

On March 20, 2019, the IATT Group on Gender and Science, Technology and Innovation (STI) organized a side event on Gender and STI on the margin of the sixty third session of the Commission on the Status of Women (CSW). This event was the product of a partnership between ITU, UNESCO, WIPO and UNDESA.

This event was in the form of a panel discussion intended to promote awareness and understanding of the importance of supporting gender equality in the fields of science technology and innovation. It also provided an opportunity to share what select UN entities are doing to advance this program of work.

This event took place at the UN Headquarters in New York and was attended by some 100 participants. The event was opened and moderated by Ms. Ola Zahran, Head, World Intellectual Property Organization (WIPO) Coordination Office in New York. The thrust of the contributions made by the panelists is reflected hereunder (in order of intervention):

- **Ms. Stephanie Rambler, Sustainable Development Officer, Division for Sustainable Development United Nations Department of Economic and Social Affairs** briefed the audience on the initiatives on gender and STI across the division and focused on empowering women through “2030 Connect” – an online platform serving as a gateway for information on existing STI initiatives, mechanisms and programs. The platform is one of three components of the Technology Facilitation Mechanism (TFM), its main aims will be to connect providers and seekers of technology, policy, research and information as well as facilitate identification, adaptation and adoption of technologies, connect experts and bring together off-line services (credit, legal, training). Importantly, it will be able to provide access to women to opportunities, particularly in non-traditional fields.
- **Ms. Cornelia Moussa, Director, Human Resources Management Department, WIPO** presented WIPO’s work in promoting gender equality in Science, Technology & Innovation explaining that WIPO’s work mainly targets three key areas: capacity building, data analysis & publication as well as awareness raising. Even though women inventors in international patent applications are increasing, gender gap persists. The share of international patent applications with women inventors increased to 32.6% in 2018, while the share of applications with men inventors decreased to 94.3% in the same year.

At regional level, the share of women inventors increased in all regions of the world with Latin America having the highest growth. China and the Republic of Korea lead amongst the top 20 patent filing countries. Why some countries have a higher share of women inventors than others is partially explained by the fields of technology. Data and statistics have also shown that women inventors are more present in the fields of biotechnology, pharmaceuticals, organic and food chemistry. At the current rate, gender parity among inventors is projected to be achieved by 2076.

- **Mr. Alessandro Belo, Project Officer, STEM and Gender Advancement, United Nations Educational, Scientific and Cultural Organization:** - Science and gender equality are both vital for the achievement of the Sustainable Development Goals (SDGs), none of the targets will be achieved without science viewed through a gender lens. Over the past decades, the global community has made a lot of effort in inspiring and engaging women and girls in science, technology and innovation (STI). Unfortunately, women and girls continued to be excluded from fully participating in it.

There are at least three main reasons for promoting gender equality in STI. First, there is the rights-based, or social justice argument. 2018 was the 70th Anniversary of the Universal Declaration of Human Rights, in which gender equality and access to science are recognized as human rights. Second, sustainable development itself requires more science and more scientists. The 2030 Agenda and its 17 SDGs recognize this explicitly. If the world needs more scientists, it cannot afford to have half of its population missing from the scientific workforce. Third, sustainable development also requires new and better science, including science that is interdisciplinary. It has been demonstrated that when women contribute their particular perspectives, approaches and priorities to R&D, the questions asked, and the research results are more varied and more societally relevant.

One factor above all should call us to immediate action: the low numbers of women researchers worldwide in science. According to the UNESCO Institute for Statistics, in June 2018 less than 30% of the world's researchers were women. In some countries of South and West Asia, and East Asia and the Pacific, this number decreases to around 20%.

This is why gender equality is one of the two global priorities at UNESCO, and we cannot reach gender equality without working to overcome gender disparities in access to, influence over, and use of science, technology and innovation (STI). UNESCO has a key role to play in taking up these issues and in promoting women and girls in and for science through a range of initiatives focused on:

- Influencing cultural change and support women scientists through role models
- Supporting the careers of women scientists and strengthen their networks
- Promoting gender equality in STEM education at primary and secondary levels
- Supporting monitoring and evidence-informed policy making

- Contributing to changing the underlying institutional bases of gender inequalities, through the global project STEM and Gender Advancement (SAGA) focused on improving measurement and policies for gender equality in STI.

