

► RHEINMETALL and TELEKOM

11 May 2026

## Rheinmetall and Telekom plan to develop a drone defence shield

- *Hybrid threats from drones and sabotage are increasing*
- *Multi-threat protection aims to secure critical infrastructure*
- *Rheinmetall and Telekom combine their expertise to deliver effective protection*
- *Joint presentation at the AFCEA security trade show starting May 12, 2026, in Bonn*

Rheinmetall and Telekom plan to jointly develop a defence shield against drones and acts of sabotage. The companies intend to work together to protect cities and critical infrastructure across Germany. They reached this agreement ahead of the upcoming AFCEA security technology trade show in Bonn.

The current geopolitical situation has placed the protection of critical infrastructure (KRITIS) in sharp focus. Hybrid threats from sabotage and drone activity are steadily increasing. In response, the companies are pooling their expertise.

The partners aim to develop capabilities and technologies to counter a wide range of potential attacks on KRITIS sites—a multi-threat protection approach. This includes cybersecurity technologies as well as physical site protection, commonly referred to as perimeter security. Further details of the collaboration will be announced at a later date.

Armin Papperger, CEO of Rheinmetall AG, says: “The threat posed by drones is highly digital. This is why effective defence requires a combination of sensors, effectors, and secure communication networks. Rheinmetall and Deutsche Telekom bring together precisely these capabilities.”

Tim Höttges, CEO of Deutsche Telekom AG, says: “Sovereignty is achieved not only through discussion but through action. Telekom is taking responsibility: With our expertise in connectivity, cloud, and data analytics, we are elevating drone defence to a new level. Together with Rheinmetall, we are strengthening sovereignty and helping to alleviate public concerns.”

### Telekom detects drone flights during the European Football Championship in Germany

Since 2017, Telekom has been a system partner to government agencies and companies in the field of drone security. The Group has already secured critical infrastructure, facilities, and major events against drones both in Germany and abroad. For example, Telekom successfully and reliably detected illegal drone flights on behalf of the police during the 2024 European Football Championship.



### ► Key facts

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- ▷ Multi-threat protection aims to secure critical infrastructure
- ▷ Rheinmetall and Telekom combine their expertise to deliver effective protection
- ▷ Joint presentation at the AFCEA security trade show starting May 12, 2026, in Bonn

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Drone detection and defence are technically demanding. Depending on the location and terrain, different sensors are more suitable. Since 2017, the company has therefore tested a range of sensors from international manufacturers in customer projects and field trials at international and regional airports such as Tannheim in Baden-Württemberg, integrating them into its product portfolio. Telekom continues to advance its technical capabilities in drone defence and its sensor suite. Today, video, audio, radio frequency (RF), Remote ID, and drone radar sensors are used in customer deployments.

### **RF detection proven in customer deployments**

Most drones on the market are flown within visual range using a radio remote control. Drones and controllers communicate via radio frequency (RF). RF sensors can detect these signals—and thus the position of both drone and controller. RF is considered one of the most common methods in drone detection. RF sensors currently make more than 90% of all drones in low-altitude airspace detectable.

The RF sensors used by Telekom operate passively and do not transmit an active search signal. This allows them to be installed on cell towers without interfering with sensitive mobile communications technology. According to Telekom's customer experience, RF sensors mounted high on cell towers have proven particularly effective in densely built-up urban areas.

### **Rheinmetall: Specialist in drone defence and autonomous systems**

Rheinmetall is one of the world's leading systems providers in air defence—including close-range and short-range applications. Effectors from the Düsseldorf-based technology group are currently in use in Ukraine and the Middle East. In addition, Rheinmetall is a specialist in autonomous systems across all domains—land, sea, and air—including drones and airborne reconnaissance systems. The Group also develops sensor and data processing technologies used in both civilian and security-related applications.

In December 2025, Rheinmetall, the Hamburg Police, and the Hamburg Port Authority (HPA) agreed on a strategic partnership to further develop drone detection and defence concepts for the Port of Hamburg. The focus is on developing forward-looking technologies to protect maritime, civilian, and critical infrastructure.

From a technical standpoint, the Port of Hamburg is considered a particularly challenging environment: diverse radio sources, maritime conditions, and dense infrastructure place high demands on detection systems. As a leading industry partner, Rheinmetall contributes its expertise to this alliance to develop tailored solutions for complex threat scenarios, forming part of a supraregional security strategy.

### **More drones are flying via mobile networks**

A new challenge arises from drones controlled via mobile networks. While the vast majority of pilots use RF and a remote control, the number of drones operated via cellular networks is increasing. Real-world applications in Germany and abroad show that both commercially available and homemade drones are increasingly being controlled via mobile networks. Telekom is collaborating with Helmut Schmidt University/University of the Federal Armed Forces Hamburg (Uni-Bw: Universität der Bundeswehr) to research how these drones can be located.

### **Mobile network becomes a large-scale radar system**

In the future, the mobile network itself will act as a sensor—a large-scale radar system—by detecting changes and anomalies in data traffic that indicate drone control or communication. This will make drones visible to emergency responders, for example in temporary no-fly zones. The basis for this is the 5G standalone high-performance network installed by Telekom on the Uni-Bw campus, based on Ericsson technology.

### **Drone violations constitute serious interference with air traffic**

Controlling drones via mobile networks is not yet widespread in Germany. By law, pilots must keep their drone in sight at all times (line of sight). Those who operate drones beyond visual range often do so for commercial purposes, such as inspecting power lines or pipelines. These pilots must apply for permission to fly. Anyone who does not apply but still controls a drone via mobile network is committing a criminal offence.

Drone flights in restricted areas are by no means a minor offence comparable to a speeding violation, but a dangerous interference with air traffic. Despite repeated police warnings, many continue to fly recklessly beyond visual range, risking unexpectedly severe penalties. Telekom systems have already pinpointed prohibited drone flights on a large scale at the request of customers, enabling emergency responders to locate pilots quickly.

### **Further information for the media at:**

[www.telekom.com/media](http://www.telekom.com/media)

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