

Navigating a Strategic Dilemma: Germany's Defense Procurement amid Transatlantic Uncertainty

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Introduction

The second Trump presidency has placed the German government in a difficult strategic position. For decades, the United States has been Germany's key ally in security and defense. However, amid growing threats from Russia, the Trump administration's confrontational posture towards European allies has heightened concerns about U.S. reliability and its long-term commitment to European security. These developments also have implications for transatlantic defense industrial relations, a core element of defense cooperation with the United States. Many European governments continue to procure a significant share of their conventional defense systems from the United States. But some European governments are concerned that current and future U.S. administrations may exploit Europe's dependence in the security and defense realm as a means of leverage, for example, in trade negotiations.

Initiatives on the EU level reflect a growing political consensus that Europe must strengthen its technological and industrial defense base and autonomy in defense. This policy paper analyzes current trends in transatlantic—and particularly U.S.-German—defense industrial relations to demonstrate that a consistent «Buy European» approach in procurement has yet to emerge.^[1] Specifically, the paper will analyze the German government's policy to navigate the complex relationship with the second Trump administration, in which defense cooperation remains a key component; assess trends in transatlantic defense industrial relations since 2022, particularly in the context of the ongoing debate surrounding European strategic autonomy; evaluate these developments in light of the recent EU efforts to strengthen Europe's defense technological and industrial base and promote a «Buy European» approach; and explore the increasing relevance of defense technology for European security, the emerging ecosystem in Germany, and the challenges it faces.

The paper underscores a key strategic dilemma for the German government: on the one hand, in light of the growing threats since 2022, it must ensure that the armed forces acquire defense capabilities critical to European deterrence and defense as fast as possible; on the other hand, Berlin must strengthen the German and European defense industries. Achieving both objectives simultaneously in the short term has been a challenge. In 2025, Germany continues to depend on U.S. suppliers for a number of conventional defense systems and has yet to adopt a consistent «Buy European» approach. At the same time, a dynamic defense tech ecosystem has begun to take shape in Germany, which opens a window of opportunity for a stronger focus on European products in procurement.

1 «Buy European» refers to a preference in procurement decisions for products and services made in Europe to support strategic industries of the European economy.

To deal with the strategic dilemma in defense procurement, the paper proposes an approach that is mitigating the risks of an over-reliance on the U.S. while contributing to NATO's resilience. The paper advocates for the German government to foster an EU-wide approach instead of pursuing a special path in procurement. This strategy should be based on strengthened risk assessments and a review mechanism to assess critical dependencies on non-European suppliers prior to major procurement decisions. The approach should also include advancing joint European defense projects to address key capability gaps, coordinating major procurement decisions with European partners, and adapting a «Buy European» preference in these processes. This is particularly relevant with regards to defense technology. Through its procurement decisions, the German government should strengthen an innovative and competitive European ecosystem. To contribute to this, the forthcoming defense procurement acceleration law should reduce bureaucratic obstacles for start-ups as well as small and medium-sized enterprises. With efforts to enhance European defense capabilities and capacities, Germany could contribute towards a more balanced relationship within NATO.

1. European Efforts to De-escalate Tensions with the Trump Administration

The Trump administration's confrontational approach towards allies in Europe—culminating with U.S. Vice-President JD Vance's speech during the Munich Security Conference in February 2025—has contributed to a significant trust deficit between many European governments and the U.S. administration. In his second presidency, Donald Trump has successfully leveraged U.S. power in negotiations with European partners to attain concessions in the transatlantic relationship. First, Trump's pressure on European partners before the NATO summit in June 2025 was an important factor for most NATO members (ironically not the U.S. government) to increase their defense budgets to 5 % of their GDP within the next ten years.^[2] Second, through its tariff policy, the Trump administration pressured the European Commission to agree to a «Framework Agreement» (July 2025) that would, if approved by the member states, heavily favor the U.S. in its trade relationship.^[3] However, tensions with the Trump administration appear far from resolved from a European perspective. Many European governments remain deeply concerned that the U.S. government may continue its confrontational posture and coercive diplomacy towards Europe. These concerns include, but are not limited to: further escalation in U.S.-EU trade; delays or halting of U.S. military assistance to Ukraine (even when financed by NATO members) and pressure on the Ukrainian government to accept an unfavorable ceasefire agreement with the Kremlin; open support and endorsement of right-wing parties and candidates in European election campaigns; actions that call into question the territorial sovereignty of EU members. While European governments have dealt differently with the pressure from the U.S. government, most, including Germany, have tried to ease tensions and appease the U.S. administration.

² The governments pledged to spend 3,5 % of the GDP on defense and 1,5 % of the GDP on military-related infrastructure investments.

³ For example, the European People's Party Group in the European Parliament views the agreement as «unbalanced», see [EPP Group Position Paper on EU-US Relations](#), accessed on 23 November 2025. According to the European Trade Union Confederation, the agreement «lacks balance, fairness and reciprocity», see [Position on the EU-US framework agreement](#), accessed on 23 November 2025.

1.1 Germany's Exposure to Pressure from the Trump Administration

Due to its export-heavy economy, its dependencies on the U.S. in the security and defense realm, growing geopolitical threats (particularly from Russia), and the dominant position of U.S. tech companies in the German economy, Germany is particularly vulnerable to U.S. pressure. Facing this dilemma, the Merz government has sought to ease tensions through diplomatic engagement. This has included high-level meetings between Chancellor Friedrich Merz and Donald Trump at the White House in June 2025, during the G7 summit in Canada, and during the NATO summit in The Hague.^[4]

The German government actively tried to engage the U.S. President on issues that Donald Trump criticized as «unfair» in the transatlantic relationship. For example, the German government signaled early on its intent to commit to the 5 % defense spending target in the NATO context. Berlin viewed the outcome of the NATO summit as a success^[5], not least because it avoided open confrontations with Donald Trump and resulted in an, albeit vague, reaffirmation of U.S. commitment to NATO's collective defense.^[6] In efforts to ensure the continuous flow of U.S. weapons and ammunition to Ukraine, Berlin agreed to a new funding mechanism that shifts large parts of the financial burden onto European governments and Canada (provided that the U.S. will continue to make U.S. defense materials available).^[7] In the framework of the «Prioritized Ukraine Requirements List» (PURL) initiative, initiated after the NATO summit, several European governments committed to financing U.S.-made defense materials as part of the military assistance to Ukraine. For example, Germany announced in August to finance a \$500 million PURL package.^[8] Finally, Berlin has also openly refrained from criticizing the «Framework Agreement» negotiated by the European Commission and the Trump administration in response to tariff threats even though, if ratified by the parliaments in the member states, such an agreement

⁴ These meetings primarily focused on the U.S. commitment to NATO and its future role in European security; the U.S. stance on supporting Ukraine's defense and European efforts to take on more of the financial costs related to that end; ways to put more pressure on Russia, for example through new sanctions; and trade issues.

⁵ See e.g., remarks by Chancellor Merz at the NATO summit: [Statement des Kanzlers beim NATO-Gipfel – Bundesregierung](#), accessed on 23 November 2025.

⁶ While most European governments expect the U.S. to remain a key security actor in NATO's security architecture, a strategic recalibration and gradual reduction of the U.S. military presence in Europe is not unlikely in the next years. A first indication in this respect will be the Global Posture Review that the U.S. government is currently preparing.

⁷ The Trump administration views a negotiated peace agreement as a priority and has not sought congressional approval for new military assistance to Ukraine. Despite temporary suspensions, the U.S. seems to have largely continued to deliver the assistance approved during the Biden administration. See e.g., U.S. Special Inspector General for Operation Atlantic Resolve, Promoting Whole of Government Oversight of the U.S. Ukraine Response, «[Ukraine Oversight](#)», accessed on 23 November 2025; U.K. House of Commons Library, «[Military assistance to Ukraine: What has changed in 2025?](#)», accessed on 23 November 2025.

⁸ [NATO – News, Germany to fund \\$500m PURL package for Ukraine, 13 August 2025](#), accessed 23 November 2025.

would impose a permanent 15 % tariff on the majority of EU exports to the U.S. (with exceptions, for example for steel and aluminum products) while levies on U.S. exports to Europe would be reduced.^[9]

Overall, Berlin has so far largely yielded to several pressure points from the Trump administration. On the one hand, this approach reflects the reality of Germany's critical dependence on the U.S. in several critical policy areas in times of a security crisis in Europe, particularly the threat from Russia. From this perspective, the approach can be viewed as pragmatic. On the other hand, the German government has been criticized for underestimating the unpredictability of the U.S. government and potential unreliability as an ally. The approach also does not openly confront the highly controversial domestic policies of the Trump administration, which many regard as steps towards an authoritarian form of government. Although Friedrich Merz, while still in an election campaign, warned in February 2025 that Europe can no longer rely on the U.S. to defend it unconditionally^[10], concrete steps to reduce Germany's critical dependencies on the U.S. during his first months in office have been limited.^[11] Indeed, in June, Merz acknowledged that Germany would «remain dependent on the U.S. for a long time».^[12] As will be illustrated, such dependencies are likely to continue in defense industrial relations.

