

“Tanknology”: Our Conversation with Rheinmetall

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Key Takeaways

- Rheinmetall's €60 billion+ backlog and rapid-fire capacity expansion reflect a new industrial model where speed, not just scale, is reshaping European defense production.
- As Washington ramps up defense budgets, Rheinmetall's U.S. foothold via acquisitions and F-35 fuselage production cements its role in the transatlantic defense ecosystem.
- With 85% of its business now army-aligned and integrated across the kill chain, Rheinmetall is evolving from hardware maker to full-spectrum defense systems architect.

On July 2, 2025, we had the privilege of sitting down with Dirk Winkels, head of investor relations at Rheinmetall. As of July 21, 2025, the [WisdomTree Europe Defense Fund \(WDEF\)](#) had a 12.65% exposure to Rheinmetall, a leading player within Europe's current renaissance in the defense sector.

Far from being a parochial German tank maker, **Rheinmetall is now stitching itself into the very fabric of the transatlantic defense ecosystem**. Last year, it spent \$950 million to buy Michigan-based Loc Performance Products, giving it an onshore foothold in U.S. armored-vehicle programs just as Washington's rearmament budgets accelerate.¹ Meanwhile, at a new "factory of the future," Rheinmetall is about to start turning out up to 36 center-fuselage sections a year for Lockheed Martin's F-35, with Northrop Grumman cloning its automated assembly cells on the shop floor; the commitment runs to at least 400 airframes, embedding Rheinmetall in the Pentagon's marquee program for decades.² For U.S. investors who still think of Rheinmetall as "just another European prime," the company's expanding American footprint and program depth suggest a much more global—and investable—story.

Below is a summary of the conversation from [The Next Big Thing podcast](#).

From Neglect to Necessity: A Zeitgeist Reversal

In 2022, the German chancellor invoked a word that signaled a tectonic shift in European defense thinking: *Zeitenwende*.³ It wasn't just a rhetorical flourish. It marked the death of the post-Cold War delusion that peace in Europe could be sustained through minimal defense investment. At the heart of this inflection point

stands Rheinmetall—a company that has undergone its own *Zeitenwende*, transitioning from a diversified industrial manufacturer to a pure defense powerhouse in record time.

With 85% of its business now aligned to army-specific platforms—vehicles, ammunition, artillery systems and digital combat solutions—Rheinmetall is not merely participating in Europe's rearmament; it is architecting it.

Orders Surge, but Speed Is the Currency

In Q1 2025, Rheinmetall reported an order backlog exceeding €60 billion, with internal expectations that the figure could push past €100 billion by year-end.⁴ But unlike prior defense cycles where capacity lagged behind ambition, the company is showing a rare alignment between demand and execution.

A striking example: In Unterlüß, Germany, Rheinmetall broke ground on an advanced artillery plant in early 2024.⁵ Within 15 months, that facility was operational. This wasn't a one-off miracle—it's a model. The blueprint is modular, scalable and intended for replication across Europe.

Prepayment-backed contracts limit working capital strain. Capacity is being built to fulfill signed demand, not for speculative growth. This is the "copy-paste" model of defense industrial policy in action.

Industrial Repurposing: The Factory Is the Weapon

One of Rheinmetall's most potent capabilities isn't found in steel or electronics—it's their ability to reimagine legacy assets. In partnership with Volkswagen, they've begun repurposing automotive plants to produce military hardware.

This isn't just symbolism—it's strategy. Tank manufacturing, unlike cars, isn't built on full robotic automation. What it requires are skilled technicians, high-reliability manual processes and flexible production lines. Germany's highly trained automotive workforce is being redirected from saturated EV export markets to the pressing geopolitical reality of European defense readiness.

It's one of the most quietly powerful labor transitions happening in Western industry today.

Digitizing the Kill Chain: From Sensor to Shooter

Rheinmetall's Panther main battle tank isn't merely a platform—it's a digitally integrated combat node. The company's concept of "tanknology"⁶ refers to a new kind of lethality, built not just on steel and firepower, but on real-time sensor fusion, radar integration and onboard computation.

