CYBERWISER.eu

Cyber Range & Capacity Building in Cybersecurity

CYBERWISER.eu Cyber Range

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RHEA GROUP

Co-funded by the European Commission
Horizon 2020 – Grant # 786668

Cyber Range – Key Concepts

- What is a Cyber Range?
  - A recent concept
  - A multipurpose virtualization environment supporting three main needs:
    - Knowledge development and dissemination (training)
    - Improved system assurance in development (R&D)
    - Improved system assurance through test and evaluation (testing)
  - A safe environment for cyber attack scenario simulation and test

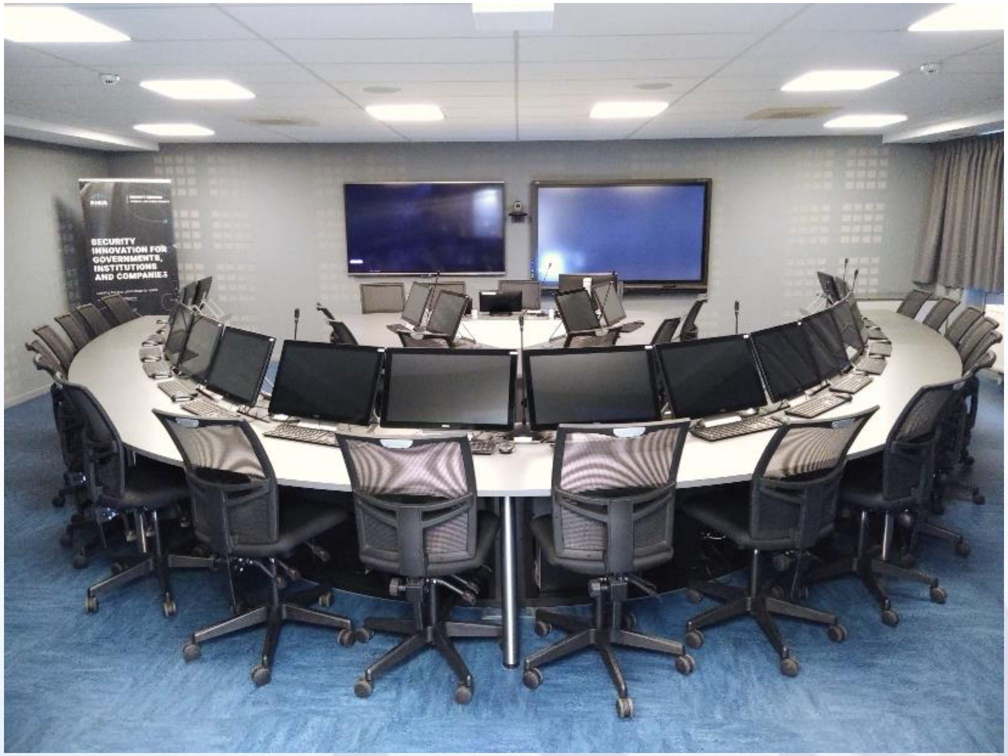
Research and Development
Training
Test and evaluation

Cyber Range – Training

Cyber ranges are extremely suited for security training purposes

- The virtual environments allow trainers and trainees to perform multiple realistic training scenarios with a fraction of cost and effort needed for building and configuring similar physical platforms

- On next-generation ranges, the freedom of configuring and monitoring the training scenario in real-time is invaluable for trainers