9 The «Framework Agreement» is a political agreement and not yet a legally binding treaty.

10 See e.g., «*Germany's Friedrich Merz says Europe can no longer rely on US protection*», accessed on 23 November 2025.

11 The German government also aims to strengthen Europe's «digital sovereignty» and in November 2025 organized a European summit on the subject.

12 See «*Germany's Merz signals long-term US reliance after Donald Trump meeting*», accessed on 23 November 2025.

2. Trends in Transatlantic Defense Industrial Relations since 2022

Transatlantic defense cooperation and defense industrial relations have been key tenets of the transatlantic security partnership and NATO.^[13] But this partnership has never been truly balanced: although some European companies like BAE Systems, Leonardo, and Thales are successfully competing in the U.S. defense market (sometimes through local production), the U.S. defense ecosystem has mostly restricted foreign companies. In contrast, U.S. companies have been major players in European defense acquisitions due to the quality of the products and/or because they were able to offer several defense systems that European companies do not provide. In addition, many European governments have sought close defense industrial relations as a way to secure U.S. engagement in Europe's defense. It remains to be seen if this view will fundamentally change as a result of the difficult relationship with the Trump administration.

Transatlantic defense industrial cooperation has further intensified after Russia's full-scale invasion of Ukraine. With the ongoing war and the threat of a potential Russian attack on a NATO member, many European governments have since 2022 prioritized the quick procurement of defense capabilities and the improvement of their military readiness. However, most European defense industries have not been able to provide the required capabilities in sufficient quantities after many years of underinvestment, a lack of production capacities, and a relatively small skilled workforce. As a result, many European governments decided to acquire many new military capabilities «off the shelf» from U.S. suppliers. Given the close relationship with the Biden administration, this approach was not seen as a significant strategic risk. At the same time, these decisions were viewed by many as a «bridge solution» while Europe started to strengthen its technological and industrial defense base.

While reliance on U.S. suppliers has increased since 2022, the extent of this trend is debatable. The «Draghi Report» of 2024 (see below) states that between June 2022 and June 2023, 63 % of the member states' military procurement spending went to the U.S. (and another 15 % to other non-EU suppliers).^[14] A report by the International Institute for Strategic Studies (IISS), however, argues that this trend is not as drastic as presented in the Draghi Report. According to IISS calculations, between February 2022 and September 2024, EU members have procured 52 % of their defense equipment from European

¹³ For example, during the «NATO Summit Defence Industry Forum», NATO Secretary-General Mark Rutte called for the removal of barriers to transatlantic defence cooperation. See [NATO – News: NATO Summit Defence Industry Forum 2025 – Time to «unite, innovate & deliver», 24 June 2025](#), accessed on 23 November 2025.

¹⁴ European Union, «*The future of European competitiveness: Part A, A competitiveness strategy for Europe*», September 2024, p. 60

manufacturers and 34 % from U.S. companies.^[15] In July 2025, Andrius Kubilius, the EU Commissioner for Defense and Space, argued that around 40 % of EU defense budgets were spent on U.S.-made arms.^[16] Overall, these numbers reflect that European governments indeed purchased U.S. products right after the invasion, but that European companies have also gradually scaled up their own production capacity. However, most defense companies only produce and scale up production once they have received orders from governments, and many European governments were hesitant to fully commit to re-boosting their defense industries.

The pledges of the NATO summit in June 2025 raise expectations that most European defense budgets and defense investments will significantly increase in the next years. In addition to European defense companies, foreign and particularly U.S. companies will likely benefit from this development, both in terms of industrial cooperation and sales to European governments. Indeed, after the NATO summit, executives of U.S. defense companies expected their shares in the European defense market to expand through co-production agreements, mergers, and the creation of European-based subsidiaries.^[17] Following the announcement of the «Framework Agreement» between the U.S. and the EU in July 2025, which includes a paragraph stating that the EU «plans to substantially increase procurement of military and defense equipment from the United States»^[18], the stock prices of U.S. defense companies increased in value.^[19]

2.1 Diverging Assessments about the Urgency to Advance European Strategic Autonomy

The extent to which U.S. companies should benefit from the growing European defense market is subject to political discussions regarding the strengthening of Europe's «strategic autonomy» in security and defense. Such an approach should not only strengthen the European economy and create new jobs, but also reduce Europe's vulnerabilities in transatlantic defense relations. A prominent example that illustrates European concerns were rumors that the U.S. government could use a «kill switch» to disable the operation of

¹⁵ International Institute for Strategic Studies, «*Building Defence Capacity in Europe: An Assessment*», 2014, p. 18. accessed on 23 November 2025.

¹⁶ See e.g. *INTERVIEW: Europe's armies at «50 % of what we need», says defence commissioner – Euractiv*, accessed on 23 November 2025.

¹⁷ See e.g., *Europe is pouring money into defense. Can US firms reap the reward amid trans-Atlantic tension? – Breaking Defense*, accessed on 23 November 2025.

¹⁸ *Joint Statement on a United States-European Union framework on an agreement on reciprocal, fair and balanced trade – European Commission*, accessed on 23 November 2025.

¹⁹ See e.g. *North American Morning Briefing: Stock Futures Rise After EU Trade Deal – Morningstar*, accessed on 23 November 2025.

U.S.-made F-35 combat aircrafts. The claim was dismissed by the Department of Defense and the German defense minister.^[20] While a direct «kill switch» does not exist, many systems like the F-35 need regular software updates for maintenance, and the possibility that these updates could be delayed or even withheld is a potential point of vulnerability.^[21]

Historically, calls by European policymakers to reduce over-reliance on U.S. suppliers in defense acquisition are not new.^[22] But they have intensified during Trump's first and second terms in office. Already in his «Sorbonne speech» in September 2017, French President Macron had called for greater European strategic autonomy in defense and defense production, and has oftentimes repeated these calls. Members of the European Commission also share this stance. For example, the new EU Commissioner Andrius Kubilius has urged EU member states to reduce their reliance on U.S. weapons and spend more on European products to strengthen the European defense industry.^[23]

Risks for Europe as a result of the close transatlantic defense cooperation include the possibility that the U.S. government may prioritize the delivery of defense items to other U.S. allies, for example in Asia; that the U.S. government may impose operational constraints on U.S.-supplied systems (similar to the use of ATACMS by Ukraine); and that the U.S. government may overall restrict the export of defense items.^[24] The International Traffic in Arms Regulations (ITAR) requires U.S. companies that manufacture and export defense products and services (for example through the Foreign Military Sales [FMS] program) to obtain licenses from the State Department. The government can potentially also delay the delivery of defense products for national security reasons by holding up reviews and export authorizations. In addition, potential delays in the delivery of defense equipment from the U.S. can also be the result of limited production capacities and a production backlog in the U.S. Such potential delays may negatively impact Europe's capabilities and military readiness.

However, views on the need to swiftly reduce reliance on U.S. suppliers differ significantly between EU members. The French government has traditionally been a key proponent of Europe's «strategic autonomy», and with Trump's increasing pressure on Europe, the

20 See e.g., [No, there's no «kill switch»: Pentagon tries to reassure international F-35 partners – Breaking Defense](#), accessed on 23 November 2025. Asked to comment on the topic, German Defense minister Boris Pistorius argued there is no way to simply shut down the F-35 remotely.

21 See e.g., [The F-35 «Kill Switch»: Separating Myth from Reality](#), accessed on 23 November 2025.

22 For example, the discussion on European autonomy at the end of the 1990s led U.S. Secretary of State Madeleine Albright to propose the «three Ds policy» in order to keep NATO «cohesive», i.e., no decoupling of European defense structures and decision-making from NATO; no duplication of NATO capabilities; and no discrimination of non-EU members within NATO (including in the defense markets).

23 See e.g., [INTERVIEW: Europe's armies at «50 % of what we need», says defence commissioner – Euractiv](#), accessed on 23 November 2025.

