BRIEFING

European Parliament

United States Defense Industrial Base

How does it differ from the European defence technological and industrial base?

SUMMARY

The United States (US) Defense Industrial Base (DIB) is the world's largest, comprising over 60 000 companies and 1.17 million employees. It is dominated by five major corporations – Lockheed Martin, RTX, General Dynamics, Boeing and Northrop Grumman – which together account for around one third of US Department of Defense (DoD) contracts and half of the revenue of the top 100 defence companies in the world. While the DIB sustains US technological dominance, it faces challenges linked to market consolidation, supply chain resilience and workforce shortages. The 2023 Biden administration's National Defense Industrial Strategy seeks to address these issues, among other things, through enhanced supply chain resilience, workforce development and flexible acquisition. However, experts expect vast changes, including for the DIB, in strategy under the new Trump administration's national defence strategy that is currently being developed.

By contrast, the European defence technological and industrial base (EDTIB) remains fragmented, and has been under-invested in for decades. In 2024, EU defence spending reached €343 billion, roughly 2.5 times less than the US level (around €864 billion in 2024), with a large part of procurement sourced from the US. The 2024 European defence industrial strategy and the European defence industry programme aim to strengthen European defence industrial sovereignty, promote collaborative procurement, and emphasise a 'Buy European' approach. The European Parliament supports close EU–US cooperation but insists that EU programmes must primarily reinforce the EDTIB and increase strategic autonomy.

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Introduction

The United States (US) Defense Industrial Base (DIB) represents the **largest and most technologically advanced military production ecosystem in the world**, encompassing a vast network of private firms, government entities and research institutions. Its defining characteristic is the central role of the US Department of Defense (DoD) as a monopsony buyer (a market structure in which a single buyer substantially controls the market) that sustains an integrated yet highly regulated market, shaped by complex procurement frameworks, export controls, and enduring institutional linkages between industry and government.

Dominated by a handful of major corporations – the 'Big Five' – the DIB's structure reflects decades of consolidation that have produced global leaders in aerospace, shipbuilding and advanced systems integration. However, despite its scale and global influence, the DIB faces mounting structural challenges. Supply chain vulnerabilities, workforce shortages and diminishing competition have raised concerns about resilience and innovation. Against this backdrop, the Biden administration's 2023 National Defense Industrial Strategy (NDIS) seeks to modernise the industrial base and strengthen its capacity to sustain technological and strategic advantage in an era of renewed great-power competition. Experts expect vast changes under the second Trump administration.

Overview of the US DIB

The DIB comprises a wide range of companies that provide capabilities for military requirements, from large-scale production sites to research laboratories. It can be categorised in various ways; however, a common division – as noted by the Congressional Research Service – is between the **commercial sector**, dominated by private firms, and the **public and non-profit sector**, made up of government entities, research institutions and universities. The commercial sector is distinct from other US commercial sectors in that the US government is effectively its sole customer (although foreign governments also procure vast amounts from the DIB), creating a monopsony market. It is heavily regulated, with **strict controls on exports and security standards**, and has close institutional ties to government, reflected, among other things, in extensive lobbying and the employment of former defence officials.

Table 1 – Top US defence companies by revenue in 2023 (in billion US$)

Company	Revenue	Global Ranking
Lockheed Martin Corp.	60.81	#1
RTX	40.66	#2
Northrop Grumman Corp.	35.57	#3
Boeing	31.1	#4
General Dynamics Corp.	30.2	#5

Data source: SIPRI, 2024.

A 2023 report by the National Defense Industrial Association (NDIA) indicated that, as of 2021, the DIB comprised almost **60 000 companies** and employed around **1.1 million workers**. In 2023, the 41 US-based companies in the Stockholm International Peace Research Institute (SIPRI) top 100 arms-producing and military services companies increased their combined arms revenues by 2.5 %, reaching US$317 billion (around €274 billion). This accounted for half of the total top 100 arms revenues. The five largest arms producers in the ranking were all American, and together their revenues represented 31 % of the top 100 total.

Measured by total market capitalisation and annual DoD contract expenditure, the commercial sector is dominated by the **Big Five** major publicly listed US corporations: Lockheed Martin, RTX, General Dynamics, Boeing and Northrop Grumman, which together account for around one third of DoD contract obligations and play a leading role in most major weapons programmes. Beyond the Big Five, the DIB includes major firms such as Huntington Ingalls Industries, L3Harris Technologies and Amentum, alongside a growing number of venture-backed start-ups that attracted over US$130 billion (around €112 billion) between 2021 and 2024. Small businesses form most defence contractors but receive a minority of funding.

