



SecureGas

Securing the European Gas Network



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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)

Combined analytics for biometrics and video analytics

DESCRIPTION

The video analytics solution will consist of cameras and sensors to gather video streams and raw data, which will then be analyzed by an innovative software in order to identify different types of physical attacks and threats. In this way, the solution will ensure the detection, identification and monitoring of various attacks or incidents within the covered area, offering an integrated solution of video and presence analytics.

In particular, the combined biometrics, video and presence analytics solution will be able to automatically detect, track, recognize and identify persons, vehicles and objects within, in the perimeter or outside a predefined zone. Automatic notifications, signals or emergency alarms will be produced and sent to the relevant stakeholders for action. Additionally, the recorded video will be available for forensic search and recognition using different parameters, e.g. photos of persons or vehicles. Additional options for motion detection, automatic zoom and tracking, as well as intelligent video playback will also be offered to the operators.

An integrated user interface dashboard will be implemented both for the unit operators and the public authorities, which will demonstrate all crucial information regarding incidents and the follow-up actions. Generated signals for incidents, warnings and alarms will be shown in emergency or priority order, so that they are easily actionable upon by the operators.

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BENEFITS



The **MAIN BENEFITS** are:

- (a) **VIDEO MONITORING** of complex and high-value infrastructures
- (b) **AUTOMATIC IDENTIFICATION** of physical threats, attacks and incidents, e.g. perimeter monitoring, abandoned objects, crowd identification
- (c) **VIDEO-BASED DETECTION** of persons, parking lots, vehicles, abnormal audio/video sources
- (d) **REAL-TIME NOTIFICATIONS** in cases of rule-breaching incidents and events, i.e. early warnings and post-incident alerts
- (e) **INTEGRATED SOLUTION** customized to real-time conditions of Oil&Gas plants and easily adaptable to any Critical Infrastructure site

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APPLICATION CASE

- **Business Case 1**



TARGETS

- **Target End Users:** Energy Infrastructures (O&G, Windfarms, Solar etc.) – Logistics Installations – Manufacturing Plants
- **Target Assets:** Critical infrastructure sites, Oil tanks, Gas distribution areas, Logistics warehouses, Factory sites



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