NERO

advaNced cybErsecurity
awaReness ecOsystem for SMEs

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ECCC
EUROPEAN CYBERSECURITY COMPETENCE CENTRE

NERO Project

Charalambos Klitis (eBOS)
charalambosk@ebos.com.cy

Agenda

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- Presenter info
- Nero Overview
- Background
- Main Idea
- High-level Architecture
- Use Cases

Presenter

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- R&D Senior Project Manager in eBOS Technologies, Cyprus
- Technical Manager of the NERO project
- Experience in Cybersecurity, 5G/6G, AI
- Participation in several collaborative research projects

NERO Overview

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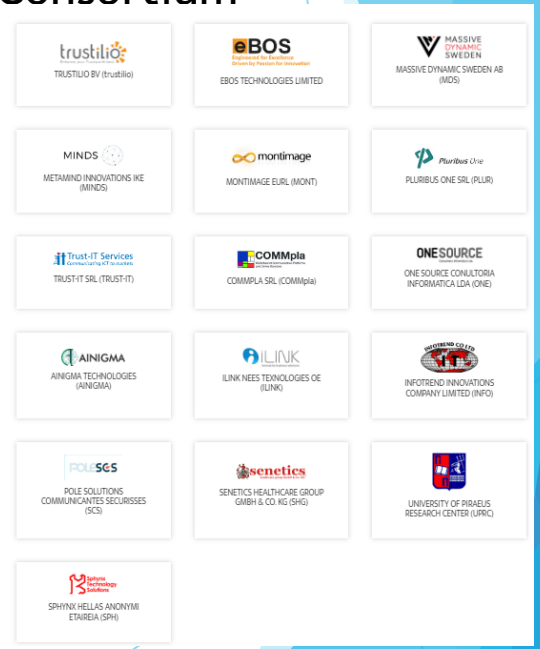
- **NERO**
  - advanced cybersecurity awaReness ecosystem for SMEs
- **Duration**
  - 36 Months
- **Call**
  - DIGITAL-ECCC-2022-CYBER-03-UPTAKE-CYBERSOLUTIONS
- **Budget**
  - ~6M€
- **Main Concept**
  - NERO is a cybersecurity ecosystem providing SMEs with tools and training to foster a security-first culture, tested in healthcare, transportation, and finance.

Consortium



Background

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- Adopting cyber resilience, proactive cybersecurity, and self-healing cyber immunity systems is crucial for defending against complex, sophisticated cyber threats in Industry 4.0 and beyond.
- Cyberwarfare and hacktivism have increased due to geopolitical events, raising the prevalence and severity of cyberattacks.
- Cyberattacks are projected to cost firms $5.2 trillion from 2019 to 2024, emphasising the importance of cybersecurity awareness and training for employees.
- Industries such as finance, healthcare, manufacturing, and business services are prime targets for cyberattacks due to their sensitive data and critical roles.
- SMEs are highly susceptible to cybercrime due to limited resources, awareness, and cybersecurity measures, with 28% of European SMEs experiencing cybercrime in 2021.
- The pandemic exposed cybersecurity weaknesses as many businesses rapidly adopted digital technologies without prioritising security, increasing their vulnerability.

