING GENDER-RELATED ASPECTS INTO THE CONTENT OF RESEARCH

Integrating gender-related aspects into research questions to enhance scientific excellence and the societal relevance of the knowledge produced. (G20 Recommendations on DEIA in STI)

A notable trend across the countries reviewed for this compendium has been an increasing emphasis on embedding gender-related issues into the content and design of research. Policy initiatives aim to achieve this goal by promoting ethical and foundational frameworks for research; directly mandating and incentivising the integration of gender-related aspects in research design; and addressing gender concerns in relation to emerging and high-technologies. The trend also reflects the application of intersectional approaches to ensure the gender-sensitivity and relevance of research.

Ethical and foundational frameworks: A common approach has been to embed gender considerations in existing ethical and strategic frameworks, ensuring that inclusive research practices become a standard part of the scientific process. Specific examples include research ethics committees providing overarching frameworks that encourage the integration of gender as a central societal dimension. Ethics committees and boards in the field of health are well-established, encouraging researchers to reflect on gender dimensions in their study designs. Some countries are now also emphasising ethical consideration in emerging fields, promoting the use of strategic foresight and inclusive planning to consider the gendered impacts of environmental changes, energy transitions, and AI from the outset. National statistical bodies establish data infrastructure for collecting, managing and sharing disaggregated data on gender and intersectional markers, making it possible to analyse gender-related differences in various fields. Statistical bodies also champion gender mainstreaming across STI policies, and seek to standardise requirements for gender dimension statements in research calls – the aim being to promote research and development that improves the quality of life and working conditions for women by ensuring that studies address women's needs and experiences.

Mandating and incentivising the integration of gender-related aspects: Some countries have created policies that either mandate or financially incentivise the systematic inclusion of gender perspectives in research design. Examples include the establishment of funding schemes dedicated to the systematic consideration of gender-related aspects in research questions; formal requirements for research applications to include a sex and/or gender dimension; and national research strategies encouraging the consideration of gender in funding calls and review processes. Research institutions also explicitly mandate that research proposals consider gender-related aspects as relevant, elevating gender to a criterion of scientific quality. Such policy initiatives aim to embed gender analysis into the research process, shifting the focus from increasing the number of women scientists to changing how science is conducted.

Addressing gender in relation to emerging and high technologies: A number of policy initiatives proactively address the potential for bias in new and rapidly evolving fields such as AI in a bid to prevent new technologies from perpetuating existing social inequalities. A common approach is to develop a national AI strategy as a framework to foster the creation of "human-centric" AI applications for societal benefit, addressing gender and intersectional bias within algorithms so that AI systems are prevented from exacerbating societal biases. Some countries have also introduced civic networks and platforms to facilitate interaction and collaboration among individuals, groups and organisations.

Promoting intersectionality: A growing number of countries are adopting intersectional approaches to ensure that research is not only gender-sensitive but also relevant to diverse, real-world societal needs. Policy initiatives adopting intersectional approaches include national strategic programmes promoting research on urgent national priorities, including research on how diverse groups experience challenges and how interventions impact diverse populations. Laws have been effective in mandating that publicly funded research serves the 'common good,' creating an opportunity to adopt a lens that considers intersectional needs and challenges as a means of addressing problems that disproportionately affect marginalised groups. While gender-based and intersectional approaches are well-established in health-related research, the impact of intersectionality in research on age-related concerns such as dementia has also been increasingly interrogated. Countries and regions with large indigenous populations have introduced national programmes aimed at preserving and leveraging traditional and local knowledge for research and innovation. It is important that such initiatives consider the issue of equitable participation to avoid exacerbating inequalities. Other examples of policy initiatives that address the intersection of gender, racialised and spatial inequalities include programmes promoting research investigating the impact of science, technology and innovation interventions on women and local communities in rural areas.

IMPLEMENTING THE UNESCO 2024 CALL TO ACTION: CLOSING THE GENDER GAP IN SCIENCE

Supporting and contributing to the implementation of the UNESCO 2024 Call to Action: Closing the Gender Gap in Science. (G20 Recommendations on DEIA in STI)

The regions and countries included in this compendium have either explicitly or implicitly aligned their national strategies with the UNESCO 2024 Call to Action: Closing the Gender Gap in Science. Sections three and four include summaries of how G20 members and invited countries are responding to the UNESCO 2024 Call to Action. Here, examples of policy initiatives actively implementing the pillars of the UNESCO Call to Action are provided:

- **Dismantling stereotypes**: The initiatives target public perception and career guidance as a means of dismantling gender stereotypes from an early age. Common approaches include enhancing

women's visibility by showcasing female role models through dedicated awards and platforms. Public awareness campaigns and other outreach activities have also been deployed to raise the profile of female scientists. These initiatives create positive associations between women and science, and actively encourage early interest in science among girls.

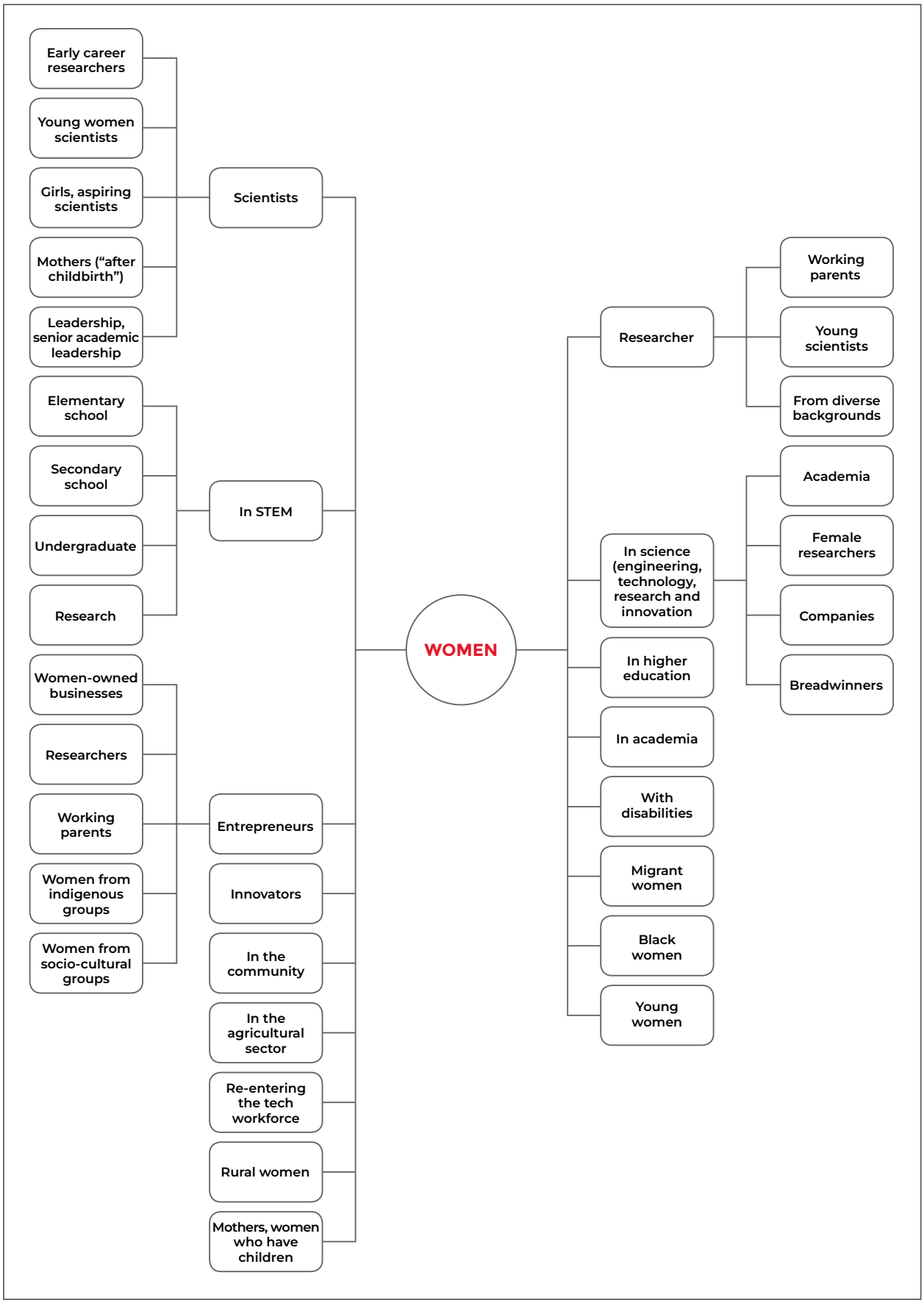
- **Creating inclusive workplace environments**: These initiatives focus on creating safe, supportive, and inclusive environments, including by creating institution-level equity policies and programmes, and gender-responsive workplace policies that combat sexual violence. Such initiatives may be fostered by national programmes and legislation that provide a foundation for removing barriers and offering practical, life-cycle support for female scientists.
- **Ensuring women's leadership and addressing the 'glass ceiling'**: These initiatives directly address the underrepresentation of women in leadership roles, aiming to close the gender gap in professorships and other senior positions by setting clear targets, monitoring progress, and promoting environments where women who have been empowered to address work-life balance issues can assume leadership roles. Such initiatives include training and mentorship programmes that help women advance into leadership positions.
- **Data collection and analysis**: The importance of data as a basis for evidence-based policymaking is recognised by several initiatives that promote the collection and deployment of gender-disaggregated data to monitor progress and inform interventions on a consistent basis. The initiatives emphasise system-level coordination and the use of data, such as employment and pay data, to bridge gender gaps on a large scale; and can entail the establishment of national focal points for coordinating analysis and policy advice. A number of national statistical organisations play an important role in collecting, managing and sharing disaggregated data by gender, and nationally prioritised intersectional markers, to monitor pay and representation gaps. A few notable initiatives offer regular dedicated publications and portals to understand the gender gap in science, technology and innovation, and monitor progress on the state of gender equality in STI.

CONCLUDING COMMENTS: GOOD PRACTICES IN POLICY INITIATIVES PROMOTING THE GOAL OF 'CLOSING THE GENDER GAP'

To illuminate the trends in approaches and priorities, a text query analysis of the words "women," "females" and "girls" was conducted across the policy initiatives. As shown in Figure 3, the analysis points to the **recognition and support of women in diverse**:

- **Roles**: Scientists, researchers, academics, entrepreneurs, innovators and mothers
- **Social positions**: Women with disabilities, migrant women, indigenous women, Black women, rural women and young women
- **Career stages**: Aspiring young scientists, early career researchers and scientists, and women in leadership

Figure 3 Tree diagram illustrating the diverse groups of women targeted by the policy initiatives



Addressing specific challenges of diverse groups of women

The policy initiatives articulate a "strong commitment" to supporting women in science, including in "STEM" fields and in relation to "research and innovation". Emphasis is placed on supporting women scientists at different stages in their careers, including early in their careers and when occupying senior leadership positions. Support for women scientists include: financial support of various kinds as well as fellowships.

With regard to STEM, the focus tends to be on engaging girls from a young age through elementary and secondary school, and supporting women through their undergraduate studies and research careers. Policy initiatives promote the provision of scholarships, as well as special awards and platforms aimed at increasing the visibility of women scientists and providing role models. Such initiatives contribute to dismantling stereotypes that deter girls and women from pursuing careers in science.

Women scientists often face the challenge of "balancing multiple responsibilities," including in terms of their roles as mothers, working parents, and breadwinners. Common types of support provided include the provision of financial support after childbirth and for childcare; flexible work arrangements; and regimes that allow women more time to complete their studies. Recognising women's caregiving roles, policy initiatives provide support for women who have had to pause the pursuit of careers so that they can re-enter the research, academic or tech workforce.

Beyond academia, good practice in policy initiatives includes the provision of targeted support for female entrepreneurs and innovators. Recognising the potential compounding challenges of occupying overlapping social positions, some initiatives focus on supporting women entrepreneurs from indigenous, racialised, ethnic, socio-cultural/religious and other social groups.

At the institutional level, the need to promote higher education and research institutions, and scientific workplaces as safe places is acknowledged by policy initiatives that provide frameworks, guidelines and processes for combatting sexual and gender-based violence.

Policy initiatives also address other systemic, institutional barriers such as by seeking to establish criteria that prevent bias in recruitment and promotion.

Targeting overlapping forms of discrimination

A significant trend is the increasingly explicit promotion of intersectional policy initiatives, including through:

Intersectionality in research and data collection: Several policy initiatives are recognised as promoting good practice because they address how the complex reality of overlapping identities can affect research processes and outcomes. Applying an intersectional lens is increasingly viewed as a prerequisite for conducting high-quality, relevant research. In this regard, policy initiatives have promoted the provision of guiding frameworks, and direct funding for research that separates and analyses the distinct influences of biological sex, and gender-related social and cultural factors on research outcomes. A few countries have begun to collect data on gender and sex at birth to capture transgender and non-binary populations more accurately. National databases illuminate patterns of inequality by using gender-disaggregated and intersectional markers. Linking the integration of gender and intersectionality to research funding contributes to institutionalising intersectional thinking at the earliest stage of a research study.

Targeted support and institutional change: Policy initiatives have also promoted good practice by creating dedicated frameworks and programmes, such as STEM academies, which address the specific needs of underrepresented groups, including indigenous women, women on maternity leave, people with disabilities, migrants and scientists in exile, and girls from socioeconomically disadvantaged areas who require mentorship, confidence-building and networking support. Policy initiatives, such as extended fellowship programmes, also directly address the intersection of gender and career stage, acknowledging the unique challenges of female students who are pregnant or have parental and care-giving responsibilities.

Systemic and structural integration: A number of countries are embedding intersectional principles directly into the fabric of their scientific ecosystems to ensure sustained, long-term impact. In this respect, good practices in policy initiatives include the introduction of frameworks for diversity, equity and inclusion in higher education and research institutions, with some of these emphasising that gender-based discrimination is compounded by other factors such as age, disability, and geographic location. Regional initiatives emphasise, and may mandate, “inclusiveness” and “intersectionality” as principles underpinning the frameworks they establish.

Ethical and community-based approaches: Some policy initiatives foster good practices by promoting the incorporation of ethical and community-based perspectives to ensure that science benefits a diverse range of people. For example, a number of AI guidelines and strategies proactively address the risk of algorithmic bias that could disproportionately harm vulnerable groups. Policy initiatives also open the door for a more bottom-up approach through which the voices of marginalised communities can directly influence research and public policy. For example, a number of programmes have been established acknowledging and fostering the role of women as custodians of ecological and other types of traditional knowledge, with some initiatives aiming to address critical omissions in mainstream approaches by working directly with indigenous, rural and other marginalised communities. Citizen science initiatives which target the intersection of gender, geography and socio-economic status are also growing in popularity.

In conclusion, the good practices in policy initiatives described in this section reflect a growing recognition that addressing gender inequality in science requires targeted, nuanced approaches that respond to the specific challenges faced by diverse groups of women, and consider the overlapping roles and social positions they may hold. Such initiatives target a range of systemic barriers, including by seeking to dismantle stereotypes, provide targeted support for women at different stages in their careers and create safe workplaces. Across the G20 members and invited countries, the trends indicate that policy initiatives are beginning to shift from establishing isolated interventions to effecting systemic change.

G20 MEMBER NOTES

This section comprises high-level summaries of the policy initiatives of each G20 member that participated in the Research and Innovation Working Group in 2025. The note on each G20 member begins with a description of its overall policy approach to closing the gender gap in science and a summary of the policy initiatives included in the compendium database. It goes on to identify and describe good practice in policy initiatives for each of the sub-recommendations related to closing the gender gap in science.

Key questions guiding the preparation of the G20 member notes included:

- What is the overall national/regional policy approach to closing the gender gap in science?
- For each sub-recommendation towards closing the gender gap in science, which policy initiatives stand out as good practice in the national/regional context?
- Who are the target groups? Is intersectionality – that is, looking across social categories of women, race, ethnicity, social class, spatial inclusion and disability – considered?
- If intersectionality is not a policy priority, how is inclusivity considered?

Rather than assessing the direction or reach of the policy initiatives, the aim is to spotlight good practice in the specific country or region. The identification of intersectional nuance is meant to highlight good practice, from which others can learn, and to raise intersectional considerations towards enhancing approaches and practices to better consider the multiple intersecting identities and barriers that women face. It is important to note that approaches to equity and inclusion differ across national and regional contexts. While there is consistency in the format of each member note, some may differ slightly, to better capture national approaches and priorities. For example, in a country where intersectionality is not consistent with the national policy approach, the focus was on describing "inclusivity" rather than "intersectionality."

AFRICAN UNION

Introduction

The African Union's approach to closing the gender gap in science is embedded in its broader strategies for continental development, recognising that achieving scientific and economic progress is impossible without the full participation of women. Through frameworks like **Agenda 2063** and the **Science, Technology and Innovation Strategy for Africa (STISA-2034)**, the African Union is working to build a knowledge-based economy in which all citizens can participate and benefit from scientific and technological advancements. It recently developed a new strategy, **STISA-2034**, which builds upon the foundation of its predecessor, **STISA-2024**, with a continued and strengthened focus on closing the gender gap in science.

The African Union's approach is not just about increasing the number of women in science, but also about creating an inclusive and supportive ecosystem in which they can thrive, lead and contribute to the continent's development. This approach is holistic, targeting various stages of a woman's career in science, from education to leadership.

This member note has the following objectives:

1. To provide, as outlined in the table below, an overview of a selection of policy initiatives identified as relevant for the G20 Recommendations on Diversity, Equity, Inclusivity, and Accessibility (DEIA). The aim is to provide a snapshot of the broader set of policy initiatives included in the compendium database.

2. To provide, in the remainder of this member note, highlights of good practices in policy initiatives responding to the G20 Recommendation: Closing the Gender Gap in Science. It is organised according to the sub-recommendations:
   - Encouraging women and girls to consider careers in science
   - Promoting workplace environments that attract, retain, and advance women scientists
   - Collecting disaggregated data for evidence-based policies and monitoring progress
   - Integrating gender-related aspects into the content of research
   - Implementing the UNESCO 2024 Call to Action: Closing the Gender Gap in Science

3. To identify, in the last section, key intersectional policy initiatives for closing the gender gap in science.

Table 2 African Union: Summary of the relevant policy initiatives by G20 Recommendation on DEIA

G20 Recommendation on DEIA	Number of policy initiatives	Policy instrument types	Main target groups/ beneficiaries (STIP categories)	Main target groups/ beneficiaries (Specific)
1. Promoting diversity, equity, inclusion and accessibility in STI systems	4	Not recorded	Not recorded	All African learners and educators, from early childhood to tertiary level, with a focus on STEM and vocational training; all citizens of Africa and the African diaspora, with a specific focus on **women** and youth as key drivers of change; African youth (particularly NEETs); scientists, society; researchers; innovators; entrepreneurs; the general population; TVET students, industry and businesses; TVET institutions; **women** and vulnerable groups (including in rural areas and the informal sector)
2. Closing the gender gap in science	1	Not recorded	Not recorded	All women and girls in Africa, including those in the diaspora, with a particular focus on those who are most marginalised
3. Fostering dialogue between different knowledge systems	Not recorded	Not recorded	Not recorded	Not recorded
4. Transitioning to open science	3	Not recorded	Not recorded	All African citizens; African youth; academia; civil society organisations; policymakers; researchers; decision-makers; innovators; firms; MSMEs; government; AU member states; rest of the world; **women and girls**; vulnerable populations, including people with disabilities and children
5. Combating inequities in STI	1	Not recorded	Not recorded	Businesses, producers, traders, and consumers across the continent

Note: This table includes a set of policy initiatives selected for inclusion in the compendium, 'STI for All': A Compendium of Good Practices in STI Policy. The main aim is to identify good practice policy initiatives rather than to provide an exhaustive list of the G20 member/guest country's policy initiatives.

Encouraging women and girls to consider careers in science

The African Union has implemented and supports several policy initiatives that span from early education to professional recognition. Its comprehensive strategy includes a combination of education reform, targeted funding and public recognition to encourage and empower women and girls to pursue and succeed in careers in science and technology. The **Continental Education Strategy for Africa (CESA 2025-35)**, which provides the framework for education and training systems across the continent, and the **Science, Technology, and Innovation Strategy for Africa (STISA-2034)** are foundational policy initiatives.

These are key African Union policy initiatives aimed at encouraging women and girls to consider careers in science:

- **Continental Education Strategy for Africa (CESA 2025-35)**: CESA explicitly addresses gender equality and inclusion as a core pillar, recognising that a high-quality education for all, particularly in STEM fields, is essential for Africa's development. The strategy emphasises the importance of empowering female teachers and promoting them as role models for young girls. It encourages the implementation of mentorship programmes and peer-to-peer education to inspire girls and provide them with a support system as they navigate their educational and career paths. The aim of the strategic action on higher education and TVET is to provide incentives for research including in STEM areas where the promotion of gender equality in and through education is also given due emphasis with focused target actions.
- **Technical and Vocational Education and Training (TVET) Strategy**: This strategy aims to provide a comprehensive framework for member states to develop national TVET policies. Emphasising support for youth, particularly those who are unemployed or not in education, employment, or training (NEETs), women, and other vulnerable groups, it covers all forms of training and skills development, from formal institutions to apprenticeships in the informal economy. The strategy also focuses on strengthening the links between TVET institutions and the private sector.
- **Science, Technology, and Innovation Strategy for Africa (STISA-2034)**: Building on the foundation of its predecessor, STISA-2034 has a strong focus on "diversity, equity, inclusion and accessibility in STI," including specific actions that promote the participation of women and girls in science. For example, it advocates for tailored skills development programmes, in areas like coding, robotics, and data science, for women and girls to ensure they are not left behind in the digital and technological transformation. The strategy also emphasises the need to increase the visibility of women in science to break down stereotypes and provides role-models for young girls.

Box 4 Examples of the African Union's policy instruments encouraging women and girls to consider careers in science

African Union Kwame Nkrumah Awards for Scientific Excellence (AUKNASE): This is one of the most prominent initiatives for celebrating and recognising the contributions of African scientists. The programme includes awards at the regional level that are exclusively for women scientists, providing monetary prizes and public visibility for female researchers. By celebrating their achievements, the AU inspires and motivates other women and girls to pursue scientific careers.

"African Girls Can Code" Initiative (AGCCI): This is a joint initiative with UN Women and the United Nations Development Programme (UNDP). It is a practical example of the AU's commitment to gender equality in technology and innovation.

Coding Camps and Training: AGCCI organises coding camps, workshops, and hands-on training sessions for young girls across the continent. The goal is to provide them with the skills they need to enter the tech sector and to foster an entrepreneurial spirit. The initiative helps to demystify technology and make it accessible to girls who might not otherwise have the opportunity to learn these skills.

Addressing the Digital Divide: The initiative is not just about coding; it also works to provide young women and girls with access to essential ICT skills and resources.

Promoting workplace environments that attract, retain, and advance women scientists

The African Union recognises that promoting an equitable and inclusive workplace is crucial for attracting, retaining, and advancing women in STEM careers. Targeted initiatives are guided by the continent's overarching development frameworks, particularly **Agenda 2063** and the **STISA-2034**. A core tenet of STISA-2034 is to encourage member states and research institutions to adopt and implement policies that directly address the barriers women face in their scientific careers, including introducing policies that offer flexible working hours, remote work options, and provisions for career breaks.

While not focused on science, technology and innovation, this is an example of a good practice policy initiative of the AU:

- **African Union's Strategy for Gender Equality and Women's Empowerment (GEWE)**: This is a comprehensive, multi-pillar policy initiative that aligns with the AU's broader development goals. It provides a strategic roadmap for member states and institutions to create workplace environments that are not just more gender-equal but are fundamentally more just, secure and supportive for all scientists. Promoting effective laws, policies, and institutions, pillar three of the strategy advocates for legal reforms and the establishment of dedicated institutions to lead gender equality initiatives.

It promotes the use of gender audits to identify and eliminate gender discrimination and other inequalities within AU organs and member states. Promoting dignity, security, and resilience, pillar two addresses issues such as violence against women and girls and harmful traditional practices.

Collection of disaggregated data for evidence-based policies and monitoring progress

The accessibility of robust, high-quality, and disaggregated data is a central theme in several of the African Union's major policy initiatives. The African Union's policy on data is evolving from a general recognition of its importance to a more specific and targeted approach. It is moving towards building a continental data ecosystem that is not only functional but also ethical, inclusive, and capable of producing the disaggregated data necessary to drive evidence-based policy and monitor progress for all Africans. An example is the integration of various data sources, such as geospatial data and AI-based analytics, into planning and monitoring, for sectors like agriculture.

Examples of policy initiatives include:

- **African Union Data Policy Framework**: This framework, endorsed by the AU Executive Council, is a step toward creating a consolidated data environment across the continent. Its primary goal is to enable the free and secure flow of data while safeguarding human rights and ensuring equitable access. The framework sets out a common vision and principles for member states to guide the development of their national data systems.
- **Agenda 2063**: As the continent's long-term development framework, Agenda 2063 places a high premium on data for monitoring progress toward its goals. It includes a detailed monitoring and evaluation (M&E) framework that tracks progress against its goals and targets. However, continental reports on its implementation have highlighted a significant challenge: a lack of quality data and statistics. This has led to the African Union pushing for stronger national statistical systems (NSS) and better data collection. The AU Development Agency-NEPAD **(AUDA-NEPAD)** and other AU organs have established a community of practice for Agenda 2063 Monitoring and Reporting, bringing together policymakers, researchers, and other stakeholders to build capacity, share knowledge, and foster a multi-stakeholder accountability framework for achieving Agenda 2063 and the SDGs. This collaboration emphasises the importance of using disaggregated data to track progress for various groups. What is more, the 7 Aspirations and 20 goals of the Agenda 2063 framework document are the bedrock on which the Moonshots and strategic objectives of the Second Ten-Year Implementation Plan (STYIP) are founded. Moonshot 6, aimed at ensuring that 'Africans are more empowered and more productive' has a specific strategic objective to achieve gender parity in all spheres.
- **STISA-2034**: This new continental STI framework emphasises data as an enabler for innovation-led growth. It explicitly recognises the need for robust data governance frameworks to ensure the integrity, security, and usability of data. STISA-2034 advocates for the use of evidence to inform the design, implementation, and monitoring of STI policies. This requires a foundation of high-quality data. The **African Science, Technology and Innovation Indicators (ASTII)** initiative is a key component, aiming to inform the continent and the rest of the world on Africa's STI performance and progress towards key societal challenges, including those related to inclusion.

- **African Charter on Statistics**: This charter serves as a foundational regulatory framework for statistics development in Africa. It recognises the importance of harmonised, comparable, and reliable statistics to support and monitor the implementation of African Union policies, including those related to gender equality and human development.

Box 5 Examples of the African Union's policy instruments advancing the collection of disaggregated data for evidence-based policies and monitoring progress

The **African Science, Technology and Innovation Indicators (ASTII)** initiative and the **African Observatory of Science, Technology and Innovation (AOSTI)** are crucial components of the AU's overall STI policy architecture, serving distinct but complementary roles demonstrating the African Union's sophisticated and comprehensive approach to using evidence to drive its STI agenda.

ASTII: As a policy instrument and programme, ASTII's main function is to support member states in collecting, analysing, and using data on science, technology, and innovation. It is initiated and led by the African Union Development Agency, AUDA-NEPAD, and helps African countries to conduct surveys on research and experimental development (R&D) and innovation. It provides the methodologies and capacity-building support to ensure that the data collected is accurate and internationally comparable. It provides the raw data and metrics on R&D expenditure, human resources for STI and innovation activities. The data also captures gender-disaggregated information in the fields of study and research, which helps to identify trends in disciplines in which women are more or less represented. This information is vital for policymakers to track progress, identify gaps, and make informed decisions on where to invest resources to achieve the goals of STISA-2034.

AOSTI: As a specialised technical office of the African Union, the role of this organisation is to be the continental repository for STI data and a source of policy analysis. AOSTI takes the data collected by initiatives like ASTII and from other sources (e.g., bibliometric databases, patent data) and synthesises it to develop policy-relevant insights. The African Innovation Outlook (AIO) is a key output of AOSTI.

Africa Gender Index: While not a policy framework, the African Development Bank, in collaboration with the UN Economic Commission for Africa (UNECA), publishes this index. It relies on gender-disaggregated data to measure progress and highlight gaps in economic, social, and political spheres. This kind of data-driven reporting is a critical tool for advocating for and informing AU policies.

Integrating gender-related aspects into the content of research

The African Union's policy initiatives are moving toward a more sophisticated approach to gender equality in science. It is increasingly recognised that closing the gender gap is not just about having more women in laboratories and higher education but about ensuring that the scientific work itself is relevant, equitable, and transformative for all of Africa's diverse population.

The AU's policy initiatives aimed at this objective are primarily guided by the following frameworks:

- **Agenda 2063**: While this framework sets the broad aspirations, it is the foundational document that mandates gender mainstreaming across all sectors. **Aspiration 6: An Africa Whose Development is People-Driven, Relying on the Potential of African People, Especially Its Women and Youth, and Caring for Children** identifies the full potential of women as a key driver of development, it necessitates that research be designed to understand and address the specific needs and experiences of women and girls.
- **The African Union Gender Strategy (2018-2028)**: This strategy is a key component of Agenda 2063's implementation. It is an operational plan that explicitly advocates for gender-responsive budgeting and the integration of gender perspectives into all the steps in the budget and policy process. This can directly impact research by encouraging funding bodies to require gender analysis in research proposals.
- **STISA-2034**: As the most recent and relevant policy framework that directly addresses the integration of gender into research content, STISA-2034 builds on the lessons of its predecessor, STISA-2024, by placing a stronger emphasis on inclusivity, equity, and accessibility. The strategy identifies key sectors including agriculture, health, energy, and the environment, and calls for research that specifically addresses gender disparities. For example, research on agricultural technologies should consider the needs of female farmers, who often have different access to resources and face unique challenges. Similarly, health research is urged to consider gender-specific health issues and how social and cultural factors influence health outcomes differently for men and women.
- **AU's Continental Artificial Intelligence (AI) Strategy**: Its direct relevance to closing the gender gap lies in its explicit focus on ethics, inclusion, and diversity. The strategy aims to ensure that women are not only consumers of AI but also active participants in its development and governance. It acknowledges the risk of algorithmic bias, which can amplify existing societal biases against women. By promoting the use of diverse datasets and the inclusion of women and marginalised groups in the design process, the strategy seeks to create AI systems that are more equitable and beneficial to all.

Box 6 Examples of the AU's policy instruments and collaborative projects promoting the integration of gender-related aspects into the content of research

ASTII: ASTII is essential for monitoring and evaluating STISA-2034's goals, aligning Africa's data with global standards, and ensuring a more inclusive approach. It also plays a key role in building the capacity of national institutions to collect and analyse this important data, including gender disaggregated data.

Science Granting Councils Initiative (SGCI): While not a direct African Union policy initiative, the African Union works in close collaboration with the SGCI, which is a major initiative supporting African science granting councils. The SGCI has a specific project on **Gender Equality and Inclusivity** that aims to strengthen the capacities of these councils to mainstream gender into their funding and research programmes. This includes encouraging councils to mandate that research proposals include a clear gender analysis in their design, promoting funding for research that is designed not just to study gender inequality but to actively contribute to gender transformation and positive change.

Implementing the UNESCO 2024 Call to Action: Closing the Gender Gap in Science

The African Union's response to the UNESCO 2024 Call to Action has been proactive and integrated into its existing policy frameworks. The AU has not just acknowledged the call but has taken concrete steps through joint conferences like the **Continental Conference on Transforming STEM in Africa (November 2024)**, targeted programmes like the **AU Kwame Nkrumah Awards for Scientific Excellence**, and long-term strategic planning, including the **Agenda 2063** and **STISA-2034**, to actively dismantle gender barriers and promote the full participation of women in science across the continent.

Key policy initiatives considered to be good practice for closing the gender gap in an intersectional way

Collectively, the African Union's suite of policy initiatives aims to move beyond a singular focus on gender parity to address systemic and structural barriers that women face. **Agenda 2063**, through Aspiration 6, establishes the overarching moral and strategic imperative to empower women and youth, providing the foundational mandate for all gender-focused policies. **STISA-2034** operationalises this by identifying the specific STI sectors where the gender gap must be closed and emphasising a strong focus on inclusivity. The **GEWE Strategy** provides the dedicated policy framework for achieving gender equality across all sectors, including science, by addressing issues of economic empowerment, human dignity, and leadership. The **Digital Transformation Strategy** and **CESA** are crucial for building the foundational skills and infrastructure needed to ensure that girls and women have access to the education and digital tools required for a career in science. **APET** and **AfCFTA** are significant because they ensure that the policies and economic frameworks shaping Africa's future are informed by a gender-sensitive lens, mitigating the risk of new technologies and economic shifts widening existing inequalities.

Three of these policy initiatives stand out as good practice for closing the gender gap in science in an intersectional way. They do not treat "women" as a monolithic group but instead acknowledge the complex interplay of identities that shape their experiences:

1. **African Union Strategy for Gender Equality and Women's Empowerment (GEWE)**
    - **Why it's a good practice**: The GEWE strategy recognises that gender-based discrimination is compounded by other factors like age, disability, and geographical location. The strategy's focus on human dignity and security (Pillar 2) is an example of this. It acknowledges that a female scientist in a conflict-affected area, a woman with a disability, or a woman from a marginalised ethnic group faces unique and intersecting forms of violence and discrimination that must be addressed to thrive in any professional field, including science.
    - **Intersectional nuance**: The GEWE's approach to economic empowerment (Pillar 1) is not just about financial inclusion but is nuanced enough to advocate for the rights of rural women to own land and access credit, recognising that their economic empowerment is a function of both gender and rural identity.

2. **African Union's Digital Transformation Strategy for Africa (2020–2030)**
    - **Why it's a good practice**: This strategy recognises that the digital divide is not gender-neutral. It is inherently shaped by intersecting identities. The strategy's focus on digital literacy and skills is a key instrument to close the gender gap, but it does so with an understanding of intersectional barriers.
    - **Intersectional nuance**: The strategy implicitly addresses the reality that a lack of access to technology for a young woman in a rural, low-income household is not just a technology problem. It is an intersectional problem rooted in gendered expectations, socio-economic status, and geographical isolation. By promoting digital literacy programmes that are accessible and tailored to the needs of different groups, the strategy effectively targets these intersecting forms of marginalisation.

3. **Science, Technology and Innovation Strategy for Africa (STISA-2034)**
    - **Why it's a good practice**: The new STISA-2034 is a good practice because it has strengthened its focus on inclusivity as a core principle. It acknowledges that the gender gap in science is intertwined with other forms of inequality and must be addressed systemically.
    - **Intersectional nuance**: The strategy's emphasis on building a robust STI ecosystem must be implemented with an intersectional lens. For example, a mentorship programme is a good instrument, but its effectiveness depends on ensuring it reaches women who are also facing intersecting challenges, such as those from a lower socio-economic background or those who have taken a career break due to caregiving responsibilities. The strategy's advocacy for "gender-responsive" research and innovation in specific sectors (e.g., health) is a critical step, ensuring that the benefits of science are equitably distributed and that research agendas reflect the needs of diverse populations.

ARGENTINA

**This country note contains provisional information and has not been officially verified.*

Introduction

Argentina has a strong constitutional and legal foundation for gender equality. Recognising that simply encouraging women to enter STEM fields is not enough, the country has implemented a series of multi-faceted policies that address key challenges throughout a woman's career. Many initiatives, such as the **For Women in Science Award** and the **Maternity Extension of Conicet's Doctorate Fellowship Programme**, are directly relevant to closing the gender gap by addressing visible inequalities. The award provides visibility for successful women, while the fellowship extension directly mitigates a common challenge for female researchers – that of maternity leave. Other initiatives, like the **Accreditation Bank of Technological and Social Development Projects (BNPDTS)** and the **Platform of Demands and Technological Transfer**, are not explicitly gender-focused but have a significant indirect impact. By valuing research that addresses social demands, they can potentially empower female researchers and community-led projects that focus disproportionately on social issues. The most transformative policies are those that seek to embed a gender perspective throughout the system. The National Programme for Gender Equality in Science, Technology and Innovation and the **National Committee of Ethics in Science and Technology (CECTE)** are crucial in this regard. They aim to mainstream gender considerations into policymaking, evaluation, and ethical guidelines, which is essential for creating lasting structural change. Similarly, the **Federal Council for Science and Technology (COFECYT)** addresses a key intersectional axis – geographic inequality – by decentralising resources and opportunities.

This member note has the following objectives:

1. To provide, as outlined in the table below, an overview of a selection of policy initiatives identified as relevant for the G20 Recommendations on Diversity, Equity, Inclusivity, and Accessibility (DEIA). The aim is to provide a snapshot of the broader set of policy initiatives included in the compendium database.

2. To provide, in the remainder of this member note, highlights of good practices in policy initiatives responding to the G20 Recommendation: Closing the Gender Gap in Science. It is organised according to the sub-recommendations:
   - Encouraging women and girls to consider careers in science
   - Promoting workplace environments that attract, retain, and advance women scientists
   - Collecting disaggregated data for evidence-based policies and monitoring progress
   - Integrating gender-related aspects into the content of research
   - Implementing the UNESCO 2024 Call to Action: Closing the Gender Gap in Science

3. To identify, in the last section, key intersectional policy initiatives for closing the gender gap in science.

Table 3 Argentina: Summary of the relevant policy initiatives by G20 Recommendation on DEIA

G20 Recommendation on DEIA	Number of policy initiatives	Policy instrument types	Main target groups/ beneficiaries (STIP categories)	Main target groups/ beneficiaries (Specific)
1. Promoting diversity, equity, inclusion and accessibility in STI systems	13	Direct financial support; Governance; Guidance, regulation and incentives	Economic actors (individuals); Firms of any size; Firms of any age; Governmental entities; Intermediaries; Researchers, students and teachers; Research and education organisations; Social groups especially emphasised	Companies (SMEs and large firms); business associations; government entities; research organisations; government officials; leaders of the national STI system; policymakers; leaders in the scientific community; leaders in the technological community; inventors; researchers; students; entrepreneurs; industry associations; institutions whose projects are focused on solving practical, social, or productive problems rather than solely on basic research; institutions working on nationally prioritised themes such as health, energy, or agriculture; universities; technology centres located in provinces and regions outside of Buenos Aires; SMEs; social actors; community organisations; the public
2. Closing the gender gap in science	3	Collaborative infrastructures (soft and physical); Direct financial support; Guidance, regulation and incentives	Researchers, students and teachers; Social groups especially emphasised	Female doctoral students who are pregnant or have recently given birth; female researchers with significant achievements in their careers; women in science and technology; gender minorities in science and technology
3. Fostering dialogue between different knowledge systems	Not recorded	Not recorded	Not recorded	Not recorded

Continues overleaf...

G20 Recomm-endation on DEIA	Number of policy initiatives	Policy instrument types	Main target groups/ beneficiaries (STIP categories)	Main target groups/ beneficiaries (Specific)
4. Transitioning to open science	2	Collaborative infrastructures (soft and physical)	Economic actors (individuals); Firms; Governmental entities; Intermediaries; Research and education organisations; Researchers, students and teachers; Social groups especially emphasised	Researchers; academics; policymakers who require access to large datasets; the public
5. Combating inequities in STI	2	Direct financial support; Governance	Economic actors (individuals); Firms; Governmental entities; Research and education organisations; Researchers, students and teachers; Social groups especially emphasised	Researchers; universities; research institutions; technology centres seeking to engage with EU research programmes

Note: This table includes a set of policy initiatives selected for inclusion in the compendium, 'STI for All': A Compendium of Good Practices in STI Policy. The main aim is to identify good practice policy initiatives rather than to provide an exhaustive list of the G20 member/guest country's policy initiatives.

Encouraging women and girls to consider careers in science

Argentina employs a multifaceted approach to attract and retain women in scientific careers, addressing both critical career junctures and the recognition of excellence. The combination of policy initiatives demonstrates a strategic understanding that encouraging women in science involves creating supportive environments for sustained engagement and rewarding achievement, thereby fostering long-term commitment and leadership. This holistic approach reflects a nuanced understanding of career progression challenges and motivators for women in STEM.

Examples of good practice policy initiatives include:

- **Maternity Extension of CONICET's Doctorate Fellowship Programme**: Providing extended paid maternity leave for PhD students, this policy initiative, classified under "Fellowships and postgraduate loans and scholarships," directly tackles a common barrier to women's retention in academia during early career stages, ensuring that family responsibilities do not necessitate a premature exit from the scientific pipeline. By extending paid leave, the programme acknowledges the need for sustained participation from women at a crucial point in their professional development.
- **For Women in Science Award**: This initiative, delivered through "Science and innovation challenges, prizes and awards," offers financial support to Argentine women researchers. It aims to promote scientific excellence and encourage ongoing participation in the field, targeting both established researchers aged 50 years or younger and young researchers or postdoctoral fellows aged 34 years or younger. The provision of financial incentives helps increase the visibility of women's contributions and provides tangible rewards for high achievement.

Promoting workplace environments that attract, retain, and advance women scientists

Argentina is committed to promoting equitable and inclusive workplace environments for women and LGBTQ+ scientists through its **National Programme for Gender Equality in Science, Technology and Innovation**. This comprehensive initiative tackles systemic barriers and provides targeted support to ensure that a diverse workforce can thrive.

Examples of good practice policy initiatives include:

- **National Programme for Gender Equality in Science, Technology and Innovation**: This comprehensive national initiative explicitly aims "To make STI institutions conducive environments for women and the LGBTQ+ population to perform and progress with equality and free from violence." Its objectives include promoting "equality for women and the LGBTQ+ population in access to hierarchical positions," demonstrating a broad approach to tackling systemic barriers within scientific institutions. The existence of such a national programme indicates a coordinated, top-down effort towards attracting, retaining and advancing women and LGBTQ+ scientists. The explicit reference to the "LGBTQ+ population" alongside women reflects a progressive and inclusive understanding of gender diversity that goes beyond a binary view, expanding the scope of gender-responsive policies to include a broader range of identities that may face discrimination in the workplace.
- **Maternity Extension of CONICET's Doctorate Fellowship Programme**: Encourages entry and actively supports women by ensuring that a critical life event does not derail their scientific careers. This policy initiative helps retain women by addressing a common reason for their departure from the scientific workforce. The programme's broad and systemic aims, which include promoting conducive environments, preventing violence, and ensuring equitable access to leadership, reflect an understanding that workplace inclusivity should encompass safety, fairness in career progression, and leadership representation. The combination of a comprehensive national programme with targeted supportive policies demonstrates a strategic commitment to transforming STI workplaces into genuinely inclusive spaces, recognising that attraction, retention, and advancement are interconnected and require a multi-faceted, systemic approach to interventions.

Collection of disaggregated data for evidence-based policies and monitoring progress

Argentina's commitment to evidence-based policymaking in gender equality is thoroughly integrated into its national gender programme:

- **National Programme for Gender Equality in Science, Technology, and Innovation**: This programme functions as a key mechanism for achieving this goal. Although it is not explicitly referred to as a "Data Collection Programme," its policy tool is identified as "Information services and access to datasets." Furthermore, one of its main objectives is, "to integrate gender analysis into the content of policies, programmes, and RDI projects from their inception" and "to collaborate in the development of studies, research, and knowledge transfer with other organisations." For the programme to effectively embed gender analysis into policies and projects from the beginning, it requires the availability and systematic utilisation of disaggregated data. The inclusion of "Information services and access to datasets" as a direct instrument within a national programme demonstrates that data collection and analysis are not incidental activities but are systematically incorporated into the broader strategy for gender equality in STI. This reflects an understanding that effective policy interventions must be based on reliable evidence and continuously monitored for impact. The evidence suggests that Argentina considers data collection and gender analysis as essential and integral components of its national gender equality strategy, which is crucial for designing, implementing, and evaluating effective, evidence-based policies.

Integrating gender-related aspects into the content of research

Argentina is strategically moving beyond increasing women's participation in science, demonstrating an understanding that gender equality is also about transforming the knowledge base to be more inclusive and impactful. Argentina's policy framework aims to integrate gender analysis directly into the research process, recognising that this enhances both scientific rigour and societal impact.

Examples of good practice policy initiatives include:

- **National Programme for Gender Equality in Science, Technology and Innovation**: This programme aims to integrate gender analysis directly into the research process. "To integrate gender analysis into the content of policies, programmes, and RDI projects from their design." This explicitly requires including gender perspectives at the initial stage of research and development. Incorporating gender analysis from the design phase ensures that research questions are developed with awareness of how gender influences phenomena, data, and outcomes.
- **Council Programme of the Demand of Social Actors (PROCODAS)**: While not directly focused on gender equality, the PROCODAS programme provides a framework where gender-sensitive research can address real-world societal needs. By considering gender-related aspects, research can better address the diverse needs, experiences, and challenges faced by different genders and intersectional groups, making the produced knowledge more applicable and relevant to society. PROCODAS provides a practical avenue for gender-integrated research, as mandated by the National Programme, to be applied in real-world contexts, ensuring that the knowledge produced has tangible societal benefits for diverse populations.

Implementing the UNESCO 2024 Call to Action: Closing the Gender Gap in Science

Although no specific policy explicitly mentions the "UNESCO 2024 Call to Action," Argentina's commitment to international collaboration and knowledge exchange provides a strong foundation for such support. Examples of policy initiatives showing this commitment include the **Alignment Towards Transnational Research Programmes** through its objective to "fund international joint programming" and its utilisation of "networking and collaborative platforms" as tools, and the **National Programme for Gender Equality in Science, Technology and Innovation**.

Key intersectional policy initiatives for closing the gender gap in science

Three policy initiatives stand out for their explicit and direct approach to closing the gender gap in science in an intersectional way:

1. **Maternity Extension of Conicet's Doctorate Fellowship Programme**
    - **Why it's a good practice**: This initiative is a prime example of a good practice policy. It directly addresses the intersection of gender and career stage, specifically targeting a critical moment in a woman's academic trajectory when they are most likely to be disadvantaged. By extending the fellowship, it acknowledges that a woman's reproductive role, when combined with their identity as a doctoral student, creates a unique set of challenges that can derail their career. This policy initiative addresses a career challenge and demonstrates an understanding of the specific needs of women in science.
    - **Intersectional nuance**: An intersectional lens would encourage this programme to be expanded to include consideration of gender and intersecting identities related to socio-economic status, geographical location and disability, as well as considering other caregiving responsibilities that disproportionately fall on women.

2. **National Programme for Gender Equality in Science, Technology and Innovation**
    - **Why it's a good practice**: A national programme provides a systemic framework for addressing gender inequality across the entire STI ecosystem.
    - **Intersectional nuance**: The key to its success and its intersectional nuance lies in its implementation. It must move beyond a simple focus on the number of women and actively consider the intersecting identities of race, class, disability, and geography. For example, it could include specific measures to support women in remote, rural areas, who face compounded barriers.

3. **The Federal Council for Science and Technology (COFECYT)**
    - **Why it's a good practice**: COFECYT is a prime example of an initiative with the potential to be intersectional due to its federal nature. Its main function is to coordinate science and technology policies at a national level, which involves working with provincial governments. This structure is crucial for addressing the geographical and regional disparities that often intersect with gender to create unique barriers.
    - **Intersectional nuance**: By having a federal scope, COFECYT can create programmes and allocate resources that are specifically tailored to the needs of different provinces and regions. For example,

a programme in a rural, low-income province can be designed differently to one in a major urban centre. This ensures that women in science are not treated as a monolithic group. It can address the specific challenges faced by women from indigenous communities, women with limited access to resources, and women in remote areas, for whom typical "women in science" policies might not be enough. The focus on federal coordination allows for a decentralised approach that can better account for diverse lived experiences.

4. The Council Programme of the Demand of Social Actors

- **Why it's a good practice**: This programme centres the needs of "social actors," going beyond traditional academic or governmental institutions. It opens the door for a more bottom-up approach to science policy, so that the voices of marginalised communities can directly influence research and innovation.
- **Intersectional nuance**: By including and responding to the demands of social actors – which can be feminist organisations, disability advocacy groups, or community leaders – this programme ensures that the benefits of science are distributed more equitably. It can help to fund projects that address the specific health concerns of a particular ethnic group, develop technology to improve accessibility for people with disabilities, and support research led by people from underrepresented backgrounds. This approach moves beyond simply getting more women into science and focuses on making science more relevant and beneficial for a diverse range of people, fundamentally transforming the system itself.

AUSTRALIA

Introduction

Australia is taking a comprehensive, multi-pronged approach to closing the gender gap in science through coordinated national policy, institutional reform and grassroots engagement. Central to this effort is the **Advancing Women in STEM Strategy, Pathway to Diversity in STEM Review** and the **Women in STEM Decadal Plan**, which guide long-term action across education, workforce participation and leadership.

Initiatives like the **Women in STEM and Entrepreneurship (WISE)** grants and **Curious Minds** for schoolgirls are designed to widen the pipeline of women in STEM. Visibility programmes like **Superstars of STEM** aim to inspire more diverse people, including women and girls, to pursue STEM education and careers. Equity frameworks such as **Science in Australia Gender and Equity (SAGE)**, who administer the internationally recognised Athena Swan programme in Australia, aim to shift workplace culture and retention. The **Indigenous Girls' STEM Academy** addresses the unique, intersectional barriers faced by young Aboriginal and Torres Strait Islander women.

These efforts are underpinned by rigorous data collection and accountability. The **STEM Equity Monitor** tracks progress and the **Workplace Gender Equality Agency (WGEA)** enforces reporting to ensure the nation's policies translate into measurable change. A strength of this approach is its increasing recognition of intersectionality and the broader focus on addressing systemic barriers that may disproportionately affect women from diverse backgrounds.

In response to the **Pathway to Diversity in STEM Review**, the 2024-25 Federal Budget included $38.2 million over 8 years (plus $1.3 million annually ongoing) to grow a skilled and diverse STEM workforce. This has expanded certain women in STEM programmes to benefit First Nations people, culturally and linguistically diverse people and those from regional and rural areas.

This member note has the following objectives:

1. To provide, as outlined in the table below, an overview of a selection of policy initiatives identified as relevant for the G20 Recommendations on Diversity, Equity, Inclusivity, and Accessibility (DEIA). The aim is to provide a snapshot of the broader set of policy initiatives included in the compendium database.

2. To provide, in the remainder of this member note, highlights of good practices in policy initiatives responding to the G20 Recommendation: Closing the Gender Gap in Science. It is organised according to the sub-recommendations:
   - Encouraging women and girls to consider careers in science
   - Promoting workplace environments that attract, retain, and advance women scientists
   - Collecting disaggregated data for evidence-based policies and monitoring progress
   - Integrating gender-related aspects into the content of research
   - Implementing the UNESCO 2024 Call to Action: Closing the Gender Gap in Science

3. To identify, in the last section, key intersectional policy initiatives for closing the gender gap in science.

Table 4 Australia: Summary of the relevant policy initiatives by G20 Recommendation on DEIA

G20 Recommendation on DEIA	Number of policy initiatives	Policy instrument types	Main target groups/ beneficiaries (STIP categories)	Main target groups/ beneficiaries (Specific)
1. Promoting diversity, equity, inclusion and accessibility in STI systems	21	Collaborative infrastructures (soft and physical); Direct financial support; Governance	Economic actors (individuals); Firms; Governmental entities; Intermediaries; Research and education organisations; Researchers, students and teachers; Social groups especially emphasised	All Australians who interact with government digital services; researchers; research institutions in Australia; researchers from underrepresented groups; researchers experiencing significant career interruptions; Australian researchers; Australian students; Australian technology businesses; small and medium-sized enterprises (SMEs); domestic research students; international research students; government agencies; technology companies; the broader economy; government; industry; research community; health researchers; medical researchers; leading Australian researchers; international researchers; research teams; Australian universities; quantum technology researchers; quantum technology businesses; quantum technology end-users; researchers working on critical technologies; companies working on critical technologies; students in mathematics; professionals in mathematics; Australian public; businesses; researchers; Australian public with lived experience of health conditions; general public; businesses who generate IP; researchers who generate IP; space industry; young Australians
2. Closing the gender gap in science	16	Collaborative infrastructures (soft and physical); Direct financial support; Governance	Economic actors (individuals); Firms; Governmental entities; Intermediaries; Research and education organisations; Researchers, students and	Aboriginal girls; Torres Strait Islander girls; young women; health researchers; medical researchers; people in Australia; girls; women; STEM employers; STEM institutions; research participants; LGBTQIA+ individuals; individuals with variations of sex characteristics; researchers applying for ARC funding; underrepresented groups; female

Continues overleaf...

G20 Recomm-endation on DEIA	Number of policy initiatives	Policy instrument types	Main target groups/ beneficiaries (STIP categories)	Main target groups/ beneficiaries (Specific)
			teachers; Social groups especially emphasised	STEM professionals; broader STEM sector; educational institutions; parents; teachers; community leaders; high-performing female students in STEM; female STEM mentors; Australian government; STEM community; public; universities; research institutions; university staff; university students; women entrepreneurs in Australia; women in health science; women in medical science; women in higher education; women in entrepreneurship
3. Fostering dialogue between different knowledge systems	4	Direct financial support; Governance	Research and education organisations; Researchers, students and teachers; Social groups especially emphasised	Aboriginal peoples; Torres Strait Islander peoples; communities; researchers working with Aboriginal and Torres Strait Islander peoples; health researchers; health service providers; Aboriginal researchers; Torres Strait Islander researchers; health workers; higher education institutions affiliated with Aboriginal and/or Torres Strait Islander researchers; research teams
4. Transitioning to open science	3	Direct financial support; Governance	Economic actors (individuals); Firms; Governmental entities; Intermediaries; Research and education organisations; Researchers, students and teachers; Social groups especially emphasised	Businesses; governments; broader Australian public who interact with AI systems; individuals interested in a career in cyber security; organisations interested in a career in cyber security; Australian public; researchers; stakeholders who benefit from publicly funded research

Continues overleaf...

G20 Recomm-endation on DEIA	Number of policy initiatives	Policy instrument types	Main target groups/ beneficiaries (STIP categories)	Main target groups/ beneficiaries (Specific)
5. Combating inequities in STI	10	Collaborative infrastructures (soft and physical); Direct financial support; Governance; Guidance, regulation and incentives	Economic actors (individuals); Firms; Governmental entities; Intermediaries; Research and education organisations; Researchers, students and teachers; Social groups especially emphasised	Australian researchers; broader science community; Australian space businesses; government agencies; broader Australian public; companies in the energy sector; researchers in the energy sector; farmers; businesses involved in food waste management; communities involved in food waste management; communities involved in soil health; landholders; regional communities in Victoria; government; researchers in Australia; industries in Australia; partner countries in the Indo-Pacific; policymakers across Africa; scientists across Africa; the private sector across Africa; civil society across Africa; scientists in the Asia-Pacific region; scientific organisations in the Asia-Pacific region; public; policymakers; water managers; environmental agencies; communities reliant on water resources; industries reliant on water resources

Note: This table includes a set of policy initiatives selected for inclusion in the compendium, 'STI for All': A Compendium of Good Practices in STI Policy. The main aim is to identify good practice policy initiatives rather than to provide an exhaustive list of the G20 member/guest country's policy initiatives.

Encouraging women and girls to consider careers in science

Australia actively promotes STEM careers for women through a comprehensive range of targeted scholarships, prestigious awards, and strategic initiatives aimed at increasing visibility and providing vital mentorship. The high-level strategic commitment to promote intersectionality is enshrined in the Advancing Women in STEM Strategy and outlined in the Pathway to Diversity in STEM Review which provide the framework for the development of more specific, on-the-ground programmes that can address the nuanced challenges faced by different groups. The strategy, and recommendations of the review, are built on the understanding that women are not a monolithic group and that the experiences of diverse women – including those from different cultural, linguistic, and socioeconomic backgrounds, as well as women with disabilities – must be considered.

Examples of good practice policy initiatives demonstrating a commitment to an intersectional approach, include:

- **Elevate: Boosting Diversity in STEM programme**: The Australian Academy of Technological Sciences and Engineering delivers this initiative, which is focused on growing the pool of women and non-binary leaders in STEM. The programme aims to award up to 500 undergraduate, postgraduate and leadership scholarships over eleven years – providing 'wrap-around support' that extends beyond financial aid. Notably, the programme explicitly invites applicants from a diverse array of backgrounds, including Aboriginal or Torres Strait Islanders, LGBTQIA+ persons, and those from regional, rural, remote, culturally or linguistically diverse, low-socioeconomic backgrounds, or living with a disability.
- **Young Indigenous Women's STEM Academy**: This initiative recognises that generic "women in STEM" programmes often fail to address the specific and compounded barriers faced by indigenous girls, who are underrepresented due to the intersection of their gender and racial identity. The Academy provides a holistic, long-term support model that is culturally tailored and safe. It not only offers mentorship and educational opportunities but also explicitly aims to empower participants by validating their cultural heritage, recognising their ancestors as the world's first scientists, technologists, and mathematicians. This approach is powerful because it addresses both systemic educational and cultural barriers, fostering a sense of belonging and identity that is critical for long-term engagement.

The ARC intends to replace Discovery Indigenous with a new targeted funding scheme designed to grow indigenous research capacity in all disciplines. The proposed scheme has been informed by advice from the **ARC's Indigenous Forum**, a key advisory body to the ARC Board, assisting its work to strengthen indigenous leadership and research in Australia's higher education sector. It comprises indigenous representatives including eminent academics, industry and community/research end users, and early and mid-career researchers. The proposal is currently under consideration by government.

Australia's approach shows an advanced understanding of the crucial role that increased visibility and strong role models play in shaping career ambitions:

- **Superstars of STEM programme**: Launched by **Science and Technology Australia** in 2017, it equips talented and diverse STEM professionals – including women and non-binary individuals – with advanced communication skills and creates opportunities for them to appear in the media, on stage, and in schools. This initiative directly tackles the challenge of a "lack of female role models" in STEM. By developing a critical mass of diverse "celebrity scientists" who frequently feature in Australian media, the programme actively seeks to dismantle gender stereotypes about who can work in science and innovation, inspiring younger Australians to pursue STEM study and careers. This strategic approach suggests that encouragement does not only involve removing financial barriers but also actively reshaping societal perceptions and providing tangible examples of success, fostering positive associations between women and science from an early age.

Box 7 Examples of Australia's good practice policy instruments encouraging women and girls to consider careers in science

Defence Women & Non-Binary People in STEM Undergraduate Scholarships: These are delivered in partnership with the Australian Academy of Technological Sciences and Engineering (ATSE) as part of their Elevate: Boosting diversity in STEM programme. The scholarships are sponsored by the Defence Science and Technology Group (DSTG), the Australian government's lead agency responsible for applying science and technology to safeguard Australia and its national interests.

Supported by Defence, the Elevate programme aims to address inequities in STEM through comprehensive scholarships enabling more diverse groups of women and non-binary people to access tertiary STEM education, professional skills development and STEM leadership opportunities with industry and academia.

Promoting workplace environments that attract, retain, and advance women scientists

Australia has enacted substantial national and institutional policies aimed at cultivating workplace environments that effectively attract, retain, and advance women scientists, with a particular focus on their progression into leadership roles. The **Advancing Women in STEM Strategy**, initiated in 2019, along with its subsequent 2020 Action Plan, has established a comprehensive national framework that is further informed by findings of the **Pathway to Diversity in STEM Review**. This framework is designed to accelerate change through government practices, prioritise a data-driven approach, and embed a culture of evaluation to achieve sustained increases in gender equity across the STEM sector.

- **Science in Australia Gender and Equity (SAGE) programme**: SAGE administers the internationally recognised Athena Swan accreditation framework to rigorously assess gender equity policies and practices within higher education and research institutions, subsequently guiding the development of comprehensive improvement plans. This approach is distinct in its focus on addressing systemic barriers within workplaces rather than solely targeting individual issues, thereby fostering more inclusive environments.
- **Women in STEM Decadal Plan Champions initiative**: The emphasis on systemic change is further reinforced by this initiative, which encourages STEM organisations to publicly align their gender equity journey with the Decadal Plan's six strategic opportunities, including crucial areas such as "workplace culture" and "leadership and cohesion".
- **Australian Research Council (ARC) and the National Health and Medical Research Council (NHMRC)**: National research funding bodies like these play a pivotal role in shaping the culture and practices of the STEM sector through their funding requirements and policies. The **ARC's Gender Equality Statement** is designed to ensure equitable access to grants for all researchers. It incorporates critical mechanisms such as eligibility extensions for career interruptions – including parental and caring responsibilities, which disproportionately affect women – and mandates gender equality plans for major research centres. Furthermore, the ARC promotes equal pay for fellowships and

provides support for carers, ensuring that researchers with part-time positions, who are often women, remain eligible for funding. A particularly significant development demonstrating a direct, systemic intervention to address the attrition of women from senior research levels is the **NHMRC's** introduction of special measures under the Australian *Sex Discrimination Act* of 1984 to award equal numbers of **Investigator Grants**, by gender, for the Leadership category. This move directly confronts systemic disadvantages faced by women and non-binary researchers and aims to rebalance power and opportunity at the highest echelons of health and medical research, ensuring that more women can advance their research for the benefit of all.

- **Superstars of STEM programme**: The process of developing a public profile and a network of support through this programme has been demonstrated to help women and non-binary STEM professionals with their career progression.

Collection of disaggregated data for evidence-based policies and monitoring progress

Australia acknowledges the critical role of comprehensive, gender-disaggregated data in developing evidence-based policies and effectively monitoring progress towards gender equity in STEM. The **Advancing Women in STEM Strategy** explicitly prioritises a "data-driven approach" as a core objective, recognising it as essential for accelerating change through government practices. A key national tool for tracking progress in closing the gender gap, the **STEM Equity Monitor**, identifies trends in the participation of women across STEM education and the STEM workforce, including in leadership positions, and the gender pay gap. The 2025 edition of the monitor has been expanded to provide intersectional analysis across some indicators.

Examples of good practices in policy initiatives include:

- **Science in Australia Gender and Equity (SAGE) programme**: This programme is fundamentally structured around the collection and rigorous analysis of gender equity data from participating higher education and research institutions. The data forms the basis for developing comprehensive improvement plans tailored to specific institutional contexts.
- **Australian Research Council (ARC)**: Publishes gender-disaggregated data and trend visualisation in its scheme selection reports and provides trend analysis on its website to enhance transparency, support equity and diversity in the **National Competitive Grants Programme (NCGP)**, monitor emerging trends, and inform evidence-based policy development.
- **National Health and Medical Research Council (NHMRC)**: In a proactive move towards more inclusive data collection, the Sapphire grants management system was updated. This change now provides researchers with the option to self-identify as "nonbinary" or to specify a different term; this aligns data collection with the **Australian Bureau of Statistics (ABS)** standards for sex, gender, variations in sexual characteristics, and sexual orientation. This initiative signals a clear commitment to capturing a more nuanced understanding of gender identity within the research workforce.
- **Workplace Gender Equality Agency (WGEA) Data Collection**: While the WGEA's mandatory reporting framework has historically focused on a gender binary, it is moving towards a more intersectional approach. Recent guidance and reports from WGEA, and proposals from other policy bodies, highlight the need to expand their data collection to capture intersectional attributes. This includes providing guidance on how companies can voluntarily collect disaggregated data on factors like Aboriginality, disability, ethnicity, and gender identity. The push to amend the **Workplace Gender Equality Act** to require this data collection would represent a significant step forward.

Integrating gender-related aspects into the content of research

Australia is actively working to integrate sex, gender, and other intersectional factors into research questions, particularly within health and medical research, to enhance scientific excellence and the societal relevance of the knowledge generated. This is a good practice policy initiative:

- **Statement on Sex, Gender, Variations of Sex Characteristics and Sexual Orientation in Health and Medical Research**: This joint statement by the National Health and Medical Research Council (NHMRC) and the Department of Health, Ageing and Disability is a leading example of good practice. A landmark development, this statement represents a crucial policy shift, advocating for the routine consideration of these factors at all stages of research, from design to analysis and interpretation. This commitment is intended to overturn decades of entrenched biases, where historically, much pre-clinical research was conducted exclusively in males, and human clinical trials often excluded women, particularly those who were pregnant, lactating, or of reproductive age. Work is underway by both funders to more fully integrate the Statement into future grant rounds – when the requirement to consider the variables will become mandatory in relevant research funded by NHMRC and MRFF.

While not focused on gender, these policy initiatives are good practice examples of intersectional approaches to integrating gender-related aspects into the content of research:

- **Australian Research Council (ARC)**: The ARC encourages the inclusion of gender dimensions and analysis where relevant in the research it funds. It actively promotes research that explores gender equality and tackles gender imbalances within the broader scientific landscape.
- **ARC Discovery Indigenous**: This grant scheme promotes the integration of gender and cultural aspects into the content of research. By funding research led by Aboriginal and/or Torres Strait Islander researchers, it ensures that research priorities are set by indigenous communities themselves and that the research methodologies are culturally appropriate and safe. While the scheme's primary focus is on indigenous leadership, it has a direct impact on integrating intersectional considerations into research content. This ensures that the research conducted is not only ethically sound but also deeply relevant and beneficial to the communities it serves.

Implementing the UNESCO 2024 Call to Action: Closing the Gender Gap in Science

Australia demonstrates both implicit and explicit support for the core principles and objectives outlined in the UNESCO 2024 Call to Action: Closing the Gender Gap in Science. This alignment is evident through its existing national strategies and active participation in various international forums. Australia's national policy landscape closely mirrors the UNESCO call's objectives. The **Advancing Women in STEM Strategy**, the **Women in STEM Decadal Plan** and the **Pathway to Diversity in STEM Review** are central to Australia's commitment and focus in increasing women's participation, improving gender equity, and expanding career opportunities across STEM fields. Australia also maintains a history of extensive engagement in UNESCO's broader work, particularly in the field of education. It consistently applies gender disaggregation in its statistical compilations, demonstrating a long-standing commitment to gender equality in data practices. Australia is proactively developing a regional framework for STEM gender equity in collaboration with partners in the **Asia-Pacific Economic Cooperation (APEC)** and the **Association of Southeast Asian**

Nations (ASEAN), utilising its regional leadership to foster deeper partnerships at both the governmental and institutional levels.