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Projecting current trends into the future, the overall **global gender gap will close in 108 years** across the 106 countries covered since the first edition of the report. Thus, to address the issue of under-representation of women in STI we need a holistic approach, since the gender disparity in STEM is associated with many aspects, including but not limited to education, career progression, research content and practice, policy-making, entrepreneurship and innovation, and social stereotypes/norms.

- **Ms. Ursula Wynhoven, Representative of the International Telecommunication Union to the United Nations, New York:** - presented ITU's gender and STI activities, which include: use of machine learning to analyze and increase transparency around participation of men and women at its major intergovernmental meetings; reporting a wide range of gender equality data on the ITU website (<https://www.itu.int/en/action/gender-equality/data/>); the EQUALS Global Partnership to bring women and girls to tech and tech to women and girls (equals.org); Girls in ICT Day (25 April; www.itu.int/girlsinict); African Girls Can Code initiative; and networks and mentoring efforts to support more gender balanced delegations coming to ITU meetings.

- **Ms. Chantal Line Carpentier, Chief New York Office, United Nations Conference on Trade and Development:** - Gender equality in STI and STEM remains a timely issue, and there are several challenges that women in these fields are still confronted with. First, there is lack of women in STEM and, consequently, an invisibility of female role models, as well as a lack of diversity in research and development, leading to problems and biases. For instance, women are more vulnerable in car accidents because safety features, like seat belts and airbags, are designed with a focus on males, who are, on average, taller and heavier than women.

Second, the gender digital divide persists, and women, particularly in developing countries, face high barriers to accessing the opportunities from digitalization, such as social networks, learning opportunities, financial tools, and business support. Third, increasing levels of automation are expected in industries with high shares of female employees, such as textiles, which will lead to an increase in the number of women without occupations. Several recommendations could address these issues, such as having society-wide discussions supported by evidence-based research. Specifically, there needs to be better disaggregated data on women and girl's participation in STEM education and different STEM career stages as well as on participation in innovation and entrepreneurship.

Additionally, gender should be incorporated from the inception phase, in that it needs to be a target issue from the early stages of policies, projects, and products

for policymakers, academia, and private sector stakeholders alike. Moreover, new frameworks should be developed at the workplace instead of trying to “fit” women and their biological roles related to childbearing into the existing frameworks at the workplace; we need tools that can bring results in both the short-term, like networking, mentoring and coaching, and in the long-term, such as recruitment and retention policies. Finally, we should use nuanced approaches by relying on local data and research and learning from solutions around the world in order to face issues like attracting women and girls to choose STEM studies and careers and to elicit participation.

The event benefited from the courteous contribution of the Nevertheless Podcast Posters on Women in STEM. The acquisition of the rights to reproduce and display the posters was facilitated by Pearson and Women You Should Know. The role models represented in the posters are Cynthia Breazeal (Scientist and Roboticist – Pioneer of the World’s First Social Robot), Rosalind Franklin (Scientist – instrumental in discovering the structure of DNA), Mae Jemison (Astronaut and Doctor – First African American woman in Space), Maria Da Penha (a Brazilian Biopharmacist), Juliana Rotich (Technologist and entrepreneur. Built crowdsourcing tools that democratize information), Hayat Sindi (Scientist and innovator – First Saudi Woman with a Biotechnology PhD from Cambridge), Gladys West (Mathematician – instrumental in the development of the GPS) and Tu You You (A pharmaceutical Chemist and Educator. First woman from China to receive a Nobel Prize).

Also, on this occasion a brochure was produced to showcase activities of UN entities members of the IATT Gender and STI Group aimed at encouraging the participation of women and girls in STI. The brochure is available at [here](#).