ENERGY SHIELD

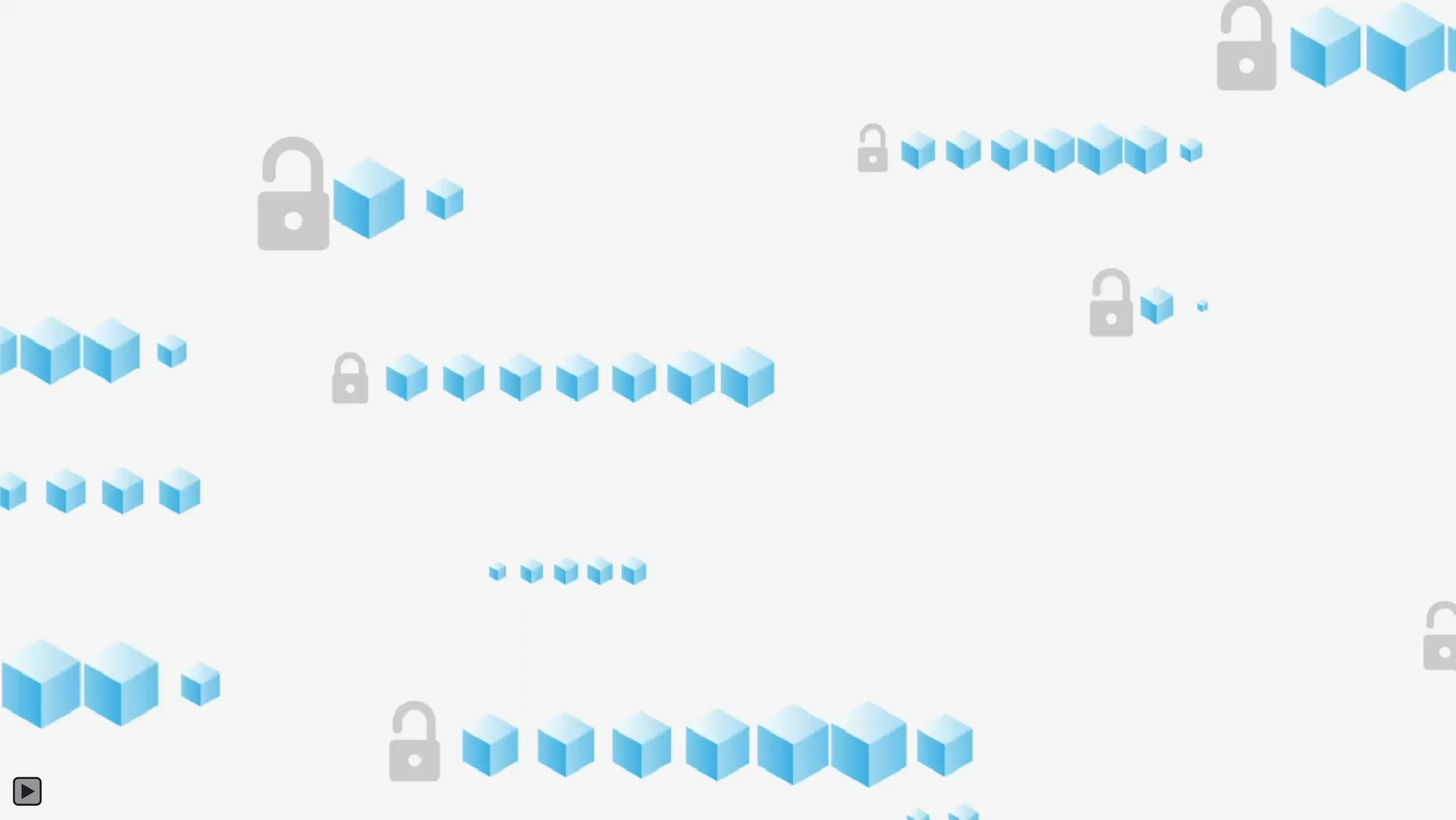
CYBERWATCHING.EU – ENERGY WEBINAR

Assessing, Enhancing and Cultivating a Cyber-Security Culture in the EPES Sector

Facilitator: **Anna Georgiadou** (DSS Lab, NTUA)

