



## Drone detection and incident handling

Police, Border Guards, Defence Forces

Full air/ground situational awareness

Automated incident handling and optimised workflows

Multi-location and multi-operator coordination

Control and tasking of own drones

# Drones pose a threat to safety and security

The growing use and availability of drones has created new technical and organisational challenges for law enforcement and military units. In particular the unlawful use of drones threatening events or infrastructure, smuggling goods across borders, or spying on governmental authorities is posing a new threat. Recent incidents have spotlighted this security gap and highlighted the urgent need for a comprehensive solution that deals with drone detection and incident handling.

## Customer needs

### Perimeter protection

In the protection of camps, airfields and critical infrastructure, drones create a new threat to air operations. Integrating drone detection into existing air systems helps deliver comprehensive situational awareness; this is key to ensuring a quick, efficient resolution to drone incidents.

### Border security

Drones present a significant threat to border guards who are responsible for the security of large geographic areas. Immediate detection of drones and their operators, agile counter-measures, the employment of friendly drones and efficient incident handling procedures are critical.

### Event protection

At events, authorities face the threat of direct or collateral damage by drone accident or drone attacks. The response by the controlling unit needs to be coordinated across all supporting agencies integrating mobile units, decision makers and multiple sensor and effector systems.

## Operational and technical requirements

The large variety of drones in terms of size, technology and capability create a challenge for drone detection. In large geographical areas, and in increasingly congested airspace, traditional sensors alone cannot reliably detect drones.

Therefore, a robust drone detection solution must fuse data from a wide variety of sources to create an accurate picture including:

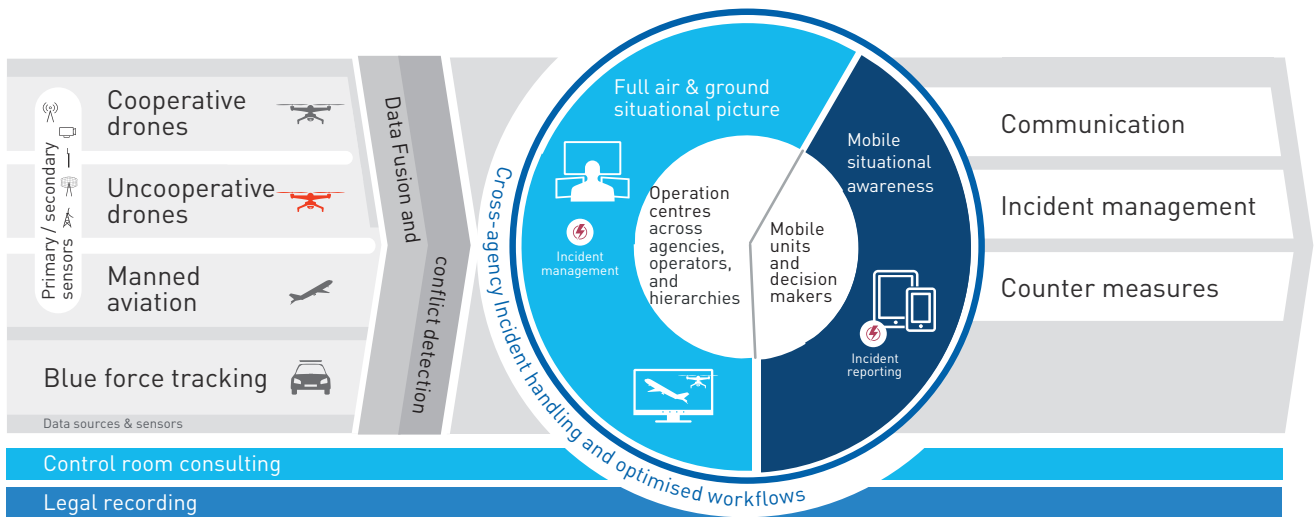
- Primary sensor systems for drone detection
- Visual observations of ground staff
- Link to unmanned traffic management (UTM) systems to differentiate uncooperative and cooperative drone traffic
- Overall air traffic and detection of conflicts
- Blue force tracking of law enforcement units

Due to the speed and flexibility of drones, reaction and resolution times are short. For that reason all involved agencies at all levels (e.g. mobile staff, operation centres and decision makers across multiple locations) need to be connected through a shared cross-agency incident management system supported by risk free communications. The system must support defined tasks, responsibilities and workflows.

Drone incidents present a new threat that needs to be addressed through a standardised tool and process, integrating with existing legacy systems and capabilities.

# Reliable detection and minimised resolution time

The Frequentis solution delivers a comprehensive situational picture by fusing all available data feeds: cooperative drones, uncooperative drones (including visual observations), air traffic and blue forces. The cross-agency incident management system shares the situational picture with all stakeholders together with managing communications and incidents across hierarchies, operators and locations.



## Full air & ground situation

A comprehensive data fusion creates a complete situational picture, which correlates primary sensor detection, visual observations, air/ground traffic, cooperative drones by UTM systems, and blue force tracking for direct interaction with security forces.

## Fast resolution

The incident management system connects all stakeholders across all hierarchies in multiple locations. Mobile devices allow coordination of law enforcement units and reporting of observations. Communication across all platforms is fully integrated.

