

Abstract

The impact of a coordinated physical attack and a deliberate (cyber) disruption of critical automation systems can have disastrous consequences for the European Member States' region economies and social wellbeing. PRAETORIAN creates a toolset that will support the security managers of CIs in their decision making to anticipate and withstand potential cyber, physical and combined security threats to their own infrastructures and other interrelated CIs.

Main concept

Evaluate the hazards and minimize their level of risk by assessing the vulnerabilities of the targeting sectors and designing adequate security measures

- ✓ **Combined attacks:** The PRAETORIAN addresses scenarios which combine both physical and cyber threats
- ✓ Investigate the **cascading effects** of physical and cyber threads: both within a CI and between interrelated CIs

Consortium

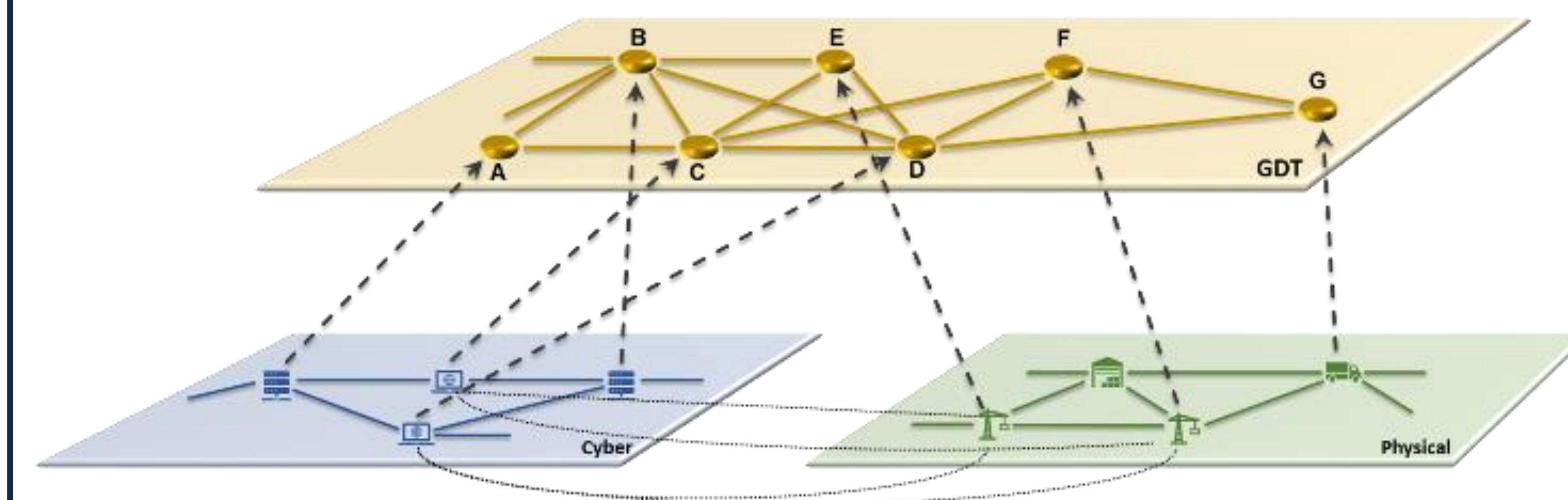
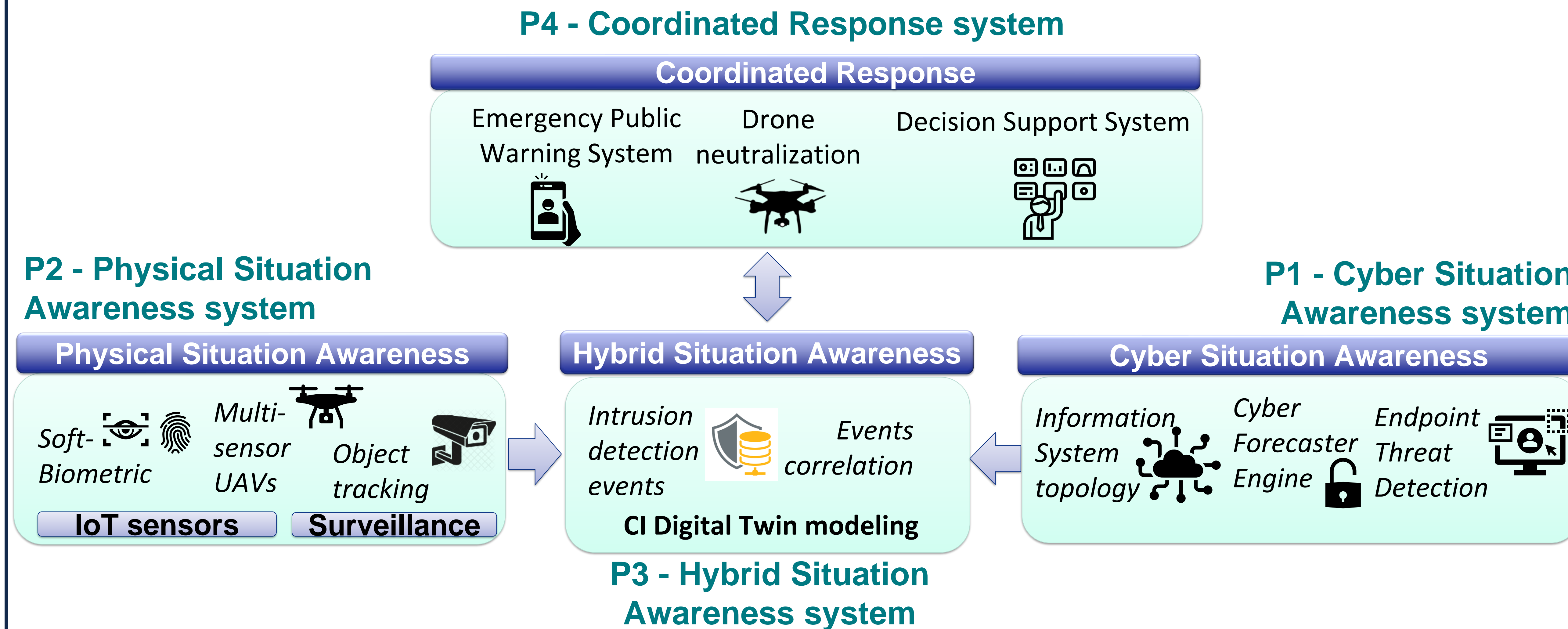


