Basic information

2019/2164(INI) INI - Own-initiative procedure	Procedure completed
Promoting gender equality in science, technology, engineering and mathematics (STEM) education and careers **Subject** 4.10.04 Gender equality 4.40 Education, vocational training and youth	

Key players

European Parliament

Committee responsible	Rapporteur	Appointed
FEMM Women's Rights and Gender Equality	SOLÍS PÉREZ Susana (Renew)	11/12/2019
	Shadow rapporteur SCHNEIDER Christine (EPP) GÁLVEZ Lina (S&D) VANA Monika (Greens/EFA) WIŚNIEWSKA Jadwiga (ECR) ANDERSON Christine (ID) KOUNTOURA Elena (GUE/NGL)	

Committee for opinion	Rapporteur for opinion	Appointed
ITRE Industry, Research and Energy	The committee decided not to give an opinion.	
CULT Culture and Education (Associated committee)	The committee decided not to give an opinion.	

European Commission

Commission DG	Commissioner
Justice and Consumers	DALLI Helena

Key events

Date	Event	Reference	Summary

19/12/2019	Committee referral announced in Parliament		
19/12/2019	Referral to associated committees announced in Parliament		
22/04/2021	Vote in committee		
12/05/2021	Committee report tabled for plenary	A9-0163/2021	Summary
09/06/2021	Debate in Parliament		
10/06/2021	Decision by Parliament	T9-0296/2021	Summary
10/06/2021	Results of vote in Parliament		
10/06/2021	End of procedure in Parliament		

Technical information	
Procedure reference	2019/2164(INI)
Procedure type	INI - Own-initiative procedure
Procedure subtype	Initiative
Legal basis	Rules of Procedure EP 55
Other legal basis	Rules of Procedure EP 165
Stage reached in procedure	Procedure completed
Committee dossier	FEMM/9/01544

Documentation gateway

European Parliament

Document type	Committee	Reference	Date	Summary
Committee draft report		PE661.980	09/12/2020	
Amendments tabled in committee		PE680.746	02/02/2021	
Committee report tabled for plenary, single reading		A9-0163/2021	12/05/2021	Summary
Text adopted by Parliament, single reading		T9-0296/2021	10/06/2021	Summary

European Commission

Document type	Reference	Date	Summary
Commission response to text adopted in plenary	SP(2021)531	23/09/2021	

Promoting gender equality in science, technology, engineering and mathematics (STEM) education and careers

2019/2164(INI) - 10/06/2021 - Text adopted by Parliament, single reading

The European Parliament adopted by 546 votes to 35, with 100 abstentions, a report on promoting gender equality in science, technology, engineering and mathematics (STEM) education and careers.

The EU faces a **shortage of women in STEM careers and education**. Only two out of five scientists and engineers are women, despite the fact that women make up 52% of the European population and 57.7% of higher education graduates in the EU. Women are particularly under-represented in the information and communication technology sector (18%) and among STEM graduates (36%), with three times as many men as women working in the digital sector.

Giving greater visibility to women in STEM and their professional contributions could lead to successful role models and, ultimately, more mainstreaming and ultimately foster inclusion and gender equality.

Removing barriers

Parliament considered it essential to **increase the proportion of women in STEM** by removing all socio-cultural, psychological and educational barriers that limit women's interests, preferences and choices, such as gender stereotypes and discrimination, or the combination of biological and social factors, notably that of motherhood with the most decisive periods in women's careers, without compromising women's freedom to make decisions.

The Commission is called on to launch and support awareness-raising campaigns and other programmes and initiatives to reduce these barriers in the academic world.

Promote women's participation through incentives

Member States are encouraged to promote the participation of women and girls in STEM studies and careers in their relevant national or regional gender action plans or strategies by providing adequate incentives. These action plans or strategies should, among other initiatives, aim to increase gender equality by focusing on the eradication of gender stereotypes, establish mandatory pay transparency policies, implementing zero tolerance for sexual harassment, and increasing the visibility of female role models.

Parliament reaffirmed the importance of integrating gender awareness in all relevant sectors, **including initial and in-service teacher training**. It urged Member States to tackle gender segmentation of the labour market in STEM through investment in formal, informal and non-formal education as well as lifelong learning and vocational training for women.

Education

Members noted that girls seem to lose interest in STEM as they get older, suggesting that interventions are needed from **pre-school and primary school** onwards to support girls' interest in these fields. They called on the Commission and Member States to create new channels to reach out to girls and ensure that digital education reaches them all. They encouraged gender mainstreaming in primary, secondary and higher education, through educational content, teacher training and gender-sensitive curricula.

In addition, EU funds, programmes and strategies, including Erasmus+, the European Social Fund Plus (ESF+) and the Digital Europe Programme, should be used effectively to actively encourage girls to undertake studies in ICT and STEM fields.

Digital sector

Members regretted the fact that the gender gap exists across all digital technology domains but is especially concerned about the gender gap in innovative technologies, such as the AI and cybersecurity domains, where the average worldwide female presence stands at 12 % and 20 % respectively.

Parliament called for the reduction of the gender gap in the digital economy through targeted measures. Pointing out that on average, start-ups owned by women receive 23 % less funding than those run by men, the Commission and Member States are called on to foster women's entrepreneurship in innovation and to increase funding opportunities for female entrepreneurs and women-led digital start-ups.

