CyberHubs

European Network of Cybersecurity Skills Hubs

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CyberHubs

Co-funded by
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Overview

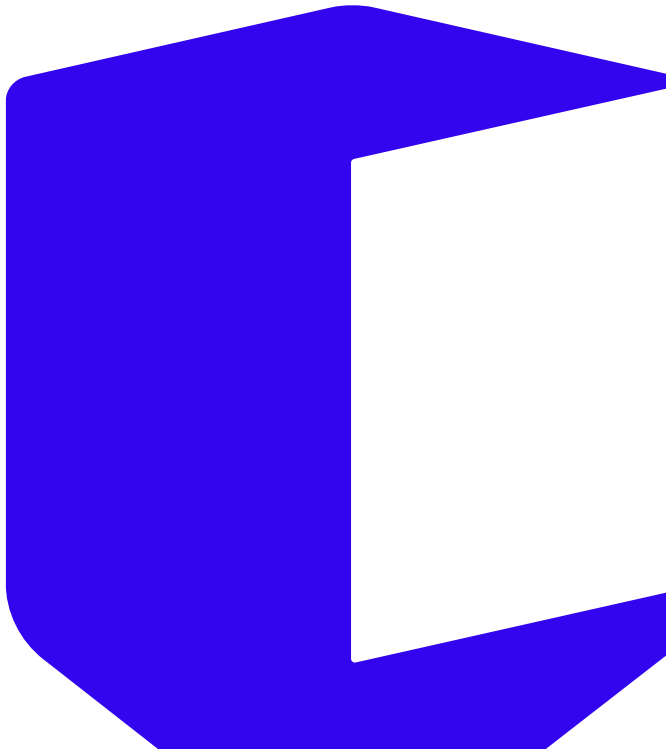
ABOUT	• CyberHubs at a glance — Mission, partners, methods, timeline
FIRST YEAR RESULTS	• Cybersecurity Professional Needs Analysis — All 7 countries snapshot & deeper insights from Hungary
LOOKING AHEAD	• Strengthening the EU cyber professional landscape in the short, mid and long term

CyberHubs Vision and Mission

- The European Network of Cybersecurity Skills Hubs (CyberHubs) is a 3-year initiative aiming to enhance the cybersecurity professional skills ecosystem in Europe.

- Establishing a sustainable network of seven Cybersecurity Skills Hubs in **Belgium, Estonia, Greece, Hungary, Lithuania, Slovenia, and Spain**.

- Promoting cybersecurity professional skills development and supporting the development of a skilled cybersecurity workforce in the short, mid and long term.



CyberHubs at a glance

3-year project

(2024 – 2027)

Funded under Erasmus+

7 CyberHubs around Europe

21 Partners from industry, academia & research

3 Associated Partners

Consortium

Partners

DIGITALEUROPE

Adecco

University of Public Service

AGORIA

Ametic

SEPE
Federation of Hellenic ICT Enterprises
DIGITALEUROPE & WITSA Member

Athens University of Economics and Business

eit Digital

IVSZ

ITL

ktu

breyer publico

University of Maribor

TAL TECH

infobalt
LITHUANIA

Solvay Brussels School
Lifelong Learning • Executive Education

numeum

CYBER|IRELAND

MTU

howest

Gospodarska zbornica Slovenije
zit
ICT Association of Slovenia

unir
LA UNIVERSIDAD EN INTERNET

CYBER|IRELAND

Associated Partners

AAVIT

Digital Technology Skills

IT Ukraine Association

CyberHubs

Addressing challenges together

Cybersecurity professional shortage across EU

Accessibility to training and education

Lack of relevant education and training

Limited collaboration between academia and industry

Rapidly evolving cybersecurity threats

3 areas of work

- **7 Country Reports on Roles & Skills Needs + EU summary report**
- Cybersecurity **Skills and Roles Forecasting Model**
- **7 country specific Strategies** for cyber workforce development

SKILLS & ROLES INTELLIGENCE & common understanding

- **Structured collaboration** by academia, industry & other key actors
- **Knowledge transfer** activities (twinnings, delegation visits)
- **Awareness raising and capacity-building** activities