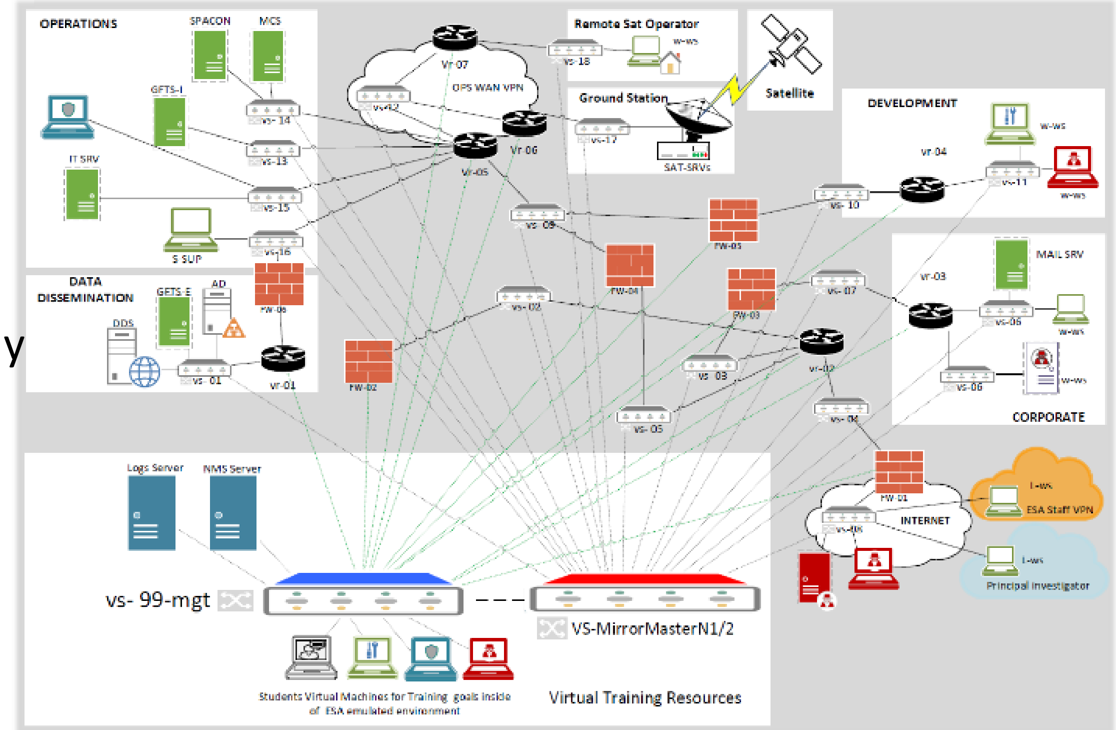


Cyber Range: Research and development

Reducing the cyber threat through emulation

- All critical infrastructure systems are at risk of cyber security attacks. Being aware of the risks from early stages of system and software development is vital for building secure infrastructure.

- The realistic emulation environment facilitates experimentation, evaluation of early prototypes and design verification testing.



