

Agenda

International Conference

The future of girls in STE(A)M

Madrid, Spain, 13-14 December 2023



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Spanish Presidency of the European Union

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Reina Sofia National Museum and Art Center

The future of girls in STE(A)M

Female education in STE(A)M refers to the representation of girls and women in the fields of Science, Technology, Engineering and Mathematics (STEM). The inclusion of the “A” signifies a more artistic, creative and innovative use of science and technologies. Creative industries and artificial intelligence (AI) have transformed the way we perceived science and technology, and there is a need to broaden the concept thanks to this “A” that allows for innovation in a constantly evolving world through the search for new methods to address new challenges.

In recent decades, the proportion of women who have completed tertiary education has consistently increased, effectively reversing historical gender disparities. In today's context, women in almost all OECD countries are more likely than men to hold a university degree. However, upon reaching higher education, women still tend to gravitate towards academic fields that divert them away from science and technology. Women's participation in fields related to education (80%), health (80%), and social sciences (70%) has remained relatively stable since 2005. Between 2005 and 2020, the percentage of new female graduates in engineering has remained nearly unchanged, hovering around 25% within the OECD. Over the same period, the percentage of female graduates in ICT-related fields has decreased by approximately 3%, accounting for only 20% of the total number of students in this field, despite its widespread recognition and high employability in today's job market.

Closing the gender gap in Science, Technology, Engineering, and Mathematics education fields could play a vital role in diminishing occupational segregation. Simultaneously, it would tackle skills shortages and contribute to the growth of female employment. Ultimately, this would also foster economic growth by boosting productivity and expanding participation in the labor market.

While various countries have implemented diverse strategies to enhance women's engagement in STE(A)M, none have achieved significant success thus far. It is now opportune to adopt a coordinated international approach that unites key stakeholders in addressing the gender gap in STE(A)M more effectively. This approach should leverage data, international research, and peer learning to drive meaningful change.

The OECD, in partnership with the Spanish government during the Spanish European Presidency, has united to raise global awareness about the importance of women's participation in STE(A)M careers. They are accomplishing this by organising a significant international conference dedicated to the future of girls in STE(A)M.

Wednesday, December 13

08:30h. Reception

09:30h. Welcome

Master of ceremonies: Marijo Bos, Gender advisor and founder of Bos advisors

Video on drawing the future: exploring academic aspirations from an early age

Opening remarks

- **José Manuel Bar**, Secretary of State for Education of Spain
- **Marta Encinas-Martín**, Education Gender Ambassador, Senior Advisor Global Relations and Cooperation, OECD
- **Pia Ahrenkilde Hansen**, Director-General for Education, Youth, Sport and Culture, European Commission (video)

10:00h. The social and economic cost of the gender gap in STE(A)M

- **Carlien Scheele**, Director of the European Institute for Gender Equality (EIGE)

Presentation on how the lack of women in STE(A)M has a negative effect on economic and social development and GDP growth.

Video STEAM Alliance for Female Talent: Girls on Science Footing

10:20h. Engaging girls in STE(A)M through effective policies

A discussion between Ministers about national policies and strategies to narrow the gender gap in STE(A)M.

Moderator: José Antonio Ardavín, Head of Global Relations and Cooperation LAC region, OECD

- **João Costa**, Minister of Education of Portugal
- **Erna Kristin Blöndal**, Vice-Minister of Education and Children of Iceland
- **José Manuel Bar**, Secretary of State for Education of Spain

11:30h. Coffee

12:00h Inspiring young girls in STE(A)M

- **Sara García Alonso**, ESA Astronaut and CNIO scientific researcher

Sara will be joined by girls and teachers from three countries who will share their aspirations for the future and discuss who is influencing their choices.

Moderator: Nick Chambers, CEO Education and Employers, United Kingdom

13:00 Women, technology and economic development

International Business representatives will discuss the impact of gender disparity in STE(A)M, their remedial measures, and how they collaborate with schools and universities.

Moderator: Marta Blanco, President of Spanish Confederation of Business Organizations (CEOE) International

- **Tanuja Randery**, Managing Director and Vice President, Amazon Web Services for Europe, Middle East, and Africa
- **Eimear Creaven**, President, Western Europe, Mastercard
- **Serpil Timuray**, CEO of the Europe Cluster and Member of Group Executive Committee Vodafone

14:00h. Lunch offered by the Ministry of Education, Vocational Training and Sports of Spain

15:30h. GirlSTE(A)M Initiative Showcase: Discover STE(A)M innovations from around the world and network!

17:30h. Guided visit to the Reina Sofia Museum and Art Center

Thursday, December 14

09:30h. The persistence of stereotypes and their influence on the loss of female STE(A)M talent

We often think about gender stereotypes as something that children learn while they are growing up or that manifests during the sensitive teenage years. Yet OECD findings on five-year-olds show that gender stereotypes are well developed even before children arrive at school.

Presentation: The future at five: Gendered aspirations of five-years-old

Presenter and Moderator: Marta Encinas-Martín, Education Gender Ambassador and Senior Advisor Global Relations and Cooperation, OECD

- **Justine Sass**, Chief of Section Education for Inclusion and Gender Equality, UNESCO
- **Verónica Fernández**, Director of Fiction, Netflix
- **Isabel Ferrer**, Barbie Lead, Mattel EMEA
- **Dana Adriana Puia Morel**, Women Entrepreneurship Education, SME Policy, European Commission

11:00h. Coffee

11:30h. Designing a new STEM world with “A”: from creative industries to technology development

A discussion on how the underrepresentation of women in fields like creative industries and emerging technologies may lead to grow the gender gap.

Moderator: Montserrat Grañeras, Head of the Gender Equality Unit of the Ministry of Education, Vocational Training and Sports of Spain (STE(A)M Alliance for Female Talent. Girls on Science footing)

- **Esperanza Ibáñez**, Director Institutional Relations, Netflix
- **Carme Artigas**, Secretary of State for Digitalization and Artificial Intelligence, Spain
- **Silvia Constain**, Former Minister of Information and Communication Technologies in Colombia and Senior VP for LAC Government Engagement, Visa
- **Laura Ripani**, Chief, Labor Markets and Social Security Division, Inter-American Development Bank

12:30h. Gender, Education and Skills – The persistence of gender gaps in education

- **Andreas Schleicher**, Director of Education and Skills at the OECD

Informed by the *Gender, Education and Skills Report on the persistence of gender gaps in education*, this presentation will highlight current career choices among girls and boys and their implications for women and the economy.

13:00. The way forward – A commitment to enhance gender equity in STE(A)M

A debate aimed at reaching conclusions and developing concrete strategies to achieve equity in STE(A)M.

Moderator: Andreas Schleicher, Director of Education and Skills at the OECD

- **Pilar Alegría**, Minister of Education, Vocational Training and Sports, Spain
- **Ersilia Vaudo**, Chief of Diversity Officer, European Space Agency
- **Elena García Armada**, CEO of Marsi Bionics, Independent Director at Indra, Scientific Researcher at CSIC (on leave)

13:45h. Closing ceremony

- **Pilar Alegría**, Minister of Education, Vocational Training and Sports, Spain
- **Ana Redondo**, Minister of Gender Equality, Spain
- **Diana Morant**, Minister of Science and Innovation, Spain

14:00h. Lunch offered by the Ministry of Education, Vocational Training and Sports of Spain