Alongside supplying defence articles and services to the US government, the DIB also provides equipment and services to **foreign governments** through both Foreign Military Sales (FMS) and Direct Commercial Sales (DCS). FMS are government-to-government agreements formalised through a Letter of Offer and Acceptance. The Secretary of State authorises participating countries and approves cases, while the Secretary of Defense executes programmes, which may be financed by either the recipient or the US Government. DCS differ in that the DIB sells defence products directly to foreign buyers under State Department licences, outside DoD FMS procedures.

The **US is the largest arms exporter in the world by far**: in 2024, US military equipment sales to foreign governments reached a record high of US$318.7 billion (around €275 billion). US arms exports rose by 21 % between 2015 and 2019 and 2020 and 2024, with the US share of global exports increasing from 35 % to 43 %, nearly matching the combined total of the next eight largest exporters. In the years 2020 to 2024, the US supplied major arms to 107 states, with exports to Europe more than tripling. Ukraine, the United Kingdom (UK), the Netherlands and Norway were among the top recipients, with **Ukraine** alone accounting for 9.3 % of all US exports.

US defence industry: Challenges

Consolidation

The DIB is the **largest globally** but has significant structural challenges that have direct implications for the DoD's ability to sustain readiness, modernise capabilities, and maintain technological advantage. In February 2022, the Pentagon published a major report prepared by the Office of the Under Secretary of Defense for Acquisition and Sustainment, which highlighted the **DIB's significant consolidation**. Over the past three decades, the number of American suppliers of tactical missiles has fallen from 13 to three and that of fixed-wing aircraft suppliers from eight to three, with only a single manufacturer of main battle tanks remaining. In its report, the Pentagon stressed that competition is essential for the sector, since competitive markets deliver better cost control, timelier schedules, and stronger performance in the products and services required for national defence. The report warned that the **diminishing pool of suppliers** reduces the competitive pressure that drives innovation and helps to lower costs for taxpayers. Consequently, the DoD identified the promotion of fair and open competition in future programmes as a key priority.

Concerns over the consolidation of the DIB are long-standing. As early as 1998, the US Government Accountability Office cautioned against the impact of the merger wave triggered by the 'Last Supper' of 1993, when the Pentagon urged the defence industry to restructure through consolidation. Even William J. Perry, the former US Defence Secretary who initiated the policy, later acknowledged in 2015 that the outcome had been a less competitive sector and that, in retrospect, retaining a larger number of smaller firms would have been preferable to concentrating activity in a few major players. The F-35 programme is an illustration of the risks of excessive consolidation: a single initiative that became too large, complex and costly but impossible to terminate once alternative competitors had disappeared.

Supply chain resilience

The COVID-19 pandemic and geopolitical rivalries also exposed **critical supply chain vulnerabilities**. **Dependency on foreign sources of rare earth elements**, microelectronics and specialist materials is a major risk. The DoD depends on a worldwide network of more than 200 000 suppliers to deliver both weapon systems and non-military products such as batteries and industrial equipment. Some foreign suppliers are viewed as potential security threats, since they might restrict access to essential resources. For instance, China's dominance in rare earths and other critical minerals poses strategic challenges for US autonomy, as the US imports 70 % of its rare earths from China (followed by Malaysia with 13 %, Japan with 6 %, Estonia with 5 % and others with 6 %). China accounts for roughly 90 % of global refined rare-earth production and possesses the largest separation and purification capacity, granting it significant leverage over international supply chains. The chemical element Yttrium illustrates this dominance: widely used in radar systems, lasers and television displays, 93 % of all yttrium compounds imported into the US between 2020 and 2023 originated from China. China's rare earth export restrictions in 2025 on seven heavy and medium rare-earth elements, imposed in response to US tariffs, highlight America's acute vulnerability in defence supply chains, given Beijing's near-total monopoly over processing; President Trump threatened further tariffs in response. Although the US is investing heavily in domestic production and international partnerships, its capabilities remain at an early stage, leaving it dependent on China and exposed to further strategic leverage for the foreseeable future. The Pentagon launched a US$1 billion initiative in October 2025 to rapidly expand its stockpile of critical minerals essential for defence production, seeking to reduce US dependency on Chinese supply chains amid escalating trade tensions and new Chinese export controls on rare earths.