Cyber Range: Test and evaluation

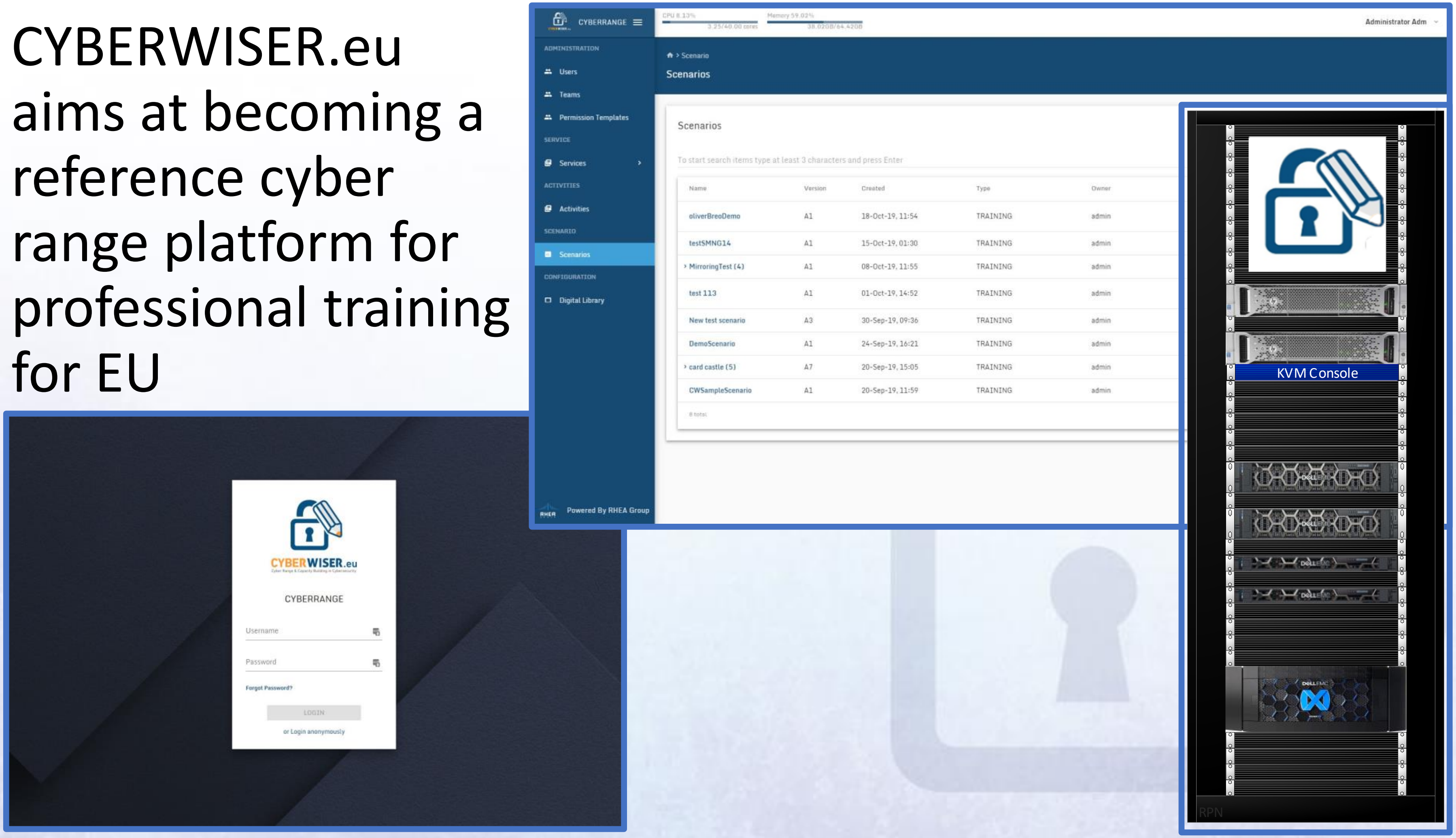
Anticipating cyber threats with a realistic test framework

- Cyber ranges provide frameworks where experts can analyse and examine cyber attack technologies under realistic conditions

- Critical systems can be tested securely in a realistic test framework that facilitates incident management and response

CYBERWISER.eu: a next generation cyber range

CYBERWISER.eu aims at becoming a reference cyber range platform for professional training for EU



Scenarios

To start search items type at least 3 characters and press Enter

Name	Version	Created	Type	Owner
oliverBreoDemo	A1	18-Oct-19, 11:54	TRAINING	admin
testSMNG14	A1	15-Oct-19, 01:30	TRAINING	admin
› MirroringTest (4)	A1	08-Oct-19, 11:55	TRAINING	admin
test 113	A1	01-Oct-19, 14:52	TRAINING	admin
New test scenario	A3	30-Sep-19, 09:36	TRAINING	admin
DemoScenario	A1	24-Sep-19, 16:21	TRAINING	admin
› card castle (5)	A7	20-Sep-19, 15:05	TRAINING	admin
CWSampleScenario	A1	20-Sep-19, 11:59	TRAINING	admin

8 total

CYBERWISER.eu
Cyber Range & Capacity Building in Cybersecurity

CYBERRANGE

Username

Password

Forgot Password?