24 See, e.g., Jonathan Caverley, Ethan Kapstein, Léo Péria-Peigné and Élie Tenenbaum, «[A Transatlantic Defense Industrial Base? Two Contrasting Views](#)», Focus stratégique, No. 124, Ifri, March 2025, p. 30, accessed on 23 November 2025.

number of governments that share this point of view may grow. For example, the Danish government has recently announced the acquisition of the French-Italian air defense system SAMP/T instead of the U.S.-made Patriot system, which it had considered.^[25] On the other hand, several European governments have viewed close transatlantic industrial defense relations as a way to maintain close security and trade relationships with the U.S. government. For example, the Polish government ordered military items worth 16,7 billion USD from U.S. producers in fiscal year 2024, while orders from European manufacturers have been much smaller.^[26]

In addition to these political preferences, many governments believe it is unrealistic to expect European states to expand their defense industrial base quickly and substantially enough to supply the military materials that NATO's European members will require in the coming years. For example, European manufacturers are not yet producing several capabilities that European armed forces consider imperative for defense. Examples include U.S.-produced multiple launch rocket systems (MLRS), air-to-air missiles, longer-range air defense systems, and fifth-generation combat aircraft. Due to the lack of European alternatives, U.S. defense providers will likely continue to play a significant role in European defense acquisition for the next decade.

To mitigate this strategic dilemma, European governments may opt for «production diplomacy» with the US.^[27] This can involve co-production arrangements between U.S. and European manufacturers, in which some components of the defense materials are produced in Europe. For example, the Polish government calls for more joint ventures and strategic partnerships with U.S. manufacturers,^[28] and also German defense companies have in the past years entered into new co-production arrangements with U.S. counterparts.

2.2 Co-Production Arrangements in U.S.-German Defense Industrial Relations

Following Russia's full-scale attack on Ukraine, the German Bundestag approved special defense funds («Sondervermögen») in June 2022 to supplement the regular budget and support additional procurement through 2027. As a result of the additional funds,

²⁵ The Danish defense minister justified his decision by pointing to the «long waiting time for Patriots». But as «The Atlantic» reports, U.S. officials had also blocked the deal with Denmark. See [The U.S. Is Quietly Pausing Some Arms Sales to Europe – The Atlantic](#), accessed on 23 November 2025.

²⁶ See U.S. Department of Defense, «[Historical Sales Book Fiscal Years 1950–2024](#)», p. 13, accessed on 23 November 2025.

²⁷ IFRI, 2025, p. 18.

²⁸ See e.g., [Polish officials offer US more defense buys, joint ammo production](#), accessed on 23 November 2025.

a number of major defense systems were purchased from U.S. manufacturers.^[29] In a major procurement decision, following many years of deliberations on the topic, the Scholz government («traffic light coalition») ordered 35 F-35A fighter jets from U.S. producer Lockheed-Martin in 2022 to replace the ageing Tornado fleet used for Germany's participation in the nuclear-sharing arrangement. In 2023, the German government ordered 60 new Chinook helicopters from U.S. provider Boeing. In March 2024, the German Bundestag approved the purchase of four new U.S.-made Patriot air defense systems to replace the systems transferred to Ukraine, and in September 2025, the Bundestag approved the purchase of more Patriot missiles.^[30]

While it was often criticized for its slow decisions in defense procurement, the Scholz government also tried to boost German defense manufacturing. A prominent example is a new munitions production site by the German manufacturer Rheinmetall in Lower Saxony, which is set to become Europe's largest facility of its kind. Other examples include orders of new submarines, frigates, and main battle tanks by German manufacturers (for example, TKMS) and joint European companies (for example, KNDS). As illustrated above, to ensure fast acquisitions and due to a lack of available «European» options, the German government purchased U.S. systems «off the shelf» in several instances. However, some components of the U.S. systems will be produced and/or maintained in Germany so that part of value creation takes place in Europe.^[31] Examples include the cooperation between German defense company Rheinmetall and U.S. manufacturer Lockheed Martin (the prime contractor) to produce fuselage components of the F-35 stealth fighter jets in the German town of Weeze^[32]; the production of guidance-enhanced missiles («GEM-T interceptor») for the U.S.-licensed Patriot air defense system in Germany through a joint venture (Comlog) between European joint venture MBDA and U.S. company Raytheon (now RTX)^[33]; and a joint project between German Rheinmetall and Lockheed Martin to develop the «Global Mobile Artillery Rocket System» (GMARS) as an alternative to the «High Mobility Artillery Rocket System» (produced by Lockheed Martin).^[34] The maintenance of the U.S.-produced Chinook helicopters is performed by Airbus Helicopters in Germany.

29 For example, according to data of the U.S. Foreign Military Sales program, Germany ordered military items worth 13,9 billion USD from U.S. manufacturers in fiscal year 2023. See U.S. Department of Defense, «*Historical Sales Book Fiscal Years 1950–2024*», p. 7.

30 See e.g., *Grünes Licht für sieben weitere Beschaffungsvorhaben*, accessed on 23 November 2025.

31 In these developments, it should be distinguished between the institutional interests of different institutions. For example, the ministry of defense considers it a priority that the armed forces acquire the best military equipment; other ministries have a stronger focus on strengthening the domestic industry, job creation, and fostering innovation.

32 Those components will be shipped to the U.S. for the integration into the aircraft.

33 The contract for the production of 1,000 Patriot missiles for the armed forces of Germany, the Netherlands, Romania and Spain was placed by NATO's Supply and Procurement Agency in the framework of the European Sky Shield Initiative (see below). See *Ordered 800 Patriot missiles for missile defense for Germany and three other NATO countries*

34 In the partnership, Rheinmetall will provide the trucks and Lockheed Martin the launcher-loader elements.

The German government views such co-production arrangements as beneficial to the German security and defense industry, as its incorporation into productions, maintenance and repair generates added value.^[35] Some of these trends, however, have irritated Germany's close allies in Europe, particularly the French government. For example, the French-Italian company SAMP/T offers a long-range air-defense system that is comparable to the U.S.-made Patriot system. However, the German government held on to the U.S.-made Patriot, a system that its armed forces have used for decades and that will also be part of the European Sky Shield Initiative (ESSI).

ESSI, initiated by the German government and formalized in 2022 with 14 other participating countries (that has since grown to 24 countries), aims to build a collective air and missile defense shield. ESSI includes the joint acquisition of air defense systems from U.S. (Patriot), German (Iris-T), and Israeli (Arrow 3) manufacturers. French President Macron has criticized the ESSI for coming at the expense of European sovereignty.^[36] France has not joined the initiative and instead promotes the SAMP/T system. In addition, the development of the Future Combat Air System (FCAS)—a joint project by defense companies from Germany, France, and Spain to build a sixth-generation air combat system by 2040—is still uncertain due to disagreements, including on the production between France and Germany. These examples highlight the challenging relationship between Germany and France regarding close coordination in defense procurement and European autonomy in this area.

³⁵ See e.g., Federal Ministry of Defence and Federal Ministry of Economic Affairs and Climate Action, «*German National Security and Defense Industry Strategy*», p. 8, accessed on 23 November 2025.

³⁶ See e.g., *France summons allies in challenge to German-led air defence plan*, accessed on 23 November 2025.

2.3 German Defense and Procurement Policy under the New Government

The previous German government agreed to purchase F-35 fighter jets and other equipment when political relations with the Biden administration were particularly close. However, as a result of the Trump administration's confrontational approach towards its European allies and diminishing trust in U.S. reliability, the need to reduce dependencies in the defense realm has become more urgent. While this will likely be a gradual development, the Merz government has the means to implement a significant change in German security and defense policy. Before the new government assumed office in March 2025, the CDU/CSU, SPD and Green Party agreed on a constitutional amendment to relax the debt brake for defense and infrastructure spending. This gives the Merz government much more fiscal flexibility and made its commitment to the 5 % defense spending target more credible.^[37] For the year 2026, the defense expenses (regular budget plus funding from the Special Fund) will increase from 86 billion EUR to more than 108 billion EUR, with around 48 billion EUR earmarked for defense procurement. To accelerate planning and procurement and expedite the approval of awards to defense companies, the government drafted a law that may pass the German Parliament in December.^[38] The defense expenses are scheduled to further increase to 152 billion EUR in 2029, i.e. three times as much as in the year 2023.^[39] Funding will not only be used for classic conventional military capabilities. In September, the German Minister of Defense announced investment of 35 billion EUR investments in space-related defense projects by 2030.

The anticipated surge in German defense funding is expected to drive substantial growth in the German defense market. Foreign manufacturers are also likely to benefit from the increasing volume of defense procurements. However, the German Defense Ministry's procurement plan for 2026 reportedly allocates only 8 % (or € 6.8 billion) of new acquisitions to U.S. manufacturers, with the largest shares earmarked for German companies and European joint ventures.^[40] However, defense products often contain elements of different suppliers and a clear «national attribution» is often difficult. It is also too early to assess if the procurement list reflects a strategic shift towards a «Buy European» approach, as this should be based on a multi-year assessment and not only on the basis of one specific year.

³⁷ See e.g., [German MPs approve €500 bn spending boost to counter «Putin's war of aggression»](#), accessed on 23 November 2025.

³⁸ Some provisions in the draft law will foster a «Buy European» approach, e.g. paragraph 11, see [Gesetzentwurf der Bundesregierung: Entwurf eines Gesetzes zur beschleunigten Planung und Beschaffung für die Bundeswehr](#), accessed on 23 November 2025.

