



CYBERSECURITY SKILLS ALLIANCE A NEW VISION FOR EUROPE

Sara Ricci

BRNO

UNIVERSITY

OF TECHNOLOGY

Brno University of Technology (BUT)

ricci@vut.cz

EU SKILLS TRENDS AND NEEDS

September 27th, 2024

REWIRE - CYBERSECURITY SKILLS ALLIANCE A NEW VISION FOR EUROPE





Who we are

- **REWIRE** is a project funded by **ERASMUS+ Programme of the European union**, under Grant Agreement <u>621701-EPP-1-2020-1-LT-EPPKA2-SSA-B</u>,
- involves 24 partners (12 countries) representing academia, VET, cybersecurity industry, non-cyber industries, certification partners, European umbrella organizations,
- is **built upon four H2020 pilot projects**: ECHO, CONCORDIA, SPARTA, CyberSec4Europe,

REWIRE GOAL is to build a **Blueprint for the Cybersecurity** industry and a concrete **European Cybersecurity Skills Strategy.**

REWIRE AGREEMENT NO 621701-EPP-1-2020-1-LT-E

Behind the results

The following results are based on:

- Analysis of Job Ads related to Cybersecurity Roles •
- **ECSF** profiles •

 \cap

- Al-driven identification of skills in job ads description •
- Ads Collection in the period 2021-2024 across 31 EU countries •

Cybersecurity Job Ads Analyzer							
+ Add job Clear filters and sorters Clear selection	on						Show in map
☐ ∽ Title			Company	💠 👻 Country	💠 🐨 Continent 💠	Year 💠	Profile 💠 👻
Senior Information Security Analyst		① LinkedIn	Conduent	Czech Republic	Europe	2021	CRM
Information Technology Security Manager		① LinkedIn	Global Blue	Austria	Europe	2021	CAu
Security Analyst		① LinkedIn	Oracle	Czech Republic	Europe	2021	CTIS
Infrastructure Security Architect - Prague		① LinkedIn	AVON	Czech Republic	Europe	2021	CAr
Tier 1 Security Engineer		① LinkedIn	Verizon	Czech Republic	Europe	2021	CIR
	REWIRE - CYBERSECURITY SKILLS ALLIANCE A NEW VISION FOR EUROPE	REWIRE AG	REEMENT NO. -2020-1-LT-EPPKA2-SA-B	Co-funded by the Erasmus+ Programme of the European Union			

Top Skills and Profiles (2021-2024)

Top Skills (among 31 classes)

- Collaborate and Communicate
- Information Security Controls Assessment
- Information Systems and Network Security

Top ECSF Profiles

- Cybersecurity Architect
- Cybersecurity Implementer
- Cyber Incident Responder

Skills chart of the whole data set (in blue) with C. Architect-related job ads (in red).

Problem solving and Critical Thinking

Enterprise architecture and Infrastr. Design

REWIRE - CYBERSECURITY SKILLS ALLIANCE A NEW VISION FOR EUROPE REWIRE AGREEMENT NO. 621701-EPP-1-2020-1-LT-EPPKA2-SA-B

Risk Management 60 % Organizational Awareness 0% Threat Analysis Incident Management Data Security Enterprise Architecture and Infrastructure Design

• Top Skills and Profiles (2023-2024)

Top Skills (among 31 classes)

- Collaborate and Communicate
- Information Security Controls Assessment
- Information Systems and Network Security
- Critical Thinking & Problem Solving

Top ECSF Profiles

- Cybersecurity Architect
- Cybersecurity Implementer
- Cyber Incident Responder

Skills chart of the whole data set (in blue) with C. Architect-related job ads (in red).

Problem solving and Critical Thinking

Enterprise architecture and Infrastr. Design

REWIRE - CYBERSECURITY SKILLS ALLIANCE A NEW VISION FOR EUROPE REWIRE AGREEMENT NO. 621701-EPP-1-2020-1-LT-EPPKA2-SA-B

60 %

0%

Enterprise Architecture and Infrastructure Design

Project Managemeni

Match Analysis

- Ads can be associated with more profiles
- the network map shows the match between profiles
- Strong Matches:
 - C. Architect + C. Implementer
 - C. Incident R. + C. Threat Analyst
- Modularity Optimization splits the graph into 4 partitions:
 - Implementer & Architect
 - Incident Resp., Threat Analyst & Pen Tester
 - CISO, Auditor, Risk Manager, & Legal, Policy, and Compl. Officer.
 - Researcher & Educator

Chief Information Security Officer

MATCH ANALYSIS

Skills matched (found) in the same ads Strong Matches:

- Information Systems and Network Security + Enterprise architecture and Infrastructure Design
- Business Continuity + Information Security Controls Assessment
- Modularity Optimization splits the graph into 2 partitions

REWIRE - CYBERSECURITY SKILLS ALLIANCE A NEW VISION FOR EUROPE

CYBER ABILITY PLATFORM and CONCLUSION

⁾These analyses

- are part of the CyberABILITY platform (this link) online web application
- are a project results (limited to the project timeframe and capabilities)
- can be applied to any dataset with cybersecurity orientation
- can be applied per year for trend analysis

Welcome to the REWIRE CyberABILITY Platform

REWIRE

CyberABILITY, offered by the REWIRE Project, is a digital platform, trying to address the evolving needs of the cybersecurity sector. As a comprehensive Cybersecurity Skills Digital Observatory, it platform offers an overview of the current job market, essential competences, training courses, and certifications. CyberABILITY caters to professionals, organizations, and academic institutions, ensuring they are equipped with insights on the cybersecurity landscape.

Drawing from the deliverables of the REWIRE project, CyberABILITY employs a methodology to map existing courses and

REWIRE - CYBERSECURITY SKILLS ALLIANCE A NEW VISION FOR EUROPE AGREEMENT NO. 621701-EPP-1-2020-1-LT-EPPKA2-SA-B

THANK YOU

More information: <u>www.rewireproject.eu/</u> <u>https://www.linkedin.com/company/rewireprojecteu/</u>

Speaker/Presenter: Sara Ricci

Organisation, Country: Brno University of Technology, Czech Republic

E-mail address: ricci@vut.cz

REWIRE - CYBERSECURITY SKILLS ALLIANCE A NEW VISION FOR EUROPE

REWIRE

CYBERSECURITY SKILLS ALLIANCE