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Forging Partnerships to Accelerate European Defence Readiness

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Foreword

Andrius Kubilius

European Commissioner
for Defence and Space

Who would have imagined at the beginning of the decade that Europe would be sending troops to defend Greenland or that a deadly ground war in Ukraine would be entering its fourth year? The spectre of war has returned to our continent, and the current acceleration of militarisation and uncertainty about the continuation of the rules-based order all demand a step change in European defence readiness.

Our ability to deter and, if necessary, withstand aggression depends on key defence resources: defence and space-based capabilities that must be available before a crisis, trained military personnel and armaments able to be mobilised rapidly, and an industrial base on European soil capable of producing weaponry and infrastructure at scale, including close to any future frontline. Yet, today, Europe faces serious challenges in terms of both its short- and long-term defence readiness when it comes to its capabilities and resources.

This report from the Milken Institute and Oliver Wyman sets out recommendations aimed at strengthening European collaboration across governments, finance, and industry in an effort to prepare the continent for anything that lies ahead. Its purpose is to provide rigorous evidence and a set of practical options for policymakers and market participants who share the same strategic objective: a strong, defence-ready Europe.

The recommendations that have emerged are clear and mutually reinforcing. At their core is a call for the kind of close European cooperation among governments, industry, and finance that will allow higher defence budgets to translate into real industrial capacity, technological capability, and continental interoperability. We must coordinate readiness portfolios on a pan-European level, mobilise the wider industrial base, transform procurement pathways to provide investors and industry with the clarity they need, and balance short-term readiness with developing sovereign capabilities to achieve European autonomy.

Executive Summary

As geopolitical instability intensifies and traditional Western alliances face increased pressure, European nations are renewing their efforts to upgrade the continent's security infrastructure. Defence budgets of various European members of the North Atlantic Treaty Organisation (NATO) are set to rise substantially, with the region's demand for defence equipment slated to increase 11 per cent each year through 2030. Yet accelerated investment alone cannot close current gaps in European defences, as fragmentation, national siloes, obscure innovation strategies, inefficient procurement processes, and financing gaps continue to pose serious impediments to sustainable defence readiness.

Since Russia's invasion of Ukraine in 2022, the European defence landscape has been undergoing a redefinition in the face of an unexpected resurgence of conventional warfare in the region, escalating Russian aggression, and diminished US support. The new pressures have revealed weaknesses in Europe's defence posture—the products of decades of limited military spending. Fragmented national procurement programmes have left Europe unable to scale quickly and efficiently or mobilise common fleets.

China's ascent as the second-largest defence spender has also placed new pressure on European security, exposing vulnerabilities in Europe's supply chains for critical raw materials and advanced electronic components—with over 90 per cent of these strategic products imported.

The character of modern warfare is also undergoing fundamental transformation. Recent conflicts demonstrate that military advantage increasingly stems from the speed of adaptation rather than platform superiority alone. This means Europe's readiness gap is not a fixed target but a moving one, and closing it will require a fundamental shift in how Europe organises, procures, and manages innovation.

The response from NATO and the European Union—including the Defence Investment Plan and the ReArm 2030 strategy—has been ambitious, setting higher spending benchmarks and new targets for European industry. Governments, investors, and defence contractors must take up this call to action and collaborate more closely if they are to translate this boost in spending into new industrial capacity, technological capability, and continental cooperation.

Even with these higher budgets and new investment, Europe faces a capacity shortfall of roughly 30 per cent in equipment deliveries. Closing this gap would require a step change in industrial output of 1.7 times today's production for core platforms like aircraft. Capability gaps are similarly acute, with Europe still relying heavily on external suppliers, undermining the continent's strategic autonomy. At the same time, workforce needs far exceed today's supply: As many as 200,000 additional skilled workers—70 per cent of the current workforce—must be recruited to keep pace with demand. If Europe is to achieve both long- and short-term defence readiness, these shortfalls must be addressed.

European nations have taken diverse approaches to closing defence gaps, shaped by differing priorities, levels of ambition, and fiscal realities. Some have prioritised rapid expansion of high-value capabilities and large-scale procurement programmes; others have focused more on fostering strategic autonomy and strengthening their domestic industrial base. Overall alignment remains fragmented, even as most countries support a variety of multinational partnerships and joint ventures. Greater coherence, especially in aligning procurement priorities, investment flows, and capability development, will be essential to transform rising budgets into synchronised, continent-wide defence readiness.

Defence readiness hinges on European cooperation. European governments, investors, and industry must collaborate more closely if they are to strengthen continental security, boost industrial capacity, and drive innovation to address both long- and short-term defence readiness.

For governments, the path forward is to drive greater European coherence, unlock innovation, and accelerate readiness across the entire ecosystem. Policymakers must continue to build on the European Union's defence readiness agenda, strengthening the initiatives and financial instruments that support it. By proactively including non-member-states in these mechanisms, Europe can unlock greater investment, foster wider collaboration, and pursue a defence readiness that is truly continental.

At a national level, governments should institutionalise innovation management through dedicated innovation leadership roles, measurable performance frameworks, and deliberate, balanced investment portfolios spanning core defence capabilities, adjacent technologies, and transformative defence applications. Reforming procurement pathways—with clear demand signals, flexible contract models, and streamlined emergency mechanisms—will enable governments to partner more effectively with industry and investors. Closer partnership, in particular with the commercial sector, should also be leveraged to accelerate the development of a surge-ready industrial base, drawing on lessons from Ukraine.

For finance and investment, the priority is to unlock scalable, flexible capital that strengthens Europe's defence ecosystem and supply chains. As defence investment accelerates, the finance sector has a unique opportunity to help shape a more resilient and competitive European defence ecosystem. By partnering with governments on instruments such as public-finance-backed “funds of funds”—and by reviewing exclusions like those in public-sector pension schemes or bank lending rules—private capital can expand access to growth capital for early-stage

companies and small and midsize enterprises (SMEs). In that way, finance can play a central role helping smaller firms grow to scale and suppliers consolidate to achieve critical mass and global competitiveness, as well as connecting innovative companies with the networks and resources they need to expand. Finally, by collaborating with both government and industry to finance contingent capacity, the finance community can help build a more competitive and responsive industrial base capable of meeting Europe's evolving security needs.

For industry, the imperative is to focus investment, strengthen partnerships, and deliver a defence base that is scalable, innovative, and resilient. The sector should align investment with the European Commission's priority capability areas while accelerating cross-border collaboration and joint programmes to reduce duplication and achieve scale. Strengthening supply chain resilience will require the formation of capability-focused consortia and more robust risk management. To meet demand surges, industry must also scale up its industrial footprint by reskilling workers, repurposing assets from adjacent sectors, and integrating commercial components by design. Finally, ongoing innovation in manufacturing will be essential for Europe's defence sector to deliver the speed, scale, and adaptability required for credible readiness.

Europe is presented with an opportunity: Harness accelerating investment to build sustainable defence readiness and set new benchmarks for industry. Delivering on that opportunity depends on a new approach to partnership across governments, finance and investment, and the entire defence industrial base. Only by acting together, and with urgency, can we ensure that this renewed investment also drives long-term security, resilience, and growth for the continent.

Summary of Recommendations

Bolded recommendations are explored further in the Recommendations chapters.

RECOMMENDATIONS FOR GOVERNMENTS

1 COORDINATE READINESS PORTFOLIO AT A EUROPEAN LEVEL

- 1.1** Strengthen the Coordinated Annual Review on Defence (CARD) through closer collaboration with defence ministers and the creation of a financing arm, building on the model of the US Office of Strategic Capital, to direct funding toward priority capabilities
- 1.2** Increase joint procurement between European nations—strengthening current European Union initiatives such as the Act in Support of Ammunition Production (ASAP) and the European Defence Industry Reinforcement Through Common Procurement Act (EDIRPA)—to achieve better economies of scale and reduce “scarcity-driven procurement”
- 1.3** Systematise the involvement of third countries (e.g., the United Kingdom) in an “EU+” format, bringing together countries willing to be more associated with European initiatives in order to foster greater collaboration, attract broader investment, and build defence readiness at a genuinely continental level
- 1.4** Leverage multilateral funding mechanisms—e.g., the EU Security Action for Europe, the European Investment Bank, and the NATO Innovation Fund—to strategically address gaps in European financing readiness and crowd in private capital to key areas of defence, using public funding to anchor private investment
- 1.5** Optimise EU defence readiness strategies and initiatives to strike a balance between short- and long-term goals, source capacity to improve defence readiness in the short term (which will likely require procurement from outside Europe), and develop sovereign capabilities which will further Europe’s long-term objectives for strategic autonomy

2 DEVELOP NATIONAL INNOVATION STRATEGIES

- 2.1** Appoint national chief innovation officers (or equivalent) with dedicated teams, budgets, and authority
- 2.2** Develop national “innovation theses” based on dynamically closing readiness gaps, using it to guide ministry strategy and serve as crucial input into military planning
- 2.3** Develop national “innovation portfolios” based on a balanced series of bets across both current and forecasted defence readiness gaps
- 2.4** Establish a national innovation measurement function with appropriate staffing, policies, and budgets to capture data on an ongoing basis on innovation key performance indicators (KPIs)

3 TRANSFORM PROCUREMENT PATHWAYS

- 3.1** Establish common technical standards across Europe so that systems can be adopted by multiple nations, reducing national variants and enabling larger common fleets, including through open standards and NATO and EU regulation
- 3.2** Adopt dynamic and multi-source procurement strategies to maintain competitive tension and reduce friction for commercial routes to market—improving supply chain resilience
- 3.3** Reform procurement processes, particularly for small- and mid-tier companies and systems with shorter innovation cycles, to facilitate increasing pace of procurement and drive innovation (e.g., through the Modular Open Systems Approach and/or multi-source procurement)

