Abstract
Threat from Above: risks and opportunities of unmanned aerial systems in airspace G

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Unmanned Aerial Vehicles (UAVs) — commonly referred to as drones — have evolved from niche technologies into a pervasive operational reality, creating both unprecedented opportunities and mounting security challenges. Today, drones pose a tangible threat to operators of critical infrastructure, industrial facilities, and public institutions. Acts of espionage, signal interference, and sabotage are no longer hypothetical scenarios; they are increasing in frequency, sophistication, and impact — often occurring without warning or detection.

At the same time, the economic potential of UAVs in logistics, urban mobility, and infrastructure management continues to accelerate, ushering in a transformative era of aerial innovation. This tension between technological progress and security vulnerability demands a fundamental redefinition of how the lower airspace is monitored, managed, and protected.

Biography

Christian Holzer

Christian Holzer — Technology & UAM Expert and CEO of ASO Airspace Surveillance S.R.L — examines the convergence of AI-driven optical drone detection, large-scale situational airspace awareness, and integrated Unmanned Traffic Management (UTM) systems. His perspective highlights how adaptive, data-driven counter-UAS technologies and vertically integrated infrastructures can build resilience and operational trust across the airspace ecosystem.

His call to action: We must transform the lower airspace from a zone of risk into an intelligent infrastructure of trust, awareness, and control.

[1] www.asodronedetection.com