



EUROPEAN UNION AGENCY
FOR CYBERSECURITY

Cultivating the next generation of cybersecurity experts

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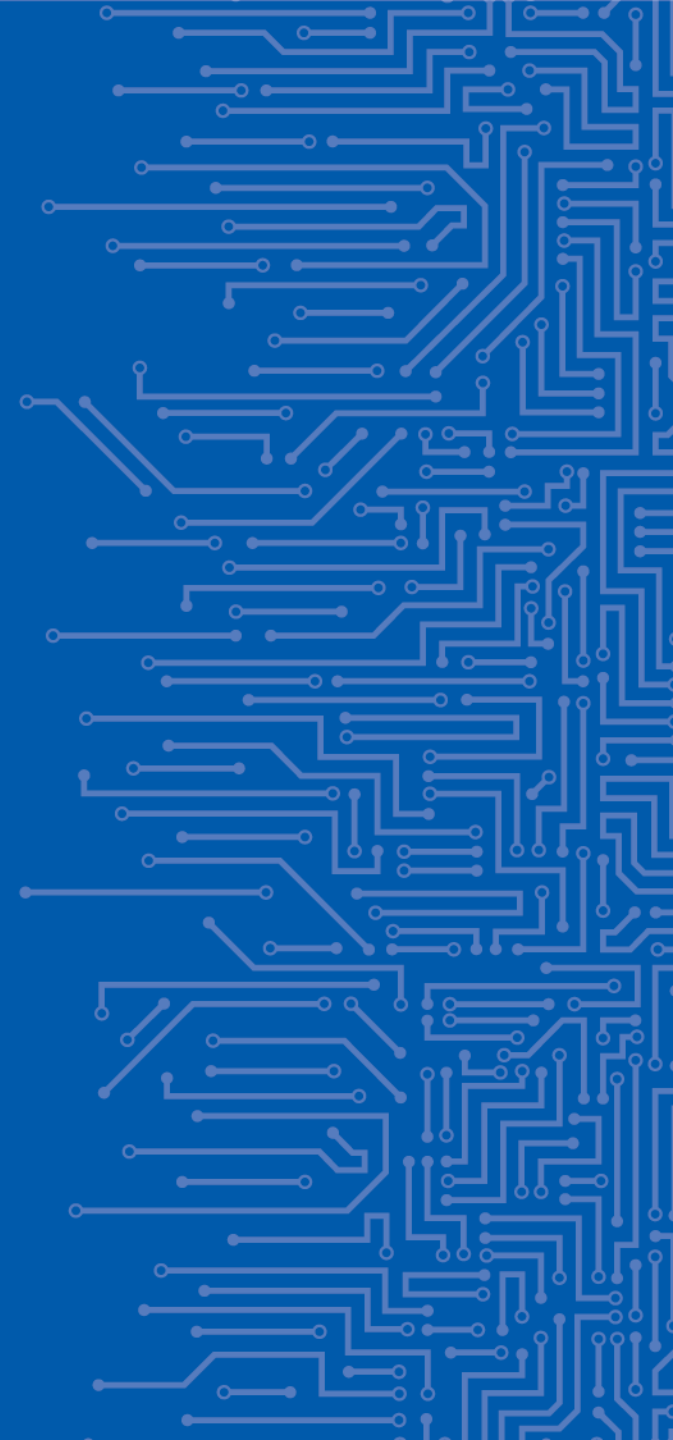
20 | 04 | 2023

AGENDA

- Cybersecurity education in EU
- Cybersecurity competitions (CTFs)
- European Cybersecurity Skills Framework

CYBERSECURITY EDUCATION

PRIMARY & SECONDARY
SCHOOL



Password Change Sign Up sheet

If you'd like to change your password please fill out the form below and we will change your password on the system you indicate.

Full Name	System (Yardi, email, ect.)	Current password	New password
Kyle Smith	Email	Scouter 44\$	Steele 442
IZ JONES	PHONE	89621	4281
Jack H.	Email	Password	Password 2
Big Ed	Facebook	redsteph	mumkay
Sean Adams	Pike Pass		more power 1991

Come See
me
- Shawn

Let's change that!

