

Commercial Presentation Theatre & Process Equipment Zone (Hall 1)

Day: 26th October
Time: 12,00 - 12,20

SISTEMATICA SPA
Speaker: Marco Nisi



PASSport project: a fleet of drone to support environment and surveillance operations

PASSport stands for *Operational Platform managing a fleet of semi-autonomous drones exploiting GNSS high Accuracy and Authentication to improve Security & Safety in port areas*

Europe's busy ports are some of its most important lifelines, serving as hubs for commerce, fishing and travel. As a result, ports often require extensive surveillance to ensure operational safety, critical infrastructure protection and pollution control. The EU-funded PASSport project aims to complement existing surveillance systems by implementing drone fleets to greatly enhance port safety and security, navigation and pollution monitoring. The goal is to significantly improve the safety of daily operations, protecting the lives of European citizens and ensuring the smooth flow of goods and services through Europe's ports.

The purpose of the PASSport (Operational Platform managing a fleet of semi-autonomous drones exploiting GNSS high Accuracy and Authentication to improve Security & Safety in port areas) is to engineer and qualify a solution extending situational awareness based on aerial fixed/ rotary wing and underwater drones to improve safety and security in port areas.

The need stems from the directive 2005/65/CE asking to complement surveillance systems for the whole port area, in order to significantly improve security and safety for daily operations implanted in port area. This result also in saving citizen lives ensuring a high and equal level of safety and security for all European ports. Around one thousand European ports fall within the scope of the directive. As a consequence, PASSport responds to the needs expressed by port authorities, harbour master and border control authorities which are active parties in the consortium and will be directly involved in the definition of the proposed solutions.

The proposed solution is intended to complement already operational platforms by extending the surveillance perimeter using a fleet of drones to provide innovation and operational support to the recognition, management and analysis of safety and security aspects of daily operations with particular attention to:

- Pollution monitoring (safety)
- Support to e-navigation (safety)
- Critical buildings/ Infrastructures protection (security)
- Protection against non-cooperative small craft approaching the port areas (security)
- Underwater threats monitoring (security)

The project is expected to activate commercialisation channels based on the novelty represented by the usage of a fleet of semi-automated drones integrating Galileo services (and other sensors) for a safe and efficient guidance, navigation and control (GNC) even in a challenging environment in presence of obstacles - including buildings and other ground assets - and potentially unfavourable weather conditions.