

Türkiye | Defense Industry Potential

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Key Messages

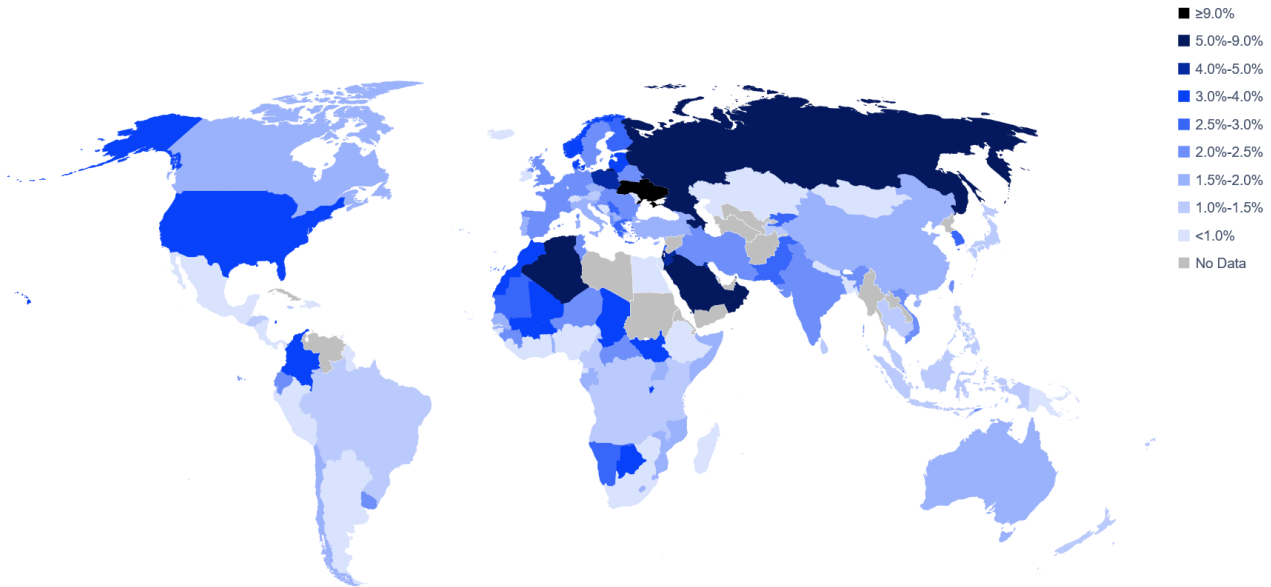
- **Global defense demand is entering a more structural phase.** Geopolitical tensions, higher military spending and the changing nature of warfare are pushing governments to rebuild capabilities and invest in new technologies.
- **Europe has a substantial defense-industrial base, but important bottlenecks remain in scale, speed and replenishment.** The most significant gaps are concentrated in integrated air and missile defense, counter-UAS, drones and loitering munitions, long-range fires and ammunition stockpiles.
- **Türkiye can complement Europe selectively.** The strongest near-term matches are in UAVs and strike drones, and ammunition and stockpile replenishment, followed by counter-UAS, loitering munitions, selected air-defense layers, ISR/electronic warfare and armored vehicles.
- **However, industrial complementarity does not automatically translate into market access.** EU procurement rules—particularly SAFE’s local-content and design-authority requirements—mean that deeper Türkiye–Europe cooperation is likely to depend increasingly on co-production, local assembly, joint ventures, supply-chain integration and mutually acceptable technology-sharing arrangements rather than direct exports alone.
- **The opportunity extends beyond Europe, but future competitiveness will depend on further technological upgrading.** Türkiye is diversifying both its export markets and cooperation models across Africa, Asia and the Gulf, while defense-related activity is becoming increasingly important within high-technology manufacturing at home. Sustaining this momentum will require further progress in AI, autonomous systems, cyber, space and other advanced technologies.

1. Changing World Trends on Defense Needs

The world is witnessing two major wars in the Eastern Hemisphere (Russia vs. Ukraine and U.S./Israel vs. Iran), and several other conflicts across the globe. According to SIPRI 2025 data, world military expenditure reached USD 2,887 billion in 2025, an increase of 2.9% in real terms compared to 2024 expenditures. Military spending decreased in the U.S. (7.5% lower, but still the highest spender with USD 954 billion in 2025); rose in Europe (14% higher) and in Asia plus Oceania (8.1% higher). The top three military spenders (U.S., China and Russia) spent a combined USD 1,480 billion (51% of overall global expenditure).

Meanwhile, Türkiye's military spending grew by 7.2% in 2025 compared to the previous year and reached USD 30.0 billion making the country the 18th largest spender in 2025.

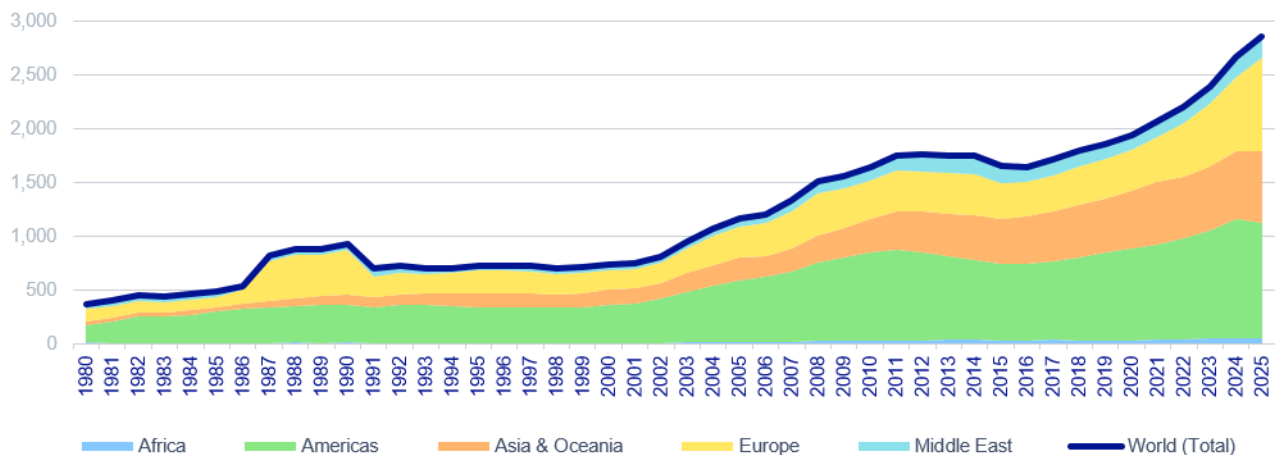
FIGURE 1. GLOBAL MILITARY EXPENDITURE 2025 (% GDP)



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Powered by Bing

Source: SIPRI, Garanti BBVA Research

FIGURE 2. GLOBAL MILITARY EXPENDITURE 1980-2025 (\$BN)



Figures are in current prices and exchange rates.
Source: SIPRI, Garanti BBVA Research

More importantly, this increase reflects a structural rather than cyclical shift in global defense demand, implying that higher defense investment is likely to persist over the medium term. There are two main drivers behind the increasing spending: Preparing for current and future conflicts, and keeping up with evolving technologies and the Revolution in Military Affairs (RMA).

i) Gearing up for conflicts

European countries continue to face Ukraine war related uncertainties. On the other hand, the Middle East still witnesses several conflicts and wars. Very recently the war against Iran and the new situation in the Persian Gulf necessitate a need to boost military spending for regional countries, including Türkiye. The recent wars in Gaza, Lebanon and Iran also trigger new military alliances and rapprochements in the region. On the one hand, Israel, the UAE, Greece and Greek Cypriot Administration are bolstering efforts to strengthen their military and political posture; on the other hand, Türkiye, Pakistan, and Saudi Arabia are seeking a new balance of power in the region.

ii) Keeping up with the RMA

There is a Revolution in Military Affairs (RMA) as unmanned systems and AI take more leverage in the ways countries wage their wars. Especially unmanned systems, particularly kamikaze or one-way drones, and ballistic missiles are used in the same attack package. This shift is most visible in the Iran War and Ukraine War.

Missile technology production has become one of Ankara's top priorities in terms of its domestic defense industry and strategy, especially after the Russia - Ukraine war and the 12-day war waged between Israel and Iran. Türkiye's ballistic missile programs by Roketsan, and unmanned systems developed by private sector actors such as Baykar are becoming vital for the country's adaptation to the new paradigm.

Along with the drone productions and unmanned systems, missile productions, increasing the number of brigades to have a more flexible army formation constitutes the possible new doctrine of Türkiye. In this respect, Türkiye is not only focusing on producing different types of missiles but also on the mass production. Last year it was revealed that Türkiye's missile and rocket production achieved over 90% domestic self-sufficiency, with the country's defense sector reaching USD 10 billion of exports in 2025.

As new systems are unveiled, Türkiye appears to be moving toward the medium-range ballistic missile category, although publicly available information does not yet confirm an operational missile with a range above 1,000 km. Among European NATO members, France and Türkiye stand out for their indigenous ballistic missile development capabilities. France is the only clear European producer of strategic ballistic missiles, with ArianeGroup leading the M51 program. Türkiye, meanwhile, has developed its own tactical and operational ballistic missile family, including BORA and TAYFUN. Other European NATO members also operate ballistic missiles, but these are largely based on U.S.-supplied systems rather than fully indigenous programs.

As a result, the question is no longer only how much Europe spends, but how rapidly it can translate higher spending into deployable military capability. Amid growing uncertainty over the future U.S. contribution to NATO, highlighting collaboration points between Türkiye and Europe could be worth mentioning to contribute to the discussions of Europe's defense needs in the wake of emerging and continuing conflicts and wars.

iii) Europe's capability gaps create a potential role for Türkiye

The rapid expansion of Russia's defense-industrial capacity has fundamentally altered Europe's security calculations. According to Bruegel, Russia fielded around 700,000 troops in Ukraine in 2024 while producing or refurbishing approximately 1,500 tanks, 5,700 armored vehicles, 450 artillery systems and around 1,800 long-range loitering munitions. Compared with 2022, Russian output increased by roughly 220% for tanks, 150% for armored vehicles and artillery, and more than 430% for long-range loitering munitions. This expansion highlights that Europe's challenge is no longer limited to increasing defense budgets. Rather, it is becoming an industrial challenge: producing sufficient capabilities, at sufficient speed, to sustain deterrence against a large-scale conventional threat. Bruegel estimates that a credible European deterrent would require at least 1,400 tanks, 2,000 infantry fighting vehicles, 700 artillery systems, around one million 155 mm artillery shells for a 90-day high-intensity conflict, and annual production of thousands of long-range drones.

Meeting these requirements will depend not only on expanding Europe's own industrial base, but also on identifying complementary industrial partners capable of delivering production capacity, operationally proven systems and rapid manufacturing. In this context, Türkiye emerges as a potential partner in selected capability areas, particularly where Europe seeks to increase production scale and shorten delivery times. Understanding these capability gaps is therefore essential to assess where Türkiye can credibly contribute to Europe's evolving defense industrial architecture.

2. Europe's defense capacity gaps

i) Defense spending is increasing, but capability gaps remain

Following Russia's invasion of Ukraine—and after decades of underinvestment, fragmented procurement and reliance on third-country suppliers—Europe is seeking to rebuild its military capabilities, strengthen its defense industrial base amid its dependence on the U.S., and foster deeper cross-border cooperation. Since NATO first established the minimum defense spending target 2% of GDP, most European countries reached the threshold for the first time in 2024.

According to the Defence Data 2025-2026 report by the European Defence Agency (EDA), EU defense expenditures amounted to €418bn (2.2% of GDP in 2025, 1.9% in 2024 and 1.6% in 2023), higher than projected. €134bn of the total spending was accounted by the defense investment (0.7% of GDP in 2025 vs. 0.6% of GDP in 2024) with R&D around €17bn in 2025 (vs. €13bn in 2024). Likewise, EU defense industry turnover reached roughly €183.4bn in 2024, up about 13.8% from 2023, alongside higher employment (633 thousand in 2024, 8.6% y/y) and exports (€60.0bn in 2024, 2.1% y/y)¹. Going ahead, the EU defense spending is projected to reach €454bn (2.4% of GDP) in 2026.

Major defense-producing member states are France, Germany, Italy, Spain, and Sweden,

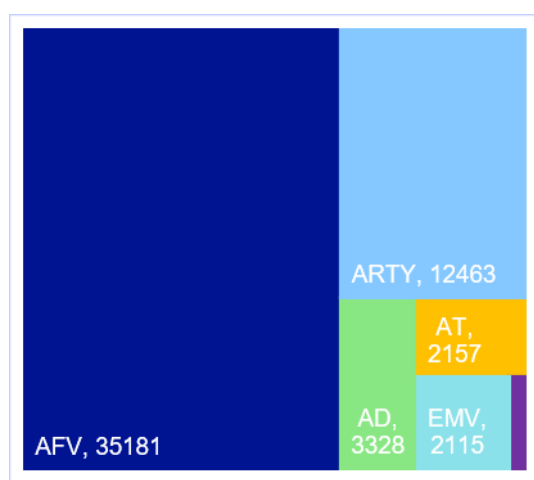
¹ <https://www.asd-europe.org/news-media/facts-figures/defense/>

which together dominate EU output². France, Germany, Italy and Spain account for 9.8%, 5.7%, 5.1%, 2.3% of the global exports of major arms respectively, while EU altogether accounts for the 28% (vs. 42% of US, 6.8% of Russia and 5.6% of China)³. In terms of production, France produces fighters, tanks, warships, missiles, and electronics; Germany makes Leopard 2 tanks, IFVs, U-boats, anti-aircraft systems, and sensors; Italy builds helicopters, naval ships, missiles and avionics; Spain fields frigates/submarines, aircraft components, and ammunition; Sweden supplies Gripen fighters, subs (A26), surveillance radars and missiles. However, the main challenge is increasingly not the availability of financial resources, but the ability to translate those resources into deployable military capability at sufficient scale and speed.

ii) Europe's military inventory and production base

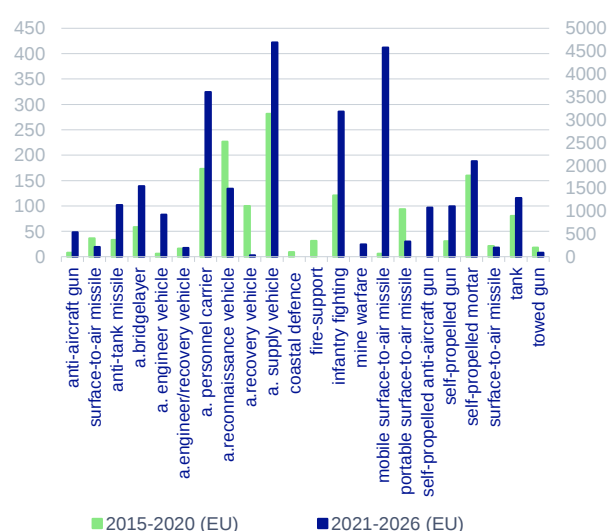
Europe's inventory is heavily concentrated in land systems, particularly armored fighting vehicles and artillery. Procurement orders for armored personnel carriers, infantry fighting vehicles and artillery systems have increased since 2021. Nevertheless, current production momentum should not be interpreted as sufficient replenishment capacity: sustaining a prolonged high-intensity conflict would require not only replacing losses but also rebuilding stockpiles and expanding deployable formations.