- 23 partners from 7 EU countries
- 3 demo sites in 4 EU Member states
- Total budget: 9,04 M€
- Start date: 01/06/2021 - End date: 31/09/2023

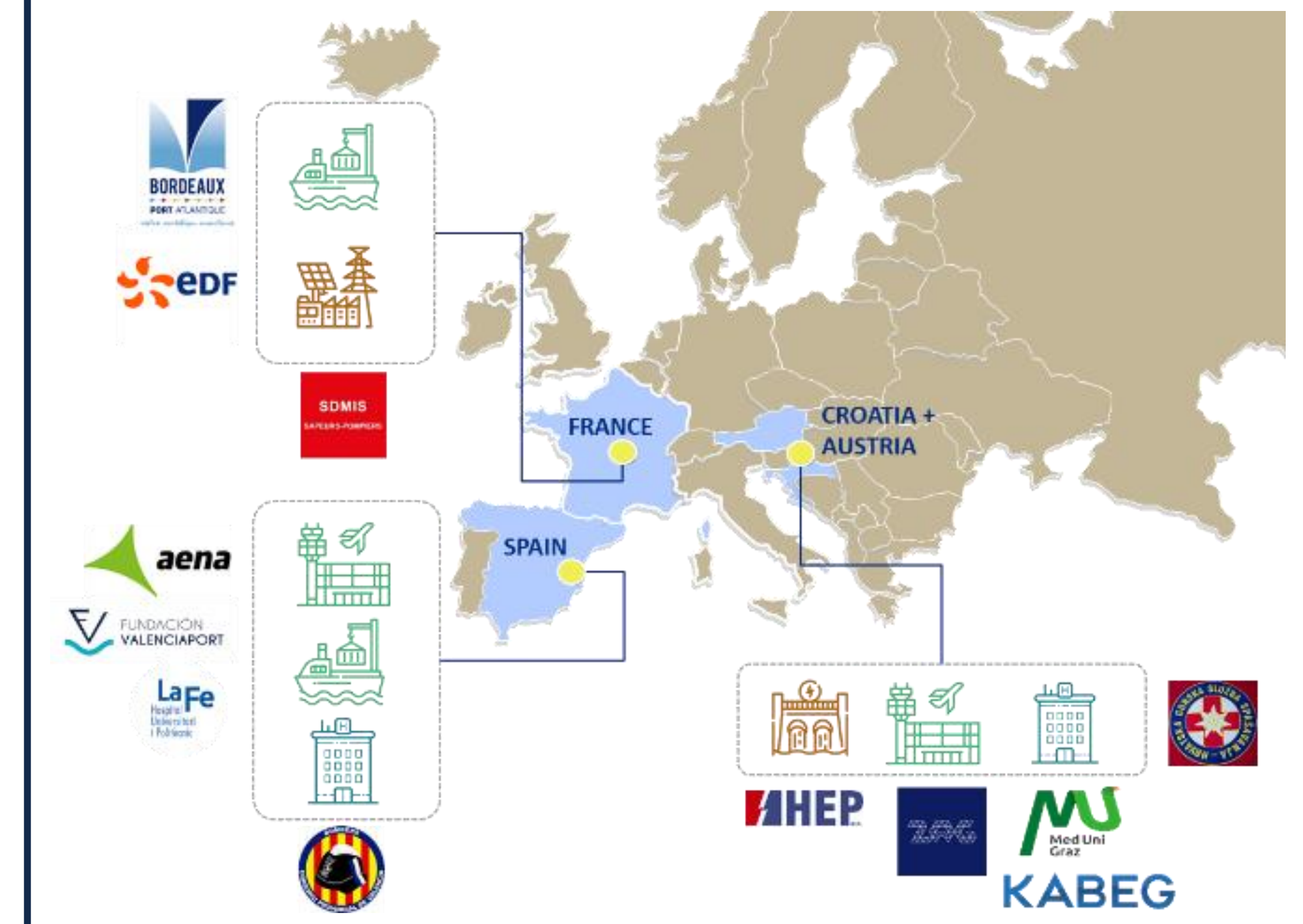
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National Technical University of Athens, Greece

PRAETORIAN strategic goal is to increase the security and resilience of European CIs, facilitating the coordinated protection of interrelated CIs against combined physical and cyber threats.

