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

SecureGas extended components

SecureGas Components

- **Technologies for situational Awareness and Decision Support for Cyber-Physical Threats**
  - Safety and Security platform for Gas CI (LDO)
  - Autonomous docking station and UAV based asset management (ADPM)
  - Onshore Landslide Susceptibility and Alert/Monitoring System (RINA-C)
- **Technologies for information processing and management**
  - Cyber physical correlator (WINGS)
  - Blockchain for data transmission and integrity verification (GT)
  - Cyber Security for IT and OT networks weakness (ELBIT)
  - WINGS Platform (WINGS)
- **Technologies for detection, identification and early warning**
  - Distributed Acoustic Sensing (DAS) for monitoring of leakages and third party intrusion in Oil & Gas pipelines (RINA-C)
  - Cognitive framework for biometrics and video analytics (IDMG)
  - Combined analytics for biometrics and video analytics (INNOV)
  - Sensors for detection, identification and early warnings (WINGS)
- **Technologies for Joint Cyber-Physical Security Risk Management and Resilience Modelling**
  - Cyber-Physical Security Risk and Resilience Modelling and management (EXUS, GAP)
  - Gas Network Advanced Modelling and Fast-Dynamics Simulation (FHG, JRC)
  - Risk-Aware Information to the population (INNOV)

Sensors for detection, identification and early warnings

DESCRIPTION

Based on the requirements provided by the end users as well as the specific characteristics of each site under discussion, specific threats and attack scenarios have been identified. To cover all of those and make sure that users of the SecureGas platform are sufficiently informed about the operational condition of their infrastructure, a set of devices has been created.

These devices include all the pertinent sensors, connect them and use different communication protocols to send their data to the central servers.

Moreover, the devices have been designed to be durable, resilient and compliant with the security requirements of each location. Within the hazardous area, we use components with ATEX certification.

Embedded software runs on the devices to detect abrupt changes, notify and adapt their behavior.

Sensors for detection, identification and early warnings

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BENEFITS

The **MAIN BENEFITS** are:

(a) Multi-purpose devices, for monitoring multiple heterogeneous parameters

(b) Real-time monitoring in customizable frequency

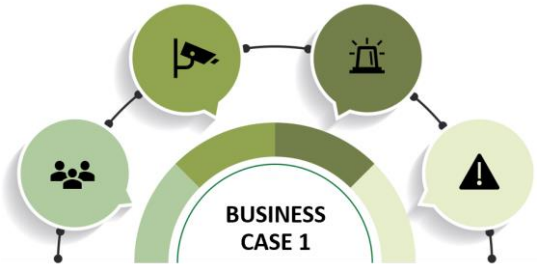
(c) Different communication protocols depending on availability

(d) Embedded intelligence for early warning

Sensors for detection, identification and early warnings

APPLICATION CASE

- **Business Case 1**



TARGETS

- **Target End Users:** Gas grid owners and operators (but also other infrastructure owners and operators)
- **Target Assets:** Security Managers of Critical Infrastructure

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SecureGas partner:

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