

## XPONENTIAL EUROPE 2025 – Press Release /

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### **Aviation: autonomous systems for more security Airport Mönchengladbach (MGL) is the innovation hub**

*Critical infrastructures are vulnerable, potential threats are real and airports have been on high alert ever since climate activists started glueing themselves to runways. The new KRITIS Umbrella Act for the protection of critical infrastructures aims to ensure greater security and will enter into force on 1 January 2026. The real-life laboratory for property protection and perimeter surveillance for entire Germany is Mönchengladbach Airport (MGL). Here field tests for autonomous security systems using security robots and drone-assisted property surveillance will start from spring 2025. These are topics that will also be reflected at XPONENTIAL Europe, the trade fair for uncrewed systems and robotics held in Düsseldorf from 18 to 20 February 2025.*

It weighs 73 kilogrammes and is equipped with four tyres with strong profiles allowing it to also move in rough terrain. It reacts extremely sensitively to everything it spots on its route. Fitted with a heat sensor and optoelectronic ultra-vision it detects heat signatures of people or fire, even at night during its fence patrols. In such an event uRun, manufactured by the United Robotics Group from Bochum, immediately notifies the control centre: “The first official trial patrols along the 1.5 km fencing are scheduled for early 2025,” says David Osten, the innovation manager of Mönchengladbach Airport.

Perimeter protection along the fencing of airports is a security-critical area. It is really more like peri-kilometre protection: the fence made of aluminium and video-surveyed at the biggest continental airport in Frankfurt is about 40 kilometres long – just as long is the fencing around Germany’s second biggest airport Munich; in Düsseldorf the fence is 13 kilometres long, in Mönchengladbach 8 km.



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The fact that aviation colleagues at these major locations are looking to the Lower Rhine is mainly because an innovation hub for research and development in aviation technology and air mobility has been established here: “MGL has developed into a central real-life laboratory and research hub for the innovative operation of airports and sustainable air mobility,” says MGL Managing Director Andreas Ungar. Like his colleague Osten he is an aviation and aerospace engineer.

### **Real-life laboratory for research and development**

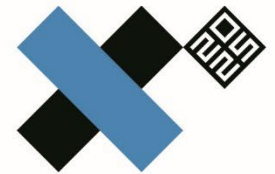
Originally, 20 years ago, it was planned for regional line operations to be handled from here. This is also the time the infrastructure dates back to. “Real-life lab” is what the two of them now call it. Since its re-orientation as an airfield for research and development this place has become a hub for new air mobility and the green aviation industry – climate neutral for its own operations, with charging infrastructure for e-drives and synthetic fuel station. Ungar sums up the underlying rationale in a nutshell: “Energy efficiency and security on the ground, new mobility in the air. With our infrastructure we can validate new standards in real operations, standards that can be scaled up for international airports worldwide.”



His repositioning of MGL as a research airport has proven successful. One example is SkyCab II, a research project for air mobility headed by the University of Applied Sciences FH Aachen and funded by the Federal Ministry for Digital Affairs and Transport. In another project of the Smart City series VTOL drones are tested for transporting medical samples between hospitals and laboratories over urban areas. The project SkyTRACKplus is to develop a flight operations concept that sets an example for drone flight operations.

### **Drones make a major contribution to property protection**

uRun’s first patrols are only the beginning when it comes to security. The project aims to draw up an integrated security system for property and perimeter protection at airports that also comprises the ground and air surveillance of the outer areas. “Here drones can render enormously valuable services – and more efficiently and sustainably in ecological terms than is possible with traditional technologies,” says



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Dr. Gerald Wissel, chairman of the board of UAV DACH – Association for Unmanned Aviation, Europe’s biggest association for the drone industry and strategic partner of XPONENTIAL Europe. In his words the “efficient operation and especially the reliable protection of critical infrastructure is at present probably more relevant than ever.”

In Mönchengladbach, it looks as if the natural partner to deliver this is Germandrones. Because this company, which was founded by its current CEO, Dr. Klaus Scho in Berlin, has been operating one production unit at the MGL site since summer. The sector considers the Berliners – along with Quantum Systems – the technology and market leaders in this dynamically growing market. Add to this, the CONDOR Group is an anchor investor in Germandrones. This Essen-based company has specialised in security services for property and building surveillance as well as in air security and track construction security since 1978.

“The combination of ground and air-borne robotics markedly contributes to enriching the situational pictures for emergency call and service control centre staff (certified by the VdS Property Insurance Association) with high-quality and real-time data. As a result, the control centre can undertake appropriate action at an early stage. In addition, the uncrewed systems can monitor and deliver tamper-proof documentation of police or our own interventions,” adds Cornelius Toussaint, managing partner of the CONDOR Group and Chairman of the Drone Committee in the Federal Association of the Security Industry (BDSW).

Toussaint shares the committee tasks with Kupferer of Securiton Deutschland from the town of Achern in Baden. With its SecuriAgents (Robotics) on the ground and in the air as well as a broad counter-UAS portfolio for the Dome-Security concept this company is also among the market leaders in the German drone security business. Rising requirements and changing organisational structures call for security solutions that cater to both ground security and protection of airspace close to the ground. By combining various Securiton applications they create a type of Iron Dome above areas and buildings to be protected. For such ground protection robotic security



systems with video analysis are indispensable. Securiton offers the matching solutions for this depending on the use case.



### **Düsseldorf ideal destination for XPONENTIAL Europe**

“The ongoing projects and developments show that North Rhine-Westphalia and the region between Rhine, Ruhr and Weser play a leading role in the development and deployment of uncrewed technology and robotics. The resulting cross connections are highly relevant to such application areas as security technology. We are delighted partners like Securiton GmbH, Germandrones and Mönchengladbach Airport use XPONENTIAL Europe as a technology platform,” says Malte Seifert, Director Metals & Autonomous Technologies at Messe Düsseldorf. He is responsible for XPONENTIAL Europe, which will debut in Düsseldorf next year. Focal topics of the trade fair are uncrewed systems and robotics.

### **EUROPEAN DRONE FORUM as a kick-off**

XPONENTIAL Europe will be kicked off by the EUROPEAN DRONE FORUM, which already starts on the eve of the trade fair and will run on 17 and 18 February 2025. Considered the most relevant European platform for the dialogue between the UAS industry and regulators, the Forum is organised by UAV DACH – Association for Unmanned Aviation, Europe’s largest professional association for the drone industry. UAV DACH is a strategic partner of XPONENTIAL Europe. With the leading international industry association AUVSI, EXPONENTIAL Europe can also count on the world’s most relevant professional association for uncrewed aviation as a partner.



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