ENERGYSHIELD PROJECT IN A NUTSHELL

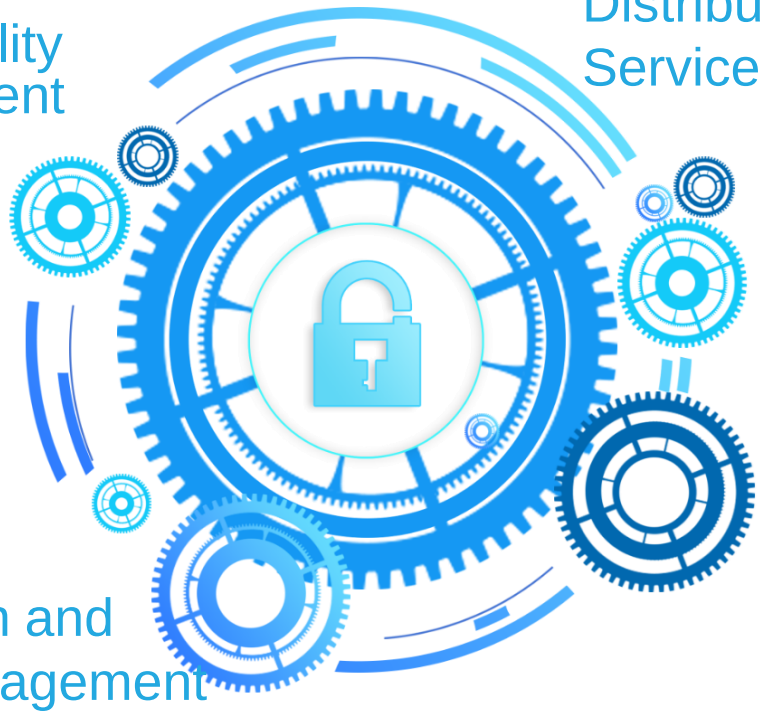
- Title: Integrated Cybersecurity Solution for the Vulnerability Assessment, Monitoring and Protection of Critical Energy Infrastructures
- Type of Action: Innovation Action
- Topic: SU-DS04-2018-2020
  - Cybersecurity in the Electrical Power and Energy System (EPES): an armour against cyber and privacy attacks and data breaches
- Goal
  - EnergyShield captures the needs of Electrical Power and Energy System (EPES) operators and combines the latest technologies for vulnerability assessment, supervision and protection to draft a defensive toolkit.
- Start date: 1st of July 2019
- Duration: 36 months
- Grant: € 7,421,437.38



ENERGYSHIELD TOOLKIT

Vulnerability Assessment

Distributed Denial of Service Mitigation



Security Behaviour Analysis

Security Information and Event Management

Anomaly Detection

Italian Pilot

Small scale attacks

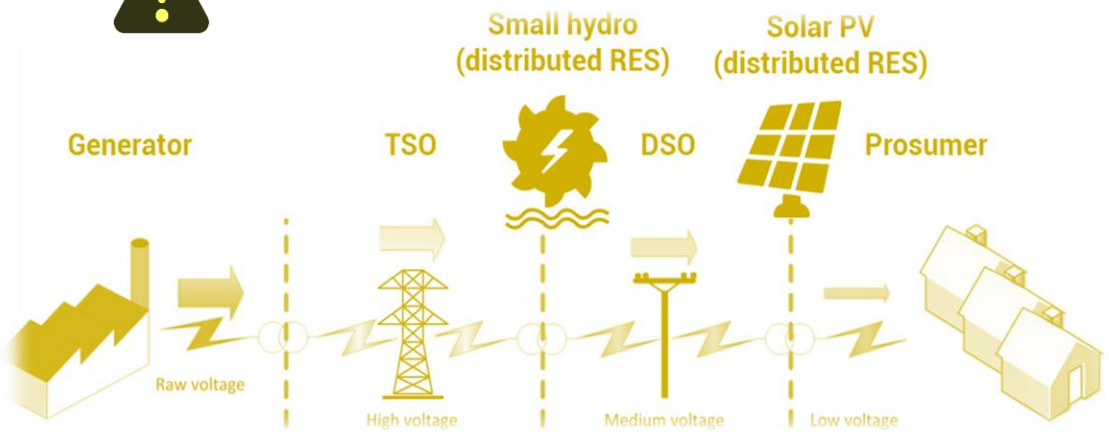
- Targeting specific organization
- Meant to prevent them from conducting business normally
- *e.g. Distributed Denial of Service, ransomware*