CYBERSECURITY EDUCATIONAL ROADMAP

Workstream	Projects	Priority
 Collaboration	<ol style="list-style-type: none"> 1. Create a community of stakeholders (MS' cybersecurity authorities, associations, schools, etc.) involved in cybersecurity education, with forums to discuss and share their visions to promote the topic 2. Reuse and coordinate existing web platform for MS to share and access materials, ideas, good practices, etc. in a co-constructive way 3. Launch international campaigns at the EU level, coordinated by ENISA and implemented in collaboration with the MS 	<div>1</div> <div>1</div> <div>3</div>
 Guidelines	<ol style="list-style-type: none"> 4. Identify the maturity level of each MS, in order to differentiate them and adapt the help provided (guidelines, working groups, etc.) 5. Provide guidelines to MS (through the web platform developed in project 2) <ul style="list-style-type: none"> • How to approach the national education authority to include cybersecurity education in the curriculum • How to develop cybersecurity education initiatives at a national level • How to measure the efficiency of these initiatives on the cybersecurity level 	<div>1</div> <div>1</div> <div>2</div> <div>2</div>
 Tools	<ol style="list-style-type: none"> 6. Develop ready-to-use educational materials, and make them accessible to all MS (through the web platform developed in project 2) 7. Create EU-level means of appraisal (cyber badges, diplomas, certifications, etc. for teachers and students) to recognise involvement in the cybersecurity initiatives 	<div>3</div> <div>2</div>
 Policies	<ol style="list-style-type: none"> 8. Engage into close collaboration with the European Commission to promote the inclusion of cybersecurity in education curriculum in MS 	<div>1</div>
	<div>1</div> Year 1 <div>2</div> Year 2 <div>3</div> Year 3	

CYBERSECURITY EDUCATION ACTIVITIES 2023

Workstream

Projects



Collaboration

Create a **community of stakeholders** (MS' cybersecurity authorities, associations, schools, etc.) involved in cybersecurity education, with forums to discuss and share their visions to promote the topic

Reuse and coordinate existing **web platform for MS** to share and access materials, ideas, good practices, etc. in a co-constructive way



Guidelines

Identify the **maturity level of each MS**, in order to differentiate them and adapt the help provided (guidelines, working groups, etc.)

Provide **guidelines to MS** (through the web platform developed in project 2)

How to **approach the national education authority** to include cybersecurity education in the curriculum

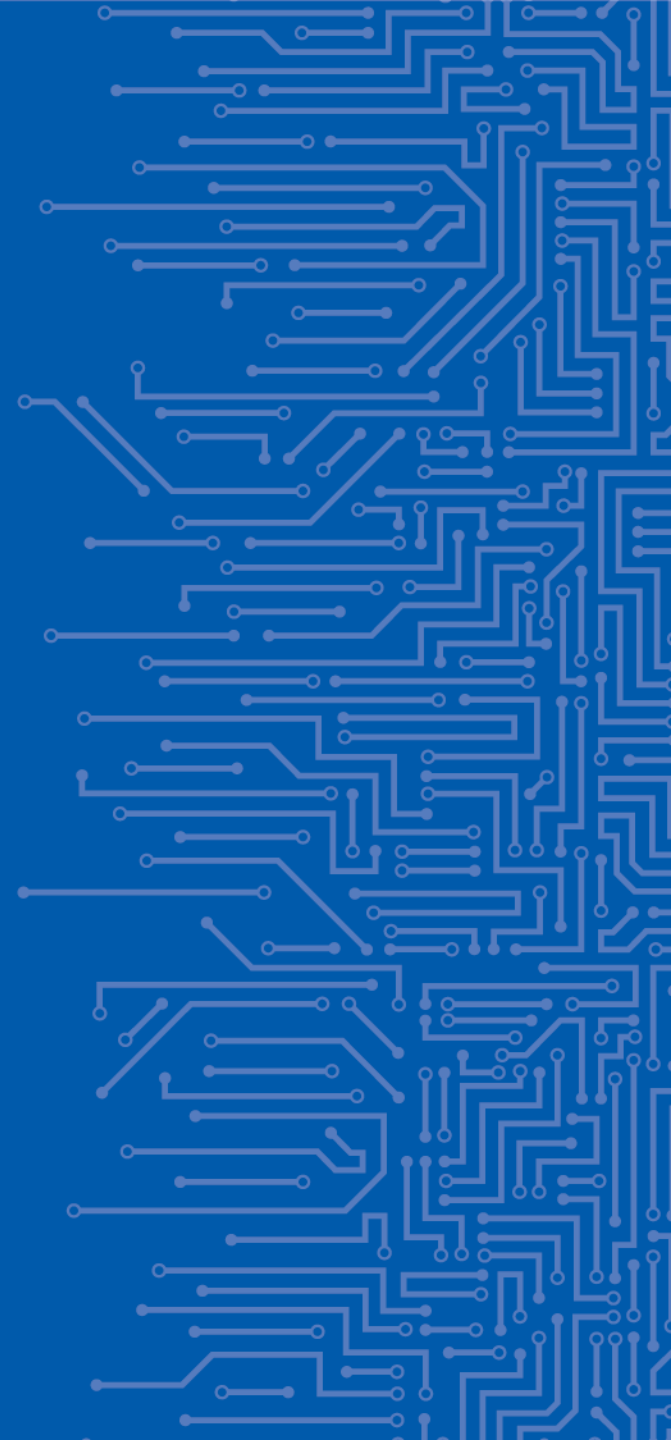


Policies

Engage into **close collaboration with the European Commission** to promote the inclusion of cybersecurity in education curriculum in MS