FIGURE 3. LAND⁴ INVENTORY OF EU (2025)



Source: IISS, Garanti BBVA Research

FIGURE 4. LAND PROCUREMENTS⁵ OF EU BY ORDER YEAR (QUANTITY)



Source: IISS, Garanti BBVA Research

2 Top 10 EU firms: Thales (FR), Leonardo (ITL), Airbus (NTH&FR), Rheinmetall (GER), Saab AB (SWD), MBDA (FR), Naval Group (FR), Dassault Aviation (FR), KNDS (NTH), Hensoldt AG (GER) based on revenues from defense in 2024 according to <https://people.defensenews.com/top-100/>

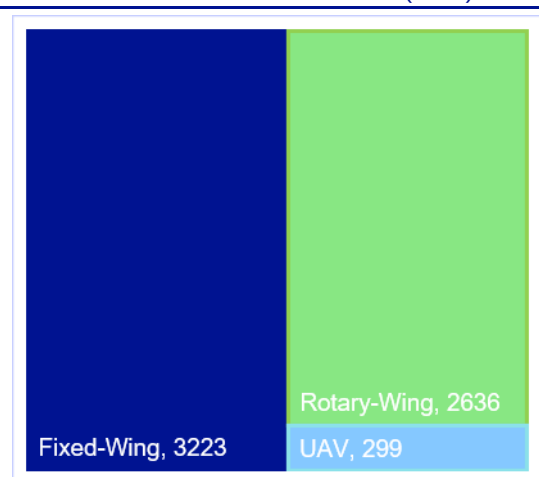
3 "SIPRI Trends in International Arms Transfers, 2025" Report

4 AFV: Armored Fighting Vehicles, ARTY: Artillery, AD: Air Defense, AT: Anti-Tank, EMV: Engineering & Maintenance Vehicle. Purple area represents the other equipment including coastal defense & nuclear, biological and chemical warfare equipment.

5 Armored personnel carriers, armored reconnaissance vehicles, armored supply vehicles, fire-support vehicles, infantry fighting vehicles, portable surface-to-air missiles, self-propelled guns and tanks are plotted on the right axis, while a. stands for "armoured".

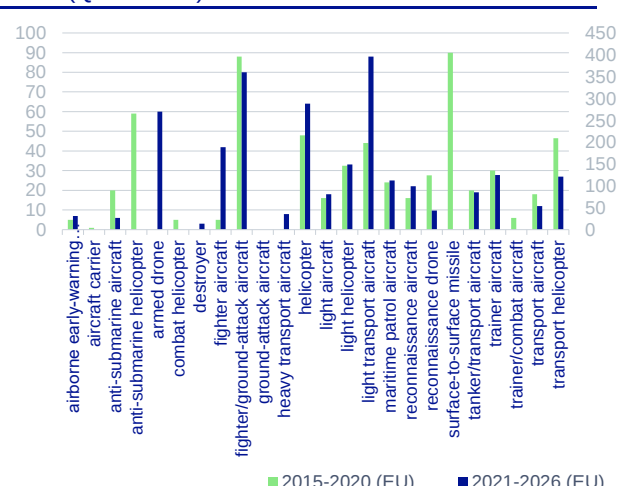
Europe retains a substantial fleet of fixed-wing and rotary-wing aircraft, while production orders have increased across fighters, helicopters, reconnaissance aircraft and UAVs. Yet the composition of the inventory and production base also points to continuing weaknesses in integrated air and missile defense, counter-UAS systems and the production of affordable interceptors required to respond to large-volume drone and missile attacks.

FIGURE 5. AIR⁶ INVENTORY OF EU (2025)



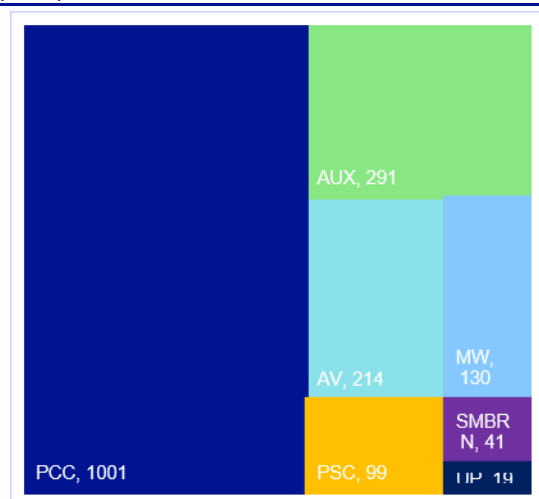
Source: IISS, Garanti BBVA Research

FIGURE 6. AIR PROCUREMENTS⁷ OF EU BY ORDER YEAR (QUANTITY)



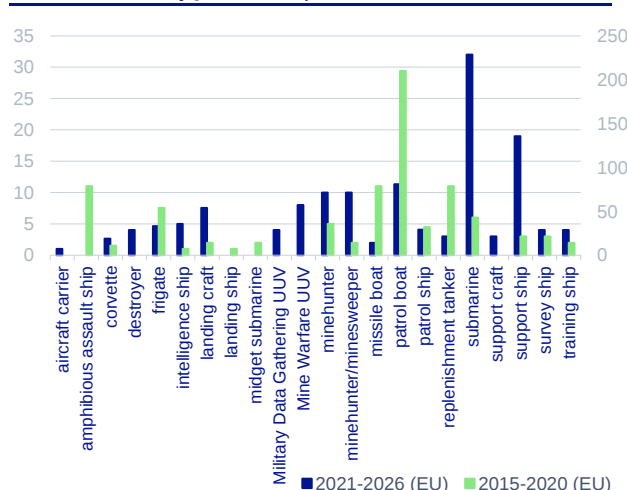
Source: IISS, Garanti BBVA Research

FIGURE 7. MARITIME⁸ INVENTORY OF EU (2025)



Source: IISS, Garanti BBVA Research

FIGURE 8. MARITIME PROCUREMENTS⁹ OF EU BY ORDER YEAR (QUANTITY)



Source: IISS, Garanti BBVA Research

6 AFV: Armored Fighting Vehicles, ARTY: Artillery, AD: Air Defense, AT: Anti-Tank, EMV: Engineering & Maintenance Vehicle. Purple area represents the other equipment including coastal defense & nuclear, biological and chemical warfare equipment.

7 Fighter/ground-attack aircrafts, helicopters, light helicopters, reconnaissance drones, trainer aircrafts and transport helicopters are plotted on the right axis.

8 PCC: Patrol & Coastal Combatants, AUX: Auxiliaries, AV: Amphibious Vessels, MW: Mine Warfare, PSC: Principal Surface Combatants, SBMRN: Submarines, UP: Unmanned Platforms.

9 Corvettes, frigates, landing crafts, patrol boats and patrol ships are plotted on the right axis.

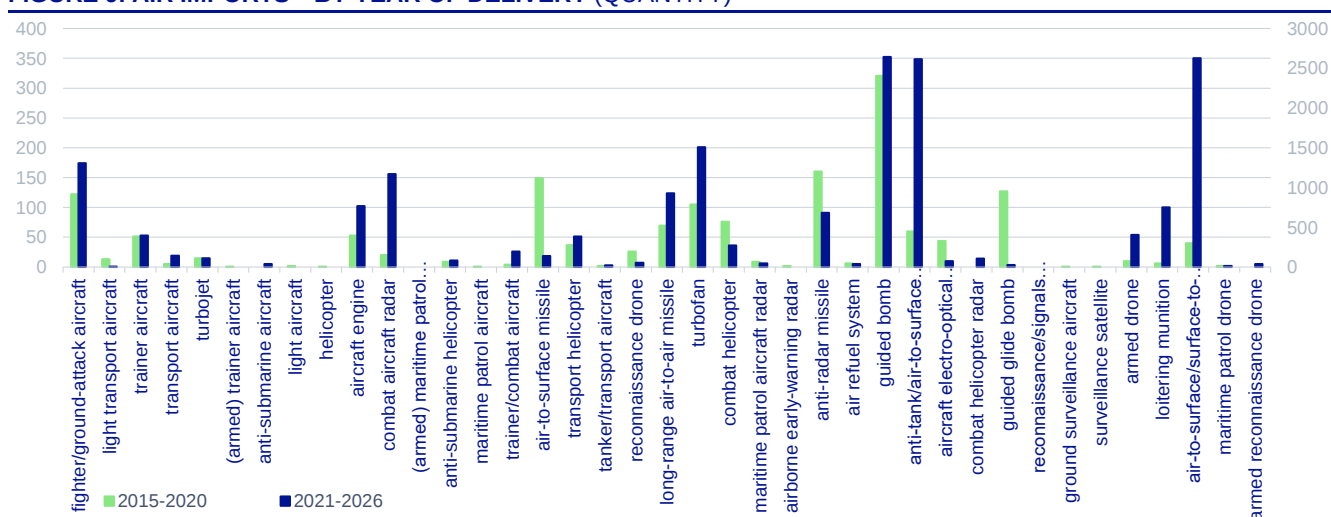
Europe's maritime position is relatively stronger, supported by an established industrial base in frigates, submarines, patrol vessels and other naval platforms. However, shipbuilding programs are capital-intensive and characterized by long procurement and delivery cycles, limiting the speed at which maritime capacity can be expanded. Overall, Europe is expanding production across all domains, yet several critical capabilities cannot be replenished rapidly during a prolonged conflict. The following section identifies where these shortfalls are concentrated.

iii) Europe's critical capability gaps: evidence from operational needs and imports

The EU's 2024 Coordinated Annual Review on Defense (CARD) report warns that national efforts alone are insufficient, and that Europe must rapidly modernize air/missile defense, replenish stockpiles, and improve interoperability while expanding industrial output¹⁰. Eighteen member states declared an intention to collectively fill urgent IAMD gaps in the short term by procuring C-UAS, GBAD, and ammunition¹¹. At least 17 member states also sought to aggregate demand for loitering munitions.

The European Commission's *Readiness 2030* framing also explicitly identifies “air and missile defense” (with NATO C2 integration), artillery systems (advanced fire systems with long-range precision), “missile and ammunition” (strategic stockpiles and replenishment capacity), and “drones and counter-drone systems” among the top priority areas¹².

FIGURE 9. AIR IMPORTS¹³ BY YEAR OF DELIVERY (QUANTITY)



Source: SIPRI, Garanti BBVA Research

10 <https://eda.europa.eu/news-and-events/press-office/latest-press-releases/2024/11/19/2024-defense-review-paves-way-for-joint-military-projects>

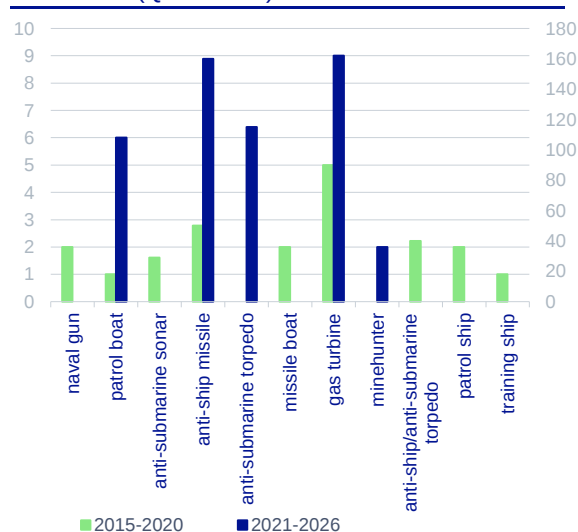
11 IAMD: Integrated Air and Missile Defense, C-UAS: Counter-Unmanned Aircraft Systems, GBAD: Ground Based Air Defense

12 https://defense-industry-space.ec.europa.eu/eu-defense-industry/white-paper-european-defense-readiness-2030_en

13 Air-to-surface missiles, long-range air-to-air missiles, guided bombs, anti-tank/air-to-surface missiles and guided glide bombs are plotted on the right axis.