Main idea

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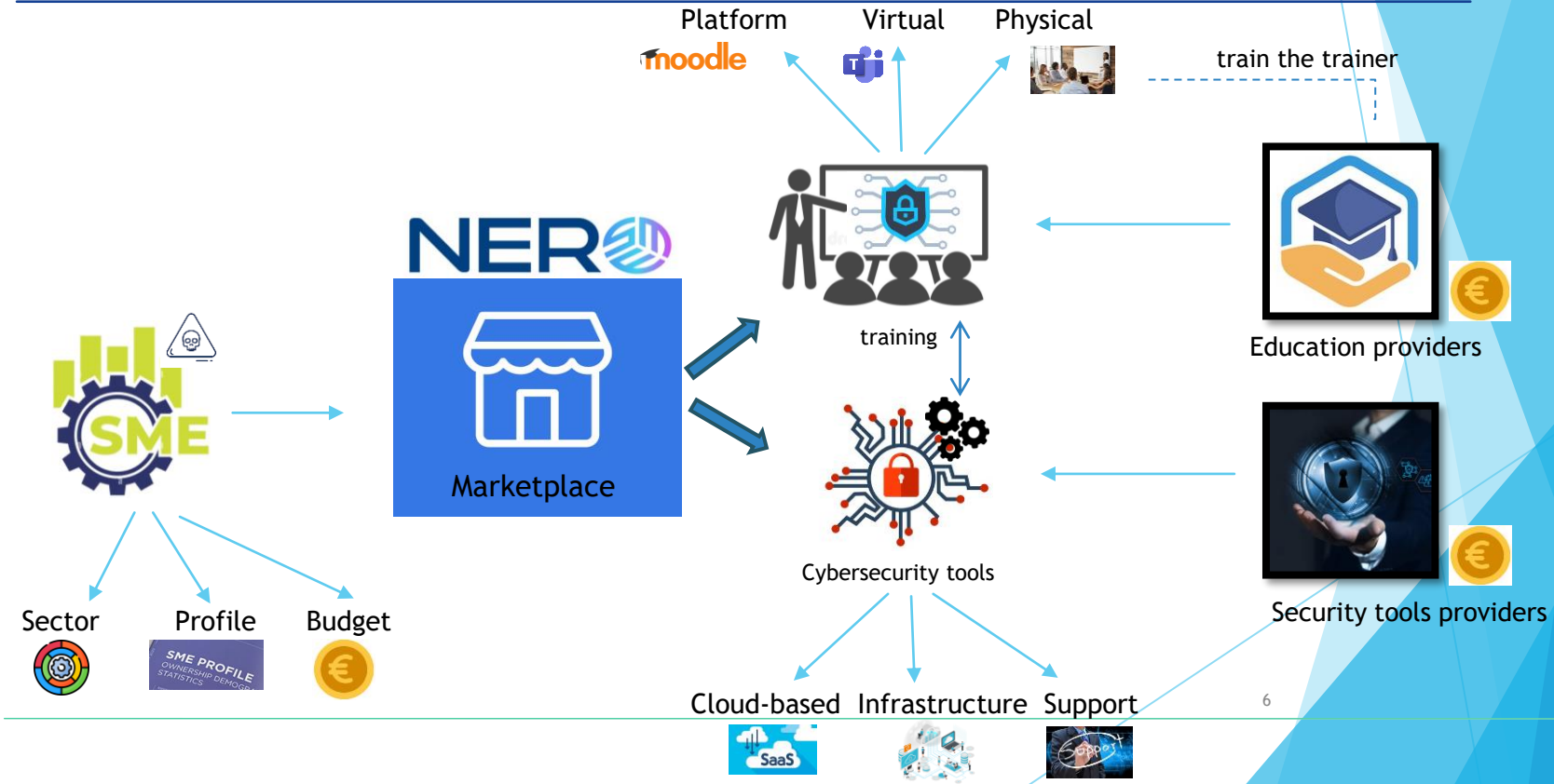

High-level architecture

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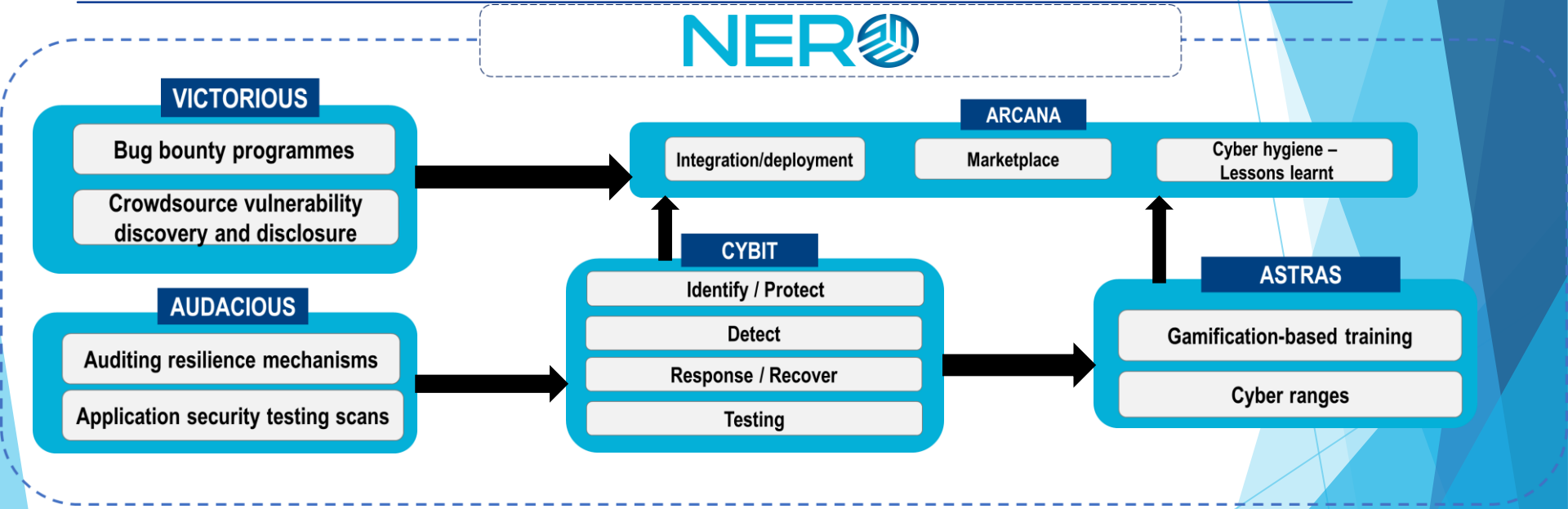

