Women in the digital sector

International Women’s Day on 8 March provides an opportunity both to celebrate women’s achievements and to take stock of progress towards gender equality. The gender gap in the digital sector, in areas ranging from education to salaries, persists. Women’s increased participation in the sector could help solve the shortage of information and communications technology (ICT) professionals needed for the EU’s digital sector to grow. It could also yield economic benefits in terms of gross domestic product (GDP) per capita.

EU commitment to gender equality

Under the Treaties on European Union (TEU) and on the Functioning of the European Union (TFEU), the EU can enact legislation to combat gender-based discrimination (Article 19 TFEU), and is committed to upholding and promoting the gender equality principle in all its actions (Articles 2 and 3(3) TEU and Article 8 TFEU). The European Commission’s priorities, set out in the 2020-2025 gender equality strategy, include closing gender gaps in the labour market, achieving equal participation across different economic sectors, and addressing the gender pay and pension gaps.

State of play

The 2022 digital economy and society index (DESI) shows the low rate of women with education in key digital areas. Only one in five ICT specialists and one in three science, technology, engineering and/or mathematics (STEM) graduates are women. The drop-out rate from digital careers among women working in the digital sector is higher than that among men. This is particularly true for those between 30 and 44 years old – the prime working age in someone’s professional development, and the period in life when many Europeans are having their first child and/or are taking care of their small children. Caregiving responsibilities at home mean that around 7% of women in the EU are out of the workforce, compared with only 0.5% of men. As far as careers are concerned, few women are in leading positions; and they represent only 14.8% of start-up founders. When it comes to salaries, women in ICT earn almost 20% less than men.

Figure 1 – Distribution of ICT specialists by sex, 2021 (rounded)

Data source: Eurostat.
Main challenges and opportunities

Europe is facing an unprecedented shortage of ICT professionals, with 55% of EU companies having difficulties recruiting ICT specialists in 2019. Reaching 20 million employed ICT specialists in the EU by 2030 is therefore among the targets of the EU's Digital Decade programme. The aim is to increase women's participation, since women in ICT accounted for as little as 19.1% of specialists in 2021 (Figure 1).

Recruiting more women in the technology ('tech') sector might be pivotal to closing the talent gap in the field. According to a McKinsey analysis, if Europe were to increase the share of women in the tech workforce to about 45% by 2027, it could not only close this talent gap but also benefit from an increase in GDP of as much as €260 billion to €600 billion. Similarly, the European Institute for Gender Equality stresses how closing the gender gap in STEM careers would help increase EU GDP per capita by 2.2 to 3.0% by 2050.

Improving flexibility at work can be an important step towards addressing women's needs. Almost one in four women cites lack of work-life balance as a key reason for leaving tech careers. Allowing job flexibility for women working in the digital sector would also reduce economic cost for society: the EU would gain around €16 billion every year if women with ICT degrees stayed in their jobs.

According to a recent Commission publication, which highlights the large gender pay gap, it can be difficult for women to reach managerial and decision-making positions in the digital sector. In 2019, only 19% of ICT entrepreneurs in the EU were women, while 93% of capital invested in European companies went to all-male founding teams. Despite the low percentage of women in entrepreneurship, research shows that digital start-ups owned by women are more likely to be successful than those owned by men. Moreover, investment in female-founded start-ups performs 63% better than that in exclusively male-founded ones.

The potential impact of gender gaps and biases in developing future technologies should not be underestimated. Technology reflects its developers' values. Big data, algorithms, and artificial intelligence are ever-more important in people's daily lives, and having more diverse teams working in the development of these technologies might therefore help not only to pinpoint biases but also to prevent them – after all, both men and women use digital technologies and need to be involved in building their digital future.

What the EU is doing

To increase women's participation in the digital sector, the Commission's gender equality strategy focuses on questioning stereotypes, promoting digital education and advocating for more women entrepreneurs. For instance, to challenge digital gender stereotypes, the European Digital Skills awards for women in ICT are aimed specifically at increasing the number of women ICT professionals. As regards education, the strategy supports initiatives such as the digital education action plan and the Girls Go Circular project to encourage women to participate in STEM studies and careers, and take up work in the digital economy. Another example of a successful initiative is WeHubs, the first community of business support organisations for women entrepreneurs in the digital sector.

The European Parliament is intent on promoting equality between men and women and equal opportunities at the workplace. It adopted a resolution in January 2021 pointing out that teleworking enables women to achieve a better work-life balance. It also called on the Commission to adopt cross-cutting policies to reduce the gender gap in the digital economy. In a resolution of March 2023, Parliament called for better access for women and girls to digital tools and training, and for measures to promote their advancement in the STEM professions.