- 3.4** Adapt procurement award criteria to explicitly assess and reward value generated for national and regional economies, for example, through talent development and retention, investment, job creation, and intellectual property (IP) development within the European defence industrial base
- 3.5 Increase clarity and transparency of demand signals and procurement requirements, using more assertive language (e.g., “at least” rather than “up to”) and publishing comprehensive procurement plans (e.g., Germany’s military wish list) to drive industry and investor confidence
- 3.6 Investigate alternative contract structuring, moving away from COST+, to make contracts more economically effective for suppliers, give suppliers more control over innovation, and incentivise cost efficiencies
- 3.7 Streamline emergency procurement processes, building a strategy which leverages shortened acquisition cycles for critical technologies, decentralised and delegated procurement authority, simplified contracting for SMEs, and a dedicated crisis oversight mechanism to fast-track approvals that can be activated in emergencies

4 ACCELERATE THE DEVELOPMENT OF AN INDUSTRIAL FOOTPRINT CAPABLE OF SUPPORTING DEFENCE

- 4.1 Map existing industrial capacity against defence requirements, cataloguing manufacturers along critical supply chains, drawing on the example of Ukraine’s Library of Components, to identify gaps, bottlenecks, and opportunities for dual use
- 4.2 Pre-negotiate access to commercial capabilities by establishing framework contracts with pools of commercial providers that can be activated in a crisis, following the example of NATO’s Commercial Space strategy to coordinate this in other areas of defence at a supranational level
- 4.3 Create targeted tax and R&D incentives for commercial manufacturers to build and maintain capacity that can support the defence industrial base in a surge, including expanding EU and national grant programmes that co-fund defence relevant innovation, plant adaptation, and workforce reskilling
- 4.4 Reduce regulatory bureaucracy and clarify requirements by issuing clear, sector-specific guidance and standardised compliance templates for firms supporting defence

RECOMMENDATIONS FOR FINANCE

1 REDUCE PRIVATE FINANCING BARRIERS

- 1.1** Create a European “fund of funds”, backed by public capital, to attract investment in early- and scale-up-stage defence-tech companies
- 1.2** Create a defence accelerator that connects innovative start-ups both to the private capital and non-financial resources they need to scale
- 1.3** Review the Basel III rules to explore whether there can be carveouts for defence firms to unlock bank finance to SMEs
- 1.4** Tighten the requirements around exclusions for public-sector pension schemes, so that they are only justified in extreme cases

2 FINANCE CONTINGENT CAPACITY

- 2.1 Identify means of improving financial contingency planning for a crisis event, including investigating the possibility of creating instruments that can mutualise financial risks between allies

- 2.2 Create surge financing facilities, such as standby credit lines, partnering with government to provide guarantees and subsidise commitment fees to reduce the cost to industry of maintaining “just-in-case” capacity
- 2.3 Partner with national and multilateral development banks to create programme and portfolio level supply chain financing mechanisms for priority capabilities, supporting rapid capacity ramp up and contingent production when demand surges

3 CONSOLIDATE SUPPLY CHAINS

- 3.1 Pursue buy-and-build strategies that consolidate smaller Tier 1 and Tier 2 suppliers, leveraging private capital to create larger, more resilient European defence companies that have the scale to compete for larger, more international contracts

RECOMMENDATIONS FOR INDUSTRY

1 FOCUS ON PRIORITY CAPABILITIES

- 1.1 Concentrate investment on the priority capability macro-areas identified by the European Commission, with particular focus on specific capability gaps such as integrated air-and-missile defence (IAMD); tactical unmanned aerial systems (UAS); space intelligence, surveillance, and reconnaissance (ISR); and C4ISTAR*, which are critical to defence readiness

2 ACCELERATE COLLABORATION BETWEEN PRIMES

- 2.1 Accelerate joint programmes, converging on common cross-European programmes to concentrate resources and avoid duplication
- 2.2 Partner with other primes to pool complementary capabilities to strengthen European competitiveness at a global level

3 ENHANCE SUPPLY CHAIN RESILIENCE

- 3.1 Consolidate suppliers—through capability-focused consortia, partnerships, and M&A—to improve supply-chain resilience and meet the scale needed to support large programmes (e.g., electronic-warfare-focused consortium within the Global Combat Air Programme)
- 3.2 Adopt more rigorous supply chain risk-management practices, such as dual sourcing for critical inputs, limits on single-supplier exposure, and structured monitoring of supplier risks

4 SCALE UP INDUSTRIAL CAPACITY

- 4.1 Expand defence industrial footprint by reskilling workers and repurposing manufacturing plants from other industries, and widening the supplier pool beyond legacy defence suppliers
- 4.2 Incorporate more commercially available parts in defence manufacturing by design, to improve supply chain resilience and surge readiness, drawing on example set by Ukraine
- 4.3 Innovate manufacturing processes to increase throughput, improve flexibility to switch between variants, shorten lead times, and strengthen production resilience

*C4ISTAR refers to command, control, communications, computers, intelligence, surveillance, target acquisition, and reconnaissance

Context

“What Europe and its Member States do for the rest of this decade will shape the security of the continent for the whole century”

European Commission, *Preserving Peace—Defence Readiness Roadmap 2030*

Deepening Geopolitical Instability and Complexity

Russia's renewed imperialism poses the most pressing conventional threat to European security. Its invasion of Ukraine, growing coercive influence in Central Asia, and pressure on post-Soviet states demonstrate a willingness to use force to reshape borders and expand its sphere of influence. The wider rules based international order is also under strain, with repeated violations of international law weakening confidence in multilateral institutions.

Following a sustained ramp-up in defence spending, China now has the second-largest defence budget after the United States.¹ Together with rapid technological advances and a deepening strategic partnership with Russia, this escalation exerts additional pressure on European security and resilience. The threat from China's hardening military posture is exacerbated by European dependence on China for global supply chains and critical technologies.

Meanwhile, US protectionism, shifting US foreign policy towards Europe, and rising nationalism within parts of Europe add uncertainty to long standing Western alliances. In the face of this instability, close European cooperation is critical to safeguarding continental security.

Changing Nature of Warfare

The changing nature of warfare, marked by rapid technological advancement and stark discontinuities between conflicts, poses a significant challenge to European defence readiness. To account for the uncertainty over the domain and the nature of future conflicts, nations must prepare for the ramp-up in industrial capacity required for conventional and attritional warfare, alongside continuing to invest in the development of new capabilities and emerging technologies.

Recent conflicts, particularly in Ukraine, have underscored the need for rapid, low-cost, scalable arms production—an area where many European nations need to improve to achieve a better balance between technological sophistication and volume. For example, in 2024, Ukraine produced 1.5 million drones, 96 per cent of the total drones used by its forces, at a unit cost of roughly €425.² This is a significantly lower cost than other European drone production. The European Drone Capability Coalition, for instance, aims to produce 30,000 first-person-view drones at a cost of roughly €1,800 per unit.³ The contrast is more stark when compared with US drone production, where sophistication pushes costs into the tens of thousands of dollars.⁴ Low-cost mass production in Ukraine has been achieved through a combination of technological innovation and the use of commercially available materials.⁵ Other European nations must follow this example if they hope to efficiently scale up production capacity while continuing to invest in technological advances within constrained defence budgets.

In the evolving landscape, drones have emerged as a critical force multiplier. The Royal United Services Institute estimates that tactical unmanned aerial vehicles (UAVs) account for 60 per cent to 70 per cent of damaged and destroyed Russian systems in Ukraine.⁶ In the recent conflict over Nagorno-Karabakh, drones proved transformative—systematically disabling an array of ground force equipment, from tanks and trucks to missile launchers and artillery.⁷ This further reinforces the importance of low-cost production volume in attritional warfare.

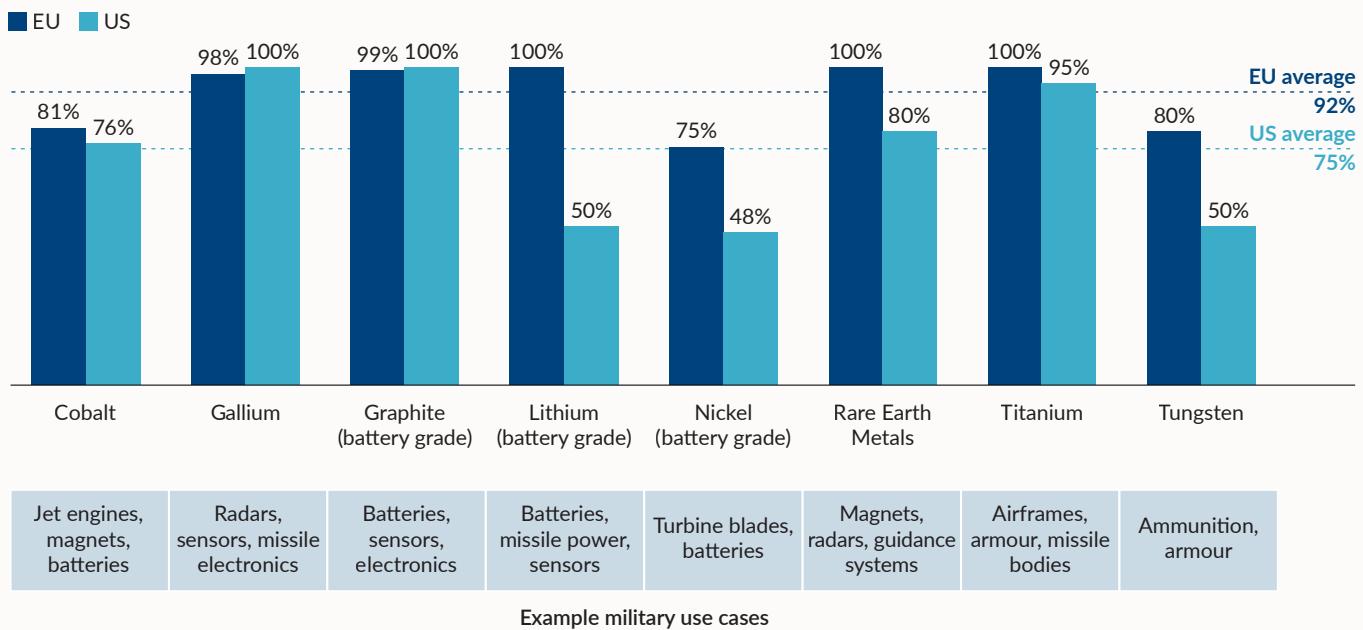
Cyber operations are also integral to modern conflict, both as a domain and as an enabler of physical operations. According to the European Repository of Cyber Incidents, cyberattacks on European nations rose by 67 per cent between 2020 and 2025, highlighting the importance of cyber resilience as a core pillar of defence readiness.⁸ In September 2025, for instance, a cyberattack caused significant delays and cancellations at several of Europe's biggest airports.⁹