Australian initiatives such as the **Superstars of STEM programme**, which enhances women's visibility and provides role models, the **Elevate: Boosting Diversity in STEM programme**, which offers targeted incentives, and the **Science in Australia Gender and Equity (SAGE)** programme, which enacts gender-responsive workplace policies, contribute to and reinforce the pillars articulated in the UNESCO Call to Action. Similarly, the data collection efforts by the **Australian Research Council** and the **National Health and Medical Research Council** align with UNESCO's emphasis on regular data collection to monitor progress. This strong alignment suggests that Australia is a significant contributor to the international movement for gender equality in science, with its national efforts supporting broader international calls to action, such as those made by UNESCO.

Key policy initiatives considered to be good practice for closing the gender gap in an intersectional way

Australia recognises the multifaceted nature of disadvantage and is working to incorporate an intersectional approach in its efforts to close the gender gap in STEM. This involves moving beyond a sole focus on gender to address the overlapping forms of discrimination that individuals may face based on different aspects of their identity. Examples of an intersectional approach are evident in specific programmes like the **Elevate: Boosting Diversity in STEM** programme, which actively encourages applications from a wide range of women and non-binary individuals, including those who identify as Aboriginal or Torres Strait Islander, those from regional, rural, or remote areas, LGBTQIA+ individuals, or those living with disabilities. Likewise, the **Queensland Women in STEM Prize** includes a dedicated "First Nations STEM Award" and recognises broader efforts to promote social value for marginalised groups, including women, youth, First Nations people, and individuals with disabilities.

Furthermore, **Science and Technology Australia's (STA)** Diversity and Inclusion Policy, updated in 2023, provides a comprehensive definition of diversity. It explicitly includes characteristics such as sex, gender identity or expression, sexuality, race, ethnicity, national origin, religion, age, caring responsibilities, relationship status, veteran status, physical appearance, neurodiversity, and disability. The policy aims to create inclusive environments where all individuals, regardless of their background, feel valued, respected, and empowered to contribute fully.

Based on the provided information, the following policy initiatives are considered good practice in meeting the criteria of closing the gender gap in science in Australia in an intersectional way:

1. **Young Indigenous Women's STEM Academy**
    - **Why it's a good practice**: This is a prime example of a targeted and highly effective policy that operates at the intersection of gender and race. It directly addresses the dual barriers faced by indigenous women, who are not only underrepresented as women in STEM but also as indigenous people in the broader academic and professional landscape.
    - **Intersectional nuance**: The programme goes beyond simply providing resources by creating a culturally safe and supportive environment. It is not just about getting more indigenous women

into STEM; it is about empowering them with a sense of identity and cultural confidence, acknowledging and building on the knowledge of Aboriginal and Torres Strait Islander peoples as the world's first scientists.

2. **Statement on Sex, Gender, Variations of Sex Characteristics and Sexual Orientation in Health and Medical Research**
   - **Why it's a good practice**: This initiative represents a sophisticated and essential step forward in intersectional policy. It ensures that health and medical research move beyond a simple male/female binary to include the health needs of the LGBTQIA+ community and people with variations of sex characteristics. By requiring researchers to consider these diverse identities, the policy prevents a "one-size-fits-all" approach that can lead to inadequate and even harmful research outcomes for marginalised groups. It is a clear example of how intersectional policy can be used not just to address equity, but to improve the very quality and relevance of the science being produced.
   - **Intersectional nuance**: It explicitly moves beyond the traditional and limiting binary understanding of sex and gender in research, pushing researchers to consider a far more complex reality. It acknowledges that a person's biological sex at birth, their gender identity, which may or may not align with their sex, their sexual orientation, and any variations of sex characteristics can all have a unique and intersecting impact on their health. An intersectional approach, guided by this statement, would encourage researchers to ask more nuanced questions: is this outcome a result of gender identity, sexual orientation, or the combined effects of both in a heteronormative society? The implementation of this statement ensures that the research conducted is not just ethically sound but also scientifically robust and more relevant to the entire community.

3. **ARC Research Opportunity and Performance Evidence (ROPE) Statement:**
   - **Why it's a good practice**: While not focused specifically on gender, this policy initiative directly impacts how researchers' track records are assessed for funding. Its objective is to "enable consideration of a researcher's capacity, productivity and contribution in the context of opportunity and experience," specifically "including, where relevant, significant career interruptions." As women experience career interruptions disproportionately due to childbearing and caring responsibilities, ROPE helps to level the playing field by accounting for these periods.
   - **Intersectional nuance**: ROPE is explicitly designed to support "all eligible researchers, with particular emphasis on supporting those researchers in under-represented groups or experiencing proportionally more career interruptions, including women, Aboriginal and/or Torres Strait Islander, and early and mid-career researchers." The approach allows flexibility for researchers with different lived experiences to have their career interruptions considered including from interruptions from multiple sources, including disability and caring responsibilities. Acknowledging these intersecting factors in evaluation, it promotes more equitable outcomes in research funding.

BRAZIL

**This country note contains provisional information and has not been officially verified.*

Introduction

Brazil has adopted a comprehensive and multifaceted approach to close the gender gap in science, recognising that a single solution is insufficient to address deeply entrenched systemic issues. The country's strategy operates on several fronts, targeting different stages of the educational and career pipeline, from early engagement to professional advancement and retention. Initiatives such as the **Woman and Science Programme** and the **Science Fairs and Scientific Exhibition** actively encourage girls and women to pursue scientific careers by offering awards, creating role models, and fostering a culture of investigation from a young age. Furthermore, Brazil is promoting supportive workplace environments for women scientists through structural policy reforms. A key feature of Brazil's strategy is the commitment to intersectionality, which acknowledges that gender disparities are often compounded by other social factors. This approach ensures policies and programmes address the unique challenges faced by women from underrepresented and socially disadvantaged groups, such as indigenous communities and people with disabilities, thereby promoting a more equitable and inclusive science ecosystem.

This member note has the following objectives:

1. To provide, as outlined in the table below, an overview of a selection of policy initiatives identified as relevant for the G20 Recommendations on Diversity, Equity, Inclusivity, and Accessibility (DEIA). The aim is to provide a snapshot of the broader set of policy initiatives included in the compendium database.

2. To provide, in the remainder of this member note, highlights of good practices in policy initiatives responding to the G20 Recommendation: Closing the Gender Gap in Science. It is organised according to the sub-recommendations:
   - Encouraging women and girls to consider careers in science
   - Promoting workplace environments that attract, retain, and advance women scientists
   - Collecting disaggregated data for evidence-based policies and monitoring progress
   - Integrating gender-related aspects into the content of research
   - Implementing the UNESCO 2024 Call to Action: Closing the Gender Gap in Science

3. To identify, in the last section, key intersectional policy initiatives for closing the gender gap in science.

Table 5 Brazil: Summary of the relevant policy initiatives by G20 Recommendation on DEIA

G20 Recommendation on DEIA	Number of policy initiatives	Policy instrument types	Main target groups/ beneficiaries (STIP categories)	Main target groups/ beneficiaries (Specific)
1. Promoting diversity, equity, inclusion and accessibility in STI systems	18	Collaborative infrastructures (soft and physical); Direct financial support; Governance	Economic actors (individuals); Firms; Governmental entities; Intermediaries; Research and education organisations; Researchers, students and teachers; Social groups especially emphasised	All citizens and sectors of the economy; entire S&T ecosystem; entrepreneurs; scientific community; government policymakers; people with disabilities; people with rare diseases; research participants; researchers; companies in strategic sectors; students and teachers in public schools; urban residents; local governments; workers on digital platforms and consumers; animal welfare organisations; businesses; companies in the nanotechnology sector; investors; policymakers from Mercosur countries; research institutions; public administration; startups; students and their families
2. Closing the gender gap in science	5	Direct financial support; Governance	Intermediaries; Researchers, students and teachers; Social groups especially emphasised	Female students and researchers; policymakers; students; youth and adults; and civil society organisations; schools; private sector; low-income groups; research institutions; researchers; teachers
3. Fostering dialogue between different knowledge systems	7	Collaborative infrastructures (soft and physical); Direct financial support; Governance	Economic actors (individuals); Governmental entities; Intermediaries; Research and education organisations; Researchers, students and teachers; Social groups especially emphasised	Government; Indigenous peoples; people and communities in the Amazon; researchers; small-scale farmers; traditional communities; local communities; vulnerable populations; environmental agencies; health professionals; rural communities; students; general public, with a specific focus on vulnerable and marginalised social groups

Continues overleaf...

G20 Recomm-endation on DEIA	Number of policy initiatives	Policy instrument types	Main target groups/ beneficiaries (STIP categories)	Main target groups/ beneficiaries (Specific)
4. Transitioning to open science	6	Collaborative infrastructures (soft and physical); Governance; Guidance, regulation and incentives	Economic actors (individuals); Firms; Governmental entities; Intermediaries; Research and education organisations; Researchers, students and teachers; Social groups especially emphasised	All citizens; educators; journalists; researchers; scientists; students of all ages
5. Combating inequities in STI	5	Collaborative infrastructures (soft and physical); Governance	Economic actors (individuals); Firms; Governmental entities; Intermediaries; Research and education organisations; Researchers, students and teachers; Social groups especially emphasised	Animals; climate scientists and researchers; researchers; and environmental managers; government agencies; policymakers; the public; companies

Note: This table includes a set of policy initiatives selected for inclusion in the compendium, 'STI for All': A Compendium of Good Practices in STI Policy. The main aim is to identify good practice policy initiatives rather than to provide an exhaustive list of the G20 member/guest country's policy initiatives.

Encouraging women and girls to consider careers in science

Brazil adopts a multifaceted approach to motivate and attract women and girls into scientific careers, including direct recognition, early engagement, and vocational pathways. Examples of good practice policy initiatives include:

- **Woman and Science Programme**: Explicitly aims to "promote women participation in science and academic careers." This programme utilises public awareness campaigns and offers incentives through instruments such as the **Building Gender Equality Award, Women Pioneers of Science**

in Brazil, and Young Women Researchers. These awards serve not only to recognise individual achievement but also as motivators and visible role models for aspiring female scientists at various career stages, demonstrating the viability and importance of scientific careers for women and fostering a broader cultural shift.

- **Science Fairs and Scientific Exhibition**: Targeting early engagement, this policy initiative aims to "Identify talented young students and stimulate their interest in specific science areas, promoting the emergence of new scientists and researchers, with encouragement of girls participation." This initiative, delivered through project grants for public research, focuses on fostering an investigative culture among students, with a specific emphasis on increasing girls' involvement from a young age. This indicates a deliberate, pipeline-oriented strategy to ensure continuous engagement and progression of women in science, recognising that a single intervention is insufficient to shift deeply entrenched gender norms.
- **Technological Vocational Centres**: These centres target "women" as beneficiaries through public awareness campaigns and aim to "Promote social inclusion and sustainable development, by promoting the technological extension articulated with applied research and technological and professional education." This initiative encourages women to pursue technology-based professional education, which can serve as a pathway to scientific and technical fields, thereby increasing the number of potential female scientists.

Promoting workplace environments that attract, retain, and advance women scientists

Brazil's efforts to promote supportive workplace environments for women scientists are evident through programme objectives and structural policy reforms, even if explicit "workplace policy" initiatives and instruments are not detailed in the provided data. Examples of good practice policy initiatives include:

- **Decree 11334 - Creates the Secretariat of Science and Technology for Social Development**: This is a good practice as it creates a dedicated institutional mechanism to embed social development, which includes gender equality, into the national science and technology agenda. The establishment of a secretariat for social development signals a political commitment to using science and technology as instruments for addressing social inequalities. This secretariat has the potential to become a central hub for developing evidence-based, gender-responsive policies that consider a wide range of social factors.
- **5th National Science, Technology and Innovation Conference - Violet Book/Lilac Book**: The output from this conference, which is likely to contain specific policy recommendations, represents a good practice for creating a national policy agenda. The use of a conference format that brings together diverse stakeholders, including researchers, civil society, and government – is crucial for ensuring that policies are informed by a wide range of perspectives. The "Violet" and "Lilac" books would be key documents for enacting new, evidence-based policies.

These initiatives, while not explicitly about gender, are good practices for creating inclusive work environments:

- **National Technology Centre for Disabled People and Rare Diseases/National System of Laboratories for Assistive Technology**: By focusing on assistive technologies, these organisations

are paving the way for the full participation of persons with disabilities in STI. An intersectional approach would ensure that the needs of women with disabilities are specifically considered in the design and implementation of these technologies and in the career pathways they enable, addressing the unique challenges they face in scientific fields.

Collection of disaggregated data for evidence-based policies and monitoring progress

Although the provided data does not explicitly detail policies for gender-disaggregated data collection, Brazil's consistent emphasis on intersectionality across all listed initiatives suggests an underlying commitment to understanding and addressing disparities through nuanced data collection. The **Monitoring and Evaluation of Policies (MCTI)**, championed by the **Council for Monitoring and Evaluation of Public Policies** with the support of **Public Administration National School (ENAP), Institute for Applied Economic Research (IPEA)** and **Brazilian Institute of Geography and Statistics (IBGE)** provide the framework for effectively monitoring and evaluating policies, including gender policies.

The collection and management of disaggregated data require sound frameworks and infrastructure, indicated by these good practice policy initiatives:

- **General Law on Data Protection (LGPD)**: While a data privacy law might seem counterintuitive to a data collection recommendation, the LGPD is a good practice because it establishes the ethical and legal framework for data collection and processing. The LGPD provides the necessary legal basis for research entities to conduct studies using personal data, while also mandating "non-discrimination" and "prevention" as key principles. This legal framework is essential for building trust and ensuring that data collection does not cause harm to vulnerable social groups.
- **Brazilian Open Data Portal**: Provides the infrastructure for making data from public organisations available to the public, towards transparency and accountability.
- **Brazilian Artificial Intelligence Plan (PBIA) 2024-2028**: This plan explicitly addresses the role of AI in data and policy and acknowledges the risk of bias. The PBIA is structured around "human-centred values and equity" and includes a goal to "stimulate actions of transparency and responsible disclosure regarding the use of AI systems."

Integrating gender-related aspects into the content of research

Brazil promotes the integration of gender considerations into scientific inquiry and education, recognising its crucial role in enhancing both scientific rigour and societal impact. While not focused specifically on gender, Brazil has various policy initiatives that emphasise inclusion and encourage collaboration in knowledge production with indigenous peoples and local communities in a way that recognises their rights and interests:

- **Research and Development in Food and Security Nutrition Programme**: Supports scientific research and technological innovation aimed at improving food production, security, and nutritional quality.
- **National System of Laboratories for Assistive Technology and the National Technology Centre for Disabled People and Rare Diseases**: Specifically targets "people with disabilities, reduced mobility, rare diseases, and the elderly".

- **Agroecology Study Nuclei and Decree 11334**: Created a new secretariat which focuses on "Rural areas, traditional people and communities" and "Original peoples and traditional communities" respectively.
- **Science Fairs and Scientific Exhibition**: This initiative explicitly aims to stimulate "societal questions, such as gender and race," directly recognising the intersection of gender with other identity markers in scientific inquiry.
- **Amazon Sustainable Social Technologies Programme, Biomes of Brazil Programme, Interministerial Commission on Climate Change (Cim), and Pro-Amazon**: Supports scientific research and technological innovation aimed at improving climate change, and the conservation and sustainable management of Brazil's major biomes.

Implementing the UNESCO 2024 Call to Action: Closing the Gender Gap in Science

While the provided data does not explicitly mention the UNESCO 2024 Call to Action, Brazil's comprehensive set of policy initiatives aligns with the goals of international efforts, demonstrating the contribution to global aims for gender equality in science:

- **Women and Science Programme**: Launched from an "interministerial working group" to discuss gender in universities and promote women's participation in scientific and academic careers, the programme exemplifies a national-level commitment that directly supports the aims of international calls for action. Its focus on encouraging scientific output and reflection on gender relations further aligns with global objectives for inclusive science.
- **National Commission of Ethics in Research System**: While not directly related to gender, this system, which includes the **National Committee of Ethics in Research (CONEP)**, is a crucial good practice for supporting the underlying principles of the UNESCO Call to Action including safe and ethical research environments. The system's platform, Plataforma Brasil, and its guidelines can be used to ensure that research protocols are not only ethical in general but also explicitly designed to be sensitive to gender, race, and other social factors, thus contributing to more responsible and inclusive scientific practice.

Key policy initiatives considered to be good practice for closing the gender gap in an intersectional way

Brazil demonstrates a growing recognition of the gender gap in science, technology, and innovation (STI), though their direct relevance and intersectional application vary. Some initiatives, like the **Woman and Science Programme**, are explicitly designed to address gender disparities. Others, such as the **Brazilian Mathematics Olympics for Public Schools** and **Technological Vocational Centres**, have indirect but crucial role by targeting the educational pipeline and skills development. These policy initiatives are foundational, aiming to increase female participation from an early age, thereby building a larger pool of women for STI careers.

An intersectional approach highlights the compounded disadvantages faced by women from underrepresented and socially disadvantaged groups. For example, the gender gap in Brazil is not uniform; it is a complex issue intertwined with race, class, and geography.

The following policy initiatives are identified as good practices for closing the gender gap in science in Brazil in an intersectional way, due to their potential to create systemic change and address multiple forms of discrimination simultaneously:

1. **Decree 11334 - Secretariat of Science and Technology for Social Development**
    - **Why it's a good practice**: Going beyond a single programme or initiative, it creates a dedicated secretariat within the Ministry of STI, institutionalising the mission of using S&T for social good. The creation of this secretariat has the potential to mainstream an intersectional approach across all S&T policies.
    - **Intersectional nuance**: By focusing on "social development," it creates a policy space where issues like the gender gap can be addressed not in isolation, but in conjunction with other social challenges. This requires the secretariat to adopt an intersectional framework from the outset, ensuring that its policies on food security, assistive technologies, or sustainable development explicitly consider how these issues affect women, particularly those from low-income households and other underrepresented communities. The secretariat's role is to ensure that S&T is not just a tool for economic growth, but for equitable social change.

2. **Woman and Science Programme**
    - **Why it's a good practice**: This programme is a cornerstone of Brazilian efforts to close the gender gap in science, technology and innovation. As a direct and explicit policy initiative for addressing the gender gap, it provides targeted support such as awards and scholarships, which are essential for increasing the number of women in STEM and recognising their contributions. By focusing on female students and researchers, it aims to create role models and build a more equitable process for the future.
    - **Intersectional nuance**: The programme goes beyond simply promoting women's participation. Its success lies in its ability to create opportunities for women from diverse backgrounds. An intersectional approach to this programme would require that it prioritise and measure the inclusion of Black women, indigenous women, and women with disabilities. It should also be evaluated on its ability to support women at different career stages, from undergraduate students to senior researchers, and to address specific challenges, such as the disproportionate impact of motherhood on women's careers. The programme's effectiveness would be amplified by disaggregating data by race, region, and socioeconomic status to ensure that its benefits are reaching the most marginalised women in science.

3. 5th National Science, Technology and Innovation Conference - Violet Book

- **Why it's a good practice**: The "Violet Book" is a key document for shaping Brazil's S&T strategy. Its focus on social, economic, and environmental inclusion positions it as a good practice for intersectional policymaking.
- **Intersectional nuance**: The "Violet Book" has the potential to institutionalise an intersectional approach within the national S&T strategy. For its recommendations to be effective, they must move beyond general statements about gender equality and propose concrete, measurable actions. This includes mandating disaggregated data collection (by gender, race, region, etc.), setting specific targets for the inclusion of Black and indigenous women in research funding and leadership positions, and proposing policies to address the systemic barriers that impede their career progression. By explicitly linking S&T policy to the broader goals of social inclusion, the Violet Book provides a blueprint for a more equitable and representative scientific community.

4. Amazon Sustainable Social Technologies Programme

- **Why it's a good practice**: This is an example of a policy initiative that addresses the gender gap through an indirect, yet highly effective, intersectional approach. It recognises that in a specific ecological and cultural context, such as the Amazon, technological development cannot be separated from the social fabric. By promoting technologies that are sustainable and socially beneficial, the programme implicitly supports the communities that are most affected by environmental and social change. The success of this programme is deeply intertwined with the role of women in these communities. Women are often the primary custodians of traditional ecological knowledge, the first to experience the impacts of deforestation; they are also leaders in developing sustainable practices.
- **Intersectional nuance**: The programme's intersectional strength lies in its potential to empower women by validating their knowledge, providing them with resources, and ensuring they are central to the development and implementation of new technologies. It addresses the gender gap not through a formal quota system, but by placing value on the expertise and lived experience of women in a specific, marginalised contexts.

CANADA

Introduction

Canada's policy approach to equity, diversity and inclusion (EDI) analyses in research is that in order to achieve world-class research, we must address systemic barriers that limit the full participation of all talented individuals. Moreover, it is necessary to create a culture where embedding EDI considerations into all aspects of research is second nature. The approach has evolved significantly over 30 years, shifting from a focus on increasing the number of women and girls in STEM to a more comprehensive and intersectional strategy. This evolution is rooted in the recognition that "the gender gap," which took a binary approach and primarily focused on women and girls, is only one of many issues that make up a complex web of intersecting barriers, exclusions and inequities and that affect different groups of people in different ways. Canada's policy approach recognises the intersection of inequality factors and endeavours to correct conditions of disadvantage due to discrimination associated with, for example, race, age, indigeneity, disability, sexual orientation, and socioeconomic status. It is a multi-pronged approach that uses policy, programming, funding incentives, and data to create systemic change, promote inclusive science, technology and innovation systems, and support a wide range of individuals and groups who have been historically excluded and marginalised. Recognition of the principles of EDI as integral to research practice addresses embedded constraints on the excellence of research and researchers.

This member note has the following objectives:

1. To provide, as outlined in the table below, an overview of a selection of policy initiatives identified as relevant for the G20 Recommendations on Diversity, Equity, Inclusivity, and Accessibility (DEIA). The aim is to provide a snapshot of the broader set of policy initiatives included in the compendium database.

2. To provide, in the remainder of this member note, highlights of good practices in policy initiatives responding to the G20 Recommendation: Closing the Gender Gap in Science. It is organised according to the sub-recommendations:
   - Encouraging women and girls to consider careers in science
   - Promoting workplace environments that attract, retain, and advance women scientists
   - Collecting disaggregated data for evidence-based policies and monitoring progress
   - Integrating gender-related aspects into the content of research
   - Implementing the UNESCO 2024 Call to Action: Closing the Gender Gap in Science

3. To identify, in the last section, key intersectional policy initiatives for closing the gender gap in science.

Table 6 Canada: Summary of the relevant policy initiatives by G20 Recommendation on DEIA

G20 Recommendation on DEIA	Number of policy initiatives	Policy instrument types	Main target groups/ beneficiaries (STIP categories)	Main target groups/ beneficiaries (Specific)
1. Promoting diversity, equity, inclusion and accessibility in STI systems	28	Direct financial support; Governance; Guidance, regulation, incentives; Indirect financial support	Economic actors (individuals); Firms by age; Firms by size; Governmental entities; Intermediaries; Research and education organisations; Researchers, students and teachers; Social groups especially emphasised	All Canadians; healthcare system; health researchers; policymakers; Black students (Master's, PhD); Black postdoctoral researchers; Canadian SMEs; entrepreneurs; innovators; government departments; academics; researchers; students; not-for-profit science and research organisations; industry; communities; DFO scientists; researchers; policymakers; early career researchers; **Female** Nominated Principal Applicants (NPAs); researchers who submit French-language applications; NPAs who self-identify as a racialised person; NPAs who self-identify as a person with a disability; Federal government scientists; public servants; businesses; critical infrastructure operators; general public; public health experts; privacy advocates; technology experts; highly accomplished Canadian scholars; scientists; innovative Canadian companies; venture capital funds; rural communities; Francophone communities; employers; persons with disabilities (researchers; students; staff; public interacting with SSHRC); post-doctoral researchers; clinicians; research associates from specific underrepresented groups; post-secondary institutions; researchers; faculty; staff; students; racialised scientists; Indigenous scientists; research institutions; science community; researchers; cybersecurity companies; public health agencies; granting agencies; skilled refugees; Canadian employers; Ukrainian Master's, PhD and postdoctoral trainees in Canada; underrepresented groups in science and engineering (faculty;

Continues overleaf...

G20 Recomm-endation on DEIA	Number of policy initiatives	Policy instrument types	Main target groups/ beneficiaries (STIP categories)	Main target groups/ beneficiaries (Specific)
				students); youth who may consider science and engineering careers; university leadership; youth (15-30), particularly those facing barriers to employment (e.g., Indigenous youth; youth with disabilities; visible minority youth; newcomers; LGBTQ2+ youth; rural/remote youth); youth (K-12); educators; informal science education organisations; Indigenous undergraduate students; youth (often recent graduates); Canadian SMEs; youth, particularly those facing employment barriers (e.g., recent graduates; those with limited work experience; youth from marginalised groups)
2. Closing the gender gap in science	23	Collaborative infrastructures (soft, physical); Direct financial support; Governance	Economic actors (individuals); Firms by age; Firms by size; Governmental entities; Intermediaries; Research and education organisations; Researchers, students and teachers; Social groups especially emphasised	2SLGBTQI+ entrepreneurs; 2SLGBTQI+-owned businesses; business support organisations; Canadians; businesses; workers; researchers; students; research institutions; peer reviewers; businesses (especially SMEs); academic institutions; workers in designated sectors; regional economies; workers; particularly in innovative sectors; innovators; Canadian defence/security industry; SMEs; grant recipients with personal responsibilities; grant recipients with parental responsibilities; training award recipients; postdoctoral fellows with parental responsibilities; health researchers; institutions; innovators; government; NGOs; communities in LMICs; Canadian innovators; K-12 students; teachers; postdoctoral researchers with exceptional scientific merit; civil society organisations; policymakers; women; gender-diverse individuals; marginalised communities; faculty; university administrators; underrepresented groups; communities in developing countries; international

Continues overleaf...

G20 Recomm-endation on DEIA	Number of policy initiatives	Policy instrument types	Main target groups/ beneficiaries (STIP categories)	Main target groups/ beneficiaries (Specific)
				development organisations; communities in LMICs; healthcare providers; AI developers; women; girls; general public; community organisations; government officials; educators; parents; women entrepreneurs; women-owned businesses; women-led businesses; youth (ages 6-17); Indigenous youth; girls; youth from underserved communities
3. Fostering dialogue between different knowledge systems	21	Collaborative infrastructures (soft, physical); Direct financial support; Governance; Guidance, regulation, incentives	Economic actors (individuals); Firms by age; Firms by size; Governmental entities; Intermediaries; Research and education organisations; Researchers, students and teachers; Social groups especially emphasised	Canadian public; agriculture sector; agri-food sector; industry; not-for-profit; academia; producer groups; farmers; industry; provincial governments; territorial governments; environment; all Inuit; Inuit Treaty Organisations; Inuit Tapiriit Kanatami; DFO scientists; academic researchers; Indigenous communities; international partners; First Nations; Inuit; Métis; Indigenous communities; Indigenous knowledge holders; DFO policymakers; Indigenous youth; Indigenous researchers; Indigenous students; research institutions; Indigenous scholars; students in all research areas at the Master's level; prospective Indigenous students; Indigenous educators; mining companies; workers; environmental groups; Northern communities; local businesses; innovators; Northern peoples (especially Inuit); Arctic researchers; researchers with NSERC Discovery Grants conducting Northern research; community organisations; researchers; rural communities; technology developers; policymakers; international partners

Continues overleaf...

G20 Recomm-endation on DEIA	Number of policy initiatives	Policy instrument types	Main target groups/ beneficiaries (STIP categories)	Main target groups/ beneficiaries (Specific)
4. Transitioning to open science	13	Collaborative infrastructures (soft, physical); Governance; Guidance, regulation, incentives	Economic actors (individuals); Firms by age; Firms by size; Governmental entities; Intermediaries; Research and education organisations; Researchers, students and teachers; Social groups especially emphasised	AI developers; policymakers; international organisations; civil society; all Canadians accessing federal government services; public servants; software developers; all Canadians; government; industry; researchers; journalists; Federal government scientists; general public; amateur scientists; students; scientific community; NRC researchers; collaborators; researcher stakeholders who conduct research; libraries; librarians; editors; publishers
5. Combating inequities in STI	14	Collaborative infrastructures (soft, physical); Direct financial support; Governance; Guidance, regulation, incentives	Firms by age; Firms by size; Governmental entities; Intermediaries; Research and education organisations; Researchers, students and teachers; Social groups especially emphasised	African researchers; innovators; policymakers; communities; international development organisations; businesses; community organisations; local governments; residents in specific regions; universities; colleges; students; Canadian public; recyclers; industry; environment; DFO scientists; academic researchers; Indigenous communities; environmental groups; farmers; agricultural sector; government; suppliers; healthcare providers; energy sector workforce; regional communities; land managers; conservation groups; mining companies; technology developers; workforce; investors; public health agencies; clinicians; researchers; industry (automotive; aerospace; transit); engineers; young researchers; young innovators in developing countries

Note: This table includes a set of policy initiatives selected for inclusion in the compendium, 'STI for All': A Compendium of Good Practices in STI Policy. The main aim is to identify good practice policy initiatives rather than to provide an exhaustive list of the G20 member/guest country's policy initiatives.

Encouraging women and girls to consider careers in science

Canada demonstrates a strong commitment to fostering interest in science careers among women and girls, and to dismantling gender stereotypes and biases in science recognising the need to begin at an early age. Initiatives like **Let's Talk Science** (an independent not-for-profit organisation funded by the **Strategic Science Fund**) and NSERC's **PromoScience programme** play a crucial role by funding engaging hands-on STEM outreach programmes that expose young people to science in a fun and accessible way. This is particularly important for reaching children in underserved communities, where stereotypes may be more entrenched. The **NSERC Chairs for Women in Science and Engineering Programme** contributes to increasing the participation and retention of women in science and engineering by creating highly visible and accomplished women role models in academia. Critically, the programme's regional structure ensures that these role-models represent a diverse range of backgrounds, including indigenous women, thereby challenging a monolithic view of "women in science" and providing tangible examples of success for a wide array of aspiring scientists. Similarly, **Actua**, another organisation funded by the **Strategic Science Fund**, is recognised for its work in expanding and diversifying Canada's science and innovation talent pipeline, focusing on equity-driven youth STEM engagement. In particular, for the last 20 years their **National Girls Programme** has empowered girls and young women to explore and pursue careers in STEM by providing them with programmes led by inspiring female instructors.

These are examples of good practices in policy initiatives encouraging the participation of all women and girls, in all their diversity, in science:

- **Chairs for Women in Science and Engineering Programme (NSERC)**: While this programme has a long history, its modern iteration is considered a good practice due to its explicit focus on intersectional dimensions. The programme funds prominent women scientists to act as role models and to develop and implement strategies to increase the participation and retention of women in STEM. The Chairs are a network of accomplished women scientists who tailor their activities to address the specific needs and challenges of diverse communities in their region, including indigenous peoples, and others, reflecting the rich diversity of Canadian society.
- **Let's Talk Science (Strategic Science Fund) and PromoScience (NSERC)**: PromoScience provides funding to organisations that offer hands-on, engaging, and volunteer-led STEM outreach for young people, while Let's Talk Science is a national charity with extensive reach. The good practice here is not just about encouraging girls' participation in science, but about how these programmes reach different communities. Organisations funded by PromoScience and programmes run by Let's Talk Science often partner with schools and community centres in underserved areas, including rural, remote, and indigenous communities. They contribute to dismantling stereotypes and providing access to STEM role models and learning opportunities that might otherwise be unavailable due to socioeconomic, geographic and other barriers.

Box 8 Examples of funding programmes in Canada that support employment pathways for women and girls in science

These are examples of policy instruments that collectively work to dismantle early barriers, promote STEM awareness, and offer concrete educational and career pathways for women and girls in science: The **CanCode** initiative supports digital skills development by ensuring equitable access to artificial intelligence, coding and digital literacy training for Canadian students from kindergarten to grade 12 (K-12) with a focus on underrepresented groups including girls, Black youth, indigenous youth, youth with disabilities, youth residing in rural, remote, and northern communities, and teachers. The **See It Be It STEM It** campaign, led by Ingenium Canada, is a national awareness effort that showcases diverse role models in STEM fields to inspire young girls. Through the Youth Employment and Skills Strategy (YESS), Environment and Climate Change Canada delivers the **Science Horizons Youth Internship Programme**, which creates employment opportunities in the environmental STEM sector. The programme supports diversity and inclusion by setting targets for women, indigenous youth, racialised youth, and LGBTQ2+ youth, with the objective that at least half of placements are filled by women.

Canada also has good practices in policy initiatives supporting women in entrepreneurship in science and technology fields:

- **Women Entrepreneurship Strategy (WES)**: Coordinated by Innovation, Science and Economic Development Canada, this Strategy provides funding and support programmes for women entrepreneurs in a variety of sectors, including those in STEM. It includes initiatives like the **Women Entrepreneurship Loan Fund** and the **WES Ecosystem Fund**, that help women access the financing, networks and expertise they need to start and scale up their businesses. WES programmes from across 20 federal departments, agencies and Crown corporations support women entrepreneurs from diverse backgrounds, including indigenous and visible minority women, and recent immigrants. WES seeks to deliver supports and resources in a way that meets the diverse needs of women entrepreneurs, addressing the unique systemic barriers faced by women in securing financing and growing their businesses.
- **2SLGBTQI+[7] Entrepreneurship Programme**: This programme, co-developed with the 2SLGBTQI+ entrepreneurial community and delivered by Canada's 2SLGBTQI+ Chamber of Commerce, provides direct support to 2SLGBTQI+ business owners, moving beyond a binary understanding of gender. This dedicated entrepreneurship programme aims to address the specific challenges and discrimination faced by 2SLGBTQI+ entrepreneurs, a group that is often underrepresented within broader gender-focused initiatives. It recognises that the barriers to entry and success for a 2SLGBTQI+ individuals, for example, are distinct from those of a cisgender woman and require a targeted approach.

[7] 2SLGBTQI stands for Two-Spirit, lesbian, gay, bisexual, transgender, queer, intersex and others (Guide on Equity, Diversity and Inclusion Terminology).

Promoting workplace environments that attract, retain, and advance underrepresented scientists

Canada has established a comprehensive framework of strategies and funding mechanisms to promote inclusive and equitable scientific workplaces. The **Dimensions Canada Programme**, led by NSERC in collaboration with CIHR and SSHRC (Canada's three federal granting agencies),[8] addresses barriers and discrimination faced by equity-deserving groups, including women, indigenous peoples (First Nations, Inuit, and Métis), persons with disabilities, members of visible minorities/racialised groups, and members of 2SLGBTQI+ communities, in all disciplines and at postsecondary institutions – CEGEPs, colleges, and polytechnics. The **Canada Research Chairs (CRC) Programme** has incorporated equity targets and accountability measures to address the underrepresentation of women and members of gender equity-seeking groups, racialised individuals, indigenous persons and persons with disabilities. SSHRC and NSERC's respective **Accessibility Plans** outline barriers for persons with one or more disabilities and propose actions to remove and prevent these barriers. In addition, SSHRC's Accessibility inbox and web page on accessibility in programmes and services,[9] provides a framework for researchers to seek direct support from the agency in completing an application and/or participating in merit review processes. Additionally, the **Innovation and Skills Plan** and related **Global Innovation Clusters** initiatives as well as the **Strategic Science Fund** embed EDI principles into funding criteria and collaborative platforms to promote diverse representation, including women in leadership roles. These efforts aim not only to enhance workplace inclusivity but also to foster institutional transformation supporting the career advancement of women in science.

Here are some examples of good practices in policy initiatives and measures:

- **Dimensions programme**: This programme is a federal initiative that recognises and rewards post-secondary institutions for their commitment to improving equity, diversity, and inclusion (EDI). It encourages a systemic approach to EDI, going beyond simple representation to address institutional culture and policies, by mandating a self-assessment process that requires institutions to collect both qualitative and quantitative data, disaggregated by gender and other identity factors. This encourages institutions to confront their specific biases and systemic barriers and to develop evidence-based action plans tailored to their unique contexts. It acknowledges that a policy that works for one university may not work for another, and that an institution's history and location (e.g., its relationship with local indigenous communities) must be considered. The programme is fundamentally about creating a culture of critical self-reflection and accountability, which is essential for lasting change.
- **Tri-Agency Equity, Diversity and Inclusion (EDI) Action Plan**: Under the leadership of the Canada Research Coordinating Committee (CRCC), Canada's three federal granting agencies developed a comprehensive plan that sets out specific objectives and initiatives to support fair access to tri-agency research support and equitable participation in the research system. To

[8] Commonly referred to as the "Tri-Agency" or the "Tri-Councils," Canada's three federal research funding agencies are the Canadian Institutes of Health Research (CIHR), the Natural Sciences and Engineering Research Council (NSERC) and the Social Sciences and Humanities Research Council (SSHRC).

[9] https://sshrc-crsh.canada.ca/en/about-sshrc/accessibility/programs-and-services.aspx (accessed 6 September 2025)

influence the achievement of an inclusive post-secondary research system and culture in Canada, measures have been implemented to enhance the participation and retention of individuals from underrepresented groups within the research talent pool, including but not limited to women.

Measures that account for caregiving responsibilities and recognise the need for work-life flexibility:

- **Tri-Agency Parental Benefits for Awardees**: Provides one year of parental leave coverage for students and postdoctoral fellows funded directly or indirectly by the three federal granting agencies.
- **Tri-Agency definition of an early career researcher (ECR)**: The three granting agencies adjust the five-year window for consideration as an ECR to take into account instances where a researcher has had an eligible delay in research (e.g., maternity and parental leave, disability associated with reduced research activity, bereavement). This measure effectively extends access to equalisation measures for ECRs – a critical stage in the research career when many members of historically marginalised groups leave academia or remain in precarious research positions.

Collection of disaggregated data for evidence-based policies and monitoring progress

A cornerstone of Canada's approach is its commitment to data-driven policy. **Statistics Canada** has been at the forefront of modernising data collection methods to better capture intersectional identities, including the 2021 Census, which was the first to collect data on gender and sex at birth, allowing for a more accurate count of Canada's transgender and non-binary populations. Recognising the fundamental importance of disaggregated data, Canada has incorporated data collection and analysis into multiple policy initiatives.

Examples of good practices in policy initiatives focused on reducing inequities including the underrepresentation of women in science include:

- **Full-Time University and College Academic Staff System (UCASS), Statistics Canada's data holding**: This historical data collection programme is foundational for understanding the demographic and socio-economic characteristics of academic teaching staff in Canadian universities. Over the past decade, there has been growing interest in closing data gaps and improving statistics on diverse populations within the academic staff. After successfully completing an extensive feasibility study on the modernisation of UCASS, Statistics Canada will begin collecting nominal data of full-time academics in the fall of 2025. This information will be linked with Census data to obtain diversity characteristics and estimate the representation of employment equity groups in academia. As of August 2025, 37 universities, representing 44% of all full-time teaching staff in Canadian universities, have already agreed to share this information. The first release using this new data is expected in 2027-2028. These disaggregated data are critical for filling known data gaps related to equity, diversity and inclusion (EDI) and for evidence-based policy making. The estimates on EDI characteristics will inform decisions and track representation of diverse populations within Canadian academia.
- **Dimensions Programme**: This programme, which recognises and rewards post-secondary institutions for their commitment to EDI, has a strong data-driven component. To participate,

institutions must conduct a comprehensive self-assessment that includes collecting and analysing their own disaggregated data on students, faculty, and staff. This practice helps to move institutions beyond a performative commitment to EDI and into a process of self-reflection and accountability, which is a necessary step for creating meaningful, evidence-based change.

- **Postsecondary Student Information System (PSIS)**: A national survey conducted by Statistics Canada, the PSIS also provides key information on research trainees and those in the early stages of their research careers by collecting administrative data from postsecondary institutions on enrolments and graduates of Canadian public postsecondary institutions, including data on students' gender, citizenship, immigration status in Canada and first language.
- **Self-identification data collection in support of EDI by the three federal granting agencies and the Canada Foundation for Innovation (CFI)**: To support evidence-informed decisions about funding access, Canada's three granting agencies and the CFI (an agency that supports research infrastructure) adopted a self-identification questionnaire that gathers voluntary data from applicants and nominees to their programmes on aspects such as age, gender, sexual orientation, indigenous identity, visible minority and population group, first language learned, and disability. Disaggregated data is publicly available on interactive dashboards hosted by NSERC and SSHRC, online analyses of select CIHR competitions, and a review of the CFI's 2020 Innovation Fund competition.

Box 9 Examples of Canadian policy instruments promoting the collection of disaggregated data for evidence-based policies and monitoring progress

The initiatives outlined above, and the following data-driven approaches ensure that policy development and resource distribution are based on a thorough understanding of self-identification data within the Canadian scientific community:

The **Disaggregated Data Action Plan (DDAP)** is a whole-of-government initiative, led by Statistics Canada, that aims to increase and improve the collection of disaggregated statistics on diverse populations.

The **Gender Diversity and Inclusion Statistics (GDIS) Hub** is the central platform for making these data accessible to policymakers, researchers, and the public.

The **Dimensions Charter** requires participating institutions to gather and evaluate qualitative and quantitative data to measure, monitor, understand and publicly report on challenges and progress made.

The **Gender Results Framework** offers national indicators for assessing gender equality progress across various areas, including education and leadership.

Integrating equity, diversity and inclusion principles into the content of research

Canadian science policy actively promotes the integration of the principles of equity, diversity and inclusion within research methodologies and design. Acknowledging that EDI considerations are integral to research quality, relevance and excellence, and to support the goals of the **Tri-Agency EDI Action Plan** (referenced above), Canada's three granting agencies have introduced guidelines to encourage researchers to integrate such considerations in research design and practice through a range of methodologies that take into account gender and other dimensions of identity and diversity. Interagency programmes like the **New Frontiers in Research Fund (NFRF)** explicitly incorporate EDI in research design as a criterion for funding.

Delivered by Canada's Department of Agriculture and Agri-Good, the **Living Laboratories Initiative** supports co-designed research in agricultural innovation that includes gender-sensitive approaches to sustainability.

Examples of good practices in policy initiatives illustrating how Canada's commitment to inclusive research design enhances both the rigour and the social utility of scientific inquiry include:

- **Canadian Institutes of Health Research (CIHR) Funding Programmes**: CIHR has been a leader in mandating the inclusion of sex and gender-based analysis in research proposals. This requires researchers to consider how sex (biological) and gender (socio-cultural) influence their research questions, methods, and analysis, when appropriate. In addition to sex and gender, many CIHR funding opportunities also require researchers to consider other intersecting identity factors such as race, age, and socioeconomic status. For example, a research project on cardiovascular disease may not be considered complete unless it accounts for how the disease manifests differently in women and men, or how access to care and treatment outcomes are impacted by a person's race or socioeconomic status. Requiring applicants to consider these factors in their research ensures that the resulting knowledge is more accurate, comprehensive, and relevant to the diverse health needs of the Canadian population.
- **Artificial Intelligence for Development** - Advancing Global Research to Catalyse Inclusive Artificial Intelligence that Advance Gender Equality and Disability Inclusion (IDRC): As part of Canada's broader partnership with the UK on Artificial Intelligence for Development, this programme provides funding for research in developing countries that explicitly uses feminist and intersectional lenses to develop AI models and systems. The initiative is premised on the idea that AI, if left unchecked, will replicate and even amplify existing biases found in its training data. By funding research that is developed by and with people from marginalised communities in EMDCs and is intentionally and proactively designed to be "feminist" and "intersectional," the programme ensures that new technologies are developed not only to mitigate bias but to actively advance social justice and address the needs of underrepresented and socially disadvantaged groups. This approach improves the ethical and societal relevance of the technology while also demonstrating a commitment to creating an inclusive research culture.

- **SSHRC Partnership Grants (PG)** and the **New Frontiers in Research Fund** (under the direction of the CRCC): Both initiatives have guidelines that specifically address equity in the research environment. For PG, the Guide to addressing equity, diversity and inclusion considerations[10] indicates that research directors must demonstrate a strong commitment to EDI in creating the research environment. In support of that goal, the guidelines provide definitions of key terms and guiding questions to assist research directors in being inclusive in research design, mentoring and recruitment as well. NFRF's Best practices in equity, diversity and inclusion in research practice and design[11] provides further information about wider systemic barriers faced by researchers in academia. It also provides information on the research ecosystem and EDI related to the feasibility of a research plan of a grant, in addition to information provided in the former Guidelines.
- **Artificial Intelligence for Global Health** programme (IDRC in partnership with UK FCDO): This programme applies gender equality, inclusion and intersectionality approaches across over 50 projects to improve sexual, reproductive and maternal health, and strengthen more equitable responses to climate-sensitive infectious disease outbreaks. Across Africa, Asia, the Middle East and the Americas, these projects recognise that the gender gap in science is a global issue with local manifestations. A research landscape in this area, presented by the IDRC, points to gender equality and inclusion as one of the pre-requisite and transversal considerations for all responsible AI solutions to meaningfully improve clinical and public health outcomes. From strengthening prenatal ultrasound services for indigenous women in Guatemala, addressing maternal mental health in Bangladesh, or meeting the needs of adolescents with disabilities in Ghana, these projects focus on bias and inequalities in health systems and AI models, and place strong emphasis on building the cadre of women leaders in these spaces.

Implementing the UNESCO 2024 Call to Action: Closing the Gender Gap in Science

Canada's policy initiatives are closely aligned with UNESCO's 2024 Call to Action, particularly through its emphasis on systemic reform, international collaboration, and national leadership in promoting gender equality in science. The federal ***Office of the Chief Science Advisor*** promotes equity in science policymaking and represents Canada in global forums addressing gender equity in STEM. The ***Canada 150 Women in STEM*** initiative and the ***International Gender Champions Network*** reflect Canada's role in amplifying worldwide visibility and commitments toward gender parity. Moreover, Canada's participation in international benchmarking and collaboration – such as through the **Global Research Council's** Equality, Diversity and Inclusion working groups and the **OECD-Global Science Forum's** project on EDI in research systems and the future research workforce – further demonstrates its alignment with UNESCO's call. These efforts position Canada as both a contributor and an advocate for global scientific equity.

[10] https://sshrc-crsh.canada.ca/en/funding/policies-regulations-and-guidelines/guide-adressing-equity-diversity-and-inclusion-considerations-partnership-grant-applications.aspx#3 (accessed 6 September 2025)

[11] https://sshrc-crsh.canada.ca/funding-financement/nfrf-fnfr/edi-eng.aspx#5_1 (accessed 6 September 2025)

Artificial Intelligence for Development (IDRC), co-funded with the UK's FCDO, is a 110M CAD programme that aims to foster safe, inclusive and responsible AI ecosystems that empower people and accelerate progress on challenges in international development. Within AI4D, co-creation of research and policy initiatives with local partners is encouraged to address specific needs of diverse women and underrepresented communities in their unique cultural and socioeconomic contexts. The programme integrates gender equality, intersectional, and disability inclusion into all elements of its programming, including its 12 multidisciplinary university AI labs based in 11 African countries. These multidisciplinary labs work proactively to increase the meaningful and equitable participation of women in computer science and have trained hundreds of women in Africa in coding and AI, including at the master's and PhD level. Because of their leadership in the AI for Development space, Canada, through the IDRC, is convening the **AI4D Funders Collaborative**, a global partnership dedicated to bridging the gaps in AI access and readiness in the Global South. Convened by development funders – including FCDO, IDRC, BMZ, and the Gates Foundation – the Collaborative aims to unite with partners around the world to centre challenges in the Global South and combat technological and social inequality by supporting inclusive, responsible AI policy and innovation made by and for communities. Canada's support for this programme and its international research partnerships helps to coordinate investment in and share best practices and resources with and by countries in the Global South.

Key policy initiatives considered to be good practice for closing the gender gap in an intersectional way

A significant strength of Canada's approach is the explicit integration of intersectionality, particularly concerning indigenous peoples and racialised groups. Initiatives like the CRCC's **Strengthening Indigenous Research Capacity (SIRC) initiative** – involving Canada's three federal granting agencies and the CFI – and the tri-agency **Black Scholars Initiative**, are critical. While not focused on gender, they are highly relevant because indigenous and racialised women often face compounded barriers. Policies designed to support all underrepresented and marginalised groups, across all research fields, are essential for a comprehensive approach to reducing gender inequities.

Policy initiatives like the **Directive on Automated Decision-Making** and **Algorithmic Impact Assessment** are crucial in the context of AI and data science, addressing bias in emerging technologies.

Several Canadian policy initiatives and policy approaches are recognised as good practices in reducing gender inequities and exclusions in science in an intersectional way. They are distinguished by their focus on moving beyond a singular "gender" analysis to a more nuanced, multi-faceted approach:

1. **Gender-based Analysis Plus (GBA Plus)**
    - **Why it's a good practice**: GBA Plus is an analytical tool used to support the development of responsive and inclusive policies, programmes, and other initiatives. GBA Plus is a process for understanding who is impacted by the issue or opportunity being addressed by the initiative; identifying how the initiative could be tailored to meet diverse needs of the people most impacted; and anticipating and mitigating any barriers to accessing or benefitting from the initiative,

The "Plus" signifies that the analysis goes beyond gender to include other intersecting identity factors such as age, disability, education, ethnicity, economic status, geography (including rurality), language, race, religion, and sexual orientation.

- **Intersectional nuance**: GBA Plus is a foundational tool for intersectional policymaking. It is an intersectional framework that empowers government departments to consider a wide range of social locations when developing and implementing programmes and policies. This proactive approach helps to identify and mitigate unintended negative consequences for marginalised groups before policies are put into practice. For example, when creating a STEM scholarship programme, GBA Plus would require an analysis of whether the eligibility criteria disproportionately exclude racialised, low-income, or rural students.

2. Culturally relevant gender-based analysis (CRGBA)

- **Why it's a good practice**: Developed by indigenous organisations, thought leaders and researchers through indigenous community-based work, CRGBA highlights dimensions such as cultural identity, geographic location and impacts of colonisation, in connection with gender identity and sexual orientation, as integral to a culturally relevant, gender-based, trauma-informed intersectional approach to research, policy development and advocacy work. This approach aims to address critical omissions in mainstream GBA approaches, which tend to elide the historical and current issues faced by indigenous peoples.
- **Intersectional nuance**: When policies and programmes lack an understanding of the cultural, social and political realities of indigenous women (and indigenous peoples more broadly), there is a risk of perpetuating further marginalisation, oppression, and/or violence against them. The *CRGBA Starter Kit*, developed by the Native Women's Association of Canada (NWAC), seeks to counter this, emphasising that a "distinctions-based CRGBA recognises and accounts for the distinct lived experiences not only between but within First Nations, Inuit, and Métis communities and individuals. Rather than taking a one-size-fits-all, pan-indigenous approach, distinctions-based CRGBA recognises that these three separate groups all have had separate experiences with colonisation, have different experiences navigating their lives, and will be impacted differently by policies and programmes."[12]

3. Tri-Agency Equity, Diversity and Inclusion (EDI) Action Plan

- **Why it's a good practice**: The Tri-Agency EDI Action Plan, developed by the three federal research funding agencies (CIHR, NSERC, SSHRC) under the leadership of the CRCC, aims to advance research quality, relevance and excellence by making Canada's research ecosystem more equitable and inclusive. The Tri-Agency EDI Action Plan includes objectives and initiatives to increase equitable and inclusive access to granting agency funding opportunities, to achieve more comprehensive research excellence through the principles of EDI being foundational in research practice, and details how the granting agencies can influence the achievement of an inclusive post-secondary research system and culture in Canada. While not focused on gender, it is a primary driver for promoting equity, diversity and inclusion across federal research funding and practices.

[12] Native Women's Association of Canada (NWAC). (2020). *A Culturally Relevant Gender-Based Analysis (CRGBA) Starter Kit*, p. 7.

- **Intersectional nuance**: The Tri-Agency EDI Action Plan identifies underrepresented groups as including, but not limited to, women, indigenous peoples (First Nations, Inuit and Métis), persons with disabilities, members of racialised groups and members of 2SLGBTQI+ communities. The collection of comprehensive data through a self-identification questionnaire, harmonised across the three federal granting agencies and the Canada Foundation for Innovation, enables the granting agencies to undertake data analyses by self-identified group, including through an intersectional lens, to understand differential participation rates in funding opportunities.

4. Support for Community-Led Initiatives and Initiatives that Address the Differential Impacts of Discrimination

- **Why it's a good practice**: Several policy and programming initiatives, including the Strengthening Indigenous Research Capacity (SIRC) initiative and associated strategic plan, Indigenous Scholars Awards and Supplements Pilot Initiative, Interdepartmental and Indigenous STEM (I-STEM) Cluster, the SSHRC Accessibility Plan and the Action Plan for Black Researchers (SSHRC), incorporate a strong community-based and relationship-building focus through co-development of the plan or initiative by the agencies in collaboration with advisory structures that seek to identify and address systemic racism, ableism and colonial legacies within the research and science policy ecosystems. Through this approach, they aim to foster a more equitable, accessible and decolonised environment where indigenous and Black researchers, and researchers with one or more disabilities, can thrive, lead, and contribute their unique knowledge systems.
- **Intersectional nuance**: These initiatives acknowledge that indigenous and Black researchers, and researchers with one or more disabilities, face specific, unique barriers rooted in historical and ongoing systemic discrimination. Consultations through advisory committees and focus groups with EDI experts and individuals from historically underrepresented groups who have lived experiences of systemic barriers within the research ecosystem have informed, and continue to inform, policy measures to address inequitable access, discrimination, systemic racism and ableism in the research enterprise, including through an intersectional lens. For example, SSHRC's Advisory Committee to Address Anti-Black Racism in Research and Research Training (2021-2024) advised SSHRC on breaking down existing barriers, to ensure equitable access for Black scholars, and to amplify their voices and enhance their visibility in SSHRC research and research training programmes. SSHRC published the Action Plan for Black Researchers in June 2024. SSHRC's Advisory Committee on Accessibility and Systemic Ableism helped shape the agency's inaugural Accessibility Plan (2022-25), which identifies barriers to accessibility in the agency's programmes and policies, and proposes actions to remove and prevent them. Annual external focus groups with people with one or more disabilities in the research community have offered iterative feedback. The SIRC initiative's strategic plan is also deeply rooted in community perspectives. Supported by the three federal granting agencies through a dedicated funding instrument, its co-development in 2018-2019 mobilised indigenous communities, collectives, organisations and postsecondary institutions across Canada. To ensure indigenous leadership in its implementation, the three agencies established two external advisory bodies, composed of First Nations, Inuit and Métis members: the Reference Group for the Appropriate Review of Indigenous Research, to evaluate and shift merit and peer review models across the agencies towards more culturally

appropriate approaches, and the Indigenous Leadership Circle in Research, to provide guidance and oversight for the implementation of the SIRC strategic plan. By empowering indigenous and Black researchers broadly, and supporting culturally relevant research, these initiatives contribute to the advancement of indigenous and Black women in science, recognising their distinct experiences and contributions. The *Action Plan for Black Researchers (SSHRC)*, for example, explicitly aims to remove discriminatory barriers rooted in anti-Black racism and notes that many EDI policies have yet to adequately address the specific needs of Black people, which implicitly includes Black women researchers.

CHINA

Introduction

The People's Republic of China has adopted a state-led approach to close the gender gap in science, framing it as a foundational principle of national development and a critical component of its strategy to become a "sci-tech powerhouse." This proactive, policy-driven model, which operates under the constitutional principle of equality between men and women, has resulted in significant and measurable progress.

Since the Beijing Declaration and Platform for Action in 1995, the Chinese government has issued multi-year national programmes for women's development. These programmes set national strategies and action plans across various sectors, including education, economic participation, and decision-making. The **Ministry of Science and Technology (MoST)** is the key department for implementing science-related objectives, and the **All-China Women's Federation (ACWF)** is a collaborative partner for gender equality. Specific and targeted policy initiatives include financial and career support from institutions like the **National Natural Science Foundation of China (NSFC)**. The policy approach is fundamentally about leveraging all human resources to achieve national goals, treating gender equality as an instrument for enhancing national economic and innovative capacity.

Furthermore, China has focused increasingly on promoting inclusive innovation to enhance social and economic wellbeing for low-income and marginalised groups.[13] Since 2006, there has been a shift towards promoting science, technology and innovation for social development, emphasising support for improving livelihoods, and economic development in rural and underdeveloped geographical areas. Also emphasised is support for agricultural transformation, and enhancing entrepreneurship and the innovation capabilities of small and medium-sized enterprises (SMEs).

This member note has the following objectives:

1. To provide, as outlined in the table below, an overview of a selection of policy initiatives identified as relevant for the G20 Recommendations on Diversity, Equity, Inclusivity, and Accessibility (DEIA). The aim is to provide a snapshot of the broader set of policy initiatives included in the compendium database. It is noted that the database may not include all of China's policy initiatives promoting diversity, equity, inclusion and accessibility.

2. To provide, in the remainder of this member note, highlights of good practices in policy initiatives responding to the G20 Recommendation: Closing the Gender Gap in Science. It is organised according to the sub-recommendations:
   - Encouraging women and girls to consider careers in science
   - Promoting workplace environments that attract, retain, and advance women scientists
   - Collecting disaggregated data for evidence-based policies and monitoring progress

Continues overleaf...

[13] Report prepared by the Chinese Academy of Science and Technology for Development (CASTED), jointly released with the OECD: Overview of Inclusive Innovation Policies in the People's Republic of China (2017).

- Integrating gender-related aspects into the content of research
- Implementing the UNESCO 2024 Call to Action: Closing the Gender Gap in Science

3. To identify, in the last section, key intersectional policy initiatives for closing the gender gap in science.

Table 7 China: Summary of the relevant policy initiatives by G20 Recommendation on DEIA

G20 Recommendation on DEIA	Number of policy initiatives	Policy instrument types	Main target groups/ beneficiaries (STIP categories)	Main target groups/ beneficiaries (Specific)
1. Promoting diversity, equity, inclusion and accessibility in STI systems	4	Direct financial support; Governance	Economic actors (individuals); Firms; Governmental entities; Intermediaries; Research and education organisations; Researchers, students and teachers; Social groups especially emphasised	Talented young scientists under the age of 45 with a doctoral degree or five years of research experience; Chinese nationals; foreign experts; autonomous vehicle developers; tech companies; research institutions; entrepreneurs in targeted industries; traditional industries; technology companies; a wide range of consumers; science and technology-based SMEs and start-up companies
2. Closing the gender gap in science	5	Not recorded	Not recorded	All women and children in China, particularly vulnerable or marginalised groups; women and girls in rural areas; women in low-income brackets; female scientists and researchers; female students and aspiring scientists; broader scientific community in China; female scientists and technologists across various stages of their careers, from students to senior researchers and leaders; young, high-achieving female scientists
3. Fostering dialogue between different knowledge systems	1	Direct financial support	Economic actors (individuals); Firms by size; Intermediaries; Research and education organisations; Researchers, students and teachers;	Farmers; rural entrepreneurs; local communities in underdeveloped and agricultural regions

Continues overleaf...

G20 Recomm-endation on DEIA	Number of policy initiatives	Policy instrument types	Main target groups/ beneficiaries (STIP categories)	Main target groups/ beneficiaries (Specific)
			Social groups especially emphasised	
4. Transitioning to open science	4	Governance; Guidance, regulation and incentives	Intermediaries; Research and education organisations; Researchers, students and teachers; Social groups especially emphasised	AI developers; AI users; society at large; AI providers; general public using AI services; students; youth; citizens in less developed areas
5. Combating inequities in STI	Not recorded	Not recorded	Not recorded	Not recorded

Note: This table includes a set of policy initiatives selected for inclusion in the compendium, 'STI for All': A Compendium of Good Practices in STI Policy. The main aim is to identify good practice policy initiatives rather than to provide an exhaustive list of the G20 member/guest country's policy initiatives.

Encouraging women and girls to consider careers in science

China has implemented various policy initiatives and programmes to encourage women and girls to pursue careers in science, technology, engineering, and mathematics (STEM). These initiatives often involve multiple government bodies and non-governmental organisations working together.

Good practice policy initiatives in China include:

- **Measures on Supporting Female Talents in Playing a More Prominent Role in Science and Technology (2021)** (关于支持女性科技人才在科技创新中发挥更大作用的若干措施): This comprehensive initiative explicitly calls for establishing more awards and scholarships for young female scientists. By linking financial incentives to academic and professional achievements, China is creating a clear and structured pathway to support women's career development in STEM.
- **Young Scientist Programme** (青年科学家项目): This programme provides financial support and career development opportunities for young researchers early in their careers. It is designed to help them establish their own research teams, pursue independent research projects, and ultimately become future leaders in their fields. The programme has different tiers and funds, such as the Young Scientists Fund and the Excellent Young Scientists Fund. While not exclusively for women, the National Natural Science Foundation of China (NSFC) has extended the age limit for young women applying for certain grants, acknowledging the career breaks that can occur due to childbirth and family responsibilities. This measure helps to retain female talent in the scientific pipeline and prevents women from being penalised for life events that disproportionately affect them.

By enhancing the visibility of women in science in educational materials, media, and popular culture, these are examples of good practice that counter traditional gender roles and biases that discourage women from pursuing careers in science:

- **Strengthening the Popularisation of Science and Technology** (加强科学技术普及工作): This initiative, particularly as implemented by the **All-China Women's Federation (ACWF)**, serves as a good practice. The ACWF's **Science Popularisation Open Class in Museums** and **Science Popularisation Entering Families** video series actively work to popularise science in a family-friendly context. By inviting female scientists and experts to give lectures and featuring them in short videos, these programmes directly combat the stereotype of science as a male domain and provide positive female role models from an early age.
- **National Science Experiment Exhibition and Performance Activities** (全国科学实验展演汇演活动): While this is a broad initiative, by showcasing a diverse range of scientists, including women from different backgrounds and regions of China, these exhibitions can help to normalise the presence of women in scientific fields. A key aspect of good practice is ensuring that the content and presenters actively challenge stereotypes.

Box 10 All-China Women's Federation (ACWF) and partner initiatives encouraging women and girls to consider careers in science

The ACWF, China's largest women's organisation, works with other bodies like the China Association for Science and Technology (CAST) to support women in science. Their initiatives include:

Awards and Recognition: Co-sponsoring awards to honour outstanding female scientists and showcase them as role models for younger generations.

Spring Bud Project (春蕾计划): Launched by the ACWF and the China Children and Teenagers' Foundation, this is designed to help girls from impoverished families, particularly in rural areas, get back into school and receive an education. It is a targeted, needs-based intervention that directly addresses the root causes of educational inequality for a specific, vulnerable population. While the initiative initially focused on helping girls return to school, it has been expanded to include vocational training, mental health support, and broader programmes on safety and health.

Women Entrepreneurship and Innovation Action (巾帼创业创新行动): This initiative helps women start businesses in the digital economy and other technology-related fields, providing training, guidance, and financial support through programmes like the **Subsidised Micro-credit Loans for Women**. This is a good practice initiative because it provides targeted, holistic support, and tackles the documented barriers of limited access to capital and networks directly. The initiative aims to address the specific challenges faced by women entrepreneurs who may lack access to traditional male-dominated networks and financial capital.

Promoting workplace environments that attract, retain, and advance women scientists

China has improved laws and regulations to promote fair employment and eliminate gender discrimination. For example, the **Employment Promotion Law and the Labour Contract Law** include specific provisions to protect the rights and interests of female workers. Targeted initiatives aim to retain female researchers by providing measures such as extended leave for childbirth and other family-friendly policies. Recognising that childcare responsibilities fall on women disproportionately, policies have been implemented to create a more supportive environment. Many provinces and municipalities have also created their own policies to complement national efforts. For example, some have piloted the establishment of "scientific research return funds" for female scientists who have taken a break for childbirth.

Examples of good practices in policy initiatives include:

- **Opinions on Strengthening the Construction of Female Scientific and Technological Talents** (关于加强女性科技人才队伍建设的意见): As a multi-faceted policy, this initiative addresses systemic issues. It provides a comprehensive framework that includes institutional changes, such as relaxing age limits for female applicants for national talent programmes and encouraging the nomination of more female candidates for academic positions. It also addresses the societal and personal challenges faced by women by creating a more "family-supportive" work environment. Supportive policies for women, in programmes like the National Natural Science Foundation of China's (NSFC) Young Scientist project, were established under the guidance of this policy.
- **Measures on Supporting Female Talents in Playing a more Prominent Role in Science and Technology (2021)** (关于支持女性科技人才在科技创新中发挥更大作用的若干措施): This is a comprehensive, national-level initiative launched by the Ministry of Science and Technology (MoST), the All-China Women's Federation (ACWF), and other government departments. The measures are designed to foster a new generation of female researchers by providing training support for talented female researchers, assistance and resources for women starting businesses in science and technology, introduce more flexible and supportive evaluation systems for female researchers, and offer specific support for women during pregnancy and nursing periods to help them manage their research careers alongside family responsibilities. This initiative includes provisions for a more supportive work environment. It aims to improve evaluation mechanisms for female researchers and provide more family-friendly policies, such as extended leave for childbirth and support for childcare. These measures are designed to address the unique challenges faced by women in balancing career progression with family responsibilities, thus improving retention rates.
- **National Natural Science Foundation of China (NSFC) Grant Policies**: As a key funding body for scientific research, the NSFC has implemented specific policies to address the gender gap in research funding and career progression. These include relaxing the age limit for female applicants for certain grants, such as the **Young Scientists Fund**, and extending the timeframe to account for time taken for childbirth and childcare. In some cases, gender ratio requirements are introduced for grant review panels to ensure more female voices are included in the evaluation process.

- **Programme for the Development of Chinese Wome**n: This national-level programme, coordinated by the **National Working Committee on Children and Women (NWCCW)**, outlines key goals for women's development across various sectors, including science and technology. The most recent version, the **Programme for the Development of Chinese Women (2021-2030)**, includes specific objectives related to education, employment, and career advancement for women in STEM fields.

Box 11 The All-China Women's Federation (ACWF) and institutional collaboration promoting workplace environments that attract, retain, and advance women scientists

The ACWF's collaborative efforts with scientific institutions and universities represent a good practice. By working with organisations like the China Women's Association for Science and Technology (CWAST), the ACWF helps to organise workshops, provide mentorship, and build professional networks for female researchers. This institutional support and community building are crucial for creating an inclusive environment where women feel supported and can advance their careers.