STRONG NETWORK & PLATFORM empowering cybersecurity workforce development

- **Flagship events** (Hackathon & Cyber Fest)
- **Advanced tools matching cybersecurity skills, roles & jobs**
- **Long-term sustainability measures**

PRACTICAL TOOLS for long-term impact

CyberHubs

Key feature: Industry & academia partnership for innovation

EU level + country specific

CyberHub Belgium

CyberHub Lithuania

CyberHub Greece

CyberHub Hungary

CyberHub Slovenia

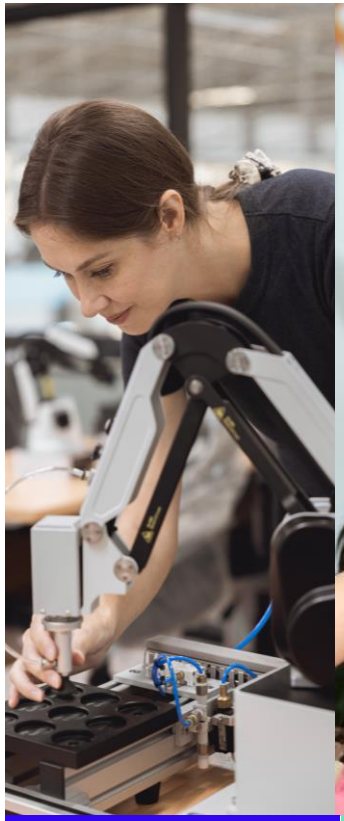
CyberHub Spain

CyberHub Estonia

In each Hub,
1 National Trade Association (NTA)
+ 1 University joining forces

- National Skills and Roles Needs Analysis
- Forecasting Model
- National Strategies
- European Hackathon & CyberFest
- Long-term collaboration with the wider eco-system

Targeting the wider cybersecurity eco-system



Industry players

Education and learning providers

Research centres and networks

Public organisations & social partners

Youth (under 25) and professionals

Employment services and job intermediaries

National and EU public authorities and Policymakers

CyberHubs

ECSF a key enabler across all CyberHubs stages

A basic ingredient to the CyberHubs common language for consistent work and communication on, e.g.

- ❖CS Professional Needs Analysis
- ❖Forecasting Model
- ❖National Strategies
- ❖Skills & Jobs Dashboard

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FIRST RESULTS — 7 countries snapshot Year 1 Needs Analysis

Data collection 2024 in numbers(*):

- 50 selected top papers for detailed analysis
- 1840 job posts analysed
- 700 respondents to questionnaire
- 140 expert meeting participants

Job Vacancy Analysis Results:

- **Most demanded jobs(*) mapped to ECSF in the 7 countries:**

1. Cybersecurity Implementer
2. Cybersecurity Architect
3. Cybersecurity Incident Responder

- **Most demanded skills(*) in the 7 countries:**

1. Incident management
2. Project management
3. Communicating

MULTI-METHODS ANALYSIS

- Desk research
- Job vacancy analysis
- Industry questionnaire
- Expert meetings

SKILLS AND JOBS DASHBOARD
Now online – will be updated every 6 months

ALL 7 COUNTRY REPORTS + 1 EU available soon at cyberhubs.eu

(*)These are preliminary indicative results and may change.