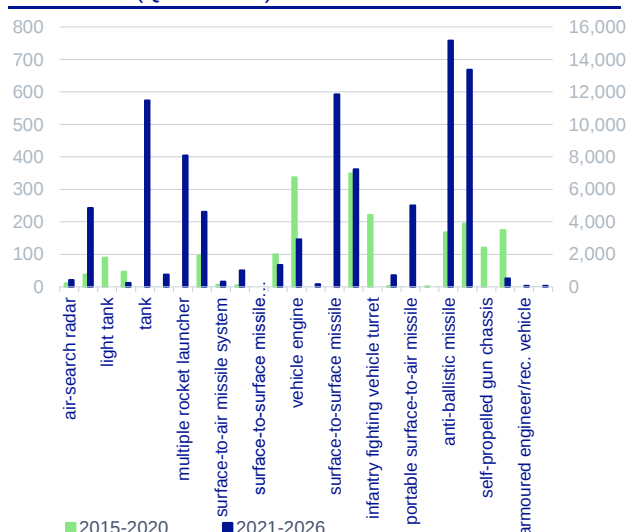
The European Parliament's ThinkTank also stresses that EU's domestic production in several critical segments including medium altitude long-endurance unmanned aerial vehicles, tactical ballistic missiles and long-range artillery rockets are insufficient¹⁴. These outlined needs could also be observed in the higher imports of portable surface-to-air missiles, rocket launchers, self-propelled guns, surface-to-surface missiles, anti-ballistic missile missiles, guided rockets, anti-ballistic missile systems, loitering munition, radar systems and armed drones (Figures 9-11).

FIGURE 10. MARITIME IMPORTS¹⁵ BY YEAR OF DELIVERY (QUANTITY)



Source: IISS, Garanti BBVA Research

FIGURE 11. LAND IMPORTS¹⁶ OF EU BY YEAR OF DELIVERY (QUANTITY)



Source: IISS, Garanti BBVA Research

Ukraine war—and, more recently, US & Israel vs. Iran war - reinforces several hard lessons for Europe and the rest of the world: massed drone-and-missile raids are the new normal; air defense, and more generally, aerial combat is a contest of “cost, volume and effectiveness”; and effective defense depends on a layered architecture integrating sensors, radars, command-and-control (C2), electronic warfare (EW), and diverse interceptors.

Maintaining sufficient stockpiles and replenishment capacity has also gained greater importance for drones—particularly kamikaze drones—as well as ballistic and cruise missiles, together with the corresponding interceptor systems. Moreover, drones and loitering munitions are pervasive and tactically decisive, requiring continuous counter-UAS coverage and large quantities of low-cost effectors. Apart from intercepting incoming munitions, ISR17 has repeatedly proven to be a critical factor for effective defensive and offensive counterair, including the ability to find launchers, strike aircraft, and logistics nodes.

All in all, Europe's most significant industrial gaps are concentrated in capabilities associated with high-intensity and technologically evolving warfare: integrated air and missile defense, counter-UAS, unmanned systems, loitering munitions, long-range fires, ammunition stockpiles and autonomous warfare. Europe is comparatively stronger in conventional combat aircraft,

¹⁴ <https://epthinktank.eu/2026/02/09/european-defense-industry/>

¹⁵ Anti-submarine sonars, anti-ship missiles, anti-submarine torpedoes and anti-ship/anti-submarine torpedoes are plotted on right axis.

¹⁶ Armoured personnel carriers, surface-to-air missiles, anti-tank missiles, guided rockets and guided shells are plotted on right axis.

¹⁷ ISR: Intelligence, Surveillance and Reconnaissance

naval platforms ISR-related systems and existing land inventories, although production scalability and replenishment remain relevant constraints. Beyond these immediate capability gaps, technological knowledge in high-end subsystems, AI, cyber, space and autonomous systems remains strategically important.

TABLE 1. ASSESSMENT ON DEFENSE GAPS FOR EUROPE

EU / Europe		
Capability	Current status	Industrial gap
Integrated air & missile defense (IAMD)	Moderate	High
UAVs, strike drones	Improving	High
Counter-UAS	Weak	High
Loitering munitions & one-way attack drones	Improving	High
Long-range strike, artillery & missile systems	Moderate	High
ISR, radar, C2 & electronic warfare	Strong	Medium
Ammunition, explosives & stockpile depth	Improving	High
Armored vehicles & land combat systems	Strong	Medium
Combat aircraft & rotary-wing	Strong	Low
Naval & undersea platforms	Strong	Low
Engines, propulsion & high-end subsystems	Strong	Medium
AI, cyber, space & autonomous warfare	Improving	High

* These evaluations reflect author's own opinions.
 Source: Garanti BBVA Research

iv) Europe's industrial response

Europe is responding through a combination of higher defense spending, joint procurement and industrial-policy initiatives. The share of defense investments allocated to equipment procurement has been recently increasing (85% in 2025 and projected to reach 87% in 2026), reaching €115bn in nominal terms in 2025 (26% y/y in real terms)¹⁸. However, expanding production capacity remains a lengthy process. Recent procurements such as Sweden's IRIS-T SLM acquisition and Germany's Arrow 3 program illustrate that modern air-defense capabilities require several years for production, integration and operational deployment.

The EU has launched funding mechanisms to strengthen the European Defence Technological & Industrial Base (EDTIB). Currently, the highlighted programs consist of the European Defense Fund (EDF) (2021-2027, €7.3bn budget) which supports collaborative R&D¹⁹, the European Defence Industry Programme (EDIP) (€1.5bn) which aims to ramp-up defense production, incentivize cross-country common procurements and fund the projects of common interests to EU (EDPCI)²⁰, and the Security Action for Europe (SAFE) providing long-maturity loans of €150bn²¹ for investments in defense capabilities. Notably, SAFE forms the cornerstone of the European Commission's ReArm Europe Plan/Readiness 2030 plan, an initiative intended to generate upwards of €800 billion in defense spending by 2030. In

18 Defence Data 2025-2026 report by the European Defence Agency (EDA)

19 https://defense-industry-space.ec.europa.eu/eu-defense-industry/european-defense-fund-edf-official-webpage-european-commission_en

20 https://defense-industry-space.ec.europa.eu/eu-defense-industry/edip-forging-europes-defense_en

21 https://defense-industry-space.ec.europa.eu/eu-defense-industry/safe-security-action-europe_en

addition, the 5% GDP defense spending commitment of the NATO by 2035 further aligns with the EU's procurement needs²².

More on SAFE, it mainly finances joint procurements of EU member states for orders of certain products to be completed by 2030. Crucially, the cost of the components coming from outside of EU, EEA members²³ that are also EFTA members²⁴ and Ukraine cannot constitute more than 35% of the total cost of the final end product. This rule, for most of the third country products imply that those products must be predominantly manufactured in EU either by setting up EU-based assembly or production lines²⁵. Additionally, for certain products (including air and missile defense systems, AI & EW, drones and anti-drone systems) SAFE requires the EU to hold the design rights in order to be able to independently modify and upgrade afore-mentioned products.

Europe's policy response is therefore substantial, but it does not immediately eliminate the capability gap. Funding is expanding faster than some categories of industrial output, while delivery periods remain long and procurement continues to be fragmented across national programs. This creates a potential role for complementary industrial partners providing scalable production, shorter delivery times and operationally relevant systems. However, despite the policy initiatives outlined above, the European Defence Agency notes that collaborative procurement remains limited and uneven across EU Member States, as the national efforts to address defense capability gaps continue to dominate. The following section assesses whether Türkiye possesses these capabilities and where its industrial strengths could complement Europe's requirements.

3. Türkiye's Defense Industry

i) A rapidly expanding and export-oriented defense industry

Türkiye's defense industry has evolved from a domestically oriented sector into a rapidly expanding and increasingly export-driven industrial base, supported by rising turnover, employment, R&D spending and defense expenditure.

Industry exports rose from \$2.3bn in 2020 to \$10.1bn in 2025. Separately, SIPRI ranks Türkiye as the 11th-largest supplier of major arms, accounting for 1.6% of global arms transfers. The sector is also becoming one of the country's key economic drivers: it employs over 100K workers (targeted 158K by 2028, vs. 914K in U.S.²⁶ and 1.1mn in Europe in 2024²⁷), recorded turnovers surpassing \$20bn in 2025 (vs. \$995bn of U.S.²⁸ and €326bn in broader European aerospace and defense industry in 2024²⁹), has a total project volume above \$100bn and

22 <https://www.nato.int/en/what-we-do/introduction-to-nato/defense-expenditures-and-natos-5-commitment>

23 EEA: European Economic Area

24 EFTA: European Free Trade Association

25 "The SAFE Regulation and Its Implications for Non-EU Defense Suppliers" by IISS, December 2025, available at <https://www.iiss.org/research-paper/2025/12/the-safe-regulation-and-its-implications-for-non-eu-defense-suppliers/>

26 <https://www.aia-aerospace.org/news/american-aerospace-defense-industry-continues-economic-dominance/>

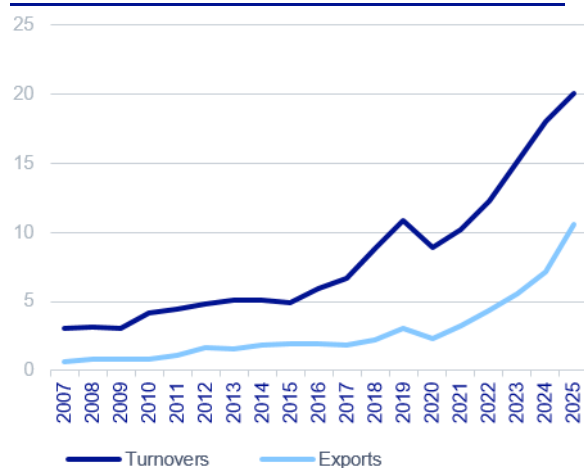
27 "2025 Facts and Figures" report by ASD

28 <https://www.aia-aerospace.org/news/american-aerospace-defense-industry-continues-economic-dominance/>

29 "2025 Facts and Figures" report by ASD

maintains export networks covering more than 185 countries and 230 products. Key products include UAVs, modern armored vehicles, missiles (anti-ship, laser guided, cruise & air-defense), naval ships (corvettes & submarines), radar and electronic warfare systems.

FIGURE 12. TURNOVER & EXPORTS³⁰
(DEFENSE & AERO INDUSTRY, \$BN)



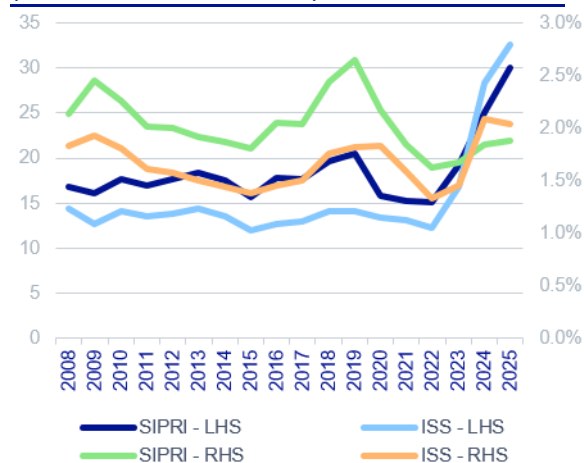
Source: DAIMA, SDI, Garanti BBVA Research

FIGURE 13. EMPLOYMENT (DEFENSE & AERO INDUSTRY, THOUSANDS OF PEOPLE)



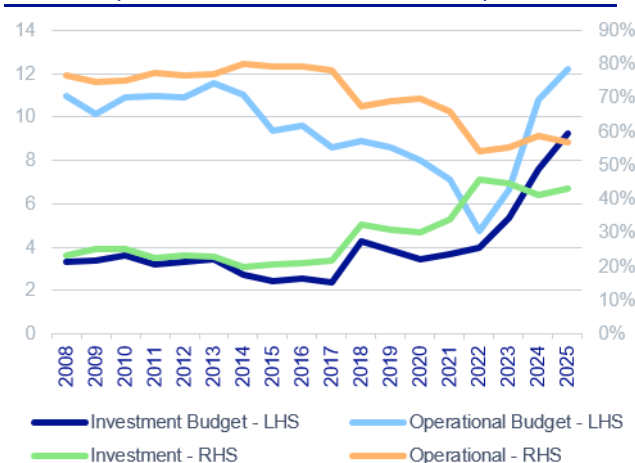
Source: DAIMA, Türkiye Today, Garanti BBVA Research

FIGURE 14. DEFENSE EXPENDITURES
(ANNUAL, \$BN AND %GDP)



Source: SIPRI, IISS, TURKSTAT, Garanti BBVA Research

FIGURE 15. INVESTMENT VS. OPERATIONAL BUDGET (\$BN AND % OF TOTAL BUDGET)



Source: IISS

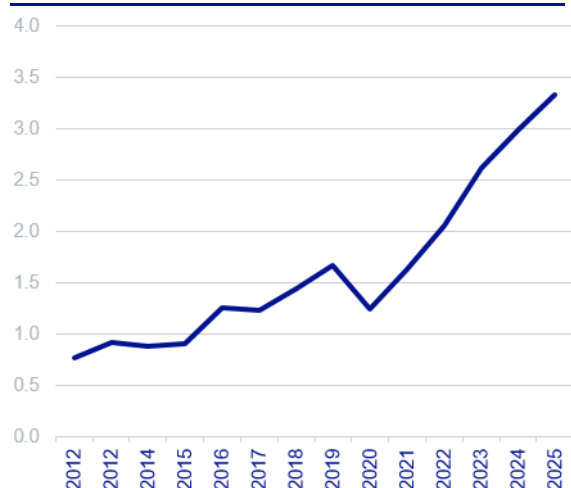
On fiscal front, the budget for defense and security is set to TRY2.155 Trillion (\$45.6bn) for 2026 (TRY 1.202Trillion ~\$25.4bn for defense, TRY953bn ~ \$20.2bn is for security), indicating a nominal increase of 34% from TRY1.608 Trillion in 2025 (\$40.8bn: TRY913.9bn~ \$23.2bn for defense, TRY695bn~\$17.6bn for security). A major policy driver is alignment with the NATO goal of reaching 5% GDP spending target by 2035.

ii) Production capacity is becoming a key competitive advantage

Beyond product diversity, Türkiye's main potential advantage lies in its ability to scale production across several defense segments, reflecting its ability to meet growing demand. Recent capacity investments indicate an increasing ability to manufacture unmanned systems, land platforms and naval vessels in larger volumes and shorter production cycles. Production capacity is particularly visible in unmanned systems. Baykar CEO Haluk Bayraktar recently announced that Skydagger, a drone manufacturer supported by Baykar, had reached an annual production capacity of 120,000 drones. In land systems, BMC's new Altay production facility is designed to manufacture up to 96 tanks annually. In aerospace, TAI aims to produce around 1,500 military air platforms by 2034, including approximately 500 fixed-wing aircraft, more than 350 rotary-wing platforms and around 600 UAVs. Naval production provides another indication of industrial depth: seven I-class frigates are currently being constructed simultaneously across three private shipyards, alongside the ongoing production of six REIS-class submarines at Gölcük Naval Shipyard.