³⁹ See [Deutschland investiert in Verteidigung und stärkt das Bündnis](#), accessed on 26 November 2025.

⁴⁰ Key projects include new combat aircraft («Eurofighter Tranche 5»), armored vehicles («Boxer»), unmanned aircraft systems («Eurodrone») and short-range air defense systems («Skyranger»).



3. EU Defense Industry Initiatives to Promote «Buy European» in Procurement

The highly fragmented European defense market is a major factor behind the dominant role of U.S. companies in defense procurement across many member states. Several member states maintain strong defense industries and have traditionally prioritized national products in procurement. As a result, there are a number of European manufacturers that produce similar models of battle tanks, combat aircraft, and other military equipment and that compete with each other as well as U.S. manufacturers for European government contracts. While the need for more defense industrial cooperation, innovation, joint production, economies of scale, and harmonization in procurement in Europe has been recognized for years, national interests have often prevented progress in this area. However, the war in Ukraine and the threat from Russia have renewed momentum at the EU level to strengthen the European Defense Technological and Industrial Base (EDTIB). Since 2022, the European Commission has proposed and advanced several initiatives, programs, and instruments^[41] that are summarized in the table on the next page.

⁴¹ During the first Trump administration, the EU had launched the Permanent Structured Cooperation (PESCO), the Coordinated Annual Defence Review (CARD), and the European Defence Fund (EDF) to address capability gaps, improve operational cooperation between the member states' armed forces, and strengthen the European defense industry.

Table 1: Recent EU Defense Initiatives, Programs, and Instruments

Measure	Status	Main Objectives
«Act in Support of Ammunition Production» (ASAP)	Adopted in 2023 by the member states	Enhance the production capacity for artillery ammunition and missiles, particularly to increase the military support for Ukraine (budget of 500 million EUR)
«EU Defense Industry Reinforcement Through Common Procurement Act» (EDIRPA)	Adopted by the member states in 2023	Support the expansion of European defense companies' production capacities Incentivize member states to jointly purchase defense products (budget of 300 million EUR until 2025)
«European Defense Industry Strategy» (EDIS)	Presented by the European Commission in March 2024	Increase the level of cooperation in research, development, production and procurement among the member states Sets specific targets: by the year 2030, at least 50 % of the member states' procurement budgets will be allocated to suppliers based in the EU, and at least 40 % of defense equipment procured jointly
«European Defense Industry Program» (EDIP)	Adopted by the European Parliament in November 2025 after provisional agreement with Council in October 2025 (follow-up to EDIS)	Provides financial support of 1,5 billion EUR (for 2025–2027 period) to implement EDIS objectives Complements the European Defence Fund (launched in 2021) to promote the collaboration between EU defense companies in research and development and multinational capability development (volume of 7,3 billion EUR)
«European Defence – Readiness 2030»	White Paper by the European Commission in March 2025	Mobilize up to 800 billion EUR to strengthen Europe's defense infrastructure and capabilities by suspending the EU's Stability and Growth Pact' budget rules (by activating the national escape clause); expanding the role of the European Investment Bank to provide funding for military infrastructure and technology development; providing EU loans to member states
«Security Action for Europe» (SAFE) instrument	Adopted by member states in May 2025 (component of the «Readiness 2030» plan)	Allows the European Commission to borrow up to 150 billion EUR on capital markets on behalf of the EU; the funding can be provided as long-term EU loans to member states that are willing to invest in defense production through joint projects

Source: Table compiled by the author.

The «Readiness 2030» plan and previous EU programs and instruments address some of the shortcomings of the EDTIB that have been identified for years.^[42] But the comprehensive implementation of the EU programs remains uncertain.

A fundamental question of the «Readiness 2030» plan is if it can significantly foster a «Buy European» approach. In March, EU Commission President Ursula Von der Leyen argued that the member states should use the loans from the «Security Action for Europe» (SAFE) instrument to finance arms purchases from European manufacturers to strengthen the EDTIB, with exceptions for Norway and the United Kingdom.^[43] Such restrictions, however, raised controversy among the member states. The negotiations over the 1,5 billion EUR scheme to fund European defense investment as part of the «European Defense Industry Program» (EDIP), which was finally approved in September 2025, illustrate these disagreements. While some member states like France had pushed for strict «Buy European» provisions, other members like the Netherlands and most of the Central and Eastern European members advocated for more flexibility to allow procurement from non-EU members, including the U.S. In a joint statement, those governments explicitly referred to the relevance of «transatlantic allies» in the procurement of critical military components.^[44] The compromise solution of September 2025 requires that at least 65 % of the cost of the components of any item funded under the new funding scheme must originate in the EU or certain associated countries.

While the U.S. government does not anticipate U.S. companies to remain the main supplier of defense materials in Europe, it calls for fair competition on the EU defense market, including for medium and smaller U.S. defense companies. The U.S. government, therefore, closely follows the EU discussions over «Buy European» clauses in the European defense initiatives and new instruments like SAFE.^[45]

A second challenge in the implementation of the «Readiness 2030» plan relates to funding. The majority of the defense funding proposed in «Readiness 2030» will need to be provided by the member states. To promote this, the White Paper proposes to suspend the EU's strict budget rules of the Stability and Growth Pact for defense expenses and thus allow the

⁴² For example, the «Draghi Report» of September 2024 by former Italian Prime minister Mario Draghi advocates for a new industrial strategy to increase productivity in the EU. To use the member states' resources more sufficiently and reach economies of scale in the defense sector, the report advocates for more investment into R&D, more cooperation in defense procurement and funding, a less regulated EU defense market, and a «buy European» approach by the member states. See European Union, «[The future of European competitiveness: Part A, A competitiveness strategy for Europe](#)», accessed on 23 November 2025.

⁴³ See [Speech by President von der Leyen at the European Parliament Plenary joint debate on European Council meetings and European Security](#), accessed on 23 November 2025.

⁴⁴ See e.g., [EU governments agree on €1.5 billion defense investment amid debate over «buy European» rules](#), accessed on 23 November 2025.

⁴⁵ The U.S. government also wants to ensure that European procurement does not weaken interoperability within NATO.

member states more fiscal flexibility. But despite their pledge to the NATO's 5 % target, in light of tight national budgets, a huge boost in defense spending may be difficult for many European governments to realize.

3.1 Efforts to Incentivize Defense Investments through Regulatory Reforms

The EU tries to address the funding issue through the SAFE instrument, and the «Readiness 2030» plan also proposes to mobilize more private capital to finance future defense investments as well as to enhance competition and foster innovation on the European defense market.^[46] For many years, institutional investors (such as investment funds) were reluctant to invest in the defense sector due to Environmental, Social, and Governance (ESG) concerns. EU finance rules place restrictions on investments into companies that are involved in the production of «controversial weapons», including anti-personnel landmines, cluster munitions, and chemical and biological weapons. However, they do not generally restrict investments in defense products. According to experts, institutional investors were particularly hesitant to invest in defense companies due to reputational concerns.^[47]

Some member states hope that a change in the European Investment Bank's (EIB) lending rules may change these dynamics. So far, the EIB's lending rules restrict it from funding purely military equipment. Proponents expect that if the EIB increases loans for European defense projects, institutional investors and commercial banks will also become less wary to invest in defense projects. Since 2024, the EIB has been able to lend money for dual-use products with both civilian and military applications.^[48] In January 2025, 19 EU members called upon the EIB to further change the bank's rules and to also consider issuing defense bonds; such a proposal is, however, opposed by some neutral EU member states, including Austria and Ireland.

In another effort to mobilize more private investments, the European Commission has worked on removing regulatory barriers from the EU's Sustainable Finance Disclosure Regulation (SFDR). The SFDR requires financial institutions to disclose how they integrate Environmental, Social, and Governance (ESG) standards into investment decisions, ensuring that investors can make informed decisions about the sustainability of the financial products. In June 2025, the European Commission issued guidance on the question of

⁴⁶ See e.g., *Introducing the White Paper for European Defence and the ReArm Europe Plan – Readiness 2030*, accessed on 23 November 2025.

⁴⁷ See *Sustainability rules are not a block on EU defence financing, but reputational fears are*, accessed on 23 November 2025.

⁴⁸ Prior to that, EIB rules required that dual-use manufacturers needed to generate more than 50 % of their revenue from civilian applications.

whether investments in defense can be considered a «sustainable investment» under the SDFR. The guidance argues that the «defense industry is a crucial contributor to the resilience and the security of the Union, and therefore to peace and social sustainability. Given its contribution to resilience, security, and peace, the EU defense industry enhances sustainability'.»^[49] The German «National Security and Defense Industry Strategy» of December 2024 takes on a similar position on the topic.^[50]

While these developments demonstrate awareness among the member states of the need for increased private investment in the defense technological and industrial sector, it remains to be seen whether recent efforts at the EU level will successfully incentivize greater investments from European institutional investors. As will be illustrated below, this discussion is equally relevant with regards to the defense tech sector.