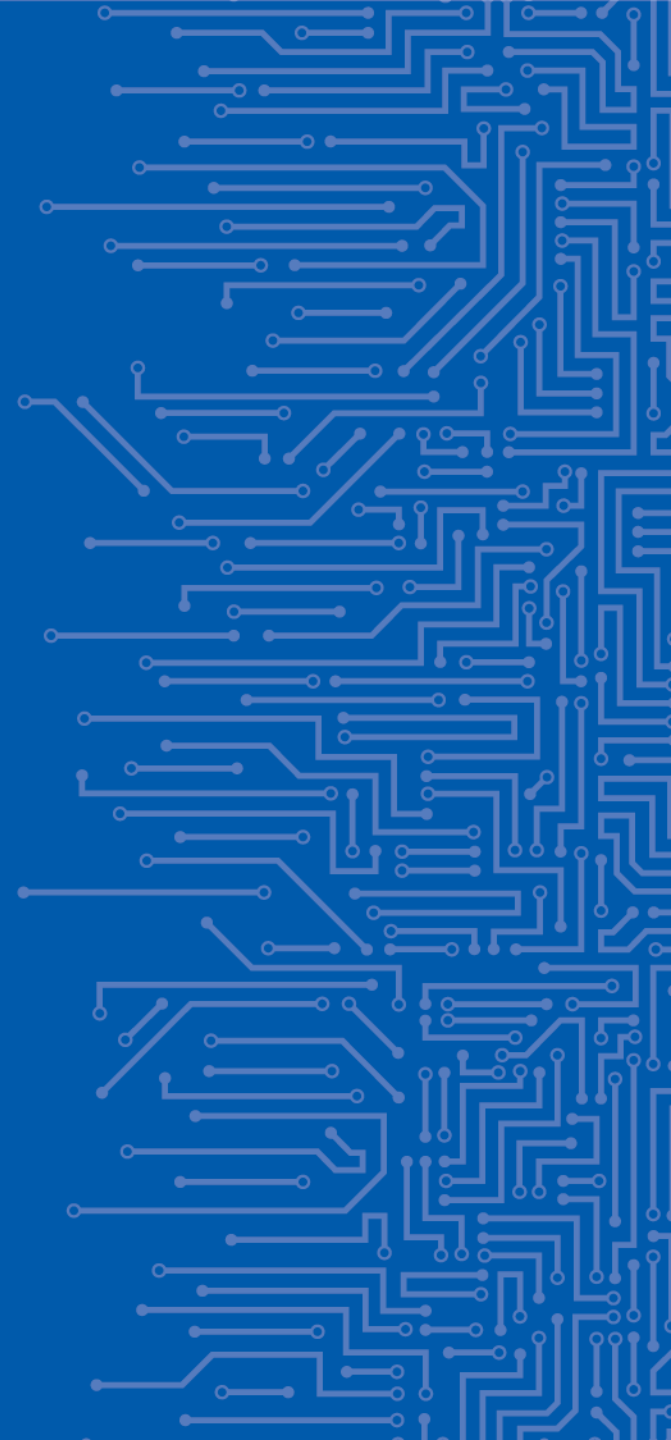
CTF

ECSC
ICC



INTERNATIONAL CYBERSECURITY CHALLENGE

TEAM EUROPE





TEAM EUROPE MAIN OBJECTIVES

1. Provide training program to Team Europe & candidates
2. **Form a diverse and strong final Team Europe**
3. Achieve the best possible results during the ICC finals



TEAM EUROPE BASIC REQUIREMENTS

Age:

- 18-25 years (at the date of the competition)

Team size:

- up to 15 people to form final team (+5 reserves)

Diversity:

- Gender balance
- Balanced country representation
- Complementary skills (technical and soft)



TEAM EUROPE ECOSYSTEM

- ENISA
- ECSC SC & ECSC International subcommittee
- ICC SC
- Team Europe trainers

