

DEFENDER

Defending the European Energy Infrastructures

Critical Infrastructure Protection Topic 1
Prevention, detection, response and mitigation of the combination of physical and cyber threats to the critical infrastructure of Europe

**14th CoU Thematic Workshops
Brussels, 17th September 2019**

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This project has received funding from the European Union's Horizon 2020 research and innovation programme under the grant agreement No 740898



Project Overview



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DEFENDER identity card

- **Call Identifier:** H2020 CIP-2016-2017-1
- **Starting Date:** 1 May 2017
- **Action Type:** *Innovation Action*
- **Duration:** 36 months (Closing Date: 30/4/2020)
- **EU Contribution:** 6.790.837,50 €
- **Partners:** 18 (from 9 countries)
- **Country coverage:** *Italy, Greece, France, Romania, Germany, Slovenia, Portugal, UK, Israel*
- **Website:** <http://defender-project.eu/>






ICT Service & Technology providers

-  **ENGINEERING SingularLogic**  (ICT)
- **THALES** (Security)
- **POWER**    (SME - Solution Provider)
-  **e-lex** (Data Privacy/Protection Enforcement)

R&D/Academy



Stakeholders

-  **ASM** (Electricity Network Operator, DSO)
-  **ENGIE** (Electricity Supplier, Bulk generation)
-  **BFP** (Electricity Supplier, Wind farm)
-  **ELES** (Electricity Network Operator, TSO)
-  (Law Enforcement Agency)

DEFENDER Mission

DEFENDER aims at safeguarding existing and future European CEI operation over **cyber-physical-social threats**, developing a **new approach** based on **novel protective concept for lifecycle assessment, resilience and self-healing** offering **Security-by-design**, and **advanced intruder inspection and incident mitigation systems**

Technical Approach

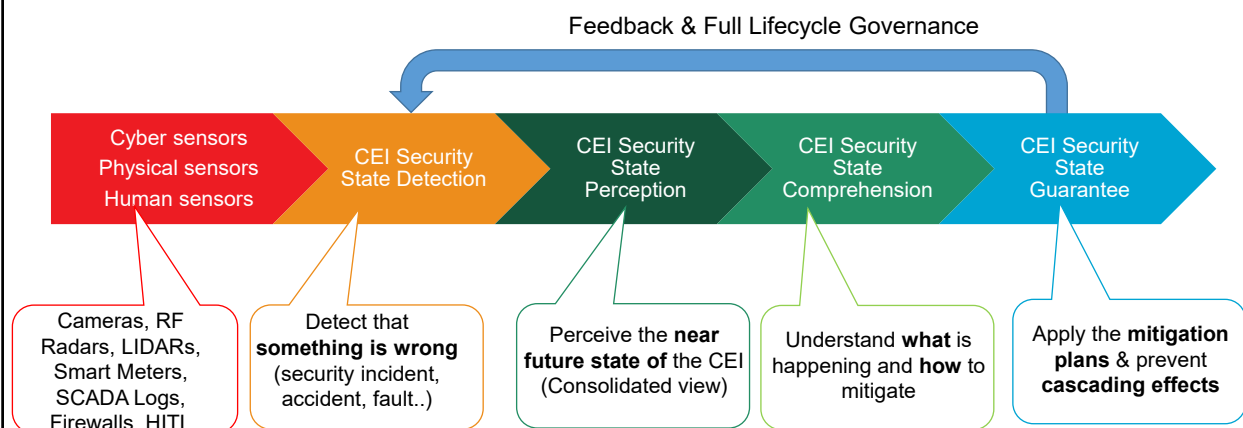


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From Monitoring to CEI Security Guarantee