49 See «*Commission Notice on the application of the sustainable finance framework and the Corporate Sustainability Due Diligence Directive to the defence sector*», C(2025) 3800/3, accessed on 23 November 2025.

50 «*German National Security and Defense Industry Strategy*», p. 12, accessed on 23 November 2025.



4. The Growing Relevance of Defense Tech in the Security and Defense Realm

The war in Ukraine has transformed modern warfare, with defense technologies such as unmanned aerial systems (UAS) and counter-systems playing an increasingly crucial role on both sides.^[51] Partly as a result of the limited number of conventional capabilities such as missiles and artillery shells, the Ukrainian armed forces have increasingly relied on defense technologies and have continuously advanced their technology.^[52] For example, the Ukrainian armed forces have used long-range drone strikes on Russian energy infrastructure and supply hubs, apparently with significant support by the U.S.^[53] What is particularly striking is the imbalance between the comparatively low production costs for many types of military UAS and the extremely high cost of conventional capabilities, such as air defense systems or combat aircraft. The effectiveness of UAS in the war has stimulated an acceleration of production in Ukraine, which has developed into an innovation hub for defense technology. Ukrainian companies have reached economies of scale and produce millions of UAS annually.^[54] Western governments follow the technological innovations in Ukraine and the integration of battlefield lessons into the design of new technologies closely. To benefit from the know-how, Western defense companies, including from Germany, have sought joint partnerships with Ukrainian manufacturers.

As a result, the events in Ukraine and other conflicts have accelerated the global race for defense technologies.^[55] This race extends beyond the use of dual-use technology such as UAS but also includes the integration of advanced artificial intelligence (AI) in defense technologies (military AI).^[56] The U.S. has established a strong ecosystem in this sector, with a number of U.S.-based companies seeking sales opportunities and partnerships with European manufacturers.

⁵¹ While there are multiple types of UAS in terms of seize, range, height, area of application etc., there are also various types of military UAS, e.g. (reusable) combat drones for offensive operations; «kamikaze drones» for one-time strikes of specific targets; loitering munitions that can remain airborne for extended periods of time; surveillance drones; and logistics drones (e.g., for transporting cargo).

⁵² See e.g., *What Drones Can—and Cannot—Do on the Battlefield – Foreign Affairs*, accessed on 23 November 2025.

⁵³ *US intel guided Ukraine's strikes on Russian energy sites*, accessed on 23 November 2025.

⁵⁴ See e.g., *Zelenskiy woos US businesses, seeks to grow Ukraine's drone industry – Reuters*, accessed on 23 November 2025.

⁵⁵ For example, armed and unarmed UAS have also been used in the Nagorno-Karabakh war, the Hamas attack on Israel, and Israel's invasion of Gaza.

⁵⁶ For example, advanced AI can fuse data from UAS, radars, sensors, etc. to produce battlefield visualizations that support decision-making in command centers far away from the front lines.

4.1 The Defense Tech Sector in the United States

The U.S. government has regarded technological superiority as critical to national security, including in more recent years, the use of AI. For example, the «Department of Defense Artificial Intelligence Strategy» of 2018 directs the Pentagon to accelerate the adoption of AI.^[57] The U.S. has also developed a strong ecosystem in this domain, with numerous companies and start-ups involved in developing AI-enhanced defense technologies. For example, the company Anduril, founded in 2017 with specialization in autonomous systems that incorporate AI and robotics, has rapidly grown in value. The company has benefited significantly from venture capital investments as well as government contracts. In this context, Anduril has secured a 642 million USD contract to deliver AI-powered counter-unmanned aerial system technology for the U.S. Marine Corps.^[58]

The political environment in the U.S. has been conducive to these developments. Similar to the Biden administration, the Trump administration views AI as a key technology in the geopolitical rivalry with China.^[59] But while President Biden in 2023 issued an Executive Order that required federal agencies to conduct safety evaluations and risk assessments for powerful AI systems, the Trump administration has rescinded the Executive Order. The Trump administration views AI as key industry for economic growth and innovation in the U.S., and its «AI Action Plan» of July 2025 indicates a less cautious approach on issue. The strategy has drawn criticism from civil rights groups, members of Congress from both parties, and states, which have adopted their own AI laws.^[60] The Trump administration also supports the integration of AI across the defense ecosystem^[61], and the National Defense Authorization Act directs the Pentagon to accelerate the development and responsible integration of AI technologies across military operations.^[62]

As a result of these trends, large U.S. tech companies, including OpenAI, Google, Anthropic, and xAI, have started to invest in defense tech and have secured government contracts. In this context, large tech companies have partnered up with (relative) newcomers. For example, Meta is collaborating with Anduril to advance defense tech products like virtual

⁵⁷ See U.S. Department of Defense, «*Summary of the 2018 Department of Defense Artificial Intelligence Strategy: Harnessing AI to Advance Our Security and Prosperity*», accessed on 23 November 2025.

⁵⁸ See e.g., *How Anduril Is Transforming Defense Technology*, accessed on 23 November 2025.

⁵⁹ See Office of the President of the United States, «*Winning the Race: America's Action Plan*», July 2025, accessed on 23 November 2025.

⁶⁰ See *Ethics and regulation of AI in defence technology: navigating the legal and moral landscape – Interface*, accessed on 23 November 2025.

⁶¹ *How the Pentagon plays into Trump's sprawling artificial intelligence «Action Plan» – Breaking Defense*, accessed on 23 November 2025.

⁶² See *Interface, Ethics and regulation of AI in defence technology: navigating the legal and moral landscape*, accessed on 23 November 2025.

reality devices for the U.S. Army.^[63] At the same time, large defense and tech companies have also entered partnerships to integrate cutting-edge technology into defense systems. For example, Lockheed Martin and Google are collaborating to integrate Google Cloud's generative AI technologies into Lockheed Martin's AI Factory.^[64] To bid for government contracts, some of the tech companies had to change their internal rules that had previously restricted them from producing technologies for military-related activities.^[65] To better integrate the companies' expertise, the Department of Defense (DoD) has started to appoint technology officers and managers from tech companies for its new Executive Innovation Corps («Detachment 201»), a unit that aims to merge tech expertise with military innovation.^[66] The close relationship between executives of big tech companies, defense tech companies, and the Trump administration has raised concerns of a dangerous alliance that could lead to tech-authoritarianism in the US.^[67] Indeed, some executives openly support the Trump administration's plans to reshape the government.^[68]

While partnerships between the DoD and tech companies have existed for long time^[69], the extent of cooperation that has developed more recently has led to concerns over a «militarization of Silicon Valley».^[70] Indeed, the risks of using AI in military applications are controversial in the US, EU, and at the United Nations level. Key issues include the question of what constitutes «meaningful human control» in the application of military AI and how to ensure that military AI can clearly differentiate between combatants and civilians and if these applications can comply with international humanitarian law; how to ensure that actions are proportionate to the threat; and enforcing traceability, accountability, liability and responsibility (for example, when AI systems make autonomous decisions).^[71] These issues have also been discussed in the negotiations over the Artificial Intelligence Act that the EU adopted in December 2023. While the AI Act requires

63 [Booming Military Spending on AI is a Windfall for Tech—and a Blow to Democracy – TechPolicy.Press](#), accessed on 23 November 2025.

64 [Lockheed Martin, Google Cloud collaborate on generative AI for national security](#), accessed on 23 November 2025.

65 See e.g., [Anthropic's New Government AI Models Signal the Defense Tech Gold Rush is Real](#), accessed on 23 November 2025.

66 See [Big Tech enters the war business: How Silicon Valley is becoming militarized, Economy and Business – EL PAÍS English](#), accessed on 23 November 2025.

67 See e.g., [Why Silicon Valley is arming up with defense contracts](#), accessed on 23 November 2025.

68 See e.g., [Palmer Luckey, Donald Trump's Original Tech Bro, Gets His Moment](#), accessed on 23 November 2025.

69 For example, companies like IBM, Microsoft and Oracle have long provided DoD with data storage and computing capabilities. For decades, the DoD has also supported R&D in close partnership with private companies. For example, the U.S. Defense Advanced Research Projects Agency (DARPA) has been a key actor supporting the development of emerging technologies for military applications, often in collaboration with academia and industry (not necessarily only for military purposes). See [Booming Military Spending on AI is a Windfall for Tech—and a Blow to Democracy – TechPolicy.Press](#), accessed on 23 November 2025.

70 See e.g., [How Tech Firms Like Google and Meta Are Embracing the Military – The New York Times](#), accessed on 23 November 2025.

