

# Training the European workforce of tomorrow with a network of cyber range capabilities

AWARENESS, TRAINING, CHALLENGES, AND EXERCISES TO FILL THE CYBERSECURITY SKILLS GAP

## Context of the Project Group

In recent years, cyber-attacks targeting large and small organisations, critical infrastructures and public-sector organisations have evolved faster than ever with cybercriminals developing and boosting their attacks at an alarming pace.

Although the field of cybersecurity has expanded exponentially, the number of skilled and qualified workers is still not enough to meet the demand and EU authorities like the European Union Agency for cybersecurity (ENISA) and the European Cyber Security Organisation (ECSO) are constantly calling for innovative forms of training and greater usage of online tools such as cyber ranges for training and upskilling European employees.

The CONCORDIA project group is a cluster of 3 EU H2020 research projects with innovative cyber security training and a specific focus on cyber ranges.

## Key results

- ◆ A set of dedicated cyber ranges that simulate realistic domain environments, equipment, infrastructures and data.
- ◆ A personalised training experience that incorporates various learning methods and approaches.
- ◆ The realistic simulations help the trainees to better understand the underlying principles of various cyber-attacks and their consequences.
- ◆ Facilitating better informed decision-making and quicker responses to cyber-attacks.
- ◆ Some of the results are even available as open-source software.

## Who benefits?



Cybersecurity experts and non-expert users



Industry and Security professionals



Critical Infrastructures



Higher Education Institutions



Research & Academia

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The HRB - Horizon Result Booster is an initiative funded European Commission, Directorate General for Research and Innovation, Unit J5, Common Service for Horizon 2020 Information and Data.

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## Challenges

### Societal

- ◆ Contributing to the wider adoption of cybersecurity and cyber range training, especially for organisations in Europe.
- ◆ Helping to fill the cybersecurity skill gaps and supporting cybersecurity education.

### Scientific and Technological

- ◆ Ensuring a systematic delivery of awareness training programs as well as further development and practical training for staff in cybersecurity specialist roles.
- ◆ Enabling cyber security professionals and employees to apply fast, coordinated and flexible threat response whenever an attack is detected.

### Industrial

- ◆ Developing specific evaluation mechanisms to help organisations to measure the cost effectiveness of cybersecurity training expenditures.
- ◆ Defending EU businesses and critical infrastructures from escalating cyber threats including zero-day and unknown vulnerabilities.

## Meet the Projects



**CONCORDIA** - (Cyber security cOmpeteNCe fOr Research and InnovAtion) [www.concordia-h2020.eu](http://www.concordia-h2020.eu)

Grant Agreement No. 830927



**SPIDER**  
5G CYBER RANGE

**SPIDER** - (a cyberSecurity Platform for virtualised 5G cybEr Range services) [www.spider-h2020.eu](http://www.spider-h2020.eu)

Grant Agreement No. 833685



**FORESIGHT** - (Advanced cyber-security simulation platform for preparedness training in Aviation, Naval and Power-grid environments) [www.foresight-h2020.eu](http://www.foresight-h2020.eu)

Grant Agreement No. 833673

