



# EUROPEAN POLICY BRIEF

Gender STI 

## POLICY BRIEF ON GENDER STI

Policy feedback on Gender Equality in Science,  
Technology and Innovation in Bilateral and  
Multilateral Dialogues

April 2022

### INTRODUCTION

The EU Member States and many countries outside the European Union are facing similar challenges in terms of gender equality in the area of science, technology and innovation (STI): gender-related biases are leading to horizontal (disparities among different scientific disciplines) and vertical (low levels of women representation on top positions) segregation. The perception of and support for gender equality varies significantly across cultures. Cultural and institutional barriers turn women away from STI and affect their careers. Also the take up of the gender dimension in research and innovation content is still limited.

The EU has developed a strategy for promoting gender equality along three objectives of the European Research Area, i.e., gender equality in scientific careers, gender balance in decision-making and the integration of the gender dimension in research and innovation (R&I) content. There is increasing interest from third countries to cooperate with the EU in the field of STI and encourage the mobility of researchers. It is therefore important to develop common solutions for common challenges regarding gender inequalities in STI.

The GENDER STI project will investigate how gender equality matters are taken into consideration at different levels of international cooperation in the area of science, technology and innovation between the EU and a selected set of third countries and provide insightful learnings and recommendations on how to address gender equality in R&I within the EU STI dialogue with key international partners.

### EVIDENCE AND ANALYSIS

In the policy context described above, the GENDER STI project addresses the challenge to integrate the gender perspective in science, technology and innovation (STI) in international cooperation dialogues between EU Member States, Associated Countries and 10 selected third countries from three continents: Canada, the U.S., Mexico, Brazil, Chile, Argentina, South Africa, India, South Korea and China. Our investigation is being conducted along the three objectives of the EU gender equality strategy in R&I, i.e. gender equality in scientific careers, gender balance in decision-making and the integration of the gender dimension in R&I content. The involvement of European and third countries, combined with the adoption of a design thinking approach and mixed methods for data collection in all phases of the GENDER STI project make a difference.

**GENDER STI policy-relevant findings** are based on a continuous **mapping study** on STI international cooperation agreements (including bi- and multilateral agreements, memorandums of understanding (MoU) and STI implementation activities, such as calls for proposals, rules for participation and evaluation criteria), alongside a

**survey** on gender equality implementation in STI agreements and **in-depth interviews** with relevant stakeholders in Europe and third countries.

- a) The integration of the gender dimension in the STI agreements between EU MS, AC and third countries is still limited. The preliminary analysis of 365 agreements from government level organisations, research performing and funding organisations, universities, STI related non-governmental agencies and associations, and multinational organisations revealed that only about 10% of the agreements refer to gender aspects. These gender contents were often vague, and mainly these contents were at government level STI bi- and multilateral agreements. Within this context, development cooperation agreements in the field of innovation are the ones that place most emphasis on gender aspects, considering gender one of the sectors of intervention. In turn, gender equality is more often mentioned in the STI implementation programmes of the agreements and in the terms and conditions of the calls for proposals, e.g. in evaluation criteria for R&D projects.
- b) The results of our survey (204 respondents) suggest that there is a lot of common ground between Europe and third countries on what needs to be done to include and improve gender equality provisions in bilateral and multilateral agreements in STI between regions. As far as what areas of gender-related provisions are addressed in STI cooperation agreements, respondents from both groups indicated that the gender-related provisions most often included in STI agreements refer to the following areas: Contribution to Sustainable Development Goals (SDGs) (24%), STI objectives/priorities (22%) and calls for proposals/applications (21%). Nonetheless, when breaking out results from Europeans and respondents from third countries, we observe some differences, which suggests that different regions have different priorities regarding the implementation of gender equality. These priorities should be considered when negotiating STI bilateral and multilateral agreements and forming of joint programmes in STI. For instance, one of the approaches to achieve gender equality in scientific careers differ considerably. While 45% of Europeans considered “Parental leave policies/flexible work schedule arrangements” to be an important approach, 42% of respondents from third countries see “Incentives for women to lead projects” the most important action to improve gender equality.
- c) The perception of barriers for gender equality varies significantly across cultures. Nonetheless, according to our survey, Europe and third countries coincide that there are three important barriers preventing the inclusion of gender equality in STI bilateral and multilateral agreements: underrepresentation of women in decision-making positions; stereotypes and unconscious bias; and cultural and societal barriers.
- d) There is strong consensus between Europe and third countries on three key measures to advance the integration of the gender perspective in STI: Include gender equality considerations in the renewal of bilateral and multilateral agreements and/or in future agreements; Develop a gender mainstreaming strategy for STI cooperation with other countries; and Support staff training on gender analyses in order to produce gender sensitive STI agreements, programming and impact evaluations.

