



SecureGas

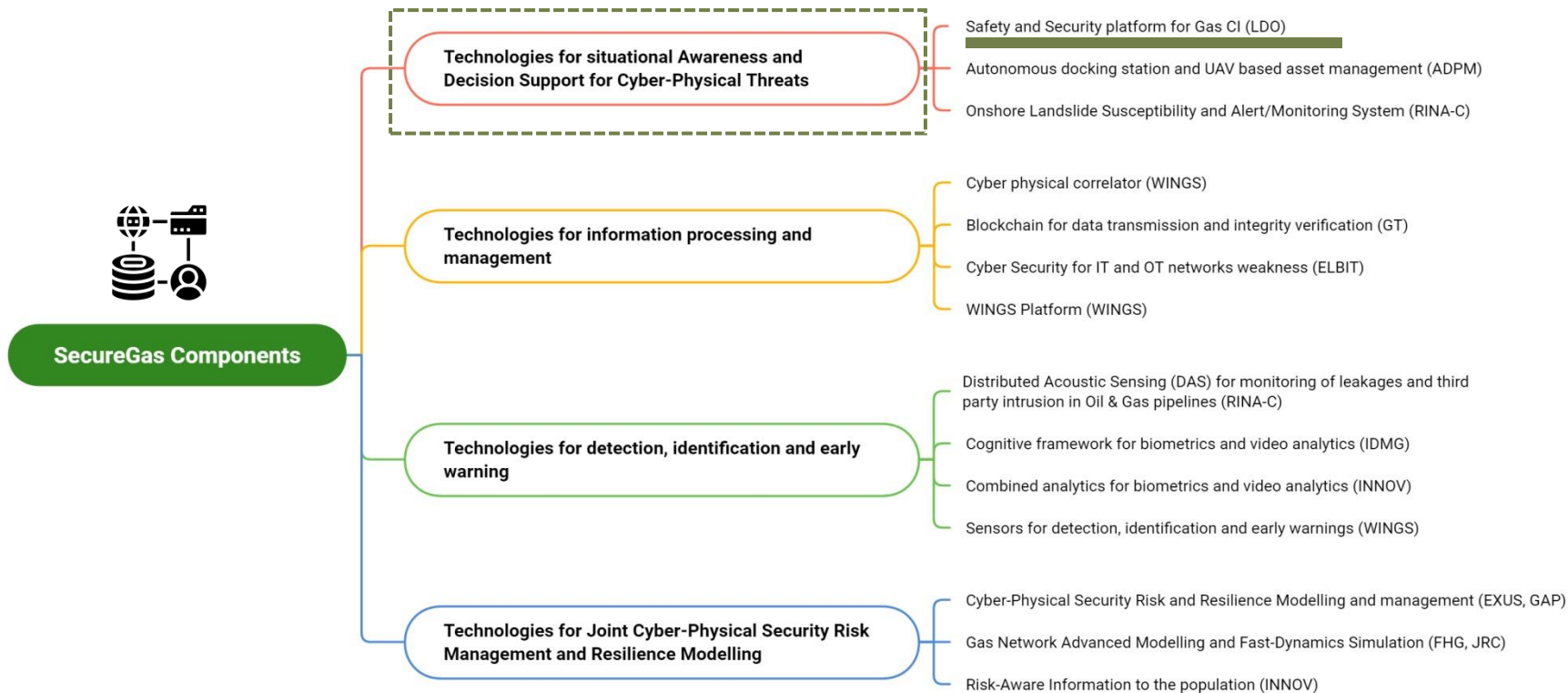
Securing the European Gas Network



SecureGas project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under Grant Agreement No 833017

Company General Use

SecureGas extended components



Safety and Security platform for Gas CI

DESCRIPTION

The platform is a support framework to manage processes for critical infrastructures based on an OODA (Observe, Orient, Decide, and Act) methodology, supporting a wide-range of proactive or reactive **prescriptive** security activities to achieve strategic or tactical outcomes in an integrated security vision.

It is able to manage information from multiple systems to provide a single point of view of all operations, to retrieve the data streams from sensors (e.g. gas flow and component health data) and integrated systems (e.g. UAVs)

It aims to manage all the information coming from security and safety systems operating in a critical infrastructure and gives an integrated view of the situation in real time by:

- CORRELATING integrating data and information for understanding the real time situation
- Including models, SIMULATIONS AND PRESCRIPTIVE TOOLS AND WORKFLOWS related to the management of safety and security;
- Providing Cyber Security for SCADA and DCS systems

The combination of these features allows to have an integrated security view of the situation in real time → **SITUATIONAL AWARENESS** and to make proper decisions to react to the detected events, thanks to a wide-range of both prescriptive or reactive security activities → **DECISION SUPPORT SYSTEM**

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BENEFITS



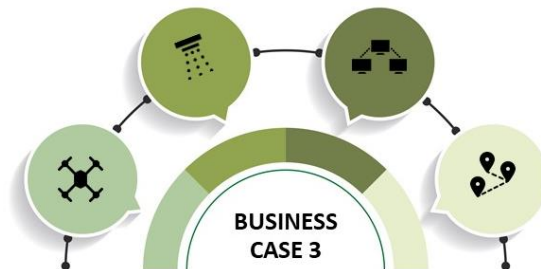
The **MAIN INNOVATIVE ELEMENTS** are:

- a) **Correlator Engine** based on Machine Learning and Pattern Matching identifies relationships among heterogeneous events, even apparently unrelated, generated by various subsystems, in order to generate new alarms (smart alarms) or identify possible false-positive
- b) **Intrusion prevention/detection in ICS/SCADA systems** through behavioral analysis at different levels and threats recognition in the OT network
- c) **Decision Support functions:** modeling and simulation of Infrastructures and Services aimed at identifying operating scenarios and possible propagation of anomalies on the basis of data coming from the field. Prescription of the optimal course of action to be taken.
- d) DSS leverages on an **Human Machine Interface** that exposes a high level of Situation Awareness through displaying a CROP (Common Relevant Operational Picture) with all relevant information to understand what is happening within scenario. GIS functions allow an integrated management of cartography to provide the user a geo-referenced integrated view of all the information (e.g. UAV 3D surveillance data; fast predictive geo-referenced gas flow simulations pre, during and post events)

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APPLICATION CASE

- **Business Case 3**



TARGETS

- **Target End Users:** Security Managers of Critical Infrastructure
- **Target Assets:**
 - 1) Gas grid owner and operators (but also other infrastructure owner and operators)
 - 2) Security authorities benefit from situational awareness and can quickly assess and proactively respond to an event before it escalates to a serious security incident.



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