The vision is battlefield data dominance—where the system can ingest inputs from friendly and hostile signals, distinguish threats and enable faster, more precise decisions at the tactical edge.

This approach doesn't end at tanks. It extends across Rheinmetall's systems—from artillery rounds verified by AI-driven quality control to reconnaissance drones flying missions without GPS or maps.

Autonomy at the Edge: Mission Master and Beyond

If Google's cars can't navigate unstructured terrain, Rheinmetall's autonomous ground systems can. The Mission Master family of vehicles is engineered to operate in GPS-denied, communications-contested and environmentally extreme conditions—exactly the kind of battlefield Western militaries are increasingly likely to face.

Rheinmetall's autonomy capabilities—developed in-house and through partnerships—span logistics support, casualty evacuation and unmanned combat applications. Their approach is practical, incremental and field-tested. Crucially, their systems are designed not for Silicon Valley demos, but for real soldiers under real fire.

Strategic Alliances: Building a Defense Stack for Europe

Rheinmetall has adopted a networked partnership model rather than trying to build everything in-house. Anduril brings agile AI and software-based systems; Leonardo enables high-level integration across European heavy platforms; Nokia provides battlefield communications infrastructure.

Each partnership serves a distinct function:

- **Anduril** accelerates Rheinmetall's edge in modular AI systems and battlefield autonomy.
- **Leonardo** aligns with Europe's push for strategic defense sovereignty—cross-border interoperability with domestic industrial control.
- **Nokia** adds secure, high-throughput connectivity—crucial for the next-gen sensor-to-shooter chain.

This is Rheinmetall positioning itself not just as a manufacturer, but as a systems integrator of European defense capabilities.

From Drones to Drone-Killers

The battlefield is evolving—and so is Rheinmetall. The firm is integrating counter-drone capabilities (e.g., SkyRanger) and drone-deployed lethality into its portfolio. With drone swarms threatening high-value assets, Rheinmetall is investing in programmable airburst munitions, sensor-guided targeting and vertically integrated platforms that combine detection, targeting and engagement.

This isn't the end of traditional platforms; it's their augmentation. Rheinmetall's view is that tanks aren't obsolete; they're becoming smarter. Drone and armor aren't substitutes; they're complements.

Product Architecture: Deep Integration by Design

One of Rheinmetall's competitive moats is the internal cohesion of its product suite. The company controls the entire kill chain: from ammunition, to gun, to sensor, to vehicle. When a system fails in real time, Rheinmetall doesn't need to call a supplier—they are the supplier.

This tight coupling allows for a feedback loop between R&D, manufacturing and battlefield reality. For example, the shift from 120mm to 130mm tank guns wasn't just a firepower upgrade—it was a response to specific Russian threat vectors, made possible by Rheinmetall's full-stack visibility.

The Road Ahead: Rheinmetall as Europe's Arsenal

As the 2030 NATO benchmarks approach—and Europe attempts to move from intent to action—Rheinmetall is positioned as both a symbol and engine of the continent's rearmament. The model is clear: fast-cycle manufacturing, vertically integrated product development and a partner-first ecosystem that draws on best-in-class capabilities.

In an era where time is the rarest resource, Rheinmetall is weaponizing speed.

Listen to the full conversation [here](#) or below.

1 Source: "Agreement to takeover US vehicle specialist Loc Performance," Rheinmetall AG, 8/14/24.

2 Source: "F-35 fuselage factory in Weeze," Rheinmetall AG, 7/4/23.

3 Source: Olaf Scholz, "Policy statement by Olaf Scholz, Chancellor of the Federal Republic of Germany and Member of the German Bundestag," the federal government, 2/27/22. Zeitenwende means "turning point" in German.

4 Source: "Financial report for Q1 2025," Rheinmetall AG, 5/8/25.

5 Source: "Rheinmetall builds new ammunition factory in Unterlüß – Ground-breaking ceremony with Chancellor Scholz," Rheinmetall AG, 2/12/24.

6 "Tankology" refers to the advanced technologies and systems developed by Rheinmetall for modern tanks and armored fighting vehicles.

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