Space is likewise becoming a pillar of strategic autonomy. Space-based systems are essential for modern intelligence, surveillance, and reconnaissance; early warning systems; precision positioning; and secure communications. Without robust geospatial architecture and launch capabilities, defence forces are “operating blind,” unable to detect incoming threats or protect military and governmental functions in contested environments. Closing capability gaps across all three pillars will be critical to achieve European defence readiness.

Fragile Access to Critical Resources and Capabilities

Europe's ability to sustain high-intensity operations over time is constrained by vulnerabilities in critical resources, components, and talent. Defence manufacturing depends heavily on imported raw materials and key technologies. Europe averages 92 per cent import reliance across eight critical raw materials identified by the European Commission (see Figure 1),¹⁰ with near total dependence for lithium and graphite, which are essential inputs for batteries that power unmanned systems, sensors, and other frontline equipment.¹¹ Based on current and announced projects, even imports will soon fall short of demand, with Europe facing a projected deficit of 160,000 tons per year of battery-grade lithium, or nearly 30 per cent of projected annual demand by 2030. In contrast, the United States relies on imports, especially from China, for 75 per cent of these raw materials.¹²

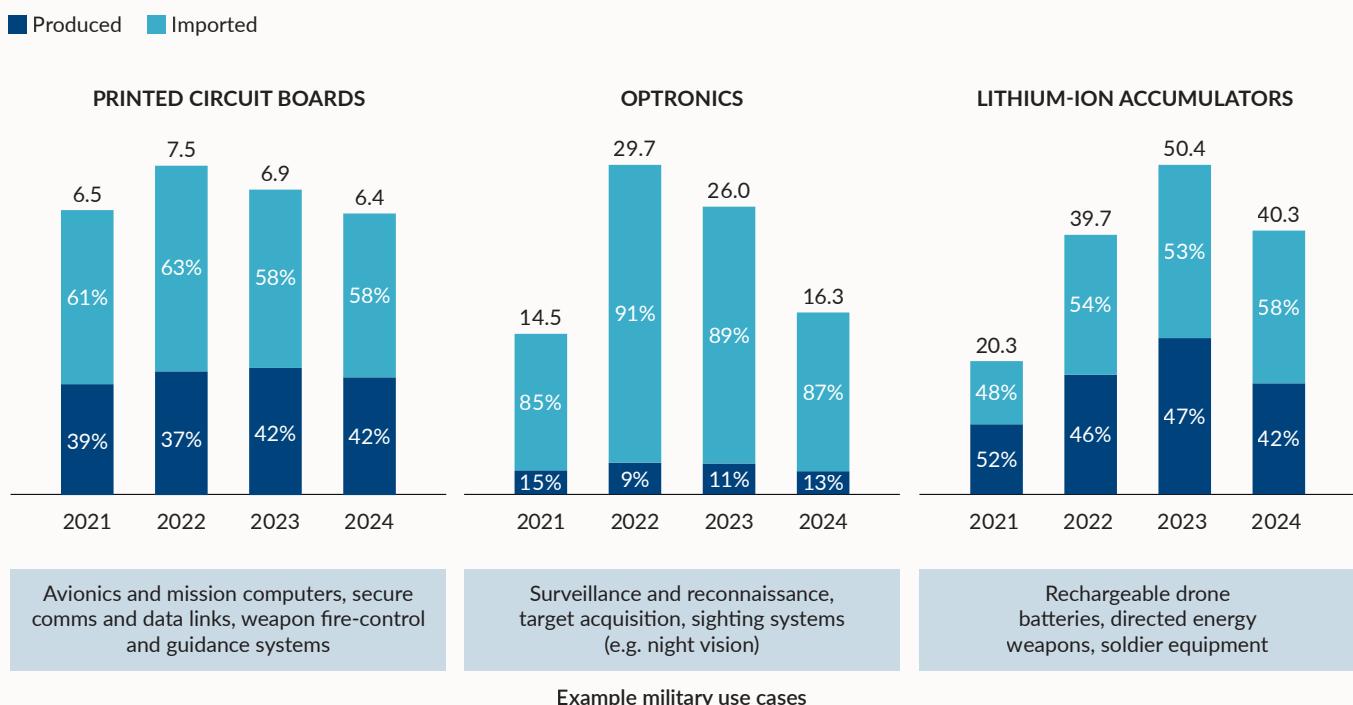
Figure 1: EU and US Import Reliance for Critical Raw Materials



Source: Oliver Wyman analysis (2026), based on International Institute for Strategic Studies (2025), and US Geological Survey (2025)

For specialised components, import reliance is similarly high. Over 90 per cent of optronics and nearly 60 per cent of printed circuit boards and lithium-ion accumulators,¹³ all essential in building computers, guidance systems, avionics, and other advanced electronic subsystems, come from outside of Europe (see Figure 2).¹⁴ These dependencies expose European defence supply chains to price shocks, physical shortages, and deliberate export restrictions at times of crisis, making the development of sovereign supply chains critical to defence readiness.

Figure 2: EU Production (for Own Use) and Import of Selected Critical Components (€ billions)

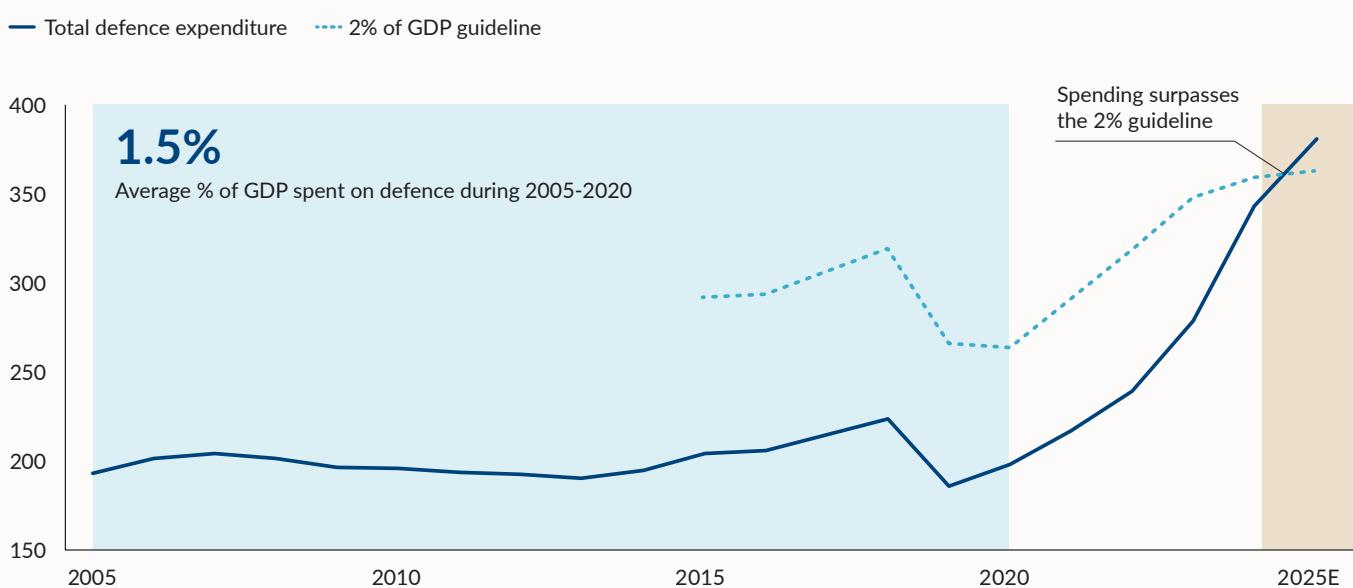


Note: Optronics includes semi-conductor diodes, semiconductor light-emitting diodes, and photosensitive semiconductor devices
Source: Oliver Wyman analysis (2026), based on Eurostat (2025)

Europe's Starting Point: Underinvestment and Fragmentation

Europe's ambition for greater defence readiness is shaped by a legacy of underinvestment and structural inefficiency. Between 2005 and 2020, European defence spending averaged roughly 1.5 per cent of gross domestic product (GDP)—half a percentage point below NATO's 2 per cent guideline (see Figure 3).¹⁵ Across the same period, only around 20 per cent of defence spending was allocated to investment (see Figure 4),¹⁶ constituting a combination of defence equipment procurement and R&D expenditure. As nations have begun to accelerate procurement, defence investment has surpassed 30 per cent of expenditure for the first time in decades. To account for this rise, the proportion of defence expenditure allocated to personnel and pensions reduced slightly, although spending on both has continued to rise in real terms.¹⁷