Bulgarian Pilot

Large scale attacks

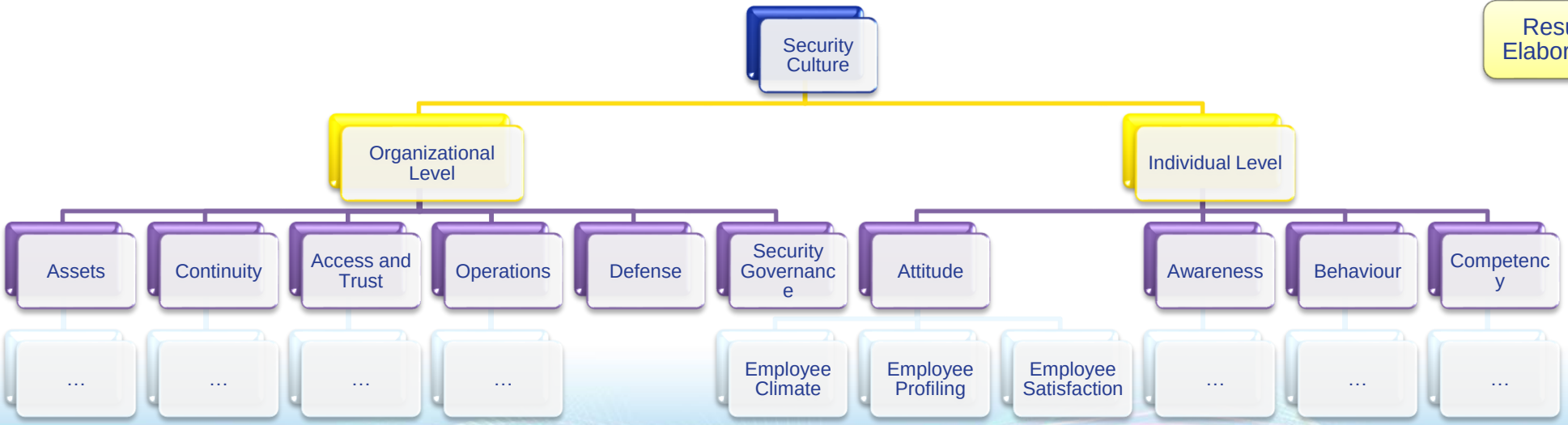
- Targeting the entire EPES value chain
- Meant to take down the energy supply services at regional or country level
- *e.g. malware deployment, man-in-the-middle*