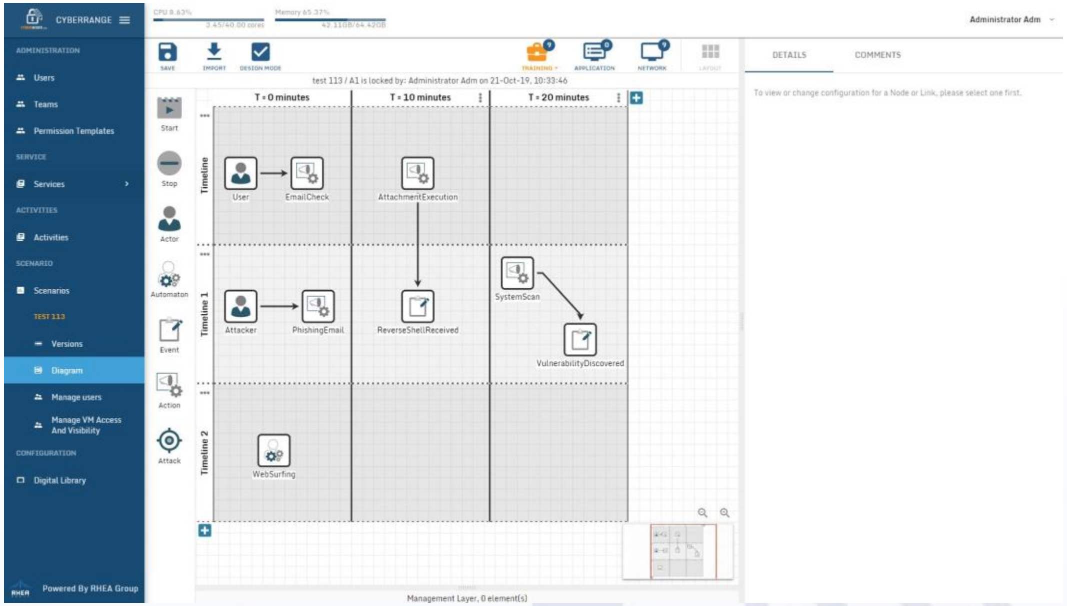
LOGIN

or Login anonymously

CYBERWISER.eu: a next generation cyber range

The platform already leverages advanced features of next generation cyber ranges:

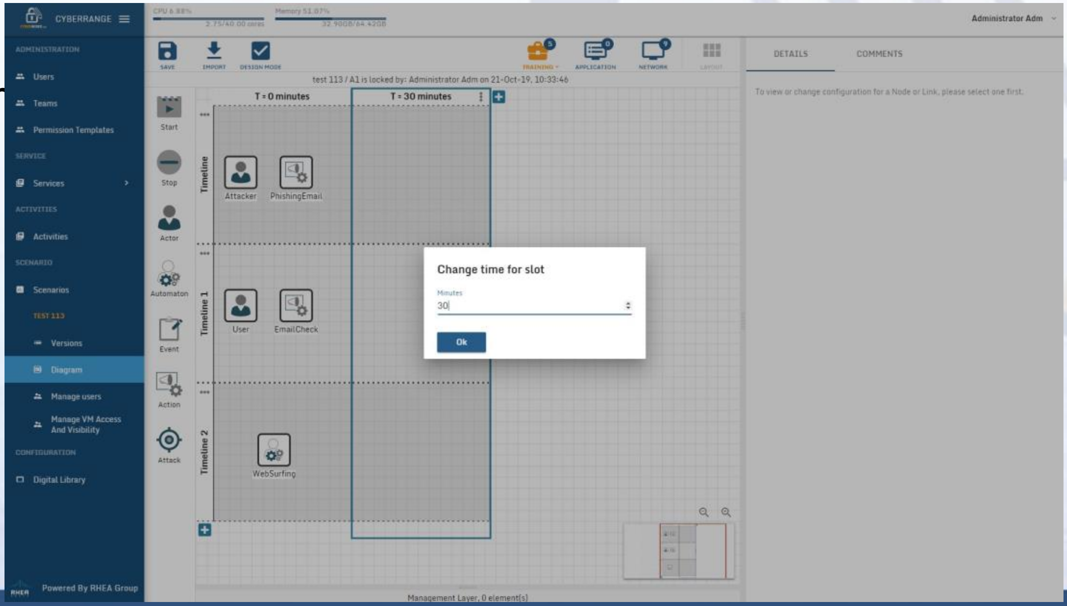
- Detailed scenario design for very complex network and application topologies
- Wide digital library for scenario variety
- Virtual networks and routing semi-automatic configuration
- Events scheduling during scenario design
- Events triggering during scenario execution
- Full suite of cross learning tools