Semiconductor shortages have delayed programmes across advanced aircraft and missile systems. Semiconductors are indispensable to both US national defence and the civilian economy; however, decades of offshoring and declining onshore capacity have left the US heavily dependent on foreign production – particularly Taiwan – for the most advanced chips critical to artificial intelligence (AI) and weapons systems. The US CHIPS Act of 2022, supported by significant private investment, sought to strengthen US resilience by boosting domestic semiconductor production. In September 2025, President Trump announced that his administration will impose substantial tariffs on semiconductor imports from companies that do not move production to the US, while exempting firms investing domestically. The move, consistent with the President's broader use of tariffs as a foreign policy tool, has unsettled markets and heightened global economic uncertainty; however, major firms such as Apple, TSMC and Samsung have already expanded US investments.

Workforce

The industry also faces difficulties in **recruiting and retaining a skilled workforce**. An ageing industrial base in shipbuilding and aerospace coincides with shortages of engineers, software specialists and cyber professionals. Competition with the commercial technology sector for talent is particularly acute. The aerospace and defence sector is facing a dual challenge of mass retirements and difficulties in attracting and retaining younger workers, particularly as the demand for software engineers far outpaces that for traditional engineers.

Comparing the US DIB and the EU EDTIB

Defence expenditure and defence industry revenue

According to the North Atlantic Treaty Organization (NATO), **US defence expenditure** stood at US$935 billion (around €807 billion) in 2024 (3.21 % of gross national product – GDP), and is estimated to reach **US$980 billion** (around €846 billion) **in 2025 (3.22 % of GDP)**. According to

SIPRI, US military expenditure amounted to 37 % of the world's total military expenditure in 2024. By contrast, in **2024**, **defence expenditure by the 27 EU Member States** reached **€343 billion**, representing a combined 1.9 % of GDP. For 2025, projections indicate that defence spending will rise to **€392 billion at current prices (2.1 % of GDP)**. Furthermore, the European Commission's Rearm Europe/Readiness 2030 initiative, launched in March 2025 and designed to leverage up to €800 billion in defence spending, is expected to push spending beyond current forecasts.

Although EU Member States have increased their spending substantially, they still lag far behind the US in terms of total defence expenditure. Large amounts of those – already comparatively lower – budgets are spent abroad, unlike the US defence budget, which is predominantly spent in the US. According to a joint communication by the Commission and the High Representative of the Union for Foreign Affairs and Security Policy, it is estimated that, between 2007 and 2016, over 60 % of European defence procurement budgets were spent on equipment from abroad. In its European defence industrial strategy, the Commission notes – based on a think tank analysis – that 78 % of defence acquisitions by EU Member States between February 2022 and June 2023 were made from outside the EU, with 63 % coming from the US. Although it is difficult to find accurate data on this, the US Government Accountability Office, in a July 2025 report, found that 'the U.S. is identified as the Country of Origin for approximately 96 percent of obligations for goods that DOD procured from fiscal years 2020 through 2024'; this is with a 2.5 times larger budget, which has been sustained at elevated levels over decades.

Indeed, since 2008, the US has consistently allocated more than 3 % of its GDP to defence. In 2024, American defence spending reached US$935 billion (current prices, around €807 billion), or 3.21 % of GDP, 2.5 times the combined budget of the EU Member States, at €343 billion. While the US has consistently spent large amounts on defence, EU Member States have under-invested for decades. Indeed, following the 2007-2008 economic and financial crisis, spending fell from €183 billion in 2008 to €159 billion in 2014, and only returned to pre-crisis levels by 2018-2019. Between 2009 and 2018, Member States' reductions in spending amounted to an accumulated under-investment of approximately €160 billion compared with the 2008 baseline. The Commission finds that, had all Member States spent 2 % of their GDP on defence between 2006 and 2020, this would have resulted in approximately an additional €1.1 trillion for defence.

In terms of defence industry revenue, based on Aerospace, Security and Defence Industries Association of Europe (ASD[1]) data and the author's own calculations for the EU-27, the **EU-based defence industry's turnover** is estimated at around **€120 billion**, with exports of roughly **€45 billion** in 2023. By contrast, Lockheed Martin, the largest defence company in both the US and the world, had a revenue of almost US$61 billion (around €53 billion) in 2023 alone, and the 41 US-based companies in the SIPRI top 100 defence companies reached **US$317 billion** (around €274 billion) in revenue in 2023. US military equipment sales to foreign governments hit a record high of **US$318.7 billion** (around €274 billion) that year.

