

Women's participation in inventive activity

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Myriads of brilliant women innovators contribute to solving some of humanity's biggest challenges.

The good news for Europe is that women's contribution to science and technology has increased in the last decades. Indeed, the women inventor rate, which measures the percentage of female inventors among all inventors in patent applications in a given year, has been increasing in Europe since the late 1970s.

This is one of the main findings of the study on "Women's participation in inventive activity" [1], conducted by the European Patent Office (EPO) based on its cutting-edge patent data. The study gives a picture of women and patenting as it stands today, providing evidence on the presence of women inventors across different countries, time periods and technology fields indicated in European patent applications received by the EPO.

On the other hand, the study shows that women remain persistently and disproportionately underrepresented among inventors in Europe.

The European figures are comparable to the US and slightly above Japan. But the gap is wider in Europe than in other parts of the world, especially in some Asian countries where high shares of women inventors constitute a major force for innovation.

The study reveals a pattern of a steadily decreasing share of women in the course of a STEM career - from PhD enrolment to PhD graduates in STEM (Science, technology, engineering and mathematics) to R&D personnel and researchers, to patenting. The pattern is broadly consistent across all European countries and confirms that women in Europe face increasing obstacles when progressing in STEM careers.

Increasing women's participation in science is a major challenge for Europe to address, as well as a key factor in its future sustainability and competitiveness.

There are positive findings from the study to build on and measures that can be taken, such as supporting the mobility of women scientists and promoting collaboration in research which may give women more opportunities to engage in careers related to inventions

It is also worth noting that patent applications from universities and Public Research Organizations have a significantly larger share of women inventors.

We need to ensure all voices are heard within our innovation ecosystem. From women to SMEs. From classrooms to careers.

References

[1] Women's participation in inventive Activity, November 2022.