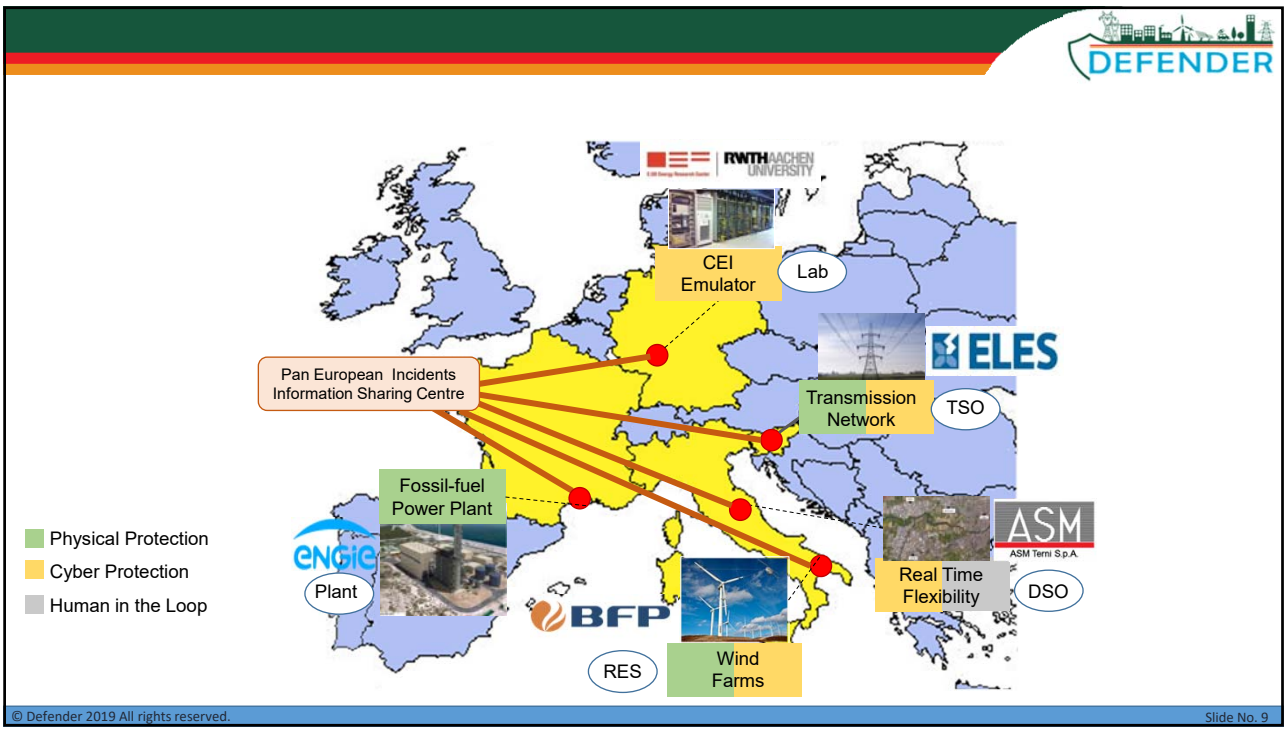
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DEFENDER Highlights CEI Security Guarantee



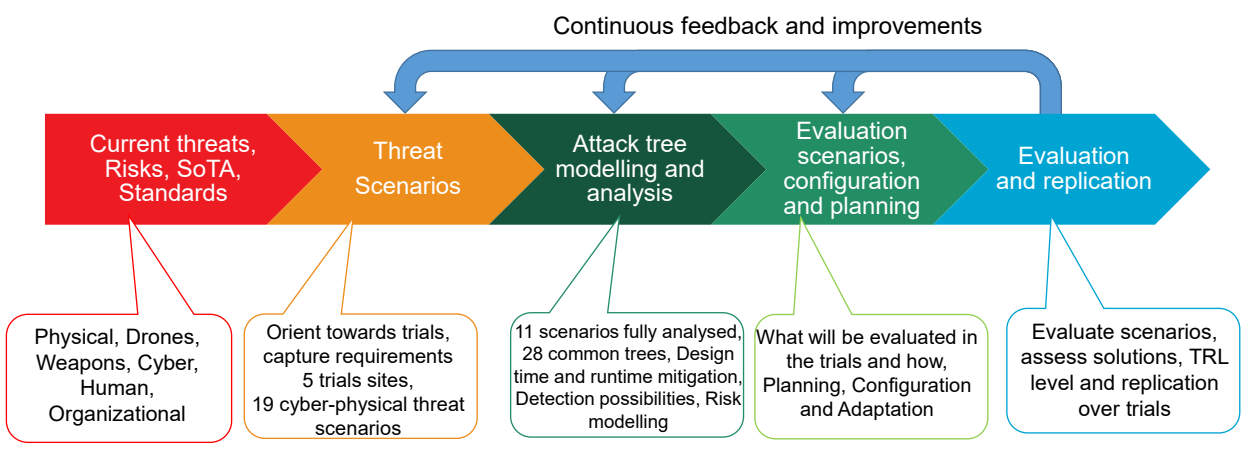
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Pilots Evaluation



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From Requirements to Evaluation



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Achieved results and Ongoing activities



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DEFENDER achieved results #1

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DEFENDER achieved results #2

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DEFENDER ongoing activities

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EU Policy Goals



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Contribution to EU policy goals

- **DEFENDER brings on the table certain new analyses and approaches:**
 - a) Analysis of **CEI new complex threats**
 - b) Analysis of **interdependency between CEI and other CI** sectors
 - c) Analysis of **selected threat scenarios** (including attack tree method evaluation)
 - d) **Comprehensive approach and solutions for CEI protection** in the field of Continuity Management
 - e) **Methodology for risk assessment** (analyses of processes and procedures that address certain security gaps in the field of physical and cyber security including human in the loop approach)
 - f) Establishment of DEFENDER Critical Energy Infrastructure Security Stakeholders Group (**CEIS-SG**) (exchanging best practices, new knowledge and developments)
 - g) Possible areas for Standardization efforts: **information security improvements** (family of ISO 27000), **technical security systems** (cameras, sensors, security centres) **improvements, security integrated procedure improvements** of standards and threat assessments, evaluations and vulnerability management (ENTSO-E, CENELEC, ESO, CEN, ECSO), new EU regulation on drones

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**Defending the European
Critical Energy Infrastructure**

Thank you for your attention

For further information do not hesitate to contact me at the following email: gabriele.giunta@eng.it



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