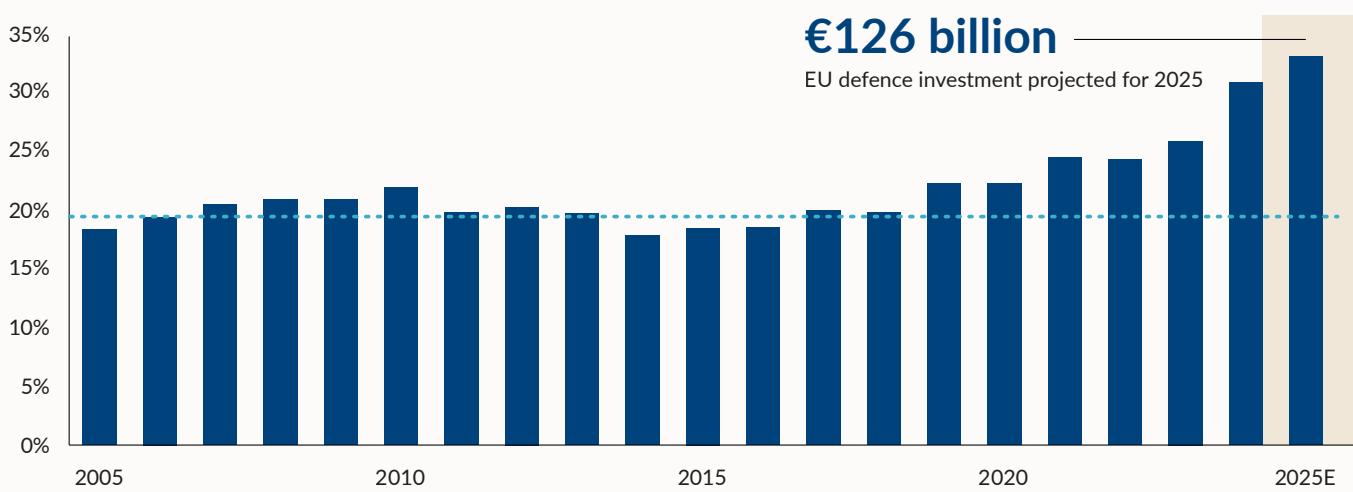
Figure 3: Total EU Defence Expenditure vs the Previous 2% GDP NATO Guideline (€ billions)



Note: The observed decrease between 2018 and 2019 reflects the exclusion of UK data from European Defence Agency totals following the UK's departure from the European Union. Figures for 2025 are estimates (E).

Source: Oliver Wyman analysis (2026), based on European Defence Agency (2025)

Figure 4: Share of Total EU Defence Expenditure Allocated to Defence Investment

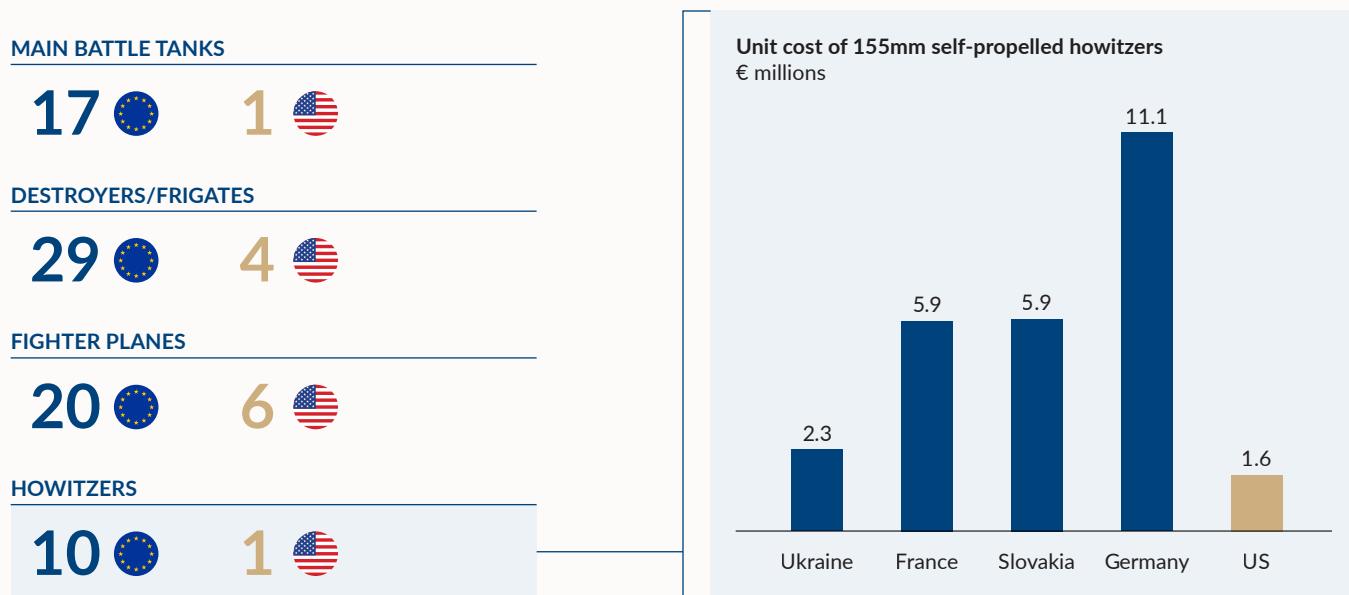


Note: Defence investment includes defence equipment procurement expenditure and defence R&D expenditure

Source: Oliver Wyman analysis (2026), based on European Defence Agency (2025)

Resource allocation in Europe is driven by national priorities and industrial capabilities rather than by a common European agenda. The result is a proliferation of platforms and systems (as shown in Figure 5)¹⁸ that prevents economies of scale, slows production ramp up, and undermines interoperability. Fragmentation increases lifecycle costs, complicates logistics and maintenance, and discourages industry from committing to new production lines, capability development, and R&D in the absence of clear, long term demand signals. This is reflected in the unit costs. For example, EU countries provide 10 different types of howitzers to Ukraine at over three times the unit cost of the one supplied by the US.¹⁹ European nations must align on common standards and concentrate investment in a smaller number of platforms for increased procurement if they are to meaningfully improve defence readiness.

Figure 5: Proliferation of Systems in Europe vs US



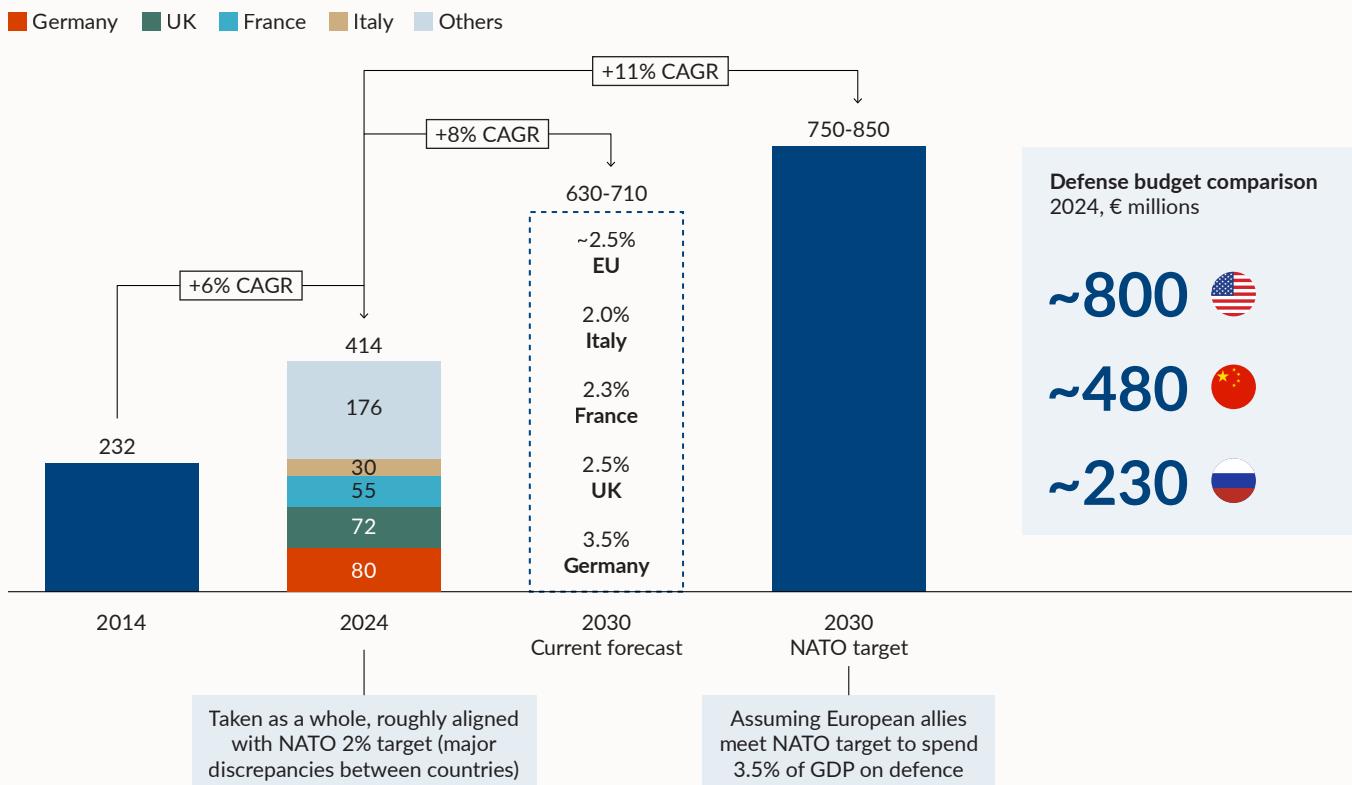
Note: Number of howitzers refers to number supplied to Ukraine; model of howitzer: Ukraine, 2S22 Bohdana; France, CAESAR artillery howitzer; Slovakia, Zuzana-2 howitzer; Germany, RCH-155 self-propelled howitzer; US, M109.