71 See e.g., [Ethics and regulation of AI in defence technology: navigating the legal and moral landscape – Interface](#), accessed on 23 November 2025.

thorough high-risk systems assessments and human oversight in high-risk AI systems in the commercial sector, defense-specific systems are exempted from these requirements.^[72]

4.2 The Defense Tech Ecosystem and Procurement Policies in Germany

The military technology trends in the United States are equally relevant for Europe, where most governments, including the German government, recognize that future defense will likely require a combination and integration of conventional military capabilities and advanced defense technologies.^[73] For example, the German government views UAS as a key component in defense.^[74] However, as a task force by the German Ministry of Defense («Bundeswehr Task Force Drohne») emphasized, the German armed forces (Bundeswehr) have not kept up the pace and are underequipped in this area.^[75]

Since 2022, the German government has sought to strengthen domestic production capacities for conventional military capabilities through expanded procurement. In addition, several defense companies have received government funding, for example through the «Special Task Force Ukraine», to deliver military capabilities to Ukraine. This also includes defense tech companies that have delivered UAS, unmanned ground vehicles (UGV), and counter-drone systems to Ukraine.

However, the large majority of procurement for defense systems is spent on conventional systems and acquisitions of defense tech capabilities for the Bundeswehr have remained limited.^[76] The German military has long operated reconnaissance UAS, and in 2018, the German Bundestag approved the acquisition of the Israeli-made «Heron TP», which can potentially be armed.^[77] AI is currently applied in logistics, early-warning, and reconnaissance systems. The armed forces also established a Cyber Innovation Hub to increase cooperation with start-ups to develop swift and practical technological solutions.

⁷² Led by the French government, several member states reportedly pushed for this exemption to ensure minimal restrictions on AI in defense and security. See European Parliamentary Research Service, «[Defence and artificial intelligence](#)», p.10, accessed on 23 November 2025.

⁷³ See e.g., the remarks by Carsten Breuer, Inspector-General of the German armed forces: [Kriegsführung mit Drohnen: Das plant die Bundeswehr](#), accessed on 23 November 2025.

⁷⁴ See e.g., «[German National Security and Defense Industry Strategy](#)», p.9, accessed on 23 November 2025.

⁷⁵ See e.g., [Die drohnenarme Armee – Reservistenverband](#) According to experts, the development of UAS technology for the Bundeswehr has significantly slowed down after the «Euro hawk scandal», a drone project that was discontinued in 2013 due to technical problems and a looming cost explosion. Interview with expert, November 2025.

⁷⁶ Experts estimate that around 90 % of defense system procurement are still spent on conventional systems. Interviews with experts, October/November 2025.

⁷⁷ In September 2025, the Bundestag approved the purchase of additional «Heron TP» from an Israeli manufacturer. See [Grünes Licht für sieben weitere Beschaffungsvorhaben](#), accessed on 23 November 2025.

Yet, large-scale adoption of new defense technologies has not followed. The rather slow pace of defense tech procurement is partly explained by the rapid innovation cycles emerging from the battlefield experience in Ukraine. In this context, planning units of the defense ministry are concerned that systems could become outdated soon after delivery and/or that the technologies are not fully yet functional, leading to risky investments with public funds.^[78] In addition, the planning processes leading to procurement decisions are considered highly political and lengthy, with a number of stakeholders involved. This makes it difficult for many medium-sized enterprises and start-ups to succeed in the procurement procedures.^[79] Despite a growing defense tech ecosystem in Germany^[80] with a number of companies that have supplied equipment to Ukraine, defense tech start-ups have not been able to secure major contracts directly with the German government.

Defense tech companies that are often in the focus in this context include Stark Defence, Helsing, Tytan Technologies, and ARX Robotics. Stark Defence has specialized on loitering munition systems (LMS), for example with its model «Virtus».^[81] Helsing, founded in 2021, has specialized in the development and the production of UAS and autonomous submarines.^[82] The company has produced several thousand LMS for Ukraine^[83] and has become one of the most valuable start-ups in Europe.^[84] Tytan Technologies is specialized on AI-supported interceptor drones that it has already sent to Ukraine. ARX Robotics, a company specialized in UGVs with applications in reconnaissance and casualty evacuation, has already provided products to the armed forces of six European countries, including the German armed forces. In the design of its mini-tank («Combat Gereon»), it has cooperated

78 On the contrary, defense tech companies that produce software-defined defense argue that while regular software updates are needed, the hardware itself will remain fully functional.

79 The «National Security and Defence Industry Strategy» of December 2024 recognizes that national and European requirements and regulations «impose significant demands on small and medium-sized enterprises (SMEs), in particular, as well as on start-ups [...], which may result in a considerable bureaucratic burden. This complicates access to public sector procurement procedures and financing options [...]». The German government has therefore established a Federal Agency for Breakthrough Innovation (SPRIND) for start-ups and innovative companies for dual-use applications in the security and defense industry. It also aims to «increase its focus on start-ups» in procurement. See «*German National Security and Defense Industry Strategy*», p. 6, p. 9, p. 10, accessed on 23 November 2025.

80 These are not restricted to UAS but a number of technologies, including the fusion of biology, robotics and technology. See *Europe's Defense Tech Boom: A Surge in Investment and Innovation*, accessed on 23 November 2025.

81 Stark Defence was founded in 2024 as an offshoot of Quantum System, a company specialized on drone technologies, due to investors' opposition against arms production. See e.g. *Stark Defence: Das Berliner Start-up wächst mit militärischer Technologie*, accessed on 23 November 2025.

82 For the first LMS («HF-1»), Helsing cooperated with a Ukrainian counterpart, and later developed an advanced version of the model («HX-2») which uses artificial intelligence to evade electronic warfare and jamming, and can also operate in swarm formations.

83 See *Ukraine orders 6,000 loitering munitions from Germany's Helsing – Breaking Defense*, accessed on 23 November 2025.

84 See e.g., *Nato: Rüstungsfirma schlägt Drohnenwall an der Ostflanke vor – DER SPIEGEL*, accessed on 23 November 2025.

with a Ukrainian counterpart and has set up production sites in Ukraine. It has developed its own operating system («Mithra») to enable networking between different systems.

With the growing defense budget in Germany and new procurement initiatives in Europe, the acquisition of defense tech for the armed forces is expected to increase substantially. In April 2025, the German defense ministry ordered a badge of loitering munition systems for testing^[85], with a decision on a larger order expected by the end of the year.^[86] However, according to news reports, there were delays and technical problems in supplying the systems.^[87] Companies such as Helsing and Stark Defence may also benefit from a potential «drone wall» system at NATO's Eastern border.^[88]

Given the increasing relevance of defense tech for national security, major German defense companies have started to partner with defense tech start-ups. For example, Stark Defence in July 2025 entered a partnership with TDW, a subsidiary of the large European joint venture MBDA, to produce the warheads for its LMS.^[89] ARX Robotics is partnering in joint projects with Daimler Truck as well as with Renk, a major provider of transmissions and suspension systems for military vehicles and naval ships.^[90]

At the same time, U.S.-based defense tech companies are entering the European market. U.S.-based Shield AI and Anduril aim to establish themselves in Europe, including through partnerships with European defense companies.^[91] In June 2025, the Dutch ministry of defense placed an order with Shield AI for eight drone systems. In June 2025, Rheinmetall and Anduril announced a partnership to develop and produce a European version of Anduril's «Fury» drone in Europe, which should be produced in Germany with other European

85 See «*Kamikazedrohne*»? *Bundeswehr beschafft Loitering Munition* According to Stark Defence, the components of its loitering munition (model «OWE-V») are fully produced in Germany so ensure that their production is less dependent on global supply chains. See *Bundeswehr will Loitering Munition von Helsing und STARK beschaffen*, accessed on 23 November 2025.

86 For the armed forces, the integration of different providers' software suites into a unified battle-management system may pose a challenge in the future. See e.g., *A Skeptic's View of the Hype Machine and Business Model of Neo-Defense Tech*, accessed on 23 November 2025.

87 See e.g., *Die Bundeswehr will Kamikazedrohnen anschaffen. Der Status: «im Verzug»*, accessed on 23 November 2025. According to experts, this illustrates a common problem in procurement, in which the delivery of the systems are oftentimes significantly delayed after contracts have been signed.

88 Stark Defence plans to invest in the capability for mass production in order to be able to deliver thousands of LMS as early as 2027. See *Stark Defence: Das Berliner Start-up wächst mit militärischer Technologie*, accessed on 23 November 2025.

89 See *TDW und STARK entwickeln gemeinsam Gefechtskopfsysteme für Loitering Munition*, accessed on 23 November 2025.

90 See *Daimler Truck, Pressemitteilung*, accessed on 23 November 2025.

91 *Europe is pouring money into defense. Can US firms reap the reward amid trans-Atlantic tension? – Breaking Defense*, accessed on 23 November 2025.

companies integrated into the supply chain.^[92] Whether such partnerships between U.S. and European companies will proliferate in the coming years remains to be seen.