Collection of disaggregated data for evidence-based policies and monitoring progress

China has made a concerted effort to collect and use disaggregated data as a cornerstone for its policies related to gender equality and women's development. This is largely driven by its commitment to international frameworks like the **Beijing Declaration and Platform for Action** and the **Sustainable Development Goals (SDGs)**. This includes China's commitment to implementing the SDGs and its partnership with **UN Women** and the **National Bureau of Statistics**. The country has expressed a commitment to collect and analyse data disaggregated by sex, age, and disability to inform targeted support and monitor progress. This is a crucial step towards developing evidence-based policies.

The following initiatives demonstrate China's approach:

- **National Programmes for Women's Development**: This series of multi-year national action plans, the latest being the **National Programme for Women's Development (2021-2030)**, is a primary vehicle for data collection and evidence-based policy. These programmes establish a comprehensive statistical monitoring system that is integrated into the routine data collection of various government departments and statistical agencies. The system collects data on a wide range of indicators related to women's development in areas such as health, education, the economy, and political participation. Statistical monitoring reports are regularly published, providing a public record of progress and highlighting areas that need further attention.
- **The National Working Committee on Children and Women (NWCCW)**: This high-level government body, which coordinates the implementation of the **National Programme for Women's Development**, plays a crucial role in data collection and evaluation. It works with local governments and relevant departments to ensure that targets are met and that the statistical monitoring system is functioning effectively. The NWCCW also holds regular meetings to review progress and adjust policies based on the data.

- **National Bureau of Statistics and Research (NBS) Collaborations**: The NBS is the central institution responsible for collecting and standardising gender-disaggregated data. The NBS collaborates with international organisations such as UN Women and the UN Population Fund (UNFPA) on joint data projects and research. These collaborations have helped to improve data collection methodologies, address data gaps (e.g., in time-use surveys), and produce knowledge products that are used to inform policy and public discourse on gender equality.
- **Surveys on the Social Status of Chinese Women**: Conducted periodically by the All-China Women's Federation (ACWF) and the National Bureau of Statistics, these large-scale, national-level surveys provide in-depth data on women's experiences and social status across various domains. The findings from these surveys are critical for providing an evidence base for the National Programme for Women's Development and other related policies.

Integrating gender-related aspects into the content of research

While many of China's policy initiatives focus on increasing women's participation in science, specific policies that mandate the integration of gender-related aspects into the content of research itself are less explicit and appear to be an evolving area. However, there are some relevant initiatives and frameworks that can be leveraged to address this goal. This requires looking beyond explicit gender policies to find frameworks that provide a basis for gender-responsive research.

Examples of good practices in policy initiatives include:

- **Interim Measures for the Administration of Generative Artificial Intelligence Services** (生成式人工智能服务管理暂行办法): While not explicitly relating to gender, its principles on responsible AI governance and ethical considerations are a good practice that can be leveraged. The policy's emphasis on a "responsible AI" framework provides a basis for integrating gender considerations. This can be used to ensure that AI-driven research and technologies do not perpetuate gender bias, such as in facial recognition or hiring algorithms.
- **Principles of Next-Generation AI Governance - Responsible AI**: This policy's focus on responsible AI is a good practice. The principles can be applied to mandate that AI research and development projects include a gender-responsive design from the outset. For example, research teams could be required to analyse their datasets for gender imbalances and to assess the potential for their AI models to have a disproportionate impact on different genders.

Implementing the UNESCO 2024 Call to Action: Closing the Gender Gap in Science

China's partnerships with organisations like UN Women and the United Nations Development Programme (UNDP) on policy dialogues and workshops on women in science are a good practice. These collaborations demonstrate a commitment to a global agenda and provide a platform for sharing good practices and addressing shared challenges in a coordinated manner. China's key initiative for closing the gender gap in science, **Measures on Supporting Female Talents in Playing a More Prominent Role in Science and Technology (2021)**, aligns with UNESCO's Call for Action. Its comprehensive approach to training, supporting, and retaining female scientists contributes directly to the UNESCO goals of closing the gender

gap. The **National Working Committee on Children and Women (NWCCW)** is the primary government body responsible for liaising with the UN and other international organisations and for reporting on China's progress in implementing international agreements, such as the **Convention on the Elimination of All Forms of Discrimination against Women (CEDAW)** and the **SDGs**.

Key policy initiatives considered to be good practice for closing the gender gap in an intersectional way

China's policy initiatives directly addressing gender equality, including the **Opinions On Strengthening the Construction of Female Scientific and Technological Talents** and **Measures on Supporting Female Talents in Playing a More Prominent Role in Science and Technology**, show an increasing awareness of the need for targeted, gender-responsive interventions to address the specific barriers women face. The China Young Women Scientists Award is a good practice because it helps to challenge stereotypes by creating role models and increasing the visibility of women in science. Targeted at "young" women under the age of 45, it identifies and supports talent at a critical juncture in their careers – often a period when many women face significant work-life challenges.

Effective gender policy initiatives address the nuances of intersectionality, such as the different experiences of women in rural versus urban areas, or those from different socio-economic backgrounds. Broader policy initiatives, including the **Science and Technology-Based Small and Medium Enterprises Innovation Fund**, contribute to China's commitment to inclusive innovation. While the initiative is gender-neutral, it has significant intersectional potential for female entrepreneurs. Women often face greater barriers to accessing finance and venture capital due to gender bias. Directly addressing these barriers, the **Women Entrepreneurship and Innovation Action** initiative, implemented by the ACWF, fosters a more inclusive entrepreneurial ecosystem, ultimately contributing to economic growth and women's empowerment. It recognises that women's entrepreneurship is shaped by the intersection of gender with factors like geography and access to resources.

Here are some of China's good practices in policy initiatives with intersectional nuance:

1. **Measures on Supporting Female Talents in Playing a More Prominent Role in Science and Technology**
    - **Why it's a good practice**: This policy initiative is a comprehensive, multi-departmental approach that acknowledges and attempts to address systemic barriers. It is a direct response to data showing that female scientists are underrepresented in leadership roles and face career stagnation, particularly after childbirth. The policy's provisions for relaxing age limits on grant applications for women and its focus on creating supportive work environments directly address gendered career patterns.
    - **Intersectional nuance**: This initiative recognises that women's challenges in science are not uniform and intersect with their age and family status. The policy specifically addresses the "leaky pipeline" by acknowledging the conflict between a woman's reproductive years and the crucial period for career growth.

2. National Working Committee on Children and Women (NWCCW)

- **Why it's a good practice**: The primary objective of the NWCCW is to promote gender equality and safeguard the rights and interests of women and children across all sectors of society. It acts as the top-level coordinating body for ensuring that government policies and actions are aligned with these goals, going beyond a single ministry to influence a wide array of government departments. With a broad focus on women and children, its work pays particular attention to vulnerable or marginalised groups.
- **Intersectional nuance**: The initiative addresses the dynamic interplay of gender and age with geography, social class, and other factors. It aims to create a comprehensive framework that tackles these overlapping challenges. The effectiveness of its policies depends on how they are implemented at the provincial and local levels, and how they consider intersecting factors like ethnicity, class, disability, and age.

3. Strengthening the Popularisation of Science and Technology

- **Why it's a good practice**: The ACWF's involvement in this initiative, particularly through its **Science Popularisation Entering Families** video series, is a good practice. It aims to dismantle gender stereotypes at a fundamental level by showcasing female scientists as role models and by engaging the entire family in science education. This approach recognises that gender roles are often reinforced within the family unit and that a successful strategy must engage parents and children together to create a more supportive domestic environment for girls' scientific interests.
- **Intersectional nuance**: The intersectional nuance here lies in the content and reach of these programmes. For example, do the videos and materials feature not just women from a single background, but a diverse range of women scientists – including those from different ethnic groups, provinces, and socio-economic classes? This ensures that girls from all walks of life can see a scientist as someone who looks like them. Furthermore, it is important to consider the "digital divide" and accessibility in different formats and languages, especially for families in rural or remote areas with limited internet access.

4. The Science and Technology Commissioner System

- **Why it's a good practice**: While not primarily a gender policy, this initiative has significant intersectional potential. This system sends scientists and researchers to rural areas to help local communities use technology for economic development. It offers a unique opportunity for women scientists to engage in impactful, on-the-ground work. When female commissioners are placed in rural communities, they serve as role models, directly challenging traditional gender roles that might be more deeply entrenched in non-urban settings.
- **Intersectional nuance**: The intersectional nuance lies in the interplay between geography (urban vs. rural), gender, and class. The system is explicitly designed to address the inequalities between urban and rural areas, which is a major driver of social and economic disparity in China. In many rural parts of China, a large proportion of the agricultural workforce is female. The system's effectiveness can be moderated by considering pre-existing social and class structures within the village, including social status, education level, and their specific family or cooperative.

EUROPEAN UNION

Introduction

The European Union (EU) values are common to the EU countries, in a society in which inclusion, tolerance, justice, solidarity and non-discrimination prevail. In line with these values, the EU demonstrates a strong and explicit commitment to an intersectional approach to closing the gender gap in research and innovation, recognising that gender intersects with other social factors.[14] This commitment is reflected in policies that target women and other underrepresented groups, including those in vulnerable situations, with the aim of creating inclusive initiatives that address the complex and multifaceted barriers they face.

This approach is embedded across various policy initiatives indicating a commitment to intersectionality throughout the EU's policy landscape. The policy initiatives showcase coordinated efforts to promote structural changes and eliminate barriers that have historically held women back in research and innovation, and increasingly, to understand how these barriers are different for women from potentially diverse backgrounds.

This member note has the following objectives:

1. To provide, as outlined in the table below, an overview of a selection of policy initiatives identified as relevant for the G20 Recommendations on Diversity, Equity, Inclusivity, and Accessibility (DEIA). The aim is to provide a snapshot of the broader set of policy initiatives included in the compendium database.

2. To provide, in the remainder of this member note, highlights of good practices in policy initiatives responding to the G20 Recommendation: Closing the Gender Gap in Science. It is organised according to the sub-recommendations:
   - Encouraging women and girls to consider careers in science
   - Promoting workplace environments that attract, retain, and advance women scientists
   - Collecting disaggregated data for evidence-based policies and monitoring progress
   - Integrating gender-related aspects into the content of research
   - Implementing the UNESCO 2024 Call to Action: Closing the Gender Gap in Science

3. To identify, in the last section, key intersectional policy initiatives for closing the gender gap in science.

[14] The European Institute for Gender Equality (EIGE) defines intersectionality as an 'analytical tool for studying, understanding and responding to the ways in which sex and gender intersect with other personal characteristics/identities, and how these intersections contribute to unique experiences of discrimination.'

Table 8 European Union: Summary of the selected policy initiatives by G20 Recommendation on DEIA

G20 Recommendation on DEIA	Number of policy initiatives	Policy instrument types	Main target groups/ beneficiaries (STIP categories)	Main target groups/ beneficiaries (Specific)
1. Promoting diversity, equity, inclusion and accessibility in STI systems	17	Governance; Guidance, regulation and incentives	Economic actors (individuals); Firms of any age; Firms of any size; Governmental entities; Intermediaries; Research and education organisations; Researchers, students and teachers; Social groups especially emphasised	EU citizens; EU policymakers; EU workers; European Commission; policymakers; public procurers; R&I stakeholders; researchers; SMEs; businesses (especially SMEs); buyers; cancer patients; citizens; healthcare providers; innovators; innovators; public sector organisations; research organisations; technology transfer professionals; universities
2. Closing the gender gap in science	23	Direct financial support; Governance; Guidance, regulation and incentives	Economic actors (individuals); Firms; Governmental entities; Intermediaries; Research and education organisations; Researchers, students and teachers; Social groups especially emphasised	EU citizens; EU policymakers; EU research; individuals; innovative companies; R&I stakeholders; refugee researchers; researchers; researchers with parental responsibilities; social innovators; students; universities; women; women entrepreneurs; women-led start-ups; academic staff; deep tech companies; entrepreneurs; especially SMEs; evaluators; gender equality experts; girls; higher education institutions; innovation agencies; innovation institutions; institutions; organisations that champion gender equality; organisations; project coordinators; project coordinators applying for Horizon Europe funding; research organisations; researchers; scientists; staff in research; start-ups; students; teachers
3. Fostering dialogue between different knowledge systems	0	N/A	N/A	N/A

Continues overleaf...

G20 Recomm-endation on DEIA	Number of policy initiatives	Policy instrument types	Main target groups/ beneficiaries (STIP categories)	Main target groups/ beneficiaries (Specific)
4. Transitioning to open science	22	Governance; Guidance, regulation and incentives	Economic actors (individuals); Firms; Governmental entities; Intermediaries; Research and education organisations; Researchers, students and teachers; Social groups especially emphasised	AI developers; developers; EU R&I stakeholders; EU citizens; EU policymakers; EU students; European Commission; European Parliament; policymakers; students; users of connected products; any organisation that processes their data; artists; businesses; businesses (especially SMEs); citizen science practitioners; citizens; cultural institutions; data service providers; educational institutions; industry; innovators; innovators; policymakers; policymakers of AI in the EU; public sector organisations; public sector organisations; regulators; researchers; teachers; the public; users
5. Combating inequities in STI	15	Collaborative infrastructures (soft and physical); Direct financial support; Governance	Economic actors (individuals); Firms; Governmental entities; Intermediaries; Research and education organisations; Researchers, students and teachers; Social groups especially emphasised	City authorities; EU citizens; EU member states; governments of EU member states; local; public; researchers; associated countries; businesses; citizens in participating EU cities; citizens in the EU; citizens involved in the clean energy transition; energy; industries; industry in the EU aviation sector; innovators; institutions from the EU; institutions in the EU working on climate; mobility; policymakers in the EU; private sector organisations; public authorities in the EU involved in the hydrogen value chain; public sector organisations; regional governments; regions; researchers; the transport sector; their R&I systems

Note: This table includes a set of policy initiatives selected for inclusion in the compendium, 'STI for All': A Compendium of Good Practices in STI Policy. The main aim is to identify good practice policy initiatives rather than to provide an exhaustive list of the G20 member/guest country's policy initiatives.

Encouraging women and girls to consider careers in science

The EU actively promotes and incentivises women and girls to pursue careers in science, technology, engineering, and mathematics (STEM) through a blend of policy initiatives and instruments. These efforts extend beyond direct financial support to encompass the provision of awards, the establishment of guiding principles for good practice, and the implementation of public awareness campaigns. By recognising gender equality as an excellence criterion in research and innovation, the EU aims to dismantle barriers and create accessible pathways that encourage women's participation and progression in scientific fields from an early stage.

These are examples of good practices in the most recent EU policy initiatives that collectively highlight an approach focusing on cultural and structural changes:

- **STEM Education Strategic Plan**: This strategic plan is a part of the Union of Skills. It outlines measures to advance STEM education and training across the EU, at both the EU and Member State levels. It aims to improve STEM skills, which are needed in today's labour market to master the use of new technologies and keep advancing their development. To encourage more girls to pursue STEM fields, it sets specific targets for equal enrolment in these subjects at different educational levels. Its approach includes developing curricula that are relevant to the future and bringing in role models to inspire girls from a young age. It also gives specific attention to vocational education and training strategies to make them more attractive, innovative, and inclusive. This strategic plan is a good practice initiative as it takes a comprehensive, long-term approach to encouraging the participation of girls in STEM.
- **EIC Women Leadership Programme**: This is a skills enhancement and networking programme for women researchers and entrepreneurs. It is offered by the European Innovation Council (EIC) in partnership with the European Institute of Innovation and Technology (EIT). It provides a combination of training sessions, networking events, personalised mentorship, and business coaching to help participants develop their leadership skills and advance their careers. It is a good practice as spotlighting women innovators and leaders, as well as offering networking opportunities, can help to break down barriers regarding access to information and related work opportunities.
- **EU Women Innovators Prize**: The European Prize for Women Innovators, a joint initiative of the EIT and the EIC, recognises and rewards, with a grant, women entrepreneurs who are driving positive change through groundbreaking innovations. The prize showcases trailblazing women from across Europe, highlighting role models for future generations, but also celebrating their contributions to research and innovation. Its alumni community also participate actively in the EIC Women Leadership Programme.
- **She Figures publication**: Since 2003, this recurring publication monitors gender equality in research and innovation. It provides a range of indicators on gender equality in research and innovation at pan-European level. It aims to give an overview using a wide range of indicators to examine the gender impact and effectiveness of targeted policies implemented in this area. This evidence-based approach is essential for developing effective policies and interventions that address the complex issues surrounding gender equality in research and innovation.

Promoting workplace environments that attract, retain, and advance women scientists

The EU demonstrates a commitment to enacting evidence-based, gender-responsive national and institutional policies aimed at cultivating workplace environments that effectively attract, retain, and advance women in research and innovation, including in leadership roles. A central tenet of this commitment is the integration of robust gender equality provisions into major funding programmes, such as the research and innovation funding programme, **Horizon Europe**, with the overarching goal of creating equitable research and innovation systems. These initiatives underscore the importance of systemic changes in working conditions, career progression pathways, and work-life balance to ensure sustainable and inclusive scientific careers.

Examples of such good practices in policy initiatives include:

- **Gender Equality Plans (GEPs) as an eligibility criterion for Horizon Europe**: By making a GEP an eligibility requirement for public bodies, research organisations, and universities applying for Horizon Europe funding, the European Union has created a strong incentive for institutions to adopt concrete measures to ensure gender equality. In addition to the mandatory process-related requirements, the following five thematic areas are recommended for the content of an organisations' GEPs: work-life balance and organisational culture; gender balance in leadership and decision-making; gender equality in recruitment and career progression; integration of the gender dimension into research and teaching content; and measures against gender-based violence including sexual harassment. As of 2026, a Gender equality Competence facility will be funded with €1 000 000 to support development and implementation of inclusive GEPs across the ERA and facilitate structural change and enhance sustainability within organisations. A key aspect of this service is to support concerned organisations in complying with the GEP eligibility criteria introduced in Horizon Europe, as well as with other related requirements.
- The **EU prize for Gender Equality in R&I**: aims to promote and reward higher education and research organisations that have made significant strides in achieving gender equality. As it complements the requirement for a Gender Equality Plan in Horizon Europe, the prize incentivises institutions to develop and implement effective gender equality policies, supporting the transformation of universities and research organisations within the new European Research Area. Ultimately, the award seeks to create a community of champions that inspire others to follow suit, raising public awareness of the importance of addressing gender equality through institutional change. With three previous editions, it has already identified eleven inspiring champions.
- **Zero-Tolerance Code of Conduct Counteracting Gender-Based Violence Including Sexual Harassment, in the EU Research and Innovation System**: This voluntary code of conduct was developed by the ERA (European Research Area) Forum sub-group 'Inclusive Gender Equality in the ERA', in close cooperation with the European Commission. It emphasises the need to create safe and inclusive work environments. It aims to prevent and address incidents of gender-based violence in research and higher education environments by setting out a common approach, definitions, and a list of principles to guide Member States and other stakeholders and individuals, to create an environment free from all forms of gender-based violence, based on the values of gender equality and inclusiveness, respect, dignity and safety.

- **European Research Council Regulation for Parental Leave**: The ERC Scientific Council recognises the importance of promoting diversity and work-life balance in research and innovation and has accordingly implemented generous extension regulations for parental leave. It is a good practice because it recognises that career breaks for parental leave might disproportionately affect women's career progression. This policy therefore helps to mitigate the negative impact of caregiving responsibilities on a researcher's career timeline. This shows a commitment to retaining female talent by creating a more flexible and supportive work environment.

Collection of disaggregated data for evidence-based policies and monitoring progress

The **European Union's Gender Equality Strategy 2020-2025**, which aims to achieve a gender-equal Europe, has led to the development of a range of good practices, including initiatives that provide high-quality data and evidence to inform policy and decision-making. The **European Institute for Gender Equality (EIGE)** and **Eurostat** play a key role in supporting the collection and analysis of sex-disaggregated data and promoting the use of intersectional analysis.

The **General Data Protection Regulation (GDPR)** is a crucial regulation for data handling across the European Union. With the primary goal "to give control to individuals over their data" and "simplify the regulatory environment", it promotes strong and ethical data governance. While there is no explicit or direct link between this regulation and gender disaggregated data, it still has an influence on how personal data, including gender data, can be collected, stored, processed, and used.

On 7 March 2025, a comprehensive framework to advance women's rights and gender equality was introduced by the European Commission: the **EU roadmap for women's rights**. This initiative establishes a long-term vision for gender equality and lays the groundwork for the post-2025 gender equality strategy. It demands the systematic collection of sex-disaggregated data and assessing the gender impact of public policies, as well as the systematic consideration of anthropometric data and factors affecting women's lives. In addition, the EU funds initiatives and projects that contribute to bridging the data gaps in the field, such as:

- **She Figures Publication**: This European Commission publication has been published every three years since 2003. It promotes the regular and systematic collection of gender-disaggregated data on a wide range of indicators (e.g., student enrolment, academic staff, and decision-making positions). It is a fundamental good practice for evidence-based policy as it provides the necessary baseline data to understand the gender gap and monitor progress, over time, on the state of gender equality in research and innovation.
- **EIC WP 2022 Pilot European Innovation Gender and Diversity Index**: This pilot index was developed by the European Union-funded project, **GENDEX**, under Horizon Europe. The GENDEX Index provides a comprehensive analysis of gender diversity within Europe's innovation ecosystem, with a focus on addressing the critical gender gaps in leadership and investment within the Deep Tech sector. By exploring key data points across three hierarchical tiers, it offers a nuanced understanding of the disparities and challenges faced by women in this area.

- **Framework for the integration and evaluation of inclusive gender analysis in research and innovation content**: This document was developed by the European Research Area Forum Subgroup on Inclusive Gender Equality in the European Research Area, in close cooperation with the European Commission. It provides guidance to national authorities, and research and innovation funding organisations on policy measures to ensure the effective implementation and evaluation of the integration of the gender dimension into research and innovation content, from an intersectional perspective.

Integrating gender-related aspects into the content of research

The EU is committed to ensure and promote the integration of gender-related aspects into research questions and methodologies, recognising that this approach fundamentally enhances scientific excellence, and the societal relevance of the knowledge produced. The EU has materialised this commitment with **Horizon Europe** by making gender equality a cross-cutting priority and introducing strengthened provisions. In particular, good practice can be found with the:

- **Adoption of the requirement to integrate the gender dimension through Horizon Europe**: it directly mandates the integration of gender into research design and content, moving beyond increasing women's participation and gender balance to improving the quality and impact of research. Its objective, as part of the broader Horizon Europe programme, is to *"better integrate the gender dimension in projects to improve research quality as well as the relevance to society of the knowledge, technologies and innovations produced"*.
- **Allocation of targeted research funding to advance gender equality**: the EU's funding also directly supports research that promotes gender equality in all sectors. For instance in health to advance women's health, improve access to health and care services for vulnerable groups, in mobility to create more inclusive facilities, or in security to prevent and combat domestic and sexual violence. These funds aim to bridge the knowledge gap, generate new knowledge and inform strategies for greater inclusivity.

Gender equality and gender mainstreaming in research has been a priority of the European Research Area (ERA) since the ERA Communication of 2012, in which the European Commission set three objectives to work with EU countries and foster institutional change. With the ERA Policy Agenda 2022-2024,[15] and its specific action to promote gender equality and foster inclusiveness, the EU targeted specific outcomes such as, developing principles for the integration and evaluation of the gender perspective in research and innovation content in cooperation with national Research Funding Organisations (RFOs).

On this, the Framework for the Integration and Evaluation of Inclusive Gender Analysis in R&I Content provides guidance, to national authorities and research and innovation funding organisations, on policy measures to ensure the effective implementation and evaluation of the integration of the gender dimension into research and innovation content from an intersectional perspective.

[15] https://research-and-innovation.ec.europa.eu/document/download/0c2f5f95-3274-4ab8-9acb-d6673dc238b8_en (accessed 10 September 2025)

Implementing the UNESCO 2024 Call to Action: Closing the Gender Gap in Science

The aim of this Call to Action is to leverage science for sustainable development and ensure that diverse perspectives contribute to global solutions. With its commitment through funding under **Horizon Europe** and the policies led under the **European Research Area**, the EU is fully aligned with the UNESCO Call to Action.

Building on these two initiatives, the following good practices support the achievement of this recommendation:

- **ERA Policy Agenda 2025-2027: "Strengthening Gender Equality and Inclusiveness in the ERA, notably with an Intersectional Approach"**: This set of initiatives is a good practice because it aligns directly with the goals of the UNESCO Call to Action and give a concrete priorities and deadline to its deliverable. More precisely, as it gathers stakeholders representing member states and associated countries to **Horizon Europe**, it brings together diverse expertise and fosters institutional change. By explicitly adopting an "intersectional approach" and committing to strengthening gender equality, the policy initiative serves as a high-level strategic framework for implementing many of the recommendations in the UNESCO call, from addressing gender biases to promoting inclusiveness.
- **EU-funded projects dedicated to developing inclusive gender equality policies in support of the new European Research Area**: These projects are aligned with the goals of the UNESCO Call. For example, some projects focus on supporting research and innovation organisations to implement gender equality plans. Between 2010 and 2025, the EU supported 350 organisations through 37 projects funded under FP7 (Science in Society), Horizon 2020 (Science with and for Society), and Horizon Europe (WIDERA), with an EU contribution of €79 000 000. Some projects are also dedicated to advance specific areas such project dedicated to tackling gender-based violence in EU research institutions.

Key intersectional policy initiatives for closing the gender gap in science

The European Union's policy initiatives demonstrate a nuanced and evolving commitment to addressing the gender gap in research and innovation, particularly when viewed from an intersectional perspective. Initially, many policies concentrated on boosting the representation of women in STEM fields and leadership positions, aiming to rectify the numerical imbalance. However, the latest policy documents acknowledge that the gender gap is a complex, multifaceted issue that intersects with a range of other social factors, including race, ethnicity, disability, and socioeconomic status. This deeper understanding recognises that the experiences of women in research and innovation are shaped by multiple, intersecting forms of discrimination, and that a comprehensive approach is needed to effectively close the gender gap.

The Framework for the Integration and Evaluation of Inclusive Gender Analysis in Research and Innovation Content is a tool for embedding an intersectional perspective directly into the scientific process. It shifts the focus from who is doing the research to the content of the research itself. By making this a requirement in Horizon Europe proposals, researchers are prompted to explicitly consider intersectional factors or provide a reasoned justification if they are not relevant. This institutionalises intersectional thinking at the earliest stage of the research cycle. This framework elevates the integration of "inclusive gender analysis" as a marker of research quality and excellence. It encourages researchers to think beyond a binary approach and consider how a product or service will be experienced differently by various groups of people.

Two key policy initiatives stand out as good practices addressing the gender gap in research and innovation in the European Union in an intersectional way. These policies are not just a step forward for gender equality but are foundational in their focus on intersectionality:

1. **ERA Policy Agenda 2025–2027: "Strengthening Gender Equality and Inclusiveness in the ERA, notably with an Intersectional Approach"**
    - **Why it's a good practice**: This agenda explicitly mentions "inclusiveness" and an "intersectional approach" in its core objective. This serves as a formal mandate for European Union Member States, and countries associated with Horizon Europe, as well as stakeholders, to move beyond a binary gender analysis.
    - **Intersectional nuance**: It aims to improve the participation of "under-represented and socially disadvantaged persons" in European research and innovation. This acknowledges that the challenges faced by women in research and innovation are not uniform. The agenda seeks to reduce geographical disparities in addressing gender equality and inclusiveness, recognising that the support for women researchers can vary significantly between European Union countries and promoting a regional approach to address gender inequalities.

2. **Gender Equality Plans (GEPs) as an Eligibility Criterion for Horizon Europe and a recognition of excellence:**
    - **Why it's a good practice**: Making GEPs a mandatory eligibility criterion for public bodies, higher education institutions, and research organisations seeking Horizon Europe funding is an important policy lever. It encourages institutional change with a clear commitment from top management, based on the collection and monitoring of organisational sex/gender-disaggregated data. Additionally the EU award for gender equality champions in R&I also aim to create a community of champions who inspire other academic and research organisations to become gender equality champions themselves, and to raise public awareness of the importance of addressing gender equality in academic and research organisations through institutional change.
    - **Intersectional nuance**: An intersectional GEP must go further by collecting data disaggregated by other factors, such as **ethnicity, disability, and socioeconomic background**, and proposing innovative solutions to consider intersectional inequalities in the implementation of the GEPs. There are several areas suggested to consider in a GEP. For example, the GEPs must not only focus on recruitment and career progression but also address issues like gender-based violence and work-life balance. In addition, with regard to the EU award for gender equality champions, a dedicated

category on “Inclusive Gender Equality Champions” highlights organisations that have developed the most innovative inclusive GEP – i.e. a GEP addressing intersections between gender and at least two other social categories, such as racial or ethnic origin, social origin, sexual orientation and gender identity (LGBTIQ) and disability – and can demonstrate concrete results obtained through its implementation.

FRANCE

Introduction

France's approach is to create a robust ecosystem for gender equality in science by combining top-down mandates with bottom-up initiatives. The suite of policy initiatives demonstrates a multifaceted and evolving approach to gender equality, moving beyond simple numerical parity to address systemic and structural barriers. Many of these policy initiatives, while not exclusively focused on gender, have significant implications for closing the gender gap, particularly in science and research. They seek to change not only who participates in science but also the culture and content of scientific research. This is increasingly being done with an eye toward intersectionality, recognising that gender equality is intertwined with other forms of equality, such as those related to disability, race, and socio-economic background.

This member note has the following objectives:

1. To provide, as outlined in the table below, an overview of a selection of policy initiatives identified as relevant for the G20 Recommendations on Diversity, Equity, Inclusivity, and Accessibility (DEIA). The aim is to provide a snapshot of the broader set of policy initiatives included in the compendium database.

2. To provide, in the remainder of this member note, highlights of good practices in policy initiatives responding to the G20 Recommendation: Closing the Gender Gap in Science. It is organised according to the sub-recommendations:
   - Encouraging women and girls to consider careers in science
   - Promoting workplace environments that attract, retain, and advance women scientists
   - Collecting disaggregated data for evidence-based policies and monitoring progress
   - Integrating gender-related aspects into the content of research
   - Implementing the UNESCO 2024 Call to Action: Closing the Gender Gap in Science

3. To identify, in the last section, key intersectional policy initiatives for closing the gender gap in science.

Table 9 France: Summary of the relevant policy initiatives by G20 Recommendation on DEIA

G20 Recommendation on DEIA	Number of policy initiatives	Policy instrument types	Main target groups/ beneficiaries (STIP categories)	Main target groups/ beneficiaries (Specific)
1. Promoting diversity, equity, inclusion and accessibility in STI systems	13	Direct financial support; Governance; Guidance, regulation, incentives	Economic actors (individuals); Firms; Governmental entities; Intermediaries; Research and education organisations; Researchers, students and teachers; Social groups especially emphasised	Higher education and research institutions; students; businesses; caregivers; citizens; citizens (especially those from underrepresented groups); civil society organisations; doctoral candidates with disabilities; economic stakeholders; entrepreneurs from less privileged backgrounds; equality officers; farmers; general public; government bodies; government representatives; heads of scientific and technical information services; healthcare professionals; innovative companies; local stakeholders; museums; national associations of scientific and technical culture; organisations; patient organisations; patients with mental pathologies; policy-makers; practitioners globally; referents; research and higher education centres (PRESs); researchers; researchers working with members of civil society; school children; scientific and technical culture centres; scientists; scientists and artists in exile; social stakeholders; tech startups; the French government; the public; under-represented populations in the tech sector; women in higher education and research (ESR)
2. Closing the gender gap in science	11	Direct financial support; Governance; Guidance, regulation, incentives	Intermediaries; Research and education organisations; Researchers, students and teachers; Social groups especially emphasised	All workers; researchers; staff; directorates of establishments; educators; European partners; girls; institutions; international partners; non-teaching staff; presidents; public bodies; research institutions; researchers; students; teaching staff; those in charge of reporting and disciplinary mechanisms; victims of discrimination; victims of harassment; victims of violence; women; women and

Continues overleaf...

G20 Recomm-endation on DEIA	Number of policy initiatives	Policy instrument types	Main target groups/ beneficiaries (STIP categories)	Main target groups/ beneficiaries (Specific)
				men in higher education and research; women and men in the workforce; women in research and technology; young women
3. Fostering dialogue between different knowledge systems	Not recorded	Not recorded	Not recorded	Not recorded
4. Transitioning to open science	10	Collaborative infrastructures (soft, physical); Direct financial support; Governance; Guidance, regulation, incentives	Economic actors (individuals); Firms; Governmental entities; Intermediaries; Research and education organisations; Researchers, students and teachers; Social groups especially emphasised	AI experts; academics; authors; businesses; civil society organisations; decision-makers; general public; government entities; government services; higher education institutions; industrialists; journalists; ngos; private companies; public institutions; research support staff; researchers; schoolchildren; scientific community; students; teachers
5. Combating inequities in STI	6	Collaborative infrastructures (soft, physical); Governance	Firms; Governmental entities; Intermediaries; Research and education organisations; Researchers, students and teachers; Social groups especially emphasised	Businesses; citizens; energy sector; energy sector actors; government officials; higher education leaders; local beneficiaries; local communities; partner governments; private research institutions; public research institutions; the French government; various industrial sectors

Note: This table includes a set of policy initiatives selected for inclusion in the compendium, 'STI for All': A Compendium of Good Practices in STI Policy. The main aim is to identify good practice policy initiatives rather than to provide an exhaustive list of the G20 member/guest country's policy initiatives.

Encouraging women and girls to consider careers in science

France encourages women and girls to pursue scientific careers through recognition, specialised training, and support programmes. These programmes include prestigious awards that emphasise scientific communication and extensive incubator initiatives designed to nurture entrepreneurial talent among under-represented groups, including women. Such efforts are further supported by institutional commitments to promote scientific engagement from a young age, reflecting a strategic long-term investment in building a diverse talent pipeline.

Examples of good practices in policy initiatives that collectively highlight an approach beyond traditional incentives, focusing on cultural and structural encouragement to broaden participation, include:

- **Irène Joliot-Curie Prize**: This prize promotes the place of women in research and technology in France by highlighting exemplary careers of women scientists.
- **Women Engineers**: This initiative is explicitly focused on promoting girls in their orientation towards science and technology courses and engineering careers. It aims to actively encourage and support women in a field where they are underrepresented. This enhanced visibility within a specific domain helps to challenge entrenched stereotypes about who belongs in engineering.
- **CNRS Action Plan for Gender Equality**: This plan is targeted to promote gender equality in every research activity at CNRS. This includes encouraging young women and girls in scientific careers and developing European and international collaborations on these issues.

While not focused specifically on gender equality, France also actively promotes the inclusion of women and girls to consider careers in science, through, but not limited to, these policy initiatives:

- **French Tech Springboard**: This initiative aims to maximise the opportunities of under-represented populations in the tech sector by mobilising funding, training and a mentoring system. It prioritises the rebalancing of opportunities to ensure that everyone has access to the same benefits as entrepreneurs from privileged backgrounds.
- **LPR – Research Programming Act / CNRS Medal for Scientific Mediation**: This Act rewards both women and men (researchers, engineers, research support staff) who have set up mediation systems for the public. It also rewards schoolchildren, students, decision-makers and industrialists.
- **National Emergency Programme for Scientists in Exile (PAUSE)**: This programme offers incentives for higher education research and cultural establishments to scientists and artists through the provision of financial support. In addition, it helps recipients to identify an establishment and to accompany them for a sustainable professional integration.

Promoting workplace environments that attract, retain, and advance women scientists

France has enacted comprehensive national and institutional policies aimed at establishing equitable and supportive environments within higher education and research institutions. These initiatives focus on essential issues, including professional equality, pay equity, work-life balance, and the prevention of gender-

based violence. Through the enhancement of governance and the promotion of systemic change, these policies seek to attract, retain, and advance women scientists into leadership positions, ensuring their full participation and contribution. Some good practice examples include:

- **2013 Law on Higher Education and Research**: This law strengthens the position of women in higher education by making it compulsory for institutions to create an equality mission in their organisation. The law is mobilised through a structured network of "equality officers" and "referents" in all higher education and research institutions to share good practices and training.
- **Gender Equality under French Private Labour Law**: This law prohibits discrimination in hiring and ensures equal pay by addressing the gender pay gap.
- **National Action Plan to Combat Sexual Violence in Higher Education and Research**: This is a preventative mechanism that requires training, sensitisation and reporting on sexual violence in higher education and research institutions. The action plan is mobilised through the establishment of dedicated units, the extension of reporting structures and specific structures in institutions.
- **Obligation for All Higher Education and Research Public Bodies to Draw Up a Gender Equality Plan**: This plan is aimed at advancing equality between women and men and encourages the improvement of structures and actions already implemented.
- **Rixain Law**: This law is a national imperative to reduce gender disparities in higher education and research.
- **National Action Plan for Professional Equality (2021-2023)**: While this plan covers the public sector broadly, its principles can be applied to science and research. The focus on professional equality includes measures to support career development and advancement, addressing issues like salary disparities and glass ceilings.
- **ANR Action Plan on Gender Equality**: As an operator under the supervision of the Ministry responsible for higher education and research, ANR has developed this action plan as a direct gender equality initiative that aims to address systemic biases. Its scope is within research funding agencies that ANR funds, to implement a gender dimension in the allocation of funding and career progression.

Collection of disaggregated data for evidence-based policies and monitoring progress

France recognises the vital importance of extensive data collection and management in formulating evidence-based policies and tracking progress towards gender equality in science. The following good practice is a key initiative to enhance data circulation, transparency and utilisation.

- **Obligation for all higher education and research public bodies to draw up a gender equality plan**: This initiative is a good practice because it requires institutions to collect gender-disaggregated data as the very first step of their plan. This makes the data collection process mandatory and systematic, ensuring that institutions have the information needed to create and monitor evidence-based policies.
- **CNRS and ANR Action Plans on Gender Equality**: These plans are excellent examples of a commitment to data-driven policy and demonstrate how operators of ministries can implement gender equality in their policies. They aim to track the representation of women at different career stages, in leadership positions, and as recipients of research funding.

- **Data, Algorithms and Source Code Policy – Roadmap 2021-2024**: While not focused specifically on gender equality, this action plan aims to make the sharing and exploitation of data, algorithms and source code more inclusive and accessible in the areas of research data management. This includes the use of open-source software, and an open science infrastructure ecosystem to simplify the life of researchers, teachers and students.

Integrating gender-related aspects into the content of research

France exemplifies a progressive stance towards scientific excellence by advocating for the incorporation of gender-related and ethical considerations into research inquiries, especially within emerging disciplines such as Artificial Intelligence.

This policy initiative stands out as good practice:

- **Financial Support for Institutions that Integrate Gender in Research Content**: Aimed at institutions, researchers and educators, this policy initiative supports institutions in integrating gender dimensions in research content and teaching. It shifts the focus from simply increasing the number of women scientists to changing the way science is done.

While not focused on gender equality, the following initiatives demonstrate good practice in enhancing scientific excellence and the societal relevance of the knowledge produced, including the potential for integrating gender-related aspects into the content of research:

- **AI for Humanity – National Strategy in Artificial Intelligence**: This strategy focuses on ethics and humanity. It aims to attract the best expertise in artificial intelligence and leverage data to fuel AI dissemination in the economy and society. The ethical component is the strategy's commitment to fostering dialogue between performance and humanity.
- **LPR – Research Programming Act / "Science and Society" Call for NGOs**: This Act is dedicated to helping NGOs that promote science-society dialogue.
- **LPR – Research Programming Act / 1% of ANR's Budget Dedicated to Science – Society Dialogue**: The Act institutionalises a dedicated budget to promoting public engagement with science as a national imperative towards making the dialogue between science and society permanent.
- **PIA Initiatives for Scientific and Technical Culture**: This aims to develop projects for scientific and technical culture through national associations and Research and Higher Education Centres (PRESs) by making these centres more visible through an innovative information and communication technologies portal.

Implementing the UNESCO 2024 Call to Action: Closing the Gender Gap in Science

The comprehensive suite of French policies, encompassing initiatives that encourage girls in STEM, promote workplace equality, and address the ethical dimensions of research, collectively advances the overarching aim of closing the gender gap in science, the primary objective of the UNESCO Call to Action. The following are highlighted as examples good practice: the obligation for all higher education and research public

bodies to draw up a gender equality plan, for example, the CNRS or ANR Action Plans on Gender Equality, Women Engineers, Financial Support for Institutions that Integrate Gender in Research Content, and the National Action Plan to Combat Sexual Violence in Higher Education and Research.

Key intersectional policy initiatives for closing the gender gap in science

France's approach to promoting gender equality in science is characterised by a comprehensive and balanced strategy that integrates legal frameworks with targeted programmatic initiatives. The country adopts a legislative perspective through laws that promote gender equality plans and promote balanced representation in governing bodies. Complementing these efforts are grassroots initiatives designed to encourage women's participation from an early age and offer sustained support throughout their careers. While existing policies primarily address the gender binary, there is growing recognition of the importance of intersectionality, as reflected in programmes that acknowledge the unique challenges faced by individuals with intersecting identities, such as gender combined with disability or socioeconomic factors. Overall, France strives to mainstream gender equality across all policies, while also implementing specific programmes to foster inclusion of underrepresented groups.

Four key policy initiatives stand out as good practice for addressing the gender gap in science in France in an intersectional way. These policies are not just a step forward for gender equality but are foundational in their explicit or implied focus on intersectionality, thereby making them more robust and effective:

1. Mandatory Institutional Change

- **Why it's a good practice**: France has moved to embed gender equality within the very structure of its research and higher education institutions. The obligation for all higher education and research public bodies to draw up a gender equality plan is a central component of this. These plans require institutions to conduct self-assessments, set goals, and implement actions to address gender disparities in areas like recruitment, promotion, and leadership. This is a crucial shift from voluntary efforts to a mandatory, accountability-based framework. The **2013 Law on Higher Education and Research** was an early example of this by requiring gender parity in the governance bodies of universities. Good practice policy initiatives include: **Obligation for all higher education and research public bodies to draw up a gender equality plan, as the CNRS and ANR did with their Action Plans on Gender Equality,** and the **National Action Plan to Combat Sexual Violence in Higher Education and Research**.

2. National Emergency Programme for Scientists in Exile (PAUSE)

- **Why it's a good practice**: This initiative serves as a commendable example of an intersectional approach, thoughtfully addressing the multifaceted challenges experienced by a distinct and vulnerable segment: scientists who are also refugees or exiles.
- **Intersectional nuance**: The programme recognises the complexities these individuals encounter, including professional obstacles related to employment, as well as significant personal and legal considerations stemming from displacement. Through providing financial support for positions, aiding in the identification of host institutions, and advocating for academic freedom, the initiative effectively tackles several interconnected issues. It underscores the understanding that a scientist's

professional journey is often closely linked to their personal circumstances, particularly when those circumstances are shaped by crises and displacement. Recognising that female scientists in exile may face unique challenges – such as gender-based violence, varying asylum procedures, or cultural biases – could enhance the programme's overall impact. An intersectional approach – such as providing gender-sensitive resources or partnering with organisations dedicated to women's rights – might help ensure that these specific needs are acknowledged and addressed.

3. Campaign for doctoral contracts for people with disabilities

- **Why it's a good practice**: This campaign serves as a commendable example of an intersectional approach to policymaking, as it addresses the intersection of disability and academia.
- **Intersectional nuance**: It recognises the unique challenges faced by individuals with disabilities in pursuing advanced degrees and careers in research. By offering specialised doctoral contracts, it creates a dedicated pathway to support this group's participation and success in a field where they are often underrepresented. The policy's aspiration to "foster an inclusive society" through tangible support for doctoral students with disabilities reflects a nuanced understanding that a generic equality policy may not suffice; rather, targeted actions are essential to effectively address systemic barriers. The policy could be further strengthened by considering how disability intersects with other aspects such as gender, race, or socioeconomic status.

4. French Tech Springboard

- **Why it's a good practice**: While not focused on gender equality, this policy initiative reflects an intersectional approach by striving to enhance entrepreneurship opportunities for underrepresented populations. It acknowledges that various factors, including socioeconomic background influence gender inequality in technology. Through initiatives such as funding, training, and mentoring, it aims to address multiple barriers and support women from diverse, less privileged backgrounds. Recognising that entrepreneurial pathways are shaped by multiple influences other than gender, the mentoring programme also provides social capital and networking opportunities, which may be more readily accessible to those from privileged groups.
- **Intersectional nuance**: While the policy initiative provides a commendable foundation by recognising socioeconomic status alongside gender, there is an opportunity to make its language more inclusive by explicitly acknowledging other dimensions of inequality. The term "under-represented populations" serves as a helpful umbrella, but providing more specific details could enhance clarity, to better tailor its support and address systemic biases. For instance, the policy might be strengthened by explicitly mentioning intersecting identities such as race/ethnicity, disability, or geographic location (e.g., urban vs. rural areas) and developing strategies accordingly.

GERMANY

**This country note contains provisional information and has not been officially verified.*

Introduction

Germany's approach to closing the gender gap in science is multi-faceted, systematic, and increasingly intersectional. Its aim is to address the issue at every stage of the academic and professional pipeline. The strategy combines targeted funding initiatives, structural reforms within institutions, and a commitment to data-driven policymaking.

Key policy initiatives include the Programme for Women Professors of the Federal Government and the Länder, which incentivises universities to hire women in leadership roles by providing funding linked to the institution's commitment to gender equality. Furthermore, the German Research Foundation (DFG) has implemented Research-Oriented Equity and Diversity Standards that require universities to go beyond simple gender metrics and consider a broader range of diversity factors, such as ethnic origin and disability, in their pursuit of excellence. This is complemented by funding for projects that specifically address the "gender data gap" in research. The country actively pursues targeted promotion and visibility, as evidenced by the funding line Women in Science, Research and Innovation: Making Achievements and Potentials Visible, Anchoring Visibility Structurally (Innovative Women in Focus), which works to spotlight women scientists and innovators as role models, and counter stereotypes by showcasing the successes of women in scientific fields. Initiatives like the Promotion of Structures for the Systematic Consideration of Gender-Related Aspects in Research Questions (Gender Aspects in Focus) promote the systematic integration of gender-specific aspects into the research content, recognising that a more diverse research workforce and inclusive research questions are crucial for scientific excellence and societal relevance.

This member note has the following objectives:

1. To provide, as outlined in the table below, an overview of a selection of policy initiatives identified as relevant for the G20 Recommendations on Diversity, Equity, Inclusivity, and Accessibility (DEIA). The aim is to provide a snapshot of the broader set of policy initiatives included in the compendium database.

2. To provide, in the remainder of this member note, highlights of good practices in policy initiatives responding to the G20 Recommendation: Closing the Gender Gap in Science. It is organised according to the sub-recommendations:
   - Encouraging women and girls to consider careers in science
   - Promoting workplace environments that attract, retain, and advance women scientists
   - Collecting disaggregated data for evidence-based policies and monitoring progress
   - Integrating gender-related aspects into the content of research
   - Implementing the UNESCO 2024 Call to Action: Closing the Gender Gap in Science

3. To identify, in the last section, key intersectional policy initiatives for closing the gender gap in science.

Table 10 Germany: Summary of the relevant policy initiatives by G20 Recommendation on DEIA

G20 Recommendation on DEIA	Number of policy initiatives	Policy instrument types	Main target groups/ beneficiaries (STIP categories)	Main target groups/ beneficiaries (Specific)
1. Promoting diversity, equity, inclusion and accessibility in STI systems	33	Collaborative infrastructures (soft and physical); Direct financial support; Governance; Guidance, regulation and incentives; Indirect financial support	Economic actors (individuals); Firms; Governmental entities; Intermediaries; Research and education organisations; Researchers, students and teachers; Social groups especially emphasised	After school centres; automotive industry; business; car manufacturers; citizens; civil society; companies; children; early childhood centres; education researchers; employees; German government; girls; government in specific regions; government; high-level experts from science; industry; innovators; institutions; mental health professionals; patients; policymakers; primary schools; professionals in STEM; regional partners; regions that are particularly affected by structural change; research institutions; researchers; researchers in the humanities and social sciences; social innovators; students; teachers; technology companies; technology developers; education sector; German workforce; medical community; public; reproductive; health sector; families; universities; women; young people; young researchers
2. Closing the gender gap in science	9	Direct financial support; Governance	Economic actors (individuals); Firms; Governmental entities; Intermediaries; Research and education organisations; Researchers, students and teachers; Social groups especially emphasised	Female professors; researchers; German government; women in STEM research; women in science; companies; female researchers aiming for professorships; higher education institutions; medical institutions; research institutes; research institution administrators; researchers; women; civil society; industry; entrepreneurs; clinical research sector; healthcare sector; universities

Continues overleaf...

G20 Recommendation on DEIA	Number of policy initiatives	Policy instrument types	Main target groups/ beneficiaries (STIP categories)	Main target groups/ beneficiaries (Specific)
3. Fostering dialogue between different knowledge systems	Not recorded	Not recorded	Not recorded	Not recorded
4. Transitioning to open science	20	Collaborative infrastructures (soft and physical); Direct financial support; Governance	Economic actors (individuals); Firms; Governmental entities; Intermediaries; Research and education organisations; Researchers, students and teachers; Social groups especially emphasised	Businesses; citizen science projects; citizens; civil protection agencies; civil society; civil society organisations; emergency services; experts; farmers; government; government services; healthcare professionals; industry; innovators; librarians; policymakers; public administration; public authorities; publishers; research institutions; researchers; rural communities; science communicators; technology developers; German government; government; public; transport companies. universities
5. Combating inequities in STI	25	Collaborative infrastructures (soft and physical); Direct financial support; Governance; Guidance, regulation and incentives	Economic actors (individuals); Firms; Governmental entities; Intermediaries; Research and education organisations; Researchers, students and teachers; Social groups especially emphasised	Africa; African cities; African countries; Arab countries; cancer patients; marine researchers; medical researchers; research institutions; researchers; startups; students; German government; public; young researchers from Germany; businesses; businesses in Germany; citizens; civil society; developers; emergency services; engineering; environmental organisations; environmental scientists; governments; healthcare professionals; hospitals; industry; innovators; institutions; institutions in Germany; investors; local communities in Sub-Saharan Africa and South-East Asia; policymakers; research institutions in environmental science; stakeholders in Germany; teachers; schools; civil society; technology; partner countries; universities; universities in Germany

Note: This table includes a set of policy initiatives selected for inclusion in the compendium, 'STI for All': A Compendium of Good Practices in STI Policy. The main aim is to identify good practice policy initiatives rather than to provide an exhaustive list of the G20 member/guest country's policy initiatives.

Encouraging women and girls to consider careers in science

German policy initiatives demonstrate a strategic commitment to encouraging the participation of women and girls in science, from early education to advanced research. By providing financial and institutional support specifically for girls and women in education, Germany aims to address the root causes of underrepresentation, thereby ensuring a steady flow of female talent into STEM fields – an early intervention crucial for achieving sustainable gender equality in science. Good practice policy initiatives include:

- **Communication Campaign on the European Research Area (ERA)**: This campaign aims to raise awareness about the European Research Area and its opportunities. Targeting a broad audience – including researchers, the public and students – it works to destigmatise science and showcase it as a viable and rewarding career path for everyone, regardless of gender.
- **Funding Line – Increasing the Proportion of Women in STEM Research and Innovation Process**: This policy identifies the critical non-structural barrier of self-efficacy and aims to strengthen the self-efficacy and creativity of women in STEM.
- **MINT (STEM) Action Plan 2.0**: This updated national plan seeks to promote STEM education and careers, which now includes a gender dimension.
- **Programme for Women Professors of the Federal Government and the Länder**: Addressing the critical issue of the "leaky pipeline" in academia, this policy initiative aims to close the gender gap in academia by increasing the proportion of women in professorships at universities.

Beyond direct educational funding, broader economic and societal programmes also promote gender equality. The following policies are good practice examples:

- **Funding Line Women in Science, Research and Innovation: Making Achievements and Potentials Visible**: With its primary objective to make the achievements of women in science visible and to structurally anchor their visibility, this policy initiative focuses on showcasing the achievements and potential of women in science, providing role models and counter-narratives to pervasive gender stereotypes.
- **Research-Oriented Equity and Diversity Standards**: The German Research Foundation's (DFG) standards explicitly broaden the scope beyond just gender equality to include other dimensions of diversity, such as "gender and gender identity, sexual orientation, age, ethnic origin and nationality, social origin, religion and ideology, disability or chronic/long-term illness." By committing to these standards, institutions are encouraged to counter stereotypes and biases that are not only gender-based but also linked to other intersecting identities, thereby fostering a more inclusive and representative image of who can be a scientist.
- **Little Scientists House**: This policy initiative is a good practice example of proactively seeking to close the gender gap in STEM at an early age by promoting STEM education in early childhood development centres and primary schools.

Promoting workplace environments that attract, retain, and advance women scientists

Germany has implemented policy initiatives that create fair and supportive workplace environments, which are essential for attracting, retaining, and promoting women scientists, especially in leadership roles. This integrated landscape, which prioritises gender equality, provides a platform for addressing global challenges and promoting universal values, ultimately attracting and retaining distinguished female talent.

The following policy initiatives are examples of good practice for promoting gender-responsive workplace environments:

- **Research-Oriented Equity and Diversity Standards**: These standards from the DFG frame equity and diversity as a strategic management task. Institutions are expected to "systematically" gear all structural and management measures towards equity and diversity, including in "all staff- and resource-related decisions." This is an excellent example of a policy that aims to embed inclusivity at a systemic level. The standards also explicitly mention the importance of addressing "career-inhibiting effects of diversity" and ensuring protection against discrimination and harassment.
- **Programme for Women Professors of the Federal Government and the Länder**: This programme links funding to a university's "equality concept." This means that institutions are incentivised, not only to hire women, but to demonstrate a commitment to a gender-equitable culture and supportive structures, such as career and personnel development for early-career female scientists.

Collection of disaggregated data for evidence-based policies and monitoring progress

Germany's policy framework emphasises the systematic collection and use of gender-disaggregated data, along with other intersectional data, to inform policy development and track progress towards closing the gender gap. This demonstrates Germany's acknowledgement that robust, disaggregated data is essential for designing, implementing, and evaluating effective gender equality policies.

The following are examples of good practice in policy initiatives:

- **University Statistics Act**: This Act provides the legal framework for collecting granular data on students and staff in higher education. It allows for a deeper understanding of academic demographics and career pathways, which can be disaggregated by gender, subject, and other factors to identify where the "leaky pipeline" in science is most pronounced.
- **Evaluation of the Federal Government's Strategy on the European Research Area from 2014**: This evaluation is a national imperative for the government. It is a clear example of using a data-driven approach to assess the impact of a comprehensive strategy, ensuring that national efforts align with broader European goals and that progress is systematically measured.
- **Federal Report on Research and Innovation**: This report serves as a valuable accountability tool, offering a comprehensive overview of research and innovation in Germany. By regularly publishing data on research funding, employment, and innovation, it provides a crucial, high-level overview that policymakers can use to identify trends and measure the effectiveness of their policies. It presents an opportunity to incorporate the collection of disaggregated data, which could enrich the insights by considering gendered and intersectional perspectives within the German research and innovation landscape.

- **Funding of Projects on the Topic of Reducing the Gender Data Gap in Clinical Research**: This initiative recognises that a lack of sex-specific data in medical research has serious consequences for women's health. By funding projects to close this gap, Germany is not only promoting scientific excellence but also actively working to ensure that medical research is more relevant and beneficial for all genders.
- **GAIA-X**: While primarily focused on creating a secure and federated data infrastructure, this initiative promotes the trustworthy and transparent exchange of data. By establishing common standards for data sovereignty and interoperability, it promotes an environment where data, including disaggregated data on research and innovation, can be shared and analysed more effectively, thereby strengthening the foundation for evidence-based policy across the scientific landscape.

Integrating gender-related aspects into the content of research

German policies are increasingly promoting the integration of gender perspectives into research content, thereby advancing scientific rigour, ethical standards, and the societal relevance of generated knowledge. The **Funding Line – Promotion of Structures for the Systematic Consideration of Gender-Related Aspects in Research Questions** is a direct policy response, structurally embedding gender analysis into the research process. This moves beyond getting more women into science, to also focus on improving the quality and relevance of the science being produced.

The following are good practice examples of policy initiatives integrating gender-related aspects into research to maximise societal benefit:

- **Funding Line – Promotion of Structures for the Systematic Consideration of Gender-Related Aspects in Research Questions**: This policy initiative represents the good practice transition towards integrating a gender-aware perspective into research practices by encouraging the systematic consideration of gender-related aspects.
- **Civic Coding – Innovation Network AI for the Common Good**: This policy initiative seeks to strategically harness AI for the collective good by encouraging the development of AI applications that address societal issues. To further enhance its effectiveness, the policy might consider incorporating gender or intersectional perspectives to ensure a more inclusive approach.
- **Civic Innovation Platform**: Aimed at innovators, civil society, and both the private and public sectors, this national platform seeks to promote cross-sectoral collaboration. Its focus on developing solutions for societal challenges opens opportunities for a gender-sensitive and intersectional approach, thereby supporting inclusive innovation and fostering broader participation.
- **Funding Initiative for Research on Reducing Barriers to Education**: This policy initiative serves as a good practice example of an explicit intersectional approach by seeking to allocate funding towards research that aims to reduce barriers to education.
- **Interactive Technologies for Gender-Specific Health**: This policy initiative explicitly integrates gender-related aspects into research by prioritising the funding of research on health technologies that address gender-specific health issues.

Implementing the UNESCO 2024 Call to Action: Closing the Gender Gap in Science

Germany's policy landscape demonstrates a strong commitment to international collaboration, global leadership, and systemic change, aligning broadly with the goals of international initiatives, such as the UNESCO 2024 Call to Action.

The following are good practice examples of policy initiatives responding to UNESCO's call to close the gender gap in science:

- **National Action Plan for the European Research Area**: This plan demonstrates Germany's commitment to international collaboration and a harmonised approach to research policy. By aligning its national actions with the European Research Area (ERA), which has a strong focus on gender equality, Germany is contributing to a broader, transnational effort, aligning with the UNESCO call to action. An intersectional perspective would note that the ERA Policy Agenda for 2022-2024 also includes a focus on "inclusiveness," indicating a move beyond a simple gender binary and a commitment to addressing other forms of inequality on a continental scale.
- **Programme for Women Professors of the Federal Government and the Länder**: While a national programme, its goals of increasing the proportion of women in professorships contribute to a global metric of gender equality in academia. By sharing its model and results, Germany can provide a blueprint for other nations, thereby supporting global efforts. The fact that the programme has been extended and evaluated ("Professorinnenprogramm 2030") also shows a commitment to continuous improvement and knowledge sharing, which is vital for international collaboration.
- **Research-Oriented Standards on Gender Equality**: This national policy targeting researchers and research institutions aims to standardise the promotion of gender equality in research.

Key policy initiatives considered to be good practice for closing the gender gap in an intersectional way

Germany's approach to gender equality in science is characterised by a dual strategy of comprehensive mainstreaming efforts complemented by targeted initiatives. The country's policy initiatives are generally guided by a constitutional commitment to equality, complemented by federal and state-level laws that encourage universities and research institutions to actively promote gender parity. An important mechanism in this framework is the cascade model, which aspires to align the proportion of women in specific academic positions with their representation at the next-lower qualification level. While the policy environment has traditionally emphasised a binary view of gender, there is an increasing acknowledgement of the importance of intersectionality. This evolving perspective aims to address how intersecting identities such as race, socioeconomic background, and disability may influence individual experiences of discrimination.

Two key policy initiatives stand out as good practice for addressing the gender gap in science in Germany in an intersectional way. These are not just a step forward for gender equality but are foundational in their focus on intersectionality, thereby making them more robust and effective.

1. Funding Line – Increasing the Proportion of Women in the STEM Research and Innovation Process

- **Why it's a good practice**: This initiative serves as a commendable example of an intersectional approach, as it extends beyond merely increasing the number of women in STEM fields. By explicitly aiming to enhance women's self-efficacy and foster creativity, it recognises that the gender gap encompasses more than representation – it also involves psychological and cultural barriers that can impact women disproportionately. This approach considers the additional challenges faced by women from marginalised backgrounds, aiming to empower them directly. Furthermore, the emphasis on creativity encourages a more comprehensive understanding of scientific contribution, valuing diverse forms of innovation alongside technical metrics.
- **Intersectional nuance**: This policy initiative represents a step forward in enhancing "women's self-efficacy". Including specific outreach or support mechanisms for women facing multiple disadvantages – such as those with disabilities, women of colour, or women from low-income backgrounds – would enhance its inclusivity. To integrate an intersectional approach more fully, it could include targeted programmes, mentorship opportunities, or dedicated funding for these underrepresented groups. Additionally, it could promote the collection and reporting of disaggregated data by race, ethnicity, and socioeconomic status to better assess the policy's impact across diverse groups of women.

2. Funding of Projects on the Topic of Reducing the Gender Data Gap in Clinical Research

- **Why it's a good practice**: This policy initiative exemplifies a well-designed, intersectional approach to addressing disparities in clinical research. By supporting research projects aimed at reducing the underrepresentation of women, it acknowledges the importance of comprehensive data to improve health outcomes. The paucity of female-specific data can lead to challenges such as misdiagnoses or less effective treatments, affecting overall health results for women. This policy recognises that health disparities are influenced not only by gender but also by how gender intersects with biological, social, and cultural factors. By working to fill this data gap, it aims to promote a more inclusive and equitable medical research environment, ultimately benefiting a diverse range of individuals, including women.
- **Intersectional nuance**: While recognising the importance of addressing the gender data gap, the policy description might benefit from also considering other intersecting factors that influence health outcomes, such as race, age, and socioeconomic status. Enhancing data collection to include how medical conditions impact women across different racial and ethnic backgrounds could significantly strengthen clinical research.

3. Funding Initiative for Research on Reducing Barriers to Education

- **Why it's a good practice**: While not explicitly about "science," this initiative has an indirect impact on closing the gender gap in science by addressing one of its root causes: unequal access to education. For women from low-income families, women with disabilities, or women who are first-generation students, educational barriers are often the first and most significant obstacles they face on the path to a scientific career. By funding research on how to reduce these barriers, the German government is creating the foundational conditions for a more diverse pool of future scientists.

- **Intersectional nuance**: This intersectional good practice is excellent as it recognises that gender inequality in science is intertwined with socioeconomic inequality, ableism, and other forms of social stratification. A policy that simply focuses on "women in STEM" might fail to address the unique challenges of a woman who needs an accessible laboratory environment or a single mother who needs childcare support to pursue a degree. By targeting the barriers rather than just the demographic, this initiative has the potential to benefit a wider range of marginalised individuals, thereby creating a more diverse and inclusive pipeline for the sciences.

INDIA

Introduction

India has established a multi-faceted approach to addressing the gender gap in science, recognising that gender intersects with other social identities. A range of policy initiatives and instruments encourage female participation from early education through advanced research and career progression. Key policy initiatives foster early interest and comprehensive support, including re-entry opportunities for women scientists. Institutional transformation is pursued, aiming to create more inclusive workplace environments.

This member note has the following objectives:

1. To provide, as outlined in the table below, an overview of a selection of policy initiatives identified as relevant for the G20 Recommendations on Diversity, Equity, Inclusivity, and Accessibility (DEIA). The aim is to provide a snapshot of the broader set of policy initiatives included in the compendium database.

2. To provide, in the remainder of this member note, highlights of good practices in policy initiatives responding to the G20 Recommendation: Closing the Gender Gap in Science. It is organised according to the sub-recommendations:
   - Encouraging women and girls to consider careers in science
   - Promoting workplace environments that attract, retain, and advance women scientists
   - Collecting disaggregated data for evidence-based policies and monitoring progress
   - Integrating gender-related aspects into the content of research
   - Implementing the UNESCO 2024 Call to Action: Closing the Gender Gap in Science

3. To identify, in the last section, key intersectional policy initiatives for closing the gender gap in science.

Table 11 India: Summary of the relevant policy initiatives by G20 Recommendation on DEIA

G20 Recommendation on DEIA	Number of policy initiatives	Policy instrument types	Main target groups/ beneficiaries (STIP categories)	Main target groups/ beneficiaries (Specific)
1. Promoting diversity, equity, inclusion and accessibility in STI systems	6	Direct financial support; Governance	Firms; Governmental entities; Research and education organisations; Researchers, students and teachers; Social groups especially emphasised	Businesses (SMEs); State Govt. entities); students; academia; citizens; colleges; cities; disadvantaged sections of society; persons with disabilities; research institutions; rural areas; industries; schools; science teachers; specific communities like those with rare diseases; stakeholders in various S&T sectors; technical institutions; the general public; universities; urban areas; researchers (especially young scientists); women; young entrepreneurs
2. Closing the gender gap in science	10	Direct financial support; Governance	Economic actors (individuals); Firms; Governmental entities; Intermediaries; Research and education organisations; Researchers, students and teachers; Social groups especially emphasised	All citizens; DPIIT-recognised startups; Government of India; Indian Nationals belonging to the Scheduled Caste (SC); Indian female scientists who are currently unemployed or not in a regular position; Indian women scientists; Individual scientists; meritorious girl students from 9th to 12th standards; R&D institutions; R&D labs; Scheduled Tribe (ST) categories; students; women scientists; academia; academic institutions; agriculture; researchers; entrepreneurs; girls; groups of scientists; industrial sector (through PPP); industry; innovators; job seekers across the country; vulnerable sections, particularly from rural areas; persons with physical disabilities; post-doctoral; professionals; researchers at various career stages (Ph.D; researchers holding Ph.D. degrees in science; rural population; SC/ST/OBC/ academically weak students; state government schools; women who have taken career breaks; youth (for IT/ITES jobs)

Continues overleaf...