THE NEED: INSIDER THREAT

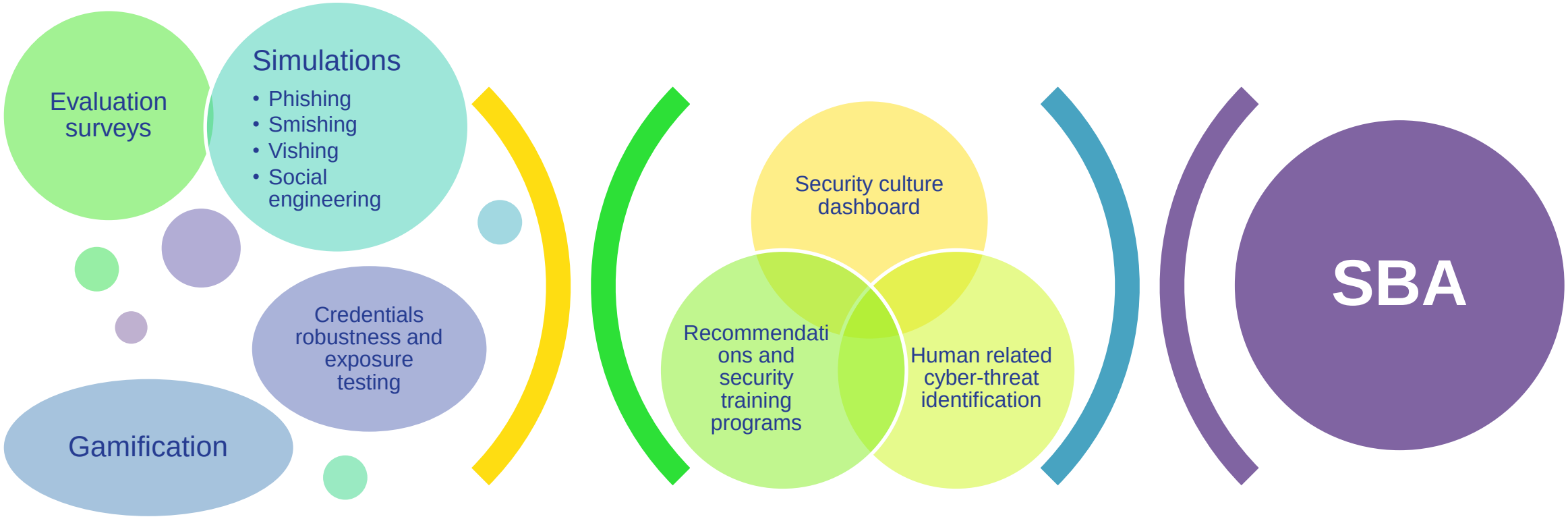


THE SOLUTION: SECURITY BEHAVIOR ANALYSIS TOOL

- Tool features:
  - Founded on a cyber-security culture model: **levels, dimensions** and **domains**
  - Evaluation methodology: **campaigns** and **self-assessment** possibilities
  - Socio-cultural behaviour mapping to specific **cyber-threats**
  - Decision-making insights and **recommendations** towards security culture improvement
  - Assistance into planning and implementing **security culture training programs**
  - Open, highly **customizable** and **interoperable** with third-party components