Supply and demand

In terms of demand, unlike the US – which operates around a single sovereign buyer with the largest defence budget in the world (almost three times the size of the combined EU-27 budgets) – the EU does not spend on defence as a single entity. Budgets are determined and managed by 27 separate national governments, which often results in **fragmentation, duplication and lower efficiency** compared with the US. The EU has **27 sovereign buyers**, and EU Member States continue to fall short in coordinating, pooling and aligning their defence planning and procurement, despite the availability of various European mechanisms designed to facilitate such collaboration. As a result, demand remains largely fragmented along national lines, with investment decisions predominantly shaped by domestic agendas and national planning cycles, often at the expense of broader strategic coherence or cost-efficiency. European Defence Agency (EDA) data from 2020 show that Member

States spent only €7.9 billion on collaborative procurement of equipment, or 18 % of total defence equipment procurement – far below the 35 % benchmark agreed within the EDA framework in 2007 and the related permanent structured cooperation (PESCO) commitment. More up-to-date data are unavailable owing to persistent gaps in data sharing by Member States.

Furthermore, the coordinated annual review on defence highlights persistent duplication and under-exploited opportunities for cooperative procurement. Additionally, while the US DoD has its own defence planning process, the EU – rather than having one integrated tool for defence planning – has established several overlapping processes. EU **defence planning** remains difficult and fragmented. Experts note that 'defence planning remains stuck at the national, rather than at the European or even Atlantic level', primarily because of a lack of political will. This has led to a much greater **variety of weapon systems** across key platforms than in the US, creating **interoperability problems** and complicating joint operations, logistics, maintenance and training. The diversity of systems purchased by Member States also undermines economies of scale and reduces their collective bargaining power vis-à-vis industry, which in turn raises unit costs. For instance, those European countries that maintain larger numbers of main battle tanks, artillery systems and infantry fighting vehicles than the US spread them across a wide range of different models. By contrast, the US relies on fewer standardised platforms, which simplifies logistics, training and operational coordination.

In terms of supply, in the US the DIB operates around a **single sovereign buyer**, **very large prime contractors**, and sustained **federal research and development (R&D) pipelines**. As noted, five large prime contractors act as systems integrators at the apex of layered national supply chains. By contrast, in the EU, defence companies remain largely organised along national lines in the EU-27, maintaining close ties with their respective governments. This market structure, combined with persistently low levels of investment, has produced numerous national firms operating within relatively **small domestic markets** and thus manufacturing in **limited volumes**. Efforts to consolidate at both national and European levels have fallen significantly short of the scale achieved by the DIB. As a result, the EDTIB remains highly fragmented, particularly beyond the aeronautics and missile sectors with transnational companies such as Airbus and MBDA. This fragmentation undermines its capacity to enhance competitiveness through the pooling of R&D resources and the achievement of economies of scale in production.

According to an expert from the European Union Institute for Security Studies (EUISS), the commercial success of the US F-35 fighter jet has prompted European states to pursue next-generation fighter projects, resulting in two competing programmes: the Franco–German–Spanish Future Combat Air System (FCAS) and the UK–Italian–Japanese Global Combat Air Programme (GCAP), both aiming for operational capability by 2040. While a single unified European effort might appear desirable, the division of former Eurofighter partners between these rival projects illustrates enduring industrial and political rivalries. Persistent disputes over design authority and workshare within the FCAS, alongside Sweden's discreet withdrawal from the GCAP, underscore the continuing difficulties of achieving genuine European defence-industrial cooperation. Consolidation on such programmes in Europe has been limited, because procurement remains nationally driven, with divergent requirements, design philosophies and political interests impeding the development of unified European programmes. France's preference for multirole aircraft capable of carrier operations contrasts with Germany's focus on heavy long-range interceptors, while Sweden's emphasis on agile fighters for dispersed operations has created further fragmentation.