G20 Recommendation on DEIA	Number of policy initiatives	Policy instrument types	Main target groups/ beneficiaries (STIP categories)	Main target groups/ beneficiaries (Specific)
3. Fostering dialogue between different knowledge systems	3	Governance; Guidance, regulation and incentives	Economic actors (individuals); Firms; Intermediaries; Research and education organisations; Social groups especially emphasised	Disadvantaged communities; Grassroots innovators; individuals from diverse socio-economic backgrounds with innovative ideas; Primitive Vulnerable Tribal Groups (PVTG); Scheduled Tribes; artisans; aspirational districts; aspiring community innovators (age 18-35; bachelor's/diploma/degree holder); coastal areas; economically poor people; entrepreneurs; farmer clients; hilly, including Tier 2/3 cities; local communities; mechanics in the informal sector; persons with disabilities; elderly individuals; school children; society at large; Scheduled Castes; startups; students; unserved/ underserved regions; traditional knowledge holders (farmers; tribal; women
4. Transitioning to open science	2	Governance	Governmental entities; Research and education organisations; Researchers, students and teachers; Social groups especially emphasised	Government; deployers; industry; research institutions; users; various economic sectors;
5. Combating inequities in STI	4	Governance	Governmental entities; Research and education organisations; Researchers, students and teachers; Social groups especially emphasised	Government of India; policy bodies; researchers; academicians; demographics traditionally underrepresented in science; underserved communities; industries; policymakers; public; research institutions; researchers; scientists; states in the Indian Himalayan Region (IHR); students (including youth); technical persons; the poor; user communities; vulnerable section of the society; young Indian scientists

Note: This table includes a set of policy initiatives selected for inclusion in the compendium, 'STI for All': A Compendium of Good Practices in STI Policy. The main aim is to identify good practice policy initiatives rather than to provide an exhaustive list of the G20 member/guest country's policy initiatives.

Encouraging women and girls to consider careers in science

India's policy initiatives collectively demonstrate a comprehensive approach that covers the entire career lifecycle of women in science. This multi-stage strategy directly addresses the "leaky pipeline" phenomenon, where women often leave the STEM field at key points, particularly around marriage, childbirth, and family responsibilities. By providing targeted support at these vulnerable moments, India aims to improve retention and ensure the ongoing contribution of female talent. If effectively implemented and monitored, this holistic approach has the potential to significantly increase the representation of women in the STEM workforce and leadership, advancing beyond entry-level participation to sustained career development and influence.

Examples of good practice in policy initiatives include:

- **Vigyan Jyoti Scheme**: An initiative of the Department of Science and Technology (DST) focused on addressing the underrepresentation of women in various STEM fields. This programme encourages deserving female students from Classes 9-12 to pursue higher education and careers in STEM, especially in areas where female participation is low, thereby promoting gender balance. The scheme offers ongoing support and interventions from the school level up to the PhD stage, including activities such as science camps, special lectures, counselling for students and parents, interactions with role models, tinkering activities, and visits to research laboratories and industries.
- **Rashtriya Uchchatar Shiksha Abhiyan (RUSA)**: The aim is to improve access, equity, and quality in higher education, specifically targeting girls and incorporating a Gender Parity Index (GPI) in its state-wise funding allocation formula. Similarly, Rashtriya Avishkar Abhiyan (RAA), under the broader Samagra Shiksha initiative, fosters inquiry and creativity in science and mathematics through practical learning and mentorship by higher education institutions.
- **National Council of Science Museums (NCSM)**: This body organises training programmes that explicitly include women outside formal educational or professional settings in science popularisation.
- **Akanksha Scholarship for Women in STEM** is an example of a private sector-funded scholarship. It is a four-year renewable scholarship for undergraduate women in computer science, information technology, or software engineering.

These good practice policy initiatives provide a comprehensive support system for women at various stages of their scientific careers:

- **Women in Science and Engineering – Knowledge Involvement in Research Advancement Through Nurturing (Wise-Kiran)**: Offering fellowships and research grants serves as a powerful incentive to attract and retain women in research. The WISE-KIRAN scheme explicitly supports women who have had a career break, which is a common barrier for female scientists due to family and caregiving responsibilities. This targeted support sends a strong message that women's contributions are valued, even after a break, helping to dismantle the stereotype that a career in science is incompatible with family life.

- **Biotechnology Career Advancement and Re-orientation (BioCARe)**: This programme is an excellent example of an initiative that both encourages and supports women in re-entering the scientific workforce. It provides a "launch pad" for unemployed or non-regular female scientists by offering them their first independent research grant. This is a crucial incentive that actively encourages women to pursue or resume their careers in a highly competitive field. By focusing on women with career breaks, it addresses a specific and significant barrier often faced by women, thereby challenging societal expectations and providing a pathway to professional advancement.

Promoting workplace environments that attract, retain, and advance women scientists

India has demonstrably committed to implementing gender-responsive national and institutional policies aimed at creating workplace environments that effectively attract, retain, and promote women scientists, particularly into leadership roles. Beyond individual support, India's strategy includes efforts for systemic change at the institutional level.

Examples of good practice in policy initiatives include:

- **Women in Science and Engineering-KIRAN (WISE-KIRAN)**: Beyond its role in encouraging women, WISE-KIRAN ia comprehensive programme managed by the DST designed to support women at various stages of their scientific careers, specifically tackling issues such as career breaks and boosting overall participation in STEM disciplines. Under WISE-KIRAN, several initiatives offer vital financial and research assistance. Programmes under this initiative, such as WISE-PhD, WISE-PDF, WISE-SCOPE, and WIDUSHI, offer vital financial support and research opportunities to aid re-entry into scientific fields and ensure ongoing contributions. WISE-KIRAN, for instance, supports women pursuing doctoral, post-doctoral, and translational research, and aims to reintegrate talented women scientists who have experienced career breaks.
- **Biotechnology Career Advancement and Re-orientation (BioCARe) Fellowship**: Administered by the Department of Biotechnology (DBT), BioCARe supports women scientists in biotechnology and related fields by providing research grants to help them establish successful research careers.
- **Promoting Opportunities for Women in Exploratory Research (SERB-POWER)**: This DST initiative aims to reduce the funding gap between men and women in scientific and engineering research across Indian institutions and R&D laboratories. The scheme offers substantial research grants and fellowships to encourage women's participation in research and development projects. A distinctive feature of the SERB-POWER Research Grants is the mandatory requirement for a female Co-Principal Investigator (Co-PI), thereby ensuring collaborative female leadership in funded projects.

Box 12 Examples of other policy instruments implemented by the Department of Science and Technology in India

Gender Advancement for Transforming Institutions (GATI) is an innovative pilot project by the Department of Science and Technology (DST) that aims to develop an indigenous Charter for Gender Equity in STEMM (Science, Technology, Engineering, Mathematics & Medicine). GATI's focus is on bringing about transformational changes at the institutional level, encouraging universities and research institutions to support diversity, inclusion, and the full spectrum of talent, thereby enhancing their success and progression. This initiative signifies a commitment to creating an inclusive scientific ecosystem. Furthermore, gender budgeting, enforced in 2004, includes recommendations for the Council for Scientific and Industrial Research (CSIR) and other scientific institutions to incorporate women-friendly policies, thereby mainstreaming gender considerations into institutional financial and operational planning. The emphasis on institutional transformation through GATI, along with specific re-entry and entrepreneurship initiatives, demonstrates an understanding that individual support alone is insufficient.

India also encourages entrepreneurship and innovation among women scientists:

- **Start-Up India**: Through its associated Stand-Up India scheme, this body explicitly facilitates bank loans for women entrepreneurs, alongside Scheduled Castes (SC) and Scheduled Tribes (ST) individuals, for setting up new enterprises.
- **Science for Equity Empowerment and Development (SEED) Division**: Includes a dedicated "Science & Technology for Women (STW)" scheme, providing S&T-based solutions for the socio-economic development of women.
- **Digital India**: Aims for universal digital literacy and the availability of digital resources in Indian languages, which can indirectly empower women by increasing their access to information, services, and job opportunities, especially in rural areas.

Box 13 Examples of policy instruments encouraging entrepreneurship and innovation among women scientists in India

The **National Initiative for Developing and Harnessing Innovations (NIDHI)** provides capacity building, mentorship, and seed funding, including through its NIDHI-Seed Support Programme (NIDHI-SSP), for women-led startups.

Technology Business Incubators (TBIs) have been established at women's universities, such as Indira Gandhi Delhi Technical University for Women, and an Inclusive TBI (iTBI) at Delhi Technological University, to promote inclusivity across gender, caste, and geographical boundaries.

The **WISE Internship in Intellectual Property Rights (WISE-IPR)** offers a one-year training programme to women in IPR, developing essential professional skills for self-employment in this field.

The **India RISE Fellowship** is a flagship programme of the U.S.-India Alliance for Women's Economic Empowerment and the Gupta-Klinsky India Institute at Johns Hopkins University, support early-career women researchers across India. This fellowship focuses on enhancing technical research skills, offering personalised group and peer mentorship, developing leadership capabilities, and creating opportunities for experiential learning and networking to empower Indian women researchers from diverse backgrounds. The programme aims to tackle individual, organisational, and societal barriers that Indian women face in STEM research careers. Mentorship and peer support are widely recognised as vital for encouraging more women to pursue leadership roles and helping them navigate the inherent challenges of STEM careers.

While gender is not the main focus, the **National Mission on Sustainable Agriculture (NMSA)** explicitly prioritises women farmers among its beneficiaries, recognising their crucial role in agriculture and ensuring their inclusion in sustainable farming practices. The **AI Standardisation Committee** and the broader **Artificial Intelligence Task Force for India's Economic Transformation** emphasise 'fairness & non-discrimination' and 'human-centred values' in AI development, which inherently includes preventing gender biases in AI systems and promoting equitable access to AI's benefits.

Collection of disaggregated data for evidence-based policies and monitoring progress

In India, the Department of Science & Technology (DST) is primarily responsible for producing R&D statistics. Specifically, the DST's National Science and Technology Management Information System (NSTMIS) collects and compiles data related to research and development (R&D) activities in India. This includes data on R&D expenditure, personnel, and other relevant indicators.

Several initiatives support data collection and analysis, thereby laying the foundation for more informed gender-responsive policies and progress tracking:

- The **All-India Survey on Higher Education (AISHE)** collects data on student enrolment in STEM courses, indicating that in 2021, 43.2% of STEM students were women.
- The **Ministry of Statistics & Programme Implementation (MoSPI)** publishes annual reports such as *Women and Men in India*, which highlight gender inequality and discrimination through key socio-economic indicators. These statistics are considered vital for evidence-based decision-making and for assessing and improving government policies aimed at reducing gender disparities.

This good practice policy initiative uses a data-driven approach to allocate resources to higher education institutions:

- **Rashtriya Uchchatar Shiksha Abhiyan (RUSA)**: RUSA's allocation formula is based on an "entitlement index" that factors in a Gender Parity Index (GPI). This means that to receive funding, states and institutions must collect and report data on gender parity in their higher education systems. This institutionalises the practice of collecting gender-disaggregated data and ties funding to progress in achieving gender equality, creating a strong incentive for consistent data collection and reporting.

Integrating gender-related aspects into the content of research

India's policy landscape demonstrates an increasing awareness of the societal importance of research, subtly encouraging the inclusion of gender-related issues in scientific investigations, thereby enhancing both scientific excellence and the practical utility of the knowledge generated. Several initiatives target research areas and beneficiaries in ways that inherently involve gender considerations.

Examples of good practice in policy initiatives include:

- **Biotechnology Career Advancement and Re-orientation (BioCARe)**: This programme, while primarily aimed at career re-orientation, provides an opportunity to integrate gender-related aspects into research. A key part of the BioCARe scheme is that the research projects are proposed by the female scientists themselves. By empowering women to lead their own research, the policy increases the likelihood that research questions will be informed by their unique perspectives and life experiences, thereby enhancing the societal relevance of the knowledge produced.
- **Women in Science and Engineering-KIRAN (WISE-KIRAN)**: For instance, the **Science and Technology for Women** programme under the **KIRAN scheme** aims to promote research and development, as well as the adaptation of technology, to improve the quality of life and working conditions for women, and to reduce drudgery in domestic and agricultural work. This objective implies that research designs under this programme would be tailored to women's specific needs and experiences. These examples suggest a pragmatic approach where societal relevance, particularly in addressing the needs of women or gendered societal roles, drives the research agenda.

Transitioning from implicit considerations to explicit policy requirements for gender-sensitive research design could significantly improve the quality, relevance, and ethical foundation of India's scientific work,

ensuring that scientific progress benefits all societal groups equitably and that a more comprehensive understanding of complex phenomena is achieved.

Implementing the UNESCO 2024 Call to Action: Closing the Gender Gap in Science

India's commitment to bridging the gender gap in science is also evident in its alignment with international initiatives. India actively engages in global observances, notably celebrating the International Day of Women and Girls in Science on 11 February, a day declared by the United Nations General Assembly in 2015. This day serves as a global reminder of the importance of gender equality in STEM fields. India's national initiatives, such as the **Vigyan Jyoti** scheme (which promotes educational opportunities by encouraging girls into STEM from an early age), the **WISE-KIRAN** scheme (which supports women at various career stages, including re-entry after breaks), and the **GATI** scheme (which aims for institutional transformation to foster diversity and inclusion), implicitly align with the priorities outlined in the UNESCO Call to Action. These programmes address the core principles of the global call by fostering early interest, providing career support, and working towards systemic change within scientific institutions.

Key intersectional policy initiatives for closing the gender gap in science

India's policy framework, while broadly recognising the complexities of inequality, also shows a commitment to an intersectional approach, acknowledging that gender inequality in science does not occur in isolation but intersects with other forms of disadvantages. Challenges faced by rural women in pursuing STEM careers are also acknowledged, including socio-cultural barriers, financial constraints, and the high cost of STEM education. India's legal system explicitly prohibits discrimination based on sex and also on religion, race, caste, and place of birth. The concept of intersectionality is deeply embedded in India's socio-political history, recognising how different forms of discrimination – such as those based on caste, religion, and class – overlap and uniquely impact women.

Three key policy initiatives stand out for their approach to closing the gender gap in science through an intersectional lens:

1. **Women in Science and Engineering – Knowledge Involvement in Research Advancement through Nurturing (WISE-KIRAN)**
    - **Why it's a good practice**: The scheme supports women who have experienced career breaks due to motherhood or family responsibilities, recognising a common gender-specific challenge that disproportionately affects women's career progression. Its holistic approach, including support for doctoral, post-doctoral, and translational research, as well as infrastructure development in women's institutions, creates a comprehensive ecosystem for women in science.
    - **Intersectional nuance**: This scheme is a prime example of good practice because it not only focuses on gender parity in STEM but also explicitly addresses compounded disadvantages. The WISE-Ph.D. programme, for instance, offers a 3-year relaxation in the upper age limit for women belonging to Scheduled Castes (SC), Scheduled Tribes (ST), and persons with physical disabilities (Physically Handicapped - PH) categories. This directly acknowledges that women from these marginalised groups face additional systemic barriers that require specific provisions.

2. Science for Equity Empowerment and Development (SEED)

- **Why it's a good practice**: Its simultaneous focus on other marginalised groups through schemes like the Scheduled Castes Sub Plan (SCSP), Tribal Sub Plan (TSP), and Technology Interventions for persons with Disabilities and Elderly (TIDE). By supporting location-specific solutions and action-oriented projects, SEED ensures that interventions are tailored to the unique needs of diverse communities, including rural women, women from SC/ST backgrounds, and women with disabilities, addressing their specific health, livelihood, and skill development needs through science and technology.
- **Intersectional nuance**: The SEED programme follows a unique approach as it explicitly attempts to provide S&T-based solutions for the socio-economic development of "disadvantaged communities". This broad mandate is operationalised through multiple initiatives including the Science & Technology for Women (STW) programme.

3. Rashtriya Uchchatar Shiksha Abhiyan (RUSA)

- **Why it's a good practice**: By providing remedial and skill development classes for academically weak students and expanding access for the rural population, RUSA addresses the compounded disadvantages faced by girls and women from marginalised caste, socio-economic, and geographic backgrounds in accessing quality higher education and improving their employability. This multi-dimensional approach ensures that efforts to close the gender gap in education are not isolated but are part of a broader strategy for inclusive development.
- **Intersectional nuance**: RUSA demonstrates good practice in higher education by explicitly integrating gender equity with other dimensions of inclusion. Its state-wise funding allocation formula factors in the Gender Parity Index (GPI), ensuring a deliberate mechanism to promote gender equity in higher education. Beyond gender, RUSA specifically targets SC/ST/OBC/ academically weak students, persons with physical disabilities, and rural populations.

INDONESIA

**This country note contains provisional information and has not been officially verified.*

Introduction

Indonesia is actively implementing policy initiatives to increase the participation of women and girls in science and to dismantle gender stereotypes. These efforts are often integrated into broader national development plans, such as the **National Medium-Term Development Plan**, which includes a focus on gender equality and women's empowerment. While gender equality in science continues to be an evolving area, the country's strategic priorities, such as fostering human capital, strengthening regional governance, enhancing data integration, and valuing local knowledge systems, present favourable avenues for advancing women's engagement in research and innovation. When approached through an intersectional perspective, these efforts demonstrate potential to address the multifaceted challenges faced by women in rural and remote areas, indigenous communities, and among lower-income populations.

This member note has the following objectives:

1. To provide, as outlined in the table below, an overview of a selection of policy initiatives identified as relevant for the G20 Recommendations on Diversity, Equity, Inclusivity, and Accessibility (DEIA). The aim is to provide a snapshot of the broader set of policy initiatives included in the compendium database.

2. To provide, in the remainder of this member note, highlights of good practices in policy initiatives responding to the G20 Recommendation: Closing the Gender Gap in Science. It is organised according to the sub-recommendations:
   - Encouraging women and girls to consider careers in science
   - Promoting workplace environments that attract, retain, and advance women scientists
   - Collecting disaggregated data for evidence-based policies and monitoring progress
   - Integrating gender-related aspects into the content of research
   - Implementing the UNESCO 2024 Call to Action: Closing the Gender Gap in Science

3. To identify, in the last section, key intersectional policy initiatives for closing the gender gap in science.

Table 12 Indonesia: Summary of the relevant policy initiatives by G20 Recommendation on DEIA

G20 Recommendation on DEIA	Number of policy initiatives	Policy instrument types	Main target groups/ beneficiaries (STIP categories)	Main target groups/ beneficiaries (Specific)
1. Promoting diversity, equity, inclusion and accessibility in STI systems	5	Governance	Economic actors (individuals); Firms; Governmental entities; Intermediaries; Research and education organisations; Researchers, students and teachers; Social groups especially emphasised	Botanists; high-achieving students; regional governments; researchers; entire population of Indonesia; artists; athletes; engineers; environmentalists; general public; innovators; local research institutions; persons with disabilities; professionals; regional innovators; research institutions; scientists; students; universities; women; youth
2. Closing the gender gap in science	Policy initiatives focused specifically on gender or women and girls were not recorded. [See the above Recommendation – *Promoting diversity, equity, inclusion and accessibility in STI systems* – for policy initiatives that mention women and girls as target groups/beneficiaries.]			
3. Fostering dialogue between different knowledge systems	1	Collaborative infrastructures (soft and physical); Governance; Guidance, regulation and incentives	Governmental entities; Research and education organisations; Researchers, students and teachers; Social groups especially emphasised	Local communities; indigenous groups; policymakers; researchers; traditional knowledge holders
4. Transitioning to open science	1	Collaborative infrastructures (soft and physical); Governance	Firms by size; Governmental entities	MSME owners; cooperatives; financial institutions; policymakers

Continues overleaf...

G20 Recomm-endation on DEIA	Number of policy initiatives	Policy instrument types	Main target groups/ beneficiaries (STIP categories)	Main target groups/ beneficiaries (Specific)
5. Combating inequities in STI	2	Governance	Economic actors (individuals); Governmental entities; Intermediaries; Research and education organisations; Researchers, students and teachers; Social groups especially emphasised	All citizens of Indonesia; nuclear scientists; general public; marginalised groups; vulnerable populations; workers in related industries (e.g., healthcare, energy)

Note: This table includes a set of policy initiatives selected for inclusion in the compendium, 'STI for All': A Compendium of Good Practices in STI Policy. The main aim is to identify good practice policy initiatives rather than to provide an exhaustive list of the G20 member/guest country's policy initiatives.

Encouraging women and girls to consider careers in science

Indonesia's approach to encouraging gender diversity and equity in science includes multifaceted initiatives that collectively challenge the perception that science-related fields are exclusively for men. Working to build a more inclusive and equitable scientific ecosystem in Indonesia. the **Ministry of Women's Empowerment and Child Protection** has championed gender-responsive programmes – like digital literacy training, Women-Friendly Villages, and the 2022 Sexual Violence Crime Law – to ensure safe, equitable access to science, technology and innovation for females. Complementing this, awareness campaigns and mentorship programmes spotlight female role models in STEM, contributing to break down cultural stereotypes that associate science with masculinity. Educational materials and curricula are also under reform. Grassroots efforts such as the **2025 Science-for-Policy Workshop** in Surabaya bring together women scientists, policymakers, and experts to strengthen science-policy integration and empower women in policymaking roles. Other examples of policy instruments are included in Box 14.

While not focused on gender specifically, these are examples of national policy initiatives that contribute to encouraging women and girls to consider careers in science:

- **Local Knowledge Acquisition Programme**: By focusing on documenting and preserving local knowledge, this programme provides an opportunity to highlight the scientific contributions of women from diverse communities. Many traditional practices, such as in medicine, agriculture, and resource management, are often led by women. Documenting these practices as "local knowledge"

and as "science" can help to redefine what counts as scientific expertise and who holds it, thereby challenging the stereotype that science is a male-dominated field. The programme's open-access platform and use of various media (books, comics, audiovisuals) further broaden the reach of these stories, making them accessible to a wider audience, including children.

- **National Botanical Garden Development Programme**: This initiative, while primarily focused on conservation, can be leveraged to promote the visibility of women in plant science, horticulture, and conservation. By featuring women botanists, researchers, and horticulturists in educational materials, public exhibitions, and guided tours, the programme can establish a positive association between women and these scientific fields. It can also serve as a platform to educate the public about the historical and ongoing contributions of women to the study of biodiversity and traditional plant-based knowledge.
- **Grand Design of National Talent Management**: This policy initiative, particularly through its associated scholarship and funding programmes like the LPDP, has the potential to actively encourage women in science.
- **Indonesia's National Medium-Term Development Plan (RPJMN) 2025–2029**: This overarching plan can be a powerful instrument for promoting women in science. By integrating gender-responsive goals and targets into its human capital development and digital transformation pillars, the RPJMN can mandate the creation of specific programmes. For instance, it can include targets for the number of scholarships allocated to women in STEM fields, the development of mentorship programmes for female students, and the promotion of digital literacy skills for girls in rural areas. The plan's emphasis on social inclusion and the "Leave No One Behind" principle can be a framework for ensuring that these opportunities reach the most marginalised.

Box 14 Examples of policy instruments encouraging women and girls to consider careers in science in Indonesia

One key instrument is the promotion of **gender mainstreaming**, an approach that ensures gender equality is a core consideration in the design, implementation, and evaluation of all policies and programmes across government ministries. For instance, the government has collaborated with organisations like the International Labour Organisation (ILO) on initiatives like the **Women in STEM Workforce Readiness and Development Programme**. This programme targets underprivileged female vocational school graduates and jobseekers, providing them with technical and soft skills in high-growth sectors like Information and Communication Technology (ICT) to prepare them for the future workforce and address skills gaps.

Beyond vocational training, policy instruments include providing financial and professional support to female scientists. A notable example is the **L'Oréal-UNESCO *For Women in Science* (FWIS) programme**, a national fellowship scheme that provides research funding and recognition to young female scientists. This initiative not only supports their work but also helps to elevate them as role models, inspiring future generations. Additionally, to bridge the gap between scientific research and public policy, the government, in collaboration with institutions like the Organisation for Women in Science for the Developing World (OWSD), hosts workshops and forums. These events, such as the **Empowering Indonesian Women in Science for Policy** workshop, aim to bring together female scientists and policymakers, ensuring that policies are informed by evidence and that women's voices are actively shaping the nation's scientific and technological future.

Promoting workplace environments that attract, retain, and advance women

Indonesia places emphasis on strengthening national talent pipelines, standardising professional competencies, and enhancing governance in research and innovation. While not explicitly centred on gender issues, the country's forward-looking frameworks possess potential to incorporate gender equality measures, especially in areas such as recruitment, career advancement, and leadership development for women scientists. Some examples of good practice in promoting environments that attract, retain and advance women in science include:

- **Grand Design of National Talent Management**: This national policy initiative, which aims to benefit all age groups and sectors, outlines a comprehensive long-term strategy to identify, nurture, and empower talent across various fields, including research and innovation. By establishing a systemic framework that aligns human capital development with national priorities, it promotes equitable access to talent identification programmes and leadership pathways for women scientists. To enhance its effectiveness, the policy could consider explicitly integrating gender equity targets and mentorship programmes within its implementation efforts.

- **National Master Plan for the Development of National Work Competency Standards in Research and Innovation**: Aimed at professionals in the research and innovation sector, this policy initiative establishes competency benchmarks designed to enhance the overall quality and recognition of professionals. By implementing a clear and transparent system for evaluating skills, it aims to reduce potential biases in hiring and promotion processes. Such measures can further support increased participation of women, thus meeting recognised standards for advancement. To strengthen its effectiveness, the policy could benefit from incorporating gender-sensitive criteria and ensuring that competencies encompass diverse research methodologies.
- **Regional Research and Innovation Governance**: This regional initiative, which brings together government, universities, local research institutions, and regional innovators, exemplifies an effort to enhance the coordination and management of research and innovation at the local level. By strengthening decentralised capacities, it enables interventions to be tailored to the unique contexts of each region. This approach holds significant potential to directly address the specific barriers faced by women scientists in less urbanised areas. To further strengthen its impact, incorporating gender-responsive action plans into regional governance frameworks could be a valuable enhancement.

Collection of disaggregated data for evidence-based policies and monitoring progress

Indonesia demonstrates progressive practice in implementing integrated data systems aimed at enhancing evidence-based policymaking. There are also opportunities to incorporate gender-disaggregated indicators, which could offer invaluable insights into women's significant and growing participation in science, technology and innovation. A good practice example is:

- **National One Data Initiative for Cooperatives and MSMEs**: This national initiative encompasses all cooperatives and MSMEs and develops a unified, integrated data platform. By streamlining data systems, it not only minimises redundancy but also enhances the potential for precise and comprehensive policy analysis. Moreover, it has the capacity to illuminate important gender-based disparities in access to entrepreneurship and innovation opportunities. Further improvement could be achieved by systematically collecting gender-disaggregated data on the research and innovation workforce, thereby strengthening its inclusivity and impact.

Integrating gender-related aspects into the content of research

Indonesia's policies under this recommendation foster the integration of research with societal and environmental priorities. This creates valuable opportunities to incorporate diverse perspectives, including gendered viewpoints, into both traditional and scientific knowledge production, demonstrating a commendable commitment to inclusivity and holistic understanding. Some good practice examples include:

- **Local Knowledge Acquisition Programme**: This national programme, which emphasises the importance of local communities and indigenous peoples across Indonesia, demonstrates a strong commitment to preserving and leveraging traditional and local knowledge for research and innovation. By recognising the contributions of indigenous and local knowledge to science, the

programme promotes gender inclusivity by integrating women's roles within these knowledge systems into the scientific arena. To further enhance its impact, the programme could consider ensuring that women knowledge-holders are actively engaged as co-researchers, thereby fostering greater inclusivity and collaboration.

- **National Botanical Garden Development Programme**: This programme plays a vital role nationally by providing valuable support to botanists, researchers, students, and the broader public through the establishment and effective management of a network of botanical gardens dedicated to conservation, research, and education. It functions as a distinguished multidisciplinary platform that connects biodiversity research with public engagement. Furthermore, it holds potential to foster greater inclusion by actively engaging women in conservation science, especially within community-led initiatives, through the integration of gender-focused conservation education and training modules.

Implementing the UNESCO 2024 Call to Action: Closing the Gender Gap in Science

Indonesia's commitment to UNESCO's Call to close the gender gap in science is reflected in its broader national development and safety frameworks. This strategic approach aligns with the Sustainable Development Goals (SDGs) and international standards and paves the way for advancing the integration of gender equity principles into global commitments. Such efforts reflect Indonesia's dedication to fostering inclusive and sustainable progress.

While not focused on gender specifically, these are examples of Indonesia's broader national policy initiatives with potential to champion gender equity:

- **Implementation of the SDGs – Presidential Regulation No. 111/2022**: This regulatory framework exemplifies a proactive and coordinated approach to aligning national development plans with the SDGs and effectively monitoring progress. It reflects a strong commitment to sustainable development priorities. Additionally, the regulation promises to foster meaningful reforms within the science sector, particularly in supporting women scientists. Enhancing its SDG monitoring programme with science-specific gender indicators could further amplify its positive impact and contribution to inclusive progress.
- **Indonesia's National Medium-Term Development Plan (RPJMN) 2025–2029**: This comprehensive development plan establishes clear strategic national priorities, such as human capital development and promoting equitable growth. As a vital policy instrument that fosters collaboration across sectors, the plan holds significant potential to advance gender equality within research and innovation funding priorities and evaluation criteria. Further enhancing its impact, the plan could more explicitly integrate gender-responsive approaches by highlighting gender equality in science within its strategic objectives.
- **National Master Plan for the Development of National Work Competency Standards in Research and Innovation**: This policy initiative can be a powerful tool for implementing the UNESCO Call to Action at the institutional level. By ensuring that competency standards for researchers and innovators include knowledge of gender equality principles and best practices, the policy can institutionalise the goals of the call and embed them into the very fabric of Indonesia's scientific community.

- **National Policy and Strategy for Nuclear and Radiation Safety**: This primarily technical policy serves as a good practice example of promoting high safety and ethical standards within the sensitive field of nuclear and radiation technology. It demonstrates a forward-thinking approach that not only emphasises safety but also opens promising opportunities for women scientists to contribute significantly to high-tech and safety-critical areas. Through targeted outreach and specialised training for women in nuclear sciences, it has the potential to foster greater inclusion and diversity in this vital sector.

Key intersectional policy initiatives for closing the gender gap in science

Indonesia's policy initiatives, when viewed through an intersectional lens, reveal a progressive commitment to closing the gender gap in science. The recognition of regional diversity, socioeconomic disparities, and the importance of indigenous and local knowledge underscores the inclusive approach underpinning these policy initiatives. The strategic initiatives focusing on strengthening talent pipelines, valuing local and traditional knowledge, and enhancing data systems exemplify a progressive approach. By explicitly integrating gender objectives, collecting and analysing gender-disaggregated data, and fostering active participation of women across diverse social and geographic contexts, these efforts have the potential to reduce the gender gap in science. Indonesia's emphasis on aligning its national development goals with inclusive STI strategies positions the country as an emerging leader to transform its policies from implicit enablers into intentional drivers of intersectional equity.

Three key policy initiatives stand out as good practice for addressing the gender gap in science in Indonesia in an intersectional way:

1. Grand Design of National Talent Management

- **Why it's a good practice**: This strategic framework aims to identify, nurture, and empower talent across various sectors, including research and innovation, by aligning human capital development with national priorities. Its decentralised approach offers an inclusive platform for recognising diverse forms of expertise and providing customised capacity-building opportunities, effectively addressing disparities related to region, educational background, and socioeconomic status.
- **Intersectional nuance**: The framework has the potential to address regional and economic disparities effectively with opportunities to strengthen its commitment to gender equity. By integrating clear inclusion benchmarks, offering mentorship opportunities for marginalised women, and developing accessible training pathways, the framework could achieve greater intersectional impact.

2. Local Knowledge Acquisition Programme

- **Why it's a good practice**: This initiative records, conserves, and integrates traditional and local knowledge into research and innovation, highlighting its significant societal contribution. Recognising that many custodians of ecological and cultural wisdom are women, particularly from indigenous and rural communities, this policy provides a platform to capture their expertise within scientific dialogue. It promotes intersectional inclusion by appreciating contributions beyond conventional academic paradigms, effectively bridging community-held wisdom and formal scientific endeavours.

- **Intersectional nuance**: The programme engages with a diverse range of knowledge holders, reflecting a strong commitment to inclusivity. To enhance its impact further, it could benefit from systematically addressing existing barriers that may limit the full participation of marginalised women in decision-making, authorship, and benefit-sharing. By strengthening participatory governance, providing targeted capacity-building for women knowledge-holders, and incorporating gender-sensitive evaluation tools, the programme can deepen its intersectional outcomes.

3. National One Data Initiative for Cooperatives and MSMEs

- **Why it's a good practice**: This policy represents an effort to unify diverse datasets into a comprehensive platform, supporting evidence-based policymaking for cooperatives and MSMEs. Its inclusive scope, which considers gender-disaggregated and intersectional indicators, has the potential to illuminate important patterns of inequality. Such insights can be especially valuable in addressing the unique challenges faced by women entrepreneurs, particularly those in rural, lower-income settings, who often encounter significant barriers to participation in science-related industries and innovation.
- **Intersectional nuance**: Currently, the initiative demonstrates a foundational approach to gender and diversity indicators, focusing on MSMEs. By further expanding its scope to encompass the STI workforce and adopting an intersectional framework, it could enhance its capacity to implement more targeted and effective interventions aimed at closing the gender gap across diverse identity dimensions.

ITALY

Introduction

Italy's policy approach to closing the gender gap in science has evolved from a piecemeal to a more holistic and increasingly intersectional strategy. Initially, the focus was on establishing legal frameworks to promote equal opportunities, enshrined in the **National Code of Equal Opportunities**, which mandates gender-sensitive policies in public institutions, towards a more strategic and systemic approach, most notably through its **National Recovery and Resilience Plan**. This marks a significant shift, as it embeds gender equity directly into economic and social development policies, from education and research to digital and green transitions. Furthermore, initiatives are increasingly being implemented to address specific, intersecting barriers. For example, the **National Coalition for Digital Skills and Jobs** programme does not just encourage girls into STEM fields but also provides digital skills training to older women and those in underprivileged regions, recognising that a 'one-size-fits-all' approach is insufficient. Initiatives like the **National Research Programme** and **Italy's participation in the Horizon Europe programme** are key to funding and shaping the research landscape, creating opportunities for women to lead projects and gain recognition.

This multifaceted strategy, while still a work in progress, demonstrates a growing recognition that closing the gender gap in science requires dismantling deeply entrenched cultural, social, and economic barriers, and that meaningful progress can only be achieved by addressing the interconnected disadvantages faced by women from different backgrounds and regions.

This member note has the following objectives:

1. To provide, as outlined in the table below, an overview of a selection of policy initiatives identified as relevant for the G20 Recommendations on Diversity, Equity, Inclusivity, and Accessibility (DEIA). The aim is to provide a snapshot of the broader set of policy initiatives included in the compendium database.

2. To provide, in the remainder of this member note, highlights of good practices in policy initiatives responding to the G20 Recommendation: Closing the Gender Gap in Science. It is organised according to the sub-recommendations:
   - Encouraging women and girls to consider careers in science
   - Promoting workplace environments that attract, retain, and advance women scientists
   - Collecting disaggregated data for evidence-based policies and monitoring progress
   - Integrating gender-related aspects into the content of research
   - Implementing the UNESCO 2024 Call to Action: Closing the Gender Gap in Science

3. To identify, in the last section, key intersectional policy initiatives for closing the gender gap in science.

Table 13 Italy: Summary of the relevant policy initiatives by G20 Recommendation on DEIA

G20 Recommendation on DEIA	Number of policy initiatives	Policy instrument types	Main target groups/ beneficiaries (STIP categories)	Main target groups/ beneficiaries (Specific)
1. Promoting diversity, equity, inclusion and accessibility in STI systems	13	Collaborative infrastructures (soft and physical); Direct financial support; Governance	Economic actors (individuals); Firms; Governmental entities; Intermediaries; Research and education organisations; Researchers, students and teachers; Social groups especially emphasised	All sectors of the Italian economy, society; citizens; Italian businesses; Italian researchers; older adults; public administration; public research entities in Italy; researchers; students; universities; academics; academics both at home and abroad; the South; businesses; caregivers; citizens; civil society; foreign investors; SMEs; startups; policymakers; private companies; public services; research institutions; researchers; scientists; general public; families; internal staff of research institutes who carry out research; young people; **women**; workers; job seekers
2. Closing the gender gap in science	1	Governance	Social groups especially emphasised	All citizens; men; a focus on women
3. Fostering dialogue between different knowledge systems	Not recorded	Not recorded	Not recorded	Not recorded
4. Transitioning to open science	5	Governance	Firms; Governmental entities; Intermediaries; Researchers, students and teachers; Social groups especially emphasised	Researchers; students; general public; citizens; companies; educators; families; public sector employees; researchers; students; teachers

Continues overleaf...

G20 Recomm-endation on DEIA	Number of policy initiatives	Policy instrument types	Main target groups/ beneficiaries (STIP categories)	Main target groups/ beneficiaries (Specific)
5. Combating inequities in STI	9	Collaborative infrastructures (soft and physical); Direct financial support; Governance	Economic actors (individuals); Firms; Governmental entities; Intermediaries; Research and education organisations; Researchers, students and teachers; Social groups especially emphasised	All citizens; patients; policymakers; research and education organisations; researchers; civil protection agencies; civil society; farmers; firms of any size; healthcare professionals; maritime fields; international scientific communities; vulnerable communities; partner countries; pharmaceutical companies; policymakers; private sector actors; public and private R&D labs; research institutions in Italy; researchers; students; the energy sector; universities; **women**; African universities and research institutions; researchers and students in African countries; G7 partners

Note: This table includes a set of policy initiatives selected for inclusion in the compendium, 'STI for All': A Compendium of Good Practices in STI Policy. The main aim is to identify good practice policy initiatives rather than to provide an exhaustive list of the G20 member/guest country's policy initiatives.

Encouraging women and girls to consider careers in science

Italy focuses on creating entry points and incentives for women and girls through European programme participation, entrepreneurship initiatives, and digital skills coalitions, with the aim of making STEM careers attractive and attainable.

Some good practice examples towards encouraging women and girls into science careers include:

- **Italy's participation in the Horizon Europe programme**: This national initiative, designed to engage researchers, universities, and corporate partners, seeks to support Italy's active involvement in the EU's Horizon 2020 programme, which emphasises gender equality as a fundamental principle. By leveraging EU funding mechanisms that promote women's participation in research, Italy helps facilitate access to research funding and fosters opportunities for women-led teams and gender-balanced collaborations.
- **ITA.CON Project**: Entrepreneurship in STEM can expand non-traditional career opportunities for women, particularly in emerging fields. This project seeks to promote awareness among women and girls about careers in STEM by offering support to students pursuing entrepreneurial endeavours through mentorship and training. It aims to foster innovation skills among young

people and has the potential to encourage greater female participation. Additionally, the project offers an opportunity to consider scholarships for women and highlight female entrepreneurs as inspiring role models.

- **National Coalition for Digital Skills and Jobs**: This initiative is a good practice because it addresses the foundational digital skills that are a prerequisite for most modern STEM careers. The coalition's focus on bridging the digital divide provides an avenue for specific, targeted programmes for women and girls. An intersectional approach would mean creating programmes, not just for young girls, but also for older women returning to the workforce and women from low-income communities who lack access to technology and training.

Beyond funding, Italy is also adopting practices that aim to increase the visibility of women in STEM. The following represent good practice examples toward dismantling gender stereotypes and biases in science:

- **Città della Scienza Foundation**: This foundation actively promotes a culture of science through exhibitions, educational programmes, and collaborations, with an emphasis on highlighting the contributions of women scientists. It employs a combination of formal and informal learning channels to engage a broad and diverse audience, including school-aged children. By publicly showcasing women's achievements in STEM, it seeks to challenge prevailing stereotypes regarding gender and scientific vocation. Additionally, the foundation sees potential to expand its positive influence by reaching rural schools through digital programming, thereby enhancing its impact on gender equality in science.
- **European Researchers Night**: This is a national initiative that hosts events across various cities in Italy. It seeks to bring researchers into public spaces to discuss their work, with a particular emphasis on promoting women in STEM. By humanising scientists and increasing visibility of women in fields traditionally perceived as male-dominated, the initiative aims to inspire young girls to consider careers in science. To further enhance its impact, the event could consider tracking gender representation among participating researchers and striving for greater parity in public-facing roles. A similar initiative is the **Week of Scientific and Technological Culture**, which is explicitly designed to raise public awareness of science and technology.
- **Italian Research Day in the World**: This initiative has an international dimension, encompassing events hosted at Italian embassies and consulates worldwide. It aims to celebrate Italian research achievements on a global scale by highlighting the contributions of Italian scientists working abroad, with a particular emphasis on promoting gender diversity by spotlighting women leaders in science. The initiative exemplifies good practices in connecting the diaspora's expertise with Italy's STEM community, fostering increased visibility for female scientists as ambassadors, and enhancing international recognition of their contributions. Furthermore, it presents a significant opportunity to broaden its impact through the development of mentorship networks that connect these distinguished women scientists with early-career female researchers in Italy.

Box 15 Example of a policy instrument encouraging women and girls to consider careers in science in Italy

L'Oréal-UNESCO *For Women in Science* (FWIS) Programme: Although a global initiative, its national fellowship in Italy is a key instrument. It provides direct, tangible incentives through research awards. By publicly honouring successful female scientists, it provides powerful role models and recognition, which is crucial for encouraging aspiring young women. An intersectional lens would emphasise selecting fellows from a diverse range of disciplines and geographical regions, particularly those from the less-represented South.

Promoting workplace environments that attract, retain, and advance women scientists

Italy's approach to promoting inclusive and supportive work environments for the recruitment, retention, and advancement of women in science is strengthened by a combination of legal frameworks and significant strategic investments. At its core is the **National Code of Equal Opportunities**, which mandates gender equality in employment and requires public institutions to implement "Positive Action Plans." The most transformative recent initiative is the **National Recovery and Resilience Plan**, which goes beyond simple directives by explicitly linking substantial funding to a cross-cutting goal of gender equality. By also investing in social infrastructure such as childcare services, Italy is addressing a key structural barrier that disproportionately impacts women, creating a more supportive environment that empowers them to both enter and remain in scientific and leadership roles.

While not focused specifically on science and research institutions, these policy initiatives demonstrate good practice examples of Italy's approach to promoting workplace environments that attract, retain and advance women scientists:

- **National Code of Equal Opportunities**: This national policy encompasses all sectors and aims to serve all citizens, with a particular emphasis on promoting gender equality. It provides a comprehensive legislative framework designed to foster equal opportunities and prevent discrimination, including within research institutions. Recognised as good practice, it establishes a solid legal foundation to encourage accountability among organisations. These legal protections are essential for cultivating inclusive workplace cultures in STEM fields. Additionally, this progressive policy offers an excellent opportunity to enhance its effectiveness by incorporating monitoring mechanisms tailored specifically to research organisations.
- **National Recovery and Resilience Plan**: This strategic plan allocates a substantial budget aimed at creating a broad and positive impact for all citizens and businesses across Italy. It supports post-pandemic recovery initiatives, with particular attention to promoting gender equality within the labour market. It includes a novel "Gender Equality Certification System" for companies, offering financial incentives and public recognition for those that demonstrably improve in areas like career advancement, pay equity, and work-life balance. A recommended approach is to incorporate gender equality objectives into large-scale national funding programmes by prioritising projects that foster more inclusive STEM workplaces.

This is an example of a good practice policy initiative in Italy that directly promotes the retention of women in STEM fields:

- **Italian Strategy for Quantum Technologies**: This national strategy aims to position Italy as a leader in quantum computing, communication, sensing, and foundational research by investing in infrastructure, talent, and public–private collaboration. It aligns with the European Quantum Strategy and emphasises digital sovereignty, industrial innovation, and secure communication. The strategy includes dedicated measures to counteract the so-called "leaky pipeline", which refers to the phenomenon of women leaving research careers. This challenge, pervasive in STEM disciplines, is a major driver of the gender gap at all stages of the research pathway. By tackling this issue, the Strategy not only promotes gender equality but also strengthens Italy's capacity to fully harness the potential of its research community.

Collection of disaggregated data for evidence-based policies and monitoring progress

Italy's approach includes mandatory reporting and an intersectional view of data. While the **Italian National Institute of Statistics (Istat)** has long been a key player in collecting gender-disaggregated data on employment, education, and health, recent policy initiatives are pushing for a more granular and comprehensive approach. The **National Recovery and Resilience Plan** is a major driver of this change, with its explicit focus on gender equality and a requirement for projects to track and report on gender-related indicators. Furthermore, institutions like the **Italian National Agency for the Evaluation of the University and Research Systems** have begun to incorporate gender analysis into their regular reports, examining the representation of women across academic ranks and disciplines. This is being complemented by new legal requirements, such as a **gender equality certification system for companies**, which mandates regular reporting on pay equity and career progression. This evolving strategy signifies a move from simply collecting data to actively using it as a tool for accountability and for designing targeted policies that address the specific, intersecting challenges faced by women in science.

The following initiatives are good practice examples of Italy's approach to ensuring the collection of disaggregated data for evidence-based policies and monitoring progress:

- **Italian National Agency for the Evaluation of the University and Research Systems**: This national-level initiative, which primarily targets universities, research institutions, and academics, aims to evaluate higher education institutions and research bodies by focusing on research quality, including the collection of gender-disaggregated data on researchers. It exemplifies best practice by providing policymakers with valuable insights into gender disparities, thereby supporting informed decision-making. Emphasising a data-driven approach, the initiative encourages the collection of essential data to inform the development of effective interventions. Additionally, increasing the accessibility of gender data to the public could further enhance its positive impact.
- **The National Plan for Open Science**: This plan is designed to enhance access to knowledge for all by advocating for open access to research publications and data, which may include gender-disaggregated datasets. By fostering transparency and collaboration, increased data accessibility can support valuable research into gender disparities in STEM. The plan's impact could be further strengthened by considering the inclusion of gender breakdowns in all publicly funded research datasets, thereby encouraging a more comprehensive and inclusive approach.

Integrating gender-related aspects into the content of research

Italy integrates gender perspectives across a broad spectrum of strategic research agendas, spanning climate change to artificial intelligence. This approach reflects a commitment to ensuring that science actively and inclusively addresses societal needs. Good practice examples of how Italy promotes a gender dimension in research are listed below:

- **BLUEMED Italian White Paper**: This national initiative endeavours to collaboratively establish a strategic framework for Italy's marine and maritime research agenda. By engaging researchers, policymakers, and private sector stakeholders, the document outlines a comprehensive research strategy that considers societal challenges, including potential gender dimensions. It adopts foresight and inclusive planning practices to shape national research priorities, thereby creating opportunities to examine the gendered impacts of changes in marine and coastal environments. Moreover, considering the integration of gender as a standard evaluation criterion in marine research funding could further enhance the overall impact and inclusivity of the agenda.
- **National Artificial Intelligence Strategy**: This strategy aims to engage researchers, citizens and employees of private and public organisations in fostering the ethical development of AI. It presents an opportunity to incorporate gender bias prevention within algorithms. By addressing a rapidly evolving area of technology where bias could pose challenges, the strategy advocates for a gender-aware AI design to proactively mitigate systemic discrimination. To further strengthen this approach, it could be beneficial to consider implementing bias audits across all AI projects.
- **National Energy and Climate Plan**: This plan, which aims to engage all citizens, businesses, and government agencies, outlines Italy's strategic approach to a low-carbon transition. It appreciates the importance of integrating gender perspectives on energy access and utilisation. By acknowledging that energy transitions impact diverse groups in different ways, the plan endeavours to ensure that women's needs and participation are actively considered in climate initiatives. To further enhance its effectiveness, the plan could benefit from additional funding to support research exploring the role of women in driving energy innovation.

Implementing the UNESCO 2024 Call to Action: Closing the Gender Gap in Science

Italy demonstrates a commitment to international collaboration, aligning effectively with UNESCO's agenda to promote gender equality in science through both multilateral and bilateral efforts. Some good practice examples adopted in response to this Call include:

- **Italy participates in many bilateral research agreements**: Bilateral agreements serve to strengthen collaboration and foster formal research cooperation with partner countries. A noteworthy example is knowledge exchange and joint initiatives targeting gender equality in STEM, which can lead to the development of joint mobility programmes for women scientists. To further enhance their effectiveness, these agreements could benefit from explicitly prioritising gender equality as a fundamental objective.
- **Italy participates in many multilateral initiatives**: Italy's involvement in multilateral initiatives aimed at achieving development goals exemplifies a committed approach to addressing global challenges. Through active participation in international science platforms that underscore commitments to

gender equality and peer accountability, Italy demonstrates its dedication to fostering inclusive scientific communities. Leading a multilateral taskforce on women in STEM could further enhance these efforts, promoting a more responsive and effective strategy for closing the gender gap in science.

Key intersectional policy initiatives for closing the gender gap in science

Italy demonstrates a multifaceted commitment to advancing gender equality in science. The country effectively combines cultural visibility, skills development, governance frameworks, and strategic investments in addressing existing gaps. Its active participation in both EU-led and national initiatives ensures alignment with international standards while capitalising on domestic strengths. Notable achievements are evident in the increased public representation of women scientists, enhanced legal protections, and the implementation of targeted digital skills programmes. While there remains room for further progress, particularly in consistently applying intersectional principles such as data disaggregation, targeted outreach, and integrating gender considerations into sectoral research, Italy is well-positioned to build on its strong foundation. By embedding intersectional KPIs into funding frameworks, scaling inclusive good practices, and expanding support mechanisms for multiply marginalised groups, Italy can further solidify its leadership and accelerate meaningful change. Future success will depend on formalising intersectionality as a clear, measurable standard across all science, technology and innovation policies.

Three key policy initiatives stand out as good practice for addressing the gender gap in science in Italy in an intersectional way. These are not just a step forward for gender equality but are foundational in their explicit or implied focus on intersectionality:

1. National Code of Equal Opportunities

- **Why it's a good practice**: This policy initiative offers a comprehensive legislative framework to combat discrimination across various domains relevant to scientific careers, including education, employment, and leadership. It supports the development of institutional policies – such as anti-discrimination procedures, equal-pay audits, and parental leave protections – that address gender concerns while respecting other protected characteristics, integrating compliance seamlessly with organisational governance and HR processes.
- **Intersectional nuance**: While the Code provides a solid foundation for protections, its influence in research settings can be further enhanced through effective operationalisation. While it provides a legal framework, the challenge is in ensuring that it is applied in a way that recognises and addresses the compounding effects of multiple forms of discrimination. For example, a focus solely on gender quotas may not benefit women with disabilities or women from immigrant backgrounds unless specific provisions are made to address their unique barriers to entry and progression. Good practice means using this legal tool to push for reforms that go beyond simple numbers and tackle the systemic biases faced by women at the intersection of various identities.

2. National Recovery and Resilience Plan (NRRP)

- **Why it's a good practice**: The NRRP demonstrates a commitment to fostering inclusivity by investing significantly in initiatives that help overcome structural barriers faced by underrepresented women in science. These investments, which focus on improving childcare access, digital and research infrastructure, and regional development, reflect a dedication to equity.
- **Intersectional nuance**: When funding criteria incorporate gender equality and social inclusion, they have the powerful potential to address both gender and place-based inequalities, such as supporting women researchers in the South, early-career mothers, and first-generation graduates, and to promote more equitable participation across strategic research and innovation sectors. The integration of intersectionality within the NRRP presents valuable opportunities for targeted impact across its components.

3. National Coalition for Digital Skills and Jobs

- **Why it's a good practice**: As a versatile and inclusive platform, the Coalition demonstrates a commitment to addressing the diverse needs of intersectional groups through tailored digital, AI, and data training. For example, it offers scholarships for low-income women, accessible curricula for women with disabilities, language- and culture-sensitive courses for migrant and refugee women, and flexible formats suitable for caregivers and older learners. By aligning industry demand with targeted outreach, the Coalition fosters opportunities into STEM careers and recognises and respects individual starting points and constraints, exemplifying a progressive intersectional approach.
- **Intersectional nuance**: The success of programme quality and reach is significantly influenced by the dedication of providers. Establishing common standards can help ensure that all groups, especially those facing the highest barriers, are adequately served. Italy is well-positioned to consider initiatives such as (1) adopting minimum inclusion standards across all Coalition programmes, covering accessibility, stipend support, and flexible scheduling; (2) setting targeted enrolment and placement goals for diverse intersectional groups such as women with disabilities, migrant women, and women in the Mezzogiorno; and (3) developing a shared outcomes dashboard that reports on completion, certification, and job placement metrics by intersecting characteristics, facilitating ongoing improvement and support.

JAPAN

Introduction

Japan is actively addressing its gender gap in science, a critical economic and social challenge. Despite Japanese girls demonstrating high achievement in mathematics and science, women remain underrepresented in STEM fields. The government's multi-pronged approach, anchored by the **Fifth Basic Plan for Gender Equality**, targets systemic barriers through policy initiatives and instruments. These include launching awareness campaigns against unconscious bias, providing dedicated research funding and awards for female scientists, and implementing comprehensive work-life balance strategies, notably promoting male childcare leave. This concerted effort aims to foster a more diverse and innovative scientific landscape. The **Sixth Science, Technology and Innovation Basic Plan** explicitly aims to bring 'diverse happiness and well-being to each individual' and, for the first time, fully integrates humanities and social sciences with natural sciences. This foundational commitment provides a framework for addressing gender gaps holistically, recognising that societal well-being is intertwined with equitable participation.

This member note has the following objectives:

1. To provide, as outlined in the table below, an overview of a selection of policy initiatives identified as relevant for the G20 Recommendations on Diversity, Equity, Inclusivity, and Accessibility (DEIA). The aim is to provide a snapshot of the broader set of policy initiatives included in the compendium database.

2. To provide, in the remainder of this member note, highlights of good practices in policy initiatives responding to the G20 Recommendation: Closing the Gender Gap in Science. It is organised according to the sub-recommendations:
   - Encouraging women and girls to consider careers in science
   - Promoting workplace environments that attract, retain, and advance women scientists
   - Collecting disaggregated data for evidence-based policies and monitoring progress
   - Integrating gender-related aspects into the content of research
   - Implementing the UNESCO 2024 Call to Action: Closing the Gender Gap in Science

3. To identify, in the last section, key intersectional policy initiatives for closing the gender gap in science.

Table 14 Japan: Summary of the relevant policy initiatives by G20 Recommendation on DEIA

G20 Recommendation on DEIA	Number of policy initiatives	Policy instrument types	Main target groups/ beneficiaries (STIP categories)	Main target groups/ beneficiaries (Specific)
1. Promoting diversity, equity, inclusion and accessibility in STI systems	1	Governance	Firms; Governmental entities; Intermediaries; Social groups especially emphasised	The general public; businesses; government bodies; young researchers; researchers;
2. Closing the gender gap in science	5	Direct financial support	Firms; Research and education organisations; Researchers, students and teachers; Social groups especially emphasised	Girl students in high school; students; entire nation of Japan; women; women researchers; academia; research institutions; female junior researchers; academic institutions; engineering faculties; faculty in science; female applicants to science; girls in science; government; industry; professionals in STEM fields; senior high school students; students; the broader international community; the general public; developing countries; workers
3. Fostering dialogue between different knowledge systems	Not recorded	Not recorded	Not recorded	Not recorded
4. Transitioning to open science	3	Collaborative infrastructures (soft and physical); Governance	Economic actors (individuals); Firms; Governmental entities; Intermediaries; Research and education organisations; Researchers, students and teachers; Social groups especially emphasised	AI developers; all members of society; researchers; academics; business operators; consumer representatives; government officials; industry leaders; students; users with a particular emphasis on diverse people

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G20 Recomm-endation on DEIA	Number of policy initiatives	Policy instrument types	Main target groups/ beneficiaries (STIP categories)	Main target groups/ beneficiaries (Specific)
5. Combating inequities in STI	1	Governance	Social groups especially emphasised	Suppliers; general public who benefits from a more sustainable environment; businesses that develop environmentally friendly products

Note: This table includes a set of policy initiatives selected for inclusion in the compendium, 'STI for All': A Compendium of Good Practices in STI Policy. The main aim is to identify good practice policy initiatives rather than to provide an exhaustive list of the G20 member/guest country's policy initiatives.

Encouraging women and girls to consider careers in science

Japan is implementing various initiatives to strengthen the educational pipeline for women in STEM, including initiatives that directly counter limited support for women in science. Their primary objectives are to increase female participation across all stages of STEM, from encouraging young girls to choose science courses to supporting female researchers in their careers and leadership roles. They aim to create supportive environments that prevent life events like childbirth and childcare from hindering career progression. Box 16 and Box 17 include policy instruments encouraging women and girls' participation in STEM.

Example of good practice in policy initiatives include:

- **Riko (STEM) challenges**: This initiative is a good practice as it directly targets girls at the junior high and high school level, a critical period for career choice. By organising mock experiments and roundtable talks with female employees, it provides tangible, relatable role models and a positive association between women and science. The use of a character like "Riko-chan" in manga stories also helps to demystify science and make it more appealing to a younger, broader audience. The initiative's focus on practical experience and direct interaction with female scientists and engineers is a powerful way to dismantle stereotypes and show girls that a career in STEM is achievable.
- **Support for Girl Students in Choosing Science Courses**: This policy initiative is a good practice because it directly addresses the pipeline issue at an early stage. By providing targeted support for girls who are considering science courses, it aims to increase the number of female students entering STEM fields. This support, which may include mentorship, career guidance, and specific programmes, can help counteract societal pressures that might steer girls away from science.
- **The Initiative for Realising Diversity in the Research Environment**: While its scope is broader, this initiative's focus on 'leader training through support for researchers to allow them to balance their research with maternity, and childcare' helps to dismantle the stereotype that women cannot have both a successful career in science and a family. By making it a national priority to address these work-life balance issues, it provides a more realistic and attractive vision of a career in science for young women. It also provides a structural solution to a common barrier, which is a powerful message to a new generation of scientists.

Box 16 Examples of Japan's policy instruments encouraging women and girls' participation in science

Gender Equality Bureau: In collaboration with the private sector, the Bureau is actively conducting over 100 STEM workshops and events, primarily aimed at female students. These include practical experiences, such as learning from Mazda's sports car engineers. To combat unconscious bias, the government has produced a **9.5-minute video** specifically designed to raise awareness among educators and other adults about biases that can deter girls from pursuing studies in STEM fields.

University outreach programmes also play a crucial role. Institutions like **Kyoto University's Gender Equality Promotion Centre (GEPC)** host lectures and roundtable forums for high school students, introducing them to research careers and encouraging them to pursue studies in STEM fields.

Similarly, **Science Tokyo's Women in Science & Technology Fund** supports communication efforts that target female high school students and their guardians. To attract talent, an increasing number of schools and private companies, including Mitsubishi Heavy Industries and Toyota, are offering scholarships specifically to female students in STEM fields.

Box 17 Examples of Japan's policy instruments, including funds, awards and subsidies for female researchers

To retain and advance women in academic and research careers, Japan has seen a proliferation of dedicated funds, awards, and subsidies specifically for female researchers, including:
Women in Science and Technology Fund: Established by Science Tokyo to enhance career education, foster a comfortable working environment, and strengthen overall support for women's success in science, including providing research grants and awards.

Women Researcher Incentive Awards: Through this scheme, Hiroshima University provide up to 1 million yen in research funds to young female researchers (associate professors or below) who have not yet secured external funding, thereby encouraging their early career development.

Female Researcher Joint Research Subsidy Programme: Also, a scheme of Hiroshima University, 1 million yen is offered for outstanding joint research projects led by women and is specifically designed to foster the development of women research leaders.

Brilliant Female Researchers Award (The Jun Ashida Award): Established in 2019 by the Japan Science and Technology Agency (JST), the award carries a 1-million-yen prize and recognises both outstanding individual female researchers and organisations that provide exemplary support for women in science, thereby promoting their achievements and best practices.

L'Oréal-UNESCO *For Women in Science* Japan Fellowship Awards: Initiated in Japan in 2005, promising early-career female scientists are selected and supported annually, which contributes to their visibility and career advancement on an international platform.

Promoting workplace environments that attract, retain, and advance women scientists

A comprehensive emphasis on initiatives promoting work-life balance is essential for retaining women in demanding STEM careers, thereby directly addressing the perception that such careers are incompatible with family obligations.

Examples of good practice in policy initiatives include:

- **Field 4 Gender Equality in Science and Technology and Academic Fields**: This initiative, as part of a national plan for gender equality, provides a top-down mandate for gender-responsive policies. By identifying gender equality in science as a distinct field of policy, the government establishes a clear commitment to the issue. This creates a framework for enacting specific, evidence-based measures that promote a more equitable workplace in relation to recruitment, promotion, and work-life balance.
- **The Initiative for Realising Diversity in the Research Environment**: This initiative directly addresses workplace environments by aiming to 'create an environment in which female researchers can demonstrate their abilities to the fullest.' It is a good practice because it goes beyond simply encouraging women and focuses on the systemic changes needed to retain and advance them. This includes a focus on leadership training and 'positive action in recruitment and promotion of women researchers.'
- **6th Science, Technology, and Innovation Basic Plan**: As a major national policy document, this plan sets the overall direction for women empowerment in science. Aligned with the **Integrated Innovation Strategy** and the **Basic Plan for Gender Equality**, it provides the strategic foundation for all other policies and programmes. The plan includes specific goals and indicators for increasing the number of female researchers and leaders, which drives all institutions to create a more inclusive workplace environment. The plan's focus on "work styles" and balancing research with life events, such as maternity and childcare, is a crucial element for retaining women in science, particularly during critical career-building stages.

Box 18 Examples of Japan's policy instruments promoting workplace environments that attract, retain, and advance women scientists

Kyoto University's Gender Equality Promotion Centre (GEPC) administers a daycare facility for infants whose parents are awaiting placement in public nursery schools, and it also provides a child pick-up and care service. The University's "KOMOMO" nursery is a specialised daycare tailored for sick and convalescent children of university affiliates, facilitating the continuation of their parents' work or studies. Financial assistance is also provided to address career interruptions for the employment of laboratory assistants to fill staffing vacancies resulting from maternity or other family-related leave.

Science Tokyo: Supports the ongoing careers of women by facilitating their employment as research support personnel, despite their childbirth and childcare commitments.

Beyond governmental directives, there is a rising involvement from academic institutions and the private sector in fostering the participation of women in STEM fields.

Leading corporations, including Mitsubishi Heavy Industries, Toyota and Panasonic, are offering scholarships and awards to attract female talent into STEM fields. A primary catalyst for this engagement of the private sector is the escalating acknowledgement that "no diversity, no innovation" and that a deficiency in gender balance results in "significant blind spots and deficiencies" in technological advancement.

Collection of disaggregated data for evidence-based policies and monitoring progress

Japan's R&D statistics and analysis are produced and compiled by several key organisations. The **National Institute of Science and Technology Policy (NISTEP)** investigates and analyses innovation, particularly within firms, to understand Japan's innovation system. Additionally, the **Japan Science and Technology Agency (JST)** plays a central role in promoting science and technology and conducts analysis of science and technology innovation, and related social and policy trends.

Good practice example:

- **6th Science, Technology, and Innovation Basic Plan**: This plan is a good practice because it explicitly emphasises "evidence-based policymaking." To follow this principle, the government must collect and analyse data, including those that are disaggregated by gender and other factors. The plan's focus on setting targets and indicators for its goals ensures that a robust data collection system is in place to track progress.

Integrating gender-related aspects into the content of research

Japan's diversity-focused initiatives promote the incorporation of gender perspectives into research design. Examples of good practice include:

- **Initiative for Realising Diversity in the Research Environment**: Provides support to female researchers and advances the inclusion of diverse perspectives in scientific inquiry. By facilitating researchers in balancing life events with professional responsibilities, the initiative ensures that gendered experiences are reflected in research questions and methodologies, thereby augmenting the societal relevance and scholarly quality of the knowledge generated.

While not directly focused on gender, these policy initiatives are relevant through their emphasis on the governance of innovation, and "human-centric" AI and the need to address biases in AI:

- **AI Governance (Social Principles of Human-Centric AI, AI Guidelines for Business, The Conference Toward AI Network Society)**: If AI systems are developed with biases that disproportionately affect women or specific groups of women (e.g., in hiring algorithms or access to services), then policies promoting fairness and transparency are crucial for mitigating these impacts and preventing the exacerbation of existing gender inequalities. Promoting AI literacy also empowers women to participate in and benefit from the digital economy.
- **Governance Innovation**: The push for digital transformation and improved public services can indirectly affect the gender gap. If digital services are not universally accessible, they could disadvantage women, particularly older women or those in rural areas, who may face greater barriers to digital literacy or access. Conversely, well-designed digital services can enhance convenience and access for all, including women who balance multiple responsibilities.

Implementing the UNESCO 2024 Call to Action: Closing the Gender Gap in Science

Japan's comprehensive strategy for gender equity in science aligns closely with the UNESCO 2024 Call to Action. Through initiatives such as **Governance Innovation** and **AI Utilisation Guidelines**, Japan exemplifies a dedication to ethical, inclusive, and progressive science policy. The **Initiative for Realising Diversity in the Research Environment** underpins alignment with the UNESCO agenda by promoting environments where women can assume leadership roles, contribute significantly, and influence the future trajectory of science and technology. The incorporation of intersectionality further solidifies Japan's conformity with global standards for inclusive scientific progress.

Key intersectional policy initiatives for closing the gender gap in science

Japan's policy initiatives demonstrate a growing recognition of the importance of closing the gender gap, particularly within science, technology, and research. While many policies have indirect relevance by fostering a more inclusive society or addressing broader societal challenges that disproportionately affect women, some directly target gender disparities in science.

Two key policy initiatives stand out as good practices for addressing the gender gap in science in Japan, particularly when viewed through an intersectional lens:

1. **Initiative for Realising Diversity in the Research Environment**
    - **Why it's a good practice**: This programme directly addresses a critical barrier for women in STEM: balancing research careers with life events such as childbirth and childcare. It aims to improve research capabilities and promote female leadership, recognising that a supportive environment is essential for women to fully demonstrate their abilities. The Japan Science and Technology Agency (JST), which manages this initiative, explicitly articulates a vision of diversity that includes not only gender but also nationality, age, race, and disability, aiming to create flexible work styles unaffected by personal responsibilities like child-rearing or nursing care.
    - **Intersectional nuance**: While providing childcare support is a vital step, the intersectional nuance lies in ensuring that this support is comprehensive and accessible for *all* women. For instance, single mothers, women with extensive elderly care responsibilities and international female researchers who may lack traditional family support networks in Japan could face compounded barriers that generic childcare support might not fully address. The policy's explicit mention of "nationality" and "age" in its diversity vision is commendable. Practical implementation requires tailored solutions that acknowledge these specific, intersecting needs to prevent certain groups of women from being inadvertently left behind.