Source: Oliver Wyman analysis (2026), based on Bruegel (2024), and European Commission (2017)

Recent NATO and EU Responses

In recognition of these challenges, NATO and the EU have begun to develop strategy, spending, and industrial policy to improve defence readiness. At the June 2025 NATO summit, allies agreed to a Defence Investment Plan setting the defence expenditure goal for European member states at 3.5 per cent of GDP, up from the long standing 2 per cent guideline. If European allies were to reach this target, Europe's NATO defence budget could reach an estimated €750 billion to €850 billion (see Figure 6),²⁰ surpassing the 2024 defence spending of China and Russia, at €480 billion²¹ and €230 billion,²² respectively, and narrowing the gap with the US, at €800 billion in 2024.²³ Even if that benchmark is not fully achieved, current trajectories suggest that Europe is on course to reach an estimated €630 to €710 billion in 2030.

Figure 6: Europe NATO Defence Budget (€ billions)



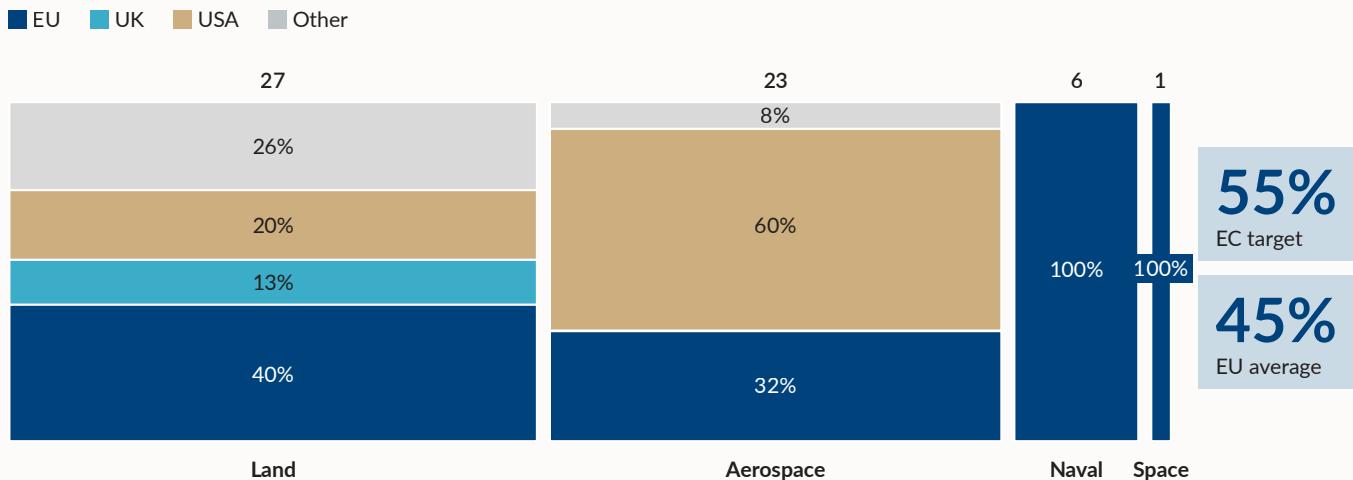
Note: 2030 current forecast has been calculated using current public information on national European defence spending GDP targets which is subject to change, GDP percentages have been multiplied by IMF GDP forecast for 2030, which have been adjusted to align with NATO GDP data; 2030 NATO target has been calculated based on 3.5 per cent of IMF forecast GDP, which has been adjusted to align with NATO GDP data; defence budgets for China and Russia are with estimated purchasing power parity; CAGR refers to compound annual growth rate

Source: Oliver Wyman analysis (2026), based on NATO (2025), International Monetary Fund (2025), UK Parliament (2025), Robertson (2025), French High Commission for Strategy and Planning (2025), German Federal Ministry of Finance (2025), Italian Parliamentary Budget Office (2025), Clapp (2025)

The European Commission has set out a complementary agenda in the form of the ReArm Europe Plan, which includes the *White Paper for European Defence—Readiness 2030* and the *Defence Readiness Roadmap 2030*. Together these initiatives seek to:

1. **Increase European defence spending** in support of NATO benchmarks. For example, the Security Action for Europe (SAFE), proposed in March 2025, would create a €150 billion financial loan instrument to fund defence procurement. Poland is set to receive the lion's share—almost €44 billion—followed by France (€16 billion), Hungary (€16 billion), and Italy (€15 billion).²⁴ Member states are also encouraged to use the Stability and Growth Pact "escape clause" for defence, allowing the mobilisation of up to 1.5 per cent of GDP per year for four years in additional defence spending.²⁵
2. **Build European strategic autonomy**, with a target for 55 per cent of defence procurement to come from the European Defence Technological and Industrial Base (EDTIB) by 2030,²⁶ up from around 45 per cent today.²⁷ As shown in Figure 7,²⁸ including the UK in the EDTIB increases the current share to 51 per cent, bringing Europe closer to the target.

Figure 7: Share of Awarded Procurement Contracts by Platform and System Origin (2024, € billions)

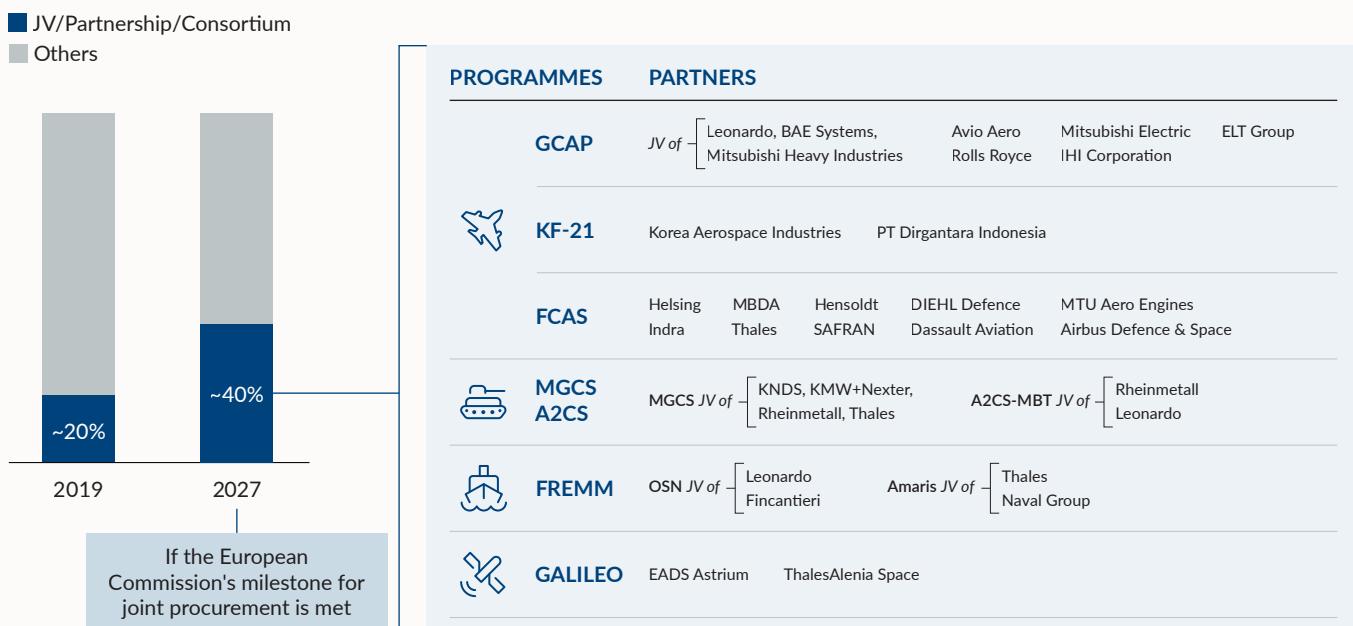


Note: Contracts are based on system origin rather than manufacturing origin; other includes non EU European countries; 2024 has been calculated based on aggregate numbers for 2022-mid2025

Source: Oliver Wyman analysis (2026), based on IISS (2025)

3. Foster inter-European collaboration through partnerships and joint ventures, setting an objective for 40 per cent of defence procurement to come through joint ventures by 2027.²⁹ While a number of major joint programmes are already underway (see Figure 8),³⁰ collaboration will need to accelerate to reach the EC milestone.