At the same time, the US experience highlights that consolidation alone can erode competition, stifle innovation and raise costs. As noted above, the Pentagon has recently warned that the reduction of domestic suppliers over the past decades has harmed its defence industrial base, and it now seeks to reinvigorate competition. According to an analyst, the Big Five's 'cozy oligopoly has bred stagnation'. With little competition, they lack incentives to innovate or cut costs, yet still dictate

prices. A Raytheon Stinger cost about USD$25 000 (around €21 570) in 1991; replacing one for Ukraine now exceeds US$400 000 (around €345 000). In the 1970s, new aircraft appeared every five years; today, programmes drag on for decades. The F-35 programme, begun before the iPhone, remains unfinished, and is projected to cost US$2 trillion overall (around €1.73 trillion). According to the analyst, once pioneers, these firms have become bureaucracies focused on legacy systems, missing advances in AI and autonomy, and risking obsolescence.

Research and development

US defence R&D has few global peers. Federal programmes and mission agencies such as the Defense Advanced Research Projects Agency (DARPA) provide risk-tolerant funding, while other instruments channel resources into private innovation ecosystems and dual-use technology fields. When comparing the EU with the US in **defence innovation spending**, it becomes evident that the EU has a lot to catch up on. The EU and its Member States allocate €14.4 billion in 2023 to military R&D, which includes research and technology (R&T) spending, a fraction of the €130 billion spent by the US. While not strictly comparable, Google spends almost 10 times more on R&D than the combined R&T budget of the 27 EU Member States' defence ministries. The challenge is compounded by the fact that **limited resources** are dispersed across **fragmented initiatives**, with individual Member States pursuing separate priorities and acting largely in isolation.

Europe's absence from the top 15 global technology companies further illustrates the continent's lag in innovation. In 2023, private investment in AI in the US amounted to €62.5 billion, whereas the EU and the UK together attracted only around €9 billion. Recent data from the EDA indicate a sustained upward trend in R&T spending. Following a prolonged period of under-investment between 2008 and 2016, Member States have almost tripled their R&T expenditure since 2016, signalling renewed commitment to this area. Spending on R&T rose to €5 billion in 2024, marking a 27 % increase compared with 2023. The upward trajectory is expected to lift R&T expenditure to €6 billion in 2025. Venture capital investment in European defence technology companies has also surged, from around US$500 million (around €431.5 million) in 2022 to a projected more than US$2 billion (around €1.73 billion) in 2025, with more than 230 start-ups founded since 2022, including 52 in 2025 alone.

Arms exports

As noted above, according to a SIPRI fact sheet, the US accounted for about 43 % of global major arms exports during the period 2020 to 2024, reinforcing the scale advantages of its domestic market and its position as a security provider to allies, as a large part of those exports were to Europe. Although leading EU Member States are also major exporters – France, Germany, Italy and Spain (in descending order) are among the top 10 global arms exporters – European firms often compete with each other in third markets, and they encounter divergent national policy decisions on exports and fragmented export control regulation, which is decided at Member State level except for some common rules that are subject to interpretation by national authorities, such as the EU Common Position of 2008. The result is less coordinated market power.

Divergent certification rules and export controls raise costs and hinder cross-border cooperation across the EU. Member States frequently invoke Article 346 of the Treaty on European Union (security concerns) to bypass EU procurement rules, preventing the emergence of a genuine pan-European market. The 2009 Transfer Directive and the 2009 Defence Procurement Directive were intended to simplify intra-EU transfers and open markets; however, they have been poorly implemented, with limited uptake of general licences and continued reliance on national procedures. **Export controls** also remain decentralised: although guided, among other things, by the EU Common Position and the United Nations Arms Trade Treaty, Member States apply these unevenly. These divergences disrupt supply chains, allowing a single national licence refusal to block the export of entire systems, and continue to undermine the creation of an integrated EU defence

market. By contrast, Washington has comprehensive jurisdiction over the export of defence equipment, services and controlled dual-use items, and sets standards for its industry. These frameworks provide leverage across global supply chains where US-origin technologies are embedded.

The US and EU defence industrial strategies

The differences in the DIB and EDTIB are also reflected in both the European defence industrial strategy (EDIS) and the US NDIS. While the two strategies outline comprehensive frameworks for strengthening the respective defence industrial ecosystems, they also echo the distinct geopolitical contexts, institutional architectures, and strategic cultures of the EU and US.

Published in 2024, the EDIS aims to enhance the EDTIB's competitiveness and readiness. It responds directly to the structural weaknesses described above, which were exposed by Russia's invasion of Ukraine, notably under-investment, fragmentation of demand, and reliance on non-EU suppliers. Its goals are explicitly **quantitative and collective**, seeking by 2030 to ensure that intra-EU defence trade accounts for at least 35 % of the EU defence market; that 50 % of national procurement budgets are directed towards the EDTIB (rising to 60 % by 2035); and that 40 % of defence equipment acquisitions are collaborative. The strategy seeks to promote a more cohesive and resilient internal market for defence.