2. **Riko-challenges and Support for Girl Students in Choosing Science Courses:**
    - **Why it's a good practice**: These programmes are proactive in addressing the pipeline issue by directly targeting female junior and senior high school students. They aim to inspire girls to choose STEM careers through hands-on experiences, tours of science and engineering workplaces, and crucial interactions with female role models. Complementing this, Japanese universities are increasingly introducing female admission quotas in science and engineering faculties and improving physical facilities, such as spacious and bright women's restrooms, to make STEM environments more appealing and welcoming to female students.
    - **Intersectional nuance**: While effective in increasing interest and entry, the intersectional nuance highlights that these initiatives must go beyond individual motivation to address deeper systemic and societal barriers. For example, the persistent wage gap within STEM fields, where male natural science researchers earn significantly more than their female counterparts, and societal attitudes that continue to value university education more for men, can still deter women, especially those from lower socio-economic backgrounds who might prioritise immediate financial stability. The "persistent sense of inequality" regarding female quotas among some high school students also underscores the need for broader public education and cultural shifts to ensure these measures are understood as addressing systemic imbalances rather than creating unfair advantages. The improvement of facilities like restrooms is a practical step towards inclusivity, but the broader institutional and cultural environment of STEM must be transformed to ensure equitable progression and leadership opportunities for all women, including those with disabilities or from diverse cultural backgrounds.

KOREA, REPUBLIC OF

Introduction

For South Korea, a nation actively navigating the complexities of the digital transformation era, the full utilisation of its talent pool is vital for its economic future. In this context, women in STEM represent a crucial capability. The shift from simply encouraging women into science to integrating gender considerations within research questions marks a significant evolution in Korea's approach, shifting beyond basic representation to transforming the core of scientific knowledge and its impact.

Furthermore, Korea's STI policies are embedded in a broader effort to cultivate a science and technology culture that is open, inclusive, and future-oriented. This cultural perspective recognises that science is not only an economic driver but also a social and cultural resource. By nurturing public trust and engagement with STI, Korea aims to create a sustainable ecosystem where innovation is valued as a shared societal asset.

In addition, Korea's policy mix extends beyond gender to also support fostering dialogue between different knowledge systems, transitioning to open science, and combating inequities in STI. These broader approaches ensure that STI policies remain socially responsive, globally connected, and accessible to diverse communities.

The table below provides an overview of the policy initiatives identified as relevant for the G20 Recommendations on Diversity, Equity, Inclusivity, and Accessibility (DEIA), including the recommendation towards closing the gender gap in science.

The rest of this G20 member note highlights good practice initiatives responding to the G20 Recommendation: Closing the Gender Gap in Science. These include initiatives tackling socio-economic, regional, and disability-based inequities in research participation. Examples are programmes targeting rural communities, low-skilled workers, and persons with disabilities, ensuring that STI benefits and opportunities extend beyond traditionally privileged groups. By explicitly addressing these inequities, Korea complements gender-focused policies with a wider intersectional approach. It is organised according to the sub-recommendations:

- Encouraging women and girls to consider careers in science
- Promoting workplace environments that attract, retain, and advance women scientists
- Collecting disaggregated data for evidence-based policies and monitoring progress
- Integrating gender-related aspects into the content of research
- Implementing the UNESCO 2024 Call to Action: Closing the Gender Gap in Science

The last section identifies key intersectional policy initiatives for closing the gender gap in science, fostering Dialogue Between Different Knowledge Systems, transitioning to Open Science, and combating Inequities in STI.

Table 15 Korea: Summary of the relevant policy initiatives by G20 Recommendation on DEIA

G20 Recommendation on DEIA	Number of policy initiatives	Policy instrument types	Main target groups/ beneficiaries (STIP categories)	Main target groups/ beneficiaries (Specific)
1. Promoting diversity, equity, inclusion and accessibility in STI systems	22	Collaborative infrastructures (soft and physical); Direct financial support; Governance; Guidance, regulation and incentives	Economic actors (individuals); Firms; Governmental entities; Intermediaries; Research and education organisations; Researchers, students and teachers; Social groups especially emphasised	All citizens; citizens; defense sector; experts from industry; general public; human subjects of research; industries; local administrative agencies; policymakers; public research institutes; research and education organisations; researchers; secondary education students; small businesses; universities; young adults; youth (primary/secondary school students); academia; bio-health industry; business leaders; civic engagement groups; civic groups; civil society; community groups; companies (especially SMEs with technological capabilities); current employees (skill enhancement); persons with disabilities; disaster management agencies; donors; educators; elderly; enterprises; senior citizens; established researchers; disadvantaged and excluded groups; experts; families; an individual or group in vulnerable conditions; healthcare sector; higher education institutes; human resources specialised in science museum operation; individuals facing mental health issues or infertility; industries; international community (through promoting understanding of Korea); job seekers; local governments; local researchers; military sector; others particularly vulnerable to safety threats; private sector companies; private-sector experts; public research institutes; regional economies; regional technology innovation centres; research institutes; research institutions; researchers; residents (including those affected by redevelopment); small and medium enterprises (SMEs); specialised research institutes; specialised universities; startups;

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G20 Recomm-endation on DEIA	Number of policy initiatives	Policy instrument types	Main target groups/ beneficiaries (STIP categories)	Main target groups/ beneficiaries (Specific)
				students; students (graduate schools); teachers; technology holders; technology trading agencies; technology-demanding enterprises; training institutions; urban services
2. Closing the gender gap in science	6	Collaborative infrastructures (soft and physical); Governance; Guidance, regulation and incentives	Research and education organisations; Researchers, students and teachers; Social groups especially emphasised	Female scientists; R&D performers; researchers; STEM research community; women (especially those experiencing career interruption); women in STEM; elementary/secondary school girls; women in science; academia; current employees; engineers; female faculty members in S&T; girls in STEM; industries; public institutions; public officials; regions; science and technology (all stages from schoolgirls to professionals); technology universities; unemployed women; university students
3. Fostering dialogue between different knowledge systems	Not recorded	Not recorded	Not recoded	Not recoded
4. Transitioning to open science	4	Collaborative infrastructures (soft and physical); Governance	Economic actors (individuals); Firms; Research and education organisations; Researchers, students and teachers; Social groups especially emphasised	AI professionals (ethics education); AI researchers; everyday users; researchers; SMEs; society as a whole (public trust in AI); data subjects; educators; general public (protection from AI harms); industries; industries (sustainable growth); national government; startups developing AI models/ services; students

Continues overleaf...

G20 Recommendation on DEIA	Number of policy initiatives	Policy instrument types	Main target groups/ beneficiaries (STIP categories)	Main target groups/ beneficiaries (Specific)
5. Combating inequities in STI	27	Collaborative infrastructures (soft and physical); Governance	Economic actors (individuals); Firms; Governmental entities; Intermediaries; Research and education organisations; Researchers, students and teachers; Social groups especially emphasised	All citizens; dementia patients; entire South Korean population; farms; firms of any size; general public; higher education institutes; IT Industries; industries (large emitters); industry; Korean car manufacturers; large firms; low-skilled workers (government-supported jobs); national government; petrochemical companies; policymakers; researchers; rural; SMEs; the industrial sector; agricultural/ livestock sectors; automotive; building owners; building sector; businesses; carbon neutrality experts; carbon-intensive industries; children; civic organizations; civil society; civil society in developing countries; communities affected by social problems; consumers; developing countries (international cooperation); elderly; energy sector; established researchers; experts; finance); firms; government agencies; government-funded research institutes; green technology/ industry; health insurance policy holders; healthcare workers; higher education institutes; hydrogen-specialised enterprises; energy industries (transition support); industries adopting low-carbon technologies; industry associations; international community; international entities; international partners; international partners (LMICs); local areas; local governments; local people; low-income communities; medical care assistance beneficiaries; national government; national governments; pharmaceutical companies; private committee members; private investors; private sector; professional human resources in dementia management; professional

Continues overleaf...

G20 Recomm-endation on DEIA	Number of policy initiatives	Policy instrument types	Main target groups/ beneficiaries (STIP categories)	Main target groups/ beneficiaries (Specific)
				technical personnel; public; public institutions; public research institutes; public/private research institutes; public/private research labs; researchers; rural communities; small businesses; social enterprises; social groups vulnerable to fine dust (e.g.; stakeholders including future generations; startups; subnational governments; technology companies; technology transfer offices; those vulnerable to energy-related challenges; those with respiratory conditions; transport sector; vulnerable social groups

Note: This table includes a set of policy initiatives selected for inclusion in the compendium, 'STI for All': A Compendium of Good Practices in STI Policy. The main aim is to identify good practice policy initiatives rather than to provide an exhaustive list of the G20 member/guest country's policy initiatives.

Encouraging women and girls to consider careers in science

Korea emphasises the importance of establishing an ecosystem that not only attracts female talent in STEM but also provides a supportive environment for women in STEM. Mentorship has become a critical tool for addressing the gender gap in STEM, directly tackling the identified lack of role models for women in STEM. An example of good practice, the **Korea Foundation for Women in Science, Engineering and Technology (WISET)** offers a diverse range of mentoring programmes designed to support women at different stages of their careers (see Box 19). Beyond traditional employment pathways, Korea actively supports women in STEM fields who pursue entrepreneurial ventures.

Examples of good practice policy initiatives include:

- **The 5th Basic Plan for Nurturing and Supporting Female Scientists and Engineers**: This plan serves as a comprehensive roadmap for policy and institutional efforts. It is a good practice initiative because it provides a structured, long-term approach to addressing the root causes of the gender gap, including the need to dismantle stereotypes. It sets a framework for specific programmes and actions, which can include initiatives to promote positive media representation and revise educational materials to include women's contributions.

- **The Korea Foundation for Women in Science, Engineering and Technology (WISET)**: This organisation directly addresses the need for enhanced visibility of women in science by acting as a central hub for supporting female scientists. Its programmes often involve showcasing role models and providing platforms for women to share their experiences and contributions. By supporting female students and professionals, the foundation works implicitly and explicitly to change the perception of who a scientist is, thereby challenging stereotypes from an early age.

Box 19 Korea Foundation for Women in Science, Engineering and Technology (WISET) mentoring programmes designed to support women at different stages of their careers

Career Exploration Mentoring: This programme introduces female students in elementary, middle, and high school to a wide range of STEM career pathways and connects them with inspiring role models. By providing practical, hands-on learning opportunities, it fosters students' curiosity and strengthens their motivation to pursue advanced studies and future careers in STEM Global Mentoring:

This programme aims to improve the employability and career preparation of female university students and graduates in STEM. It provides structured mentoring with professionals in science and engineering, along with visits to research institutes, companies, and laboratories. These activities support participants in making informed career choices and exploring various pathways across STEM fields.

Global Cross Mentoring: This programme provides the global research career development and networking of Korean women in STEM by engaging with distinguished female scientists who are actively contributing in Korea, the United States, and Europe.

Current Employees Mentoring: To foster women leaders across all areas of science and technology, this programme provides mid-level female employees with career growth and mentoring opportunities from senior and executive-level women leaders.

Start-Up Mentoring: This initiative supports entrepreneurial capacity among women in STEM by providing tailored guidance on launching and managing start-ups.

Promoting workplace environments that attract, retain, and advance women scientists

Recognising the distinct challenges within STEM, legal and institutional frameworks, and specialised organisations play a vital role in offering targeted support:

- **The Korea Foundation for Women in Science, Engineering and Technology (WISET)**: Providing a comprehensive range of programmes specifically designed for women in STEM at various career levels. The existence and detailed offerings of WISET emphasise the understanding that general gender equality policies, while essential, do not often address fully the unique structural and cultural barriers present in the STEM sector. WISET's dedicated focus enables the realisation of broader policy aims through practical, targeted interventions within the scientific and technological community. It provides science and technology-based entrepreneurship support and education for establishing and managing startups. This initiative aims to diversify career paths for women in STEM and foster a culture of female entrepreneurship, potentially enabling women to bypass traditional corporate or academic structures where systemic discrimination and glass ceilings are more prevalent. This strategic focus recognises that not all women will thrive or wish to remain in conventional employment, offering a valuable alternative. Specific instruments linked to WISET is included in the box below.
- **The Act on Fostering and Supporting Female Scientists and Engineers**: This act provides the legal and institutional basis for the provision of support and incentives. By mandating a legal framework for these programmes, it ensures that encouraging women and girls is not a temporary goal but a sustained national policy. It provides a stable and reliable foundation for various ministries and institutions to offer subsidies and other forms of support, making it a robust, long-term good practice.
- **The Target System for Recruitment and Promotion of Female S&T Personnel**: This initiative is a good practice because it goes beyond mere encouragement and sets a concrete, actionable goal. By establishing targets for the recruitment and promotion of female personnel, it creates institutional accountability. This system provides a clear incentive for organisations to actively seek out and support women, ensuring that encouragement is followed by tangible opportunities for employment and career advancement.

Box 20 Major programmes of the Korea Foundation for Women in Science, Engineering and Technology (WISET)

STEM Women of the Year: These awards contribute significantly to leadership development and the recognition of female achievements. The initiative directly addresses the under-representation of women in executive and leadership positions. By increasing the visibility of successful women in STEM, they combat the "lack of role models" and reinforce the crucial role of senior female leaders in paving the way for younger, upcoming female talent. This cultivation of alternative pathways and enhanced visibility serves to inspire and validate women's contributions, ultimately enriching the entire STEM landscape.

Academy for Women in STEM: Provide education and training to enhance the leadership and competencies of women in science and technology, supporting their growth and development within organizations.

R&D Career Re-Entry Programme and Parental Leave Replacement Programmes for R&D Sectors: These initiatives are vital for retaining valuable talent and directly counter the "M-shaped" pattern of female labour force participation, where women tend to withdraw from the workforce during child-rearing years. By providing structural support that considers the realities of women's life cycles, these measures aim to prevent family responsibilities from permanently hindering STEM careers, thereby improving talent retention throughout the professional lifespan.

Collection of disaggregated data for evidence-based policies and monitoring progress

In Korea, the Ministry of Science and ICT (MSIT) is the primary producer of R&D statistics. They release an annual survey on R&D activities, reporting on R&D spending, number of researchers, and other relevant data. Korea's primary source for higher education statistics is the Ministry of Education.

Policy initiatives such as the **5th Basic Plan for Nurturing and Supporting Female Scientists and Engineers and Plan for the Improvement of National R&D Administrative Systems (2023)**, by their very nature, require the collection of data to monitor progress and evaluate the effectiveness of its policies. This depends on the availability of digital infrastructure, standardisation and services that make the systematic collection of disaggregated data on a national scale possible. While not explicitly focused on gender, this good practice policy initiative is mandated to build and manage a comprehensive data ecosystem, providing the necessary tools and platforms for policy initiatives to be implemented:

- **The Korea Institute of Science and Technology Information (KISTI)**: Functions as the national S&T knowledge infrastructure. KISTI has developed and operates the National Research Data Platform (DataON). As a single point for data collection and management, it systematically manages and standardises research data generated from government-funded R&D projects across Korea. KISTI also operates the National Science & Technology Information Service (NTIS), which integrates

and provides information on national R&D programs from 16 different ministries and offices. By incorporating fields for gender and other intersectional factors into the NTIS database, the government can easily monitor the diversity of its research workforce and evaluate if funding is being distributed equitably.

An example of a policy initiative that more directly promotes the collection of disaggregated data towards closing the gender gap in science:

- **The Target System for Recruitment and Promotion of Female S&T Personnel**: This policy initiative is inherently reliant on and driven by data. It mandates data collection for compliance and monitoring as it requires that institutions track the number of female and male S&T personnel. To monitor compliance, the government must collect data on the recruitment and promotion rates of women at a national level and within specific institutions. This data is disaggregated by gender as a minimum, and in many cases, is further broken down by position, career stage and institution type (e.g., government-funded research institutes, universities). Institutions subject to these targets must collect and report data on their workforce demographics to demonstrate whether they are meeting their goals, incentivising the collection of accurate and up-to-date disaggregated data. The Target System is not an isolated policy but is part of a larger legislative framework, such as the Act on Fostering and Supporting Female Scientists and Engineers.

Integrating gender-related aspects into the content of research

South Korea's policy landscape is showing an emerging acknowledgement of the importance of incorporating gender perspectives into research design and implementation, thereby enhancing both scientific excellence and the societal relevance of the knowledge generated. This marks a significant shift in its approach to gender equality in science. Several initiatives target research areas and beneficiaries in ways that inherently involve gender considerations. Societal relevance is a crucial factor driving the integration of gender in research. The **3rd Master Plan for the Promotion of Health Technology**, for instance, includes R&D on conditions that disproportionately impact women in Korea's ageing population, demonstrating a focus on addressing women's specific health needs. The **Human-Centred National Guidelines for AI Ethics** also emphasises social inclusivity, such as ensuring algorithms do not harm rural women, as an essential part of research planning.

While not directly intended to address the goal of closing the gender gap in science, these policy initiatives contribute by creating mechanisms for incorporating diverse perspectives, including gender, directly into the research process:

- **R&D Programme to Overcome Dementia**: This programme aims to reduce the socioeconomic burden on all citizens suffering from dementia. To achieve this goal, it supports research targeting all genders, focusing on the identification of causes and mechanisms of dementia onset, the development of prediction and diagnostic technologies, as well as the advancement of prevention and treatment technologies.
- **Caring Robot Translational Research**: This project utilises Fourth Industrial Revolution technologies to support vulnerable groups of all genders, including persons with severe disabilities and older

adults with mobility difficulties. It aims to develop technologies and service models that reduce the burden on both care recipients and care providers.

- **Citizen-Led Research**: By including citizens as active participants in research, including defining the "societal problems" they face, the programme ensures that the knowledge produced is not only scientifically excellent but also deeply rooted in the needs and experiences of the people it is meant to serve. This naturally leads to research that integrates gender and other intersectional aspects. The research questions that emerge from these citizen groups are likely to be highly relevant to their lived experiences, including gender-related challenges.

This highlights a potential causal link: framing research within a societal problem-solving paradigm, particularly when target groups include women, inherently encourages research questions that are more attuned to diverse human experiences and needs.

Implementing the UNESCO 2024 Call to Action: Closing the Gender Gap in Science

Korea's comprehensive range of policies aligns with and actively supports the goals outlined in UNESCO's 2024 Call to Action: Closing the Gender Gap in Science. This alignment positions Korea as a key participant in the global effort to achieve gender equality in scientific fields.

Evidence of direct policy alignment is seen across several initiatives.

- **The Act on Fostering and Supporting Female Scientists and Engineers** provides the legislative foundation, directly aiding UNESCO's call to remove barriers and enhance women's abilities in science. Institutionally, the Korea Foundation for Women in Science, Engineering and Technology (WISET) directly reflects UNESCO's aim of creating a sustainable ecosystem for growth and fostering female leaders within STEM.
- **STEAM Education initiative**: Actively encourages early interest in science among girls, ensuring a steady stream of future women scientists.
- **The W-Bridge**: Offers practical, life-cycle support for female scientists, aligning with UNESCO's focus on retaining and advancing women throughout their careers.

Additionally, Korea's widespread use of "Public awareness campaigns and other outreach activities" through initiatives such as the 3rd Master Plan on S&T Culture, The Technology Assessment, and The Fourth Basic Plan for Promoting Science Museums directly helps to dismantle gender stereotypes and raise the profile of female scientists, as recommended by UNESCO.

Beyond policy alignment, Korea actively participates in and endorses global efforts. Domestic programmes already reflect the priorities outlined in the Call, promoting female role models, bias-free education, and inclusive workplaces. Korea's national strategies, both at the ministerial and university levels, support the Call to Action by integrating its guidelines into STI master plans and committing to international benchmarks for gender equality.

Key intersectional policy initiatives for closing the gender gap in science

Korea's policy initiatives demonstrate a direct and growing commitment to closing the gender gap, particularly within science and technology (S&T) fields. This is primarily achieved through a multi-pronged approach that seeks to attract, retain, and advance women in STEM careers, while also addressing systemic barriers and promoting work-life balance. Several initiatives aim to increase female representation, provide tailored support, and foster an inclusive S&T ecosystem.

Here are two key policy initiatives considered good practice in meeting the criteria of closing the gender gap in science in Korea, with an indication of their intersectional nuance:

1. **Korea Foundation for Women in Science, Engineering and Technology (WISET)**
    - **Why it's good a practice**: WISET is a dedicated institution with a comprehensive mandate to foster and empower women across their entire lifecycle in STEM fields. Its programmes range from attracting elementary and secondary school girls to STEM, preventing attrition among university students, supporting career re-entry for unemployed women, and developing the leadership capabilities of current professionals. This **holistic approach** addresses various stages where women might face challenges in their STEM journeys. It also actively promotes a culture of diversity, equity, and inclusion (DEI) and networking within STEM.
    - **Intersectional nuance**: WISET explicitly addresses the critical issue of career interruption through programmes like the **R&D Career Re-Entry Programme** and **Parental Leave Replacement Programmes for R&D Sectors**. This acknowledges the intersection of gender with family responsibilities, which disproportionately affects women's career progression. Furthermore, its focus on "Fostering Regional Female Talents" introduces a geographical intersectional lens, aiming to ensure that opportunities are not solely concentrated in major urban centres but are accessible to women across different regions.

2. **The Act on Fostering and Supporting Female Scientists and Engineers:**
    - **Why it's a good practice**: This Act serves as the foundational legal basis for all policies supporting women in STEM in Korea, as it provides a strong institutional framework for gender equality in science. It mandates the establishment of five-year Master Plans that set mid- and long-term policy goals and directions, including affirmative action measures. This legal underpinning ensures sustained governmental commitment and systematic implementation of gender-responsive policies.
    - **Intersectional nuance**: The Act includes provisions for preferential policies for universities that maintain an adequate ratio of female students and offers or research subsidies to excellent female students. This directly addresses socioeconomic disparities, ensuring that financial barriers do not hinder talented young women from pursuing STEM education and careers. By mandating affirmative action and supporting institutes dedicated to women in STEM, it tackles systemic biases that might otherwise disadvantage women, particularly those from less privileged backgrounds, in accessing and succeeding in these fields.

Fostering Dialogue Between Different Knowledge Systems

Korea promotes citizen-led research platforms that bring together everyday experiences, local knowledge, and scientific expertise. Such initiatives institutionalise dialogue between knowledge systems and strengthen inclusivity in setting research agendas. The Platform on Science and Technology Policy for Social Problem Solving also acts as a bridge between public needs and formal R&D structures, ensuring that science remains relevant to society.

Transitioning to Open Science

Korea is expanding infrastructures for open science through the National Research Data Platform (DataON) and the NTIS (National Science & Technology Information Service). These platforms enable data sharing across ministries and institutes, advancing transparency and reproducibility in research. Policies also emphasise the ethical and inclusive use of AI and digital resources, positioning open science as a tool for public trust and accountability.

Combating Inequities in STI

Korea's climate neutrality and digital transition strategies explicitly embed equity principles. Programmes targeting rural communities, low-skilled workers, persons with disabilities, and SMEs demonstrate efforts to prevent disproportionate burdens on vulnerable groups. Examples include the Dementia R&D Programme and Caring Robot Translational Research, which prioritise social needs, and green transition policies that provide tailored support to carbon-intensive sectors to ensure a just transition.

MEXICO

Introduction

Mexico's approach to closing the gender gap in science emphasises the incorporation of gender perspectives across the policy landscape, enshrined in documents like the **National Development Plan** and the new **General Act on Humanities, Sciences, Technologies, and Innovation**. These high-level policy frameworks mandate the integration of a gender perspective across all public policies and budgets, including those related to science, technology and innovation (STI), seeking to institutionalise gender equity.

In 2024, Mexico made significant changes to its STI policy landscape, including the transformation of the **National Council for Science and Technology (CONACYT)** into a full-fledged Secretariat: the **Secretariat of Science, Humanities, Technology, and Innovation**. This enabled the consolidation of existing women-in-science initiatives and elevated their importance to the highest level of government. Gender equity and intersectionality principles are applied across various policy types, from scholarships to governance structures.

This member note has the following objectives:

1. To provide, as outlined in the table below, an overview of a selection of policy initiatives identified as relevant for the G20 Recommendations on Diversity, Equity, Inclusivity, and Accessibility (DEIA). The aim is to provide a snapshot of the broader set of policy initiatives included in the compendium database.

2. To provide, in the remainder of this member note, highlights of good practices in policy initiatives responding to the G20 Recommendation: Closing the Gender Gap in Science. It is organised according to the sub-recommendations:
   - Encouraging women and girls to consider careers in science
   - Promoting workplace environments that attract, retain, and advance women scientists
   - Collecting disaggregated data for evidence-based policies and monitoring progress
   - Integrating gender-related aspects into the content of research
   - Implementing the UNESCO 2024 Call to Action: Closing the Gender Gap in Science

3. To identify, in the last section, key intersectional policy initiatives for closing the gender gap in science.

Table 16 Mexico: Summary of the relevant policy initiatives by G20 Recommendation on DEIA

G20 Recommendation on DEIA	Number of policy initiatives	Policy instrument types	Main target groups/ beneficiaries (STIP categories)	Main target groups/ beneficiaries (Specific)
1. Promoting diversity, equity, inclusion and accessibility in STI systems	17	Collaborative infrastructures (soft and physical); Direct financial support; Governance; Guidance, regulation, incentives	Economic actors (individuals); Firms; Governmental entities; Intermediaries; Research and education organisations; Researchers, students and teachers; Social groups especially emphasised	Companies; entire HCTI community; entire STI community in Mexico; entire population of Mexico; government agencies; healthcare providers; Mexican students; researchers; students who self-identify as indigenous; students with disabilities seeking a postgraduate degree; talented Mexican students pursuing postgraduate studies; academic institutions; entrepreneurs; established firms; general public; government agencies involved in science; government regulators; researchers; industries within the identified strategic sectors; innovators; institutions engaged in R&D; institutions within a specific sector (e.g., health, education, environment); investors; patients; policymakers; postgraduate students; professionals in technology transfer; research community; researchers; scientific institutions; students; technology developers; workers across various sectors of the Mexican economy
2. Closing the gender gap in science	1	Direct financial support	Researchers, students and teachers; Social groups especially emphasised	Mexican single mothers
3. Fostering dialogue between different knowledge systems	Not recorded	Not recorded	Not recorded	Not recorded

Continues overleaf...

G20 Recomm-endation on DEIA	Number of policy initiatives	Policy instrument types	Main target groups/ beneficiaries (STIP categories)	Main target groups/ beneficiaries (Specific)
4. Transitioning to open science	6	Collaborative infrastructures (soft and physical); Governance	Economic actors (individuals); Firms; Governmental entities; Intermediaries; Research and education organisations; Researchers, students and teachers; Social groups especially emphasised	AI developers; all citizens of Mexico; Federal government agencies; general public; government agencies; Mexican government; public - all Mexican citizens; civil society organisations; students; private sectors; public institutions; public that interacts with their AI systems; public who can access the information; researchers; students; teachers
5. Combating inequities in STI	5	Direct financial support; Governance; Guidance, regulation, incentives	Economic actors (individuals); Firms by size; Governmental entities; Research and education organisations; Researchers, students and teachers; Social groups especially emphasised	Agri-food sector; all citizens; environmental advocates; government; researchers; academia; agricultural institutions; civil society organisations; general public; government; including farmers; institutions; involved in the specific scientific project; particularly vulnerable populations; policymakers; private entities; researchers

Note: This table includes a set of policy initiatives selected for inclusion in the compendium, 'STI for All': A Compendium of Good Practices in STI Policy. The main aim is to identify good practice policy initiatives rather than to provide an exhaustive list of the G20 member/guest country's policy initiatives.

Encouraging women and girls to consider careers in science

Mexico's commitment to promoting women's participation in science is evident through a blend of targeted financial assistance and extensive public engagement initiatives. The explicit aims, such as supporting labour market entry and boosting national scientific capabilities, show that empowering women in science is regarded as a key national priority. These initiatives go beyond a narrow gender focus to incorporate an intersectional lens, recognising how gender intersects with other factors like socioeconomic status, family responsibilities, and disability.

A notable good practice example is:

- **The Matilde Montoya Award**: This initiative recognises the professional achievements of women scientists in the fields of biological and health sciences. The award recognises their contributions to the Mexican population.
- **Apoyo a Madres Mexicanas Jefas de Familia para Fortalecer su Desarrollo Profesional programme**: This initiative is specifically aimed at single, divorced, widowed, and separated mothers, helping them complete professional studies at the licenciatura (bachelor's) level and third-level technical training. Through offering fellowships, postgraduate loans, and scholarships, the programme supports their entry into the labour market and to foster equality and access to higher education. This demonstrates a multifaceted approach, tackling not only gender disparities but also the socio-economic barriers that impact single mothers disproportionately, enabling them to pursue and complete their professional qualifications.

Box 21 Example of a good practice policy instrument encouraging women and girls to consider careers in science in Mexico

***For Women in Science* Programme**: As a collaborative effort between CONACYT, the Mexican Academy of Sciences, the Fondation L'Oréal, and UNESCO, the primary goal is to recognise and support the scientific work of Mexican women. The programme awards scholarships and grants to women scientists at various stages of their careers, from doctoral candidates to established researchers in fields such as exact sciences, natural sciences, engineering, and technology. By celebrating the achievements of women scientists, the programme creates visible role models and sends a clear message that women's contributions to science are valued and essential.

While not directly focused on gender equality, these policy initiatives contribute to closing the gender gap in science:

- **Grants for Postgraduate Studies and Quality Support**: This initiative offers fellowships, postgraduate loans, and scholarships aimed at promoting continuous improvement and quality assurance in national postgraduate studies.
- **Programme for the Incorporation of Students with Disabilities into National Postgraduate Courses**: The core objective is to ensure that people with disabilities can access and succeed in national postgraduate programmes. The support can include scholarships for maintenance, as well as supplementary funds for low-cost technology, adaptive equipment, and other tools that help reduce the "disability gap." The direct beneficiaries are Mexican citizens with disabilities who wish to pursue a master's or doctoral degree.
- **Scholarships for Indigenous People**: The primary objective is to increase access to and retention in higher education for students from indigenous communities. Through providing financial and academic support for undergraduate and postgraduate programmes, it aims to help them overcome socioeconomic barriers and complete their professional or postgraduate studies.

- **Public Communication of Science Programme**: This programme plays a crucial role in expanding engagement with science. Utilising public awareness campaigns and information services, this programme aims to disseminate and share major scientific and technological advancements with the public. By making scientific progress accessible and relatable, and by explicitly targeting women, it encourages more women and girls to consider careers in science, fostering interest from an early stage.
- **National Repository**: This open-access platform for scientific information reflects an awareness that open science and public engagement can democratise access to knowledge, make scientific careers less mystified, and encourage wider participation from underrepresented groups, thereby fostering a more supportive societal environment for women's involvement in science from the outset.

Promoting workplace environments that attract, retain, and advance women scientists

Mexico's strategy for fostering inclusive workplace environments for women scientists is mainly embedded in its overarching institutional and ecosystem-level policy initiatives. While these overarching policy initiatives establish a strong foundation for an inclusive STI ecosystem, the data provided does not explicitly specify detailed, targeted policy measures designed to address immediate workplace issues that are essential for attracting, retaining, and advancing women scientists, especially into leadership roles. Policy initiatives focused on issues such as flexible work arrangements, explicit anti-harassment measures, or dedicated leadership development programmes for women are not clearly outlined. The existing policy initiatives mainly focus on general support for the STI community or broad research funding, for example:

- **Support Programmes for Scientific, Technological and Innovation Activitie**s: The budget programme that contributes by supporting, encouraging, and promoting projects aimed at increasing and improving the pool of scientific and technological capabilities and skills. Its objectives include encouraging the training and inclusion of specialised human resources and strengthening infrastructure, which can indirectly benefit women scientists by creating more robust and supportive research environments.
- **Secretariat of Science, Humanities, Technology and Innovation (Secretaría de Ciencia, Humanidades, Tecnología e Innovación – SECIHTI)**: This programme has considered the financing of projects led by women in technical management roles, as well as projects focused on solving problems in regions with high socioeconomic and environmental vulnerability.

Collection of disaggregated data for evidence-based policies and monitoring progress

Mexico demonstrates a strong commitment to data collection and evidence-based policymaking, which are essential for effectively monitoring and addressing gender equity in science. The existence of data collection and dissemination infrastructures, combined with their clear focus on women and consideration of intersectionality, is a crucial foundation for comprehensive gender-disaggregated data analysis. The main challenge may not be in creating entirely new data collection systems, but rather in ensuring consistent, mandated gender and intersectional disaggregation within existing systems, and then actively utilising this detailed data for policy development, monitoring progress, and assessing impact. In this way, it is possible to leverage existing national data infrastructure, representing a resource-efficient strategy.

Although the information provided on existing policy initiatives does not explicitly mention the regular collection of gender-disaggregated data across all STI fields, the presence of these platforms implies that the underlying capacity and intention to manage and potentially disaggregate data are well-established:

- **National Repository**: This exemplifies dedication as a digital platform offering open access to a wide range of academic, scientific, and technological information resources. Its goal is to gather, preserve, and ensure open access to scientific, technological, and innovation information. Importantly, this initiative targets women explicitly with a notable consideration of intersectionality, so that the data it collects or makes accessible can be utilised for gender-disaggregated analysis, even if not explicitly mandated for such purposes across all datasets.
- **National Health IT Ecosystem**: This programme further emphasises Mexico's capacity to manage and utilise disaggregated data. This initiative aims to organise, standardise, process, analyse, visualise, project, and distribute information from various sources relevant to decision-making, especially concerning the SARS-CoV-2 pandemic. Its explicit focus on women and consideration of intersectionality within a data-intensive context highlight an existing ability and intention to collect and use detailed information, at least within the health sector.

Integrating gender-related aspects into the content of research

Mexico's policy framework actively promotes the integration of gender into research questions, mainly through its focus on addressing national problems from a multidisciplinary and inclusive perspective. This approach enhances scientific excellence and societal relevance by ensuring that research outcomes address the specific needs and experiences of diverse populations, resulting in a more comprehensive understanding of challenges and more equitable and practical solutions. It aligns scientific effort directly with principles of social justice and inclusive development, reflecting a shift towards responsible research and innovation.

These are examples of policy initiatives that promote a problem-oriented research approach with an intersectional perspective, contributing towards gender-integrated research:

- **National Strategic Programmes (Pronaces)**: These programmes organise research initiatives around "specific national problems" that require urgent attention and comprehensive solutions. Their aims include investigating the causes of problems and offering solutions from a "multidimensional and interdisciplinary perspective". Importantly, these programmes focus on women and consider intersectionality, creating a built-in obligation for researchers to think about how national challenges and their proposed solutions impact diverse population groups, including women. This framework naturally encourages the incorporation of gender-related aspects into the research design from the outset.
- **Support Programmes for Scientific, Technological and Innovation Activities**: By funding a wide range of scientific research projects aimed at expanding national knowledge, this initiative encourages researchers to incorporate gender analysis into their proposals. The programmes aim to promote the training and inclusion of specialised human resources, while focusing on women and considering intersectionality, further strengthening this approach.

- **Special Programme for Climate Change**: This initiative aims to reduce vulnerability and strengthen adaptation processes with a "focus on human rights." The human rights focus implicitly encompasses the gender-differentiated impacts of climate change, thereby necessitating gender-sensitive research to develop equitable and effective adaptation and mitigation strategies.
- **General Act on Humanities, Sciences, Technologies and Innovation**: This initiative recognises that unequal access to the benefits of STI is a form of social injustice. This principle requires policymakers to actively dismantle barriers related to socioeconomic status, gender, ethnicity, and geography, which have historically prevented many from participating in and benefiting from scientific progress. By mandating that research funded with public resources must serve the "common good," the Act creates an opportunity to address problems that disproportionately affect marginalised groups. The Act's focus on "humanities" is a positive step toward integrating diverse forms of knowledge, but its effectiveness depends on how well it incorporates and values traditional and ancestral knowledge systems alongside Western scientific paradigms.
- **Institutional Programme of the National Council of Science and Technology**: This functions as a key governance structure, defining how STI policy tools are used to support national development goals. The programme explicitly aims to strengthen STI and other knowledge communities through their creation, growth, and connection with various societal sectors, all with an "inclusive approach" to tackling national priority issues. By regularly identifying women as a target group and acknowledging intersectionality, this fundamental policy creates a framework for gender-responsive practices across the STI sector.
- **National Ecosystem of Open Innovation**: Promotes social development through open innovation, adopting a "pentahelix" model that integrates academic, governmental, industrial, social and environmental perspectives. This model fosters collaborative environments where diverse viewpoints, including those of women, are valued and integrated into the innovation process.

Implementing the UNESCO 2024 Call to Action: Closing the Gender Gap in Science

While no specific policy initiative explicitly mentions the "UNESCO 2024 Call to Action," Mexico's core STI policy initiatives show alignment with the spirit and goals of such international efforts. Examples of policy initiatives addressing the UNESCO Call include:

- **Institutional Programme of the National Council of Science and Technology**: This programme seeks to extend the influence of sciences, humanities and technology by enhancing national public policies for social welfare based on scientific principles. This aim naturally supports the global agenda of using science for societal benefit, which is a key aspect of UNESCO's focus on gender equality in science. The programme's inclusive approach and its consistent focus on women further strengthen this alignment.
- **National Ecosystem of Open Innovation**: Promotes a "pentahelix" model involving academia, government, private industry, social development, and environmental perspectives. This multi-stakeholder collaboration approach is important for sharing best practices, aligning with international standards, and engaging in global partnerships to advance science for the benefit of society. Such an ecosystem fosters the exchange of knowledge and strategies, which are crucial for addressing global challenges, such as the gender gap in science.

- **Support Programmes for Scientific, Technological and Innovation Activities**: This initiative aims to "contribute to and promote international cooperation in science, technology and innovation," indicating a clear commitment to international collaboration.

Key intersectional policy initiatives for closing the gender gap in science

From an intersectional perspective, the most effective policies are those that not only address gender but also recognise how gender intersects with other social identities like race, socioeconomic status, and parental/caregiver responsibility. Mexico's multi-level operationalisation of intersectionality, evident in both targeted programmes and wider policy frameworks, is a notable example of good practice.

Three key policy initiatives that can be considered good practice in closing the gender gap in science in an intersectional way include:

1. **Apoyo a Madres Mexicanas Jefas de Familia para Fortalecer su Desarrollo Profesional (Support for Mexican Single Mothers to Strengthen their Professional Development):**
   - **Why it's a good practice**: This initiative directly targets a population that faces a significant intersectional barrier, namely, single mothers. These women often face the compounded challenges of poverty, gender inequality, and the primary responsibility of childcare, making it difficult to pursue or complete a professional degree. The policy initiative supports single mothers by providing a monthly stipend and health insurance for both the mother and her children. This support acknowledges that to empower a mother as a student and future professional, their family's well-being must also be secured.
   - **Intersectional nuance**: It is recognised that "women" are not a monolithic group, that a mother's experience is distinct from that of a childless woman, and that single mothers require a different kind of support.

2. **Programme for the Incorporation of Students with Disabilities into National Postgraduate Courses**
   - **Why it's a good practice**: While not explicitly a gender-focused policy initiative, this programme is an example of good practice due to its explicit focus on a marginalised group, demonstrating a commitment to intersectional inclusion. It recognises that students with disabilities face specific barriers to educational access.
   - **Intersectional nuance**: There is potential for this programme to be a model for a holistic approach to inclusion. Its implementation must also consider how gender and disability intersect. For example, are women with disabilities, who may face greater social stigma and fewer opportunities, adequately represented and supported in the programme? The programme's existence signals an institutional awareness of the need for targeted policy initiatives to address specific disadvantages, a principle that can be applied to gender.

3. Scholarships for Indigenous People:

- **Why it's a good practice**: This is a critical policy initiative designed to address historical and systemic educational inequalities. Through providing financial and academic support for undergraduate and postgraduate studies, it aims to help students who self-identify as indigenous to overcome socioeconomic barriers and complete their professional or postgraduate studies.
- **Intersectional nuance**: The strength of this programme lies in its recognition of the compounded disadvantages faced by indigenous students, providing a targeted and effective mechanism to address these intersectional barriers and foster a more diverse and inclusive scientific community. It explicitly acknowledges how ethnicity and socioeconomic status intersect to create unique barriers to educational attainment. While the scholarships are open to all genders, the impact is particularly significant for indigenous women and girls who often face a "double burden" of discrimination based on both their gender and ethnicity. They are often less likely to attend school, more likely to marry young, and face a higher risk of poverty. By providing targeted scholarships, the policy initiative helps to break this cycle and empower indigenous women to pursue careers in science and other fields. This addresses the gender gap by recognising that a one-size-fits-all approach to scholarship programmes is not enough to promote equity.

RUSSIA

Introduction

Russia has a long history of high female participation in STEM education, a legacy of the Soviet era. Policy initiatives aimed at closing the gender gap in science, technology and innovation (STI) are primarily integrated into broader social and economic strategies rather than existing as standalone, dedicated programmes. The approach is often characterised by a focus on women's social welfare, family support, and general economic empowerment as critical to allowing women to participate in the workforce. The **Women: Mentoring School** is an example of a policy initiative that implicitly tackles systemic and cultural barriers within the STI sector by demonstrating that a successful career in a traditionally male-dominated field is achievable for women. Adopted by a Government Order at the end of 2022, the **National Strategy of Action in the Interests of Women for 2023-2030** is a continuation of the previous strategy (2017-2022) and is designed to create more opportunities for women across various spheres of life. The strategy is notable because it aims to achieve de facto equality between men and women, going beyond the formal equality enshrined in the **Russian Constitution**.

This member note has the following objectives:

1. To provide, as outlined in the table below, an overview of a selection of policy initiatives identified as relevant for the G20 Recommendations on Diversity, Equity, Inclusivity, and Accessibility (DEIA). The aim is to provide a snapshot of the broader set of policy initiatives included in the compendium database.

2. To provide, in the remainder of this member note, highlights of good practices in policy initiatives responding to the G20 Recommendation: Closing the Gender Gap in Science. It is organised according to the sub-recommendations:
   - Encouraging women and girls to consider careers in science
   - Promoting workplace environments that attract, retain, and advance women scientists
   - Collecting disaggregated data for evidence-based policies and monitoring progress
   - Integrating gender-related aspects into the content of research
   - Implementing the UNESCO 2024 Call to Action: Closing the Gender Gap in Science

3. To identify, in the last section, key intersectional policy initiatives for closing the gender gap in science.

Table 17 Russia: Summary of the relevant policy initiatives by G20 Recommendation on DEIA

G20 Recommendation on DEIA	Number of policy initiatives	Policy instrument types	Main target groups/ beneficiaries (STIP categories)	Main target groups/ beneficiaries (Specific)
1. Promoting diversity, equity, inclusion and accessibility in STI systems	7	Not recorded	Not recorded	People with disabilities; researchers; SMEs; startups; students; students with special needs; the general public; businesses; children from diverse backgrounds; domestic high-tech companies; employers mandated to provide an accessible environment; foreign; high-tech enterprises; journalists; policymakers; researchers; scientists; students from remote or low-income families; the general population; the general public; the institutions; their families; university students; young people; young people (especially students)
2. Closing the gender gap in science	5	Not recorded	Not recorded	Families; researchers; women; working parents; young female students; entrepreneurs; girls across Russia; journalists; policymakers; recent graduates; the general public; those on maternity leave; those seeking professional development; with a direct focus on mothers as the primary recipients of the grant; with a strong focus on mothers
3. Fostering dialogue between different knowledge systems	1	Not recorded	Not recorded	Students from Russia's ethnic minorities
4. Transitioning to open science	2	Not recorded	Not recorded	High-tech startups; The general public; community groups; established tech companies; population as a whole; research institutions; students; the Russian economy
5. Combating inequities in STI	Not recorded	Not recorded	Not recorded	Not recorded

Note: This table includes a set of policy initiatives selected for inclusion in the compendium, 'STI for All': A Compendium of Good Practices in STI Policy. The main aim is to identify good practice policy initiatives rather than to provide an exhaustive list of the G20 member/guest country's policy initiatives.

Encouraging women and girls to consider careers in science

While Russia has a relatively high percentage of female researchers and STEM graduates compared to many Western countries, a gender gap exists in leadership positions, top-tier research, and male-dominated fields like computer science and engineering. The **Women: Mentoring School** and similar initiatives in Russia are a critical part of the country's response to the persistent "leaky pipeline" phenomenon, which sees women's representation in science, technology, and innovation (STI) decrease at higher levels of academic and professional advancement. Policy instruments include awards and public awareness campaigns that serve as a focal point for institutional and social efforts to highlight the achievements of female scientists and encourage more girls to enter STEM fields (Box 22). A range of policy initiatives aim to create a supportive environment for women to combine their professional careers with family life. While not direct STI policy, these are examples of policy initiatives providing financial support to mothers and families: **Maternity Capital Programme and State-funded Childcare**.

Examples of good practice policy initiatives include:

- **National Strategy of Action in the Interests of Women (2023–2030)**: This comprehensive strategy and its follow-up programmes aim to enhance women's economic advancement, ensure their participation in public life, and improve their social well-being. Within this framework, several actions have direct implications for STI: programmes that provide professional training and skill development for women, particularly those on maternity leave, to help them re-enter the workforce or change careers; measures, including financial and advisory assistance, to support women-owned small and medium-sized enterprises (SMEs) including those in the innovation sector where women are underrepresented in leadership and ownership roles. Some instruments also encourage women's participation in traditionally male-dominated professions and industries including those in technology and engineering.
- **Women: Mentoring School**: Launched by the Ministry of Education and Science with the support of the Federation Council, this is a targeted, state-driven programme designed to address the gender gap by directly supporting young women entering professional fields, particularly in science and technology. It has several objectives, including providing students and recent graduates with skills development, networking opportunities and mentorship from experienced female leaders. The goal is to facilitate their entry into the professional world and to help them overcome the barriers that can hinder career progression. In this way, the project is designed to show that a successful career in a traditionally male-dominated field is achievable for women.

Box 22 Examples of Russia's policy instruments encouraging women and girls to consider careers in science

While not state-led, the government often collaborates with or supports these initiatives providing targeted, flexible support and mentorship to female scientists and entrepreneurs:
L'Oréal-UNESCO *For Women in Science* programme: A prominent example of a collaborative effort that provides grants and recognition to talented young female researchers in Russia. The programme, with the support of the Russian Academy of Sciences and UNESCO, provides fellowships and grants to young female scientists, offering them financial support and professional recognition.

International Day of Women and Girls in Science (IDWGS): The IDWGS is celebrated annually on February 11th and serves as an important occasion for Russia to highlight the achievements of its female scientists and promote greater gender equality in science. Similar to the **L'Oréal-UNESCO *For Women in Science* programme**, the IDWGS is a United Nations observance that Russia participates in, through its government institutions, universities and civil society, and uses as a platform for discussion. Russian universities and research centres participate by organising their own events. These institution-level efforts help to inspire the next generation of female scientists and create a more inclusive academic environment.

Promoting workplace environments that attract, retain, and advance women scientists

Russia's approach is rooted in the Soviet legacy, where formal equality was enshrined in law and the state provided comprehensive social services, including childcare, to facilitate women's participation in the workforce. Post-Soviet Russia has maintained many of these core principles, but with new initiatives and a more explicit focus on demographic goals.

While not focused specifically on science, good practice in policy initiatives include:

- **National Strategy of Action in the Interests of Women (2023-2030)**: This overarching policy framework, codifies the government's approach to gender issues, with social support as a central pillar. The primary objective is to create a more equitable environment for women's economic, social, and political participation. The strategy promotes policies that enable women to combine work and family life, such as encouraging flexible and remote work. It also includes measures to improve women's health and provide support for victims of violence.
- **Maternity Capital Programme (2007-Present)**: This is a key social policy initiative that provides a substantial one-time financial grant to families, initially for the birth or adoption of a second child and later expanded to include first-born children. The funds can only be used for a limited number of purposes, such as improving housing conditions, paying for a child's education, or contributing to the mother's pension fund. It provides a crucial financial safety net for women, particularly those who take a career break for childbirth. By reducing economic precarity, it can alleviate some of the pressure on women to return to work immediately after giving birth and allows them to focus on childcare.

- **State-Funded Childcare and Paid Parental Leave**: Russia has a robust system of state-provided childcare and legally mandated paid parental leave. Women are entitled to paid maternity leave and can take parental leave until their child reaches three years of age. The state also operates a vast network of kindergartens and preschools. This system is foundational for enabling women to remain in the workforce. By providing an alternative to constant private care, it significantly reduces the burden of unpaid domestic labour, a major obstacle to women's career advancement. This programme helps reduce the "leaky pipeline." In science and other demanding fields, the availability of quality childcare and the security of a job after maternity leave are critical for preventing talented women from dropping out of their careers. This initiative provides the legal framework prohibiting the dismissal of pregnant workers or mothers on maternity leave and ensures a level of job security that is vital for women's professional stability.

Collection of disaggregated data for evidence-based policies and monitoring progress

Russia has a robust statistical system and officially supports evidence-based policymaking. Rosstat is the main body responsible for the collection, processing, and dissemination of official statistics in Russia. It gathers a wide range of demographic, economic, and social data. This data is disaggregated by sex and age, which allows for some analysis of gender equality. For example, Rosstat's **Men and Women of Russia** report provides information on demographic and professional distribution. Data on employment and labour force participation is often disaggregated by gender, allowing for analysis of the gender pay gap and the distribution of men and women across different sectors, including science and technology. The **All-Russian Population Census**, conducted periodically, is a key source of data disaggregated by ethnicity, language, and other socio-demographic characteristics. This data is crucial for understanding the situation of Russia's diverse ethnic groups. More complex forms of disaggregation – such as intersectional data (e.g., gender and ethnicity, or disability status and professional field) – are less common in publicly available sources.

Some policy initiatives are explicitly tied to data-driven goals, including the **National Strategy of Action in the Interests of Women (2023-2030)**, which is informed on a review of the previous strategy, and the **National Projects** framework, including those for science and universities and the digital economy, uses specific, quantifiable metrics to track progress. While not a mainstream policy initiative, there is an awareness of the need for culturally sensitive and disaggregated data collection to address the specific needs of indigenous minority groups.

Integrating gender-related aspects into the content of research

In Russia, policy initiatives aimed at integrating gender-related aspects into the content of research, often referred to as "gender mainstreaming", are not as explicitly and systematically implemented as in many Western countries. The approach is generally indirect, with a focus on broader social and economic policies rather than on specific mandates for research content or funding. The most direct way gender is integrated into research is through academic work in gender studies and related social sciences. For example, the Institute for Socio-Economic Problems of Population of the Federal Research Sociological Centre

(ISEPN FNISTs RAS) has conducted studies on the "Gender Aspects of the Socio-Demographic Dynamics of Modern Russia."

Russia has increasingly recognised the importance of bridging the gap between science and society. Policy initiatives aimed at bridging science and society – through citizen science, public engagement, and strategic science communication – do more than just inform the public. While science communication involves translating complex scientific findings for a public audience, public engagement goes a step further by facilitating a two-way dialogue between scientists and society. Citizen science shifts the power dynamic to include non-scientists in scientific data collection, analysis, and sometimes even in research design. These types of initiatives can therefore change the research process fundamentally. By opening the scientific enterprise to diverse voices and perspectives, these policies can ensure that research questions are more relevant, methodologies are more robust, and outcomes are more equitable for all members of society.

Russia's key policy initiatives in this area are part of a broader push to increase public trust in science and align research with societal needs, as defined by the government:

- **Decade of Science and Technology (2022–2031)**: This presidential decree is the overarching framework for science, technology and innovation policy in Russia for the current decade. A core component of this strategy is the explicit aim to strengthen the connection between science and society. The primary objective is to increase the accessibility of information about the achievements and prospects of Russian science, engage citizens in the scientific sphere, and build a positive image of the scientist and engineer.
- **Science Festivals and Exhibitions**: Large-scale, state-sponsored events like the "NAUKA 0+" science festival are organised across the country. These festivals are designed to inform the public about scientific breakthroughs and inspire young people to pursue careers in STEM.
- **National Projects "Science and Universities" and "Digital Economy"**: These large-scale national projects contain elements that touch upon public engagement. The primary objective is to achieve "breakthrough" scientific and technological development and to digitise the Russian economy. While the "Science and Universities" project is primarily focused on creating world-class research centres and boosting Russia's scientific output, it includes a public-facing component that aims to show how scientific research can solve real-world problems. The "Digital Economy" project includes initiatives to improve the digital literacy of the population.
- **Citizen Science and Public Engagement**: While Russia does not have a comprehensive, national strategy for citizen science like those in some Western countries, there are examples of initiatives, often at the local or academic level. The primary objective is to involve citizens in scientific data collection and analysis, particularly in fields like environmental monitoring and biodiversity.
- **Science Communication and Public Trust**: A central theme in Russian policy is the use of science communication to build public trust and counter what the state perceives as misinformation. The aim is to enhance public confidence in science and to use it as a tool for national development and a source of soft power. Russian universities, such as ITMO University in St. Petersburg and the Higher School of Economics (HSE), have established centres for science communication and offer master's degree programmes in the field. This signifies a recognition that science communication is a specialised discipline and requires professional training.

Implementing the UNESCO 2024 Call to Action: Closing the Gender Gap in Science

Russia's existing policies and initiatives address many of the themes and principles outlined in the UNESCO Call to Action. For example, the **National Strategy of Action in the Interests of Women (2023–2030)** explicitly promotes flexible work arrangements and support policies like paid parental leave and state-funded childcare, which are crucial for women's retention in demanding science careers. Some state institutions and research bodies, like **Rosstat**, collect disaggregated data by gender, which can be used to monitor, and address pay and representation gaps. The **Decade of Science and Technology (2022–2031)** promote public awareness campaigns that often feature prominent female scientists and engineers, aligning with the UNESCO recommendation to enhance the visibility of female role models. Organisations like the **Russian Academy of Sciences** and state-affiliated corporations such as **Rosatom** also participate in public events and awareness campaigns, particularly on the **International Day of Women and Girls in Science**, and the **L'Oréal–UNESCO *For Women in Science* Programme**, to promote women in STEM.

Key policy initiatives considered to be good practice for closing the gender gap in an intersectional way

While a high-level commitment to gender equality exists, particularly stemming from the Soviet era's emphasis on women in the workforce, the current policy framework is a mix of broad social support and more targeted initiatives. The direct relevance of these policy initiatives to closing the gender gap in science is often indirect. Policies like the **National Strategy for Women** and social protection initiatives like the **Maternity Capital** are not science-specific but are crucial for enabling women to participate in the workforce, including academia and research. By reducing economic and social barriers related to motherhood, they aim to mitigate the "leaky pipeline" phenomenon. However, their primary objective is demographic and social stability, which can reinforce traditional gender roles rather than challenging the systemic biases within the scientific community.

Meanwhile, science-focused policy initiatives like the **National Technology Initiative (NTI)**, the **Decade of Science and Technology**, the **Advanced Research Foundation (FPI)** and **ERA Technopolis** are largely driven by economic competitiveness and national security. They are aimed at a broad pool of "scientific talent".

Russia's legal system also recognises the unique status of its indigenous peoples. The Russian Constitution guarantees the rights of indigenous minority groups in accordance with generally accepted principles of international law. The **Federal Law on Guarantees of the Rights of Small-Numbered Indigenous Peoples (1999)** is the core piece of legislation that establishes legal guarantees for the social, economic, and cultural development of indigenous peoples, as well as the protection of their traditional way of life, livelihoods, territories, and crafts. An intersectional approach would consider how gender intersects with indigenous backgrounds, to better support women and girls from indigenous minority groups who pursue careers in science.

Based on an intersectional analysis, here are two policy initiatives that can be considered good practice for their potential to address the gender gap in an inclusive way:

1. **Women: Mentoring School**
    - **Why it's a good practice**: This initiative is one of the most direct and targeted state-backed efforts to address the gender gap. It recognises the importance of individual-level support and professional development, which are often cited as critical needs for women in science. By connecting young women with established female leaders, it directly addresses the lack of visible role models and provides a network for career advancement. This is a practical, actionable step that goes beyond broad legislative frameworks.
    - **Intersectional nuance**: While a positive step, the programme can benefit from an intersectional approach, including designing outreach to and provide resources for women from Russia's diverse ethnic and indigenous groups, as well as women with disabilities, who face compounded discrimination that a generic mentoring programme may not be equipped to address.

2. **State-Funded Childcare and Paid Parental Leave**
    - **Why it's a good practice**: This system is a foundational pillar for enabling women's participation in the workforce. By providing an extensive network of childcare facilities and a robust legal framework for paid parental leave, the state directly addresses the main social and economic barrier to women's careers, the burden of unpaid care work. From an academic perspective, it is crucial for retaining female researchers and faculty who might otherwise drop out of their careers due to motherhood.
    - **Intersectional nuance**: The policy's effectiveness is not universal. The quality and accessibility of state-funded childcare can vary significantly between urban and rural areas, creating a geographic inequality. An intersectional approach would require not only a robust childcare system but policies that actively encourage and normalise men's participation in caregiving so as to achieve gender equality in both professional and domestic spheres.

SAUDI ARABIA

Introduction

Saudi Arabia has undergone a period of transformation guided by its ambitious national development plan, Vision 2030. The country continues to build upon this progress through ongoing establishment and development efforts. Central to this vision is a strong commitment to empowering women, with notable advances in promoting gender equality in science, technology, engineering, and mathematics (STEM) which are achieved through a variety of policy initiatives. A significant number of policy initiatives recognise that barriers to women's advancement are not monolithic and seek to address them at different stages of life and career. These initiatives range from foundational education programmes to specialised fellowships for skilled researchers, and from addressing barriers related to childcare responsibilities and financial support to promoting leadership and entrepreneurship. Dominant themes, aligned with Vision 2030, include STEM, AI, and digital skills, with policy initiatives such as **Elevate, Global Engineer Girls, Zain Women in Tech, Women's Digital Health Hackathon, STEM Training Programme** and **Mawhiba Academic Enrichment Programme**, positioning women at the forefront of science, technology and innovation (STI). This approach recognises that supporting women's participation is not merely about achieving gender equality but about leveraging a significant talent pool for national economic diversification and global competitiveness.

This member note has the following objectives:

1. To provide, as outlined in the table below, an overview of a selection of policy initiatives identified as relevant for the G20 Recommendations on Diversity, Equity, Inclusivity, and Accessibility (DEIA). The aim is to provide a snapshot of the broader set of policy initiatives included in the compendium database.

2. To provide, in the remainder of this member note, highlights of good practices in policy initiatives responding to the G20 Recommendation: Closing the Gender Gap in Science. It is organised according to the sub-recommendations:
   - Encouraging women and girls to consider careers in science
   - Promoting workplace environments that attract, retain, and advance women scientists
   - Collecting disaggregated data for evidence-based policies and monitoring progress
   - Integrating gender-related aspects into the content of research
   - Implementing the UNESCO 2024 Call to Action: Closing the Gender Gap in Science

3. To identify, in the last section, key intersectional policy initiatives for closing the gender gap in science.

Table 18 Saudi Arabia: Summary of the relevant policy initiatives by G20 Recommendation on DEIA

G20 Recommendation on DEIA	Number of policy initiatives	Policy instrument types	Main target groups/ beneficiaries (STIP categories)	Main target groups/ beneficiaries (Specific)
1. Promoting diversity, equity, inclusion and accessibility in STI systems	8	Creation or reform of governance structure or public body; Dedicated support to research and technical infrastructures; Labour mobility regulation and incentives; Public awareness campaigns and other outreach activities; Science and technology regulation and soft law; Strategies, agendas plans	Firms; Intermediaries; Research and education organisations	All employees; gifted males and **females**; high-skilled workers; persons with disabilities; Saudi nationals; secondary education students; undergraduate **women**; working **women**; young men; young **women**; both males and **females**; working parents; civil society; curriculum developers; **female** students from across the Kingdom; **females** in the private sector; higher education institutions; master students; non-Saudi; people with disabilities (both male and **female**); professionals with a background in STEM; students; teachers; **women**
2. Closing the gender gap in science	17	Horizontal STI coordination bodies; Information services and access to datasets; Labour mobility regulation incentives; Policy intelligence (e.g. evaluations, reviews and forecasts); Public	Firms; Intermediaries; Research and education organisations	Civil society; companies interested in entrepreneurship; female educators; female entrepreneurs; female undergraduates; firms; higher education institutes; incubators; industry associations; international entity; national government; national women leaders; policymakers; recent Saudi university graduates; SMEs; Saudi female postdoctoral researchers; Saudi female workers; Saudi women in various fields; Saudi women with relevant skills; subnational government; women; women across all sectors; women interested in or working in environmental sustainability;

Continues overleaf...

G20 Recomm-endation on DEIA	Number of policy initiatives	Policy instrument types	Main target groups/ beneficiaries (STIP categories)	Main target groups/ beneficiaries (Specific)
		awareness campaigns and other outreach activities; Strategies, agendas plans		Women professionals in the technology; women working within or aspiring to work in the digital government sector; young women enrolled in engineering higher education; accelerators; developers; general public; graduates with a background in STEM; healthcare professionals; innovators; institutions seeking female talent; researchers; science parks or technoparks; students; telecom industries
3. Fostering dialogue between different knowledge systems	Not recorded	Not recorded	Not recorded	Not recorded
4. Transitioning to open science	Not recorded	Not recorded	Not recorded	Not recorded
5. Combating inequities in STI	1	Not recorded	Not recorded	Early-career researchers in Saudi Arabia; higher education institutions; both male and female mid-career researchers

Note: This table includes a set of policy initiatives selected for inclusion in the compendium, 'STI for All': A Compendium of Good Practices in STI Policy. The main aim is to identify good practice policy initiatives rather than to provide an exhaustive list of the G20 member/guest country's policy initiatives.

Encouraging women and girls to consider careers in science

Saudi Arabia has actively encouraged women and girls to pursue STEM careers by launching targeted initiatives that offer both motivational and material support. These good practice initiatives mark a shift from passive inclusion to active empowerment and exemplify Saudi Arabia's commitment to building a strong pipeline of future women scientists:

- **Saudi Women Leadership in STEM Support Programme**: This programme focuses on preparing Saudi female undergraduate students through structured research internships, career mentoring, and academic support mechanisms. By intervening at a crucial stage in women's educational journeys, this initiative tackles barriers early in the process and helps foster long-term scientific careers.

- **Global Engineer Girls**: Targeting young women in engineering, the focus is on mentorship, scholarships, and skills training. This not only encourages them to pursue engineering but also provides them with visible role models in the form of mentors. The program's success in empowering women to excel in a traditionally male-dominated field directly challenges gender stereotypes.
- **Saudi STEM Training Programme**: Encompasses several high-impact instruments aimed at developing national talent in STEM, such as the KAUST Gifted Student Programme (KGSP) that offers scholarships and mentorship support targeted at highly talented Saudi high school graduates, the National IT Academy (NITA) that equips youth with skills in high-demand tech sectors, and the KAUST Academy targeted at Saudi students, especially female seniors and fresh graduates, to encourage engagement in the field of AI.
- **Ibn Khaldoun Fellowship Programme for Saudi Female Researchers**: This programme provides high-level incentives to encourage women in science. By offering a competitive fellowship for female postdocs to conduct research at MIT, it provides a clear and prestigious pathway for academic and professional advancement. This initiative not only provides a scholarship but also a powerful symbol of recognition and support for female scientists.

Saudi Arabia directly addresses gender-based barriers in entrepreneurship by offering tailored support for women at various career stages, including promoting female leadership in traditionally male-dominated sectors like tech, industry, and finance:

- **The Women Entrepreneurs Empowerment Programme**: A multifaceted initiative aligned with the Kingdom's Vision 2030, aiming to boost female participation in the economy and foster inclusive growth. It provides training, mentorship, networking, and access to funding support through instruments such as the Monsha'at Empowering Female Entrepreneurs Programme, which is run by Saudi Arabia's SME authority, Monsha'at.
- **Elevate**: Another flagship, Elevate, aims to empower 25,000 women globally, over five years, in high-demand fields such as AI and data science. Through this initiative, women receive training, mentorship, and access to global digital platforms, helping them secure jobs and entrepreneurial opportunities in the digital economy.

Promoting workplace environments that attract, retain, and advance women scientists

Saudi Arabia encourages women to enter high-demand, future-oriented fields. By offering training, mentorship, and opportunities in data and AI, they provide direct incentives for women to develop skills that are crucial for the modern economy. Examples of good practices in policy initiatives include:

- **Children's Hospitality Support Programme for Working Women 'Qurrah'**: This initiative directly addresses a primary barrier to women's workforce participation and retention: childcare. By providing a subsidy for childcare services, the programme acknowledges that for many women, particularly those in lower- to middle-income brackets, the cost and logistics of childcare are significant obstacles to entering and remaining in demanding science-related fields where long hours or unconventional schedules may be required. Its evidence-based approach recognises the practical needs of working mothers and provides a tangible solution, making it a model for promoting inclusive workplace environments.

- **Women Empowerment in Education and Research – Ministry of Education**: While broad, this ministerial initiative lays the institutional groundwork for gender-responsive policies. By focusing on creating an equal educational environment and empowering women's capabilities, it sets the stage for a more equitable future.

While not mainly focused on gender, policy initiatives such as the **Saudi Flexible Working Initiative**, led by the **Ministry of Human Resources and Social Development (HRSD)**, is a strategic effort to modernise the labour market by introducing **hourly-based, non-traditional employment models**. It is part of the broader Vision 2030 reforms aimed at increasing labour market participation, especially among women, youth, and people with disabilities. The initiative is explicitly designed to raise women's participation in the labour market, especially those balancing family responsibilities. It complements programmes making it easier for women to work part-time or remotely: **Wusool** provides transport support to women and people with disabilities, and **Qurrah**, provides access to childcare services.

Box 23 Saudi Arabia examples of gender-responsive policy instruments

To retain and promote women scientists, Saudi Arabia has implemented several evidence-based, gender-responsive policy instruments:
The **Women Empowerment through the Research & Development Programme**, led by King Abdulaziz City for Science and Technology (KACST), offers competitive research grants and high-impact project opportunities to female researchers. By addressing institutional barriers such as lack of funding and recognition, the programme fosters an environment where women scientists can thrive and lead.

In the cybersecurity domain, the **Women in Cyber Security Middle East (WiCSME)** initiative supports professional development through peer networks, skills training, and leadership pipelines. These programmes are vital for increasing women's representation in scientific roles but also for normalising their presence in leadership positions. They reflect a broader commitment to transforming workplace cultures and institutional norms to be more inclusive and equitable.