TEAM EUROPE TRAINERS

ENISA collaborates with 5 external experts to train Team Europe
Mandate of trainers is up to two years

Same team of trainers as last year for preparing Team Europe for ICC 2023



Sanne Maasackers 🇳🇱



Mario Polino 🇮🇹



Johannes Kadak 🇧🇪



Benjamin Kral 🇪🇺



Pedro Adão 🇵🇹

TEAM EUROPE STATISTICS

	2023	2022
Candidates:	51	55
Countries involved:	27	21
Gender balance:	61,8% / 39,2 %	72,7% / 27,3%

TEAM EUROPE ACTIVITIES

- Bootcamps
- Training platform
- Online trainings
- Online CTFs
- CTF qualifiers
- Side events
- Other engagements



TEAM EUROPE SIDE EVENTS

2021:

- back to back with ECSC2021
5 participants

2022:

- back to back with the 3rd Team Europe bootcamp
12 participants
- back to back with ECSC2022 – 2 days event
23 participants





TEAM EUROPE CTF QUALIFIER

- Event during weekend
- Assessment of technical skills
- Five jeopardy categories for CTF qualifier:
 - Web
 - Pwn
 - Crypto
 - Reversing
 - Forensics

15 challenges in total (5 categories of 3 levels of difficulty)

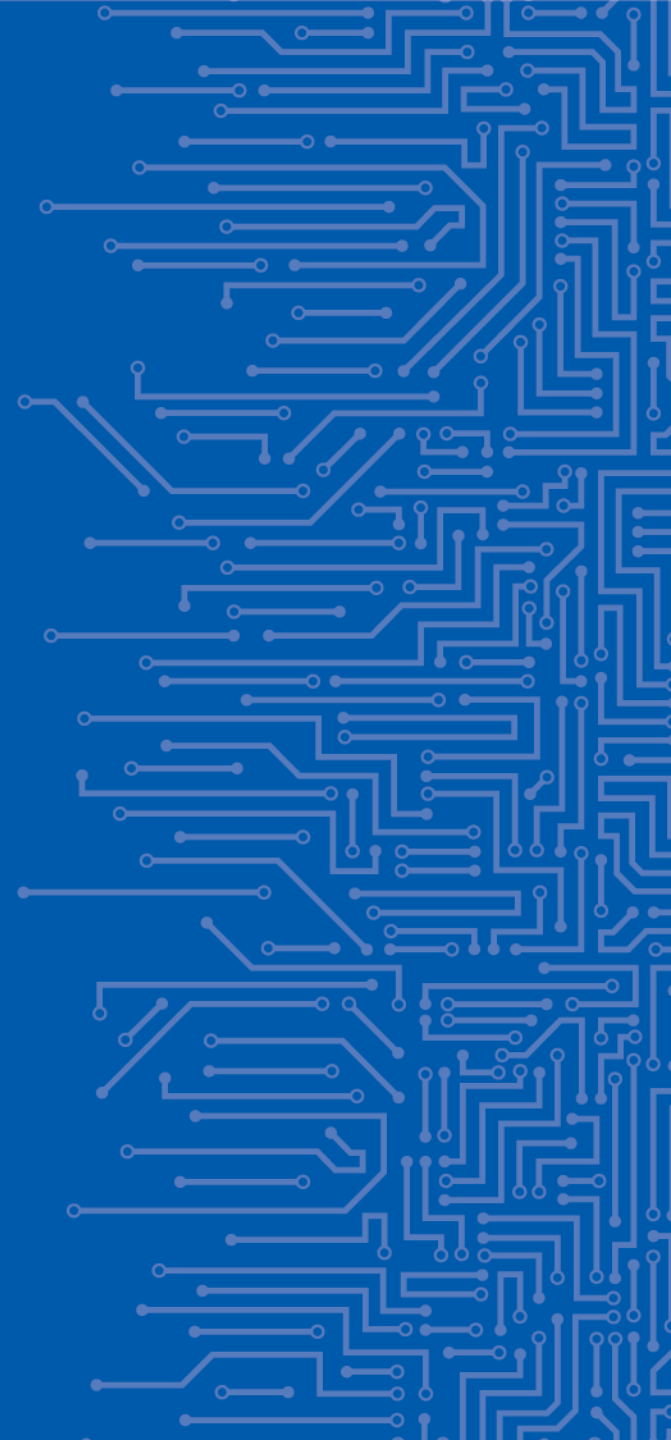


FINAL SELECTION PARAMETERS

Key parameters:

- Assessment of **performance** / demonstration of technical skills
- Assessment of **soft skills**
- Assessment of **motivation** (participation and commitment)
- **Diversity** of final team

EUROPEAN CYBERSECURITY SKILLS FRAMEWORK



DIVIDING CYBERSECURITY INTO CATEGORIES



PROFILES



Chief Information Security Officer (CISO)

Manages an organisation's cybersecurity strategy and its implementation to ensure that digital systems, services and assets are adequately secure and protected.