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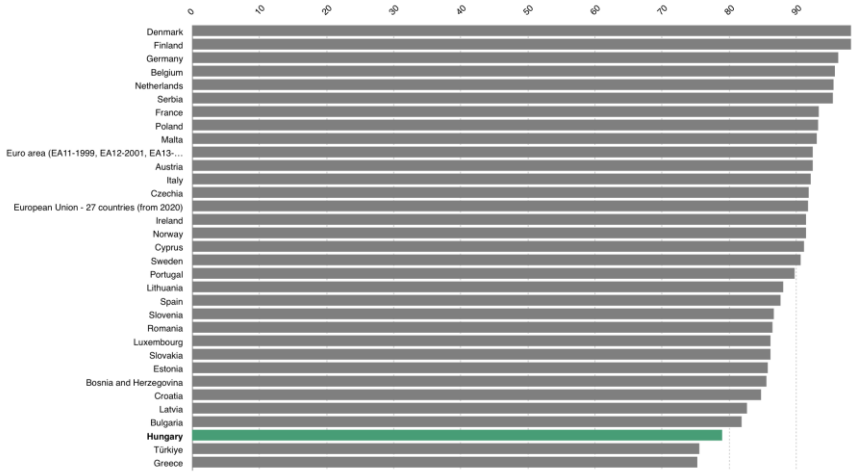
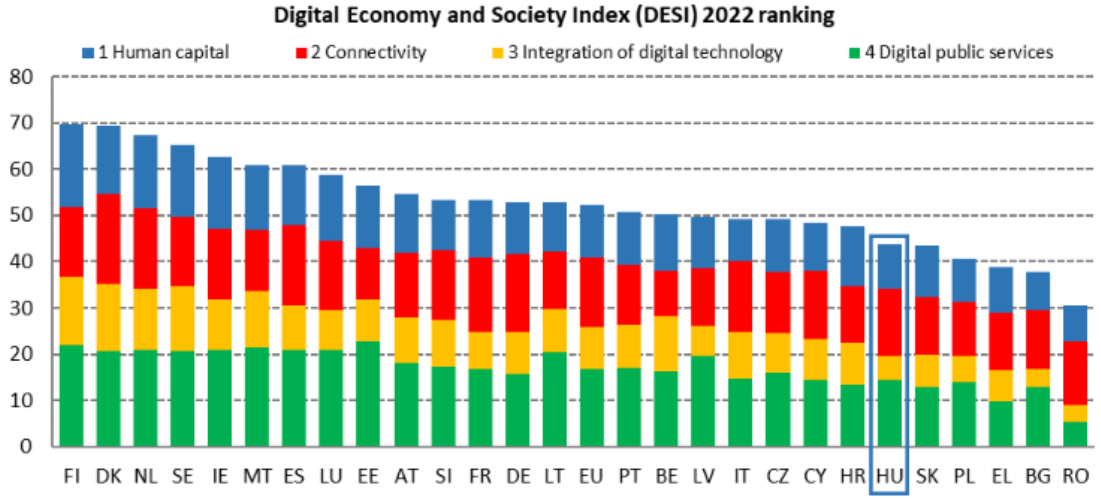
Digital Hungary in numbers

	Hungary		EU
	rank	score	score
DESI 2022	22	43.8	52.3



Enterprises using any ICT security measure (as of 2022)



Indicator, All individuals (aged 16-74)	EU average (% of individuals)	EU ranking	Hungary average (% of individuals)	Hungary ranking
Internet use	90.27	17th	90.63	16th
At least basic digital skills	55.56	17th	58.89	15th
Above basic digital skills	27.32	16th	28.13	14th
E-Government users (last 12 months)	75.01	22nd	82.39	23rd