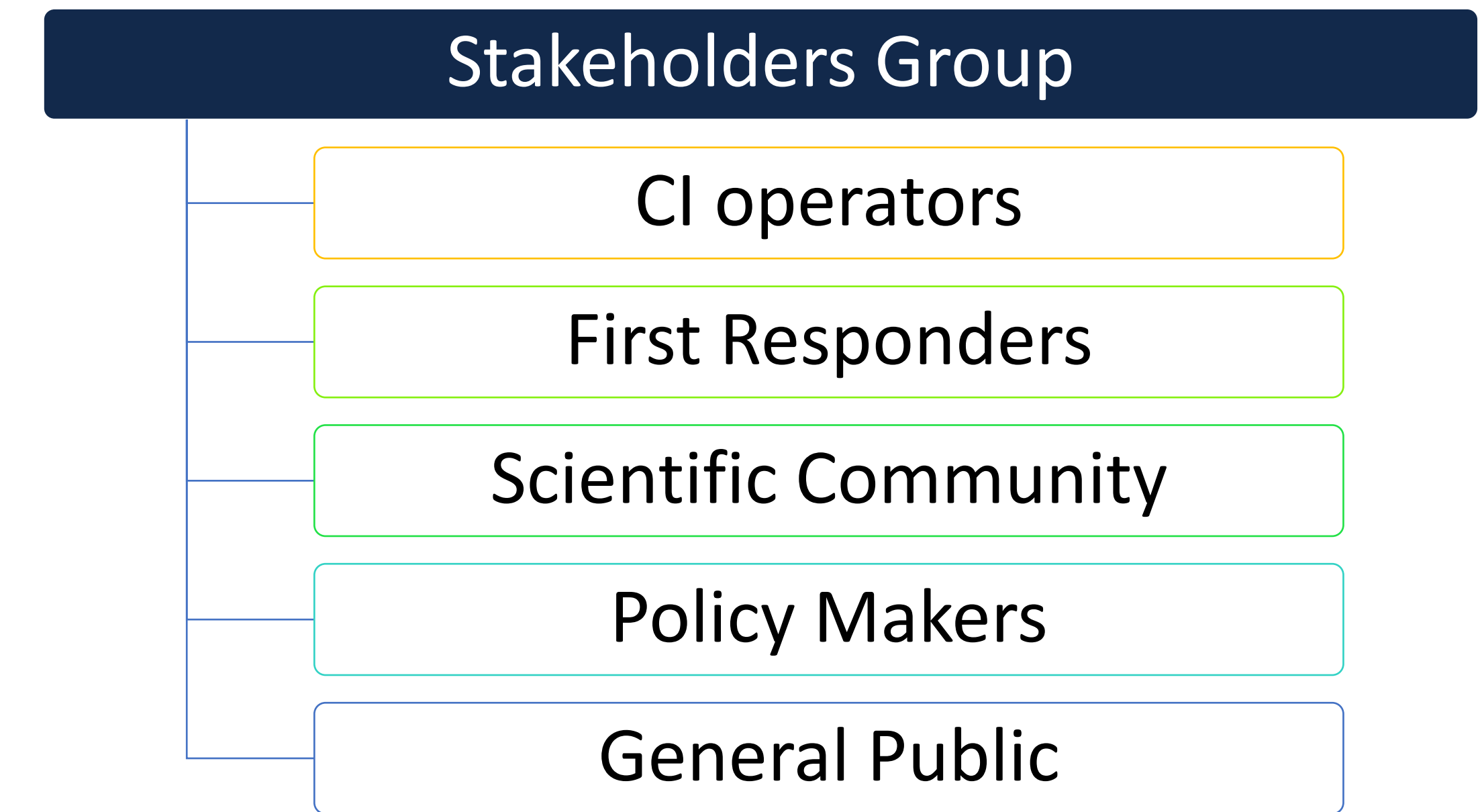
The PRAETORIAN architecture



- Representation of the cyber domain (assets) and of the physical domain.
- The edges indicate relationships between specific components Relationships between a physical and a cyber components
- The cyber and physical domains are instantiated using a generic digital twin, which use to analyze cascading effects



- ✓ Demonstrated in **three pilot sites** engaging the assets and staff of major CIs from **critical sectors**
- ✓ The project use cases and demonstration scenarios are **complementary**, with at least 2 CI per pilot, in order to make possible a cross-site analysis of the project solutions



Conclusions

- **CI-led project**
- Building on top of **8 previous successful INFRA-CIP projects**
- **Scalability:** Involvement of 9 CIs from heterogeneous sector