Figure 8: Aerospace and Defence Programmes Carried Out Through Joint Ventures (JV), Consortia and Partnerships



Note: GCAP—Global Combat Air Programme; FCAS—Future Combat Air System; MGCS—Main Ground Combat System; A2CS—Army Armoured Combat System; FREMM—Frégates européennes multi-missions

Source: Oliver Wyman analysis (2026), based on European Commission (2025)

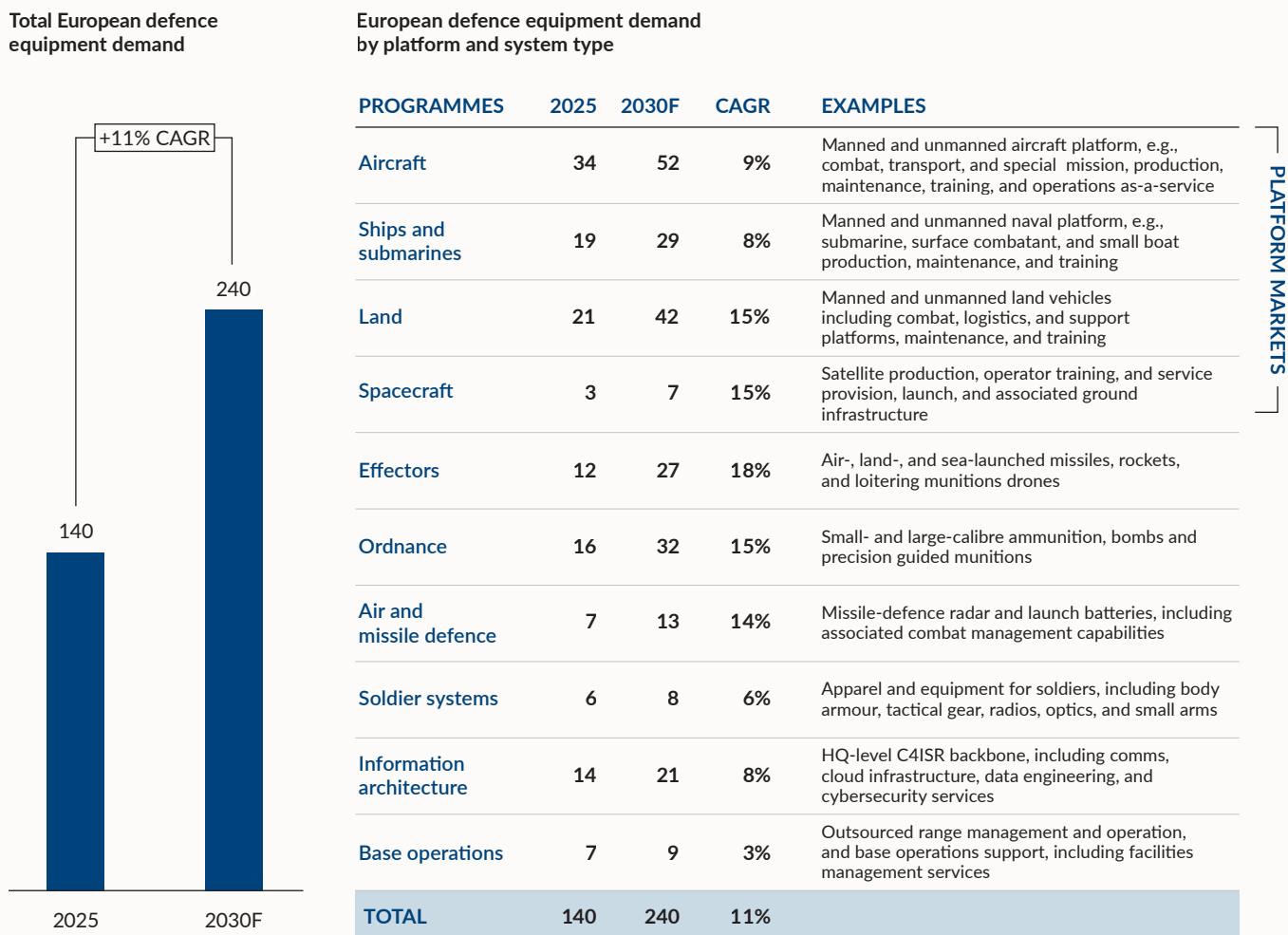
These measures represent a significant shift in both mindset and policy, but they come at a time when many European governments face tight fiscal conditions and competing demands on public spending. Achieving genuine defence readiness will therefore require not only higher spending, but effective collaboration between governments, industry, and investors to translate resources into industrial capacity, technological capability, and continental cooperation.



Capacity and Capability Challenges to Achieving Defence Readiness

As defence budgets rise to meet new NATO targets and broader European defence readiness objectives, demand is expected to surge, growing by 11 per cent per year to 2030 (see Figure 9).³¹ Set to experience the greatest acceleration of demand are effectors (18 per cent growth in demand from 2025 to 2030), land vehicles, ships and submarines, and ordnance (15 per cent growth in demand from 2025 to 2030).³² Rising demand is already exposing structural weaknesses in Europe's technological and industrial base, and significant investment will be required if Europe is to fill these gaps without recourse to non-European suppliers.

Figure 9: European Current and Forecast Defence Equipment Demand (2025-2030F, € billions)



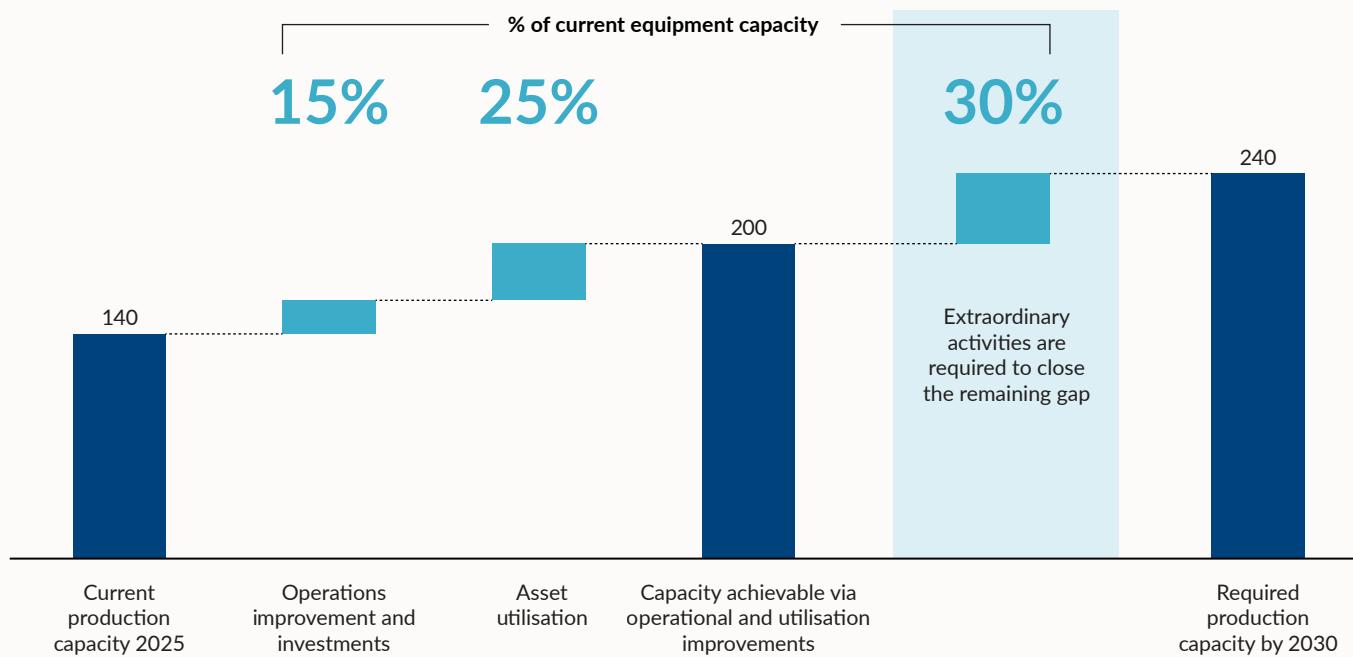
Note: 2030 figures are forecasts (F)

Source: Oliver Wyman analysis (2026), based on Jane's GPS (2025)

Surging Demand and Structural Capacity Gaps

The shortfall between projected 2030 equipment demand and forecast supply is sizeable; meeting expected European defence demand would require roughly a 1.7 times increase in the value of production versus today (see Figure 10).³³ Operational improvements and investments, paired with higher asset utilisation, could deliver around a 40 per cent uplift in equipment deliveries, but a further 30 per cent increase in output is required to meet the required production capacity.³⁴

Figure 10: Military Equipment Production Capacity in Revenues (€ billions)

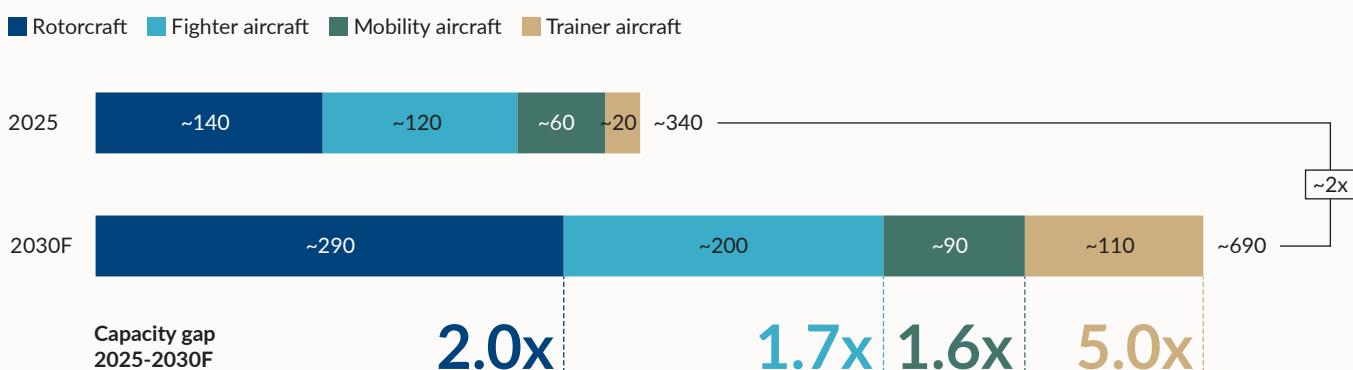


Note: Asset utilisation estimated based on one additional shift per day and one additional working day; operational improvements modelled on historical defence operational efficiency improvements

Source: Oliver Wyman analysis (2026), based on Janes GPS (2026)

Translating this capacity gap into platform units, as shown in Figure 11,³⁵ highlights the practical scale of the challenge. In the air domain, meeting 2030 demand would require Europe to double its current fleet of military aircraft and increase procurement of trainer aircraft five-fold.³⁶ In practical terms, this means Europe would need to acquire approximately 350 additional aircraft annually in 2030 compared with today. However, recent production forecasts suggest that annual deliveries of military aircraft are only on track to grow by 9 per cent over the same period,³⁷ leaving a significant shortfall between projected needs and expected output.