## POLICY IMPLICATIONS AND RECOMMENDATIONS

The project findings are the basis to build a **solid foundation for co-creation of common solutions and formulation of recommendations** regarding gender inequalities in STI dialogues. The first **GENDER STI Co-Design Labs** held in 2021 were attended by 70 participants from 19 countries. The Labs have created a vivid environment to co-create and prototype solutions related to the forefront challenges of the EU strategy to promote gender equality in R&I:

- 2 Prototypes on gender equality in **scientific careers** that set up actions to support a cultural change at universities by creating a welcoming atmosphere and develop an international agreement to increase the representation of women in STI careers.
- 2 Prototypes on gender balance in **decision-making bodies and positions** that focus on the promotion of female networks that empower women in STI and development of a guideline to support gender mainstreaming in the process of setting up agreements for decision-making positions.
- 3 Prototypes on **the integration of the gender dimension in research and innovation content** that aim to develop a methodology based on inclusive design for R&I funding agencies, a training programme on how to embed inclusive thinking and create a tool for monitoring and supporting gender integration into R&I content.
- Gender STI **Prototyping Matrix**: to assess the potential benefits, outcomes and impacts of the co-designed prototypes on international STI agreements and dialogues.
- **Initial actions and recommendations** have been formulated based on GENDER STI Co-Design Labs, and this work

will continue in the forthcoming co-creation events. Similar to recommendations, also the prototypes, which are developed in multi-national teams and piloted in national contexts, will continue to be designed in collaboration in the later stages of GENDER STI project.

## SUSTAINABILITY AND LEGACY

GENDER STI has generated added-value differentiated outputs that bring a unique perspective to address gender equality in STI dialogues between Europe and key international partners. Here are some of the first highlights of the Gender STI project (<https://www.gender-sti.org/publications/>):

- **Survey Report on Gender Equality Implementation in STI Bilateral and Multilateral Agreements.** The results of the survey provide valuable evidence on the state of gender equality in international cooperation between Europe and 10 selected third countries and important insights on key issues, barriers and measures to advance the integration of the gender perspective in STI. They will be a key asset for recommendations to improve gender equality in international cooperation agreements.
- **Concept Note on Co-Design Labs: Tackling Gender Equality in STI Worldwide.** It aims to help participants understand the three objectives of the ERA, i.e., gender equality in scientific careers, gender balance in decision-making and the integration of the gender dimension in R&I content, which are the forefront challenges Gender STI focuses on and encourage them to develop customised solutions to their national contexts.
- **Report on Co-Design Labs I.** The Gender STI Co-Design Labs engage STI stakeholders in a dynamic mix of workshops, demonstrations and guided hands-on teamwork based on design thinking principles. This report presents the prototypes created by participants of the first series of Co-Design Labs to advance gender equality in STI dialogues.
- **[Testimonials and lessons from Women Leaders in STI across the globe](#)** who are making a difference in their communities and fields, from professors and researchers to business executives and political leaders.

## PROJECT OBJECTIVES AND METHODOLOGY

GENDER STI project aims to: 1) Investigate and follow up how gender equality matters are taken into consideration at different levels of international cooperation dialogues in the area of STI between the EU MS and AC on one side, and the selected set of 10 third countries on the other side; 2) Develop a strategy to co-design solutions for common challenges regarding gender inequalities in STI, through a design thinking process to engage relevant stakeholders in EU and the selected third countries. Specific objectives are the following:

- #1 Provide a **mapping of how gender equality is taken into account and promoted in bilateral and multilateral agreements** in the STI area between the EU MS and AC and the 10 selected third countries.
- #2 Perform a **comparative analysis and benchmarking** on gender equality in STI agreements with third countries.
- #3 **Build on the work done by the ERA related groups** in charge of gender equality and international cooperation.
- #4 Design and implement a series of **Co-Design Labs** in EU and selected third countries.
- #5 **Formulate recommendations** to enhance the integration of gender equality objectives in STI dialogues.
- #6 **Increase visibility** of GENDER STI outcomes and maximize the impact of the project.

