

# A BEST-PRACTICES GUIDE

*to attract and retain women in cybersecurity teams*



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 830892.



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## WHY?

Cybersecurity needs to build a diverse workforce, able to respond to the challenges of a globalised and ever-changing world. Different ways of approaching problems, when coordinated, bring a competitive advantage to cybersecurity teams as they can strategically and satisfactorily meet such challenges. Today, women only account for 20% of the poorly diverse cybersecurity workforce worldwide. On top of that, Cybersecurity Ventures predicts that there will be 3.5 million unfilled jobs globally by 2021, leading to a huge increase in cybercrime, which is predicted to cost the world \$6 trillion annually by the same year. The female underrepresentation in cybersecurity is accounting for this reality.

The European Commission has been actively working on this issue and has set three main strategic actions to increase women's participation in the digital sector:

1. Challenging digital gender stereotypes;
2. Promoting digital skills and education;
3. Advocating for more women entrepreneurs.

But why does the industry fail to attract and retain women in cybersecurity workplaces? Women point to the competitive, gamified, and male-dominated cybersecurity environment as one of the main reasons for not taking nor following the path of cybersecurity. We need to start breaking down these stereotypes and make your cybersecurity environment more welcoming and attractive to women. SPARTA gathered some of the best-practices you can adopt!



# BEST-PRACTICES

Targeting on integration strategies and equity at work will promote diversity, and generate synergies with great multidisciplinary and multicultural value.

*"It doesn't have to be expensive: companies can make the simple change of diversifying their security team. If implemented optimally as part of a firm's recruitment strategy, this brings more views to the table and increases the range of skills available."* (O'Flaherty, 2019)

## 1. UNDERSTAND THE PROBLEM

You can only successfully help to close the cybersecurity gender-gap if you are aware of the bigger picture. You should know and understand the numbers, the challenges we face, and the current policy initiatives. Here are some links for enlightening readings, and interesting interviews with women working in Cybersecurity:

<https://www.isc2.org/-/media/ISC2/Research/ISC2-Women-in-Cybersecurity-Report.ashx>

<https://www.crest-approved.org/wp-content/uploads/CREST-Closing-the-Gender-Gap-in-Cyber-Security.pdf>

<https://eige.europa.eu/publications/gender-equality-and-digitalisation-european-union>

<https://sparta.eu/diversity/>

## 2. LEARN TO COMMUNICATE CYBERSECURITY

Cybersecurity is viewed as being incredibly technical, gamified, and competitive, leading to a lack of interest. Yet it's very interdisciplinary and diverse and it needs to be communicated as such. Cybersecurity goes further beyond tech as it needs a holistic team, from different areas and backgrounds, like psychology, law, communication, education, and business. Re-think the messages that are being sent and don't forget to train your Human Resources to be aware of what kind of cybersecurity profiles should be understood. To start, the images used should be more inclusive and not perpetuating stereotypes of a faceless man with black hoodies invading a computer, nor introducing only male figures performing tech activities.

## 3. USE GENDER-SENSITIVE LANGUAGE

This toolkit on how to use more gender-sensitive language, by EIGE, helps you! Also, try not to use tech jargon while speaking.

[https://eige.europa.eu/sites/default/files/20193925\\_mh0119609enn\\_pdf.pdf](https://eige.europa.eu/sites/default/files/20193925_mh0119609enn_pdf.pdf)

## 4. ENSURE WOMEN VISIBILITY

The lack of role models in the industry, related to the lack of visibility of women working in cybersecurity leads to less involvement of pupils in the field. We urgently need to put female cybersecurity professionals in the spotlight through news, podcasts, interviews, meetings, speaking at conferences and so breakdown the stereotype that cybersecurity is a man's job.



## 5. ENSURE EQUAL PAY FOR EQUAL WORK

Accordingly to an [ISC2 study](#), women working in cybersecurity earn 12% less than men. "Some of this inequity may be explained by age and tenure," they write "But this doesn't erase the reality revealed in previous research that women in cybersecurity managerial positions earn about \$5,000 less than men". We must reach equity in salaries.

## 6. EMPOWER WOMEN AND PROMOTE NETWORK

The European Institution for Gender Equality (EIGE) [reported](#) that more than nine out of ten boys and girls aged between 16-24 have sufficient competences to use digital technologies in their daily life, but boys (73%) are more confident of their abilities than girls (63%). This reflects the need to empower women, through strategies to build self-awareness and self-confidence, especially of their capabilities. To empower also means to invest time networking and developing leadership skills, which is as important as developing technical skills. A mentorship program is an excellent way to start going down this road of women empowerment! SPARTA has gathered a few steps to guide your company through a successful mentorship program.

### INITIATIVES AND EVENTS AROUND THE GLOBE

*get inspired*

[CERCLE DES FEMMES DE LA CYBERSÉCURITÉ \(CEFSYS\)](#)

[CYBHER](#)

[ENGAGING - WOMEN IN CYBER DEFENSE](#)

[GIRLS GO CYBERSTART INITIATIVE](#)

[CODE FIRST GIRLS](#)

[INTELIGENCA](#)

[INTERNATIONAL CONSORTIUM OF MINORITY CYBERSECURITY PROFESSIONALS](#)

[LADIES OF LONDON HACKING SOCIETY](#)

[SANS CYBERTALENT IMMERSION ACADEMY FOR WOMEN](#)

[SHE CISO EXEC](#)

[SHE SECURES](#)

[THE AUSTRALIAN WOMEN IN SECURITY NETWORK \(AWSN\)](#)

[UNITING WOMEN IN CYBER](#)

[WOMCY - LATAM WOMEN IN CYBERSECURITY](#)

[WOMEN IN CYBER SECURITY \(WICS\)](#)

[WOMEN IN SECURITY AND PRIVACY \(WISP\)](#)

[WOMEN LEADING PRIVACY](#)

[WOMEN4CYBER](#)



# A MENTORSHIP GUIDE

## STEP 1: SELF-KNOWLEDGE

Start with sessions designed to help mentees getting to know themselves better – their story, values, and strengths. Mentors should be able to help to build mentees' self-confidence and help them understand how their story and character connects to the path they want to take, the choices they want to make, the changes they want to create.

## STEP 2: CONNECT

Buy a ticket for two! For a fruitful mentorship program, it is important for mentees and mentors to connect. Establish periodic meetings and change environments! Always protect mentoring time. Bridge interests besides cybersecurity and get to know each other.

## STEP 3: EXPLORE

Create spaces – physical and temporal – for mentees to explore their development possibilities, take risks, learn, and lead the way to start creating meaningful outcomes! Mentors should try to explore and present new possibilities for mentees, opening doors, and introducing them to people in the area to help them build a network. Mentees should also get to know the diversity of people working in the organisation, interact with them, and discover possible means for collaboration.

## STEP 4: CREATE

Don't let ideas die on paper. After exploring – which should be daily task – you are prepared to start bringing to life the ideas and projects mentees and mentors reached together. Mentors should, when they feel appropriate, incite mentees to establish SMART goals for their career and draw a coherent strategy. Remember to create a safe space to provide constant feedback and evolve together.

## STEP 5: PERSIST

Monitoring and evaluating your actions help you to stay on the right track. Mentors and mentees should always try to assess if changes are needed, be aware of the world that surrounds you and the challenges it imposes. Persist in your journey! It will lead you to amazing places.