By contrast, the US NDIS, published in 2023 under the Biden administration, operationalises the 2022 National Defense Strategy (a new one is currently being developed under the second Trump administration) by focusing on modernising the national defence industrial ecosystem. It sets out four strategic priorities: resilient supply chains; workforce readiness; flexible acquisition; and economic deterrence. Each priority is linked to specific policy measures designed to mitigate systemic risks, enhance technological agility, and reinforce the US industrial base against both operational and strategic vulnerabilities. The emphasis on **supply chain resilience** and economic deterrence reflects a geopolitical logic of great-power competition, particularly with China, and the need to safeguard US technological leadership within an increasingly contested global defence economy. However, experts note that the revised defence strategy under the second Trump administration may have important implications for the DIB. It could instruct industry to prioritise production lines for capabilities tailored to high-intensity naval conflict in the Indo-Pacific theatre, even if this entails postponing deliveries scheduled for European partners. This may extend to critical systems such as Patriot batteries and interceptors that Trump pledged to supply as replacements for European states transferring their own air defence assets to Ukraine. Such industrial bottlenecks would likely only become visible once the strategic consequences are already difficult to mitigate.

The EDIS also includes a €1.5 billion European defence industry programme (EDIP) as a first means to implement the strategy's goals. Moreover, the EDIS proposes new governance structures such as a Defence Industrial Readiness Board, a European Defence Industry Group, and the Structure for European Armament programme, alongside a European military sales mechanism – established under the EDIP – to offer, among other things, a centralised catalogue of defence products, boost EU-level demand, and strengthen the European defence industry's global competitiveness. These mechanisms signal the Commission's intent to **coordinate industrial capacities** more directly while preserving the defence policy's intergovernmental nature. The NDIS, by contrast, emphasises **private-sector leadership** and **market competition**. It focuses on incentivising domestic production, diversifying suppliers, and using data analytics to manage supply chain risks. Its flexible acquisition pillar promotes a balance between customised and commercial procurement, while reforms to intellectual property and contracting seek to accelerate delivery.

The EU approach is integrative and cooperative, designed to build European sovereignty and strengthen autonomous action based on its unique structure. The US approach is protective and competitive, focused on maintaining its dominance. In essence, the EDIS aims to consolidate a fragmented European market through institutional and financial integration, while the NDIS strengthens an established but strained US base through structural reform.

EU–US defence industrial cooperation

After 1945, the US established a system of defence cooperation that preserved the primacy of the US defence industrial base while permitting selective collaboration with allies. The US operated as the central hub for production, mainly through bilateral arms transfers. Export controls such as the International Traffic in Arms Regulations (ITAR, see also the section on export control below) and the Export Administration Regulations restrict the re-export of US technology, limiting industrial integration among allies. This still shapes transatlantic relations, which remain dominated by bilateral arrangements, reinforced by stricter 'Buy American' provisions with only limited exemptions for partners. As noted above in the 'Overview' section, US government-to-government Foreign Military Sales and Direct Commercial Sales to European allies anchor long-term industrial linkages and sustainment arrangements, and these are substantial. By contrast, according to the International Institute for Strategic Studies (IISS), between 2007 and 2017 EU Member States accounted for an average of 35 % of all DoD purchases from foreign suppliers. However, since only around 6 % of total DoD procurement each year was awarded to foreign firms, EU suppliers (back then still including the very large UK defence industry) in practice received merely 1.4 % of the DoD's overall purchases annually. The picture is similar for the 2020–2024 period (see above).

Co-production

Transatlantic co-production in flagship aerospace and missile programmes deepens transatlantic defence industrial links. The F-35 represents the most recent large-scale transatlantic defence cooperation project, launched in the early 2000s and now entering operational service. Initiated and managed by the DoD, the programme was entirely under US control from the definition of operational requirements through development and production. A limited number of allied states were invited to participate through financial contributions designed to offset R&D costs and to secure industrial workshare opportunities during production and maintenance phases. Despite these arrangements, the programme did not involve genuine joint development of military technology. While participating European countries, including Belgium, Denmark, Italy, the Netherlands and the UK, acknowledged the economic and industrial benefits of participation, they also experienced significant **restrictions on technology transfers**, which were largely excluded. Responsibility for programme success or failure rested solely with the US DoD, reflecting the highly asymmetric nature of this form of cooperation.