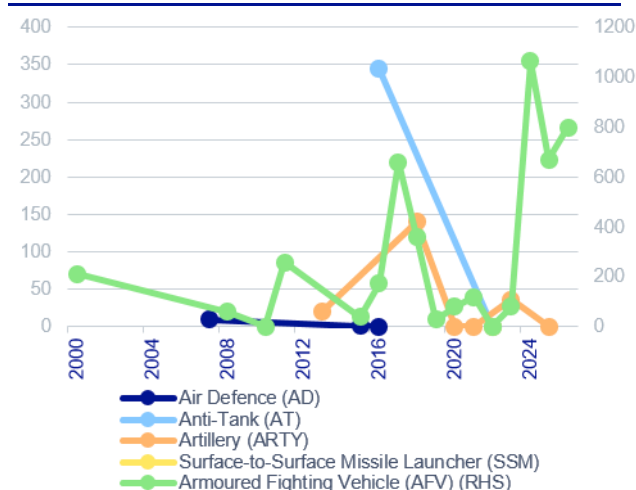
IISS procurement data reinforce this picture. Land-related procurement activity is dominated by armored fighting vehicles, while UAV-related orders have increased significantly in recent years. In the maritime segment, patrol and coastal combatants account for the largest volumes, although recent orders indicate increasing activity in larger and more complex surface platforms (Figures 17-19). Taken together, these indicators suggest that Türkiye's competitive advantage increasingly extends beyond product diversity to the ability to manufacture selected systems at scale—a potentially important complement to Europe's need for faster production and replenishment.

FIGURE 16. R&D SPENDING (DEFENSE & AERO INDUSTRY, \$BN)



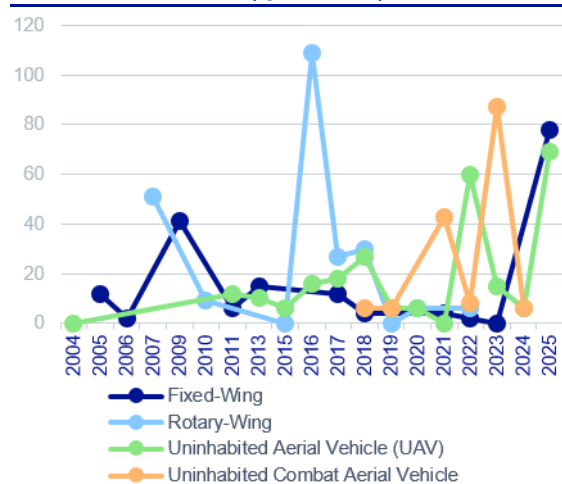
Source: DAIMA, SDI, Garanti BBVA Research

FIGURE 17. LAND PROCUREMENTS BY YEARS OF ORDERS TAKEN (QUANTITY)



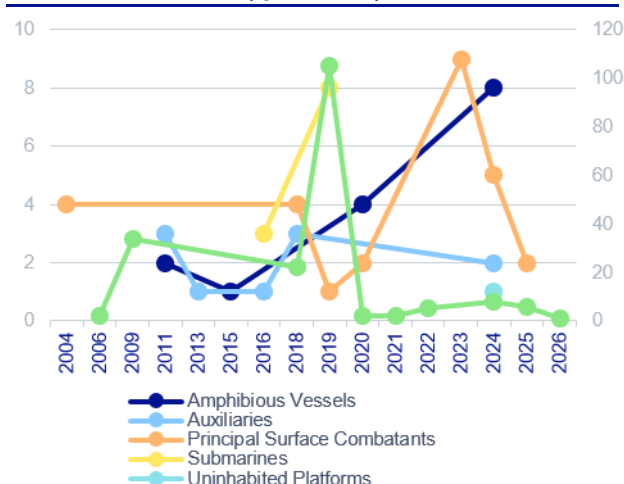
Source: IISS, Garanti BBVA Research

FIGURE 18. AIR PROCUREMENTS BY YEARS OF ORDERS TAKEN (QUANTITY)



Source: IISS, Garanti BBVA Research

FIGURE 19. MARITIME PROCUREMENTS BY YEARS OF ORDERS TAKEN (QUANTITY)

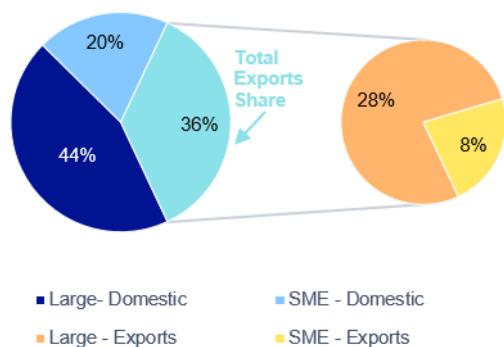


Source: IISS, Garanti BBVA Research

iii) A broad industrial ecosystem, but with remaining dependencies

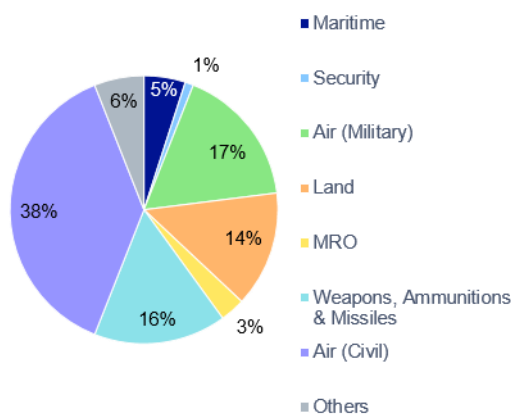
Türkiye's production capacity is supported by a broad industrial ecosystem combining large defense contractors with a growing network of specialized SMEs. Large firms remain dominant, accounting for 69% of domestic revenues and 77% of exports according to the latest available firm-scale data for 2022. This concentration is also visible in later export figures: the ten largest exporters generated around \$5.6bn of the industry's \$7.1bn exports in 2024. Across sub-sectors, weapons, ammunition, and missiles generate the highest turnover and export revenues, while maritime products lag behind land and military aviation systems in both areas. In addition, the ecosystem is heavily government-directed. Presidency's SSB/SSM sets strategy and oversees most R&D and procurement.

FIGURE 20. TURNOVER BREAKDOWN BY SCALE OF FIRMS (DEFENSE & AERO INDUSTRY, %, 2022)



Source: DAIMA, Garanti BBVA Research

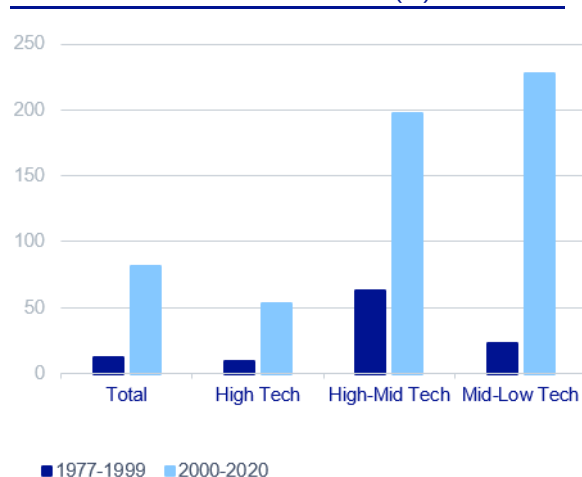
FIGURE 21. TURNOVER BREAKDOWN BY SUB-SECTORS (DEFENSE & AERO INDUSTRY, %, 2023)



Source: DAIMA, Garanti BBVA Research

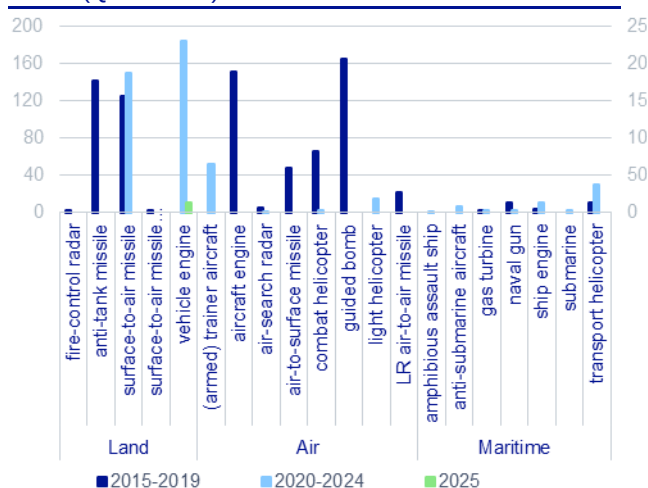
In terms of the players, firms range from large corporations (Aselsan ranked 47th globally with \$3.7bn revenue, TAI ranked 65th with \$2.7bn, Baykar ranked 73rd with \$2.0bn, Roketsan ranked 87th with \$1.4bn, MKE ranked 93rd with \$1.2bn revenues and others such as Otokar, BMC, FNSS.)³¹ to thousands of SMEs (3500 firms in the defense sector in 2024, with 1600 having exported and 169 achieved exports around \$1M or above).

FIGURE 22. EXPORTS TO IMPORTS RATIO BREAKDOWN BY TECHNOLOGY (%)



Source: MUSIAD

FIGURE 23. IMPORT TRANSFERS³² BY DELIVERY YEAR (QUANTITY)



Source: SIPRI, Garanti BBVA Research

Despite this broadening industrial base, Türkiye has not yet achieved full defense-industrial autonomy. Localization has increased substantially, reaching 80.4% in 2024 and 81.3% in 2025, and is targeted to reach around 83% by end-2026. Yet, remaining dependencies are increasingly concentrated in selected critical technologies and inputs, particularly engines, propulsion systems and other high-end components. This dependency is particularly evident in areas requiring advanced technologies, such as critical components and motor systems. It also extends to more basic but indispensable inputs. Even for gunpowder—one of the simplest yet most essential materials—Türkiye cannot meet domestic demand: annual requirements are approximately 600 tons, while only around 60-100 tons can be produced domestically, with the remainder imported, according to the *2025 Defense Manufacturing Report of MUSIAD*³³. At the same time, localization efforts are beginning to close some of these gaps. One example is the domestically developed KTJ-3200 turbojet engine, which has been integrated into the ATMACA anti-ship missile and SOM cruise missile. To supply these engines, the “National Turbojet Engine Supply and Integration” protocol was signed at IDEF 2021.

Import patterns reinforce this picture. During 2015–2019, Türkiye's defense imports were spread across several critical areas, including aircraft engines, gas turbines and ship engines, guided munitions, radars, missiles and helicopters. In 2020–2024, imports of several end-products and systems declined substantially, while dependence became more concentrated in propulsion-related technologies, particularly vehicle, gas-turbine and ship engines. As a result,

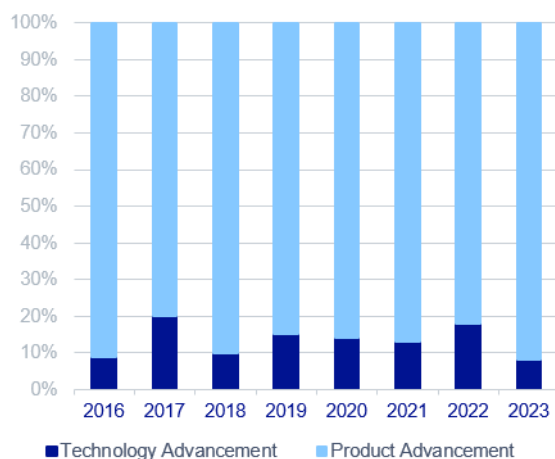
31 These rankings are based on SIPRI's Top 100 arms-producing and military service companies in the world 2024 ranking. Moreover, in 2020, Aselsan was the only Turkish company in the top 100 companies.

32 Anti-tank missiles, guided bombs, long range (LR) air-to-air missiles are plotted on the right axis.

33 <https://www.musiad.org.tr/uploads/press-473/savunma-sanayii.pdf>

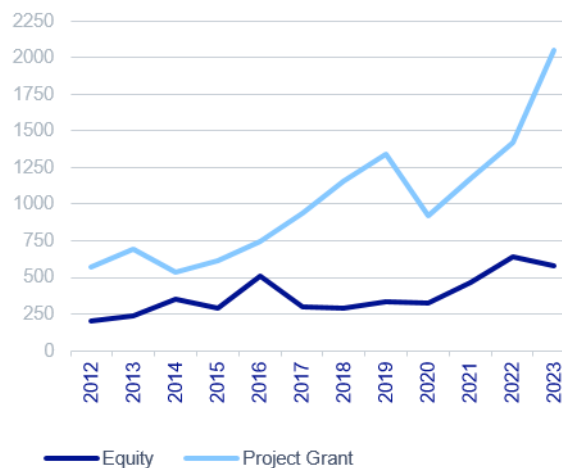
Türkiye has made considerable progress in localizing many defense systems, but engines and other high-end subsystems remain important industrial bottlenecks.