Collection of disaggregated data for evidence-based policies and monitoring progress

The collection and analysis of gender-disaggregated data are essential for monitoring progress and shaping responsive science policies. Although the data provided does not list standalone initiatives, several programmes indirectly support data collection through their operational frameworks. Examples of good practice policy initiatives include:

- **SDAIA & Women: Empowering Saudi Women in Data and AI**: Driven by the **Saudi Data and Artificial Intelligence Authority (SDAIA)**, the programme focuses on tracking participation and mapping skills. By emphasising women's integration into national AI strategies, this initiative

requires data collection on participation rates, learning outcomes, and employment trajectories. As SDAIA broadens its scope, it holds significant potential to institutionalise gender-sensitive data systems across the science and innovation ecosystem.

- **National Observatory for Women (NOW)**: The observatory's purpose is to systematically collect and analyse data on women's participation and progress across various sectors, including education and the workforce. The intersectional element is crucial here: for NOW to be effective, it must disaggregate data not just by gender, but also by other factors such as age, region, and socioeconomic status. This granular data is essential for identifying specific barriers faced by different groups of women, allowing policymakers to create targeted interventions that are evidence-based and responsive to the diverse realities of Saudi women.

Integrating gender-related aspects into the content of research

Research that considers gender-related aspects, where relevant, not only promotes equity but enhances the quality and societal relevance of scientific knowledge. These good practice initiatives lay the foundation for a more systematic adoption of gender-responsive research practices:

- **Researcher Connect**: Aims to strengthen researchers' abilities to design and communicate their studies in ways that resonate with diverse audiences. The programme offers expert-led workshops that encourage gender-aware methodologies and inclusive science communication. It motivates researchers, especially women, to question the differential impact of scientific developments on men and women.
- **Women's Digital Health Hackathon**: By creating a competition focused on women's digital health, innovators are encouraged to address a gender-specific issue that is often neglected in mainstream research.

Implementing the UNESCO 2024 Call to Action: Closing the Gender Gap in Science

Saudi Arabia contributes to global good practices promoting gender inclusivity in AI and STEM. Initiatives such as **Elevate** and the **Saudi Women Leadership in STEM Support Programme** correspond with UNESCO's three main pillars: access, participation, and leadership. Moreover, the country's focus on digital and AI-related fields highlights its dedication to preparing women for future scientific challenges. The **Advanced Training Programme on Electronic Chip Design**, designed for female engineering graduates, exemplifies how Saudi Arabia is empowering women to enter specialised technical domains. Additionally, partnerships with international agencies and local stakeholders extend the reach and influence of these programmes. Collectively, these efforts foster a transformative vision for women in science aligned with global frameworks.

Examples of good practice in policy initiatives include:

- **WL2030 Initiative – Women Leaders 2030**: This initiative promotes the advancement of women into leadership positions. A key recommendation of the Call to Action is to "shatter the glass ceiling" and ensure women are represented in decision-making roles. The WL2030 initiative, with its focus on training, mentorship, and policy reform, is a strategic effort to achieve this goal.

- **Women Entrepreneurs Empowerment Programme**: The UNESCO Call to Action encourages partnerships with female-owned or female-led businesses. The Women Entrepreneurs Empowerment Programme provides support and resources for women to establish and grow their own businesses.

Key intersectional policy initiatives for closing the gender gap in science

Together, Saudi Arabia's policy initiatives for women in STEM fields create a multi-pronged strategy. At the educational level, initiatives aim to build a strong pipeline of female talent in STEM from a young age. At the professional level, programmes focus on upskilling, mentorship, and creating opportunities in key sectors like data, AI, and digital government. Finally, initiatives that support women's work-life balance, such as childcare and transportation subsidies, acknowledge the sociocultural realities that often disproportionately affect women's career progression. This intersectional approach, while varied in its scope and effectiveness, demonstrates recognition that a single solution is insufficient to address the complex nature of gender-related barriers in science and innovation.

Among the listed policy initiatives, four sets of policy initiatives stand out as particularly good practice in meeting the criteria of closing the gender gap in science in an intersectional way. They not only address the gender gap directly but also consider the complex, intersecting factors that can either empower or hinder women's progress:

1. Children's Hospitality Support Programme for Working Women 'Qurrah'

- **Why it's a good practice**: This programme addresses a fundamental and often overlooked barrier to women's employment and career stability, childcare.
- **Intersectional nuance**: The Qurrah programme recognises that for many women, particularly those from lower to middle-income brackets, family responsibilities are a primary obstacle to professional participation. By providing a financial subsidy for childcare, it acknowledges the intersecting pressures of gender and socioeconomic status. A woman's ability to participate in the workforce, especially in demanding STEM fields, is dependent on her ability to secure reliable and affordable childcare. This initiative supports women in their professional roles by easing their caregiving burdens, thereby allowing them to pursue full-time employment, training, or career advancement without having to choose between their family and their job. By providing tangible financial benefit, the programme makes it accessible to a wider range of women beyond the elite, who may have other means of securing childcare.

2. Transport Support (Wusool)

- **Why it's a good practice**: Like the Qurrah programme, this initiative addresses access to transport as an intersectional barrier to women's employment. Without reliable transport and affordable childcare, a woman's ability to participate in and sustain a career in STEM is severely limited, regardless of her talent. These programmes provide the foundational support that makes other opportunities possible, such as advanced training or leadership programmes.
- **Intersectional nuance**: Historically, the inability to drive posed a significant obstacle for many Saudi women in pursuing education and career opportunities, particularly those who did not have access to a personal driver. Introduced after the ban on women driving was lifted, this programme

acknowledges that transportation costs and logistics continue to be a significant barrier for many working women, particularly those in lower-paying jobs. The inclusion of people with disabilities in the programme alongside working women demonstrates a key intersectional approach, recognising that both groups face similar mobility challenges in accessing the workplace. By subsidising ride-hailing services, the programme provides a practical, direct solution that enables women to access jobs they might otherwise be unable to perform, thus increasing their labour force participation and economic independence.

3. **Establishment of a Specialised Centre for Developing STEM Education and the STEM Training Programme**
    - **Why it's a good practice**: While many initiatives focus on upskilling and leadership for women already in STEM, the creation of a specialised centre and its associated training programmes addresses the gender gap from the foundational level. By building a robust pipeline of talent from a young age, the programme creates a more level playing field for all girls
    - **Intersectional nuance**: By focusing on improving the STEM curriculum and training teachers from K-12, the programme aims to dismantle gender stereotypes and biases at a young age. An intersectional approach would consider how the new curriculum and teacher training are implemented across the country, including in rural areas where access to quality education might be limited. The programme's success would be measured not just by the overall increase in female STEM graduates but by the diversity of women entering these fields – from different regions, socioeconomic backgrounds, and cultural contexts.

4. **Elevate and SDAIA & Women Empowering Saudi Women in Data and AI**
    - **Why it's a good practice**: These two initiatives are effective because they are strategically focused on the fastest-growing and most future-oriented sectors: AI and data science. By creating targeted training programmes and institutional support within a key government entity (SDAIA), they are not just encouraging participation but actively shaping a pipeline of skilled female professionals for the new digital economy.
    - **Intersectional nuance**: The programmes offered "free-of-charge" and "online" significantly reduces socio-economic barriers to entry, making advanced AI training accessible to women who might otherwise be unable to afford traditional educational pathways or who reside in remote areas lacking access to specialised institutions. This broadens the pool of potential beneficiaries beyond affluent urban centres, promoting greater equity in access to cutting-edge technological skills. Furthermore, the provision of "two distinct paths," one for "technical experts" and another for "non-specialists," acknowledges that women interested in AI and ML may originate from diverse academic and professional backgrounds, enabling the inclusion of those without prior formal technical degrees.

SOUTH AFRICA

Introduction

South Africa's policy landscape reflects a growing awareness of the need to address the persistent gender gap in science, technology and innovation (STI). Crucially, many of these initiatives acknowledge that "gender" is not a monolithic category, and that experiences of inequality are compounded by intersecting factors such as race, class, disability, and geographic location. This intersectional understanding is vital for crafting effective and equitable interventions.

South Africa's policy approach to closing the gender gap in science is articulated in the overarching **National Development Plan: A Vision for 2030**, a comprehensive strategic plan explicitly addressing inequality, and the **White Paper on Science, Technology and Innovation (2019)**, with its implementation plan, the **STI Decadal Plan 2022-2032**, which further underscore the importance of inclusivity, transformation and partnerships, and propose actions to enhance policy coherence, human capabilities, and institutional change. The policy documents provide a foundational mandate for gender-responsive policies across the national system of innovation.

This member note has the following objectives:

1. To provide, as outlined in the table below, an overview of a selection of policy initiatives identified as relevant for the G20 Recommendations on Diversity, Equity, Inclusivity, and Accessibility (DEIA). The aim is to provide a snapshot of the broader set of policy initiatives included in the compendium database.

2. To provide, in the remainder of this member note, highlights of good practices in policy initiatives responding to the G20 Recommendation: Closing the Gender Gap in Science. It is organised according to the sub-recommendations:
   - Encouraging women and girls to consider careers in science
   - Promoting workplace environments that attract, retain, and advance women scientists
   - Collecting disaggregated data for evidence-based policies and monitoring progress
   - Integrating gender-related aspects into the content of research
   - Implementing the UNESCO 2024 Call to Action: Closing the Gender Gap in Science

3. To identify, in the last section, key intersectional policy initiatives for closing the gender gap in science.

Table 19 South Africa: Summary of the relevant policy initiatives by G20 Recommendation on DEIA

G20 Recommendation on DEIA	Number of policy initiatives	Policy instrument types	Main target groups/ beneficiaries (STIP categories)	Main target groups/ beneficiaries (Specific)
1. Promoting diversity, equity, inclusion and accessibility in STI systems	34	Collaborative infrastructures (soft and physical); Direct financial support; Governance; Guidance, regulation and incentive	Economic actors (individuals); Firms; Intermediaries; Governmental entities; Research and education organisations; Researchers, students and teachers; Social groups especially emphasised	All data subjects; organisations that process personal information; all learners; historically disadvantaged learners; teachers; broader education system; South Africans; South Africans experiencing poverty; South Africans experiencing unemployment; South Africans experiencing inequality due to historical disadvantages; young South Africans; young **women**; young men; astronomers; engineers; scientists; postgraduate students; technicians; local communities; Black academics; Black African males; **Black African females**; persons with disabilities; **women academics**; broader academic community; emerging researchers; historically disadvantaged researchers; entrepreneurs; micro-enterprises; SMEs; **woman-led start-ups**; youth-led start-ups; government departments; policymakers; health researchers; academic institutions; healthcare practitioners; high-tech SMEs; innovative start-ups; early-stage enterprises; first-time Black-owned Venture Capital Fund Managers; first-time women-owned Venture Capital Fund Managers; industry; universities; students; innovators; public research institutions; leaders from government; civil society; general public; broader scientific community; higher education institutions; science councils; researchers; IP creators; recipients of public funding; research councils; BBBEE parties; small enterprises; research participants; health research ethics committees; technical staff; technology SMMEs; communities in South African provinces; underserved regions; HDI communities;

Continues overleaf...

G20 Recommendation on DEIA	Number of policy initiatives	Policy instrument types	Main target groups/ beneficiaries (STIP categories)	Main target groups/ beneficiaries (Specific)
				workers; businesses; community groups; mining industry; mining communities; students in the mining sector; workers in the mining sector; **women**
2. Closing the gender gap in science	4	Governance; Guidance, regulation and incentives	Research and education organisations; Researchers, students and teachers; Social groups especially emphasised	Science Granting Councils; researchers; policymakers; local practitioners; activists; NGOs; social movements; educators; Women in Science, Engineering, and Technology across the SADC region; Women in SITE; science institutions; academies; women scientists; girls; young women; aspiring scientists
3. Fostering dialogue between different knowledge systems	3	Direct financial support; Governance; Guidance, regulation and incentives	Research and education organisations; Researchers, students and teachers; Social groups especially emphasised	Biodiversity researchers; postgraduate students; emerging researchers; practitioners; policymakers; communities whose livelihoods depend on biodiversity; indigenous knowledge holders; indigenous knowledge practitioners; communities; broader South African society; rural communities; subsistence farmers; small-scale farmers; land reform beneficiaries; restitution beneficiaries; farm workers; communities in low economic potential areas
4. Transitioning to open science	2	Collaborative infrastructures (soft and physical); Governance	Intermediaries; Research and education organisations; Researchers, students and teachers; Social groups especially emphasised	African scientists; researchers; higher education institutions; research consortia; NGOs; funding bodies across the continent; industry; government; South African population

Continues overleaf...

G20 Recomm-endation on DEIA	Number of policy initiatives	Policy instrument types	Main target groups/ beneficiaries (STIP categories)	Main target groups/ beneficiaries (Specific)
5. Combating inequities in STI	11	Collaborative infrastructures (soft and physical); Direct financial support; Governance	Economic actors (individuals); Firms; Intermediaries; Governmental entities; Research and education organisations; Researchers, students and teachers; Social groups especially emphasised	African nations; scientific communities; partners engaged in STI cooperation; astronomers; engineers; scientists; postgraduate students; technicians; local communities in host countries; citizens of SADC member states; innovators; businesses in bio-based sectors; marine scientists; research institutions; coastal communities; coastal industries; start-ups; entrepreneurs in Africa and Europe; populations of both continents; South African economy; industry (especially mining, energy, transport); workers; civil society; **women**; students; academic institutions; agricultural sector; broader South African population; fishing communities in the oceans economy; scientific community; institutions; policymakers; South African government; citizens

Note: This table includes a set of policy initiatives selected for inclusion in the compendium, 'STI for All': A Compendium of Good Practices in STI Policy. The main aim is to identify good practice policy initiatives rather than to provide an exhaustive list of the G20 member/guest country's policy initiatives.

Encouraging women and girls to consider careers in science

South Africa demonstrates a concerted effort to actively encourage women and girls to pursue careers in science through a range of targeted incentives. These initiatives span from foundational academic support to prestigious recognition, aiming to build a robust pipeline of female talent in STEM fields. The focus is on redressing historical imbalances and ensuring equitable access to opportunities, particularly for historically disadvantaged groups.

A multi-faceted approach is evident in South Africa's strategy for building a sustainable female STEM talent pipeline. This strategy goes beyond encouragement to include structured financial support, recognition, and the utilisation of large-scale research projects. Examples of good practice policy initiatives include:

- **Black Academics Advancement Programme (BAAP) Framework**: The BAAP Framework provides project grants for public research, specifically targeting Black South African citizens, including Black

South African women and persons with disabilities, to achieve doctoral qualifications and post-PhD research training. This initiative directly tackles systemic barriers to entry and progression for specific disadvantaged groups within academia, using financial incentives.

- **Thuthuka Funding Instrument**: Institutional funding for public research, aiming to enhance the research capabilities of researchers from designated groups, including black and female individuals, as well as persons with disabilities. A vital aspect of Thuthuka is its recognition and mitigation of the influence of societal and family responsibilities on women's research careers, a common obstacle to sustained participation and advancement in research.
- **South Africa-Norway Partnership on Ocean Research**: While not specifically focused on closing the gender gap, such international collaborations offer project grants for public research, focusing on strengthening research and capacity building, with special emphasis on Historically Disadvantaged Institutions (HDIs). These partnerships are utilised for scientific collaboration, capacity building, and inclusion, which can significantly benefit women and other underrepresented groups in HDIs, potentially improving retention rates for women and other underrepresented groups by reducing specific career obstacles.

Beyond direct financial aid, South Africa employs recognition mechanisms including the following good practice examples:

- **South African Women in Science Awards (SAWiSA)**: These awards foster gender equity by integrating gender considerations into support programmes for school engagement, next-generation researchers, emerging researchers, and established researchers. SAWiSA serves as a robust recognition and incentive tool, increasing the visibility of women in science and providing role models.
- **International SKA Project**: Large-scale scientific projects such as this major radio telescope initiative are used as aspirational examples. Although primarily a research infrastructure endeavour, flagship initiatives indirectly motivate participation by emphasising the excitement and significant impact of scientific careers.

Beyond academia, promoting entrepreneurship and innovation, good practice examples include:

- **Small Business and Innovation Fund**: Aimed at innovative start-ups, this fund includes grants for business R&D and innovation, creating opportunities for women to lead and participate in transforming scientific ideas into commercial ventures, moving beyond traditional academic roles.
- **Technology Innovation Agency (TIA) programmes**: TIA aims to stimulate and support technological innovation in South Africa to improve economic growth and the quality of life of all South Africans by bridging the innovation "valley of death" (the gap between research and commercialisation). TIA programmes provide funding and support for the commercialisation of technological innovations across various sectors. The programmes support individual innovators, including grassroots innovators, researchers, start-ups, SMEs, and established companies seeking to commercialise their technologies.

Promoting workplace environments that attract, retain, and advance women scientists

South Africa is actively implementing evidence-based, gender-responsive national and institutional policies to create workplace environments that effectively attract, retain, and promote women scientists, including into leadership roles. This involves a combination of strategic frameworks, governance reforms, and collaborative platforms designed to break down systemic barriers and promote equitable opportunities within the scientific ecosystem.

Good practice in policy initiatives include:

- **Staffing South Africa's Universities Framework**: This framework guides universities in developing recruitment and retention strategies that can be customised to support women scientists by recognising different groups and addressing their specific recruitment and development needs. Such integration offers a strong policy mandate, ensuring that gender considerations permeate all levels of planning and execution, from budget allocation to institutional practices, making progress more sustainable and impactful.
- **Charter on Women in Science, Engineering, and Technology Organisation (WISETO) and its national chapter**: This initiative to establish or reform governance frameworks to develop regional and national platforms for advancing women in science, engineering, technology, and innovation.
- **Technology Human Resources Industry Programme (THRIP)**: This programme provides grants for business R&D and innovation, supports research collaborations and encourages the development and mobility of research personnel and students among participating organisations, which can create diverse career pathways for women scientists, including leadership roles within the private sector.
- **Academy of Science of South Africa (ASSAf) and the South African Radio Astronomy Observatory (SARAO)**: These key scientific institutions are expected to adapt their operational frameworks and governance structures to align with national policies promoting gender equality, ensuring their internal environments and external engagements support women's progress.

By investing in governance and collaboration, South Africa aims to build a more coordinated and responsive NSI that can adapt to challenges in attracting, retaining, and advancing women scientists, potentially leading to more effective and widespread implementation of gender equity initiatives. While not explicitly focusing on closing the gender gap in science, initiatives such as the **Regional Innovation Support Programme (RISP), Government Clusters, the AU-EU High-Level Policy Dialogue on Science, Technology, and Innovation, and the Ministerial Advisory Committees** are forms of networking, collaborative platforms and coordination bodies that support dialogue, problem-solving, and coordination across government, academia, and international partners. By involving women in these high-level discussions and decision-making bodies, they directly promote their leadership and influence.

Collection of disaggregated data for evidence-based policies and monitoring progress

South Africa recognises the importance of consistent, disaggregated data collection by gender and other intersectional factors as a foundation for evidence-based policymaking and monitoring progress in reducing the gender gap in science. Good practice policy initiatives include established dedicated institutions, national indicator reports and legal frameworks for data protection, ensuring both the availability and responsible utilisation of sensitive information:

- **South African Science, Technology, and Innovation Indicators Report**: This outlines the state of STI in South Africa, including investments, human resources, and innovation. It compares performance with that of other countries. This report serves as a primary instrument for policy intelligence, providing a quantitative baseline for understanding the STI landscape. Ideally, this understanding should include gender-disaggregated data to inform specific interventions. The **Centre for Science, Technology and Innovation Indicators (CeSTII)**, statistical and policy research unit, producing national surveys on R&D and innovation in South Africa, contributes to this report.
- **Higher Education, Science, Technology, Innovation Institutional Landscape Review Report**: This report reviews and assesses universities, science councils, and other HESTI institutions in South Africa, and identifies strengths, weaknesses, and areas for reform to better align with national priorities (e.g., NDP). While not focused specifically on gender inclusivity, it provides important evidence and insights for closing the gender gap in science.

The existence of the **Protection of Personal Information Act (POPIA)** emphasises the importance of awareness of the need for privacy and ethical considerations when collecting sensitive personal data, including gender and intersectional factors. While a general data protection law, its application to research and policy data means that South Africa is creating a secure environment for gathering potentially sensitive information about individuals, including their gender and other demographic details, thereby removing a potential barrier to data sharing and collection.

Integrating gender-related aspects into the content of research

South Africa is dedicated to integrating gender considerations into research questions, not just as a matter of equity, but as a strategic necessity to improve scientific excellence and the societal relevance of the knowledge generated. This involves policies that shape research priorities, ethical standards, and the very framework of scientific inquiry, ensuring that research outcomes are inclusive and beneficial to all parts of society:

- **Innovation Partnership for Rural Development Programme (IPRDP)**: This programme aims to use science, technology and innovation for inclusive development and to enhance the quality of life in rural communities. It emphasises gender-specific impacts, which in turn calls for integrating gender into research questions related to technology deployment.
- **National Health Research Strategy**, in collaboration with the associated Ethics Committee at the Institutional Level and the **National Health Research Ethics Council**: These set health research priorities and ensures the ethical review of all health research. Since health research inherently has gendered dimensions (e.g., disease prevalence, treatment responses, access to care), integrating

gender into research questions and ethical reviews ensures that health outcomes are equitable and research is conducted responsibly and inclusively.

High-level strategic plans, including the **STI Decadal Plan 2022-2032** and the **SADC Regional Indicative Strategic Development Plan (RISDP)**, convey the principle of incorporating gender into research.

Implementing the UNESCO 2024 Call to Action: Closing the Gender Gap in Science

South Africa actively supports and contributes to global efforts, exemplified by the UNESCO 2024 Call to Action: Closing the Gender Gap in Science. This commitment is demonstrated through strategic national plans, participation in international and regional forums, and the integration of indigenous knowledge systems, showcasing a holistic approach to global scientific collaboration and equity.

South Africa's high-level national planning documents explicitly reference or implicitly align with international initiatives, such as the UNESCO Call to Action, signaling a strategic integration of global gender equity targets into domestic policy:

- **STI Decadal Plan 2022-2032**: This serves as the roadmap for guiding STI policy and programmes over the next decade. Its stated aim is to promote interdepartmental collaboration and act as a government-wide master plan demonstrates a high-level, sustained commitment to international gender equity targets.
- **Medium-Term Strategic Framework (MTSF)**: As the implementation plan for the National Development Plan (NDP) Vision 2030, the MTSF outlines interventions aimed at achieving national priorities, including addressing unemployment, inequality, and poverty. Emphasis is on reducing inequality, including gender inequality, and building capabilities.
- **Indigenous Knowledge System (IKS) Policy**: This policy underscores a broad and inclusive understanding of "science" that embraces diverse forms of knowledge. This is a vital aspect for closing the gender gap from an intersectional perspective. Traditional and indigenous knowledge systems often have strong ties to women's roles and knowledge transmission in many communities. By valuing and integrating IKS, South Africa not only preserves cultural heritage but also creates new opportunities for women, especially those from traditional or rural communities, to participate in and contribute to the national system of innovation, thereby enriching scientific discourse and enhancing cultural relevance.
- **Global Research Council - Gender Working Group (GRC-GWG)**: This initiative directly supports the implementation of global gender equity initiatives. The GRC-GWG focuses on promoting the GRC Statement of Principles and Actions to enhance the equality and status of women in research. This active engagement highlights South Africa's role in shaping and applying global standards and best practices for gender equality in research funding and policy.
- **African Open Science Platform**: As a pan-African initiative contributing to global efforts, this platform aims to advance open science in and for Africa. Principles of open science, such as open access to data and research, can help reduce barriers for researchers in developing countries, including women, thereby aiding global efforts to close the gender gap through fostering equitable participation and collaboration.

Key intersectional policy initiatives for closing the gender gap in science

Four sets of key policy initiatives stand out for their explicit and direct approach to closing the gender gap in science in an intersectional way:

1. Black Academics Advancement Programme (BAAP) Framework

- **Why it's a good practice**: The BAAP Framework specifically targets "Black academics, especially Black South African citizens and academic staff with disabilities," to support "Black South African females and persons with disabilities." It acknowledges that Black women with disabilities face unique barriers requiring targeted support beyond general gender-focused initiatives. Its objective to accelerate PhD and post-PhD training for these specific groups is a tangible step towards redressing historical inequities and building a more representative and inclusive scientific workforce.
- **Intersectional nuance**: This programme is explicitly intersectional and aims to redress historical racial and disability-based inequities in academia. An intersectional analysis would further examine: Are there specific strategies to support Black women with disabilities? How does the programme address intersectional barriers such as socioeconomic background, geographic location (e.g., academics in rural universities), or specific disciplinary biases that might disproportionately affect certain groups within the target beneficiary pool?

2. Thuthuka Funding Instrument

- **Why it's a good practice**: The Thuthuka Funding Instrument seeks to enhance research capabilities of "designated groups, including black and female," explicitly mentioning "persons with disabilities" and "academics who have been unable to realise their potential or sustain their research outputs due to family responsibilities." Thuthuka's comprehensive focus on race, gender, disability, and family responsibilities reflects a nuanced understanding of intersecting disadvantages, offering support that recognises the complex realities faced by researchers. This approach is about designing interventions that address the specific barriers encountered when gender intersects with race, disability, or socio-economic status, marking a shift from an additive to a multiplicative conception of discrimination.
- **Intersectional nuance**: While already strong, its intersectional impact can be further amplified by: 1) Ensuring that support mechanisms are tailored to the unique challenges faced by Black women researchers (e.g., addressing biases in mentorship, providing flexible funding for those with caregiving responsibilities); 2) Prioritising researchers from historically disadvantaged institutions (HDIs) to address institutional inequities; and 3) Collecting granular data that allows for analysis of success rates and challenges across various intersecting identities to refine and optimise the program's reach and effectiveness for the most marginalised groups within its target beneficiaries.

3. Gender In Science, Innovation, Technology and Engineering (Gender In SITE)

- **Why it's good practice**: This initiative directly targets the issue of gender in STI. By focusing explicitly on "Gender in SITE," it provides a dedicated platform and framework to analyse and address gender disparities across science, innovation, technology, and engineering. Its strength lies in its potential to facilitate systematic research, policy development, and advocacy specifically on gender issues within these fields. An effective Gender In SITE initiative would recognise the diverse experiences of women and advocate for intersectional approaches.
- **Intersectional nuance**: To be truly impactful, the activities of Gender in SITE must go beyond simply increasing the number of women in science. It needs to actively champion the representation, advancement, and retention of Black women, women with disabilities, and women from rural and historically disadvantaged institutions. It should promote research on the intersectional barriers these groups face, advocate policy changes that address these specific challenges (e.g., tailored funding, accessible infrastructure, anti-discrimination measures), and ensure that its leadership and beneficiaries are intersectionally diverse. It should also actively engage with existing intersectional research and frameworks.

4. Hydrogen Society Roadmap and Bioeconomy Strategy

- **Why it's a good practice**: Strategic plans for emerging economic sectors also list women and "disadvantaged groups" as beneficiaries, demonstrating a consideration of intersectionality. This shows a forward-looking commitment to ensuring that new growth sectors are founded on principles of inclusivity, thereby preventing the perpetuation of existing inequalities and actively creating opportunities for all disadvantaged groups from the outset.
- **Intersectional nuance**: An intersectional approach here ensures that women, particularly Black women and those in rural areas, are not left behind in these emerging sectors and participate actively in their development. By integrating intersectionality as a guiding principle, from research design, data collection and evaluation to institutional governance, South Africa can build a more resilient and equitable scientific ecosystem that can better identify and address systemic biases, fostering a diverse and inclusive research community that reflects the nation's demographics.

TÜRKIYE

Introduction

Türkiye's policy landscape demonstrates a growing recognition of addressing the enhanced inclusivity in science, technology, and innovation (STI). Türkiye considers gender-related issues including creating equal opportunities for women and girls in STI. In 2023, the ratio of female R&D personnel was 34.1% in terms of FTE, which is above EU average,[16] and the ratio of female R&D personnel in terms of FTE in higher education was 47.7%. While many policies focus on broad economic and technological growth, a significant number include explicit or implicit measures aimed at increasing women's participation and entrepreneurship in STI fields. This is a crucial step towards gender equity, as it moves beyond simply assuming that general growth will benefit all segments of society equally.

Türkiye is actively engaged in advancing its STI sectors, guided by national plans that strive to foster a modern, inclusive society. Its policies aim to strengthen research capabilities, develop high-value products, and enhance technological skills on an international scale, with a strong emphasis on inclusive participation. The country's approach to building an inclusive STI ecosystem is rooted in a steadfast commitment to broad-based inclusion and qualified human capital development.

The "Competitive Production through Green and Digital Transformation" chapter, specifically the "Science, Technology and Innovation (STI)" section of the 12th National Development Plan, together with the recently released 2030 Industry and Technology Strategy (2025-2030), constitute the basis for the STI policy in Türkiye. The Development Plan's vision for the 2024-2028 timeframe aspires to creating a "stable, strong, prosperous, environmentally friendly and disaster resistant Türkiye which produces high added value based on advanced technology and sustains fair income distribution in the Century of Türkiye." The 12th Development Plan prioritises principles such as human-centricity, participation, inclusivity, accountability, predictability, transparency, efficiency, and effectiveness to realise its vision. Importance is attached to employment incentives for women, youth, and people with disabilities. Depending on the general framework of the Development Plan, "National Technology Initiative" is a vision of deepening the expertise in critical research areas. Technological Autonomy in Critical Technologies, High Value-Added Production, High Technology Export and Qualified/ Skilled Workforce constitute anchoring targets. Prepared in line with the vision of the National Technology Initiative, the 2030 Industry and Technology Strategy is structured around the imperative to enhance domestic and national production capacity in strategically prioritised high-tech sectors – most notably defence, artificial intelligence, semiconductors/chips, pharmaceuticals, medical devices, mobility, and renewable energy technologies. These priorities have been defined in line with the vision of the National Technology Initiative and the Development Plan, with a view to making the industrial and technological ecosystem more inclusive and ensuring that prosperity is shared across all segments of society, specifically women and young entrepreneurs.

[16] Source: Eurostat, https://ec.europa.eu/eurostat/statistics-explained/index.php?title=R%26D_personnel#Researchers

Policy initiatives with a direct relevance to closing the gender gap can be broadly categorised into three areas: 1) affirmative action and targeted support, including policies like the **TÜBİTAK's Policy Principles for Increasing the Participation of Women Researchers**, which directly addresses systemic barriers faced by women; 2) policy initiatives, like the **Ministry of National Education (MoNE) Strategic Plan (2019-2023)-STEM and initiatives under the Türkiye Century Education Model to strengthen STEM education**, and increase women's representation in STEM fields by providing education and training opportunities; and like **The Women Entrepreneurship Initiative**, which is a civil initiative to highlight and support women's entrepreneurship in STI fields; and 3) those recognising that traditional gender roles often place a disproportionate burden of caregiving on women, such as the **Half-Time Work Allowance After Birth and Adoption initiative**, which is crucial for retaining women in the workforce and allowing them to pursue their careers.

Moreover, to increase inclusivity or to better include under-represented groups in STI fields, especially adults and youth with disabilities, initiatives such as **Affirmative Action for Students with Disabilities and Barrier-Free University Awards** are carried out by The Council of Higher Education (CoHE).

This member note has the following objectives:

1. To provide, as outlined in the table below, an overview of a selection of policy initiatives identified as relevant for the G20 Recommendations on Diversity, Equity, Inclusivity, and Accessibility (DEIA). The aim is to provide a snapshot of the broader set of policy initiatives included in the compendium database.

2. To provide, in the remainder of this member note, highlights of good practices in policy initiatives responding to the G20 Recommendation: Closing the Gender Gap in Science. It is organised according to the sub-recommendations:
   - Encouraging women and girls to consider careers in science
   - Promoting workplace environments that attract, retain, and advance women scientists
   - Collecting disaggregated data for evidence-based policies and monitoring progress
   - Integrating gender-related aspects into the content of research
   - Implementing the UNESCO 2024 Call to Action: Closing the Gender Gap in Science

3. To identify, in the last section, key policy initiatives for closing the gender gap in science.

Table 20 Türkiye: Summary of the relevant policy initiatives by G20 Recommendation on DEIA

G20 Recommendation on DEIA	Number of policy initiatives	Policy instrument types	Main target groups/ beneficiaries (STIP categories)	Main target groups/ beneficiaries (Specific)
1. Promoting diversity, equity, inclusion and accessibility in STI systems	25	Collaborative infrastructures (soft and physical); Direct financial support; Governance; Guidance, regulation, and incentives; Indirect financial support	Economic actors (individuals); Firms; Governmental entities; Intermediaries; Research and education organisations; Researchers, students and teachers; Social groups especially emphasised	Disadvantaged groups; designers; entrepreneurs; SME employees; technology startups; high-tech companies; innovators; firms of all sizes (SMEs, large firms); incubators; investors; experts from academia; experts from various sectors; early-career international researchers; early-career researchers in Türkiye under the age of 40; doctoral students; international students and researchers; **women researchers**; international students and researchers, students interested in software development; students with disabilities; teachers; secondary school students; software developers; youth particularly in the STEM fields
2. Closing the gender gap in science	4	Direct financial support; Governance	Economic actors (individuals); Firms; Researchers, students and teachers; Social groups especially emphasised	Women entrepreneurs; women researchers; parents participating in the labour market; young scientists across all fields of science; mothers in employment
3. Fostering dialogue between different knowledge systems	4	Direct financial Support, Governance, Collaborative infrastructures (soft and physical)	Intermediaries; Social groups especially emphasised	Technology startups; high-tech companies; innovators; firms of all sizes (SMEs, large firms); incubators; investors; researchers; students; the general public; government agencies

Continues overleaf...

G20 Recomm-endation on DEIA	Number of policy initiatives	Policy instrument types	Main target groups/ beneficiaries (STIP categories)	Main target groups/ beneficiaries (Specific)
4. Transitioning to open science	6	Collaborative infrastructures (soft and physical); Governance Guidance, regulation	Economic actors (individuals); Firms; Governmental entities; Intermediaries; Research and education organisations; Researchers, students and teachers; Social groups especially emphasised	The government; industry; academia; general public; researchers; entrepreneurs and technology companies; librarians; AI experts; IT professionals; students
5. Combating inequities in STI	14	Collaborative infrastructures (soft and physical); Direct financial support; Governance	Governmental entities; Intermediaries; Research and education organisations; Researchers, students and teachers; Social groups especially emphasised	Secondary school students; undergraduate and graduates; researchers; developing and less technologically advanced countries; teachers; civil society; NGOs; municipal affiliates

Note: This table includes a set of policy initiatives selected for inclusion in the compendium, 'STI for All': A Compendium of Good Practices in STI Policy. The main aim is to identify good practice policy initiatives rather than to provide an exhaustive list of the G20 member/guest country's policy initiatives.

Encouraging women and girls to consider careers in science

Türkiye is committed to fostering scientific interest and skills from an early age through a variety of initiatives, thereby indirectly supporting the encouragement of girls in STEM fields. The country's strategy for promoting careers in science appears to be comprehensive, focusing on enhancing general scientific literacy and interest among youth and, **indigenous communities**, rather than implementing targeted programmes specifically addressing gender concerns through scholarships or incentives.

Examples of good practice in policy initiatives include:

- **Ministry of National Education (MoNE) Strategic Plan (2024–2028) – STEM**: This plan aims to enhance access to STEM learning resources across schools, with particular attention to underserved regions. Providing early exposure to STEM for girls can help foster their sustained engagement in

science careers. Continuously, as of 2024, MoNE has launched **initiatives under the Türkiye Century Education Model to strengthen STEM education**. This includes teacher training, curriculum renewal, and innovative practices aimed at developing digitally competent, innovative, and lifelong learners. Emphasis is on enhancing mathematics, science, and literacy skills to foster well-rounded STEM competencies from preschool to secondary education.

- **MoNE-National Activities to Promote Science and Innovation Culture**: This initiative represents a systemic commitment to advance scientific and technological competence among students. These initiative aims to cultivate a robust and inclusive culture of STI across all segments of society. It promotes open science, maker-centred learning, artificial intelligence literacy, and real-world applications to cultivate critical thinking, creativity, and innovation from early education onwards. The diversity of these actions reflects MoNE's strategic vision to prepare youth for future challenges through inclusive, hands-on, forward-looking educational practices.
- **TÜBA GEBIP Awards – Equality of Opportunity**: These awards commend talented young researchers and emphasise the importance of equitable access, including opportunities for women. Recognising early-career women helps build their credibility and support their career development, which is vital for their retention and advancement. In order to ensure equality of opportunity, one year is added to the age limit of 40 for each birth of women candidates.
- **MoIT - Women Entrepreneurship Initiative**: This initiative aims to support women in developing STEM-related businesses by fostering a collaborative environment that bridges the gap between innovation and entrepreneurship, while also enhancing pathways to leadership. It seeks to contribute to narrowing the gender gap by empowering women to translate their scientific expertise into successful commercial ventures.
- **42 Schools**: These schools are established under the auspices of the MoIT in partnership with IT Valley and TÜBİTAK-TÜSSIDE. 42 Schools works under the innovative teaching model within the body of the Türkiye Open Source Platform. This programme aims to provide tuition-free, project-based tech education accessible to individuals of all ages and backgrounds. By promoting equitable access, the initiative aspires to support more women in developing careers in technology.
- **TÜBİTAK 2232-B International Fellowship for Early Stage Researchers**: This programme provides financial support to young researchers under the age of 40 living abroad, encouraging their settlement in Türkiye and ensuring the sustainability of their RDI activities within the country. It endeavours to retain women in science by providing comprehensive financial, institutional and family support and applies positive discrimination for female applicants.
- **TÜBİTAK 2247-D National Early-Stage Researchers Programme**: This programme aims to support early-career researchers, with a particular focus on promoting gender inclusivity and addressing the well-recognised 'leaky pipeline' challenge at key transition points in careers. It endeavours to retain women in science by providing comprehensive financial and institutional support. The target group is early stage researchers up to 40 years of age carrying out their projects in Türkiye. One year is added for each birth as a positive discrimination for female applicants.
- **TÜBİTAK 2216-B TWAS Postgraduate and Postdoctoral Fellowship Programme**: This fellowship is enabled for international PhD students and young post-doctoral researchers from developing countries to advance international cooperation. Candidates from Science and Technology Lagging Countries (STLC) and women are especially encouraged to apply.

The following are examples of good practice policy initiatives that collectively highlight an approach beyond traditional incentives, focusing on cultural and structural encouragement to broaden participation:

- **TÜBİTAK Science Talks**: These public events facilitate dialogue between scientists and communities, often highlighting female researchers, which can help to normalise women's participation in scientific discussions. By showcasing diverse role models, this initiative aims to challenge stereotypes about science being a male-dominated field and to inspire girls to explore STEM careers. This initiative also presents an opportunity to consider a targeted series featuring women scientists to promote girls' inclusion explicitly.
- **TÜBİTAK Popular Science Publications**: By sharing accessible science stories, including profiles of women scientists, this initiative aims to promote positive representation in the media. It addresses the underrepresentation of women in STEM-related media and encourages a more inclusive societal perception of science.
- **TÜBİTAK 4008 – Inclusive Science and Social Practices Support Programme**: This programme is designed to promote inclusion by aiming to raise awareness about individuals with special needs, support them in areas such as education and independent living, facilitate their integration into society, and promote the dissemination of scientific practices among both individuals with special needs and their service providers. The programme aims to support community science projects that consciously include underrepresented groups and students with special needs, including women and girls. It promotes women's participation in practical scientific research, fostering skills and confidence while highlighting local role models.
- **81 Cyber Heroes in 81 Cities**: This nationwide campaign aims to promote cybersecurity careers and highlight the achievements of female role-models in the technology sector. It seeks to address gender disparities in STEM by showcasing women as leaders in a high-demand, traditionally male-dominated field.
- **TÜRKİYE Innovation Week**: As a prominent national platform to highlight innovative talents, including distinguished women leaders in science, technology and innovation, this event helps promoting the visibility of women's leadership in STEM entrepreneurship and research. It plays a role in challenging gender stereotypes by providing women with acknowledged recognition in front of both national and international audiences.
- **DENEYAP Technology Workshops**: Within the scope of the project, while regarding inclusivity and accessibility of the workshops from all regions, STEM-based courses are delivered to K-8 and K-12 students, and academic curricula are developed and implemented within the scope of the training which include Design and Thinking, Robotics and Coding, Electronic Programming and Internet of Things (IoT), Software Technologies, Advanced Robotics, Artificial Intelligence, Cyber Security, Mobile Application, Energy Technologies, Aviation and Space Technologies, Materials Science and Nanotechnology.
- **TÜBİTAK Science Camps**: With the goal of reaching students in every corner of Türkiye, TÜBİTAK Science Camps aim to inspire a love of science and raise scientific awareness among our youth, who represent the future of our country. Offering high school students hands-on experiences in diverse fields such as physics, mathematics, astronomy, archaeology, forensic sciences, and emerging technologies.

- **National Technology Centres**: These centres create inclusive spaces for youth from all socio-economic backgrounds, STEM education is enhanced by providing the machinery, equipment, and consumables needed by teams participating in national and international science and technology competitions.

Promoting workplace environments that attract, retain, and advance women scientists

Türkiye has taken a strategic and multi-layered approach to creating inclusive research and higher education environments that support women scientists. Through formal policy frameworks, affirmative action measures, and institutional awards, the country addresses structural barriers to participation, retention, and advancement. These initiatives demonstrate Türkiye's commitment to evidence-based, gender-responsive reforms.

The following initiatives are good practice examples of Türkiye's approach to closing the gender gap in science by promoting workplace environments that attract, retain and advance women scientists:

- **TÜBİTAK's Policy Principles for Increasing the Participation of Women Researchers**: This policy framework aims to promote increased participation of women in research, fostering a more inclusive environment. It seeks to embed gender equality within institutional policies, thereby supporting sustainable long-term progress.
- **CoHE – Affirmative Action for Students with Disabilities**: This policy initiative aims to make higher education more inclusive and accessible, particularly supporting students with disabilities in STEM fields. It seeks to address various barriers to participation, ensuring that disabled people facing multiple challenges have opportunities to pursue careers in science.
- **CoHE – Barrier-Free University Awards**: This award highlights universities that are making strides in improving accessibility for all members of their communities, including women, thereby fostering more inclusive campus environments. It contributes to creating a more welcoming and supportive atmosphere within STEM disciplines for individuals with diverse needs.
- **Half-Time Work Allowance After Birth and Adoption**: This policy aims to promote work–life balance for researchers during their parenting years, which can contribute to reducing the attrition of women scientists after childbirth. It enables women to continue engaging in their careers during family transitions. When complemented with career reintegration programmes, this approach has the potential to further enhance retention.
- **TÜBA – iNCLUSION Project**: This programme aims to promote an inclusive cultural heritage by revising the policies of public cultural institutions and private organisations while converging the needs of disabled audiences for cultural heritage experiences with educational curricula and informal training. It supports higher education students in developing digital culture skills, linking digital industries with audiences that have special needs.

Collection of disaggregated data for evidence-based policies and monitoring progress

Türkiye values reliable, detailed data in informing policies aimed at promoting gender equality in science. Initiatives such as the **Open Data Project** offer valuable platforms for collecting and sharing STI data disaggregated by gender, which aids policymakers in tracking women's participation, recognising potential gaps, and developing targeted strategies.

The following initiative is a good practice example for ensuring the collection of gender-disaggregated data:

- **Open Data Project**: This project provides access to a broad spectrum of datasets, including those pertaining to STI data. It promotes generate social and economic value from STI data and contribute to advance enabling and innovative technologies in Türkiye, such as artificial intelligence. Supporting the monitoring of women's participation can be instrumental in informing well-founded and targeted policy responses and in fostering greater inclusivity and comprehensiveness.

Integrating gender-related aspects into the content of research

Türkiye promotes the integration of gender considerations into scientific research to enhance both the quality and societal relevance of the knowledge produced. Policies and programmes such as the **COVID-19 and Society research calls** and the National Cybersecurity Strategy demonstrate how inclusivity (especially for women and youth) can be embedded in innovation, technology, and sustainability projects. By systematically including inclusivity in research design, Türkiye ensures that scientific outputs address the needs and experiences of all populations while fostering an inclusive research culture.

The following initiatives are good practice examples for integrating gender-related aspects into the content of research:

- **COVID-19 and Society Call – Outputs**: TÜBİTAK has launched the "COVID-19 and Society: Social, Human and Economic Effects of the Pandemic, Problems and Solutions" call in order to reveal the impact of the COVID-19 pandemic on socio-economic, social and industrial developments. The scope of these impacts extended to behavioural changes, equality of opportunity, as well as accessibility of work, education, food and communication, and psychological and sociological changes. Projects that relate to the impacts of the pandemic on different groups, including women and young people, are supported. The outcomes are disseminated via different platforms, such as articles, conferences and booklets.
- **National Cybersecurity Strategy (2024-2028)**: This strategy aims to combat the increasing number and complexity of cyber threats. It seeks to reduce risks and enhance Türkiye's position as an international leader in cybersecurity. This strategy promotes the Human-Centered Cybersecurity Approach since all segments of society, especially children, youth, the elderly, and individuals with special needs, are directly or indirectly affected by cyberattacks. Efforts are made to protect all segments of society from the risks inherent in cyberspace and to maximise the benefits provided by information technologies. This strategy specifically includes policies for increasing cybersecurity awareness and protection for youth, children and their families.

Implementing the UNESCO 2024 Call to Action: Closing the Gender Gap in Science

Türkiye aligns its national science, technology, and innovation (STI) strategies with global commitments to gender equality, actively contributing to the UNESCO 2024 Call to Action. Through comprehensive frameworks such as **the 12th Development Plan and 2030 Industry and Technology Strategy**, the country incorporates women's representation and perspectives into high-level policy planning, governance and technological entrepreneurship. This approach ensures that domestic initiatives support international gender equality objectives while fostering systemic and sustainable inclusion of women in science.

The following initiatives are good practice examples of how Türkiye responds to the international call to action of closing the gender gap in science:

- **The 12th Development Plan of Türkiye (2024-2028)**: Aligned with its vision, a stable growth model will be implemented that focuses on green and digital transformation. It remains important to sustain the progress achieved in women's participation in the labour force and improved education levels in the upcoming period. Qualified human capital will therefore be one of the main elements of the stable growth envisaged in the period of the Plan. Increasing the qualifications of the labour force, directing them to more productive sectors and areas, ensuring harmony between education and employment, and including women and young people in employment by equipping them with the professional skills needed in the labour market are among the main priorities. Efforts are being made during the planning period to empower women in society and to achieve equality between men and women.
- **2030 Industry and Technology Strategy**: Türkiye aims to advance women's participation and leadership in the economy through targeted entrepreneurship support, inclusive labour-market measures, and a strong digital-skills agenda. Dedicated mentor pools will be established to support the implementation of innovative business ideas – particularly those by women and young entrepreneurs. Accelerator programmes, microcredit schemes, and prototype development grants will be made available. New regulations and supportive programmes will be introduced to facilitate the participation of women, young people, and foreign workers in production processes. Inclusive employment will be supported by enhancing housing, childcare, study centres, and social facilities in OIZs. Complementing these, dedicated financing and support programmes for women's entrepreneurship will be developed, comprehensive training and mentoring will be organised, and collaboration platforms among women entrepreneurs will be created. Programmes focused on acquiring and advancing digital skills will help individuals adapt to changing labour-market conditions, strengthen competitiveness, and – as part of the digital transition – prioritise the participation of women and youth in the technology sector, thereby enabling broad segments of society to benefit and supporting sustainable growth in the digital economy. In parallel, inclusive industrial employment will be fostered through skills mapping, labor-demand analyses, and stronger university–industry collaboration, with models tailored to Türkiye's context to boost women's and youth employment and strengthen inclusion across industry.

- **National Technology Entrepreneurship Strategy and Action Plan**: This strategy aims to create a leading startup ecosystem in Türkiye by developing its technological milieu, which has reached a certain level of maturity in terms of cultural infrastructure, qualified human resources, and market opportunities for entrepreneurs. The strategy ensures egalitarian representation in all aspects of social life, which is a prerequisite for an inclusive and sustainable growth model. In Türkiye, 14% of 294 investments made in 2021 were made in enterprises founded or partnered by women. In the first half of 2022, this rate stood at 26%, which is above EU average. In view of the data, female entrepreneurship in Türkiye needs further promoting which is why Türkiye take steps targeted to increase the number of women and sustainable female enterprises within the startup ecosystem.
- **The Women Entrepreneurship Initiative**: This is an initiative launched under the leadership of MoIT to enhance the technological potential of women entrepreneurs, provide them with access to training and mentoring opportunities, to accelerate their advancement to the positions they deserve and to promote professional role models in STEM fields for young women.

Key policy initiatives for enhancing inclusivity in science

Türkiye's strategic approach to addressing inclusivity and gender disparities in science, technology, and innovation (STI) has transitioned from broad gender equality policies to more tailored initiatives. The country has achieved notable progress in increasing female participation in higher education, with women now accounting for over 51.7% of university students. While women are well-represented in academic roles, their participation in specific STEM fields, such as engineering and computer science, is considerably lower, and there is room for growth in leadership and senior research roles.

Two key policy initiatives stand out as good practice for addressing the inclusivity and women's involvement in science in Türkiye. These policies are not just a step forward for gender equality but are foundational in their explicit or implied focus on inclusivity, thereby making them more robust and effective:

1. COHE – Affirmative Action for Students with Disabilities

- **Why it's a good practice**: This policy initiative serves as a commendable example of inclusivity, as it recognises how disability status can further compound existing barriers to education and career advancement. While not explicitly focused on gender issues, it benefits women with disabilities by offering increased opportunities to pursue higher education. By setting a goal to enhance the participation of students with disabilities in universities, the policy addresses an important dimension of inequality that is often overlooked. It lays a solid foundation of support that enables women with disabilities to access and pursue careers in STEM fields, representing an important step toward reducing the gender gap for a traditionally underrepresented group.
- **Inclusivity nuance**: This is a direct initiative to address a specific form of challenges faced by students with disabilities who are from different socioeconomic backgrounds. The policy initiative effectively addresses the needs of students with disabilities, but there may be opportunities to consider how gender and other factors could intersect with disability.

2. TÜBİTAK'S Policy Principles for Increasing Women's Participation in Research

- **Why it's a good practice**: Within the scope of being inclusive, TÜBİTAK attaches great importance to maintaining the balance between male and female researchers in all of its activities. This initiative exemplifies a strategic approach to addressing gender equality and gender mainstreaming in research. It emphasises the importance of targeted interventions to support women in scientific careers, acknowledging that the different challenges faced by women in research is a complex issue that benefits from a focused response. By establishing guiding principles, TÜBİTAK (The Scientific and Technological Research Council of Türkiye) demonstrates a meaningful commitment to gender equity and offers a valuable framework for other institutions to consider. TÜBİTAK also monitors the gender balance of researchers regularly, through statistics within the scope of its R&D and innovation support programmes, as well as in the activities conducted through its R&D centres and institutes. This formal recognition plays a vital role in fostering institutional change and integrating gender considerations into research funding, hiring, and promotion practices.
- **Inclusivity nuance**: This is a direct initiative to address a specific form of challenges faced by women in STI field. The primary consideration for this policy initiative is to acknowledge that its title may imply a broad focus on "women" as a singular group. A further inclusive approach considers the unique challenges faced by women who are also members of other underrepresented groups. In order to encourage female researchers to apply to R&D and innovation support mechanisms, TÜBİTAK also prioritises the integration of facilitating measures for dependents for whom the researcher is responsible within the regulations of the R&D and innovation support programmes.

UNITED KINGDOM

**This country note contains provisional information and has not been officially verified.*

Introduction

The United Kingdom's policy initiatives for closing the gender gap in science, technology, and innovation are deeply intertwined with its broader commitments to equality, diversity, and inclusion (EDI). Rather than relying on a single, overarching strategy, the UK has adopted a multi-pronged approach that leverages both targeted and mainstream policies. Initiatives like the **Athena Swan Charter** and the **Women in Innovation Campaign** are examples of targeted efforts to address gender-specific barriers in academia and entrepreneurship. Initiatives such as the **UK Research and Innovation (UKRI) Equality, Diversity and Inclusion Strategy** provide a high-level framework for integrating EDI principles into all aspects of the research ecosystem, from funding to workforce culture.

The most significant progress is seen in initiatives that move beyond a singular focus on gender to adopt an explicitly intersectional approach. This is a crucial development because it recognises that the challenges faced by a woman in science are not monolithic and are often compounded by other factors such as race, disability, or socioeconomic background. Charters and strategies are increasingly being updated to address these intersecting inequalities, shifting the focus from simply counting women to understanding the distinct barriers faced by women from different communities and backgrounds. This approach is leading to more nuanced and effective policy initiatives that create more equitable and inclusive science and innovation environments that serve all in society.

This member note has the following objectives:

1. To provide, as outlined in the table below, an overview of a selection of policy initiatives identified as relevant for the G20 Recommendations on Diversity, Equity, Inclusivity, and Accessibility (DEIA). The aim is to provide a snapshot of the broader set of policy initiatives included in the compendium database.

2. To provide, in the remainder of this member note, highlights of good practices in policy initiatives responding to the G20 Recommendation: Closing the Gender Gap in Science. It is organised according to the sub-recommendations:
   - Encouraging women and girls to consider careers in science
   - Promoting workplace environments that attract, retain, and advance women scientists
   - Collecting disaggregated data for evidence-based policies and monitoring progress
   - Integrating gender-related aspects into the content of research
   - Implementing the UNESCO 2024 Call to Action: Closing the Gender Gap in Science

3. To identify, in the last section, key intersectional policy initiatives for closing the gender gap in science.

Table 21 United Kingdom: Summary of the relevant policy initiatives by G20 Recommendation on DEIA

G20 Recommendation on DEIA	Number of policy initiatives	Policy instrument types	Main target groups/ beneficiaries (STIP categories)	Main target groups/ beneficiaries (Specific)
1. Promoting diversity, equity, inclusion and accessibility in STI systems	11	Collaborative infrastructures (soft and physical); Direct financial support; Governance; Guidance, regulation and incentives	Economic actors (individuals); Firms; Governmental entities; Intermediaries; Research and education organisations; Researchers, students and teachers; Social groups especially emphasised	Black, Asian, minority ethnic staff; businesses; civic leaders; general public; policymakers; UKRI; vehicle manufacturers; academics; electric vehicles manufacturers; employees; individuals with protected characteristics (e.g., age, disability, **gender** reassignment, race, sex, sexual orientation, etc.); innovation agencies; insurance companies; law enforcement; local authorities; local communities; research institutions; researchers; road users; science communicators; scientists; students; technology companies; technology developers; universities
2. Closing the gender gap in science	4	Direct financial support; Governance	Research and education organisations; Researchers, students and teachers; Social groups especially emphasised	Academics; participants in research; STEM professionals; students; women entrepreneurs; all genders in arts; girls; humanities and social sciences students; innovators; professional staff; researchers; support staff; teachers; technicians; under-represented groups; women from under-represented backgrounds; women; women in STEMM
3. Fostering dialogue between different knowledge systems	1	Collaborative infrastructures (soft and physical); Direct financial support	Research and education organisations; Intermediaries; Governmental entities; Social groups especially emphasised	Community members; local organisations; researchers

Continues overleaf...

G20 Recomm-endation on DEIA	Number of policy initiatives	Policy instrument types	Main target groups/ beneficiaries (STIP categories)	Main target groups/ beneficiaries (Specific)
4. Transitioning to open science	12	Direct financial support; Governance; Guidance, regulation and incentives	Economic actors (individuals); Firms; Governmental entities; Intermediaries; Research and education organisations; Researchers, students and teachers; Social groups especially emphasised	Businesses; data controllers; general public; internet users; Lawtech startups; policymakers; public servants; researchers; academic institutions; children; civil society organisations; consumers of legal services; data processors; data scientists; developers of AI for public sector; funders; government bodies; higher education institutions; legal firms; members of public who participate in research; policymakers; public; public engagement professionals; public sector bodies; public whose data is being used; regulators; researchers; under-represented communities; vulnerable groups; **women**
5. Combating inequities in STI	7	Collaborative infrastructures (soft and physical); Direct financial support; Governance; Guidance, regulation and incentives	Economic actors (individuals); Firms; Governmental entities; Intermediaries; Research education organisations; Researchers, students and teachers; Social groups especially emphasised	Africa; energy experts; policymakers; researchers; UK citizens; UK population; UK-based partners; academics; communities in developing countries; energy consumers; engineers; entrepreneurs; farmers in African partner countries; industry figures in engineering biology sector; local authorities; local communities; policymakers in UK; stakeholders; transport industry

Note: This table includes a set of policy initiatives selected for inclusion in the compendium, 'STI for All': A Compendium of Good Practices in STI Policy. The main aim is to identify good practice policy initiatives rather than to provide an exhaustive list of the G20 member/guest country's policy initiatives.

Encouraging women and girls to consider careers in science

The UK's approach to encouraging women and girls into science careers is multifaceted, combining direct financial incentives with broader institutional and cultural change. Targeted programmes like the **British Council's Scholarships for Women in STEM** provide financial support for women pursuing master's

degrees, particularly those from partner countries, directly addressing financial barriers. Similarly, the **Women in Innovation Campaign** offers awards and tailored support to female entrepreneurs, not only providing funding but also creating visible role models to inspire other women. Beyond these targeted efforts, the UK is leveraging its major research funder, **UK Research and Innovation (UKRI)**, to drive systemic change through its **Equality, Diversity and Inclusion Strategy**. These initiatives recognise that encouraging women into science is not enough; it requires a sustained effort to dismantle both cultural stereotypes and structural barriers to ensure that women and girls not only enter STEM but also have the opportunities to thrive and lead.

Good practice examples include:

- **STEM Inspiration and Other National Programmes**: These programmes are vital for encouraging young people into STEM. They must be implemented with a clear intersectional strategy. This means not just bringing in female role models but ensuring those role models come from diverse ethnic and socioeconomic backgrounds.
- **Public Attitudes to Science Survey**: While not a programme of direct action, this survey is a vital tool for good practice. By collecting data on public attitudes, it provides the evidence base needed to design effective campaigns. An intersectional lens would ensure the survey's methodology disaggregates data not only by gender but also by ethnicity, age, and socioeconomic status, allowing policymakers to understand why certain groups might hold more negative or stereotypical views about science and to tailor their interventions accordingly.
- **Women in Innovation Campaign**: This campaign, led by **Innovate UK**, actively champions female entrepreneurs, offers financial assistance through **Women in Innovation awards**, and provides practical support via workshops to help female entrepreneurs achieve their ambitions. These activities align with providing incentives and fostering a supportive environment for women in science. By emphasising entrepreneurship, the policy initiative indicates a strategic focus on nurturing self-initiated innovation and business development as a means for women to establish their presence and influence within the STEM ecosystem. It extends beyond promoting entry into existing structures, advocating instead for the creation of new ventures where women can assume leadership roles. The combination of tangible financial support and public visibility campaigns demonstrates an understanding that encouraging women into scientific careers necessitates both practical enablement and aspirational role modelling.

Promoting workplace environments that attract, retain, and advance women scientists

The UK's approach to promoting equitable workplaces for women in science is a multi-faceted and increasingly sophisticated strategy. A central pillar is the **Athena Swan Charter**, a voluntary accreditation scheme that has become a de facto standard in higher education. This initiative has driven significant progress in areas such as flexible working, parental leave, and addressing the gender pay gap. Complementing this institutional-level change is the strategic influence of **UKRI** through its **Equality, Diversity and Inclusion Strategy**. The UK has also started to address specific barriers, such as the 'leaky pipeline,' with targeted initiatives like a government-backed training programme to support women returning to STEM careers after a long break, recognising that caregiving responsibilities disproportionately impact women's career progression.

- **Athena Swan Charter on Gender Equality**: The strength of this initiative lies in its ability to drive institutional change through a structured framework of self-assessment and public recognition. The recent move to a "transformed charter" that explicitly considers intersectionality is a crucial step. It encourages institutions to analyse how gender intersects with other characteristics like race, disability, and age, providing a more nuanced understanding of the barriers that women face. For instance, the charter has pushed institutions to address issues like the underrepresentation of women of colour in senior academic roles, a persistent issue in the UK's STEM workforce.
- **UK Research and Innovation (UKRI) Equality, Diversity and Inclusion Strategy**: As a major funder, UKRI's strategy has a transformative potential. Its good practice lies in its commitment to embedding EDI across all its operations, from grant applications to peer review panels. The strategy's move towards a standardised, narrative CV format is an excellent example, as it allows for a wider range of career paths and contributions to be valued, which benefits individuals, often women, who have taken non-traditional routes or career breaks.

Collection of disaggregated data for evidence-based policies and monitoring progress

The UK's policy approach to collecting disaggregated data for evidence-based policies on gender in science has been strengthened by a shift towards mandatory reporting and a more granular view of data. This is most prominently seen through the **Athena Swan Charter**, which requires universities and research institutions to collect and analyse a wide range of data on gender representation across the career pipeline, from student enrolment to senior leadership positions. Complementing this is the **Research and Innovation (R&I) Workforce Survey Report**, a national effort that provides a broader evidence base on the UK's research and innovation workforce.

- **Research and Innovation (R&I) Workforce Survey Report**: This report provides a critical evidence base for the entire UK research and innovation ecosystem. To be truly intersectional, the survey must not only disaggregate data by gender but also by ethnicity, disability, and socioeconomic background. This kind of nuanced data is essential for understanding where interventions are most needed and for monitoring the progress of various EDI policies.
- **Athena Swan Charter on Gender Equality**: The charter's data collection requirements are a core component of its effectiveness. It mandates that participating institutions collect and analyse disaggregated data on gender across different academic roles, from student enrolment to senior professorships. The recent updates to the charter are pushing institutions to collect intersectional data, such as gender and ethnicity, allowing them to identify specific issues and track the impact of their interventions on different groups.

Integrating gender-related aspects into the content of research

The UK's approach to integrating gender-related issues into the content of research is evolving from a voluntary practice to a formal, and increasingly mandatory, requirement. This shift is driven primarily by its association with European initiatives like **Horizon Europe**, which makes a **Gender Equality Plan** an eligibility criterion for public bodies, including universities. This has led **UKRI**, the UK's largest research funder, to publish its own GEP, which outlines specific actions for integrating the "gender dimension" into

research content. This approach recognises that scientific excellence is enhanced by producing knowledge that is relevant to, and benefits, all of society. Beyond formal mandates, initiatives like the **Citizen Science Collaboration Grants** and the **UK Research and Innovation Public Engagement Strategy** further support this by encouraging a "co-creation" model of research, where diverse publics, including women and marginalised communities, are involved in shaping the research agenda from the outset, thus ensuring that the research questions are more inclusive and reflecting a broader range of societal needs.

While not focused specifically on gender, these examples can be considered good practice initiatives:

- **Guidance on AI and Data Protection and Review into Bias in Algorithmic Decision-Making**: These initiatives directly confront the reality that scientific and technological products, particularly AI, are not neutral. The guidance and review are designed to ensure that algorithms are developed without bias that could perpetuate discrimination on the basis of gender, race, or other factors. For example, the **Facial Recognition Technology Study** is a key initiative in this area, given that studies have shown these systems are less accurate for women and people of colour. The good practice here is not only to recognise these biases but to create a regulatory framework to prevent the deployment of biased technologies.
- **Engineering Biology Responsible Innovation Advisory Panel**: This initiative is a good practice for its proactive stance on ethical considerations in a rapidly developing field. It aims to embed a culture of responsible innovation from the outset. An intersectional approach for this panel would mean ensuring that its membership is diverse and that its ethical considerations explicitly address how new technologies might differentially impact or benefit various groups, thereby ensuring that the knowledge produced is both scientifically excellent and socially relevant.

The UK emphasises closing the gap between science and society through initiatives promoting public engagement in science and citizen science. Although these initiatives do not focus specifically on gender, they contribute to ensuring that science addresses key societal issues including gender:

- **UK Research and Innovation Public Engagement Strategy and Vision for Public Engagement**: These initiatives provide the high-level policy framework that underpins the **Citizen Science Grants**. They are a good practice because they actively encourage researchers to involve "a wide range of people" in their work and to "listen to public concerns and aspirations." This creates a culture where researchers are incentivised to move beyond simply communicating findings to engaging the public in shaping the research questions themselves. This is particularly relevant for integrating gender-related aspects, as it provides a mechanism for women and marginalised communities to raise issues that matter to them and to ensure that research is not "gender-blind." This approach aligns with the principle that scientific excellence is enhanced when it is societally relevant and addresses the diverse needs of the population.
- **Citizen Science Collaboration Grants**: This initiative directly enables the integration of diverse, lived experiences into research. Funding projects where communities are "co-designers and co-creators" of research ensures that research questions are shaped by the needs and concerns of the public, which include gender-related aspects. The grants encourage researchers to move beyond traditional methods and embrace participatory approaches that value a breadth of experiences and viewpoints.

Implementing the UNESCO 2024 Call to Action: Closing the Gender Gap in Science

The UK supports the UNESCO 2024 Call to Action to close the gender gap in science through a multi-faceted approach that combines targeted programmes, institutional policies, and active participation in international forums. An example is the **L'Oréal - UNESCO *For Women in Science* UK and Ireland Young Talent Awards**, a national fellowship that provides financial grants and recognition to early-career women researchers in the UK. This programme directly aligns with UNESCO's call to provide incentives and awards to encourage women in science. Furthermore, the UK's largest public funder of research, **UKRI**, has a strong **Equality, Diversity and Inclusion Strategy** that complements the UNESCO call by embedding gender equality into funding criteria and internal operations. This strategic approach ensures that the UK is not only inspiring women to enter science but also creating the supportive workplace environments and equitable progression pathways that UNESCO advocates for, and helping to dismantle the systemic barriers that have historically held women back. **Sciencewise** is another example that demonstrates a fundamental commitment to inclusive science policy that echoes the broader principles of the UNESCO call. The UK's proactive stance on ethical innovation and public engagement in science also implicitly underpins the development of a more equitable scientific landscape.