## Optimised workflows

Frequentis' control room consulting ensures thorough understanding of customer needs, workflows and HMI requirements across all organizations. A tailored fit for purpose solution maximises efficiency in training and operations.

## Best use of sensors / effectors

A large selection of sensor and effector systems are available with varying capabilities. Frequentis' independent experts will ensure customers receive the most suitable systems depending on coverage, detection and pricing requirements.

## Control and tasking of drones

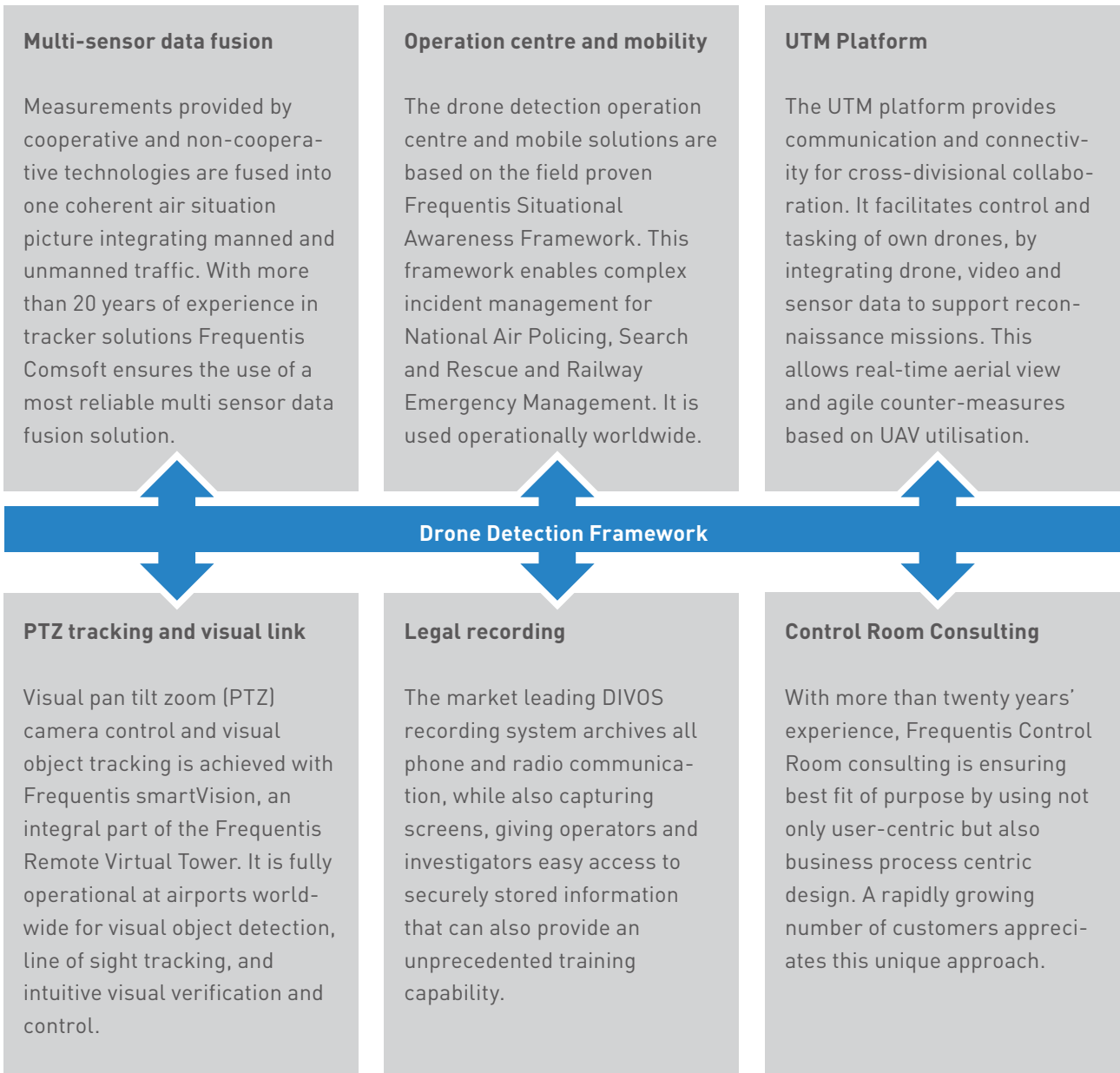
By creating a direct link to Frequentis UTM solutions, customers can, simultaneously use their own drones to generate additional sensor information for situational awareness or to implement countermeasures against potential threats.

## Seamless extendibility

The system is fully integrated with UTM feeds and is able to share sensor data to coordinate responses. It is built to respond to multi threat scenarios and supports full incident and crisis management by delivering a fully integrated common operational picture.

# Mature solution components used across industries

Frequentis drone detection and incident handling is based on mature solutions used operationally. The integrated solution is tested and verified in trials with customers and research programs.



**FREQUENTIS**

**FREQUENTIS AG**  
Innovationsstraße 1  
1100 Vienna, Austria  
Tel: +43-1-811 50-0  
www.frequentis.com

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