FIGURE 24. R&D BREAKDOWN BY PURPOSE
(DEFENSE & AERO INDUSTRY, %)



Source: DAIMA, Garanti BBVA Research

FIGURE 25. R&D BREAKDOWN BY SOURCE OF FUNDING
(DEFENSE & AERO INDUSTRY, \$MN)



Source: DAIMA, Garanti BBVA Research

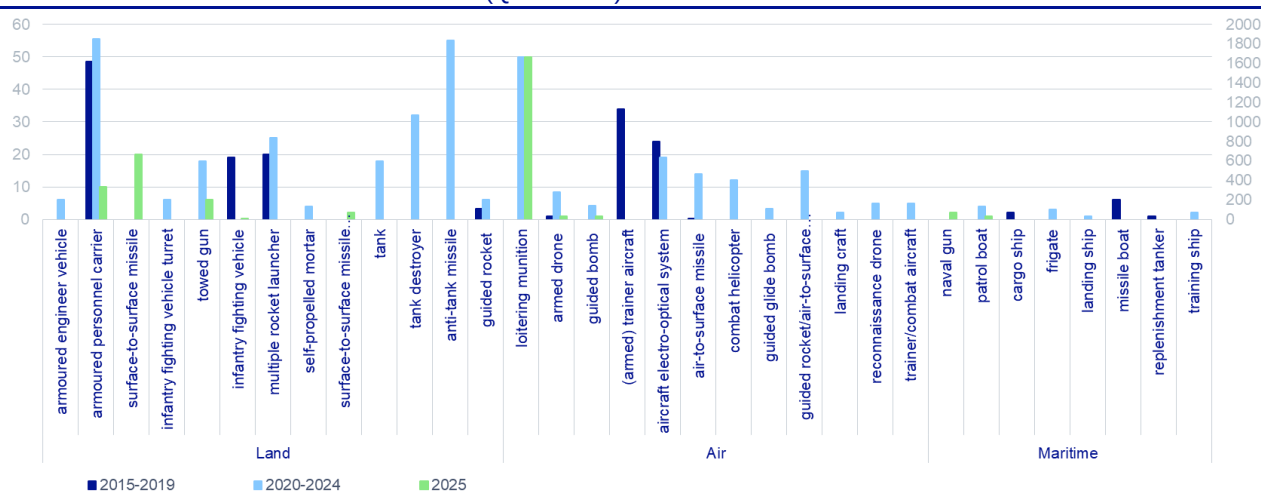
An important national industrial policy is HIT-30 launched in 2024 to accelerate Türkiye's transformation into a global high-technology production hub by 2030. The program allocates roughly \$30bn in incentives, including tax exemptions, subsidies, financing support, land allocation, and R&D incentives, targeting strategic sectors such as batteries, semiconductors, green energy, mobility, advanced manufacturing including robotics, digital technologies, communication and space, and health technologies³⁴. For defense-related sectors, HIT-30 is particularly valuable because many of its priority areas—such as semiconductors, unmanned systems, industrial robotics, cybersecurity, satellite systems, and advanced manufacturing—are dual-use technologies that directly strengthen the domestic defense ecosystem. The program supports local production capacity, reduces dependence on foreign suppliers, encourages indigenous R&D, and helps Turkish defense companies develop critical technologies needed for aerospace, UAVs, command-and-control systems, secure communications, and next-generation military platforms.

iv) Export competitiveness is broadening

Türkiye's expanding defense-industrial capabilities are increasingly reflected in its export performance. Compared with 2015–2019, exports grew considerably during 2020–2024, with stronger activity across armed drones, missiles and guided munitions, armored vehicles, artillery systems and a range of naval platforms. Exports remained strong in 2025, particularly in drones, loitering munitions, missiles and armored personnel carriers.

³⁴ <https://investmentpolicy.unctad.org/investment-policy-monitor/measures/4794/t-rkiye-introduced-30-billion-incentive-package-for-high-tech-and-green-investment> & https://www.panacamara.com/boletininformativocciap/wp-content/uploads/sites/10/2025/01/HIT-30-High-Technology-Investment-Turquia_compressed.pdf

FIGURE 26. EXPORTS³⁵ BY DELIVERY YEAR (QUANTITY)



Source: SIPRI, Garanti BBVA Research

The diversification of the export basket is particularly important. Türkiye's external competitiveness is no longer concentrated in a limited number of land platforms, but increasingly extends across multiple defense domains. This suggests that the industry's recent expansion is translating not only into greater domestic production capacity, but also into growing international demand for Turkish defense systems (Figure 26). The breadth of this export performance is also visible at the firm level, with leading exporters operating across ammunition, UAVs, aerospace, electronics, missiles, land vehicles and naval platforms³⁶.

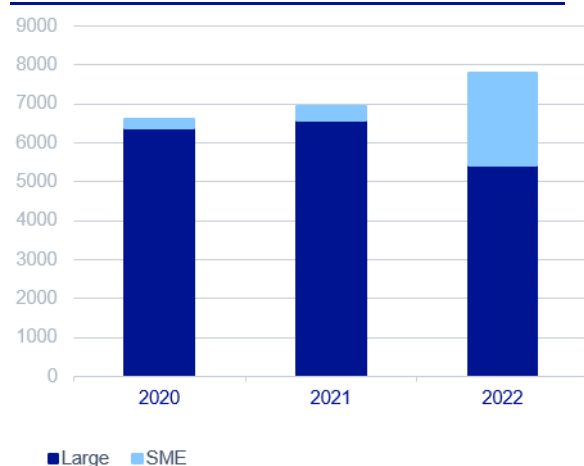
Export productivity has also improved, with average export turnover per employee rising from around \$45,000 in 2021 to approximately \$100,000 in 2025, although this remains below the levels achieved by leading global defense producers (a successful global player reaching \$300,000³⁷).

Overall, the broadening export portfolio provides an important market-based validation of Türkiye's defense-industrial development. The industry is increasingly competing internationally across multiple capability areas rather than relying on a small number of flagship products. This growing export depth strengthens Türkiye's position as a potential industrial partner for countries seeking additional production capacity and alternative defense suppliers.

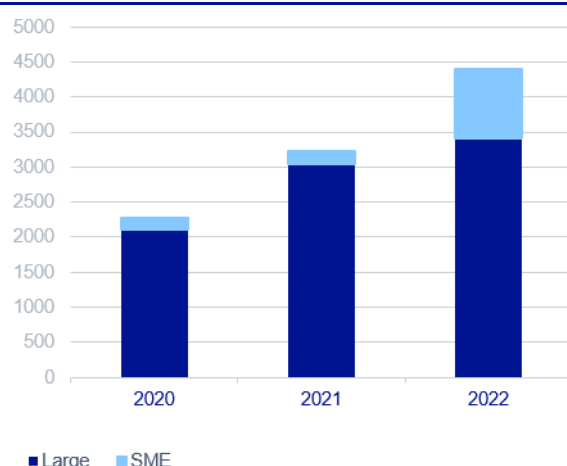
³⁵ Armoured personnel carriers, infantry fighting vehicles, guided rockets, armed drones, air-to-surface missiles and guided bombs (glide type included) are plotted on the right axis.

³⁶ Overall 2025 export performance ranking among top 10 firms is given by: 1) ARCA, 2) Baykar, 3) TUSAŞ, 4) TEI, 5) Roketsan, 6) Aselsan 7) Asfat, 8) Otokar, 9) SSTEK, Savunma Sanayi Teknolojileri, and 10) Alp Havacılık.

³⁷ <https://www.aa.com.tr/tr/ekonomi/savunma-ve-havacilikta-ihracat-da-hedefler-de-buyuyor/3815109>

FIGURE 27. DOMESTIC REVENUES BY SCALE OF FIRMS ACROSS YEARS (DEFENSE & AERO INDUSTRY, \$MN)


Source: DAIMA, Garanti BBVA Research

FIGURE 28. EXPORT REVENUES BY SCALE OF FIRMS ACROSS YEARS (DEFENSE & AERO INDUSTRY, \$MN)


Source: DAIMA, Garanti BBVA Research

4. Türkiye's Potential Role in Addressing Europe's Defense Needs

Europe's most pressing gaps are concentrated in areas such as unmanned systems, counter-UAS, loitering munitions, air and missile defense, long-range fires and ammunition stockpiles, where production scale and replenishment capacity are particularly important. Türkiye, meanwhile, has developed competitive and increasingly scalable capabilities across several of these segments. This complementarity, however, is not uniform across all defense capabilities.

TABLE 2. EUROPE-TÜRKİYE DEFENSE CAPABILITY MATCHING*

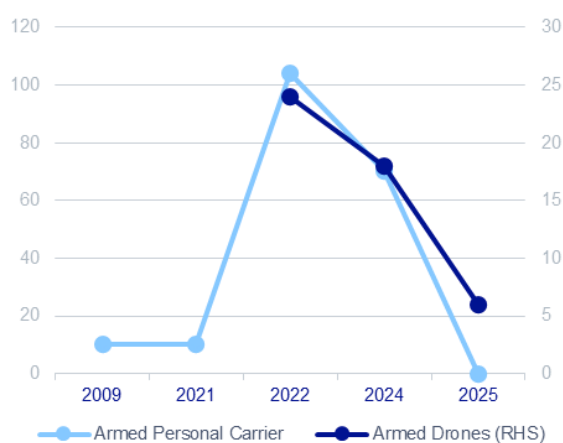
Capability	European Industrial Gap	Türkiye's capability	Matching potential
Integrated air & missile defense (IAMD)	High	Moderate	Medium-High
UAVs & strike drones	High	Strong	High
Counter-UAS	High	Moderate	Medium-High
Loitering munitions & one-way attack drones	High	Moderate	Medium-High
Long-range strike, artillery & missile systems	High	Improving	Medium
Ammunition, explosives & stockpile depth	High	Strong	High
AI, cyber, space & autonomous warfare	High	Improving	Medium
ISR, radar, C2 & electronic warfare	Medium	Strong	Medium-High
Armored vehicles & land systems	Medium	Strong	Medium-High
Engines, propulsion & high-end subsystems	Medium	Weak	Low
Naval & undersea platforms	Low	Strong	Low-Medium
Combat aircraft & rotary-wing	Low	Improving	Low-Medium

* Matching potential is assessed by combining the severity of Europe's industrial gap with Türkiye's current capability in each area. These evaluations reflect author's own opinions.

Source: Garanti BBVA Research

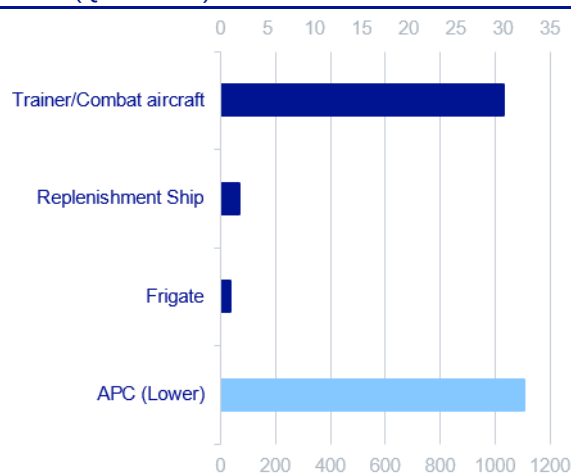
Our matching exercise identifies two capability areas with particularly high near-term potential: UAVs and strike drones, and ammunition and stockpile depth. A second group—including integrated air and missile defense, counter-UAS, loitering munitions, ISR and electronic warfare, and armored vehicles—also offers relatively strong complementarity, although Türkiye's current capabilities or Europe's industrial gaps are less pronounced in these areas. By contrast, the matching potential remains more limited in combat aircraft, naval platforms and engines, where either Europe's industrial need is lower or Türkiye continues to face capability constraints.

FIGURE 29. EU IMPORTS FROM TÜRKİYE BY YEARS OF DELIVERY (QUANTITY)



Source: SIPRI, Garanti BBVA Research

FIGURE 30. EXPECTED IMPORTS FROM TÜRKİYE TO EU (QUANTITY)



APC stands for Armored Personnel Carrier.
Source: SIPRI, Garanti BBVA Research

i) UAVs offer the strongest near-term match

UAVs represent the clearest near-term area of complementarity. Europe faces a high industrial gap in this segment, while Türkiye combines a strong existing capability with established production capacity and export experience. Baykar alone is estimated to produce around 200–250 Bayraktar *TB2s* annually, while its portfolio extends to the *TB3*, *AKINCI* and *KIZILELMA* (an unmanned fighter aircraft). TAI provides additional capacity through platforms such as *ANKA* and *AKSUNGUR*.

Türkiye's advantage in this segment extends beyond individual platforms. Its UAV ecosystem combines ISR, precision munitions, electronic warfare and integration know-how, while Turkish systems have already entered several European markets (for example, Baykar and Leonardo established a joint venture in Italy called LBA Systems.). This combination of production scale, operational experience and an established export base makes UAVs the most immediate area for deeper Türkiye–Europe defense cooperation.

ii) Ammunition offers a second high-potential match

Ammunition and stockpile replenishment represent a second high-potential area. Europe

identifies ammunition availability and replenishment capacity among its most urgent industrial constraints, while Türkiye has an established and relatively broad production base in ammunition, explosives and related systems. This creates a potentially important role for Turkish producers as Europe seeks not only to rebuild existing stockpiles but also to establish sufficient production capacity for prolonged high-intensity operations.

iii) Counter-UAS and loitering munitions provide strong complementary opportunities

Counter-UAS systems and loitering munitions represent another relatively strong area of complementarity. Europe faces high industrial gaps in both segments, while Türkiye has developed a growing portfolio of systems that could provide additional production capacity. In loitering munitions, STM produces the combat-proven rotary-wing *KARGU* and fixed-wing *ALPAGU*, while Baykar's *KEMANKES* family expands Türkiye's capabilities toward mini cruise-missile-type systems.

Türkiye has also developed counter-UAS solutions across different layers. These include systems such as Aselsan's *GÖKBERK*, *İHTAR* and *ŞAHİN*, and, Roketsan's *ALKA*, combining electronic warfare, directed-energy and smart-munition technologies. Given Europe's need for scalable and cost-effective responses to increasingly large volumes of drones and loitering munitions, these capabilities could provide a complementary layer to existing European systems.

iv) Air and missile defense offers selective complementarity

Air and missile defense represents a significant but more selective area of complementarity. Europe faces a high industrial gap in integrated air and missile defense, while Türkiye has developed a layered domestic portfolio ranging from very-short-range systems to increasingly capable long-range air-defense solutions. The portfolio includes *KORKUT* for very-short-range air defense, the *HİSAR* family for short- and medium-range requirements, and *SİPER* for longer-range air defense.

