



FORESIGHT

Advanced Cyber Security Simulation Platform for Preparedness Training in Aviation, Power Grid and Naval Environments



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FORESIGHT-H2020 Project



FORESIGHT Project Group

OVERVIEW

Global cyber-attacks are increasing in both sophistication and scale. As a result, it is quite hard to forecast, detect, mitigate, but also recover from them. Such incidents reveal the extent of threat to which our critical information infrastructures (CIIs) and information and communication technology (ICT) systems are exposed to. Cyber-attacks are expected to have a growing negative economic and societal impact in the next decade and should therefore be considered as global risks.

The effective management of cyber threats requires a set of proactive tools and the development of an entire security culture: The FORESIGHT project is a three-and-half-year innovation action project funded by the EU's Horizon 2020 programme and aims to develop a federated cyber-range solution to enhance the preparedness of cybersecurity professionals at all levels and advance their skills towards preventing, detecting, reacting, and mitigating sophisticated cyber-attacks.

This is achieved by delivering an ecosystem of networked realistic training and simulation platforms that collaboratively bring unique cyber-security aspects from the aviation, smart grid, and naval domains. The proposed platform will extend the capabilities of existing cyber-ranges and will allow the creation of complex cross-domain/hybrid scenarios to be built jointly with the IoT domain.



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OBJECTIVES

The FORESIGHT project aims to develop a federated cyber-range solution in order to enhance the preparedness (prevention, detection, reaction, and mitigation) of cyber-security professionals at all levels (from junior to senior) by delivering a realistic training and simulation platform that brings together unique cyber-security aspects from aviation, power grid, and naval ecosystems. In more detail, the project objectives are:



FORESIGHT aims to deliver a state-of-the-art platform that considerably **extends the capabilities of existing cyber-ranges** by allowing them to be part of a cyber-range federation. Current and future cyber ranges and simulation training environments of different TRLs contribute to this by adding domain specifics (apart from those considered during the project's lifetime) and allowing complex cross-domain (i.e., hybrid) scenarios to be built.



FORESIGHT aims to develop an advanced risk analysis and econometric models, **constantly updated** with real-life incidents. Those will assist organisations in estimating the impact of cyber-risks, selecting the most appropriate and affordable security measures to protect valuable assets and minimise the cost and time to recover from cyber-attacks.



FORESIGHT aims to develop realistic and dynamic scenarios based on identified and forecasted trends and needs in terms of cyber-attacks and vulnerabilities (along with their cascading effects). This will be based on cyber-threat intelligence gathered from various online sources and the dark web to enable cyber-security professionals to **rapidly adapt to an evolving threat landscape**.



FORESIGHT aims to deliver **innovative training curricula**, going far beyond those individual domains considered in the project. This will guide cyber-security professionals to implement and combine security measures innovatively using new technologies. Additionally, established learning methodologies will be employed to maximize training outcomes **(that will be linked to professional certification programs)**. Learning platforms will efficiently support this to establish a rich cyber-security FORESIGHT knowledge base.



The CYBER-RANGE NETWORK

What is the “Cyber-Range Network”?

The “Cyber-Range Network” is a collaboration initiative created jointly from three EU funded projects:



The objectives of the network are:

- To promote collaboration and facilitate exchange of knowledge;
- To showcase their respective project results to a wider audience;
- To perform joint dissemination activities;
- To improve awareness regarding cybersecurity preparedness and training.



To stay up to date with collaborative activities!

<https://foresight-h2020.eu/index.php/news-events-2/>

CONSORTIUM

The FORESIGHT consortium brings together more than 90 experts from 22 well-established and experienced partner organisations from 8 EU member states. Representation from both academia and industry will ensure proper expertise required for the successful execution of the project.



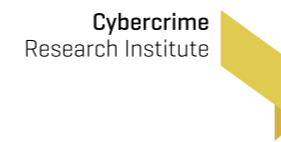
www.kemea.gr



www.eurodyn.com



www.certh.gr



<http://cybercrime.de>



www.incites.eu



www.sheffield.ac.uk



www.uop.gr

MINDS & SPARKS

www.mindsandsparks.org



www.abertay.ac.uk

AIRBUS

www.airbus-cyber-security.com



www.port.ac.uk



www.ouc.ac.cy



www.ecole-navale.fr



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THALES

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