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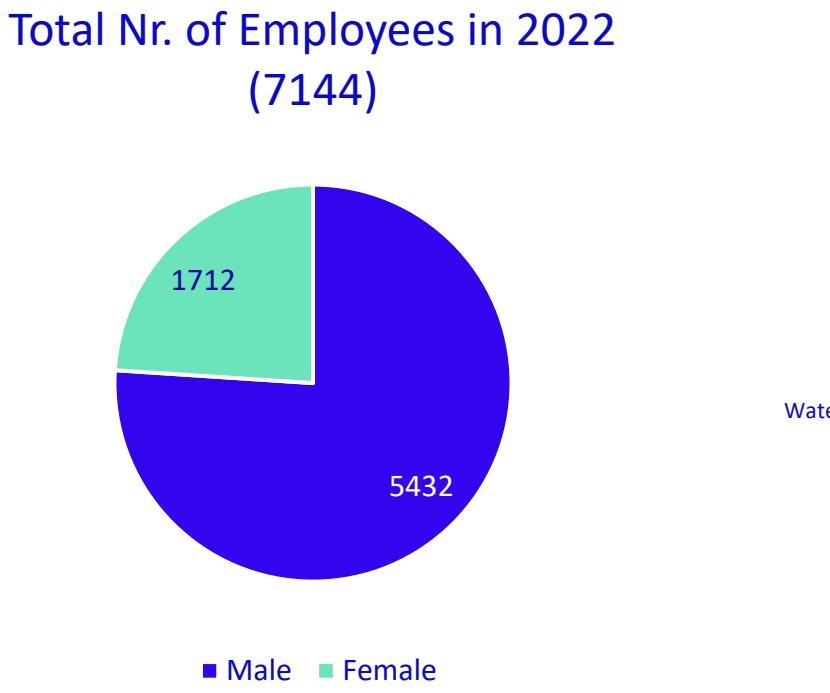
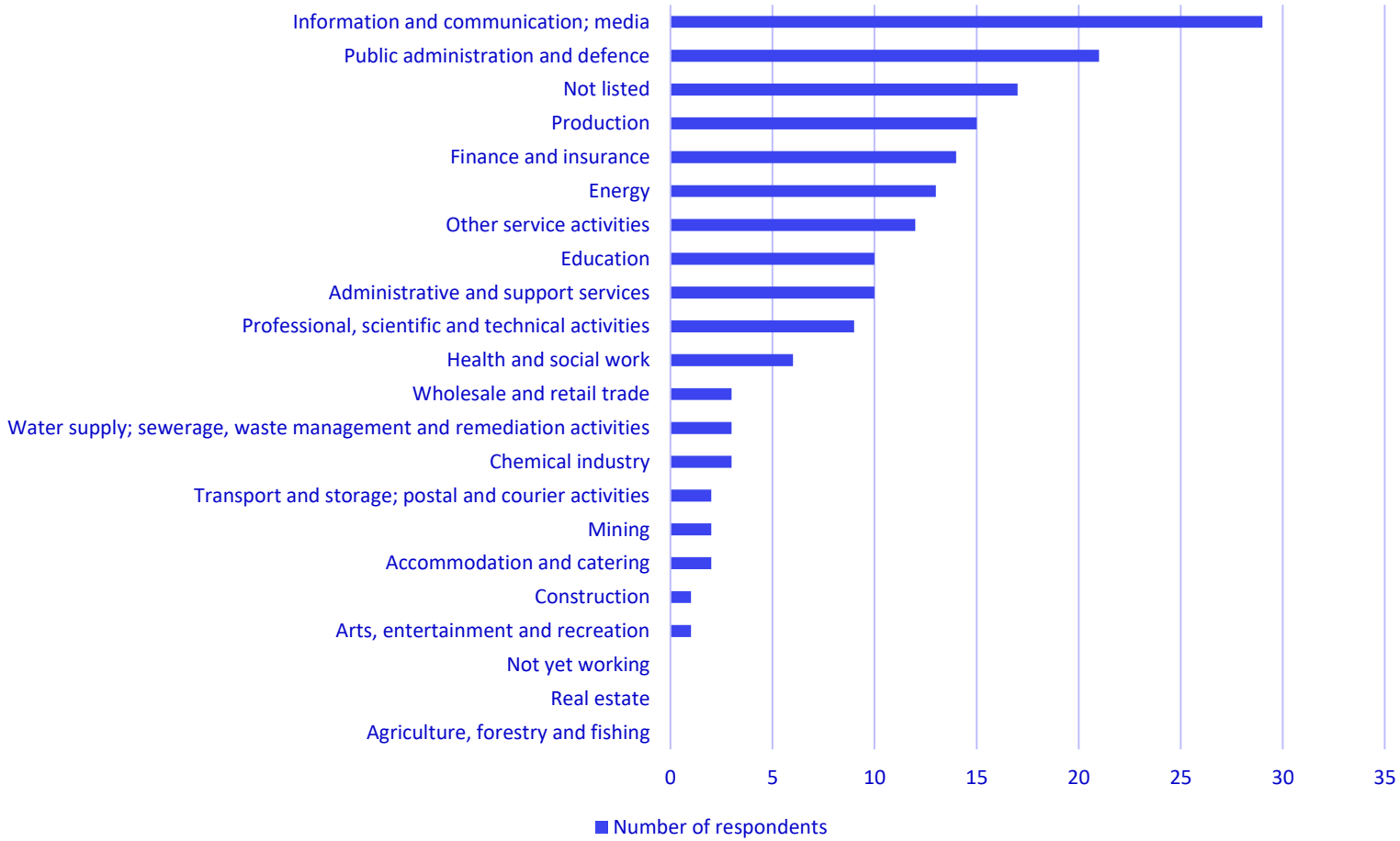
Distribution of cybersecurity professionals