Türkiye's potential contribution should nevertheless be viewed as complementary for Europe's established high-end integrated air and missile defense capabilities. Türkiye's current capability in this area remains moderate, suggesting the strongest near-term opportunity lies in providing additional capacity in selected layers of Europe's broader air-defense architecture, particularly as European countries seek to expand inventories and replenishment capacity.

v) Long-range fires represent a medium-term opportunity

Long-range precision fires represent a further, but more medium-term, area of potential cooperation. Europe faces a high industrial gap in long-range strike, artillery and missile systems, while Türkiye's capability in this area is improving. However, Türkiye has developed an expanding missile portfolio, including SOM air-launched cruise missiles, KARA ATMACA surface-to-surface cruise missiles, ÇAKIR cruise missiles and TAYFUN ballistic missiles. Türkiye has also unveiled *Yıldırımhan*, a long-range missile system currently progressing from laboratory to field testing, with a stated range of around 6,000 km.

These capabilities could become increasingly relevant as Europe seeks to expand its missile inventories and long-range strike capacity. However, compared with UAVs and ammunition, the matching potential is currently more limited, reflecting Türkiye's still-developing capabilities as well as the greater technological, strategic and integration requirements associated with long-range missile systems. The segment should therefore be viewed primarily as a medium-term industrial cooperation opportunity rather than an immediate solution to Europe's capability gaps.

However, capability matching does not automatically translate into market access. Türkiye faces several constraints in converting its industrial strengths into a larger role in European procurement. Some Turkish systems have yet to establish the same degree of operational track record as more mature alternatives, while competition on cost and battlefield performance remains significant. More importantly, EU procurement rules, local-content requirements and political considerations can limit the participation of non-EU suppliers. SAFE, in particular, creates additional constraints on direct third-country participation in EU-funded procurement. Türkiye's opportunity in Europe should therefore be viewed as selective rather than comprehensive: strongest where European industrial gaps are acute, Turkish production is scalable and competitive, and cooperation can be structured within Europe's evolving procurement framework.

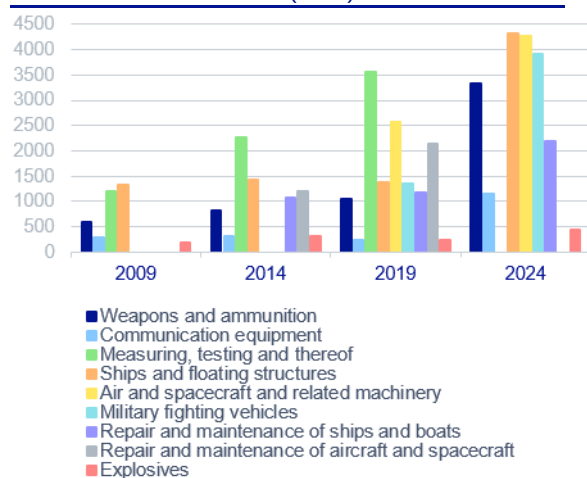
Beyond direct exports, Türkiye's industrial integration with Europe is already expanding through joint ventures, acquisitions and local production arrangements. Examples include Baykar and Leonardo's joint venture in Italy, Baykar's acquisition of Piaggio Aerospace, the Airbus–TAI programme to deliver next-generation combat-training systems to Spain, ASELSAN's agreement with Czech firm CSG to establish an EU-based joint venture focused on air defence, electronic warfare and smart munitions, and Otokar's acquisition of a majority stake in Automecanica and its Mediaş production site in Romania.

5. Defense Industry to Promote Technological Transformation in Türkiye

Türkiye's defense-industrial expansion is increasingly visible in its broader economic footprint. In 2024, the latest year for which data are available, defense-related sectors generated \$19.6bn in turnover and \$27.1bn in production value, contributing \$7.2bn in value added. These sectors employed approximately 176.7 thousand workers, with average cost of \$25.8K per employee (excluding the manufacturing of measuring, testing & related equipment, as well as the repair and maintenance of aircraft and spacecraft).

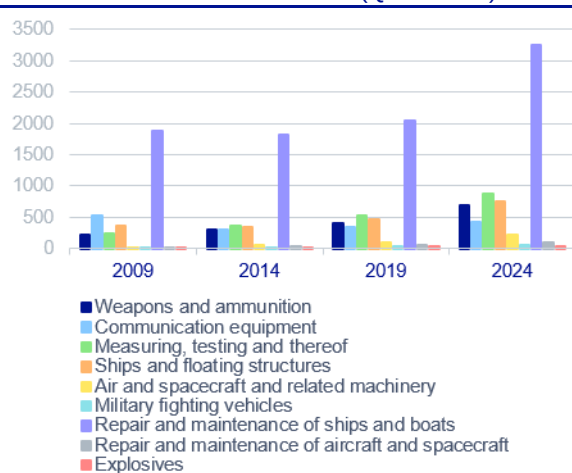
Figures 31–36 illustrate the progress across defense-related sectors with the latest available data. Although missing data prevent a fully comprehensive assessment, the evidence shows this expansion has been broad-based across defense-related manufacturing activities, with turnover, production, employment and the number of firms rising substantially across most subsectors.

FIGURE 31. TURNOVER (\$MN)



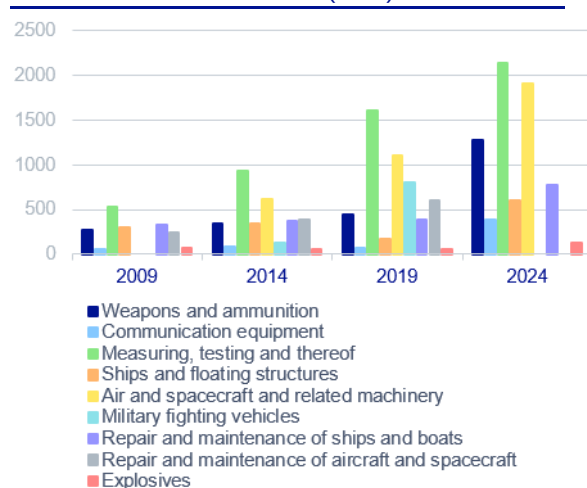
Source: TURKSTAT, Garanti BBVA Research

FIGURE 32. NUMBER OF FIRMS (QUANTITY)



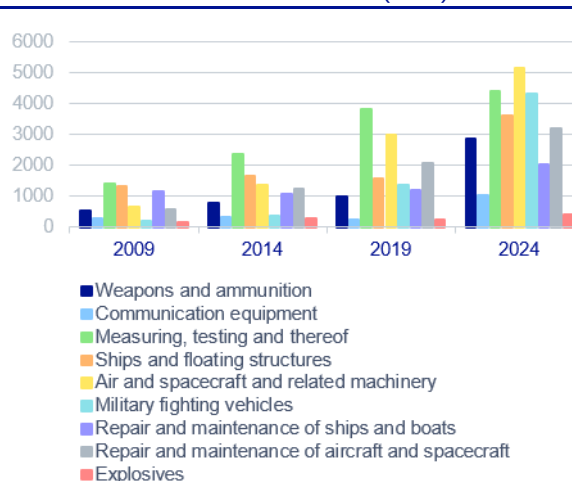
Source: TURKSTAT, Garanti BBVA Research

FIGURE 33. VALUE ADDED (\$MN)



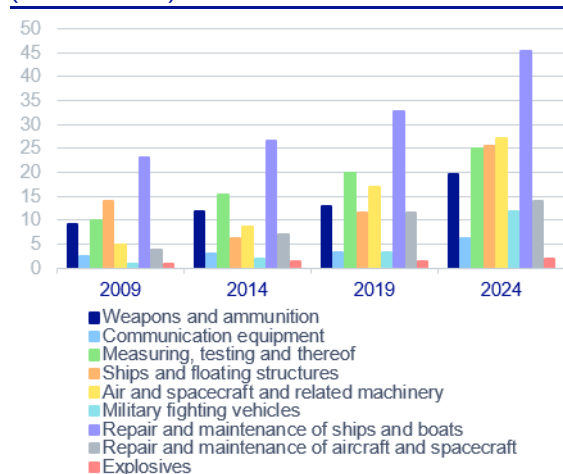
Source: TURKSTAT, Garanti BBVA Research

FIGURE 34. PRODUCTION VALUE (\$MN)



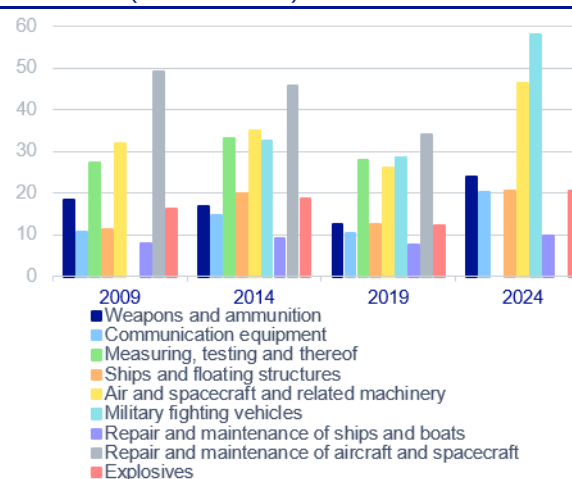
Source: TURKSTAT, Garanti BBVA Research

FIGURE 35. NUMBER OF PAID EMPLOYEES (THOUSANDS)



Source: TURKSTAT, Garanti BBVA Research

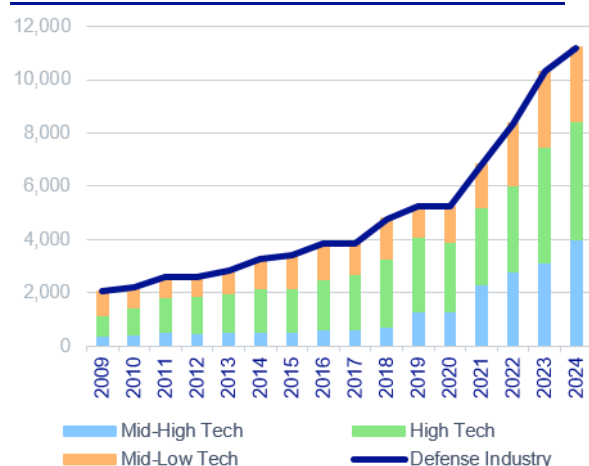
FIGURE 36. LABOR COMPENSATION PER EMPLOYEE (\$ THOUSAND)



Source: TURKSTAT, Garanti BBVA Research

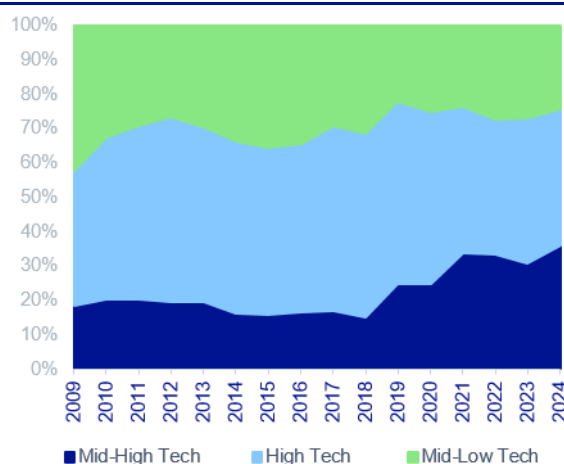
Türkiye's defense industry has experienced a strong and sustained growth in recent years including inter-related sectors, with value added rising from about \$2bn in 2009 to roughly \$11.2bn³⁸ in 2024. Growth began to accelerate around 2017 and increased sharply after 2020. This period stands out as a clear inflection point, during which the industry nearly doubled in size, likely reflecting rising geopolitical tensions and effects of increased defense spending.

FIGURE 37. DEFENSE VALUE ADDED (\$MN)



Source: TURKSTAT, Garanti BBVA Research

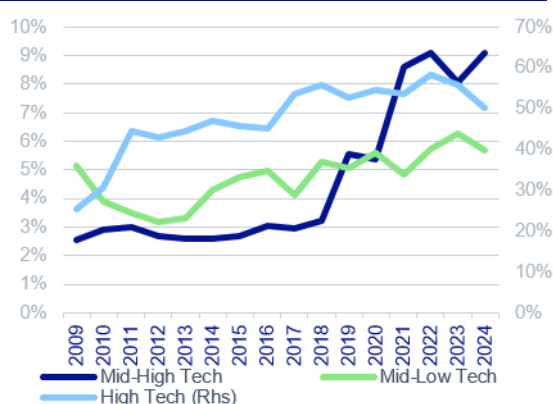
FIGURE 38. DEFENSE VALUE ADDED DECOMPOSITION (%)



Source: TURKSTAT, Garanti BBVA Research

The composition of this growth (2020-2024) also points to technological upgrading. Medium-high-technology activities accounted for a particularly large share of the increase in defense-related value added after 2020, the highest value-added in the industry still comes from the high tech sectors (Figures 37-38).

FIGURE 39. DEFENSE VALUE ADDED SHARE IN MANUFACTURING, BY TECHNOLOGY LEVEL (%)



Source: TURKSTAT, Garanti BBVA Research

FIGURE 40. OUTPUT AND VALUE-ADDED MULTIPLIERS IN TÜRKİYE'S DEFENSE INDUSTRY (COEFFICIENTS)

Sector	Total Output	Total Value Added
20	2.845949	0.971446
25	2.878011	0.982607
26	2.630793	1.055036
30	2.416222	1.035614
33	2.345259	0.979608

Source: TURKSTAT, Garanti BBVA Research

³⁸ The broader value-added estimate includes additional inter-related sectors and therefore is not directly comparable with the narrower sectoral aggregate presented above.