Figure 11: Annual Procurement Requirement for Aircraft in Europe (Number of Units)



Note: 2025 units estimated from Janes GPS; 2030 units estimated from the 2030 value pool (see Figure 9)

Source: Oliver Wyman analysis (2026), based on Janes GPS (2026)

A material expansion of industrial capacity is essential; without it, Europe will struggle to replenish stockpiles, regenerate losses, and field the additional forces implied by higher levels of ambition. Scaling up manufacturing on the continent will mitigate risks from unreliable partners and global fragilities, ensuring that European defence can rely on timely, resilient supply.

Critical Capability Gaps

Europe's defence readiness is also impeded by capability gaps, with a lack of sovereign capabilities in critical areas undermining the continent's ability to respond to threats independently. In the *Defence Readiness Roadmap 2030*, the European Commission outlines nine areas as priority capabilities for European defence. In a further white paper on European defence readiness, the commission's call to action is more explicit—member states must commit to tackling the identified critical capability gaps—and the EU will provide the funding mechanisms and incentives to support this. The largest EU financing instrument for this is SAFE, providing up to €150 billion to finance investments in defence capabilities, with an explicit focus on closing priority capability gaps. SAFE even specifies the types of defence products that can be procured with the loan; these products map onto the 10 categories shown in Figure 12.³⁸

Figure 12: Priority EU Capability Areas and Specific Critical Gaps

Air and Missile Defence	Integrated air and missile defence (IAMD)	M-SHORAD	Layered C-UAS	
Artillery Systems and Deep Strike	Field artillery/ self-propelled howitzer	MLRS and SRBM	Long-range/ stand-off strike	
Ammunition and Missiles	Large calibre rounds (155mm)	Tactical loitering munitions	One-way effectors	Anti-radiation missile (ARM)/SEAD
Drones and Counter Drones	Tactical UAS (groups 1-3)	Unmanned orchestration/ swarm	CEMA-capable UxS	
Ground Combat	Mechanized combat platforms	Logistics and engineering vehicles	Tactical soldier equipment	
Maritime	Anti-submarine warfare	MCM	Naval ISR/MPA	Unmanned maritime systems
Space	Intelligence (SIGINT/COMINT)	Space assets protection	Space ISR	Space-based early warning
Military Mobility	Heavy equipment transporters	Transport and depot infrastructure	Legal framework for troops mobility in Europe	
AI, Quantum, Cyber and Electronic Warfare	High-speed and resilient communications	Defensive and offensive cyber	Integrated multi-national C4ISTAR	AI assist and quantum technology
Strategic Enablers	Airlift	Air-to-air refueling	Critical infrastructure protection	

Key: ■ High-priority gaps

Source: Oliver Wyman analysis (2026), based on European Commission (2025)

Within these categories are a number of specific high-priority capability gaps where Europe lacks sufficient sovereign capabilities. These include, but are not limited to, integrated air and missile defence (IAMD), long-range and stand-off strike, tactical unmanned aerial systems (UAS), and space intelligence, surveillance, and reconnaissance (ISR).

IAMD is among the most critical capability gaps in Europe's arsenal. In 2025, NATO Secretary General Mark Rutte called for a 400 per cent increase in IAMD capacity,³⁹ yet Europe still relies overwhelmingly on US-supplied interceptors, such as the Patriot, for both exoatmospheric and terminal-phase defence.⁴⁰ Efforts to close this gap are fragmented, with duplicative European development initiatives—such as HYDEF and HYDIS, which are both developing a hypersonic defence interceptor—undermining progress towards a comprehensive, continent-wide architecture.⁴¹

Long-range conventional strike is another a critical gap. Today, the ability to engage high value targets at ranges beyond 1,000 kilometres is largely confined to a limited set of UK and French naval cruise missiles and a patchwork of predominantly American air launched systems, while Russia fields ground launched missiles out to 2,500 kilometres.⁴²

Recent conflicts, particularly in Ukraine, have demonstrated the importance of tactical UAS, yet European forces remain slow to field armed UAS at scale, and industry is structurally geared towards small volumes of technologically advanced platforms rather than rapid, high rate production of expendable systems. This gap is especially challenging to close because the fast pace of UAS technology cycles means that drones stocked today may quickly become obsolete, making high-volume stockpiling an ineffective solution.⁴³

Space-based ISR underpins targeting, long range strike, secure communications, navigation, and early warning, yet European capabilities remain limited and heavily dependent on the US. Fewer than 50 European satellites provide only a fifth of US level coverage,⁴⁴ with Europe also heavily reliant on the US for launch capabilities given lack of launch sites on the continent. While several states are expanding national constellations and the EU, NATO, and the European Union Satellite Centre (SATCEN) are strengthening space initiatives, these efforts are still far from giving Europe strategic autonomy.⁴⁵

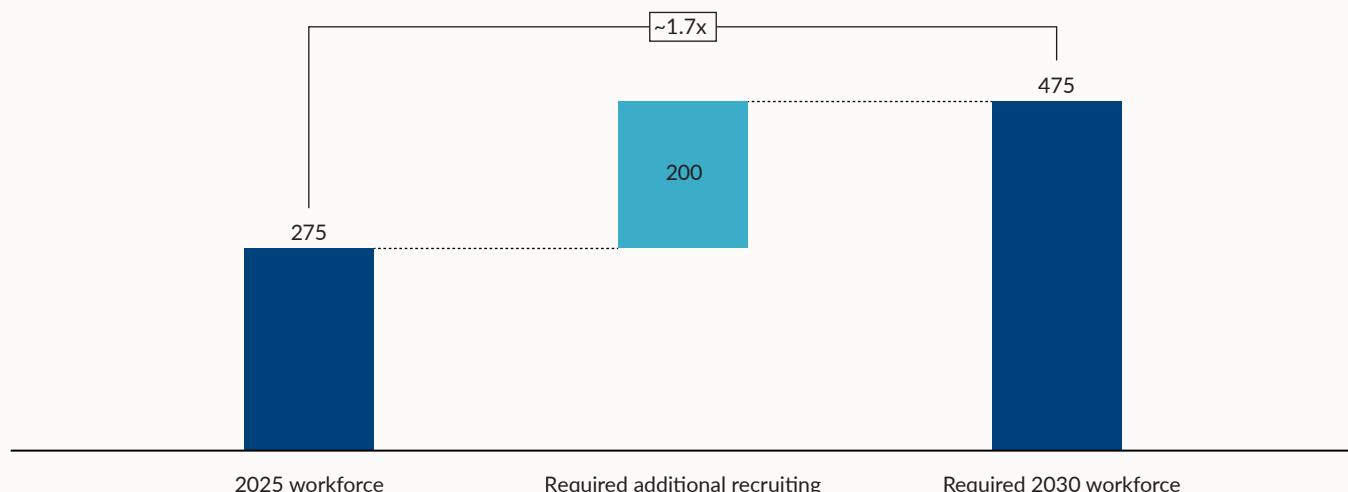
C4ISTAR also remains a core vulnerability for Europe as the continent is heavily dependent on US-provided airborne ISR and secure cloud computing services. European forces risk being left without core battlefield awareness or coordination if allied support is unavailable. Persistent interoperability issues across national networks further undermine both operational independence and responsiveness.⁴⁶

Investment must be paired with closer European alignment and cooperation if Europe is to develop sovereign solutions to these gaps and build long-term strategic autonomy.

Workforce and Talent Shortfalls

Closing these capacity and capability gaps will necessitate a substantial increase in the European defence workforce. In order to reach the volume of equipment production required in 2030, the European defence sector will require a skilled workforce almost twice its current size, entailing a 70 per cent in increase headcount (see Figure 13).⁴⁷ Closing the gap would require European defence companies to employ an additional 200,000 skilled workers. To bridge this gap through recruiting alone, firms would need to increase their recruitment of science, technology, engineering, and mathematics (STEM) graduates by approximately 10 per cent.⁴⁸ A significant portion of this workforce gap is expected to be addressed by reskilling workers from adjacent industries, such as automotive, with the European Commission aiming to reskill 600,000 individuals by 2030.⁴⁹

Figure 13: Projected Skilled Worker Gap in the European Defence Industry by 2030



Note: Europe includes EU and UK; skilled workers are defined as engineers, software developers, system architects, production technicians, welders, machinists and cybersecurity specialists; European workforce modelled from 2024 ADS figures, assuming 40 per cent of workforce are skilled workers; required 2030 workforce modelled using project industry demand and assuming constant productivity

Source: Oliver Wyman analysis (2026), based on ASD (2025)

This surge in demand for skilled labour presents an opportunity to create high-value jobs and strengthen the European industrial base. Europe must attract, train, and retain the necessary talent if it is to harness this opportunity for economic growth; otherwise, it risks increasing dependence on procurement from outside Europe and further eroding European strategic autonomy.

Effectiveness of National Defence Readiness Responses



Against the backdrop of shared NATO and EU ambitions, major European nations are pursuing distinct national strategies to deliver defence readiness. Germany, the UK, France, and Italy have each defined their own mix of strategic focus, investment, and force development, with differing implications for addressing capacity shortfalls, closing capability gaps, and advancing European autonomy and collaboration. Although the UK sits outside EU defence initiatives, closer alignment between UK efforts and EU programmes would be mutually beneficial, strengthening continental security and making better use of resources on both sides.