4.3 The Role of Venture Capital in German Defense Tech

A major challenge for many German defense start-ups in their early phase was securing loans and investments. Most commercial banks in Europe were reluctant to lend seed money to dual-use and defense-related start-ups.^[93] However, some start-ups were able to attract venture capital. A prominent example is Helsing, which received substantial investment from Prima Materia^[94], the investment firm of Spotify founder Daniel Ek.^[95] ARX Robotics has attracted significant funding from German and French venture investors.^[96] Overall, in 2024, European defense tech start-ups were able to secure 5.2 billion USD in venture capital, raising 24 % more capital than in 2023^[97], a trend that has continued in 2025.^[98]

The industry has also drawn growing interest from U.S.-based investors. In a 2025 financing round, Stark Defence secured 62 million USD from investors, including U.S.-based Sequoia Capital, Thiel Capital, In-Q-Tel and the NATO Innovation Fund.^[99] The investor Peter Thiel, a major campaign donor of the Republican Party and supporter of Donald Trump, had already participated in a previous financing round. In-Q-Tel, a CIA-backed investment vehicle, has reportedly invested significantly in European defense tech start-ups in previous years.^[100] Since 2021, Helsing has also secured significant capital from U.S.-based venture capital firms, including Lightspeed Venture Partners, Accel, and

92 See *Anduril, Rheinmetall partner to build military drones for Europe – Reuters*, accessed on 23 November 2025. Rheinmetall plans to integrate the UAS into its military digital platform «Battlesuite», a network between UAS, other weapon systems and a command center.

93 See e.g., *Defense-Startup Arx Robotics sammelt 31 Millionen Euro ein – Business Insider*, accessed on 23 November 2025.

94 See *Spotify's Daniel Ek just bet bigger on Helsing, Europe's defense tech darling – TechCrunch*, accessed on 23 November 2025.

95 Ek has been criticized for investing in defense technology. See e.g., *Massive Attack remove music from Spotify to protest against CEO Daniel Ek's investment in AI military*, accessed on 23 November 2025. At the same time, Spotify has been criticized for running recruitment ads for the U.S. Immigration and Customs Enforcement. See *Spotify users boycott streaming platform over ICE recruitment ads*, accessed on 23 November 2025.

96 *Rüstung: Arx Robotics will Europas Verteidigungsfähigkeit stärken*, accessed on 23 November 2025.

97 *Defense and resilience tech reached an all-time high 10 % of all VC funding in Europe – TechCrunch*, accessed on 23 November 2025.

98 See e.g., *As European Defense Investment Rises What Role Can Startups Play?*, accessed on 23 November 2025.

99 See *Sequoia leads \$ 62 M round, valuing Stark at \$ 500 M as it ramps up AI-powered battlefield drones – TFN*, accessed on 23 November 2025.

100 See *U.S. gets sneak peek at Europe's military tech through CIA-backed fund – Follow the Money*, accessed on 23 November 2025.

General Catalyst.^[101] In contrast, some defense tech companies deliberately present themselves as «European companies». For example, ARX Robotics aims to exclusively attract European investors and to maintain predominantly European supply chains and software infrastructure.^[102] This argument, which is also used by other companies, could become a competitive advantage amid growing concerns about European technological sovereignty and initiatives such as «EuroStack», which seek to reduce Europe's dependence on foreign technologies.^[103]

The strong reliance on venture capital funding has raised concerns among European policymakers. There is apprehension that venture capital firms could withdraw their funding if their investments fail to generate sufficient returns, potentially jeopardizing critical defense innovations.^[104] Another concern involves the potential outflow of technological know-how.^[105] As a result, current discussions focus on how to encourage greater investments from institutional investors, also to smaller companies, and how to increase public procurement to strengthen the ecosystem.

4.4 European Efforts to Promote Defense Innovation and Defense Tech Start-ups

While public procurement of defense tech in the EU member states is still rather cautious, the EU, NATO, and some European governments have made efforts to promote defense tech innovation and facilitate funding for start-ups.^[106] In Germany, the draft law to accelerate defense procurement aims to remove barriers for defense start-ups by offering them the option of advance payments.^[107] The defense tech industry hopes that the law will also lead to a change of mentality in procurement, which is characterized by rather rigid specifications of systems that are often delivered years later.^[108]

101 See *Helsing – 2025 Funding Rounds & List of Investors – Tracxn*, accessed on 23 November 2025.

102 See *Rüstung: Arx Robotics will Europas Verteidigungsfähigkeit stärken*, accessed on 23 November 2025.

103 See e.g. *Donaustahl GmbH: A Tactical-Scale Contributor to European Defence Sovereignty and Strategic Autonomy*, accessed on 23 November 2025.

104 Interview with MEP, October 2025.

105 See e.g., «*German National Security and Defense Industry Strategy*», p. 10, accessed on 23 November 2025.

106 The amount of U.S. government spending on research, development, test and evaluation in the defense sector far exceeds that of all European governments combined. See e.g. IFRI report, p. 14.

107 Business associations like the Association of the German Information and Telecommunications Industry (Bitkom) therefore welcome the new law. See *Bundeswehr: Beschaffung an die digitale Welt anpassen – Bitkom e. V., Presseinformation*, accessed on 23 November 2025.

108 The defense tech industry has advocated for more flexible framework agreements that take the rapid innovation of software-defined products better into account. Interview with industry representative, October 2025.

On the EU level, the EU Defence Fund, endowed with a budget of 7,3 billion EUR for the period 2021–2027, offers grant funding for defense start-ups for collaborative research and development and capability development projects (e.g., in autonomous systems, AI, and chiplets).^[109] The European Commission also tries to improve access to finance for new companies in the defense industry. For example, the European Investment Fund (EIF), which is part of the European Investment Bank Group and primarily supports small and medium-sized enterprises (SMEs), in May 2025 announced a 40 EUR million investment in «Keen's European Defence and Security Tech Fund». Keen Venture Partners aims to support early-stage companies that are advancing innovation in fields such as cyber defense, robotics, AI, autonomous systems, and space technologies.^[110]

Also NATO has supported defense tech start-ups in order to foster innovation in this industry sector. In 2022, NATO launched the NATO Innovation Fund with a budget of one billion EUR. The multi-sovereign venture capital fund was established to invest in start-ups involved in developing cutting-edge technologies with military and civilian applications such as AI, quantum computing, robotics, and autonomous systems. By connecting start-ups with businesses and defense ministries, the NATO fund tries to foster an innovative ecosystem within NATO. The NATO Innovation Fund has, for example, funded European companies like Helsing and Portugal-based Tekever. In 2022, NATO established the Defence Innovation Accelerator for the North Atlantic (DIANA) to foster R&D and to accelerate the development of dual-use and emerging disruptive technologies aligned with NATO's defense and security priorities.^[111]

However, despite these opportunities for European defense tech start-ups, the investment environment in the U.S. remains much more favorable: According to an analysis by McKinsey, in the period 2021–2024, the total venture deal volume for defense start-ups in the U.S. has been 2,4 times greater than in Europe.^[112] U.S. companies may thus have a competitive advantage, also in Europe.

¹⁰⁹ The EU Defence Innovation Scheme, which is part of the EU Defence Fund, aims to promote innovation in advanced sensors and biotechnologies, among others.

¹¹⁰ See *EIF announces €40 million investment in Keen Venture Partners' European defence and security Tech fund under InvestEU*, accessed on 23 November 2025.

¹¹¹ For this purpose, DIANA maintains a network of test centers across the NATO members. The German test center («Palladion Defence Accelerator»), located at the Bundeswehr University in Munich, promotes engagement between innovators and military end users, and connections with investors. See *PALLADION – Diana*, accessed on 23 November 2025.

¹¹² See *Tech startups in the European defense sector – McKinsey*, accessed on 23 November 2025.