Source: Hungarian Central Statistical Office



Source: CyberHubs questionnaire

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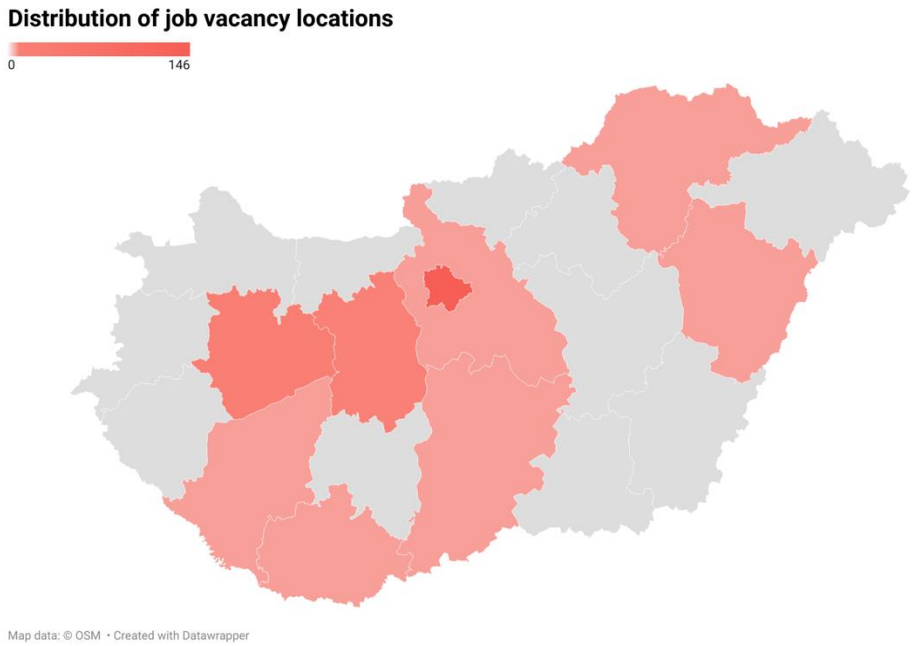
The need for cybersecurity professionals



Source: CyberHubs

Position	Junior Engineer (0-3 years)	Medior Engineer (3-5 years)	Senior Engineer (5+ years)	Architect/Team Lead/Management
Security Engineer	900 000	1 250 000	1 250 000	2 300 000
Cyber Security Consultant	900 000	1 250 000	1 250 000	2 300 000
SOC Analyst	850 000	1 100 000	1 100 000	1 600 000
Penetration Tester	1 200 000	1 500 000	1 500 000	2 200 000
IAM Engineer	800 000	1 100 000	1 100 000	1 600 000
Vulnerability Specialist	800 000	1 200 000	1 200 000	1 600 000