This model illustrates a characteristic pattern of contemporary transatlantic armaments collaboration, heavily weighted towards the US. The imbalance stems from strict conditions imposed by Washington, particularly under the International Traffic in Arms Regulations (ITAR), which restrict technology sharing and confine programme management to the DoD. However, according to experts, transatlantic armaments cooperation is generally limited to early technology assessment phases and tends to favour the United States, reflecting Europe's weaker defence industrial base. Successful collaboration usually concerns less complex subsystems that enhance interoperability, such as munitions or missiles. Broader transatlantic ties often take the form of industrial partnerships or offsets rather than full joint programmes, as seen in the **Rheinmetall–Raytheon cooperation on the Patriot system**, and licensed European production of US equipment like the **F-104 S fighter**.

Export control

Export control regimes shape all transatlantic industrial interactions. On the US side, the ITAR and related Directorate of Defense Trade Controls (DDTC) policies govern technology transfer, brokering and reexports of defence articles, with licence scope and provisos frequently cascading into EU projects that include US-origin components. European governments and firms have responded both by negotiating **licence solutions** for major programmes and by developing 'ITAR light' or 'ITAR free': 'ITAR free' denotes systems designed to exclude all components subject to US export controls under the ITAR, while 'ITAR light' refers to designs that minimise such dependencies to facilitate exportability and operational autonomy – supply chains for selected capabilities where sovereign freedom to operate is a priority. Examples of such responses include the **Eurodrone programme**, which was deliberately designed to minimise US components subject to the ITAR so that export licensing could remain under European control. Airbus states that 'the approach to avoid ITAR components in the design will make Eurodrone a truly sovereign RPAS [remotely piloted aircraft system].'

Third-country participation in EU and US defence programmes

A main point of friction in EU–US defence industrial relations is **reciprocity and the perceived asymmetry** between US market size and Buy American preferences on one side, and EU defence programme eligibility limits on the other. US departments in 2019 formally raised concerns that the European Defence Fund (EDF) and PESCO could disadvantage US suppliers, while the EU position has remained that these instruments complement NATO and do not alter procurement rules for Member States, which procure the large majority of their defence equipment from the US and do not preclude subsidiaries of US companies based in the EU from participating. EU frameworks condition how and when US industry can participate in EU-funded projects.

The participation of third-country entities in EU defence initiatives has been a recurring and divisive issue since the launch of the EDF in 2021. The EDF, dedicated to R&D, set the strictest eligibility rules: only entities established in the EU or associated countries such as Norway qualified automatically, while foreign-owned subsidiaries could access funds only if their host Member State guaranteed that the management structure is European, and that intellectual property and sensitive data remained in the EU. Therefore, entities from allied countries have not been excluded from participation in EU cooperation programmes; EDF-funded consortia remain accessible to their subsidiaries and joint ventures, provided they meet the conditions outlined above. Thus, the Czech subsidiary of US company Honeywell Aerospace has received two EDF research grants for the New Generation Military Integrated Modular Avionics (NG-MIMA) and Artificial Intelligence Deployable Agent (AIDA) projects.

Permanent structured cooperation provides another channel. A November 2020 Council decision defines general conditions for third-state participation in individual PESCO projects where they add value and accept EU conditions on information security, export controls and programme governance. Canada, Norway and the US have been participating in the 'Military Mobility' PESCO project since December 2021. The UK received an invitation to join the project following a favourable Council decision in November 2022. In February 2023, the Council likewise approved Canada's participation in the 'Network of Logistic Hubs in Europe and Support to Operations' PESCO project. The US also signed an administrative arrangement with the EDA in April 2023. The arrangement institutionalises practical cooperation on defence capability development through structured dialogue and information exchange on standardisation, supply-chain resilience and emerging technologies. While it does not create binding commitments or open EU programmes to US participation, it provides a framework for technical cooperation, workshops and reciprocal observation of activities.