4.5 The Increasing Relevance of Defense Tech for European Security

As illustrated above, the relevance of defense tech for national security will likely continue to grow. For example, following the incursions of Russian unarmed UAS into NATO member's territory in September 2025, many European governments support the creation of a «drone wall» system in NATO frontline states.^[113] The concept is also promoted by European Commission President Von der Leyen.^[114] Similar discussions have been taking place at national levels.^[115]

At the same time, it is far from certain if European-based companies will be the primary suppliers in defense tech acquisitions in the next years. Many U.S.-based companies have been developing dual-use technologies for much longer than their European counterparts and may thus have a competitive advantage. A prominent example is Palantir Technologies, which aims to further expand into the European market. The company is specialized in big data analytics and data integration and provides services to several U.S. agencies (including the CIA, FBI, DoD, and ICE) and foreign governments (e.g., the Israeli Ministry of Defense). The company has become a key partner for the U.S. Department of Defense, which has expanded the deployment of Palantir's intelligence software program («Maven Smart System») to U.S. forces around the world. The U.S. Army has also contracted Palantir to consolidate the army's software procurement.^[116]

The company's close ties to the Trump administration, however, are controversially discussed.^[117] For example, Palantir is criticized for partnering with the Immigration and Customs Enforcement (ICE) in its efforts to track and deport suspected non-citizens in the U.S.^[118], and for supporting the Trump administration's efforts to combine personal data of U.S. citizens from various government agencies.^[119] There are also concerns over

¹¹³ Such a «drone wall» system would be a network of sensors, satellites, (counter)-UAS, and other technologies. It should serve as early warning and reconnaissance system to detect, track, and neutralize potential attacks, and would have to be regularly adjusted to address new threats.

¹¹⁴ European Commission, «*2025 State of the Union Address by President von der Leyen*», 10 September 2025, accessed on 23 November 2025.

¹¹⁵ For example, following the appearance of UAS over German airports in October 2025, the German government plans to establish of a drone defense center to improve the coordination and implementation of counter-drone measures.

¹¹⁶ See e.g., *In Trump's Washington, Palantir is winning big*, accessed on 23 November 2025.

¹¹⁷ This discussion also extends to Germany, where the police agencies of some federal states use Palantir's database analysis software, while others are opposed to it. See e.g., *NATO sparks an «AI gold rush» – POLITICO*, accessed on 23 November 2025.

¹¹⁸ See e.g., *ICE to Use ImmigrationOS by Palantir, a New AI System, to Track Immigrants' Movements*, accessed on 23 November 2025.

¹¹⁹ See e.g., *Trump Taps Palantir to Compile Data on Americans*, accessed on 23 November 2025.

security issues with Palantir products.^[120] Nevertheless, NATO's Communications and Information Agency in March 2025 signed a contract with Palantir for the acquisition of the «Maven Smart System», which should provide AI-enabled capabilities for intelligence fusion, targeting, operational planning and other support functions. According to NATO, the introduction of the system will empower commanders «to leverage cutting-edge artificial intelligence safely and securely in core military operations».^[121] The system (MSS NATO) may thus set the standards for security-critical and data-intensive systems within the NATO member states and Palantir may become a prime contractor for defense ministries in Europe.^[122] For example, Belgium's minister of defense recently stated that «Palantir is at the frontline of Europe's defense and an important partner for all the members of NATO».^[123] Palantir's already dominant position has led to concerns that this development will increase reliance on U.S. technology from a single company and further undermine Europe's technological sovereignty.

120 For example, Palantir Technologies and Anduril and have been contracted to establish a new battlefield communication system for the U.S. Army. An internal memo of the U.S. Army has flagged the system as «very high risk» due to security vulnerabilities in the system's code. See e.g. *Anduril and Palantir battlefield communication system «very high risk,» US Army memo says*, accessed on 23 November 2025.

121 *NATO acquires AI-enabled Warfighting System – SHAPE*, accessed on 23 November 2025.

122 See *AI on the battlefield: Next stop for Peter Thiel after PayPal, Hulk Hogan, Trump and Facebook, Economy and Business – EL PAÍS English*, accessed on 23 November 2025.

123 See *Palantir Technologies – LinkedIn Post*, accessed on 23 November 2025.



5. Conclusion with Policy Recommendations

The Trump administration's approach to Europe has significantly reduced trust among many European governments in the US' commitment to transatlantic security and reliability as a key ally. While most European NATO members—including Germany—have sought to ease tensions with the Trump administration, political awareness inside Europe is growing to reduce its strategic dependence on the US. As this paper has shown, the heavy reliance on the U.S. is not only a consequence of geopolitical dynamics but also of structural weaknesses within Europe's defense landscape, including a fragmented defense market, divergent national attitudes toward a «Buy European» approach, high dependence on global supply chains, and limited private investment in defense.

The European Commission's «Readiness 2030» plan, alongside subsequent decisions by the member states, reflects a gradual shift in mindset, but reinforcing and transforming the European technological and industrial defense base will require time—and depends significantly on the strategic procurement choices made by national governments. This applies equally to the growing defense tech sector.

Germany's current defense procurement policy reflects these broader European tensions. Since 2022, Berlin has pursued objectives that are difficult to achieve in parallel: On the one hand, the German government aims to strengthen Germany's and Europe's defense industry, and on the other hand, it seeks to ensure the fast acquisition of critical capabilities, often from U.S. suppliers, to keep supporting Ukraine and to strengthen NATO's deterrence. Although some of the defense purchases have included co-production arrangements, the current set-up nonetheless reinforces long-term dependencies on U.S. suppliers and also faces risks of delays in delivery. This approach has soured relations between Germany and France—a proponent of more European autonomy.

With new fiscal flexibility, including the relaxation of the debt brake for defense spending, the Merz government has an opportunity to chart a more consistent and forward-looking «Buy European» course. This is especially relevant in the defense tech domain, where suppliers have not yet established a dominant market position in Europe. The current situation therefore presents a window of opportunity for Germany—and Europe—to invest in technological innovation, enhance strategic resilience, and build a genuinely European defense industry ecosystem.

In light of these findings, the German government should consider the following options:

- **Advance joint European defense projects and coordinate major procurement decisions:** The German government should pro-actively support the development of a competitive and integrated European market for defense goods and services. It should encourage joint production initiatives to foster economies of scale in Europe. In defense procurement, Berlin should foster an EU-wide approach instead of pursuing a special path. By making full use of the European Defense Industry Program (EDIP) and EU instruments, it should advance joint defense projects and closely coordinate major procurement decisions with European partners to address key capability gaps. In these decisions, European products should be given preference where they are of comparable quality to non-European systems.
- **Adopt a «Buy European» approach in defense tech procurement:** To strengthen the European defense tech ecosystem, which has become a key element of the defense sector, the German government should adopt a consistent «Buy European» approach in procurement. To prevent dominance of a few companies, the government should promote a competitive ecosystem that fosters innovation within the sector. To facilitate access to procurement procedures, the forthcoming defense procurement acceleration law should reduce bureaucratic obstacles for start-ups as well as small and medium-sized enterprises. To safeguard technological sovereignty and operational independence, key criteria in the procurement of software-defined systems should be that control over the software, updates, and maintenance remains in Europe.
- **Increase support for new defense technologies:** European governments could also strengthen the defense tech ecosystem by intensifying support for development projects in sectors that will likely gain in relevance. For example, it could support the creation of a joint European battlefield data management system that integrates intelligence and data from multiple sources, enables real-time situational awareness, and provides decision-support capabilities. The development and design of such an AI-assisted system should ensure that all critical decisions remain fully under human control. EU programs like the European Defence Fund could support research, development, and testing. Support for such and corresponding projects could foster innovation in the sector and reduce the risk of over-reliance on one (foreign) provider.
- **Institutionalize geopolitical risk assessments in defense procurement:** Major defense procurement decisions should be based on thorough risk assessments. These assessments should also take into account significant changes in key allies' governments and shifts in foreign and security policy priorities, including in the U.S. and inside Europe. For example, the U.S. government may deprioritize and/or delay the delivery of defense systems ordered by European allies, or restrict maintenance or software updates of key defense systems. Such scenarios could pose significant risks for European security and defense readiness and should be thoroughly assessed in defense procurement planning. Germany's National Security Council, in close cooperation with relevant ministries and agencies, could assume a coordinating role in developing these risk assessments.

- **Establish a review mechanism to assess critical dependencies on non-European suppliers:**
In parallel with structured risks assessments, the National Security Council, in close cooperation with relevant ministries and agencies, could establish a review mechanism to systemically evaluate critical dependencies on non-European defense capabilities. This should be aimed at identifying systems and technologies that are particularly vulnerable to delivery delays or restrictions, and analyzing the feasibility, costs, and strategic implications of substituting these systems with European alternatives. The process could also include the preparation of biennial internal progress reports measuring the extent to which critical dependencies have been reduced.
- **Closely coordinate risk and critical dependency assessments with European allies:**
The National Security Council should share these geopolitical risk and dependency assessments with similar units and institutions in other EU member states to facilitate and strengthen exchange on these issues, a shared awareness of Europe's potential vulnerabilities, and coordination in addressing them.
- **Clearly communicate Europe's rationale:** In communications with the U.S. administration, the German government should emphasize that efforts to strengthen the European defense technological and industrial base are not intended to decouple from the U.S., but to reinforce NATO's collective resilience and to reduce risks in case of major shifts in key allies' position on NATO. It should communicate that these efforts will contribute to enhanced European defense capabilities and a more balanced relationship within the alliance.

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