Key policy initiatives considered to be good practice for closing the gender gap in an intersectional way

A notable aspect of the UK's approach is its strong commitment to the integration of an intersectional approach across various policy areas, including emerging technologies and public engagement. This demonstrates a sophisticated understanding that gender inequality does not occur in isolation but is exacerbated by other factors such as race, socio-economic status and disability. The inclusion of "indigenous communities" as a target group within the **Women in Innovation Campaign**, although potentially serving as a broad categorisation for diverse minority groups in the UK, emphatically signifies an effort to address the distinct barriers confronted by women from disadvantaged backgrounds in the entrepreneurial sector. The application of an intersectional approach concerning emerging technologies like AI and facial recognition, as well as public engagement in science is a robust good practice. It acknowledges that the ethical implications of technology and the effectiveness of public dialogue are deeply influenced by how various social categories intersect with one another. By considering intersectionality, these policies aim to prevent unintended biases in technology, ensure equitable access, and foster genuinely inclusive public discourse, thereby enhancing both the ethical integrity and societal relevance of scientific and technological progress. This reflects a proactive commitment to ensuring that scientific and technological advancements are not only innovative but also fair and just. This approach enhances both the efficacy and fairness of policies aimed at bridging the gender gap by ensuring that solutions are tailored to the distinct needs and challenges faced by diverse women.

Here are examples of good practice in policy initiatives addressing the gender gap in science in an intersectional way:

1. UK Research and Innovation Equality Diversity and Inclusion Strategy

- **Why it's a good practice**: This strategy provides a foundational framework for an intersectional approach to research and innovation. Beyond the focus on a single "strand" of equality (e.g., gender), this strategy is designed to embed EDI as a core principle across all of UKRI's activities. This means that gender equality is not treated as a separate, stand-alone issue but is considered in conjunction with other protected characteristics such as race, disability, and sexual orientation.
- **Intersectional nuance**: The strategy's strength lies in its explicit commitment to an intersectional lens. An analysis of its implementation would look for evidence of this in practice. For instance, in its funding calls, UKRI could require applicants to demonstrate how their research teams and projects are inclusive of individuals with intersecting marginalised identities, for example, research into health issues that disproportionately affect women of colour or mentorship programmes that are tailored to the unique challenges faced by LGBTQ+ researchers with disabilities. The strategy's success is not just about increasing the number of women in science, but about ensuring that a diverse range of women, with different backgrounds and experiences, are represented and supported throughout the research pipeline.

2. Athena Swan Charter on Gender Equality

- **Why it's a good practice**: The Charter, while primarily focused on gender equality more broadly, has evolved to become a key initiative for an intersectional approach to closing the gender gap. The transformed charter now explicitly encourages institutions to address intersectional inequalities. It requires universities and departments to conduct detailed self-assessments, including data collection and analysis, so as to understand the experiences of all staff and students. This data-driven approach is critical for identifying and addressing the specific barriers faced by different groups.
- **Intersectional nuance**: The charter's good practice lies in its demand for institutional self-reflection and action. An intersectional lens would highlight how a university's Athena Swan application should not only report on the number of women in senior academic roles but also on the representation and progression rates of Black women, Asian women, and women with disabilities. It pushes institutions to go beyond a "tick-box" exercise and to understand the unique challenges faced by these intersecting groups.

3. Women in Innovation Campaign

- **Why it's a good practice**: By providing funding and support to women entrepreneurs, this initiative tackles the underrepresentation of women in innovation and technology.
- **Intersectional nuance**: The campaign's success is measured not only by the number of women-led businesses it supports but also by the role models it creates and the network it builds. An intersectional lens would consider how to use the campaign feedback to ensure that assessment panels for awards are themselves diverse, and that the value of innovations targeting specific, diverse communities is properly recognised and rewarded.

4. Local Policy Innovation Partnerships and Community Research Networks

- **Why it's a good practice**: These two initiatives are excellent examples of a bottom-up, place-based approach to policy. They are good practice because they directly address the intersection of gender and geography, recognising that barriers to science and innovation are not the same in London as they are in a post-industrial town in Northern England, for example. By putting communities at the heart of the research process and by funding locally led innovation, these initiatives empower women who may have been historically excluded from the traditional scientific enterprise. They also ensure that the research and innovation produced are directly relevant to the lives and needs of those communities.
- **Intersectional nuance**: The strength of these initiatives lies in their potential to tackle multiple disadvantages at once. A community research network in a deprived urban area with a high ethnic minority population could, for instance, lead a project on air quality. This project would not only involve women but would also empower women of colour who are disproportionately affected by poor environmental conditions. This approach recognises that gender equality in science is not just about individual women's choices but about creating a more equitable and inclusive society for all.

G20 GUEST COUNTRY NOTES

This section comprises high-level summaries of the policy initiatives and instruments of each invited country that participated in the G20 Research and Innovation Working Group in 2025. The note on each country begins with a description of its overall policy approach to closing the gender gap in science and a summary of the policy initiatives included in the compendium database. It goes on to identify and describe good practice policy initiatives for each of the sub-recommendations related to closing the gender gap in science.

Key questions guiding the preparation of the country notes included:

- What is the overall national/regional policy approach to closing the gender gap in science?
- For each sub-recommendation towards closing the gender gap in science, which policy initiatives stand out as good practice in the national context?
- Who are the target groups?
- Is intersectionality – that is, looking across social categories of women, race, ethnicity, social class, spatial inclusion and disability – considered? If intersectionality is not a policy priority, how is inclusivity considered?

Rather than assessing the direction or reach of the policy initiatives, the aim was to spotlight good practice in the specific country or regional context. The identification of intersectional nuance is meant to highlight good practice, from which others can learn, and to raise intersectional considerations towards enhancing approaches and practice to better consider the multiple intersecting identities and barriers that women face. It is important to note that approaches to equity and inclusion differ across national contexts. While there is consistency in the format of each country note, some may differ slightly, to better capture national approaches and priorities. For example, in a country where intersectionality is not consistent with the national policy approach, the focus was on describing "inclusivity" rather than "intersectionality."

EGYPT

**This country note contains provisional information and has not been officially verified.*

Introduction

Egypt demonstrates a direct and multi-faceted approach to closing the gender gap, moving beyond an emphasis on equality to a more nuanced, intersectional understanding. They recognise that gender equality is not a standalone issue but is deeply intertwined with factors such as socio-economic status, geographical location, and disability. Through initiatives like the **Empowering Women Entrepreneurs** and the **Agricultural Extension System** for women, the government addresses economic disparities directly by providing training and opportunities for female-led businesses, especially in rural areas. To combat educational and digital divides, programmes like the **Educating and Developing Motherhood and Childhood in the Egyptian Countryside** and **Mahara-Tech** provide crucial skills and literacy. Furthermore, policy initiatives such as Egypt's **National AI Strategy** and the **National Academy of Information Technology for Persons with Disabilities** highlight a commitment to ensuring women and other marginalised groups are not left behind in the digital transformation, implicitly promoting their inclusion in STEM. This holistic strategy also includes foundational support through the **Presidential Initiatives to Improve Public Health**, which addresses health-related barriers to women's full participation in society.

This country note has the following objectives:

1. To provide, as outlined in the table below, an overview of a selection of policy initiatives identified as relevant for the G20 Recommendations on Diversity, Equity, Inclusivity, and Accessibility (DEIA). The aim is to provide a snapshot of the broader set of policy initiatives included in the compendium database.

2. To provide, in the remainder of this country note, highlights of good practices in policy initiatives responding to the G20 Recommendation: Closing the Gender Gap in Science. It is organised according to the sub-recommendations:
   - Encouraging women and girls to consider careers in science
   - Promoting workplace environments that attract, retain, and advance women scientists
   - Collecting disaggregated data for evidence-based policies and monitoring progress
   - Integrating gender-related aspects into the content of research
   - Implementing the UNESCO 2024 Call to Action: Closing the Gender Gap in Science

3. To identify, in the last section, key intersectional policy initiatives for closing the gender gap in science.

Table 22 Egypt: Summary of the relevant policy initiatives by G20 Recommendation on DEIA

G20 Recommendation on DEIA	Number of policy initiatives	Policy instrument types	Main target groups/ beneficiaries (STIP categories)	Main target groups/ beneficiaries (Specific)
1. Promoting diversity, equity, inclusion and accessibility in STI systems	5	Collaborative infrastructures (soft and physical); Governance; Guidance, regulation and incentives	Economic actors (individuals); Firms; Governmental entities; Intermediaries; Research and education organisations; Social groups especially emphasised	All society segments nationwide; poor areas; marginalised areas; persons with disabilities (PwDs); entrepreneurs; academic societies; civil society; professionals interested in innovation; professionals interested in technology development; researchers; students; innovators; incubators; accelerators; private investors; healthcare entities; healthcare professionals; patients; medical science researchers; medical technology researchers; Egyptian citizens who use the healthcare system; entire population of Egypt; children; elderly; **women** (reproductive health)
2. Closing the gender gap in science	3	Collaborative infrastructures (soft and physical); Governance	Economic actors (individuals); Girms; Governmental entities; Intermediaries; Social groups especially emphasised	Mothers in **rural** Egyptian areas; children in **rural** Egyptian areas; **rural families**; **rural women**; widows; women breadwinners; women in the agricultural sector; women entrepreneurs; **Bedouin women**; female workers in Egypt
3. Fostering dialogue between different knowledge systems	See the Recommendation – Closing the gender gap in science – for policy initiatives promoting the inclusion of rural and indigenous communities			
4. Transitioning to open science	4	Collaborative infrastructures (soft and physical); Governance; Guidance, regulation and incentives	Economic actors (individuals); Firms; Governmental entities; Intermediaries; Research and education organisations; Social groups especially emphasised	Egyptian citizens; civil servants; **women**; public sector entities; private sector entities; AI professionals; key sectors such as healthcare; key sectors such as education; key sectors such as agriculture; individuals residing in Egypt, regardless of nationality; government; tech novices; experienced professionals; entrepreneurs

Continues overleaf...

G20 Recomm-endation on DEIA	Number of policy initiatives	Policy instrument types	Main target groups/ beneficiaries (STIP categories)	Main target groups/ beneficiaries (Specific)
5. Combating inequities in STI	4	Collaborative infrastructures (soft and physical); Governance; Guidance, regulation and incentives	Economic actors (individuals); Firms; Governmental entities; Intermediaries; Research and education organisations; Social groups especially emphasised	Innovators; entrepreneurs; **women**; youth; public sector entities; private sector entities; funding agencies; investors; public research institutes; firms of any size; NGOs; government; general labour force; various economic sectors such as finance; various economic sectors such as healthcare; climate tech startups; green entrepreneurs; civil society organisations; development partners

Note: This table includes a set of policy initiatives selected for inclusion in the compendium, 'STI for All': A Compendium of Good Practices in STI Policy. The main aim is to identify good practice policy initiatives rather than to provide an exhaustive list of the G20 member/guest country's policy initiatives.

Encouraging women and girls to consider careers in science

Egypt has implemented a range of policy initiatives specifically designed to encourage women and girls to pursue careers in STEM. These policy initiatives often operate at the intersection of education, economic empowerment, and digital inclusion, recognising that a holistic approach is necessary to address the root causes of the gender gap in these fields. The initiatives also recognise that legal and economic reforms are not enough, so they are often complemented by efforts to change social perceptions and provide safe and inclusive environments. For example, some programmes specifically address the lack of exposure and tailored guidance that prevent women from considering green careers. The presence of women in leadership positions in government organisations and universities also serves as a powerful message, creating visible role models for the next generation of female scientists.

Key policy initiatives include:

- **National Strategy for the Empowerment of Egyptian Woman 2030 (Empowering Women Entrepreneurs)**: As a cornerstone Strategy, it explicitly aims to enable women to develop their potential and increase their participation in all fields, including science and technology. Similarly, **Egypt's National AI Strategy** focuses on building human capacity, including that of women, to ensure they can contribute to and benefit from the country's digital transformation.

Often in partnership with international organisations, the government is working to create a more gender-responsive education system. This includes revising school curricula to promote gender equality and highlight the importance of women's roles. Good practice examples include:

- **Mahara-Tech**: Provides vocational and digital skills training to equip women with the competencies needed for the modern job market.

- **National Academy of Information Technology for Persons with Disabilities**: A specialised institution, which, while focused on a specific group, underscores a broader commitment to inclusive access to technology education.

Other good practices include policy initiatives designed to provide a supportive environment for women who want to start their own businesses, particularly in STEM-related fields:

- **Empowering Women Entrepreneurs**: Provides a framework for supporting female-led SMEs.
- **Climatech Run** and the **National Initiative for Green Smart Projects**: These initiatives encourage young women to develop tech-based solutions for climate change and other environmental issues, providing a platform to connect with investors and scale their ideas.

Promoting workplace environments that attract, retain, and advance women

Egypt has established a comprehensive policy framework to encourage women and girls to pursue careers in STEM. This is a core component of broader national development strategies like the **National Strategy for the Empowerment of Egyptian Women 2030**. Economic empowerment initiatives like the **Empowering Women Entrepreneurs** and the **Agricultural Extension System** for women provide direct pathways for women to apply scientific and technological knowledge to start and manage their own businesses. This creates an environment where women can see the tangible benefits of a career in science and apply their skills in practical, entrepreneurial ways. These policy initiatives collectively aim to dismantle barriers and build an inclusive ecosystem where women and girls are not only encouraged to consider STEM careers but are also equipped with the skills and opportunities to thrive in them.

Some good practices in policy initiatives include:

- **Developing the Agricultural Extension System** (Completing the Establishment of Skills Development Centres in the Equal Opportunities for Women Employment Unit): This initiative is targeted at rural women, especially widows and breadwinners. By focusing on these groups and providing skills development centres for income-generating projects, it acknowledges the compounded disadvantages faced by women who are both rural and economically marginalised. It aims to create "job opportunities for women" within the "A Decent Life" initiative, indicating a holistic approach to improving living standards. The preservation of "historical heritage identity" also suggests a culturally sensitive approach, by valuing traditional knowledge often held by women.
- **Empowering Women Entrepreneurs**: This policy initiative directly targets women's economic empowerment and agency by positioning them as "job creators." The "women-to-women loop" creates a peer-support, mentorship model, which can be highly effective in overcoming gender-specific barriers to entrepreneurship, such as lack of networks or access to finance. This approach fosters inclusivity by building on existing community ties and addressing the practical needs of diverse female entrepreneurs.

Collection of disaggregated data for evidence-based policies and monitoring progress

Egypt has demonstrated a strong commitment to establishing a comprehensive data collection and governance framework, recognising it as a vital pillar for evidence-based policymaking across various sectors, including science. The **Central Agency for Public Mobilisation and Statistics (CAPMAS)** is the official source of national data and statistics. The **National Strategy for the Empowerment of Egyptian Women 2030** is built on the foundation of data-driven decision-making. It identifies key targets and indicators to monitor progress in women's political, economic, and social empowerment. The **National Council for Women (NCW)**, a key government body, works to ensure that these indicators are used to track and report on progress. This approach allows the government to identify specific gaps, such as the lower secondary school enrolment rates among poor females, as highlighted in official reports. Egypt has developed highly disaggregated **Social Accounting Matrices** in partnership with organisations like the **International Food Policy Research Institute (IFPRI)**, to create complex datasets that break down economic activity by gender, urban/rural location, and household income. This level of detail allows policymakers to analyse the potential impacts of policy changes on different groups, helping them better understand how policies affect vulnerable households.

The country's emphasis on digital transformation and data governance underscores its recognition of the importance of robust digital systems and clear legal frameworks as foundational elements for leveraging data effectively to promote gender equality. Key policy initiatives include:

- **Digital Transformation Programme**: This initiative focuses on the digitalisation and automation of various healthcare services and systems across curative, primary and mental health sectors. The inclusion of a "female mortality monitoring system" in Egypt's digital transformation programme indicates an awareness of the need for gender-specific health data.
- **Presidential Initiatives to Improve Public Health**: Beyond national-level strategies, sector-specific policy initiatives also rely on disaggregated data. This is an example of initiatives that track health outcomes disaggregated by gender, age, and location, ensuring that interventions are targeted to the communities most in need.
- **New Personal Data Protection Law**: Establishes a legal framework for personal data protection, the regulation of data handling and ensuring privacy in the digital environment. Data protection is critical for vulnerable populations, including women, and this law is essential for safeguarding the privacy of all citizens, particularly for vulnerable groups, including women, who may be disproportionately targeted by data misuse or privacy breaches. By regulating data processing and criminalising unauthorised use, this law contributes to a safer digital environment, which could facilitate the collection of gender disaggregated data.

Integrating gender-related aspects into the content of research

While the list of policy initiatives does not contain an initiative explicitly named "Integrating Gender into Research Content," the underlying framework of several policies and national strategies indicates a clear commitment to this principle. This is primarily addressed through the **National Strategy for the**

Empowerment of Egyptian Women 2030, which provides the overarching mandate for this work. By calling for evidence-based policies and a shift in societal and cultural norms, it implicitly requires that research and data collection on all topics, from health to economics, be gender-responsive. The strategy encourages a participatory approach to research, involving women and men from various backgrounds to ensure that research questions and methodologies are inclusive.

Several initiatives promote research with a gender component. Here is an example of a good practice initiative:

- **Egypt's National AI Strategy**: This initiative demonstrates the country's commitment to integrating gender considerations into advanced scientific fields. It aims to leverage AI technologies to support Egypt's development objectives. The key aim of "AI for Development" focuses on promoting the use of AI in developmental sectors through partnerships that facilitate knowledge transfer. Notably, the strategy explicitly highlights "Integrating gender-related aspects into research questions to enhance scientific excellence and the societal relevance of the knowledge produced" as a primary focus for addressing the gender gap in science.

Implementing the UNESCO 2024 Call to Action: Closing the Gender Gap in Science

Egypt's approach to implementing the UNESCO 2024 Call to Action: Closing the Gender Gap in Science is not based on a single, direct response to this specific document but is rather integrated into its existing, long-term national strategies for women's empowerment and sustainable development. Egypt's policies and initiatives align with the core pillars of the UNESCO Call to Action. The **National Strategy for the Empowerment of Egyptian Women 2030** guides legal and institutional reforms to create a more equitable work environment and explicitly aims to challenge negative social stereotypes and change cultural perceptions about gender roles. While this is a broad goal, it directly informs efforts to challenge stereotypes in STEM. Specific Initiatives such as the **L'Oréal-UNESCO *For Women in Science*** and **Egypt Young Talents Programme**, are actively promoted. **Mahara-Tech** and other digital literacy programmes offer accessible, career-oriented learning paths in technology. The availability of courses in Arabic helps to reduce linguistic barriers and make these resources more widely available to women and girls across the country. Projects like the **National Initiative for Green Smart Projects** and **Climatech Run** provide platforms for young innovators, including women and girls, to engage with and receive support for their science-based ideas.

These initiatives provide fellowships and recognition to young Egyptian female researchers in both life sciences and physical sciences, thereby increasing their visibility as role models, directly addresses UNESCO's recommendation to showcase female scientists and their achievements to a broader audience.

Key intersectional policy initiatives for closing the gender gap in science

Egypt espouses a comprehensive and progressive approach to advancing gender equality, articulated through the **Egypt Vision 2030** as its broader national blueprint for sustainable development and social inclusion. The country's policy framework recognises that empowering women aligns with core human rights

principles and serves as a catalyst for economic development and national advancement. This commitment is exemplified in the **2014 Constitution**, which contains provisions aimed at promoting gender equality and safeguarding women from all forms of violence.

A strength of the Egyptian policy framework is the recognition of the interconnected nature of identities – across gender, location, socioeconomic status, and physical ability – showing a commitment to moving beyond a one-size-fits-all approach, to address the specific barriers that may hinder different groups of women from participating in and benefiting from scientific and technological advancements. For instance, policy initiatives address not only women in general, but also particular groups, such as women in rural areas, women with disabilities and women entrepreneurs.

Two key policy initiatives stand out as good practice for addressing the gender gap in science in Egypt in an intersectional way.

1. **National Academy of Information Technology for Persons with Disabilities**
    - **Why it's a good practice**: This initiative is an excellent example of intersectional practice because it simultaneously addresses two dimensions of inequality: gender and disability. By creating a dedicated academy for persons with disabilities, the programme recognises that this group faces unique and significant barriers to education and employment, particularly in the tech sector. It is designed to empower a particularly vulnerable demographic, including women with disabilities who might otherwise be doubly marginalised. The programme's focus on information technology, a field with high growth potential, ensures that participants are not just receiving training but are equipped with skills for high-demand, well-paid careers. The emphasis on assistive technology and accessibility also suggests a thoughtful approach to creating an inclusive learning and working environment.
    - **Intersectional nuance**: While the initiative is a positive step towards fostering greater inclusion, there is potential to further enhance its approach by considering additional aspects of intersectionality, such as socioeconomic status or geographic location. For instance, women with physical disabilities residing in rural areas may encounter specific challenges related to transportation, access to local support networks, or societal expectations that might not be fully addressed by the current framework. Furthermore, integrating a mentorship component that connects participants with successful women in tech, particularly those with disabilities, could offer valuable role models and support systems that extend beyond technical training, helping to address some of the social and psychological barriers faced by these women.

2. **Educating and Developing Motherhood and Childhood in the Egyptian Countryside**
    - **Why it's a good practice**: This initiative demonstrates a strong intersectional approach by targeting a specific group: mothers and children in the Egyptian countryside. By focusing on rural areas, the policy acknowledges that geographic location and socioeconomic status create distinct challenges that require a tailored response. The policy's focus on "motherhood and childhood" is a strategic way to empower women by not only providing them with skills and education but also by addressing the foundational needs of their families. This holistic approach recognises that

a woman's ability to engage in professional or scientific endeavours is often intertwined with her caregiving responsibilities and the well-being of her children. By investing in the family unit, the initiative creates a more stable and supportive environment that enables mothers to pursue their own personal and professional development.

- **Intersectional nuance**: A potential area for enhancement of this policy might involve broadening its focus beyond "motherhood and childhood" to foster a more inclusive view of women's roles. While the initiative offers valuable opportunities for women's development, framing empowerment primarily within maternal contexts could inadvertently reinforce traditional gender roles. To support a more comprehensive and intersectional approach, the programme could consider incorporating training in a diverse range of high-value, non-traditional fields such as advanced agricultural technology or environmental science, linking these opportunities to national strategic goals. Additionally, providing supportive measures like childcare services and flexible training schedules could help normalise the balancing of career pursuits and family responsibilities, thereby challenging gender stereotypes.

3. Developing the Agricultural Extension System (Completing the Establishment of Skills Development Centres in the Equal Opportunities for Women Employment Unit)

- **Why it's a good practice**: This initiative explicitly targets the intersection of gender, geography, and socio-economic status. It goes beyond a generic "women's empowerment" framework by focusing specifically on rural women and those in border governorates. This recognises that the challenges faced by an urban female professional are different from those of a rural woman.
- **Intersectional nuance**: By linking skills development to the creation of small and micro-enterprises and the preservation of traditional handicrafts, the policy initiative leverages existing cultural strengths while providing a pathway to economic independence. This approach acknowledges the unique lived experiences and needs of this specific group, ensuring that the intervention is relevant and effective. The focus on skills development rather than just blanket financial support is also key, as it builds long-term capacity.

IRELAND

Introduction

Ireland's policy approach to closing the gender gap in science is multifaceted and systematic, promoting gender equality in research and innovation activities. The country employs a dual strategy of gender-specific interventions – such as targeted funding and leadership initiatives – and the broader integration of gender equality into the institutional culture of research and higher education.

The first Higher Education Authority (HEA) **Review of Gender Equality** was conducted in 2016. The Second Review in 2022 assessed the progress since 2016 and made recommendations to ensure the continued advancement of gender equality in higher education. It highlighted the continued need for concerted institutional action and additional resourcing to ensure further progress.

The **HEA's Centre of Excellence for Equality, Diversity and Inclusion** focuses on a number of vital initiatives to further and protect equality, diversity and inclusion in the Irish higher education sector. The Centre is pivotal in enabling joint initiatives and cooperation between HEIs, the sharing of good practices and determining areas of future focus.

The **Athena Swan Charter** was introduced in Ireland over 10 years ago in response to strong interest from the Irish higher education community. In 2021 the Athena Swan Ireland charter was re-developed and offers a framework for progressing equality in higher education and research that is unique to Ireland.

The **Senior Academic Leadership Initiative** was first launched in 2019 to help achieve equality of outcome in the higher education sector. To date, 30 senior academic leadership posts have been awarded to HEIs to assist in accelerating gender balance at senior levels.

Data on the gender breakdown of staff in HEIs has been collected annually since 2015 and is published on the HEA website.

This country note has the following objectives:

1. To provide, as outlined in the table below, an overview of a selection of policy initiatives identified as relevant for the G20 Recommendations on Diversity, Equity, Inclusivity, and Accessibility (DEIA). The aim is to provide a snapshot of the broader set of policy initiatives included in the compendium database.

2. To provide, in the remainder of this country note, highlights of good practices in policy initiatives responding to the G20 Recommendation: Closing the Gender Gap in Science. It is organised according to the sub-recommendations:
   - Encouraging women and girls to consider careers in science
   - Promoting workplace environments that attract, retain, and advance women scientists
   - Collecting disaggregated data for evidence-based policies and monitoring progress

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- Integrating gender-related aspects into the content of research
- Implementing the UNESCO 2024 Call to Action: Closing the Gender Gap in Science

3. To identify, in the last section, key intersectional policy initiatives for closing the gender gap in science.

Table 23 Ireland: Summary of the relevant policy initiatives by G20 Recommendation on DEIA

G20 Recommendation on DEIA	Number of policy initiatives	Policy instrument types	Main target groups/ beneficiaries (STIP categories)	Main target groups/ beneficiaries (Specific)
1. Promoting diversity, equity, inclusion and accessibility in STI systems	23	Direct financial support; Governance; Guidance, regulation and incentives	Firms by age; Firms by size; Governmental entities; Intermediaries; Researchers, students and teachers; Research and education organisations; Social groups especially emphasised	Innovators; academic institutions; businesses; citizens; early-career researchers; farmers; food companies; funding bodies; government; healthcare professionals; higher education institutions; individual researchers; innovators; Irish companies; non-EEA nationals with job offers in sectors on the critical skills list; patients; PhD students in Ireland; policymakers; public healthcare staff; public services; research institutions; research participants; rural businesses; SMEs; social entrepreneurs; staff; start-ups; students; general public; research community; unemployed or formerly self-employed individuals; "returners" to work; women; disadvantaged and excluded groups; civil society
2. Closing the gender gap in science	8	Direct financial support; Governance; Guidance, regulation and incentives	Researchers, students and teachers; Research and education organisations; Social groups especially emphasised	Academic staff; female academic staff at various career stages; funding bodies; higher education institutions; historically underserved communities; postgraduate students on a Research Ireland-funded grant; researchers; research institutions; students; students from underrepresented backgrounds; students and staff in higher education institutions; young women; people from low-income communities; high-risk groups

Continues overleaf...

G20 Recomm-endation on DEIA	Number of policy initiatives	Policy instrument types	Main target groups/ beneficiaries (STIP categories)	Main target groups/ beneficiaries (Specific)
3. Fostering dialogue between different knowledge systems	1	Direct financial support	Researchers, students and teachers; Research and education organisations	Academics; researchers; scholars; students
4. Transitioning to open science	1	Governance	Firms by age; Firms by size; Intermediaries; Researchers, students and teachers; Research and education organisations	Businesses; public authorities; researchers.
5. Combating inequities in STI	12	Governance	Firms by age; Firms by size; Governmental entities; Intermediaries; Researchers, students and teachers; Research and education organisations; Social groups especially emphasised	All citizens; businesses; civil society; communities affected by the transition away from fossil fuels; coastal communities; farmers; general public; government agencies; government departments; local authorities; policymakers; public; research institutions; researchers; rural communities; regional communities; school children; teachers; Irish public; health and social care services; vulnerable populations; **women**

Note: This table includes a set of policy initiatives selected for inclusion in the compendium, 'STI for All': A Compendium of Good Practices in STI Policy. The main aim is to identify good practice policy initiatives rather than to provide an exhaustive list of the G20 member/guest country's policy initiatives.

Encouraging women and girls to consider careers in science

Ireland has implemented a range of policy initiatives designed to encourage women and girls to pursue careers in STEM. The initiatives recognise the importance of early intervention and long-term support to address the persistent gender imbalance. By offering targeted career pathways, early-career grants, and a range of upskilling funding options, Ireland aims to address the challenges that women face.

This is a good practice example of Ireland's funding initiatives that encourage women and girls to consider careers in science:

- **SPRINGBOARD+**: This state-funded initiative focuses on supporting higher-education courses that target high-demand areas such as digital, biotech and the green economy fields. The goal of this national initiative is to facilitate upskilling and reskilling and enable individuals to re-enter careers. By providing subsidised higher education courses, the initiative aims to lower economic barriers and offer flexible learning options to support women returning to work and those seeking access to STEM opportunities. Through these efforts, more women are encouraged to pursue STEM studies and roles, supported by funded placements and curricula aligned with industry needs.

Ireland integrates national funding mechanisms and outreach initiatives to enhance the visibility of women's scientific contributions including curriculum-related activities and institution-led programmes aimed at highlighting role models and increasing the visibility of women in STEM from an early age. The following initiatives are examples of Ireland's good practice in this domain:

- **Research Ireland External Equality, Diversity and Inclusion (EDI) Strategy 2023-2028**: This is a high-level strategy that seeks to make the entire research ecosystem more inclusive. Its goals include increasing the presence of "historically underserved communities," which includes women, among applicants and grantees. By minimising barriers to entry and progression, the strategy works to build a more diverse talent pipeline for science careers.
- **STEM Passport for Inclusion**: This policy initiative directly targets the beginning of the pipeline, by encouraging girls from socioeconomically disadvantaged backgrounds to engage in STEM. It provides accredited university-level qualifications, mentorship from industry professionals, and industry experience, all of which are crucial for building confidence and career aspirations in STEM fields. By providing structured mentoring and credentialing, it aims to cultivate visible success stories that inspire and motivate girls to pursue careers in STEM fields. By highlighting girls' achievements and connecting them to real-world opportunities, the programme seeks to redefine perceptions within the STEM community.
- **Marine Institute Education and Outreach**: While not directly focused on gender, the programme aims to promote ocean literacy and STEM outreach through engaging school programmes and public involvement that showcase a diverse range of scientists and maritime careers. It is an example of good practice by recognising the importance of systematic, curriculum-linked outreach with broad geographic coverage, and promoting women's presence in science. The country's efforts in fostering inclusive stories and featuring female scientists create positive early associations between girls and science.

Promoting workplace environments that attract, retain, and advance women scientists

Ireland adopts a comprehensive approach to advancing gender equality in the workplace by integrating broad sector-wide frameworks with targeted institutional initiatives. This includes senior appointments aimed at increasing female representation in leadership roles, the implementation of safer campus policies to create secure environments, and family-friendly policies that support work-life balance. These combined

efforts may contribute to attract, retain, and promote women, especially at senior levels, thereby fostering a more diverse and inclusive professional landscape across the higher education sector in Ireland.

The following initiatives are good practice examples of Ireland's policy initiatives that promote workplace environments that aim to attract, retain and advance women scientists:

- **HEA Centre of Excellence for Equality, Diversity and Inclusion**: The Centre focuses on a number of vital initiatives to further and protect equality, diversity and inclusion in the Irish Higher Education sector. The Centre is pivotal in enabling the sharing of good practice, joint initiatives and co-operation between higher education institutions, and in developing a better understanding of the impact of interventions taken and determining the areas of future focus. The Centre provides centralised support for HEIs work to embed an institutional culture of equality, diversity and inclusion.
- **HEI Gender Equality Plans**: Higher education institutions have Gender Equality Plans in place which outline specific actions institutions are taking to address inequalities over a defined period. The Athena Swan Ireland charter offers a framework for developing Gender Equality Plans and progressing gender equality in higher education and research that is unique to Ireland. Five Irish HEIs have also achieved EU Gender Equality Champion Awards to date, demonstrating the sectoral dedication and commitment to advancing gender equality.
- **Gender Equality Enhancement Fund 2020-2023**: This initiative supported higher-education institutions in their efforts to promote gender equality through innovative projects that foster cultural transformation. By providing dedicated funding, it enables higher education institutions to launch impactful, evidence-based programmes, such as training programmes, capacity building and research. The Fund has also included projects that reach beyond the university campus and develop outreach assets for schools and other stakeholders.
- **Senior Academic Leadership Initiative (SALI)**: This initiative aims to establish additional academic positions to promote and accelerate gender balance at the most senior academic level The initiative aims to address the longstanding underrepresentation of women in senior academic roles. This complements efforts to enhance the visibility and influence of women in decision-making, fostering strong role models and cultivating a positive organisational culture.
- **Ending Sexual Violence and Harassment Framework for HEIs**: This framework underscores a national, evidence-based approach aimed at preventing and addressing sexual violence and harassment within higher education institutions. It recognises the importance of providing safe environments for students and staff, and it establishes clear standards and accountability measures to foster trust and safety.
- **Research Ireland Maternity / Adoptive Policy**: This policy enables the continuity of researcher funding and career progression during periods of maternity or adoptive leave. Implementing family-friendly research funding policies contributes to stabilising women's careers during pivotal moments, through mitigating potential career penalties associated with maternity and adoption leave, fostering retention and ensuring fair opportunities for promotion. It is important to enhance these policies by including provisions for partners or secondary caregivers and implementing automatic, no-cost extensions on all active grants, thereby further promoting this inclusive approach to a supportive research environment.

Collection of disaggregated data for evidence-based policies and monitoring progress

Ireland demonstrates commitment to evidence-based policymaking and transparency. The following are examples of good practice in how Ireland implements policy initiatives that promote evidence-based policymaking:

- **HEA Staff Profiles by Sex and Gender**: The HEA receives and publishes annual staff profile data returns disaggregated by gender from HEA-funded higher education institutions. These profiles provide information on key indicators which will contribute to the assessment of gender equality in Irish HEIs including HEI leadership, governance and management structures, staff by category of post, discipline, grade and contract-type.
- **Second HEA National Review of Gender Equality in Irish Higher Education Institutions**: This initiative involves conducting a comprehensive national review of gender equality across higher education institutions and promoting actionable recommendations. Such regular, sector-wide assessments serve to establish a shared evidence base, fostering collaborative efforts towards targeted improvements since previous reviews. The data collected enables the identification of bottlenecks and gaps, such as disparities in senior academic grades, that can be used to develop strategic interventions.
- **Research Ireland External EDI Strategy 2023–2028**: This strategy presents Ireland's national funding agency's approach to advancing equity, diversity, and inclusion (EDI) within the research landscape. It emphasises the importance of establishing clear EDI goals and committing to transparent reporting on funding, participation, and outcomes. The approach is justified by the need for agency-level strategies that institutionalise consistent data collection and foster continuous improvement. By leveraging disaggregated data, the strategy informs evidence-based bias-awareness policies that promote fairer processes for grants and assessments.

Integrating gender-related aspects into the content of research

Ireland strategically leverages established research ethics and funding frameworks to integrate gender-related aspects into the content of research. The approach enhances the scientific validity and reproducibility of research, while also ensuring that findings are more applicable and beneficial to diverse populations.

The following are examples of Ireland's good practice initiatives in this domain:

- **Second HEA National Review of Gender Equality in Irish Higher Education Institutions**: This review acknowledges the need to further integrate inclusive gender analysis into research content and provides recommendations on how to promote this within the higher education sector. The review recommends that research funding bodies should move beyond requiring a 'gender only' dimension to research funding proposals and require applicants to identify how projects will support, include and impact diverse women, as well as how it will impact people from any equal status grounds beyond gender. The review recommends that training and guiding examples is provided to funding applicants and assessors for this task.
- **HEA Principles of Good Practice in Research**: The Higher Education Authority (HEA) supports the integration of gender equality and diversity into research and teaching. This includes providing

guidance to higher education institutions on how to embed a gender dimension into curricula and research processes, to ensure that it becomes a standard part of academic practice.

- **Research Ireland External Equality, Diversity and Inclusion (EDI) Strategy 2023-2028**: This strategy, while broad, reinforces the commitment to integrating a gender perspective into research content. It promotes training and capacity-building for researchers on how to address a gender dimension and encourages evidence-based research that considers intersectional factors to produce more nuanced and impactful findings.

While not focused specifically on gender, these policy initiatives provide foundational frameworks promoting the integration of gender-related aspects into the content of research:

- **The Health Research Board Strategy**: This strategy establishes an approach to funding health research that emphasises the importance of robust methodologies and the relevance of including diverse populations. By encouraging funding agencies to incorporate gender considerations into their calls, guidance, and review processes, the strategy helps foster a research environment where applicants and reviewers are motivated to incorporate gender dimensions into the formulation of hypotheses, study design, and data analysis.
- **HSE National Framework for Governance, Management and Support of Health Research**: The HSE is committed to establishing a comprehensive, system-wide framework that promotes high-quality, patient-centred health research. Governance structures are designed to foster inclusive and representative participation, ensuring that diverse perspectives are valued. The framework also emphasises the importance of considering gendered differences in health outcomes, encouraging research designs that recognise these critical factors.

Implementing the UNESCO 2024 Call to Action: Closing the Gender Gap in Science

Ireland's portfolio of research and innovation initiatives represents a close alignment with UNESCO's call to close the gender gap in science, emphasising the development of leadership pipelines, robust data-driven accountability measures, and the integration of equality considerations across all levels. This strategic alignment positions Ireland to make meaningful contributions both domestically and internationally, reinforcing the country's commitment to fostering sustainable progress and global collaboration.

Examples of good practice in policy initiatives include

- **IMPACT 2030: Ireland's Research and Innovation Strategy**: The national Research and Innovation (R&I) strategy commits to continuing the focus on promoting gender equality that is being advanced under the HEA National Review of Gender Equality, the Athena Swan Charter and initiatives at European level.
- **Second National Implementation Plan for the Sustainable Development Goals**: This cross-government plan aims to effectively translate SDG commitments, particularly SDG 5 on Gender Equality, into action. By linking research policy to broader goals in equality and education, it seeks to foster a cohesive approach that mobilises science, technology, and innovation (STI) actors toward achieving gender-equality outcomes aligned with UNESCO's priorities.

Key intersectional policy initiatives for closing the gender gap in science

Ireland's policy approach to addressing gender equity in science is comprehensive and multifaceted. The country's policy landscape encompasses targeted initiatives to promote gender equality, such as school-HEI pathways and upskilling opportunities, alongside workplace and leadership reforms that include enhanced safety measures, parental leave protections, and increased representation in leadership roles. The country demonstrates a growing focus on intersectionality by considering various social identities that intersect with gender, such as socioeconomic conditions, disability, regional and rural access, and school environments, with several initiatives aimed at supporting underrepresented learners and individuals returning to careers. The following three examples demonstrate Ireland's good practices in relation to intersectionality:

1. **Equality, Diversity and Inclusion Enhancement Fund**
    - **Why it's a good practice**: In 2024, the Gender Equality Enhancement Fund was expanded to address the wider policy areas that the HEA and HEIs are addressing in work to advance equality, diversity and inclusion in higher education.
    - **Intersectional nuance**: In addition to supporting projects relating to gender equality, the EDI Enhancement Fund supports initiatives on ending sexual violence and harassment, advancing race equality, and on advancing awareness and understanding of intersectionality and multidimensional approaches to equality, diversity and inclusion.

2. **Second HEA National Review of Gender Equality in Irish Higher Education Institutions**
    - **Why it's a good practice**: This initiative directly addresses the status of gender equality within the Irish higher education system and establishes a shared evidence base that promotes transparency across institutions. It acknowledges that a person's experience of gender inequality is deeply intertwined with their other social identities, such as race, disability, or sexual orientation. It calls for an approach that is sensitive to these intersecting inequalities and for data collection that can capture these cross-cutting dynamics, ensuring that policies address the compounded barriers faced by women from marginalised groups. This approach encourages alignment among funders and institutions on measurable progress, and as a recurring process, it supports ongoing improvement rather than one-time compliance.
    - **Intersectional nuance**: A key development in this review is the inclusion of intersectionality and the impact of precarious employment as core issues to be addressed. It recognises precarious employment, including short-term, insecure contracts, as a major challenge in the higher education sector. This is a crucial intersectional point because such employment models disproportionately affect women, particularly in the early stages of their careers, thereby undermining efforts to achieve gender equality and creating a barrier to long-term retention and career progression in academia

3. STEM Passport for Inclusion

- **Why it's a good practice**: This initiative addresses the critical intersection of gender and socioeconomic status at the start of the pipeline. It goes beyond generic STEM encouragement by focusing on girls in schools in socioeconomically disadvantaged areas. It addresses various challenges, including costs, confidence, networks, and recognised credits, designed to support learners from underrepresented and low-income backgrounds, including those with disabilities.
- **Intersectional nuance**: Recognising that barriers to a STEM career are compounded for those who face both gender-based and socioeconomic disadvantage, it provides targeted support, such as accredited qualifications and mentorship, that directly combats the lack of resources and social capital often faced by young women from low-income backgrounds. In this way, it creates a more equitable entry point into STEM. To further enhance the impact of this initiative, it could consider a broader framework of disaggregation of outcomes. For example, ethnicity, disability type, migration background, and rurality intersect, creating compounded challenges. Providing resource wrap-around supports such as childcare, travel bursaries, and assistive technology can contribute to sustain participation.

NETHERLANDS

Introduction

The Netherlands' approach to closing the gender gap in science is a multifaceted strategy that combines targeted, gender-specific initiatives with broader, systemic reforms. Collaborative efforts among government bodies, universities, and industry partners underpin national agreements and sector-specific frameworks aimed at cultivating inclusive, safe, and equitable research environments. Policy initiatives like the **National Action Plan for Greater Diversity and Inclusion in Higher Education and Research** take a more systemic approach. Its broad scope includes embedding diversity in assessment instruments, monitoring progress, and establishing a national centre of excellence. **Mozaïek 2.0** is an example of an initiative promoting this approach by providing PhD scholarships specifically for graduates with a migration background, directly addressing the compounded challenges faced by individuals at the intersection of race, ethnicity, and a desire to enter academia. The country integrates gender equality into its funding mechanisms, evaluation standards, and institutional criteria, with targeted schemes such as the **Athena Award** addressing key career transition stages. Policy initiatives also promote transparency and societal engagement, fostering early awareness of women's participation in science. Through these key initiatives, the Netherlands demonstrates increasing acknowledgement of intersectional approaches with strategies that consider factors such as migration and disability, as well as the integration of gender analysis into research practices.

This country note has the following objectives:

1. To provide, as outlined in the table below, an overview of a selection of policy initiatives identified as relevant for the G20 Recommendations on Diversity, Equity, Inclusivity, and Accessibility (DEIA). The aim is to provide a snapshot of the broader set of policy initiatives included in the compendium database.

2. To provide, in the remainder of this country note, highlights of good practices in policy initiatives responding to the G20 Recommendation: Closing the Gender Gap in Science. It is organised according to the sub-recommendations:
   - Encouraging women and girls to consider careers in science
   - Promoting workplace environments that attract, retain, and advance women scientists
   - Collecting disaggregated data for evidence-based policies and monitoring progress
   - Integrating gender-related aspects into the content of research
   - Implementing the UNESCO 2024 Call to Action: Closing the Gender Gap in Science

3. To identify, in the last section, key intersectional policy initiatives for closing the gender gap in science.

Table 24 Netherlands: Summary of the relevant policy initiatives by G20 Recommendation on DEIA

G20 Recommendation on DEIA	Number of policy initiatives	Policy instrument types	Main target groups/ beneficiaries (STIP categories)	Main target groups/ beneficiaries (Specific)
1. Promoting diversity, equity, inclusion and accessibility in STI systems	16	Collaborative infrastructures (soft and physical); Direct financial support; Governance	Economic actors (individuals); Firms by age; Firms by size; Governmental entities; Intermediaries; Researchers, students and teachers; Research and education organisations; Social groups especially emphasised	Academics; businesses; children; citizens; civil society; employees; entrepreneurs; families; government officials; industry professionals; innovation professionals; local businesses; PhD candidates with a migration background from specific under-represented groups; policymakers; professionals in STEM and ICT fields; regional communities; research funders; research institutions; researchers; scientists; staff from under-represented groups; students; teachers; teenagers; technical teachers; university staff; vocational training participants; **women**; workers within the top sectors; young people transitioning from education to work
2. Closing the gender gap in science	1	Guidance, regulation and incentives	Social groups especially emphasised	Female researchers; female chemists; research institutions; research departments; research groups
3. Fostering dialogue between different knowledge systems	Not recorded	Not recorded	Not recorded	Not recorded
4. Transitioning to open science	6	Collaborative infrastructures (soft and physical); Direct financial support; Governance; Guidance, regulation and incentives	Firms by size; Firms of any size; Governmental entities; Intermediaries; Researchers, students and teachers; Research and education organisations; Social groups especially emphasised	Academics; businesses; citizens of all ages, genders and social backgrounds; civil society; policymakers; public; researchers; research funders; scientists; universities

Continues overleaf...

G20 Recomm-endation on DEIA	Number of policy initiatives	Policy instrument types	Main target groups/ beneficiaries (STIP categories)	Main target groups/ beneficiaries (Specific)
5. Combating inequities in STI	3		Firms by size; Firms of any size; Governmental entities; Research and education organisations; Social groups especially emphasised	Agricultural sector businesses; businesses; citizens; farmers; public; Dutch government; water management authorities

Note: This table includes a set of policy initiatives selected for inclusion in the compendium, 'STI for All': A Compendium of Good Practices in STI Policy. The main aim is to identify good practice policy initiatives rather than to provide an exhaustive list of the G20 member/guest country's policy initiatives.

Encouraging women and girls to consider careers in science

The Netherlands is working to enhance and expand its talent pipeline in science-related fields by implementing targeted awards and scholarship programmes. These initiatives are designed to acknowledge and celebrate excellence among women in science, while also striving to eliminate barriers that may hinder their participation. By combining recognition through awards with tangible opportunities such as funding, the country demonstrates a commitment to fostering a more inclusive and diverse scientific community where talent and leadership are recognised and supported at all levels.

The following initiatives are examples of good practice in how the Netherlands supports women and girls to consider careers in science:

- **Athena Award**: This national award aims to spotlight role models and institutional champions, while also seeking to shift societal norms by celebrating exemplars of excellence and leadership in STEM. The award celebrates women's leadership and success, inspiring teams and organisations to foster supportive cultures and actively engage in outreach efforts directed at girls.
- **Mozaïek 2.0**: While not focused on gender, this initiative aims to address and reduce the structural barriers that often hinder access to higher education for underrepresented groups. It offers PhD scholarships tailored for graduates from specific migration backgrounds, including the Middle East and North Africa, the Caribbean, Central/South America, and Turkey. Many of the beneficiaries are women, contributing to increased diversity within doctoral programmes. By expanding opportunities for women from these backgrounds to pursue research careers, the programme fosters greater future representation in academia and industry.

In addition to establishing funding mechanisms that encourage women to consider STEM careers, the Netherlands also actively seeks to address gender stereotypes by promoting visibility, recognition, and public engagement. The following are good practice examples of the country's approach to inclusivity aimed at dismantling traditional biases:

- **NEMO Science Museum**: NEMO functions as a dynamic science centre and museum dedicated to engaging the public, especially children and teenagers, in the world of science, technology and innovation. It is an example of good practice in the country's approach to presenting scientific concepts in accessible and youth-inclusive ways that effectively challenge stereotypes from an early age. This is particularly impactful when complemented by the presence of female scientists and diverse role models, which help foster an inclusive environment. By shaping perceptions of science as welcoming and diverse, NEMO plays a valuable role in gradually dismantling biases and inspiring young girls to consider careers in science.
- **Science Weekend**: This annual national event serves as a platform for open science, where research institutions are encouraged to invite the public to participate. Families and students are encouraged to explore science through engaging demonstrations, exhibitions, and meaningful dialogue. It is an example of good practice in the Netherlands' approach to democratising access to scientific environments. The event offers an opportunity to highlight the contributions of women scientists in prominent roles. Facilitating direct interactions between young women and female researchers, it promotes the celebration of women's presence in science and challenges perceptions of exclusivity. It is important that the initiative includes targeted outreach efforts to schools with higher proportions of underrepresented students, to enhance inclusivity and amplify its impact.

Promoting workplace environments that attract, retain, and advance women scientists

The Netherlands' approach is a blend of top-down and bottom-up strategies. It includes direct, targeted funding for women's advancement, while also promoting broad, systemic changes in institutional culture, social safety, and work-life balance to create an environment where women scientists can not only be attracted and retained but also thrive and reach leadership positions.

The following initiatives are good practice examples of how the Netherlands promotes workplace environments that attract, retain and advance women scientists:

- **National Action Plan for Greater Diversity and Inclusion in Higher Education and Research**: This is a cornerstone of the Dutch approach. It encourages institutions to create inclusive and socially safe working environments. By establishing a unified framework, it seeks to align goals, indicators, and support mechanisms across institutions, promoting consistent and meaningful progress towards inclusivity. The plan emphasises gender-responsive human resources policies, leadership development, and cultivating an inclusive culture, which collectively enhance the recruitment, retention, and advancement of women.
- **National Framework for Filling University Ombudsperson Role**: This framework establishes independent ombudsperson mechanisms designed to enhance the management of complaints

and the resolution of conflicts within university settings. By providing safe and trusted channels for reporting concerns, the framework supports the creation of equitable workplaces that encourage a culture of openness and trust. These mechanisms can contribute to reducing attrition related to harassment or bias, thereby fostering a greater sense of safety and fairness among women, thus helping them to retain talent and support women's advancement into leadership roles.

Collection of disaggregated data for evidence-based policies and monitoring progress

The Netherlands' policy initiatives on data collection are moving towards a more sophisticated and granular approach. They are not only collecting data on gender but are also focusing increasingly on disaggregated, intersectional data to understand the complex and overlapping barriers that different groups face. The aim is to use this evidence to create policies that are not just well-intentioned but are also demonstrably effective in creating a more equitable scientific landscape.

The following initiatives are examples of good practice in the Netherlands' approach to policy that supports more informed decision-making:

- **National Action Plan for Greater Diversity and Inclusion in Higher Education and Research**: This plan explicitly identifies "monitoring diversity more widely" as one of its five key goals. This is the cornerstone of the Netherlands' evidence-based approach. It calls for better data collection not only on gender but also on cultural background, disability, socio-economic status, and other intersectional identities. The plan acknowledges the need for anonymised data on migration backgrounds to inform and evaluate policy, to be retrieved from sources like the CBS (Statistics Netherlands) Cultural Diversity Barometer.
- **Dutch Research Council (NWO) Gender Equality Plan (GEP)**: In line with European Commission requirements, the NWO's GEP details its commitment to data collection and monitoring. The plan outlines that diversity and inclusion data, including gender, salary, and part-time work, will be collected and analysed in a personnel dashboard. The NWO also reports annually on the gender ratio of applicants and grant recipients for its various funding schemes, such as the **Talent Programme (Veni, Vidi, Vici)**.
- **National Plan Open Science**: This national plan serves as a roadmap to foster a research environment that promotes open-access and open-data initiatives. It establishes clear data standards, and facilitates the publication of gender-disaggregated datasets and metadata in formats that are accessible. This approach provides policymakers and institutions with evidence to identify and address gender gaps across various areas, including funding, authorship, promotions, and outputs.
- **Policy Compass**: This is an evidence-based policy design and evaluation tool that promotes effective policy development and evaluation, serving as an asset for policymakers. By embedding disaggregated data within the appraisal processes, this initiative is an example of good practice that enhances the overall quality and credibility of policy amendments. Furthermore, incorporating gender-sensitive indicators into both foresight and retrospective assessments enables more targeted and efficient responses to identified gaps, thereby promoting a more inclusive approach.

Integrating gender-related aspects into the content of research

The Netherlands' approach to integrating gender into research content is a combination of broad, conceptual frameworks like **ELSA** and **Open Science**, and targeted, practical measures within research funding bodies. The country adopts a collaborative approach by promoting co-creation with users, aimed at enhancing the relevance and applicability of research outcomes that support the broader goal of inclusive and equitable innovation. The goal is to create systemic change in which the consideration of gender is no longer an add-on but an integral part of high-quality, impactful, and responsible research.

The following are examples of good practices in the Netherlands that advance the pursuit of research excellence, respecting diverse perspectives and promoting societal value:

- **ELSA Concept (Ethical, Legal, Societal Aspects)**: The ELSA Concept emphasises the importance of integrating ethical, legal, and societal considerations into research and innovation. It offers a comprehensive framework that encourages the integration of gender as a central societal dimension, encompassing design, methodologies, and impact assessments. By recognising and incorporating gender sensitivity, this approach aims to enhance the validity and relevance of research, ensuring that findings better address diverse needs, risks, and outcomes.
- **National Research Agenda**: This national agenda promotes a collaborative, interdisciplinary approach to identifying key research questions of significant societal importance. It provides an established framework that can guide the allocation of funding and the formation of research consortia, considering gender-specific aspects within these priority questions. This strategic focus ensures that resources are directed toward studies that integrate gender-related aspects into research and analysis, thereby enhancing their societal relevance.
- **Centres of Expertise**: These centres serve as practice-oriented hubs connecting education, research, and industry as an initiative to address societal challenges collaboratively. This initiative serves as a good practice example of the country's approach to incorporating gender and user needs into problem definitions and solution testing. By ensuring that innovations and curricula reflect women's experiences and constraints, these efforts can enhance adoption and maximise impact.
- **Knowledge and Forces Combined – Citizen Science in the Netherlands (Kennis en krachten gebundeld)**: This initiative is a roadmap for integrating citizen science into the Dutch research landscape. It serves as a call to action for universities, funding bodies (such as NWO and ZonMw), and policymakers to invest in, support, and professionalise citizen science, thereby making science more open, relevant, and connected to society.

Implementing the UNESCO 2024 Call to Action: Closing the Gender Gap in Science

The Netherlands, as a signatory to the UNESCO 2024 Call to Action, leverages public-private partnerships and institutional accountability to align its national policies with the Call's three main pillars: dismantling stereotypes, opening educational pathways for girls, and creating inclusive workplace environments.

Initiatives like the **Athena Award** and **NEMO Science Museum** events contribute to dismantling stereotypes and biases in science through publicly celebrating and spotlighting female scientists, providing visible role models to counter traditional gender stereotypes. The **2020 National Technology Pact** and the **National Platform Science and Technology** aim to strengthen STEM education across the board, opening educational pathways for girls in science. The Netherlands has comprehensive and intersectional policies promoting workplace environments that attract, retain, and advance women scientists, with the **National Action Plan for Greater Diversity and Inclusion in Higher Education and Research** as the primary policy framework. The **Funding Lines of the Dutch Research Council's Talent Programme** provides concrete financial incentives to universities to retain and promote women, directly addressing the "leaky pipeline." The focus on intersectionality, as seen in initiatives like **Mozaïek 2.0**, demonstrates a nuanced understanding that addressing the gender gap requires policies that also tackle overlapping forms of discrimination based on race, ethnicity, and other social identities. Additionally, the **National Framework for Filling University Ombudsperson Role** provides a critical mechanism for addressing harassment and creating a safe, supportive work environment, which is vital for the retention of women in academia. Aimed at broadening open access to data and engagement practices, the **National Plan Open Science** aligns with UNESCO's commitment to transparency in data to identify and monitor gender disparities. By fostering the availability of gender-disaggregated evidence and promoting open evaluation of progress, the plan enhances trust and accountability across sectors.

Key policy initiatives considered to be good practice for closing the gender gap in an intersectional way

The Netherlands advances gender equality in science through a combination of governance, targeted talent initiatives, and evidence-informed practices. At a systemic level, national agreements and frameworks foster an environment where higher education and research institutions are encouraged to adopt an inclusive culture, ensure safe reporting mechanisms, and uphold transparent accountability. The country offers targeted programmes designed to reduce entry and progression barriers for underrepresented groups, while open science and evaluation tools facilitate the use of evidence to inform funding decisions and monitor progress. The Netherlands' policy approach increasingly considers how gender intersects with migration background, socioeconomic status, and other social identities.

The following three initiatives are good practice examples of how the Netherlands adopts an intersectional approach within its STEM policy portfolio:

1. **National Action Plan for Greater Diversity and Inclusion in Higher Education and Research**
    - **Why it's a good practice**: This plan promotes a broader commitment to diversity and inclusion across higher education institutions, fostering shared expectations for leadership, human resources, and organisational culture. It is a model of good practice because it is fundamentally built on an intersectional framework. It explicitly states that "an integrated approach" is necessary and uses a broad definition of diversity that includes not only gender and cultural background but also disability, sexual preference, and socio-economic background. By encouraging institutions to consider multiple axes of under-representation alongside gender, it supports the operationalisation of intersectional perspectives as an integral part of setting objectives, resource allocation, and progress assessment.

- **Intersectional nuance**: The plan recognises that overlapping forms of inequality must be tackled simultaneously. It aims to address "institutional exclusion and misconduct," acknowledging that a toxic work environment and a lack of social safety are key barriers to progress. By establishing a national knowledge centre and encouraging institutions to develop their own plans, it promotes a comprehensive, decentralised, and data-driven approach that is essential for identifying and addressing unique, intersectional challenges.

2. Mozaïek 2.0 (PhD Scholarships for Graduates with Specific Migration Backgrounds)

- **Why it's a good practice**: Mozaïek 2.0 is aimed towards reducing access barriers at the doctoral entry point for graduates from certain migration backgrounds. As a targeted funding instrument at a pivotal stage in career development, it contributes to fostering a more diverse research community. In practice, it promotes intersectional progress, as many awardees are women whose experiences reflect both gender and ethnicity-related challenges.
- **Intersectional nuance**: Mozaïek 2.0 is a transformative initiative that directly addresses the "leaky pipeline" at a critical juncture – the transition from master's to PhD – for a specific, marginalised group. It goes beyond simply a focus on gender to provide concrete support for individuals who face the compounded barriers of racism, xenophobia, and gender bias in academia. Its success would not only close the gender gap but also the racial and ethnic diversity gap in Dutch academia.

3. ELSA Concept (Ethical, Legal, and Societal Aspects)

- **Why it's a good practice**: While not a policy for gender specifically, the ELSA concept is crucial to an intersectional approach. By requiring a focus on the ethical and societal implications of new technologies, it forces researchers and developers to consider who a technology might harm or exclude.
- **Intersectional nuance**: An ELSA-informed approach to research and innovation contributes to preventing the creation of new gender gaps or the reinforcing existing ones. For example, by asking who is represented in a dataset for an AI algorithm, an ELSA analysis can prevent the development of a technology that is biased against women of colour. This proactive, preventative approach is more impactful than trying to correct inequalities after a technology has been widely adopted. It shifts the focus from simply increasing the number of women in a field to ensuring that the work being done in that field is itself equitable and just.

NORWAY

Introduction

Norway's policy approach to closing the gender gap in science is a comprehensive and multi-layered strategy that integrates gender equality and diversity into research funding, institutional practices, and national goals. This is achieved through key policy initiatives like the **Committee for Gender Balance and Diversity in Research (KIF)**, the **Research Council of Norway's Policy for Gender Balance and Gender Perspectives in Research and Innovation**, and the **Initiative on Gender Balance in Senior Positions and Research Management (BALANSE)**. These policies work to embed gender mainstreaming and diversity at a systemic level, requiring gender equality plans, incentivising institutional change, and providing resources for targeted efforts to increase the representation of women and other underrepresented groups in all levels of research. Initiatives related to entrepreneurship, such as the **Action Plan for Female Entrepreneurs** and the **White Paper on Entrepreneurship**, are directly relevant as they address the underrepresentation of women in scientific and technological ventures towards closing the gap in innovation. Policy initiatives focused on digital transformation, such as the **Digital Norway of the Future - National Digitalisation Strategy 2024 - 2030** and **One Digital Public Sector**, are crucial for addressing the gender gap in fields like computer science and AI which are essential in preventing the replication of existing inequalities in new technologies.

Norway integrates an intersectional gender lens in some initiatives, recognising that gender inequality is intertwined with issues such as indigeneity, migration, disability, age, regional differences, and socio-economic status. The introduction of initiatives related to indigenous peoples, such as the **Act on Universities and University Colleges - Sámi as an Academic Language** and the **Indigenous Peoples and the Norwegian Government's International Climate and Forest Initiative**, is a critical intersectional element recognising the specific knowledge systems and cultural contexts of the Sámi people, including Sámi women in science.

This country note has the following objectives:

1. To provide, as outlined in the table below, an overview of a selection of policy initiatives identified as relevant for the G20 Recommendations on Diversity, Equity, Inclusivity, and Accessibility (DEIA). The aim is to provide a snapshot of the broader set of policy initiatives included in the compendium database.

2. To provide, in the remainder of this country note, highlights of good practices in policy initiatives responding to the G20 Recommendation: Closing the Gender Gap in Science. It is organised according to the sub-recommendations:
   - Encouraging women and girls to consider careers in science
   - Promoting workplace environments that attract, retain, and advance women scientists
   - Collecting disaggregated data for evidence-based policies and monitoring progress
   - Integrating gender-related aspects into the content of research
   - Implementing the UNESCO 2024 Call to Action: Closing the Gender Gap in Science

3. To identify, in the last section, key intersectional policy initiatives for closing the gender gap in science.

Table 25 Norway: Summary of the relevant policy initiatives by G20 Recommendation on DEIA

G20 Recommendation on DEIA	Number of policy initiatives	Policy instrument types	Main target groups/ beneficiaries (STIP categories)	Main target groups/ beneficiaries (Specific)
1. Promoting diversity, equity, inclusion and accessibility in STI systems	18	Direct financial support; Governance; Collaborative infrastructures (soft and physical); Guidance, regulation and incentives; Indirect financial support	Economic actors (individuals); Firms by age; Firms by size; Governmental entities; Intermediaries; Researchers, students and teachers; Research and education organisations; Social groups especially emphasised	Academic staff; architects; businesses; business leaders; children; citizens; civil society; companies; current and aspiring entrepreneurs; designers; educational institutions; entrepreneurs; families; general public; government; municipalities; national government; Norwegian businesses; policymakers; private sector actors; public agencies; public sector bodies; public services users; research institutions; researchers; small and medium-sized enterprises (SMEs); start-ups; students; teachers; technology companies; technology developers; training programmes; transport companies; universities; vehicle manufacturers; various public and private sector actors; **women**; youth
2. Closing the gender gap in science	6	Collaborative infrastructures (soft and physical); Governance; Guidance, regulation and incentives	Economic actors (individuals); Governmental entities; Research and education organisations; Social groups especially emphasised	Academic staff; administrative personnel; female researchers; institutions; researchers; research institutions; society; students; underrepresented genders; underrepresented groups; women; women academics; women researchers; women across all sectors and stages of entrepreneurship; women and men in research and innovation careers
3. Fostering dialogue between different knowledge systems	2	Governance	Governmental entities; Intermediaries; Social groups especially emphasised	Academics; environmental organisations; indigenous communities; Sámi community; Sámi researchers; Sámi students

Continues overleaf...

G20 Recomm-endation on DEIA	Number of policy initiatives	Policy instrument types	Main target groups/ beneficiaries (STIP categories)	Main target groups/ beneficiaries (Specific)
4. Transitioning to open science	8	Collaborative infrastructures (soft and physical); Governance	Economic actors (individuals); Firms by age; Firms by size; Governmental entities; Intermediaries; Researchers, students and teachers; Research and education organisations; Social groups especially emphasised	Academics; Norwegian citizens and residents; business leaders; businesses; children; citizens; public; government officials; labour organisations; Norwegian public administration; policymakers; public; public sector employees; researchers; students
5. Combating inequities in STI	19	Collaborative infrastructures (soft and physical); Direct financial support; Governance	Economic actors (individuals); Firms by age; Firms by size; Governmental entities; Intermediaries; Researchers, students and teachers; Research and education organisations; Social groups especially emphasised	Agriculture sector businesses; aquaculture sector businesses; civil society; consumers; crisis response teams; environmental organisations; European partners; fishers; firms of all sizes; global community; government; government agencies; health and care service providers; health industry businesses; higher education institutions in developing countries; households; labour force; media; municipalities; national government; non-governmental organisations; Norwegian Agency for Development Cooperation (NORAD); Norwegian foreign service; Norwegian public; policymakers; private sector; public institutions in Sub-Saharan Africa; public servants; public sector; researchers; research community; research institutions; research institutions in developing countries; research institutions in Sub-Saharan Africa; seafood companies; seafood industry; scientists; students; subnational governments; underrepresented groups; **women**

Note: This table includes a set of policy initiatives selected for inclusion in the compendium, 'STI for All': A Compendium of Good Practices in STI Policy. The main aim is to identify good practice policy initiatives rather than to provide an exhaustive list of the G20 member/guest country's policy initiatives.

Encouraging women and girls to consider careers in science

Norway complements stereotype-challenging initiatives with proactive efforts to empower women and girls. This involves implementing targeted action plans, providing entrepreneurship support, and offering incentives designed to diminish structural barriers. Measures that address gender stereotypes and biases in science are targeted at early education, media visibility, and public engagement, demonstrating a proactive approach by recognising the impact of cultural perceptions on young girls' career choices and actively promoting positive role models.

Good practice examples that reflect Norway's progressive approach include:

- **National Centre for Recruitment to Science, Maths, Technology – MST (Nasjonalt senter for realfagsrekruttering**: This initiative is designed to promote STEM education among young people, with a particular focus on encouraging girls to pursue careers in these fields. By deliberately addressing the gender imbalance at the school level, it represents a good practice example of Norway's approach to fostering inclusivity. The effort to increase visibility of girls in STEM challenges prevailing stereotypes and demonstrates progressive inclusivity. This initiative also goes beyond gender visibility by actively encouraging participation through awards and scholarships.
- **Nysgjerrigper** ("Curious George"): This policy initiative, by the Research Council of Norway, is aimed at engaging children and young people in scientific inquiry. It is a comprehensive effort with multiple components designed to foster curiosity and a love for science from a young age, including a pedagogical tool for primary schools that teaches children the fundamentals of scientific research, web resources, and an annual national competition where students can submit their own research projects. While not focused on gender, the approach can be effective in encouraging girls and other underrepresented groups to engage with science on their own terms, thereby broadening the definition of what a "scientist" is and does.
- **National Science Week (Forskningsdagene)**: This initiative deliberately engages the public through events such as Researchers' Night, when diverse scientists are celebrated. Its approach demonstrates a commitment to enhancing the visibility of women in science, thereby inspiring future generations of female scientists. By fostering a positive connection between women and scientific pursuits, the initiative contributes to shifting public perceptions and dismantling gender biases.
- **Science Centres (Vitensentre)**: This initiative is aimed at delivering engaging and interactive STEM learning experiences to children and youth across Norway. By promoting early curiosity and interest in STEM subjects, it potentially sets a national standard for inclusive education that transcends gender barriers. Through its efforts to create a gender-inclusive environment, it effectively establishes a pipeline that nurtures future scientists and innovators.