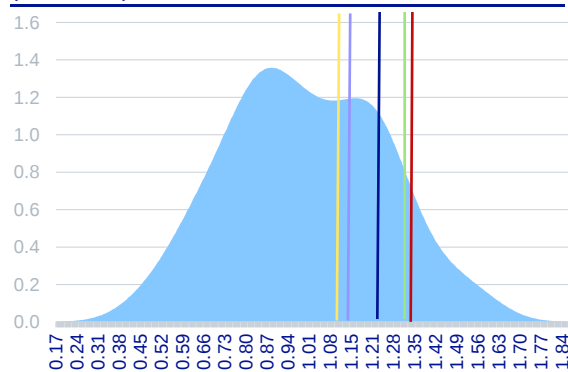
The importance of defense-related activity extends beyond its own growth. Its share in Türkiye's manufacturing value added has increased most visibly in technologically intensive segments. Between 2009 and 2024, defense-related activity roughly doubled its share of high-technology manufacturing value added and tripled its share in medium-high technology manufacturing, while its contribution to medium-low technology remained comparatively stable (Figure 39). Most strikingly, defense-related sectors have accounted for around half or more of high-technology manufacturing value added in recent years, indicating that the industry has become an important component of Türkiye's technological upgrading.

In order to quantify the importance of the sectors in driving growth, we calculate the total output response to a demand shock to each of these defense-related sectors by using the input-output tables. The results are shown in Figure 40. Under the strong assumption that the technological structure and inter-sectoral connections of the sectors closely mirror that of the corresponding two-digit sectors listed above in their broader categorization, a 1 TL increase in final demand in each of these sectors —namely 20.51, 25.4, 26.3, 26.5, 30.11, 30.3, 30.4, 33.15, and 33.16— would generate an estimated 22.9 TL increase in total output across the nine sectors, of which approximately 9.13 TL represents value added. This corresponds to an output multiplier of 2.5.

The backward and forward linkage indices in Figures 41-42 show that the manufacture of explosives, arms and ammunition, communication equipment, and measuring, testing and related equipment falls within the group of so-called “key sectors,” with both backward and forward linkage indices greater than 1. In other words, these sectors rely heavily on the outputs of other sectors while also serving as key input providers to the broader economy. This also explains why they recorded high individual multipliers in Figure 40.

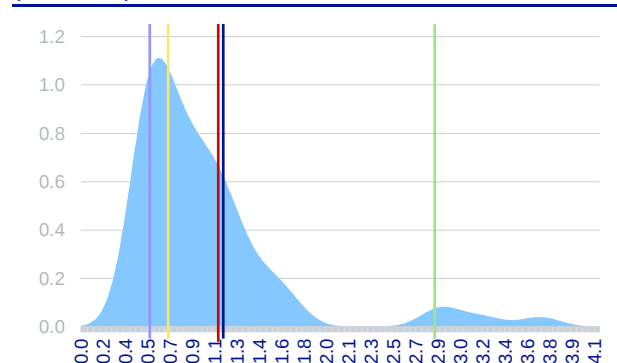
Taken together, these results suggest that the economic importance of defense-related industries extends beyond their direct output. Their relatively strong inter-sectoral linkages and concentration in technologically intensive manufacturing create scope for knowledge, production and technology spillovers into the broader economy.

FIGURE 41. BACKWARD CONNECTION INDEX (DENSITY)



Green: C20, red: C25, blue: C26, purple: C30, yellow: C33
Source: TURKSTAT, Garanti BBVA Research

FIGURE 42. FORWARD CONNECTION INDEX (DENSITY)



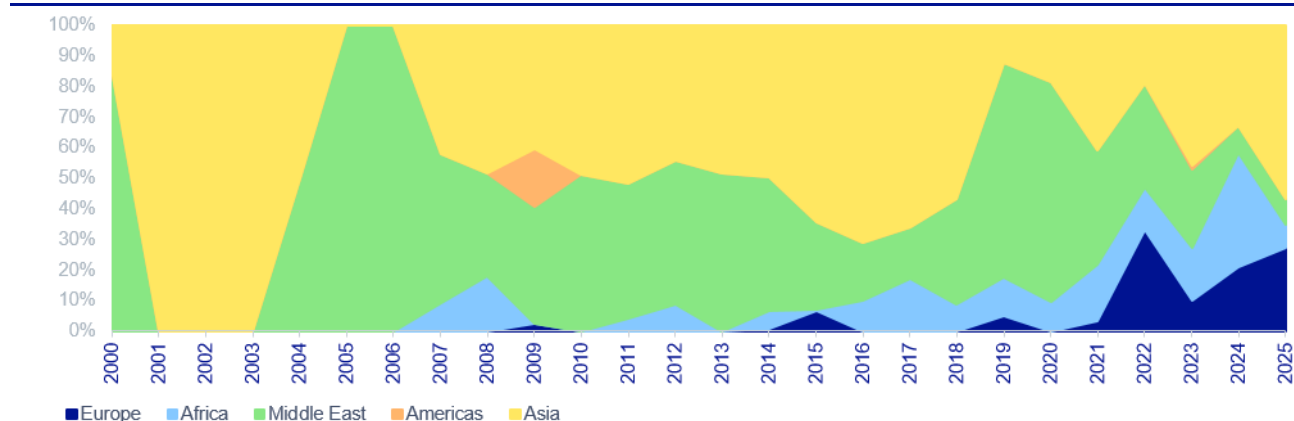
Green: C20, red: C25, blue: C26, purple: C30, yellow: C33
Source: TURKSTAT, Garanti BBVA Research

6. Other Strategic Markets for Türkiye's Defense Industry

Although Europe is becoming an increasingly important market for Türkiye's defense industry, Turkish exports remain geographically diversified. Historically, Asia and the Middle East have been the main destinations, while Africa has gained importance over the past decade. Europe's share has also increased more recently, whereas exports to the Americas remain limited.

These markets offer different types of opportunities. Africa is largely driven by demand for cost-effective and rapidly deployable systems; Asian markets increasingly combine procurement with co-production and technology transfer; and Gulf countries place greater emphasis on localization and industrial partnerships.

FIGURE 43. TÜRKİYE EXPORTING DESTINATIONS BY YEAR OF DELIVERY (% OF TOTAL EXPORTS)



Source: SIPRI, Garanti BBVA Research

Türkiye's export profile also varies across regions. Armored personnel carriers remain an important export category across several markets, including the Middle East and Africa. Asia stands out for a more diversified portfolio, with relatively strong demand for missiles and guided munitions. The Middle East, meanwhile, remains an established market for Turkish land platforms and is increasingly shifting toward localized production and industrial cooperation.

i) Africa: affordability and operational fit support further growth

Africa has emerged as an increasingly important market for Turkish defense exports, particularly in tactical UAVs, armored vehicles and surveillance systems. This is particularly noteworthy given the continent's relatively limited defense budgets: despite having the lowest military expenditure among the major regions, Africa has become the leading destination for Turkish drone exports, while Türkiye has also exported a comparatively large number of armored personnel carriers relative to the continent's defense spending. Turkish drones have become increasingly attractive to African countries due to their lower cost compared with those produced by the United States and Israel³⁹, as well as Türkiye's relatively less restrictive arms export policy. It is estimated that the Bayraktar TB2, costing between \$2 million and \$5 million,

39 <https://www.orfonline.org/expert-speak/drone-statecraft-turkey-s-expanding-security-footprint-in-africa>

is significantly cheaper than other military-grade drones—around one-fourth the price⁴⁰.

This performance appears to reflect a good fit between African security needs and Türkiye's product offering. Many countries across the continent face persistent challenges related to terrorism, insurgency, border insecurity and maritime threats while operating under tight budget constraints. Turkish platforms—particularly UAVs and land systems—combine relatively competitive prices with operational experience and rapid deployability, strengthening their appeal compared with more expensive alternatives.

Besides, Türkiye has expanded both its diplomatic and defense footprint across Africa through far greater number of African embassies in Türkiye since 2008, security personnel training agreements with many countries (i.e. Libya and Somalia), increasing number of security cooperation agreements covering scientific and technical collaborations, and intensified participation in peacekeeping missions in the continent, as highlighted by SWP⁴¹. Baykar is also establishing a drone production facility in Morocco which already started employing personnel and will foresee the manufacturing of Bayraktar TB2 and Akıncı, through its subsidiary *Atlas Defense*⁴². Apart from defense, Türkiye has undertaken major projects in construction, energy, agriculture, and infrastructure, underscoring the expansion of economic ties between the parties. Finally, it is worth mentioning that Türkiye also benefits from being perceived as a more politically neutral partner compared to many former colonial powers, strengthening its position in emerging African defense markets⁴³.

ii) Asia — co-production is becoming as important as direct exports

Asia represents both a major export market and an increasingly important destination for industrial cooperation. In Southeast Asia, countries such as Indonesia and Malaysia are seeking to diversify suppliers while strengthening domestic defense-industrial capacity. Türkiye's combination of relatively competitive platforms and willingness to engage in local production and technology cooperation makes it well positioned to respond to these objectives.

According to IISS, Indonesia stands out as the first foreign customer for domestically developed KAAN fighter jets and Istif-class frigates. It also signed a joint production initiative with Roketsan, which had delivered its ballistic missiles earlier⁴⁴ in 2025⁴⁵. Roketsan and Indonesia's PT Republikorp had agreed to manufacture ATMACA anti-ship missiles and ÇAKIR cruise missiles⁴⁶. Another bilateral initiative, PT Republikorp and Baykar are setting up a joint hub for the production of Bayraktar TB3 in Indonesia. Likewise, Malaysia has recently ordered drones and naval vessels, some to be produced by Turkish firm STM which also has signed a co-production agreement for drones with Malaysia's G7 Aerospace⁴⁷. These

40 <https://adf-magazine.com/2025/02/as-drone-warfare-expands-in-africa-turkey-increases-share-of-the-market/>

41 https://www.swp-berlin.org/publications/products/comments/2022C42_Turkey_Security_Africa.pdf

42 <https://www.turkiyegazetesi.com.tr/dunya/baykar-afrikada-250-milyon-dolarlik-uretim-ussu-kuruyor-ise-alimlar-basladi-1772602?s=2>

43 <https://trendsresearch.org/insight/the-sahel-pivot-turkiyes-defense-and-diplomatic-footprint-in-africa/>

44 <https://www.aa.com.tr/en/asia-pacific/turkish-missile-producer-roketsan-inks-defense-deal-with-indonesia/3594185>

45 <https://www.asianmilitaryreview.com/2025/08/indonesia-fields-khan-short-range-ballistic-missile-foc/>

46 <https://www.iseas.edu.sg/articles-commentaries/iseas-perspective/2025-70-turkiyes-defense-diplomacy-in-southeast-asia-the-new-kid-on-the-block-by-ian-storey/>

47 <https://www.iseas.edu.sg/articles-commentaries/iseas-perspective/2025-70-turkiyes-defense-diplomacy-in-southeast-asia-the-new-kid-on-the-block-by-ian-storey/>

partnerships suggest that Türkiye's competitive proposition increasingly extends beyond finished products to co-production and local industrial development.

Beyond Southeast Asia, Türkiye is also expanding defense-industrial cooperation across South and Central Asia, particularly through licensed production, joint ventures and technology partnerships. Cooperation with Pakistan, Kazakhstan and other regional partners has increasingly moved toward joint development and localized manufacturing^{48,49,50,51,52}, while recent initiatives with South Korea and Japan indicate growing engagement in advanced defense technologies^{53,54}.

iii) Middle East — localization creates deeper partnership opportunities

The Middle East remains another important market, supported by high defense spending, persistent security tensions and growing efforts by Gulf states to diversify suppliers and localize defense production⁵⁵. This creates an opportunity for Türkiye that extends beyond conventional arms exports.

TÜRKİYE EXPANDS ITS MILITARY SPHERE OF INFLUENCE



Source: BBVA Research

48 <https://defensesecurityasia.com/en/pakistan-turkish-cobra-ii-arma-8x8-kazakhstan-besqaru-south-asia-military-balance/>
49 <https://www.aa.com.tr/en/asia-pacific/turkiye-pakistan-sign-24-cooperation-agreements-to-strengthen-bilateral-ties/3481013>

50 <https://www.iletisim.gov.tr/english/haberler/detay/turkiye-and-pakistan-sign-24-agreements>,
<https://www.arabnews.com/node/2644571/pakistan>, <https://www.turkiyetoday.com/world/pakistan-praises-turkish-defense-industries-localization-success-3204045>

51 <https://www.iletisim.gov.tr/english/haberler/detay/13-agreements-signed-between-turkiye-and-kazakhstan>

52 <https://www.iletisim.gov.tr/english/haberler/detay/president-erdogan-meets-with-president-mirziyoyev-of-uzbekistan-15-05-26>

53 https://www.iletisim.gov.tr/english/dis_basinda_turkiye/detay/fighter-jets-frigates-drones-turkiye-signs-5.85b-in-export-deals-at-idef-usa

54 <https://www.al-monitor.com/originals/2026/05/turkey-japan-launch-defense-industry-partnership-eye-drones>

55 <https://agsi.org/analysis/blueprints-for-autonomy-turkey-and-the-gulf-partnership-on-defense-industrialization/>

Saudi Arabia and the UAE provide the clearest examples. Partnerships involving SAMI (Saudi Arabian Military Industries) and Turkish firms increasingly include local production, technology transfer and joint development across UAVs, armored vehicles, turrets and unmanned maritime systems^{56,57,58,59}. Similar cooperations between UAE-based EDGE and Turkish companies span aerospace, land systems, electronic warfare, AI and cybersecurity^{60,61,62}. These arrangements suggest that Gulf markets may increasingly offer Turkish firms not only export revenues, but also access to capital, joint ventures and longer-term industrial partnerships.

Most recently, the Makkah Agreement for Joint Defence, signed by Türkiye, Saudi Arabia and Pakistan in August 2026, adds a broader institutional framework to this trend. Its implementation explicitly envisages defense-industry cooperation, joint technology development and production, further reinforcing the shift from conventional arms trade toward long-term industrial partnerships.