Source: Hays Salary Guide 2024

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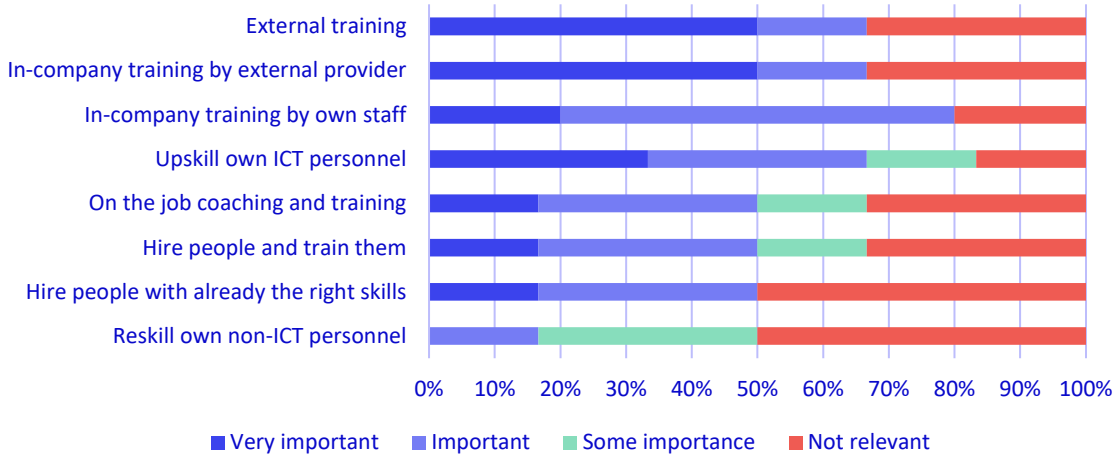
Training opportunities

Need for cybersecurity trainings



Source: CyberHubs

Title learning programme	Type of programme	Type of institution	Kind of recognition	# learners complete programme (p. year)	# possible learners (p. year)
CyberCamp	EQF4/5 (post secondary/ tertiary VET)	Private	Certificate	0,00	20,00
Data security and privacy lawyer	EQF6 (bachelor)	Public	Diploma	53,00	80,00
ICT security specialist	EQF6 (bachelor)	Private	Diploma		30,00
Electronic information security manager	EQF6 (bachelor)	Public	Diploma	38,00	50,00
EU data protection advisor	EQF6 (bachelor)	Public	Diploma	0,00	40,00
Information security engineer	EQF6 (bachelor)	Public	Diploma	23,00	60,00
Cyber security incident management engineer	EQF6 (bachelor)	Public	Diploma	22,00	150,00
Cybersecurity lawyer	EQF6 (bachelor)	Public	Diploma		25,00
Cybersecurity engineering	EQF6 (bachelor)	Public	Degree		50,00
Cybersecurity	EQF7 (master)	Public	Degree	54,00	85,00
International Cybersecurity Studies	EQF7 (master)	Public	Degree		20,00
Cybersecurity engineering	EQF7 (master)	Public	Degree		65,00
Modern technologies and cybersecurity law	EQF7 (master)	Public	Degree		20,00
Defence electronics, information technology and communications	EQF8 (post-master, doctorate)	Public	Degree	2,00	5,00
Defence Informatics and Communication Theory	EQF8 (post-master, doctorate)	Public	Degree	1,00	5,00
Cybersecurity studies	EQF8 (post-master, doctorate)	Public	Degree	2,00	5,00