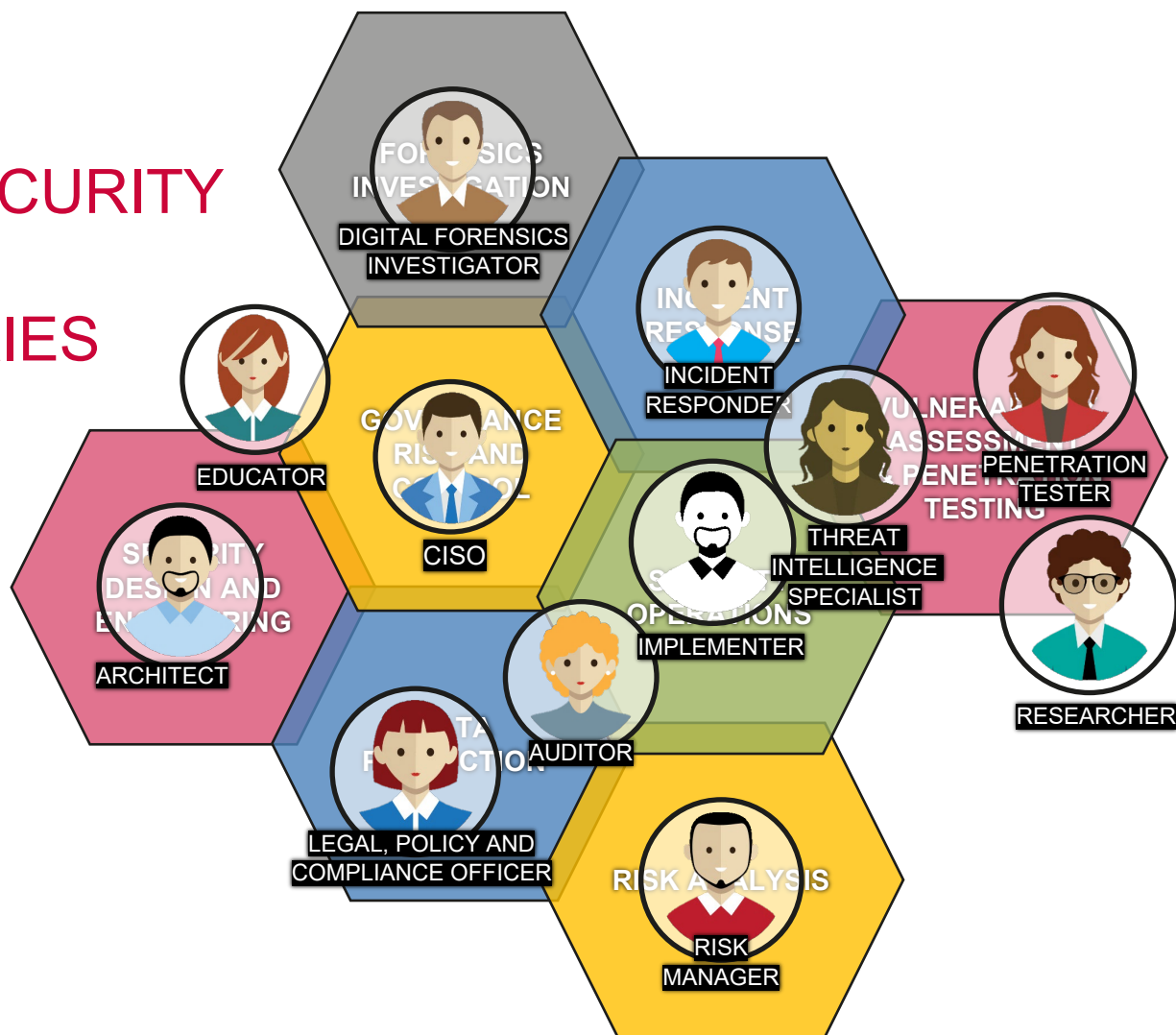
Cybersecurity Strategy



Cybersecurity Policies



DIVIDING CYBERSECURITY INTO CATEGORIES



BENEFITS IN USING ECSF



Which skills our candidates should have?



What should be included in our curriculum?



Which skills and knowledge do I need?

THANK YOU FOR YOUR ATTENTION

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