Overall, Türkiye's opportunities outside Europe differ significantly by market. In Africa, competitiveness is driven primarily by affordability, operational relevance and relatively rapid delivery. In Asia, the opportunity increasingly lies in co-production, technology transfer and supplier diversification. In the Gulf, localization requirements and investment capacity create scope for deeper joint ventures and technology partnerships. This geographical diversification reduces dependence on any single export market and demonstrates Türkiye's ability to adapt its defense-industrial cooperation model to different customer requirements.

7. The Future Military Landscape: Risks and Opportunities for Türkiye's Defense Industry

Türkiye has developed a broader, more scalable and increasingly export-oriented defense-industrial base. The next stage of development, however, will depend not only on expanding production of existing platforms but also on adapting to a rapidly changing military-technology environment. AI-enabled and autonomous warfare, cyber and space capabilities, access to critical inputs, and greater geopolitical fragmentation are likely to shape both the opportunities and constraints facing Türkiye's defense industry.

56 <https://www.calibredefense.co.uk/sami-signs-major-agreement-with-three-turkish-primers/>, <https://www.turkiyetoday.com/turkiye/saudi-arabias-sami-turkish-firms-forge-defense-partnerships-26324?s=1>

57 <https://www.baykartech.com/en/press/saudi-arabia-in-pact-with-turkeys-baykar-tech-to-localise-drone-manufacturing/>

58 <https://www.calibredefense.co.uk/sami-signs-major-agreement-with-three-turkish-primers/>

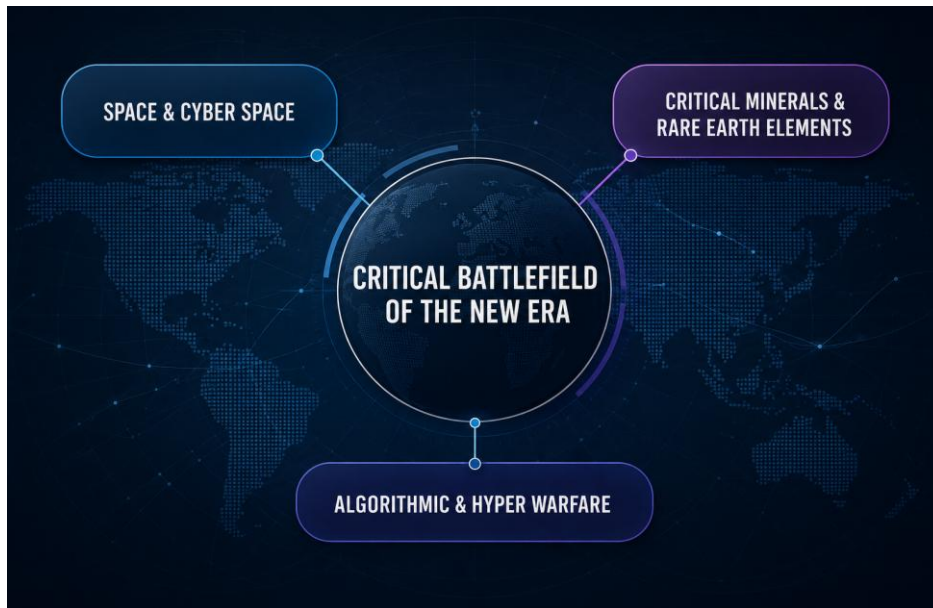
59 <https://www.aa.com.tr/en/economy/turkiye-s-first-unmanned-surface-vehicle-finds-new-partner-in-saudi-arabia/3827646>

60 <https://edgegroup.ae/news/edge-collaborate-turkish-aerospace-industries-advanced-airborne-domain-projects>

61 <https://defensehere.com/en/edge-builds-new-bridges-with-turkish-defense-industry-interview/>

62 <https://agsi.org/analysis/blueprints-for-autonomy-turkey-and-the-gulf-partnership-on-defense-industrialization/>

THE FUTURE MILITARY LANDSCAPE



Source: BBVA Research

i) AI and autonomous warfare will raise the technological bar

One of the most important technological shifts is the increasing use of artificial intelligence, autonomous systems and robotics in military operations. The terms, hyper warfare; and algorithmic warfare, are widely used. AI-enabled decision support and targeting can shorten the observe–orient–decide–act (OODA) cycle, while autonomous and semi-autonomous platforms are becoming more relevant both on and beyond the battlefield. Recent conflicts have demonstrated the growing importance of integrating sensors, data processing, targeting and unmanned systems within a common operational architecture.

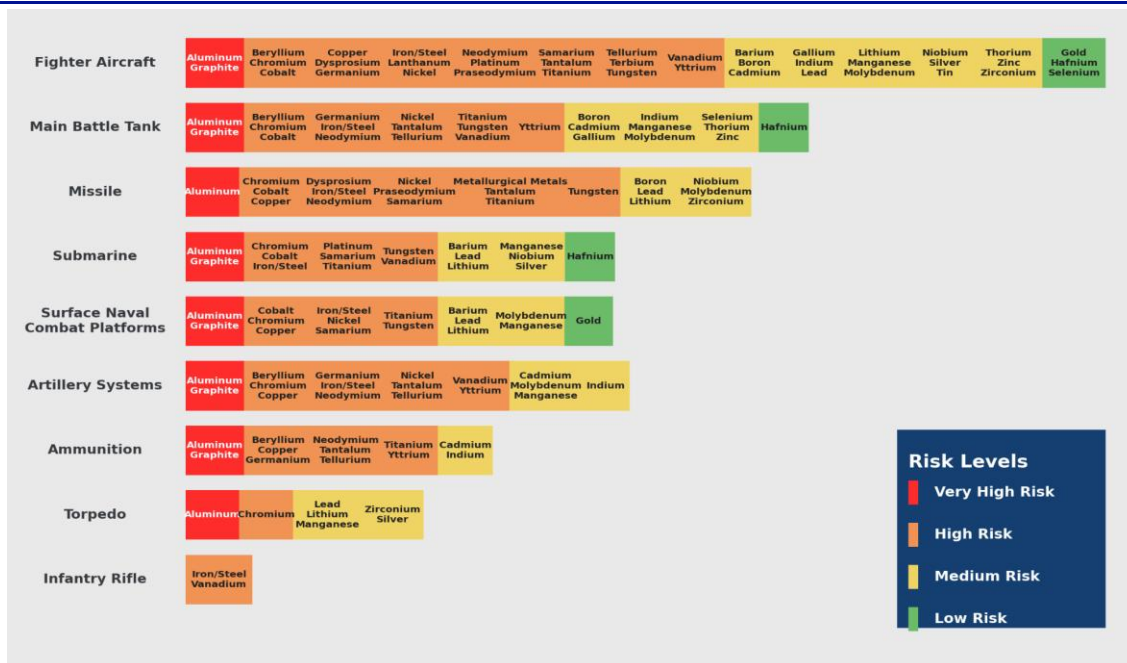
Türkiye has already begun incorporating AI and machine-learning capabilities into parts of its defense ecosystem, particularly in unmanned systems. However, maintaining competitiveness will require deeper capabilities in autonomous decision-making, advanced software, data processing, sensors and secure communications. The next phase of defense-industrial competition is therefore likely to depend increasingly on software and system integration rather than on platforms alone.

ii) Space, cyber and critical inputs are becoming strategic enablers

Space and cyber capabilities are also becoming increasingly important enablers of modern military operations. Secure communications, satellite-based intelligence, navigation, data transmission and resilient digital networks are critical for connecting sensors, platforms and command systems. Türkiye has initiated its own space program, sending its first domestic commercial satellite to space, but it needs to develop more in this area to strengthen resilience and deterrence.

Access to critical minerals and other strategic inputs represents a parallel supply-chain challenge. NATO [highlighted](#) the growing importance of critical materials for defense production (Figure 44), particularly where supply is geographically concentrated. Türkiye's Beylikova (Eskisehir) rare-earth project could therefore become strategically relevant if commercial-scale production develops as planned, although the defense value of these reserves will depend on processing capacity and their integration into domestic industrial supply chains. According to the Energy Ministry, the site in Beylikova [has](#) a 694 million-ton ore resource containing thorium, barite, fluorite and bastnäsite, including an estimated 12.5 million tons of rare-earth oxides.

FIGURE 44. CRITICAL MATERIALS USED IN MAJOR DEFENSE SYSTEMS AND ASSOCIATED SUPPLY RISKS



Source: NATO

iii) Geopolitical fragmentation creates both demand and risk

A more fragmented geopolitical environment also creates a mixed outlook for Türkiye's defense industry. Escalation in the Middle East, continued conflict in Ukraine and rising tensions in Asia could sustain global demand for defense equipment and encourage countries to diversify suppliers. Türkiye's expanding product portfolio and willingness to engage in co-production could support further export growth and deepen defense partnerships.

At the same time, the same geopolitical fragmentation creates risks. Export markets can be affected by sanctions, political disputes, changes in alliances and restrictions on access to foreign components or technologies. Türkiye's geographic proximity to several conflict zones also means that stronger external demand may coincide with greater domestic security requirements. The sector's growth prospects therefore remain closely linked to geopolitical developments that are inherently difficult to predict.

iv) Financing and partnerships will matter for the next stage of development

The growing technological intensity of defense production will also increase financing requirements. Türkiye's defense industry is currently supported primarily through public procurement, the Ministry of National Defense budget and the Defense Industry Support Fund (SSDF). While the state is likely to remain the main source of financing for strategic programs, emerging areas such as AI, cyber, space and dual-use technologies may create greater scope for private capital, corporate partnerships and international co-development.

Industrial partnerships may therefore serve two purposes simultaneously: improving access to advanced technologies and sharing the rising cost of R&D. This will be particularly relevant in capability areas where Türkiye remains dependent on foreign technologies or where development cycles are becoming increasingly capital- and knowledge-intensive.

Although Türkiye's defense industry remains state-led and tightly regulated, private capital can participate through acquisitions, growth investments and joint ventures. Recent transactions—including Pragma Capital Partners' investment in HMS and OYAK's planned investment in Tekatron—illustrate that private capital can enter the sector beyond traditional manufacturing partnerships. Foreign participation is also established through structures such as Barzan Holdings' stake in BMC and Kale Pratt & Whitney joint venture. Such investments remain subject to security, governance, contractual, export-control and technology requirements.

For Türkiye to attract more private and foreign capital, the key conditions would be greater visibility on long-term demand and export opportunities, clear joint-venture and IP structures, targeted incentives and predictable approval processes. The most relevant investment areas are likely to be aero-engines and MRO, propulsion and mobility systems, electronics and sensors, autonomy, AI, cybersecurity and other dual-use technologies.

8. Conclusion

The global security environment has entered a period of sustained military rearmament, driven by the Russia–Ukraine war, escalating tensions in the Middle East, and the rapid transformation of warfare through drones, missiles, artificial intelligence, electronic warfare and cyber-space capabilities. In this context, defense spending is no longer only a short-term response to geopolitical shocks, but increasingly a structural priority for governments seeking deterrence, resilience and strategic autonomy.

Europe is at the center of this shift. After decades of underinvestment, fragmented procurement and reliance on third-country suppliers, European countries are trying to rebuild their military capabilities and strengthen their technological and industrial base. However, Europe still faces significant industrial gaps in air and missile defense, counter-UAS systems, drones and loitering munitions, missile and ammunition stockpiles and long-range precision fires, while production scalability and replenishment remain broader constraints across several

areas. EU initiatives such as EDF, EDIP, SAFE and Readiness 2030 are important steps, yet many systems have long delivery timelines and require deeper industrial coordination.

Türkiye emerges as a relevant partner in this environment. Its defense industry has evolved from a more import-dependent structure into a diversified and increasingly export-oriented ecosystem, supported by expanding production capacity, rising localization and a broader portfolio of defense systems. Our matching exercise suggests that the strongest near-term opportunities lie in UAVs and strike drones, and ammunition and stockpile replenishment. Counter-UAS, loitering munitions, selected layers of integrated air and missile defense, ISR and electronic warfare, and armored vehicles also offer meaningful complementarity, while opportunities in long-range fires are more likely to develop over the medium term.

However, industrial complementarity does not automatically translate into market access. EU procurement rules, particularly SAFE's local-content and design-right requirements, create constraints for non-EU suppliers. Türkiye also continues to face technological bottlenecks in engines, propulsion, advanced subsystems and several emerging technologies. This suggests that the most realistic route to deeper European integration is likely to involve selective cooperation through co-production, local assembly, joint ventures, supply-chain integration and mutually acceptable technology-sharing arrangements rather than direct exports alone.

Beyond Europe, Türkiye's diversified export markets and growing use of co-production and localization models provide additional avenues for growth. At home, the defense industry is also becoming increasingly relevant for technological upgrading, given its concentration in high- and medium-high-technology manufacturing and its relatively strong links with the broader economy. Future competitiveness, however, will increasingly depend on progress in AI, autonomous systems, cyber, space and other advanced technologies.

Overall, Türkiye should be viewed as a complementary partner for Europe's defense needs. Europe needs scale, speed and battlefield-relevant capabilities; Türkiye offers competitive platforms, production flexibility and experience in several fast-growing domains of modern warfare. A pragmatic cooperation model—based on co-production, interoperability, NATO standards, local industrial participation and mutually acceptable technology-sharing arrangements—could create value for both sides. For Europe, it would help close urgent capability gaps more rapidly. For Türkiye, it would deepen integration into advanced defense value chains, strengthen export credibility and accelerate its move toward higher technological autonomy.

The key policy question is therefore not whether Türkiye can contribute to Europe's defense architecture, but under which institutional, financial and industrial mechanisms this contribution can be made compatible with European procurement rules and Türkiye's strategic interests. If these constraints are managed effectively, defense cooperation between Türkiye and Europe could become one of the most important industrial and geopolitical opportunities of the coming decade.

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