Going beyond education, Norway has introduced initiatives aimed at promoting gender equality in entrepreneurship:

- **Action Plan for Female Entrepreneurs (Handlingsplan for kvinnelige gründere)**: This action plan aims to provide supportive tools designed to empower women in starting and growing their businesses. It addresses the critical issue of the systemic underrepresentation of women

entrepreneurs in science, technology, and innovation-driven sectors. By encouraging women to enter and maintain their participation in these fields, the initiative fosters gender diversity and more representation of women in the STI space.

- **White Paper on Entrepreneurs and Start-ups (Meld. St. 6, 2024–2025, Gründere og oppstartsbedrifter)**: This White Paper exemplifies good practice in its effort to foster a national environment conducive to entrepreneurship, with the inclusion of measures tailored to support women. Its integration of gender-sensitive support into the broader entrepreneurial framework highlights a progressive approach that recognises the importance of diversity and inclusion. By expanding women's access to networks and resources necessary for STI entrepreneurship, it promotes a strong foundation for inclusive growth.

Promoting workplace environments that attract, retain, and advance women scientists

Norway's multifaceted approach focuses on creating structural and cultural change within universities and research institutions to ensure a more equitable and inclusive environment. Policy initiatives focus on recruitment, retention, and the advancement of women scientists, including their participation in leadership roles. Policy initiatives such as the **Norwegian Equality and Anti-Discrimination Act** that underpins all institutional efforts, and **Work-Life Balance and Parental Leave Policies** promoting generous, fully-paid parental leave that is designed to be shared between both parents, provide the broader framework critical for retaining women scientists. These policy initiatives directly counteract the "leaky pipeline" effect, where women's careers are disproportionately set back by caregiving responsibilities.

The following initiatives demonstrate good practice examples of how Norway promotes workplace environments that attract, retain and advance women scientists:

- **BALANSE programme (Kjønnsbalanse i faglige toppstillinger og forskningsledelse)**: This initiative is aimed at enhancing gender balance among senior leaders in academia and research. It addresses the structural barriers that often hinder women's progression, contributing to closing the gender leadership gap.
- **Committee for Gender Balance and Diversity in Research (Komité for kjønnsbalanse og mangfold i forskning – KIF)**: This is a long-standing advisory body that supports and provides recommendations on gender equality and diversity efforts in academia and research. KIF plays a crucial role in collecting and disseminating knowledge, sharing good practices, and raising awareness about the challenges and solutions related to gender balance and diversity in the research sector. Fostering a culture of expertise and accountability, KIF provides an example of good practice by influencing gender responsive, evidence-based policies that cultivate inclusive and innovative research environments.
- **Gender Equality Requirement for Higher Education Institutions (Krav til likestillingsarbeid ved UH-institusjoner)**: By embedding gender equality as an institutional, and thus a structural responsibility, this initiative promotes a systemic approach to addressing gender parity. It enhances the working conditions for women scientists across various institutions, reflecting Norway's progressive approach to the promotion of women scientists. Additionally, integrating external

audits on gender progress presents a valuable opportunity to further strengthen accountability and continuous improvement in this area.

Collection of disaggregated data for evidence-based policies and monitoring progress

Norway demonstrates a commitment to data-driven policymaking, strategically embedding disaggregated data collection within its institutional framework. This multifaceted approach effectively presents transparent visibility of gender disparities and fosters a culture of ongoing monitoring of progress in this area. Norway's good practice examples represent the country's stance in promoting equality. The following initiatives are examples of Norway's approach:

- **Statistics Norway (Statistisk sentralbyrå)**: This initiative is an example of Norway's good practice in the collection, analysis, and publishing of official statistics disaggregated by gender. It serves as a fundamental contribution towards crafting gender-responsive STI policies. Additionally, it facilitates the monitoring of women's representation and advancement within the STI sphere. Including intersectional markers, such as ethnicity and disability, are vital for fostering a comprehensive understanding of diverse experiences and needs.
- **Annual R&I Reports (Årlige FoU- og innovasjonsrapporter)**: This report demonstrates Norway's continued commitment to collect and publish comprehensive annual national indicators and statistics on research and innovation. The country's approach to integrating gender disaggregated data within R&I monitoring frameworks highlights Norway's dedication to inclusivity and equality. By tracking progress in closing gender gaps at a systemic level, it demonstrates a proactive approach to achieving gender parity. An opportunity exists to expand the impact of this annual report by incorporating gender-segregated indicators at the project and programme level, this provides further insights on inclusivity, fostering a more equitable research and innovation landscape.

Integrating gender-related aspects into the content of research

Norway recognises the importance of integrating gender dimensions into research, towards enhancing scientific excellence and societal relevance. The **Norwegian National Research Ethics Committees** provide an overarching framework for ethical and responsible research, including addressing gender-related aspects in research. The **National Strategy for Artificial Intelligence** guides the development and use of AI in Norway in a way that does not perpetuate existing biases related to race, gender, and socioeconomic status in the development of such new technologies. In this way, Norway promotes research that is inclusive and reflective of diverse experiences.

The following are good practice examples of Norway's approach to integrating gender-related aspects into the content of research:

- **Research Council of Norway's Policy for Gender Balance and Gender Perspectives in Research and Innovation (Forskningsrådets policy for kjønnsbalanse og kjønnsperspektiver)**: As a cornerstone of Norway's approach, it explicitly mandates that research proposals submitted for funding should consider gender-related aspects when relevant. This means applicants must

describe how they will account for gender and sex in their research design, methodologies, and analysis. By doing so, it elevates gender to a criterion of scientific quality, and demonstrates a commitment to inclusive science that meets societal needs.

- **Gender Equality Plan (GEP) Requirement**: As a key component of the Research Council's policy, this requirement makes a GEP a mandatory eligibility criterion for grant applications from most public institutions. These plans are not just about employment statistics; they must also address the integration of a gender dimension into the content of research and teaching. This pushes institutions to provide training and resources for their researchers to develop the skills needed to conduct gender-sensitive research.
- **Committee for Gender Balance and Diversity in Research (Komité for kjønnsbalanse og mangfold i forskning)**: This initiative establishes a committee to champion gender perspectives within research projects and evaluations. By offering specialised expertise, it helps integrate gender considerations into the design of research projects.
- **Norwegian ERA Action Plan**: The primary objective of this action plan is to implement the European Research Area (ERA) priorities in Norway. The ERA Action Plan is designed to be comprehensive and includes specific actions on gender equality (Action 5) and bringing science closer to citizens (Action 14). An intersectional approach would consider how the Norwegian plan integrates these actions, particularly how it ensures that its gender equality efforts consider diversity and social inclusion in a holistic manner. The importance of attention to synergies between the actions was emphasised in the plan.

Norway also emphasises interaction and co-creation of research with non-researchers through citizen science initiatives, for example. While not specifically focused on gender, engaged research enhances the relevance of research and is more likely to address gender-related issues. For example, the **Guide and Advice on Citizen Involvement in Research (Veileder og guide til politikkutviklere og finansiører om innbyggerinvolvering i forskning)** provides a comprehensive guide for researchers on how to integrate user participation and research ethics into their projects.

Implementing the UNESCO 2024 Call to Action: Closing the Gender Gap in Science

Norway's policy response to the UNESCO call to action is not an isolated set of measures, but a systemic approach that aligns directly with UNESCO's principles. The country's strategy is characterised by a commitment to "gender mainstreaming," meaning that gender equality and diversity are integrated across all levels of its research and innovation system. Policy initiatives like **Nysgjerrigper** engage children in scientific inquiry early, challenging traditional gender roles and biases from a young age. The **National Centre for Recruitment to Mathematics, Science and Technology (MST)** is a core initiative that provides resources and guidance for encouraging girls to pursue STEM fields, working with schools, teachers, and parents to inform educational choices and open educational pathways. Key initiatives promoting supportive workplace environments include the **BALANSE Initiative** and the requirement for **Gender Equality Plans (GEPs)**. These policy initiatives go beyond individual-level interventions and focus on creating structural and cultural change within research institutions. The **BALANSE Initiative** provides funding to address systemic barriers to women's advancement and promotes the integration of gender-related aspects in research

content, while the **GEP** requirement mandates that institutions have concrete plans for promoting gender equality to be eligible for research funding.

Key policy initiatives considered to be good practice for closing the gender gap in an intersectional way

Norway's approach to gender equality in science is multifaceted. The country combines legal frameworks, targeted funding, and national policies with initiatives that promote public engagement and diversity. The policy approach is data-driven and aligned with global standards, ensuring transparency, monitoring, and accountability. Good practice examples such as **BALANSE**, **Statistics Norway**, and the **Science Centres** initiatives also support this foundation. Moreover, Norway actively incorporates intersectionality by recognising Sámi language and knowledge, fostering regional and socio-economic inclusion, and engaging citizens and stakeholders.

The following four examples are highlighted as good practice initiatives in closing the gender gap in an intersectional way:

1. **ERA-tiltak 5 – Fremme likestilling og inkludering (ERA Action 5)**
    - **Why it's a good practice**: Norway participated in the European collaboration on ERA Action 5 "Promote Gender Equality and Foster Inclusiveness" in the ERA policy agenda 2022-2024, and will also participate in the continued efforts in this area for the period 2025-2027. ERA Action 5 aimed to effectively advance the integration of inclusive Gender Equality Plans (GEPs) and champion gender mainstreaming with an explicit intersectional perspective across research-performing and research-funding organisations. Its approach of aligning institutional change with European standards fosters comparable and auditable progress while embedding equality requirements into the governance and management of research. This initiative exemplifies a strong commitment to progress and inclusivity in the research community.
    - **Intersectional nuance**: This initiative shifts from a "gender-only" focus to one that promotes both gender equality and broader inclusion. This framework recognises that a woman's experience in science is shaped not only by her gender but also by her ethnicity, disability, and socioeconomic background. By requiring institutions to address these intersecting identities, the policy aims to create a more equitable research environment for all. Combining this approach with capacity-building efforts in intersectional data collection, bias-resistant recruitment, and evaluation could potentially enhance this initiative's already expansive impact.

2. **Research Council of Norway's Policy for Gender Balance and Gender Perspectives in Research and Innovation (Forskningsrådets policy for kjønnsbalanse og kjønnsperspektiver i forskning og innovasjon)**
    - **Why it's a good practice**: This policy explicitly incorporates gender analysis into research content, coupled with workplace equality initiatives. By leveraging funding to promote good practices across disciplines, it effectively highlights the importance of scientific excellence that is relevant to diverse populations. This approach emphasises equitable representation and elevates the quality and usability of the knowledge generated.

- **Intersectional nuance**: The policy's requirements for incorporating gender analysis into research are fundamental components of intersectionality. Incorporating consistent support for intersectional research designs that cover ethnicity, disability, and geography, could enhance the policy's intersectional impact. By updating calls and assessment rubrics to recognise such approaches, alongside funding support, it will enable diverse teams to evaluate intersectional implications, which could significantly strengthen efforts to close the gap for diverse categories of women.

3. Committee for Gender Balance and Diversity in Research – KIF (Komité for kjønnsbalanse og mangfold i forskning)

- **Why it's a good practice**: The Committee promotes gender balance and diversity across the research system. Its expert guidance on evidence-based measures, dedication to sharing good practices, and collaborative coordination with Ministries, funders, and institutions all serve to highlight its imperative national influence. Its broad responsibilities encompass diversity beyond gender and establish it as a hub for intersectional learning and policy coherence.
- **Intersectional nuance**: The KIF Committee has a mandate that includes not only gender, but also social background and ethnic diversity. This moves beyond a gender binary approach. This means its recommendations and publications can address the unique challenges faced by women who are marginalised due to multiple factors, such as "Being a foreigner is no advantage" as stated in one of the committee's reports.

4. Policy initiatives regarding Sámi languages and indigenous peoples

- **Why it's a good practice**: While not focused on gender, these policy initiatives regarding Sámi languages and indigenous peoples stand out as examples of good practice because they go beyond a simple gender binary to address the complex and multi-layered challenges faced by a specific, marginalised group of women in Norway. These policies recognise that a Sámi woman's experience in science is shaped not only by her gender but also by her indigenous identity, her cultural heritage, and a history of colonisation and assimilation. The **Act on Universities and University Colleges – Sámi as an Academic Language** addresses the historical and ongoing marginalisation of Sámi language by formally recognising Sámi as an academic language on par with Norwegian, validating Sámi knowledge systems and cultural forms of expression. The **Indigenous Peoples and the Norwegian Government's International Climate and Forest Initiative** recognises the scientific expertise of indigenous peoples and their crucial role in addressing global challenges like climate change. By providing funding directly to indigenous peoples' organisations, it ensures that resources and decision-making power are in the hands of those with lived experience and traditional knowledge.
- **Intersectional nuance**: For Sámi women, their identity as scientists is not separate from their identity as Sámi. By making Sámi an academic language, the policy helps to bridge the gap between their cultural heritage and their professional lives. The policy can also help to address issues of systemic racism and discrimination. The initiatives can empower Sámi women as researchers, community leaders, and advocates. An intersectional approach would require the initiatives to actively seek out and support projects led by indigenous women, and to ensure that their specific knowledge and perspectives are integrated into the research and policy outcomes.

SPAIN

Introduction

Spain has adopted a multi-faceted approach to closing the gender gap in science, built on a "dual approach" of positive action and gender mainstreaming, and embedded in legal frameworks like the **Reform of the Law 14/2011 on Science, Technology and Innovation** and the **Organic Law for Effective Equality between Women and Men**. This is supported by institutional mechanisms such as the **Observatory Women, Science and Innovation (OMCI)**, which collects disaggregated data to inform policy, and the **Women and Science Unit (UMyC)**, which works to implement gender-aware management within public research organisations like the **Spanish National Research Council (CSIC)**. Additionally, its array of finance, skills, and visibility tools effectively promotes entry, progression, and recognition for women in science. The country's approach is centred on principles of open science, fair assessment, and social inclusion. These initiatives aim not only to increase the number of women in STEM but also to transform the scientific culture, addressing issues from recruitment and career progression to preventing harassment. This focus on evidence-based policy, with regular monitoring and evaluation, has positioned Spain as a pioneer in institutionalising gender equality as a core driver of scientific excellence.

This country note has the following objectives:

1. To provide, as outlined in the table below, an overview of a selection of policy initiatives identified as relevant for the G20 Recommendations on Diversity, Equity, Inclusivity, and Accessibility (DEIA). The aim is to provide a snapshot of the broader set of policy initiatives included in the compendium database.

2. To provide, in the remainder of this country note, highlights of good practices in policy initiatives responding to the G20 Recommendation: Closing the Gender Gap in Science. It is organised according to the sub-recommendations:
   - Encouraging women and girls to consider careers in science
   - Promoting workplace environments that attract, retain, and advance women scientists
   - Collecting disaggregated data for evidence-based policies and monitoring progress
   - Integrating gender-related aspects into the content of research
   - Implementing the UNESCO 2024 Call to Action: Closing the Gender Gap in Science

3. To identify, in the last section, key intersectional policy initiatives for closing the gender gap in science.

Table 26 Spain: Summary of the relevant policy initiatives by G20 Recommendation on DEIA

G20 Recommendation on DEIA	Number of policy initiatives	Policy instrument types	Main target groups/ beneficiaries (STIP categories)	Main target groups/ beneficiaries (Specific)
1. Promoting diversity, equity, inclusion and accessibility in STI systems	25	Governance	Economic actors (individuals); Firms; Governmental entities; Intermediaries; Research and education organisations; Researchers, students and teachers; Social groups especially emphasised	Administrative bodies within the CSIC; all citizens; care workers; children in care; city councils; civil society; communities; communities at risk of social exclusion; companies; designers; developers; development labs; entrepreneurs; families; funding agencies; government bodies involved in strategic industrial sectors; government bodies involved in the development of automated driving technology; healthcare professionals; people who are homeless; people with disabilities; researchers; investors; large firms; local governments; members of Parliament; Roma community; multinational enterprises; older people; people with mental health problems; people who require care; policymakers; private companies; private research institutions; professionals in the field of architecture; public; public administration bodies; public research organisations; research centres; researchers; science enthusiasts; scientific communicators; scientific personnel; SMEs in the agri-food sector; social economy organisations; social enterprises; social service organisations; startups; students; teachers; citizens; entire Spanish R&D&I community; families; unemployed individuals; universities; vulnerable populations; **women**; businesses; workers; writers

Continues overleaf...

G20 Recommendation on DEIA	Number of policy initiatives	Policy instrument types	Main target groups/ beneficiaries (STIP categories)	Main target groups/ beneficiaries (Specific)
2. Closing the gender gap in science	10	Collaborative infrastructures (soft and physical); Governance	Research and education organisations; Researchers, students and teachers; Social groups especially emphasised	Academic institutions; academics specialising in feminist and gender studies; administrative staff; all personnel within the organisation; employees; fishing communities; innovators; policymakers; public research organisations in Spain; research institutions; researchers; rural women; scientific institutions; scientists; scientists at the CSIC; SMEs with significant female leadership; women entrepreneurs; women in science; women researchers
3. Fostering dialogue between different knowledge systems	1	Not recorded	Not recorded	Community organisations; local residents; researchers; students; the general public
4. Transitioning to open science	14	Collaborative infrastructures (soft and physical); Governance Guidance, regulation and incentives	Economic actors (individuals); Firms; Governmental entities; Intermediaries; Research and education organisations; Researchers, students, teachers; Social groups especially emphasised	Stakeholders concerned with global challenges; AI professionals; AI researchers; amateur and professional photographers; general public; businesses; developers; entrepreneurs; freelancers; higher education institutions; international talent; policymakers; private companies; private institutions; private institutions; private R&D labs; public administrations; public research institutes; research institutions; researchers; scientific communicators; scientific institutions; scientists interested in science communication; SMEs; startups; students; technology developers; universities; vulnerable individuals; **women**

Continues overleaf...

G20 Recomm-endation on DEIA	Number of policy initiatives	Policy instrument types	Main target groups/ beneficiaries (STIP categories)	Main target groups/ beneficiaries (Specific)
5. Combating inequities in STI	11	Collaborative infrastructures (soft and physical); Direct financial support; Governance	Firms; Governmental entities; Intermediaries; Research and education organisations; Social groups especially emphasised	Farmers; journalists; local producers; mining companies; energy producers; NGOs; private companies; private companies in the energy sector; private companies in the health industry; general public; agri-food industries; all sectors affected by climate change; coastal communities; consumers; environmental scientists; farmers; future generations; investors in the energy storage sector; irrigation communities; livestock producers; organisations involved in conservation; policymakers; press officers; private companies; public administrations; public health institutions; renewable energy producers; research institutions; researchers; rural communities; scientists; technology companies in the energy sector; technology developers; technology firms; general public; waste management companies

Note: This table includes a set of policy initiatives selected for inclusion in the compendium, 'STI for All': A Compendium of Good Practices in STI Policy. The main aim is to identify good practice policy initiatives rather than to provide an exhaustive list of the G20 member/guest country's policy initiatives.

Encouraging women and girls to consider careers in science

Spain combines its national skills programmes with targeted financial support and recognition initiatives, creating a supportive environment that encourages women to pursue careers in STEM and innovation. This holistic approach highlights Spain's commitment to fostering diversity and inclusion in these vital fields. Some examples of good practice policy initiatives include:

- **ENISA Digital Entrepreneurs Financing Line**: This initiative provides supportive loans to women-led digital SMEs (start, grow, go-global), offering direct capital with eligibility criteria that emphasise women's leadership. This is an example of good practice as it helps women to overcome financial barriers, enabling them to establish and scale innovative tech ventures rooted in scientific talent. This initiative presents an opportunity to enhance its impact through mentorship programmes and procurement allocations and enabling them to transform the funding into meaningful market traction.

- **Excellence Awards for Innovation for Rural Women**: This initiative serves as a distinguished national recognition programme that highlights innovative projects led by rural women. Its value lies in providing visibility and validation within regions where opportunities are often limited, thereby fostering an environment where these efforts are celebrated. By incentivising women's active participation in innovation ecosystems, the programme not only closes existing gaps but also celebrates female role models for aspiring young innovators. Moreover, combining the awards with micro-grants or acceleration support presents a promising opportunity to empower awardees to transition from recognition to tangible action and sustainable impact.
- **National Digital Competencies Plan**: This initiative is a comprehensive, systemic approach to enhancing digital skills, with a particular emphasis on empowering women to become ICT specialists. Its strategic pipeline, from schools to universities and reskilling programmes, demonstrates a commitment to best practices in fostering talent. Broadening access to STEM education and credentials for women contributes to closing the gender gap in these vital fields. To further strengthen this effort, establishing clear, trackable targets for female participation and success in advanced areas such as AI, cybersecurity, and data would be a valuable next step.

Spain exemplifies a multifaceted, strategic approach by effectively combining institutional visibility initiatives with engaging science culture platforms accessible to the public. This strategy elevates the recognition of women scientists across museums, schools, media, and community programmes, fostering greater appreciation and inspiration. Some examples of good practice in how Spain contributes to promoting the visibility of women and dismantling gender stereotypes are:

- **Making Visible Women Talent in STI (UMyC/OMCI)**: This initiative advances the visibility and recognition of women researchers by positioning them as role models across ministries and institutions. Its strategic, systemic approach is an example of good practice by emphasising the sustained visibility of women's scientific leadership. Doing so effectively dismantles gender stereotypes and fosters a more inclusive pipeline of aspiring scientists. An opportunity exists to further strengthen this effort by publishing annual parity targets for appearances and speakers at national science events, ensuring continued progress and accountability.
- **Science in the Neighbourhood (CSIC)**: While not focused specifically on gender, this initiative is aimed at engaging scientists with schools and communities through talks, experiments, and exhibitions, with a special emphasis on highlighting the vital contributions of women in science. It is an example of good practice as it integrates representation into everyday environments where young minds form their earliest perceptions. By fostering early, local, and gender-positive exposure to scientific role models, this initiative effectively contributes to closing existing gender gaps. An opportunity exists in co-designing a girls-focused programme in partnership with local schools and measuring impact on encouraging more girls to pursue science subjects.
- **Science Media Centre Spain (SMC España)**: This initiative, aimed at the media industry, plays a vital role in science communication and diplomacy by bringing together journalists with scientists and evidence during busy news cycles, thus promoting a more informed public discourse. Serving as a media gatekeeper that encourages diversity among experts, it helps to establish new norms for representative sourcing. When a focus on parity is prioritised, it leads to a greater presence of

women experts quoted in both print and on-air coverage, positively influencing public perception. An opportunity lies in adopting a formal 'gender-balanced expert sourcing" commitment, along with quarterly updates on progress, to further promote inclusivity and excellence in journalism.

Promoting workplace environments that attract, retain, and advance women scientists

Spain exemplifies a commitment to fostering research environments that are safer, fairer, and more supportive of women's professional progression through its integration of legal reforms, institutional protocols, and organisational change programmes. The following initiatives present examples of good practice demonstrating how Spain promotes attractive workplace environments that aim to retain and advance women scientists:

- **CSIC Protocol Against Sexual and Gender-Based Harassment**: This framework is an example of a proactive good practice approach to fostering a safe and supportive environment within all CSIC institutes. It sets a clear, institution-wide standard that safeguards talent and helps to reduce attrition. By promoting safer environments, the framework increases the retention and advancement of women scientists, illustrating Spain's strong commitment to inclusivity and growth. Moreover, the initiative to publish anonymised case metrics and time-to-resolution clearly demonstrates a transparent effort to continuously improve and build trust. Overall, this strategy reflects a dedication to excellence and the upliftment of the scientific community.
- **Reform of Law 14/2011 via Law 17/2022**: This initiative plays a vital role in strengthening Spain's R&D and innovation (RDI) system by fostering greater career stability, governance, and equality. It is an example of good practice in its application of structural leverage to shifting incentives and contracting practices, which sets inclusive standards. By promoting stable, transparent career paths and enforcing equality duties, it effectively addresses the issue of attrition, facilitating a more inclusive progress. Additionally, connecting institutional funding to the achievement of gender parity and pay-gap milestones presents an innovative approach that encourages continuous commitment and improvement across the sector.
- **Structural Change for Equal, Inclusive and Diverse Organisations in STI**: This initiative plays a vital role in fostering a positive organisational culture that champions gender equality within research performing organisations and research funding organisations. Its strategic focus on the meso-level – targeting units and departments – addresses biases that can often influence workplace dynamics. By promoting transformation in the norms related to recruitment, evaluation, and leadership development, it offers a strategic pathway toward closing existing gaps. Additionally, incorporating intersectional audits, such as considering race, disability, region, and class, and encouraging the publication of comprehensive action plans further strengthen its commitment to inclusivity and equitable progress.
- **Women and Science Committee (CSIC)**: By establishing an embedded advisory body with the authority to influence management, it fosters collaboration and demonstrates a commitment to the advancement of women. Through sustained, evidence-informed policy adjustments at Spain's largest research institution, it effectively closes existing gaps. There is an opportunity to further build on this foundation by expanding the advisory body's obligations to include the setting and review of institutional-level leadership targets, thereby strengthening leadership diversity and inclusion.

- **NEOTEC Women (CDTI)**: Spain has introduced NEOTEC Women, an initiative managed by the Centre for the Development of Industrial Technology (CDTI), aimed at fostering gender equality in innovation and entrepreneurship. The programme supports the creation and consolidation of technology-based companies led by women, addressing structural barriers that hinder their participation in high-tech sectors. By combining financial support with mentoring and tailored assistance, NEOTEC Women encourages the active role of women entrepreneurs in translating research into market solutions, scaling up disruptive technologies, and contributing to a more inclusive and competitive innovation ecosystem. This initiative reflects Spain's broader commitment to reducing gender gaps in science, technology and business leadership.

Collection of disaggregated data for evidence-based policies and monitoring progress

Spain effectively leverages national observatories and indicator platforms to monitor STI, serving as a practical and comprehensive framework for the collection of gender-disaggregated data. The following initiatives are examples of good practices implemented by Spain to collect data for evidence-based policies and monitoring progress effectively:

- **Observatory Women, Science and Innovation (OMCI)**: This initiative plays a vital role by thoroughly analysing, monitoring, and providing data-driven insights on women's status across RDI. It is an example of good practice in its adherence to serving as a mandated, inter-ministerial focal point for gender evidence, thus demonstrating a strong commitment to gender equality. By offering comprehensive data that helps to diagnose issues and evaluate the impact of policies, it effectively bridges existing gaps. There is also an opportunity to enhance its impact further by incorporating routine intersectional analyses, such as by age, disability, region, and field and by opening microdata access, which fosters greater inclusivity and data-driven decision-making.
- **Spanish Observatory of Research and Innovation (ICONO)**: This initiative publishes over 250 STI indicators complemented by visual and analytical insights through the establishment of a comprehensive and accessible evidence portal. Its strength is in providing a centralised, user-friendly platform that effectively bridges gaps in data analysis. An opportunity for further enhancement is to elevate the status of gender variables to a mandatory level across all people-based indicators, enabling more robust benchmarking of women's participation and outcomes, and fostering greater gender equality in the data ecosystem.
- **FECYT Platform of Indicators**: This comprehensive initiative is a good practice example in how Spain monitors scientific productivity, cultural engagement, grant results, and survey data, demonstrating a commitment to thorough evaluation. Its long-standing, methodical indicator framework is adaptable and includes the ability to incorporate gender-specific analyses, reflecting best practices in inclusivity and precision. By supporting the monitoring of outreach and participation impacts on women and girls, the platform plays a vital role in identifying opportunities for growth and equality. Furthermore, the opportunity to publish an annual "Gender in STI Indicators" supplement, aligned with Sustainable Development Goals, exemplifies a proactive approach towards fostering transparency and progress in this critical area.

Integrating gender-related aspects into the content of research

Spain demonstrates a commitment to advancing gender equality by actively funding feminist research and integrating gender perspectives into the governance of science, technology, and innovation (STI). This proactive approach helps establish favourable conditions for the consistent inclusion of gender-related aspects into the content of research, thereby fostering a more inclusive and comprehensive research environment. The following are examples of Spain's good practice initiatives under this sub-recommendation:

- **Public Grants for Feminist Research**: This initiative aims to support innovative research in feminism, demonstrating Spain's commitment to advancing understanding in this important field. By actively expanding the evidence base on gender mechanisms and potential solutions, this grant contributes significantly to generating knowledge that informs policy and practices within STI institutions, exemplifying a strategic approach to closing existing gaps. An opportunity exists for creating a cross-council "gender dimension in research" as an addition to this initiative, which could be integrated into non-feminist calls such as health, AI, and climate, fostering a more inclusive and comprehensive research landscape.
- **Women and Science Unit (UMyC)**: This initiative champions gender mainstreaming across STI policies and programmes, serving as an important policy tool to embed gender-related aspects and analysis in funded projects. It significantly advances the cause by ensuring that research content, alongside workforce policies, reflects gendered realities. An opportunity exists to enhance this initiative's impact by issuing standardised guidelines on integrating gender-related variables in proposals and evaluations.
- **State Plan PEICTI 2024–2027**: This framework represents an innovative, multi-year research and innovation initiative, crafted around core principles that emphasise equality and open science. Its systemic approach serves as an effective lever to standardise the requirements to ensure consistency and inclusivity. By anchoring mandatory gender dimension statements and review criteria throughout the calls, it bridges existing gaps and promotes a more comprehensive research environment. Moreover, there is an opportunity to enhance this initiative's impact by making the "gender dimension in research" a scored criterion, complemented by panel training and audits, and thus fostering a more nuanced and rigorous evaluation process.

Implementing the UNESCO 2024 Call to Action: Closing the Gender Gap in Science

Spain demonstrates various good practice initiatives that align their national mechanisms with UNESCO's core pillars, including data management, workplace reform, visibility, and policy mainstreaming. Their multifaceted approach underscores the country's commitment to international standards. It creates a solid foundation for the explicit adoption and broader implementation of UNESCO's principles, cultivating a collaborative environment for progress. The following initiatives are examples of good practice in how Spain supports UNESCO's call to action in closing the gender gap in science:

- **Observatory Women, Science and Innovation (OMCI)**: This initiative is a good practice example of Spain's commitment to coordinating analysis and policy advice on women in STI, showcasing a dedicated approach to advancement in this area. Serving as a national focal point for this call to action by aligning monitoring, reporting, and coordination with UNESCO's strategic implementation.

- **State Plan PEICTI 2024–2027**: This national plan effectively establishes nation-wide research and innovation objectives, emphasising key principles such as equality and open science. It is an example of good practice in its seamless integration of UNESCO's call-to-action commitments within funding mechanisms, thereby fostering commitment and accountability. By transforming these recommendations into actionable, funded, and trackable measures, Spain demonstrates its dedication to advancing equality and inclusion. Additionally, there is an opportunity to enhance the impact of this framework by including an annexe to PEICTI, which could map instruments to each UNESCO action along with relevant KPIs, further strengthening the strategic alignment and measurement capabilities.
- **CoARA National Chapter: Spain**: This initiative represents good practice as an innovative approach to reforming research assessment through promoting collaboration amongst funders, universities, and various agencies. It aligns with UNESCO's vision of recognising diverse contributions by fostering a fairer assessment system. The initiative supports women's careers and leadership development, contributing to closing existing gaps. This initiative has an opportunity to expand its impact by integrating explicit gender-equity indicators, such as acknowledging caregiving responsibilities, into national assessment guidelines.

Key policy initiatives considered to be good practice for closing the gender gap in an intersectional way

Spain's comprehensive portfolio of initiatives demonstrates a systemic commitment to closing the gender gap in science while incorporating intersectional perspectives. The strategic use of legislative reforms, dedicated gender infrastructure, targeted instruments, and data-driven open-science infrastructures highlights a multi-faceted approach. Recognising the uneven yet promising integration of intersectionality, Spain has a valuable opportunity to further enhance progress by establishing universal intersectional KPIs and integrating gender considerations more deeply across research and funding frameworks. Overall, this momentum reflects an innovative and inclusive vision for advancing gender equity in science.

The following policy initiatives are identified as good practices for closing the gender gap in science in Spain in an intersectional way, due to their potential for creating systemic transformation that addresses multiple forms of discrimination simultaneously:

1. Observatory for Women, Science & Innovation (OMCI)

- **Why it's a good practice**: OMCI serves as Spain's inter-ministerial focal point for the analysis, monitoring, and expert advising on the status of women RDI. It effectively consolidates valuable evidence to support policy development, empowering ministries, funders, and institutions to address disparities proactively. Its broad mandate adheres to sophisticated intersectional monitoring (e.g., gender by field, career stage, region, contract type) and fosters collaboration among diverse actors. This collaborative approach ensures that data informs assessment reforms, funding criteria, and workplace innovations, ultimately advancing gender equality and inclusivity across all sectors.
- **Intersectional nuance**: To fully harness the transformative potential of OMCI, it could consider issuing an annual "Gender and Intersectionality in STI" dashboard featuring complementary

intersectional variables such as gender, age, disability, ethnicity/migration, region, contract/grade, and field, developed collaboratively with ICONO/FECYT. Implementing open microdata access alongside standardised templates for funders and RPOs could foster consistent and transparent reporting. A dedicated, small methods unit could play a vital role in supporting institutions to elevate data quality and publish insightful data, showcasing this initiative's progress in an impactful, intersectional way.

2. Public Grants for Feminist Research

- **Why it's a good practice**: This initiative directly addresses the gender gap in science by institutionalising and funding research that analyses gender inequalities and promotes social transformation. It recognises that in closing the gap, it is not enough to simply include women; the system itself must be critically examined through a gender lens.
- **Intersectional nuance**: The grants' primary focus on "feminist research" inherently encourages an intersectional approach. A feminist perspective recognises that gender is not an isolated identity and that women's experiences are shaped by their race, class, sexual orientation, disabilities, and other factors. By funding research on gender inequalities, the policy implicitly supports studies that explore the complex interplay of these intersecting identities.

3. Structural Change for Equal, Inclusive and Diverse Organisations in Science and Innovation

- **Why it's a good practice**: This policy initiative goes to the root of the problem by focusing on systemic and institutional change rather than just individual-level interventions. It acknowledges that organisations can be a source of inequality and that a structural transformation is needed to create an inclusive environment.
- **Intersectional nuance**: The policy initiative moves beyond gender to explicitly include "diversity," which implies a broader scope encompassing different racial, ethnic, sexual, and disability-related identities. By aiming for structural change, the policy initiative seeks to address the foundational biases that affect individuals at the intersection of multiple marginalised identities, such as a woman of colour with a disability.

4. Línea AgroInnpulso de ENISA

- **Why it's a good practice**: While primarily an economic development policy, this initiative directly contributes to closing the gender gap by acknowledging that economic empowerment is a crucial component of gender equality. It is significant in considering that financial barriers are often intensified by intersectional factors such as region, social status, and caregiving roles. This initiative provides targeted financial support for innovative projects that create quality employment for women in the agri-food sector and rural areas. Recognising and bolstering the role of women in innovation, a similar initiative, the **ENISA Digital Entrepreneurs Financing Line (women-led SMEs)** provides targeted loans that contribute to bridging the capital access gap for women leaders in digital and tech industries.
- **Intersectional nuance**: This policy initiative is a good example of an intersectional approach that considers the "gender-plus" factor. By specifically targeting women in rural areas, it addresses a critical intersection of gender and geographical location, recognising the unique challenges of rural economies and the digital divide. By also focusing on young people, the initiative adds a generational lens, aiming to prevent the gender gap from being reproduced in the next generation of innovators.

SINGAPORE

Introduction

In Singapore, women have made rapid and significant progress over the last few decades, and have been able to participate fully and equally in all spheres of life and at all levels. Singapore's policy approach to closing the gender gap, including in the area of science and technology, is supported by a comprehensive strategy articulated through official government initiatives and legislation. Nonetheless, everyone in Singapore has equitable access to opportunities, regardless of background.

Contributing to this strategy are initiatives like i) **SG Women in Tech (SGWIT)**, ii) **Promotion of Women in Engineering, Research and Science (POWERS)**, iii) **Women in Science Early Career Fellowship (WIS-ECF)** and iv) **Cross-Polytechnic Girls in Tech Committee**, which encourage and empower girls and women to pursue an interest and/or career in STEM. The details of these initiatives will be covered in this note.

Complementing this, the Singapore government has enacted broader legislation that supports women's participation in the workforce, which has a direct impact on their ability to pursue and remain in STEM careers. The **Workplace Fairness Legislation**, for example, prohibits workplace discrimination based on sex, marital status, and caregiving responsibilities, among other protected characteristics. The WFA will complement the existing **Tripartite Guidelines on Fair Employment Practices (TGFEP)**, which will continue to protect against other forms of discrimination. This promotes the creation of an environment where women can manage their work and personal lives more effectively, particularly in demanding fields like STEM.

This country note has the following objectives:

1. To provide, as outlined in the table below, an overview of a selection of policy initiatives identified as relevant for the G20 Recommendations on Diversity, Equity, Inclusivity, and Accessibility (DEIA). The aim is to provide a snapshot of the broader set of policy initiatives included in the compendium database.

2. To provide, in the remainder of this country note, highlights of good practices in policy initiatives responding to the G20 Recommendation: Closing the Gender Gap in Science. It is organised according to the sub-recommendations:
   - Encouraging women and girls to consider careers in science
   - Promoting workplace environments that attract, retain, and advance women scientists
   - Collecting disaggregated data for evidence-based policies and monitoring progress
   - Integrating gender-related aspects into the content of research
   - Implementing the UNESCO 2024 Call to Action: Closing the Gender Gap in Science

3. To identify, in the last section, key intersectional policy initiatives for closing the gender gap in science.

Table 27 Singapore: Summary of the relevant policy initiatives by G20 Recommendation on DEIA

G20 Recommendation on DEIA	Number of policy initiatives	Policy instrument types	Main target groups/ beneficiaries (STIP categories)	Main target groups/ beneficiaries (Specific)
1. Promoting diversity, equity, inclusion and accessibility in STI systems	1	Governance	Not recorded	Employees; employers; women; parents; caregivers; older workers
2. Closing the gender gap in science	4	Collaborative infrastructures (soft and physical); Direct financial support; Governance	Research and education organisations; Researchers, students and teachers; Social groups especially emphasised; Governmental entities; Firms by age; Firms by size	Early career researchers (within five years of graduation); female PhD graduates; female students from universities and other tertiary institutions; female students pursuing Infocomm Technology (ICT) courses at Singapore's five polytechnics; girls and women at various stages of their careers; mid-career professionals; women; women and girls aged 13–30 years old; women seeking to re-enter the workforce
3. Fostering dialogue between different knowledge systems	Not recorded	Not recorded	Not recorded	Not recorded
4. Transitioning to open science	Not recorded	Not recorded	Not recorded	Not recorded
5. Combating inequities in STI	Not recorded	Not recorded	Not recorded	Not recorded

Note: This table includes a set of policy initiatives selected for inclusion in the compendium, 'STI for All': A Compendium of Good Practices in STI Policy. The main aim is to identify good practice policy initiatives rather than to provide an exhaustive list of the G20 member/guest country's policy initiatives.

Encouraging women and girls to consider careers in STEM

Singapore's policy initiatives for encouraging women and girls in science are multi-pronged, addressing various career stages. By focusing on role models, targeted interventions at key career stages, and a collaborative ecosystem, Singapore's policy initiatives not only encourage women and girls to pursue careers in STEM but also create a more inclusive and equitable environment towards dismantling deeply ingrained stereotypes.

Key good practice in policy initiatives include:

- **SG Women in Tech (SGWIT)**: Led by the Infocomm Media Development Authority (IMDA) in partnership with the public, private, and non-profit sectors, this initiative aims to attract and nurture female talent in tech, fostering a diverse and inclusive workforce. Its flagship initiative, the **SG 100 Women in Tech** list, recognises and celebrates the achievements of female tech professionals and pioneers. Instruments like the **Relaunch** programme aim to support women re-entering the tech workforce.
- **Promotion of Women in Engineering, Research and Science (POWERS)**: This initiative, implemented by Nanyang Technological University (NTU) in collaboration with the Singapore Ministry of Education, is part of larger efforts to create a supportive ecosystem that connects women in STEM with mentors, conducts research on gender disparities in local STEM pathways, and educates and trains through outreach and skills-building programmes. It aims to foster a supportive environment where women and girls are inspired and empowered to pursue careers in STEM. The longer-term goal is to increase gender diversity in STEM careers.
- **Women in Science Early Career Fellowship (WIS-ECF)**: This fellowship supports women in the biomedical sciences who are transitioning into academic tenure-track research careers. It aims to nurture young and outstanding female academics, providing them with career development opportunities in the early stages of their post-PhD journey.
- **Cross-Polytechnic Girls in Tech Committee**: A student-led initiative formed by girls enrolled in Infocomm Technology courses across all five polytechnics in Singapore. In partnership with SGWIT and the Infocomm Media Development Authority (IMDA), this committee seeks to attract, retain, and develop female tech talent through talks, workshops, competitions (such as hackathons), mentorship schemes, and events like Girls in Tech Week. Supported by speakers, venues, and sponsorship from SGWIT, the committee builds a peer-driven, supportive network where participants take active ownership of their professional development and explore future tech careers.

Box 24 Examples of Singapore's policy instruments encouraging women and girls to consider careers in science

The following instruments are part of the SG Women in Tech (SGWIT) initiative:
SG 100 Women in Tech: The core objective of this list is to showcase the accomplishments of women who are leading innovation, driving transformative tech projects, and shaping the digital economy in Singapore. In this way, it recognises and celebrates the achievements of female tech professionals and pioneers. By spotlighting role models for girls and young women, this initiative directly addresses the stereotype that tech and science are male domains.

Relaunch: This initiative is dedicated to supporting women who are re-entering the tech workforce. Women, often due to caregiving responsibilities, lose professional networks, confidence, and up-to-date skills, making it difficult to rejoin the fast-moving tech field. This programme recognises that a woman's career path is not always linear and that age and life stages, such as having a family or caring for elderly parents, can disproportionately affect an individual's professional life.

Promoting workplace environments that attract, retain, and advance women in STEM

Singapore's policy initiatives indicate a strategic focus on creating a supportive ecosystem and addressing systemic barriers. These initiatives promote long-term career progression and work-life balance. They combine top-down legislation with bottom-up, community-based programmes and corporate pledges to create an integrated system that addresses the complex challenges women face in attracting, retaining, and advancing in scientific careers.

Examples of good practice in policy initiatives include:

- **Tripartite Guidelines on Flexible Work Arrangement Requests**: While not focused specifically on gender, this policy initiative provides a formalised framework for employees to request flexible work arrangements (FWAs), and for employers to properly consider such requests based on reasonable business grounds. The Guidelines support all workers, including women, in managing their careers, personal aspirations and commitments.
- **SG Women in Tech (SGWIT)**: The SGWIT includes the **Corporate Pledge** programme, which encourages companies to implement specific policies that attract and retain female talent. Many companies, as part of the pledge, offer mentorship programmes specifically for women, providing them with guidance from senior leaders.
- **Promotion of Women in Engineering, Research and Science (POWERS)**: This initiative is supported by the Ministry of Education and Nanyang Technological University (NTU). It aims to create a supportive ecosystem for women in STEM, offering a sense of community and a platform for networking and mutual support.

Box 25 Example of Singapore's policy instruments promoting workplace environments that attract, retain, and advance women scientists

SG Women in Tech Corporate Pledge: As part of the SG Women in Tech (SGWIT), this initiative encourages companies to create better support systems for women in the workplace, especially for younger women pursuing a career in tech. Companies like Amazon, Microsoft, Razer and Shopee pledge to implement policies that support women in tech, such as flexible work arrangements, mentorship, and gender-equitable recruitment practices. This demonstrates that the responsibility for change is a shared commitment across the public, private, and educational sectors.

Collection of disaggregated data for evidence-based policies and monitoring progress

Singapore's policy approach to closing the gender gap is built on a foundation of data-driven decision-making. Having robust, disaggregated data is important to identify specific challenges, monitor progress, and ensure interventions are targeted and effective. Official statistics in Singapore's national statistical system are collected and compiled by the Singapore Department of Statistics (DOS) and gazetted Research and Statistics Units in government ministries and statutory boards, including the Manpower Research & Statistics Department in the Ministry of Manpower (MOM). Similarly, targeted policy initiatives like the **Promotion of Women in Engineering, Research and Science (POWERS)** programme, use data to understand local challenges and inform their strategies for encouraging women in STEM.

Integrating gender-related aspects into the content of research

Integrating gender-related aspects into the content of research, often referred to as "gender mainstreaming in research," is a growing area of focus for many countries. It involves analysing how sex and gender can influence research questions, methodologies, and outcomes. The **Promotion of Women in Engineering, Research and Science (POWERS)** programme at Nanyang Technological University (NTU), for example, has a research pillar that aims to understand gender disparities in STEM better. Through its POWERS programme, NTU has published white papers that shed light on the challenges faced by women in Singapore's STEM landscape. Such initiatives lay the groundwork for future work on integrating gender as a variable in the content of scientific research.

Implementing the UNESCO 2024 Call to Action: Closing the Gender Gap in Science

Singapore's approach is based on a multi-stakeholder model involving the government, academia, and the private sector. The focus on data-driven policy, targeted interventions, and the creation of a supportive ecosystem demonstrates a strategic and effective approach to closing the gender gap in science.

The **SG Women in Tech (SGWIT)** is one of Singapore's initiatives that directly addresses the principle of dismantling gender stereotypes and biases in science through its **SG 100 Women in Tech list**, for example, which promotes the presence of female scientists in the media and in popular culture. The **Promotion of Women in Engineering, Research and Science (POWERS)** programme contributes to dismantling gender stereotypes through producing materials and outreach activities.

The **Cross-Polytechnic Girls in Tech (GIT) Committee**, under the **SGWIT movement**, focuses on supporting female students in polytechnics through mentorship, and hands-on workshops to deepen their interest in technology and science from a young age. The **Women in Science Early Career Fellowship (WIS-ECF)** is an example of a targeted initiative that supports female PhD graduates to transition into academic research, a critical point at which many women leave the system.

Through policy initiatives like the **Workplace Fairness Legislation** and the **Tripartite Guidelines on Flexible Work Arrangement Requests (TG-FWAR)**, Singapore supports workers in managing their careers, personal aspirations and commitments. The **SGWIT Corporate Pledge** encourages companies to commit to specific policies that support women in tech, such as mentorship programmes and equitable hiring practices.

Key intersectional policy initiatives for closing the gender gap in science

Two initiatives address the gender gap in science through an intersectional lens:

1. **SG Women in Tech (SGWIT)**
    - **Why it's a good practice**: The SGWIT is a holistic, ecosystem-based approach that addresses the "leaky pipeline" at multiple points. The SGWIT is not a single programme, but a national movement and involves government agencies, private companies, and community partners. This collective responsibility ensures a comprehensive strategy that tackles the problem from various angles, including countering stereotypes by showcasing successful female leaders, targeted support for women re-entering the tech workforce after a career break, and encouraging companies to make formal commitments to gender-equitable practices, thus embedding the change within the private sector.
    - **Intersectional nuance**: The strength of the SGWIT lies in its intersectional nuance related to career stage and age, acknowledging that the challenges faced by women are not uniform but are shaped by their life stage and professional trajectory. The programme's focus on life stages of females in tech – students, mid-career professionals, those returning to the workforce, and female leaders in tech - acknowledges that the barriers faced by a young student are different from those of a mother seeking to re-enter a demanding field. This approach provides tailored support, whether it is early inspiration for a young girl or skills training and mentorship for a woman rebuilding her career.

2. Promotion of Women in Engineering, Research and Science (POWERS)

- **Why it's a good practice**: This is a research-driven and institution-based programme providing targeted support for women and girls aged 13 to 30, a critical period for shaping career aspirations and navigating the transition from education to the professional world. POWERS conducts and publishes its own research to understand the specific barriers women face in the local STEM landscape. This ensures that its programmes and advocacy efforts are evidence based. It focuses on building a supportive community within the university, linking students with role models and mentors, which is crucial for fostering confidence and a sense of belonging.
- **Intersectional nuance**: POWERS addresses the intersection of gender with educational and institutional contexts. Embedded within a major technical university, the programme can directly address institutional biases and norms in academic and research environments. It moves beyond a one-size-fits-all approach by focusing on the unique challenges women face within the "leaky pipeline" of academia and research, such as the disproportionate representation in certain fields and the challenges of career progression in a male-dominated research culture. This institutional focus allows for a more granular approach to creating an inclusive environment.

SWITZERLAND

**This country note contains provisional information and has not been officially verified.*

Introduction

Switzerland's approach to closing the gender gap in science is characterised by a comprehensive, multi-layered strategy that addresses various stages of the scientific career. Policy initiatives focus on early stage encouragement, career support and retention mechanisms. The **Gender Equality Grant**, for example, focuses on "repairing the leaky pipeline" and **P-7 Diversity, Inclusion and Equal Opportunities** embed diversity, equity and inclusion as essential values within higher education institutions. The proactive approach to data collection, demonstrated by the publication, **GENDERMONITORING**, offers a solid foundation for evidence-based policymaking and accountability. Switzerland's alignment with the United Nation Sustainable Development Goals and its active involvement in global governance frameworks, such as those related to Artificial Intelligence, further emphasise its dedication to international good practices in advancing gender equality in science. A notable strength is the consistent application of an intersectional approach across diverse initiatives, signalling a sophisticated understanding of equity.

This country note has the following objectives:

1. To provide, as outlined in the table below, an overview of a selection of policy initiatives identified as relevant for the G20 Recommendations on Diversity, Equity, Inclusivity, and Accessibility (DEIA). The aim is to provide a snapshot of the broader set of policy initiatives included in the compendium database.

2. To provide, in the remainder of this country note, highlights of good practices in policy initiatives responding to the G20 Recommendation: Closing the Gender Gap in Science. It is organised according to the sub-recommendations:
   - Encouraging women and girls to consider careers in science
   - Promoting workplace environments that attract, retain, and advance women scientists
   - Collecting disaggregated data for evidence-based policies and monitoring progress
   - Integrating gender-related aspects into the content of research
   - Implementing the UNESCO 2024 Call to Action: Closing the Gender Gap in Science

3. To identify, in the last section, key intersectional policy initiatives for closing the gender gap in science.

Table 28 Switzerland: Summary of the relevant policy initiatives by G20 Recommendation on DEIA

G20 Recommendation on DEIA	Number of policy initiatives	Policy instrument types	Main target groups/ beneficiaries (STIP categories)	Main target groups/ beneficiaries (Specific)
1. Promoting diversity, equity, inclusion and accessibility in STI systems	7	Collaborative infrastructures (soft and physical); Direct financial support	Intermediaries; Researchers, students and teachers; Social groups especially emphasised; Research and education organisations	Early-career researchers; PhD students; postdocs; men; **women**; experienced researchers; internationally recognised researchers; research institutions; students; higher education institutions; the public; underrepresented groups; disadvantaged groups; excluded groups; persons with disabilities; public organisations; private organisations; education sector; research sector; socio-economic sectors; experts; government bodies; civil society; university management; university staff
2. Closing the gender gap in science	11	Collaborative infrastructures (soft and physical); Direct financial support; Governance	Governmental entities; Research and education organisations; Firms of any size; Social groups especially emphasised; Researchers, students and teachers	Members of the ETH Domain; underrepresented groups; individuals facing systemic barriers; people with disabilities; individuals from different ethnic backgrounds; individuals from different socioeconomic backgrounds; individuals with caregiving responsibilities; federal government bodies; researchers; public; girls aged 10–13; boys aged 10–13; schools; higher education institutions; individuals with migration backgrounds; research institutions; policymakers; evaluators; staff responsible for planning and implementation of policies; highly qualified early-career researchers; female early-career researchers; academics; Swiss research institutions; educational institutions; healthcare professionals; students; staff interested in Gender Studies; staff working on Diversity and Equality; teachers; companies in STEM fields; young women researchers

Continues overleaf...

G20 Recomm-endation on DEIA	Number of policy initiatives	Policy instrument types	Main target groups/ beneficiaries (STIP categories)	Main target groups/ beneficiaries (Specific)
3. Fostering dialogue between different knowledge systems	1	Governance	Firms; intermediaries; Social groups especially emphasised	Businesses; communities; residents of mountain regions; residents of rural regions; residents of border regions
4. Transitioning to open science	2	Governance	Economic actors (individuals); Firms; Governmental entities; Research and education organisations; Social groups especially emphasised	Federal government employees; public, who interacts with AI-powered government services; entire Swiss population; businesses; research institutions; governmental bodies
5. Combating inequities in STI	3	Collaborative infrastructures (soft and physical); Governance	Firms; Intermediaries; Research and education organisations; Researchers, students and teachers; Social groups especially emphasised	Farmers; businesses in the food industry; consumers; policymakers; broader population; researchers; students; firms; non-governmental organisations involved in energy research; individuals with low scientific literacy; journalists; universities; research organisations; civil society

Note: This table includes a set of policy initiatives selected for inclusion in the compendium, 'STI for All': A Compendium of Good Practices in STI Policy. The main aim is to identify good practice policy initiatives rather than to provide an exhaustive list of the G20 member/guest country's policy initiatives.

Encouraging women and girls to consider careers in science

Switzerland implements a comprehensive, multi-faceted strategy to encourage women and girls to pursue and maintain careers in science, addressing various phases of the educational and professional pipeline, ranging from early education to professorial-level funding. The approach reflects an understanding that encouraging women in science requires ongoing effort throughout the entire academic and professional journey. The **National Future Day**, for example, focuses on the crucial early stage of career choice, aiming to break down gender stereotypes before they become ingrained. This proactive, preventative approach helps to address the root causes of the "leaky pipeline" phenomenon. Programmes like the **SNSF Professorial Fellowships** and the **National Centres of Competence in Research (NCCR)** offer financial and structural support at later, more advanced career stages.

Here are brief descriptions of these examples of good practice policy initiatives:

- **National Future Day**: A public awareness campaign that directly engages schoolchildren, specifically children in grades five to seven. Its primary goal is to provide girls and boys with new career perspectives by encouraging them to explore fields where their gender is underrepresented. For girls, this often means careers in STEM. By encouraging children to explore "unusual occupations," it aims to break down stereotypes at a critical age when children are forming their career aspirations. This proactive approach fosters early interest in science.
- **Swiss National Science Foundation (SNSF) Professorial Fellowships**: This is a more targeted policy initiative at the professional level. The SNSF, a major research funding body in Switzerland, offers a grant to young women researchers, to provide flexible, individual support for their career development. The grant can be used for mentoring, coaching, and networking. These fellowships include postgraduate loans and scholarships, with project funding reaching up to CHF 1 million. In addition, it includes the **PRIMA Leadership Programme**, which is available to all female grantees. The direct association of significant funding and leadership development initiatives with gender equality objectives underscores a deliberate policy decision to attract and support women in senior scientific roles. This initiative therefore directly addresses the "leaky pipeline" problem, where a disproportionate number of women leave academia at the postdoctoral and early-career stages.
- **STEM-Programme (MINT-Mandat)**: This is a strategic programme to promote STEM education for children and young people. A key focus is on fostering gender equality and increasing the opportunities for girls and women in these fields. The programme involves extracurricular, multidisciplinary projects.
- **Strategic Framework for Diversity, Equality and Inclusion (in the ETH Domain)**: While not exclusively for women, this is a "good practice" policy. The ETH Domain, which includes leading technical universities like ETH Zurich and EPFL, has broadened its focus from a specific "Gender Strategy" to a more comprehensive DEI framework. A key pillar of this framework is to promote equal opportunities for all employees and to provide specific support for "women and other groups under-represented in the ETH Domain, and especially in STEM subjects." This represents a modern, holistic approach to addressing gender issues within a broader context of inclusion.

Promoting workplace environments that attract, retain, and advance women scientists

Switzerland's good practices for promoting women in science go beyond just grants and include a multi-faceted approach involving targeted financial support, comprehensive institutional frameworks, the promotion of mentorship and role models, and a growing recognition of the need to address systemic and structural barriers. For example, targeted funding is provided through the **Gender Equality Grant**, and systemic institutional reform is encouraged through the **P-7 Diversity, Inclusion and Equal Opportunities** programme.

Examples of good practice policy initiatives include:

- **Gender Equality Grant**: This initiative directly addresses a critical challenge in career retention, the "leaky pipeline," which is often caused by gender-related issues such as family care responsibilities. This grant offers "additional individualised and flexible support" to "young women researchers" with the explicit aim of preventing "women researchers from abandoning their scientific careers."

The fellowships, postgraduate loans and scholarships mitigate specific barriers that affect women disproportionately. The SNSF has integrated gender equality measures into its top-tier funding schemes. A key example is the merger of the **PRIMA** (specifically for women) and **Eccellenza** schemes into the **SNSF Professorial Fellowships**. While the schemes were merged, the SNSF maintains a fixed, additional budget for women applicants, ensuring that a certain number of fellowships continue to be awarded to women. This approach aims to promote excellence while still actively addressing the gender imbalance at the professorial level.

- **P-7 Diversity, Inclusion and Equal Opportunities programme**: This initiative aims to establish DEI as fundamental values and principles in organisation, teaching, research, and development at universities. It facilitates the transfer of resources and expertise across higher education institutions through networking and collaborative platforms, as well as procurement programmes for R&D and innovation. The programme endeavours to transform institutional cultures fundamentally, fostering environments where diversity and inclusion are valued and practised.
- **Strategic Framework for Diversity, Equality and Inclusion**: This is a top-down, systemic approach, establishing an institution-wide commitment to DEI.

Collection of disaggregated data for evidence-based policies and monitoring progress

Switzerland values data-driven policy, as demonstrated by the **GENDERMONITORING** initiative. Other initiatives such as the **Recommendations and Checklist** supported by the Rectors' Conference of Swiss Universities, prompt institutions to collect and analyse their own disaggregated data on recruitment, promotion, and student success rates, so as to assess their performance on DEI.

Examples of good practice policy initiatives include:

- **GENDERMONITORING**: Its sole purpose is to collect, analyse, and present data on gender equality. It regularly "publishes data on the gender distribution of faculty hires at universities, as well as on the total proportion of female professors at these institutions." The data is used to measure progress, identify areas of concern (e.g., the "leaky pipeline" in academia), and provide an evidence base for policy decisions. The data and "policy intelligence (e.g., evaluations, benchmarking and forecasts)" is used to inform "strategic discussions by the Chamber of Universities." The data is essential for holding institutions accountable and for designing effective interventions. A similar initiative is the **Equity in Education and Science – Statistics and Reports**, which is dedicated to collecting and publishing statistics and reports on equity in education and science, often considering factors like socioeconomic status, migration background, and gender. It institutionalises the process of data collection and analysis and ensures that equity issues remain on the policy agenda. These are critical tools for identifying systemic inequalities.
- **Guidelines for the consideration of gender in Federal studies and statistics**: This is a foundational policy initiative that guides how other federal bodies should conduct their data collection. Its objective is to ensure that all relevant federal studies and statistics are gender-responsive, meaning they collect and analyse data disaggregated by gender. In this way, it promotes evidence-based policy making that acknowledges gender differences.

Integrating gender-related aspects into the content of research

Switzerland's policies demonstrate a nuanced understanding that integrating gender aspects into research goes beyond representation to fundamentally improve the quality and societal relevance of scientific work. The **Swiss Academies of Arts and Sciences** uphold this commitment by advocating for "ethically based responsibility in the production and application of scientific knowledge" and connecting "science, politics and society." This emphasis on ethics and societal relevance encourages the integration of gender-related aspects to ensure research is equitable, free from unintended biases, and produces knowledge beneficial to all areas of society.

Examples of good practice policy initiatives include:

- **National Research Programme (NRP 83 Sex and Gender in Health)**: A core part of its mission is to collect and analyse data on how sex and gender influence health outcomes. This means gathering disaggregated data in a specific domain and aims to understand its interplay with biological sex in the context of health. The research that results from this programme is crucial for creating targeted and effective healthcare policies. It addresses the historical lack of research on women and other groups in clinical trials and medical studies, which has led to negative health outcomes.
- **Guidelines for the consideration of gender in Federal studies and statistics**: This is a foundational policy that encourages a gender-sensitive approach from the start of a research project. By requiring federal studies and statistics to disaggregate data by gender, it creates the data infrastructure that is necessary for evidence-based research and policy. This means that researchers in many fields will have the data they need to analyse gender-related differences, from transport use to economic activity.
- **Strategic Framework for Diversity, Equality and Inclusion (at the institutional level)**: While not a dedicated research programme, this initiative fosters gender-sensitive content by promoting the integration of gender perspectives into curricula and research projects.

While not focused on gender, these policy initiatives are good practice examples promoting the integration of gender-related aspects into the content of research:

- **Guidelines on Artificial Intelligence for the Federal Administration**: This policy is an example of integrating gender and diversity considerations into a cutting-edge, cross-cutting field. This progressive policy initiative underscores "Putting people at the core" and aims to guarantee the "protection of fundamental rights" for "disadvantaged groups". It is a good practice because it recognises the potential for algorithmic bias to perpetuate social inequalities. By providing guidelines that address these risks, Switzerland is proactively working to ensure that new technologies do not create new forms of discrimination based on gender, race, or other factors.
- **Swiss Energy Research for the Energy Transition (SWEET)**: By promoting "inter- and transdisciplinary research and innovation projects" and involving "stakeholders from outside the research community," this initiative fosters an environment conducive to the incorporation of gender perspectives, acknowledging that energy solutions must address the diverse needs and impacts on various population groups.

Implementing the UNESCO 2024 Call to Action: Closing the Gender Gap in Science

Switzerland, through its various institutions and policies, has implemented several good practice initiatives that align with and help to implement the principles of the UNESCO 2024 Call to Action, including, dismantling stereotypes, creating inclusive workplaces, and ensuring women's leadership. For example, the **National Future Day** and **STEM-Programme (MINT-Mandat)** contribute to dismantling gender stereotypes and biases in science and provide gender-transformative counselling and guidance. The **Strategic Framework for Diversity, Equality and Inclusion (at institutional levels, e.g., the ETH Domain)** is an example of a holistic and systemic good practice that aligns with the UNESCO call to "create workplace environments that attract, retain, and advance women scientists," including explicitly addressing the need to support employees with caregiving responsibilities, which is a major factor in the high attrition rates of women scientists. The **SNSF Professorial Fellowships** address the "underrepresentation in leadership roles" and the "glass ceiling." **GENDERMONITORING** and the **Equity in Education and Science – Statistics and Reports** are vital tools that align with UNESCO's call for "data collection and analysis on women's participation in STI."

Key intersectional policy initiatives for closing the gender gap in science

Switzerland's approach to closing the gender gap in science is comprehensive and multi-level, combining targeted funding, institutional reform, and cultural change. While a significant portion of these policies address gender directly, an intersectional lens reveals that their effectiveness can be amplified by considering other identity factors. Initiatives are increasingly being framed within broader diversity, equity and inclusion goals, recognising that the challenges women face in STI are not uniform and are often compounded by factors like nationality, socioeconomic status, and disability. This shift toward a more nuanced approach is evident in the push for more comprehensive data collection and the emphasis on systemic change in addition to individual-level support.

Three policy initiatives stand out for their explicit and direct approach to closing the gender gap in science in an intersectional way:

1. **National Research Programme (NRP 83 Sex and Gender in Health)**
    - **Why it's a good practice**: This initiative moves beyond a focus on the "gender gap" and funds research that separates and analyses the distinct influences of biological sex and sociocultural gender on health outcomes. This is good practice because it recognises that a one-size-fits-all approach to medicine and public health can be ineffective and even harmful. By funding research projects that look at diverse populations, such as LGBTQI+ individuals' access to palliative care, the programme moves beyond a simple male/female binary. It directly addresses the UNESCO Call to Action by promoting research that is both gender-sensitive and intersectional, leading to more equitable healthcare for all.
    - **Intersectional nuance**: The programme's call document and funded projects explicitly use the term "intersectionality" and encourage researchers to examine how sex and gender intersect with other key determinants of health, such as ethnicity, age, socioeconomic status, and migration background. This proactive approach ensures that the research produced is relevant to and benefits a diverse population, rather than disproportionately focusing on the experiences of a privileged group.

2. Strategic Framework for Diversity, Equality and Inclusion

- **Why it's a good practice**: This type of framework (e.g., within the ETH Domain) enables a shift from a singular focus on gender to a comprehensive and systemic approach to diversity. It establishes a top-down commitment to addressing all forms of inequality, recognising that a more inclusive environment for one group benefits all.
- **Intersectional nuance**: A strong strategic framework explicitly acknowledges that different identities intersect. It recognises that policies aimed at, for example, supporting women, may not adequately address the barriers faced by women of colour, women with disabilities, or women from lower socioeconomic backgrounds. The framework's value lies in its commitment to addressing these overlapping forms of discrimination and ensuring that policies are designed to benefit individuals at these intersections. It aims to embed DEI into all institutional processes, from hiring and promotion to curriculum design, thus creating a more equitable system for everyone.

3. Guidelines on Artificial Intelligence for the Federal Administration

- **Why it's a good practice**: This initiative is a forward-thinking good practice because it applies an intersectional lens to emerging technologies. It recognises that AI algorithms, if unchecked, can perpetuate and amplify existing societal biases. By providing a framework for the ethical and responsible use of AI, it proactively addresses the risk of algorithmic bias that could disproportionately harm marginalised communities. This is an innovative approach to closing the gender gap in science by ensuring that the future of technology is not built on past inequalities.
- **Intersectional nuance**: The guidelines are inherently intersectional in their purpose. They understand that AI systems can be biased not only against a specific gender but also against individuals based on their race, disability, or a combination of these factors. For example, facial recognition software might be less accurate for women of colour, or a hiring algorithm might favour resumes with male-coded language. This policy initiative encourages a reflexive and critical approach to technology development, ensuring that new scientific and technological advancements are used to promote rather than hinder, an inclusive society.

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