Russia's full-scale invasion of Ukraine in 2022 prompted the EU to relax its approach for two short-term instruments: the Act in support of ammunition production (ASAP) and the European defence industry through common procurement act (EDIRPA). Focused on urgent replenishment of stocks and ramping of defence production rather than intellectual-property creation, both allowed EU-based subsidiaries of non-EU companies to participate if screened under the EU's Foreign Direct Investment Regulation or if they provided guarantees on security of supply and data protection. The EDIRPA additionally required that at least 65 % of the component value of jointly procured equipment originate in the EU or Norway, with the remainder subject to restrictions to avoid dependency on suppliers contrary to EU interests. The subsequent Security Action for Europe (SAFE) loan instrument and the forthcoming EDIP have reignited the sovereignty debate. While SAFE retains the 65 % EU-content rule, it also opens participation to like-minded third countries – including EU candidates and partners with which the EU has a security and defence partnership, such as the UK or Canada – through bilateral agreements. SAFE further requires a European design authority for complex systems such as air defence and strategic enablers but exempts ammunition and other urgently needed equipment.

US defence procurement law is formally open to foreign competition under the Federal Acquisition Regulation (FAR) and the Defence Federal Acquisition Regulation Supplement (DFARS), although European firms face substantial constraints. US federal procurement laws prioritise domestically produced goods. The Buy American Act (BAA) of 1933 requires agencies to favour US-made end products and construction materials, with some exceptions. The Trade Agreements Act (TAA) of 1979 waives these rules for goods from designated trade partners if produced or substantially transformed there. Agency-specific laws include the Berry Amendment, obliging the DoD to source certain items entirely in the US, and a specialty metals rule for key military components. Additional measures address gaps left by the BAA. The ITAR limit access to sensitive technologies and permit DoD to exclude foreign suppliers on national-security grounds. European participation largely depends on two mechanisms. Most major firms operate through US-incorporated subsidiaries under Special Security Agreements that mitigate foreign ownership, control or influence; for instance, Leonardo DRS used this route to supply 32 TH-73A helicopters to the US Navy. Limited bilateral defence-trade treaties with Australia and the UK facilitate exports of some controlled items but do not grant full access to US-only programmes.

US–EU defence industrial matters are discussed within the US–EU security and defence dialogue. Relevant technology matters are also discussed in the EU–US Trade and Technology Council, among other forums. Within NATO, initiatives such as the Defence Production Action Plan, the Defence Industrial Production Board (DIPB) and the Defence Innovation Accelerator for the North Atlantic (DIANA) aim to strengthen transatlantic defence production and innovation networks. Cooperation on defence industrial matters also happens within the EU–NATO framework.

European Parliament position

The European Parliament supports close EU–US defence cooperation as part of a wider transatlantic partnership; however, it insists that such cooperation must not compromise Europe's strategic autonomy or industrial sovereignty. While acknowledging the US as a crucial security partner, Parliament has advocated safeguards as co-legislator on defence industrial files (as described above) to ensure that EU-funded programmes primarily strengthen the EDTIB. For instance, in its position on the EDIP, it emphasises a 'Buy European' principle, which stipulates that the EDIP should finance only those products for which components sourced from the EU or associated countries account for at least 70 % of the estimated final product value.

Parliament has pushed for retention of design authority within the EU, and preference for procurement from EU-based firms, reflecting concerns over dependency on US systems and supply chains. However, it has sought to avoid protectionism that could alienate NATO allies, promoting

instead a calibrated model of cooperation that maintains openness where strategically useful but reinforces EU control over critical capabilities.

On 16 October 2025, the co-legislators reached a provisional agreement on the EDIP, which will provide €1.5 billion in EU funding for defence industrial cooperation between 2025 and 2027. It introduces the first EU mechanism for security of supply of defence products, and creates a legal framework to support long-term armaments collaboration among Member States through the Structure for European Armament programme. The agreement maintains the Commission's proposed budget, allocating €300 million to the Ukraine Support Instrument to deepen industrial cooperation with Ukrainian defence companies. It also includes an 'EU-made content' rule requiring that a minimum of 65 % of components originate from the EU or associated countries. Moreover, the EDIP will support European Defence Projects of Common Interest to develop capabilities in strategic domains and set up a European military sales mechanism.

MAIN REFERENCES

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Sanders, G. and Sockwell, M., What is the Perception of the Defence Industrial Partnerships with the EDTIB by non-EU countries? The US Perspectives: Transforming European Defense by 2030, Armament Industry European Research Group, September 2024.

ENDNOTES

[1] ASD members also include major non-EU defence industries such as Norway, Türkiye and the UK, but they do not include some smaller EU defence industries, which according to ASD account for less than 2 % of aerospace and defence industry revenue.

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