High-level architecture

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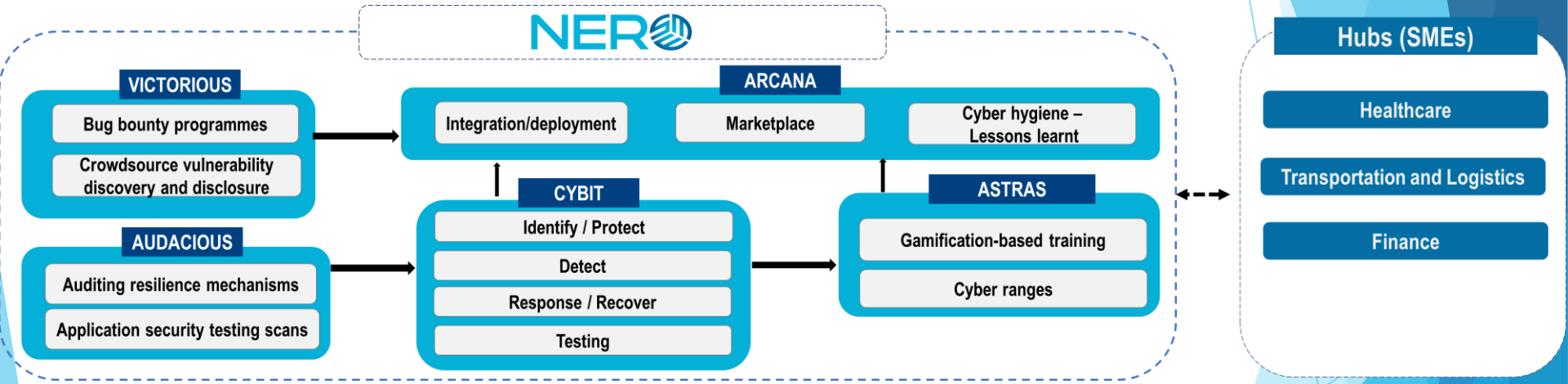

Use Cases – Healthcare

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Description:

- Integrate, validate and evaluate NERO's framework in medical devices to check that are protected against cyber threats.

Requirements

- Interoperability among the various healthcare systems.
- User Education: Increase employees' awareness and training on cybersecurity.
- Threat Evolution: Keep up to date with current threats.

Objectives:

- Protect patient data from cyber threats.
- Compliance with regulations regarding patient data privacy.
- Improve operational efficiency by automating security processes.
- Foster trust with patients and stakeholders

Use Cases - Transportation

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Description

- Demonstrate, test and validate NERO's frameworks in a transport and logistic organisation.

Requirements

- Interoperability between different technologies and systems.
- The Complex Supply Chain makes it challenging to implement consistent cybersecurity measures across all partners and systems.
- Employees may resist using new cybersecurity tools.

Objectives:

- Protect sensitive information.
- Improve operational efficiency.
- Build trust with customers.

Use Cases - Logistics

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Description

- Evaluate and showcase frameworks provided by NERO in a fintech organisation.

Requirements

- Financial institutions may resist change.
- Find and retain skilled personnel with expertise in cybersecurity.
- Integration with existing systems.
- Keeping pace with evolving threats.

Objectives:

- Safeguard sensitive financial information.
- Deploys tools to identify and respond to potential cyberattacks in real-time.
- Automate tasks and streamline processes.

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Thank you!

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