SECURITY BEHAVIOR ANALYSIS TOOL

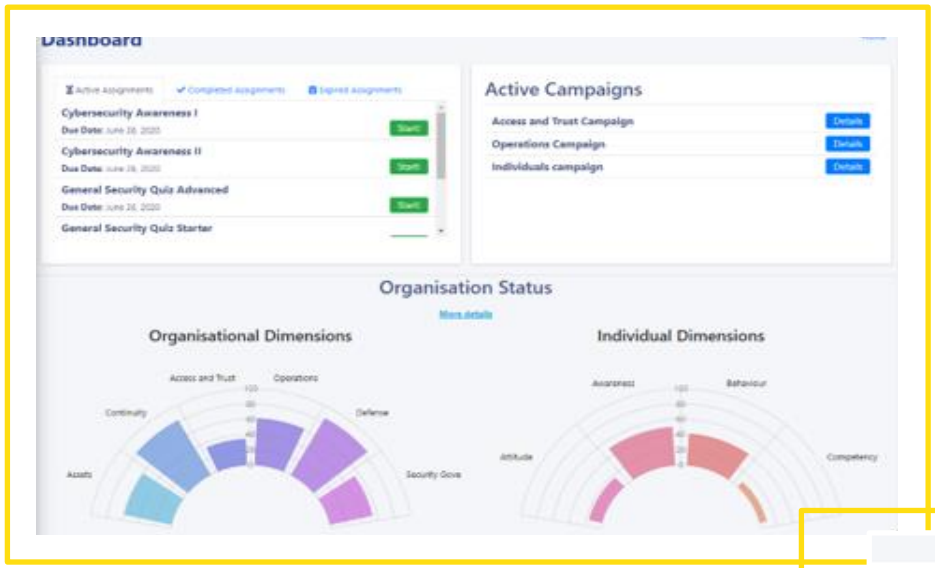


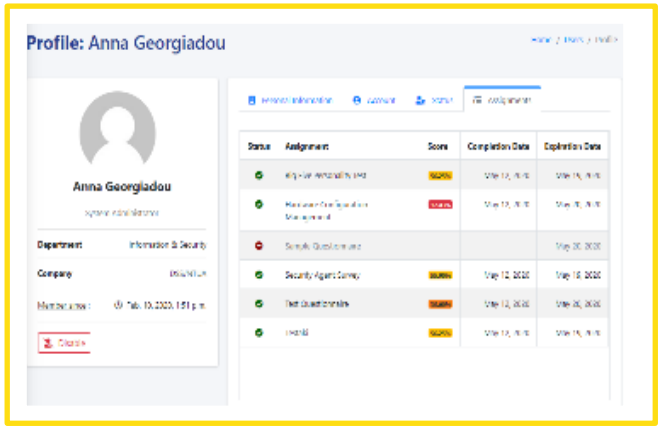
CHALLENGES

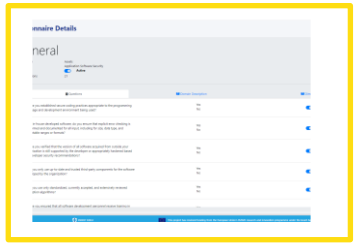
- Security framework verification
- Security controls adjustment
- Weighting system definition and calibration
- Exploitation of evaluation results to identify:
  - further assessment needs
  - unexploited evaluation techniques
  - underestimated security facets.

SBA – DEMO

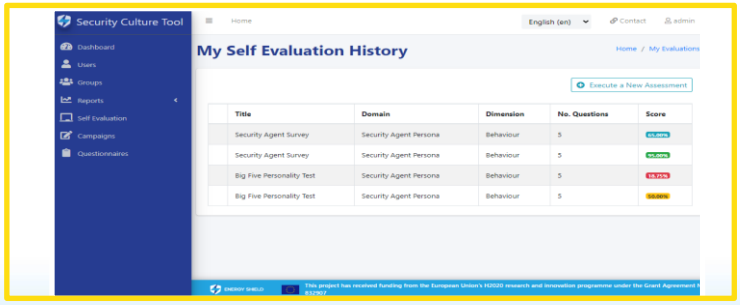
Domains
57%
55%
62%
40%
48%
20
40
60


Dashboard
Active Campaigns
Access and Trust Campaign
Operations Campaign
Individuals campaign
Cybersecurity Awareness I
Cybersecurity Awareness II
General Security Quiz Advanced
General Security Quiz Starter
Organisation Status
Organisational Dimensions
Individual Dimensions


Profile: Anna Georgiadou
Anna Georgiadou

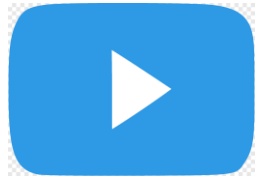


Security Dimensions
Domains


Security Culture Tool
My Self Evaluation History
Execute a New Assessment

ENERGYSHIELD CONTACT DETAILS

- Find us: www.energy-shield.eu
- Subscribe for our Newsletter
- Follow us: @EnergyShield_
- Join our LinkedIn group: EnergyShield
- Contact us: EnergyShield@siveco.ro
- Video presentation: https://www.youtube.com/watch?v=AtSUmkrp1Dw



ENERGY SHIELD

THANK YOU | QUESTIONS

DEVELOPING THE CYBER-TOOLKIT THAT PROTECTS YOUR ENERGY GRID

SIMAVI Software Imagination & Vision

PSI

SIGA OT Solutions

foreseeti

ESO EAD

РАЗПРЕДЕЛЕНИЕ

CITY UNIVERSITY OF LONDON EST 1894

KTH VETENSKAP OCH KONST

L7 DEFENSE

MIG23 turnkey engineering

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K3

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This project has received funding from the European Union's H2020 research and innovation programme under the grant agreement No. 832907