test 113 / A1 is locked by: Administrator Adm on 21-Oct-19, 10:33:46

To view or change configuration for a Node or Link, please select one first.

Management Layer, 0 element(s)



test 113 / A1 is locked by: Administrator Adm on 21-Oct-19, 10:33:46

To view or change configuration for a Node or Link, please select one first.

Change time for slot

Minutes: 30

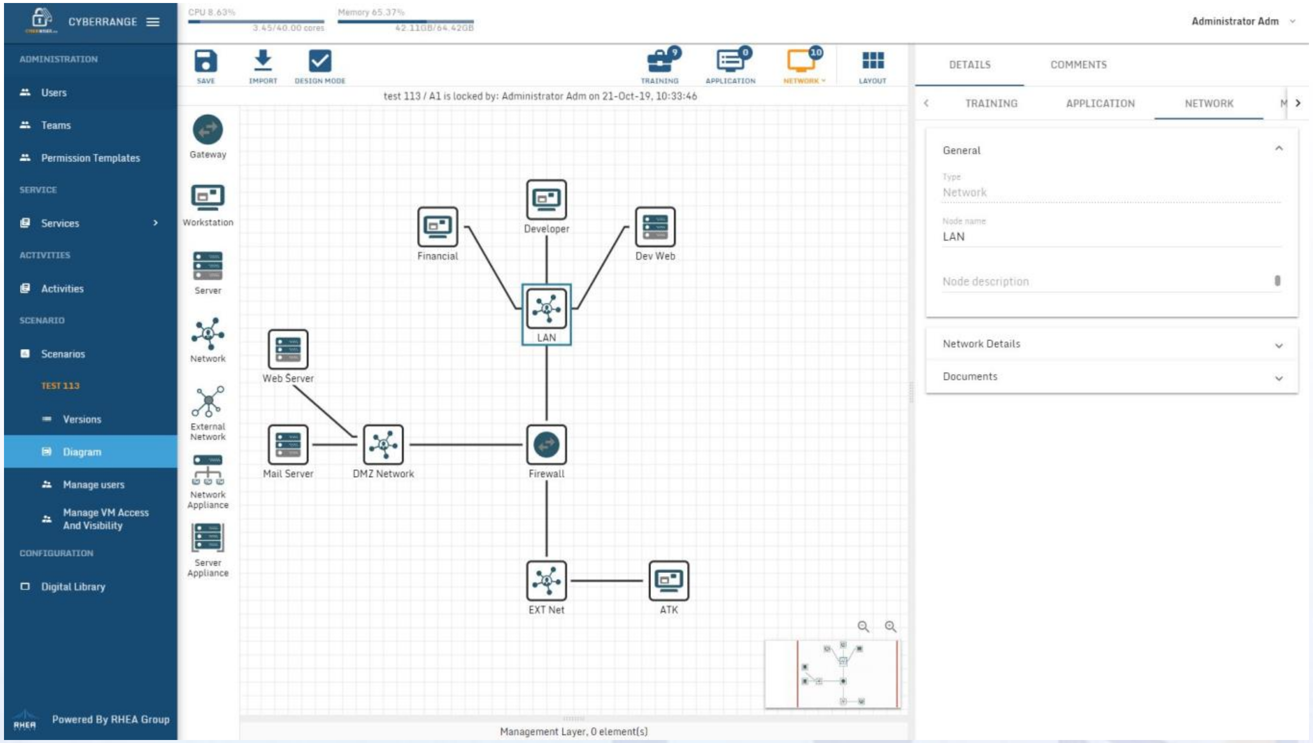
Ok

Management Layer, 0 element(s)