Careers

Members regretted that women face disproportionately more obstacles in their careers than men owing to the lack of a proper work-life balance and an increase in unpaid care work in most households. The COVID-19 pandemic has further aggravated the situation of women, who have had to balance overtime remote working while caring for children and doing unpaid care work.

Member States are urged to establish adequate measures to guarantee zero tolerance policies for sexual harassment, better maternity leave, significantly more and longer paternity leave, and paid and non-transferable parental leave that will allow women and men to take time off to care for their children, and to combat the norm of the woman being the parent to take a career break in order to overcome a major barrier to women advancing their careers, as well as ensuring flexible working hours, on-site childcare facilities and telework.

Parliament urged the Council to unblock the proposed directive on implementing the principle of equal treatment between persons irrespective of religion or belief, disability, age or sexual orientation, which aims to extend protection against discrimination through a horizontal approach.

Lastly, Members welcomed the Commission's initiative establishing the EU Prize for Women Innovators, which is awarded every year to European women who have founded a successful company and brought an innovation to market.

Promoting gender equality in science, technology, engineering and mathematics (STEM) education and careers

2019/2164(INI) - 12/05/2021 - Committee report tabled for plenary, single reading

The Committee on Women's Rights and Gender Equality adopted the own-initiative report by Susana SOLÍS PÉREZ (ES, Renew Europe) on promoting gender equality in science, technology, engineering and mathematics (STEM) education and careers.

The EU is facing an unparalleled shortage of women in STEM careers and education, not least given that women make up 52 % of the European population and 57.7 % of tertiary graduates in the EU, yet only account for 2 out of 5 scientists and engineers. Women are also under-represented at all levels in the digital sector in Europe. The gap is largest in specialist skills and employment in ICT in the EU, where only 18 % are women, among STEM graduates, of whom only 36 % are women, and in the digital sector, where there are more than three times more men than women.

Raising the profile of women in science, technology, engineering and mathematics and women's professional contributions can establish patterns of success to follow and ultimately lead to more inclusion and gender equality.

Removing barriers

Members reiterated that main goal should be to remove all barriers, in particular sociocultural, psychological and pedagogical barriers that restrict women's and girls' interests, preferences and choices, including gender stereotypes, gender discrimination and a combination of biological and social factors, notably that of motherhood with the most decisive periods in women's careers, without compromising women's freedom to make decisions.

Promoting gender equality

Member States are encouraged to promote the participation of women and girls in STEM studies and careers in their relevant national or regional gender action plans or strategies by providing adequate incentives. These action plans or strategies should, among other initiatives, aim to increase gender equality by focusing on the eradication of gender stereotypes, establish mandatory pay transparency policies, implementing zero tolerance for sexual harassment, and increasing the visibility of female role models.

Member States should invest in developing the skills of primary and secondary STEM teachers to help them to understand and address unconscious preconceptions in their teaching practices and assessments and to engage all learners equally.

The Commission and the Member States are called on to:

- devise policy measures that fully incorporate the gender dimension through awareness-raising campaigns, training, school curricula and, in particular, careers guidance;

- pay careful attention to intersectional discrimination and bias due to ethnicity, religion, sexual orientation, age or disability when devising their action plans;

- create new channels to connect with girls and ensure that digital education reaches them all, and to recognise and invest in teachers as the drivers of cultural change given their potential to boost the continuing participation of girls in science at school;

- find more attractive and creative ways to showcase female role models with successful careers in ICT and STEM to boost girls' self confidence in digital skills and encourage them to pursue ICT and STEM-related studies.

Digital sector

Members regretted the fact that the gender gap exists across all digital technology domains but is especially concerned about the gender gap in innovative technologies, such as the AI and cybersecurity domains, where the average worldwide female presence stands at 12 % and 20 % respectively. The report called for the reduction of the gender gap in the digital economy through targeted measures including EU funds to finance female-led projects in the digital sector, training courses for HR departments on 'unconscious gender-discriminatory bias', annual reports on diversity and the gender pay gap by ICT companies, and EU funds distributed to companies that take into account gender balance criteria.

It also asked the Commission and Member States to foster women's entrepreneurship in innovation and to increase financing opportunities for female entrepreneurs and female-led digital start-ups.

Careers

The report regretted the fact that women face disproportionately more obstacles in their careers than men owing to the lack of a proper work-life balance and an increase in unpaid care work in most households. The COVID-19 pandemic has further aggravated the situation of women, who have had to balance overtime remote working while caring for children and doing unpaid care work.

Member States are urged to establish adequate measures to guarantee zero tolerance policies for sexual harassment, better maternity leave, significantly more and longer paternity leave, and paid and non-transferable parental leave that will allow women and men to take time off to care for their children, and to combat the norm of the woman being the parent to take a career break in order to overcome a major barrier to women advancing their careers, as well as ensuring flexible working hours, on-site childcare facilities and telework.

The report urged the Council to unblock the proposed directive on implementing the principle of equal treatment between persons irrespective of religion or belief, disability, age or sexual orientation, which aims to extend protection against discrimination through a horizontal approach.

Lastly, Members welcomed the Commission’s initiative establishing the EU Prize for Women Innovators, which is awarded every year to European women who have founded a successful company and brought an innovation to market.