GENDER STI adopts the concept of **design thinking and co-creation methodology** as a central mechanism to explore the role of women in STI and to encourage scientific collaboration among EU MS, AC and third countries. The development of lasting bilateral and multilateral relationships is essential to address global challenges regarding gender equality in international cooperation in STI, and thus to develop common solutions for common challenges regarding gender inequalities in STI dialogue with third countries. Our design thinking and participatory approach allow us to engage with policy makers and relevant stakeholders in the co-creation of common solutions and policy recommendations. The Co-design Labs serve to transform challenging problems into creative ideas, innovations, strategies and solutions through dialogue, leadership, communication and participatory interaction.

## PROJECT IDENTITY

<b>PROJECT NAME</b>	Gender Equality in Science, Technology and Innovation Bilateral and Multilateral Dialogues (GENDER STI).
<b>COORDINATOR</b>	María Fernanda Cabrera, Universidad Politécnica de Madrid, Spain, mf.cabrera@upm.es.
<b>CONSORTIUM</b>	Canadian Institutes for Health Research – CIHR – Ottawa, Canada Centre National de la Recherche Scientifique – CNRS – Paris, France Council for Scientific and Industrial Research – CSIR – Pretoria, South Africa Euro-India Research Centre – EIRC – Bangalore, India FUTOUR – Pisa, Italy Georgia Tech Research Corporation – GTRC – Atlanta, United States Graz University of Technology – TU Graz – Graz, Austria Hallym University – Chuncheon, South Korea INMARK Europa – INMARK – Madrid, Spain Instituto Tecnológico y de Estudios Superiores de Monterrey – ITESM – Monterrey, Mexico National Academy of Innovation Strategy – NAIS – Beijing, China Ontario College of Art and Design University – OCAD – Toronto, Canada Red Argentina de Género, Ciencia y Tecnología – RAGCyT – Buenos Aires, Argentina Red Nacional para Investigación y Educación de Chile – REUNA – Santiago, Chile Sociedade Portuguesa de Inovação – SPI – Porto, Portugal Technical Research Centre of Finland – VTT – Espoo, Finland Universidade de São Paulo – USP – Sao Paulo, Brazil Universidad Politécnica de Madrid – UPM – Madrid, Spain
<b>FUNDING SCHEME</b>	SwafS-12-2019. The gender perspective of science, technology and innovation (STI) in dialogue with third countries.
<b>DURATION</b>	November 2020 – October 2023 (36 months).
<b>BUDGET</b>	EU contribution: 1 999 650 €.
<b>WEBSITE</b>	<a href="https://www.gender-sti.org/">https://www.gender-sti.org/</a>
<b>FOR MORE INFORMATION</b>	Contact: Yolanda Ursa, yolanda.ursa@grupoinmark.com.
<b>FURTHER READING</b>	<ul style="list-style-type: none"><li>- Maria F. Cabrera, Yolanda Ursa (2022), <b>Towards Gender Equality in Science, Technology and Innovation</b>. IUPESM World Congress on Medical Physics and Biomedical Engineering, Singapore, 12-17 June 2022.</li><li>- Sarina Gursch, Katja Urak, Michael Herold, Stefan Kutschera, Maria Fernanda Cabrera, Yolanda Ursa, Wolfgang Slany, Vesna Krnjic (2022), <b>Inequalities for Women in Science, Technology and Innovation</b>. International Conference on Gender Research – ICGR 2022, Conference proceedings, University of Aveiro, Portugal, 28 - 29 April 2022.</li><li>- Riina Bhatia, Maria Merisalo, Nina Rilla and Tuisku Salonen (2022), <b>Challenging Science and Innovation Policy. From persisting gender inequality to inclusion in research and innovation content: challenging the gender equality norm in the STI fields</b>. Extended abstract to Eu-SPRI 2022 conference, Utrecht, 1-3 June 2022.</li><li>- Maria F Cabrera, Yolanda Ursa (2021), <b>Integrating Gender perspective in Science, Technology and Innovation</b>. IEEE-EMBS BHI 2021 - IEEE-EMBS International Conference on Biomedical and Health Informatics (BHI), Conference-poster, 27 July 2021.</li><li>- Yolanda Ursa, Mariel Bleger, Lara Primosich, Ana Franchi, Silvia Kochen, Luciana Ayciriex (2021), <b>Equidad de género en la Cooperación Internacional en Ciencia Tecnología e innovación</b>. XIII Congreso Iberoamericano de Ciencia, Tecnología y Género, Quito-Ecuador, 14 July 2021.</li></ul>