CYBERWISER.eu: a next generation cyber range

The platform will leverage additional advanced features of next generation cyber ranges:

- Real-time overview of events in active scenarios
- Automatic performance evaluation of trainees
- Full suite of attacking and protective tools for complex scenario



test 113 / A1 is locked by: Administrator Adm on 21-Oct-19, 10:33:46

Type: Network

Node name: LAN

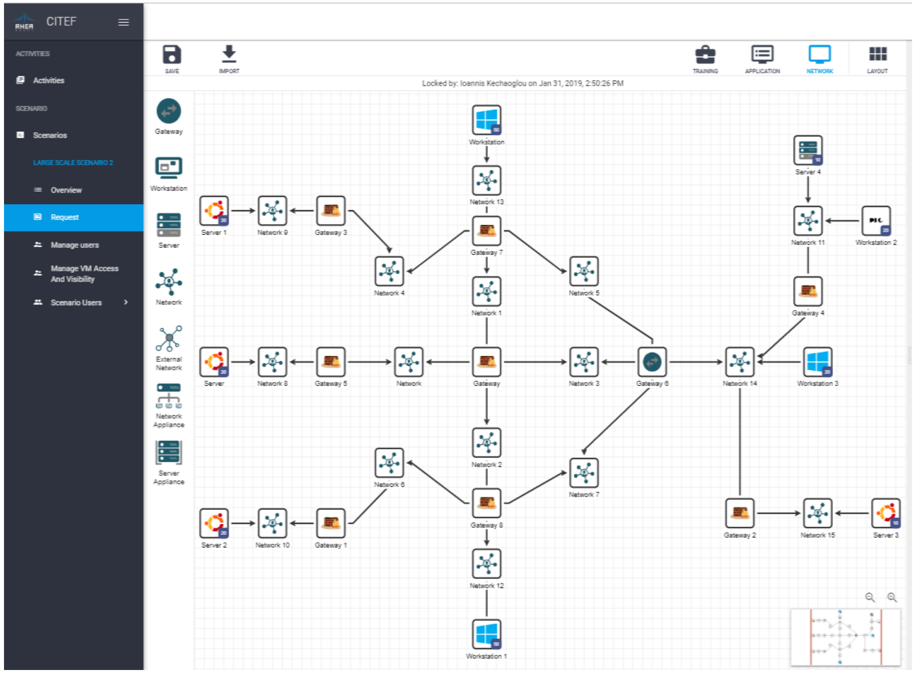
Node description

Management Layer, 0 element(s)

CYBERWISER.eu: based on existing advanced technologies

The core of CYBERWISER.eu is based on the Cyber Security, Test and Evaluation Framework (CITEF) platform

- Developed by RHEA Group in the context of the first Cyber Security Centre of Excellence for the European Space Agency
- A complete platform, CITEF allows CYBERWISER.eu to be already deployed on a preliminary version, leveraging on a set of consolidated features including
  - Detailed scenario design
  - Wide digital library for scenario variety
  - Virtual networks and routing semi-automatic configuration
  - Advanced flexibility on instantiation/deletion/update of complex scenario



CITEF

ACTIVITIES

Activities

SCENARIO

Scenarios

LARGE SCALE SCENARIO 2

Overview

Request

Manage users

Manage VM Access And Visibility

Scenario Users

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CYBERWISER.eu: based on existing advanced technologies

- The advanced training scenario features are based on existing tools to be improved during the project:
    - Monitoring Sensors (ATOS)
    - XL-SIEM (ATOS) – anomaly detection
    - Risk Assessment Engine (ATOS) – based on economic models from SINTEF
    - Decision Support System (ATOS)
    - xOpera (XLAB) – to support alternative IaaS
    - xRuntime (XLAB) – full suite of attacking and scanning tools
    - Cross-learning platform (Trust-IT)

Thank you for your attention! *Questions?*

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Organisation:

RHEA Group

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