



Policy Brief

Strengthening Gender-Inclusive Cybersecurity Career Pathways in Europe

Prepared for:
European Commission

Prepared by:
Professor Vladlena Benson

Date: 2025

This report has been prepared for the European Commission. The information and views set out in this document are those of the author(s) and do not necessarily reflect the official opinion of the European Union or the European Commission. 1

Context

Europe continues to face a severe cybersecurity workforce shortage, with an estimated 3.4 million professionals needed globally and Member States consistently reporting critical understaffing across sectors. Women remain significantly underrepresented—currently constituting roughly 20% of the cybersecurity workforce—limiting the innovation, resilience, and adaptability of Europe’s digital ecosystem. Findings from the She@Cyber project confirm that women’s career intentions and progression are hindered not by capability or competence, but by systemic, cultural, and structural barriers embedded across the cyber skills pipeline.

Key Challenges

Women seeking to enter or progress within cybersecurity encounter multiple intersecting challenges that reduce participation and undermine long-term career prospects. One of the central issues is the absence of career guidance that meaningfully reflects the unique experiences, motivations, and concerns of women. Conventional guidance frameworks rarely acknowledge gender-specific obstacles or present cybersecurity as an inclusive, creative, and socially impactful field. This lack of tailored support is intensified by the limited visibility of female role models across the cybersecurity landscape. With relatively few women represented in technical or leadership positions, many aspiring professionals struggle to envision a future for themselves within the sector.

Persistent gender stereotypes further reinforce the perception of cybersecurity as an overwhelmingly technical, male-dominated domain. These biases shape societal expectations and influence women’s self-perception from an early age, often discouraging them from pursuing cybersecurity pathways long before they reach higher education or employment. Compounding these issues is the shortage of structured mentorship and networking opportunities accessible to women, particularly in regions where digital ecosystems are less developed. Limited mentoring reduces women’s ability to build professional confidence, navigate career routes, and form connections that are essential for advancement.

Training and development programmes also often fall short of addressing women’s needs. While technical competence is vital, many women benefit from programmes that incorporate leadership development, confidence-building, and exposure to diverse cyber roles—elements that are commonly underrepresented. Finally, work-life balance concerns remain a significant deterrent. Cybersecurity roles are frequently perceived as high-pressure or incompatible with caregiving responsibilities, discouraging women from both entering and remaining in the field, even in organisations where flexible work policies exist.

This report has been prepared for the European Commission. The information and views set out in this document are those of the author(s) and do not necessarily reflect the official opinion of the European Union or the European Commission. 2

Policy Recommendations

1. EU-Wide Gender-Sensitive Cyber Career Guidance Framework

- Establish structured guidance resources tailored for women at secondary, VET, and higher education levels.
- Integrate She@Cyber materials into EU Digital Skills & Jobs Platform.

2. Expand the European Cybersecurity Role Models Network

- Formalise a cross-EU ambassador network of women cybersecurity professionals.
- Encourage Member States to highlight women's contributions in cybersecurity policy, education, and innovation.

3. Incentivise Inclusive Recruitment & Promotion Practices

- Embed gender diversity criteria into EU cybersecurity funding calls.
- Promote anonymised recruitment and structured evaluation processes.

4. Fund Women-Focused Mentoring & Networking Schemes

- Support transnational mentoring programmes through Erasmus+, DIGITAL Europe, or ESF+.
- Create sector-specific women's cyber leadership accelerators.

5. Develop Tailored Training Modules for Women

- Integrate attitudinal, leadership, and confidence-building components into cybersecurity reskilling programmes.
- Promote flexible, micro-credential-based learning.

6. Promote Flexible Work Models Across EU Cyber Employers

- Encourage hybrid and flexible cybersecurity roles.
- Incentivise family-friendly organisational policies.

Expected Impact

Implementing these measures would expand women's participation in cybersecurity education and careers, strengthen talent retention, enhance diversity-driven innovation, and bolster Europe's cybersecurity capacity across all Member States.

This report has been prepared for the European Commission. The information and views set out in this document are those of the author(s) and do not necessarily reflect the official opinion of the European Union or the European Commission. 3