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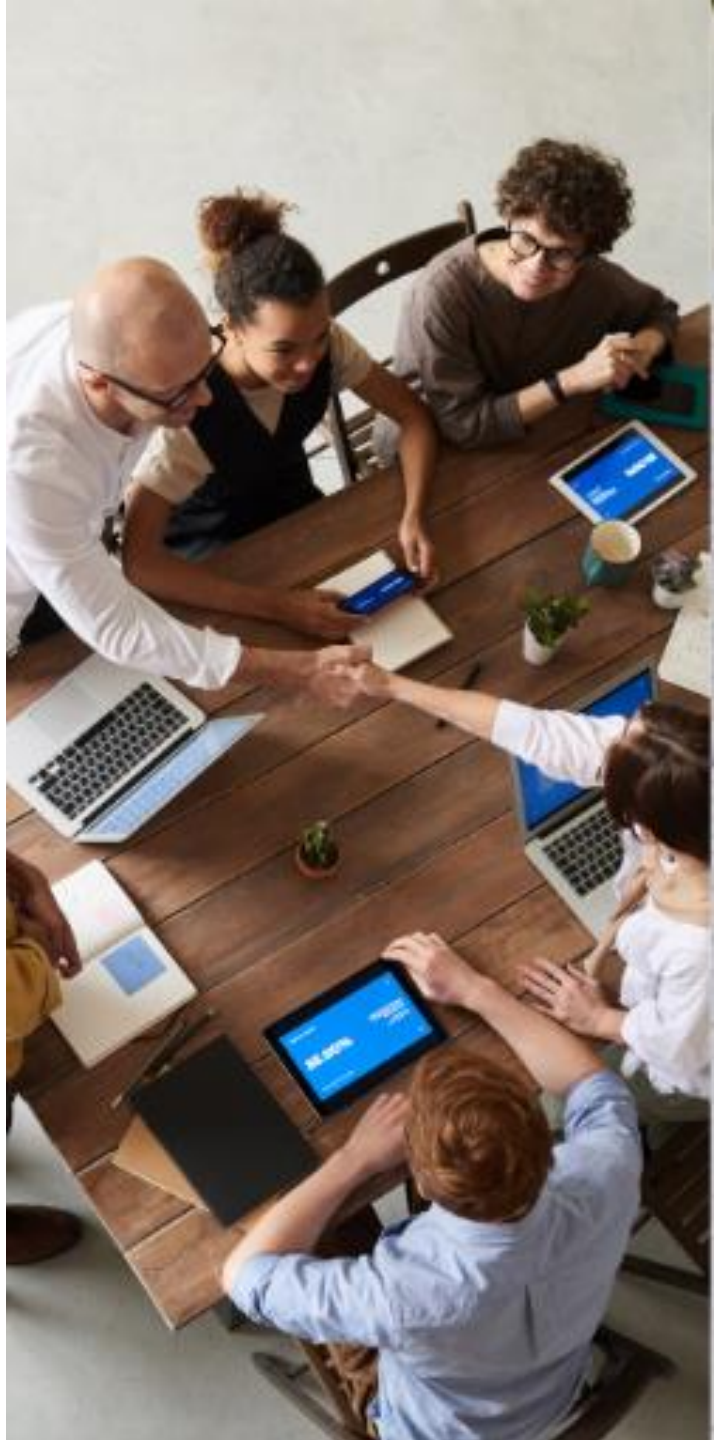
Looking ahead — what's coming next

- Skills and Jobs dashboard
- National Needs Analysis Reports
- Country-specific Skills Strategies
- Piloting of AI-assisted system to match skills and jobs/ educational programmes
- European Hackathon & CyberFest



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Benefit from CyberHubs — Get involved!

Activities & events

- Public events
- Online workshops

Stakeholders list

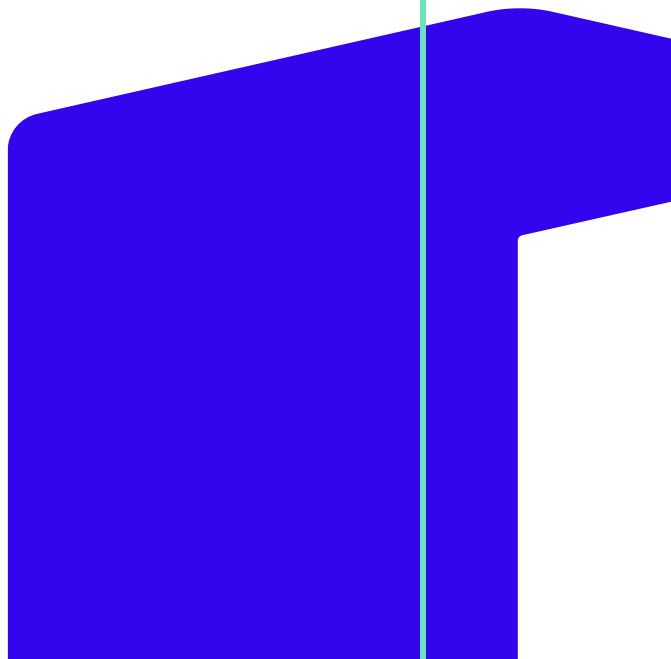
- Contact us at info@cyberhubs.eu to be included in our stakeholders' contact list

CyberHubs.eu

- Project insights, latest results, resources section
- Skills & Jobs dashboard updated every 6 months

Social media & newsletter

- Follow us on Twitter, LinkedIn, Youtube
- Subscribe to our newsletter to receive the latest updates



Thank you

Contact us:

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