National Strategic Focus

Germany has articulated its intent largely through budgetary and procurement commitments rather than a single, comprehensive strategic review. Recent government statements reiterate a strong commitment to NATO and emphasise increasing spending and personnel as central levers.⁵⁰ The UK's *Strategic Defence Review* sets out a clearer doctrine, reaffirming a "NATO-first" posture and prioritising contribution to the Euro Atlantic alliance via an integrated force with the capacity to operate within NATO component commands.⁵¹ Italy's *Defence White Paper 2025–27 (DPP)* centres on national security, resilience, and cooperation, similarly stressing NATO as the fundamental pillar of Italian and Euro-Atlantic security, with a particular focus on the Mediterranean and Africa as priority regions.⁵² By comparison, France's *National Strategic Review (RNS)* places greater emphasis on European strategic autonomy, while remaining committed to US and NATO alliances; its 11 strategic objectives focus on building French and European sovereignty and a resilient, war ready economy.⁵³

National Measures to Close Capacity Gaps

Across these four countries, Germany is taking particularly far reaching measures to close the capacity gap. On procurement, the Bundeswehr has published a military “wish list” worth €377 billion, alongside a €35 billion plan for “space security”,⁵⁴ signalling a step change in planned acquisitions. France provides a similarly detailed roadmap through its 2024–30 Military Programming Act (LPM), with a budget of €413 billion across a longer time frame.⁵⁵ The UK has committed to publishing a 10 year *Defence Investment Plan*,⁵⁶ expected later this year, setting out budget and procurement plans. Italy’s DPP sets out specific procurement plans with a more moderate €35 billion budget for the coming 15 years.⁵⁷

Personnel plans also vary. Germany intends to expand its active forces to around 260,000 soldiers, up from roughly 184,000 today, alongside around 200,000 reservists.⁵⁸ France’s LPM aims for a more conservative increase of military full-time employees from around 269,000 to 275,000 by 2030.⁵⁹ Italy’s planned increase, from 166,000 to 167,000 personnel by 2027,⁶⁰ is similarly incremental. While the UK plans to increase personnel when funding allows, it is limited to reallocating back office personnel to front line roles in the meantime.⁶¹

Several nations are also experimenting with new forms of military service to bolster their armed forces: Germany’s Bundestag has approved voluntary service for 18 year olds,⁶² France plans to introduce a voluntary youth service in 2026,⁶³ and Italy is debating a similar approach.⁶⁴ The UK has not announced comparable measures, although the recent Armed Forces Bill will raise the maximum recall age for veterans to expand the pool of “strategic reserve”.⁶⁵

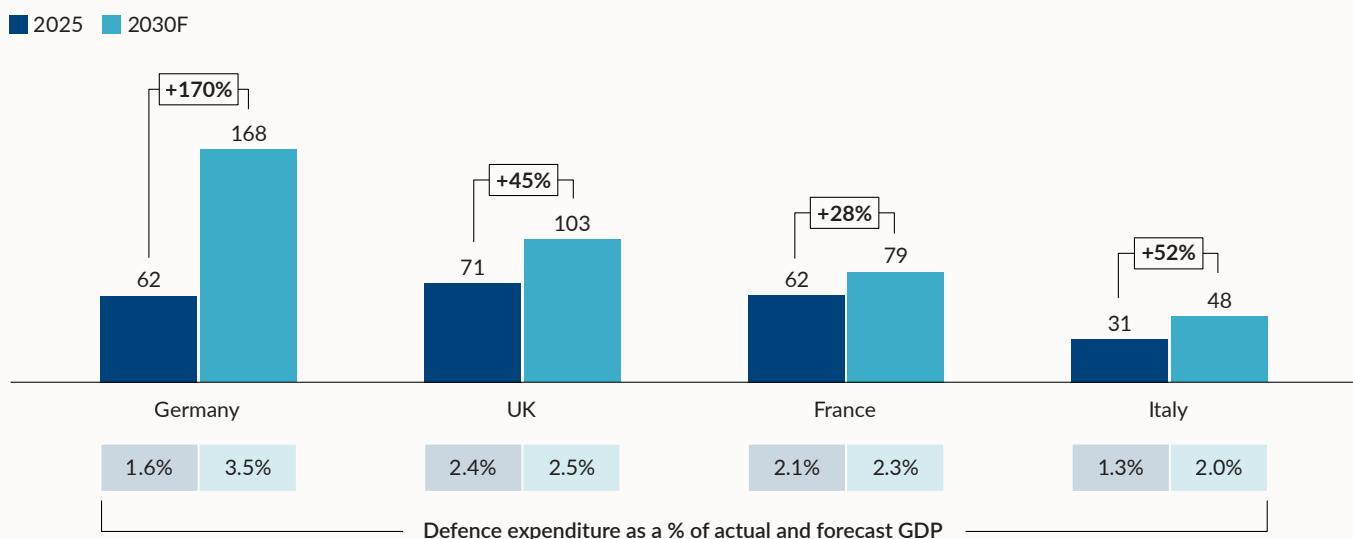
In nuclear deterrence, only the UK and France have independent capabilities. The UK has committed around £15 billion to a sovereign warhead programme as part of broader renewal efforts,⁶⁶ and the French RNS sets out maintaining a robust deterrent as one of the 11 core objectives, with a renewed pace of modernisation underway.⁶⁷

Scale and Composition of Planned Investment

The scale of planned investments follows a similar pattern. Germany is the only country to have explicitly committed to the new NATO benchmark of 3.5 per cent of GDP,⁶⁸ aiming to move from an estimated 1.6 per cent today⁶⁹ to 3.5 per cent by 2029,⁷⁰ six years ahead of the alliance wide target date. Its national defence budget is bolstered by a €24 billion special fund for the Bundestag.⁷¹ The UK plans to rise from 2.4 per cent to 2.5 per cent of GDP in 2027,⁷² with an ambition to reach 3 per cent in the next Parliament,⁷³ supported by up to £330 million from the National Security Strategic Investment Fund,⁷⁴ £400 million from UK Defence Innovation,⁷⁵ and over £3 billion in UK Export Finance lending for defence.⁷⁶

Although France has not set a headline GDP percentage, it does aim to surpass the spending targets set out in the LPM which equate to roughly 2.3 per cent of GDP in 2030,⁷⁷—up from 2.1 per cent of GDP today,⁷⁸ (see Figure 14).⁷⁹ The French budget is supplemented by a planned €450 million state backed defence fund via Bpifrance⁸⁰ and a provisional loan of €16.2 billion from the EU’s Security Action for Europe initiative if it goes through.⁸¹ Italy, starting from an estimated 1.3 per cent of GDP,⁸² aims to increase defence spending to at least 2 per cent of GDP by 2028, with multiple scenarios modelled by the Parliamentary Budget Office.⁸³ Italy has already received a €107.5 million European Investment Bank (EIB) loan for army procurement and stands to benefit from a provisional €14.9 billion loan from SAFE.⁸⁴

Figure 14: Defence Expenditure for Selected European Nations

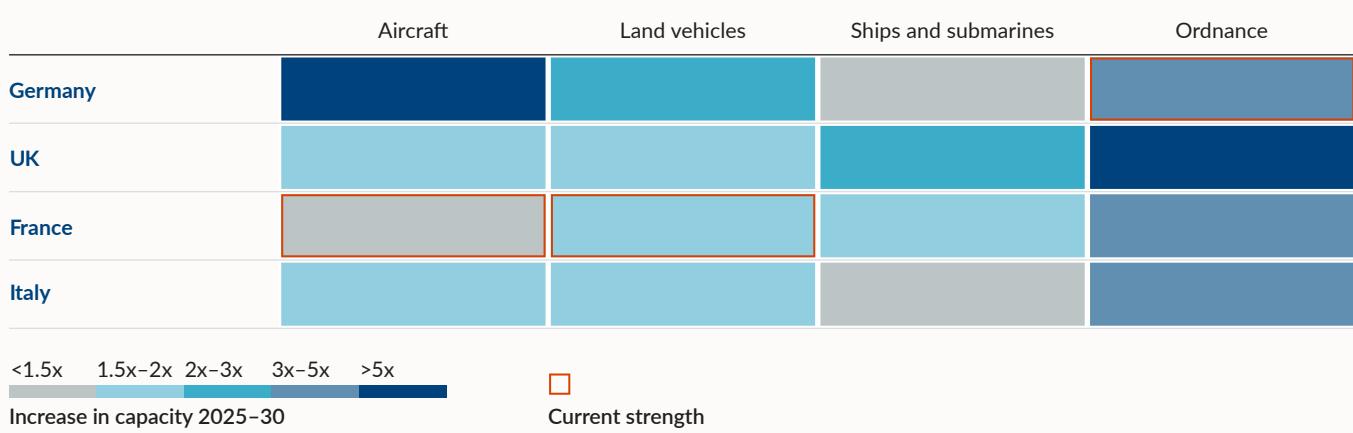


Source: Oliver Wyman analysis (2026), based on International Monetary Fund (2025), European Defence Agency (2025), European Commission (2025), UK Parliament (2025), German Federal Ministry for Finance (2025), French High Commission for Strategy and Planning (2025), Italian Parliamentary Budget Office (2025), French Ministry for the Armed Forces (2025), German Federal Ministry for Defence (2025), Italian Chamber of Deputies (2025)

National Capacity and Capability Investment Focus

Germany again stands out for its commitment to substantially expand its capacity, with the effectiveness of drones and rapid integration of new tech in Ukraine pushing Germany to drastically accelerate procurement and deployment of similar systems.⁸⁵ The Ukraine war has also driven up production of ammunition and missiles across Europe as nations work to help supply Ukraine and build their own stockpiles (see Figure 15).⁸⁶

Figure 15: Planned Increase in Defence Equipment Procurement by Country and Domain (Number of Units)



Source: Oliver Wyman analysis (2026), based on Jane's GPS (2025)

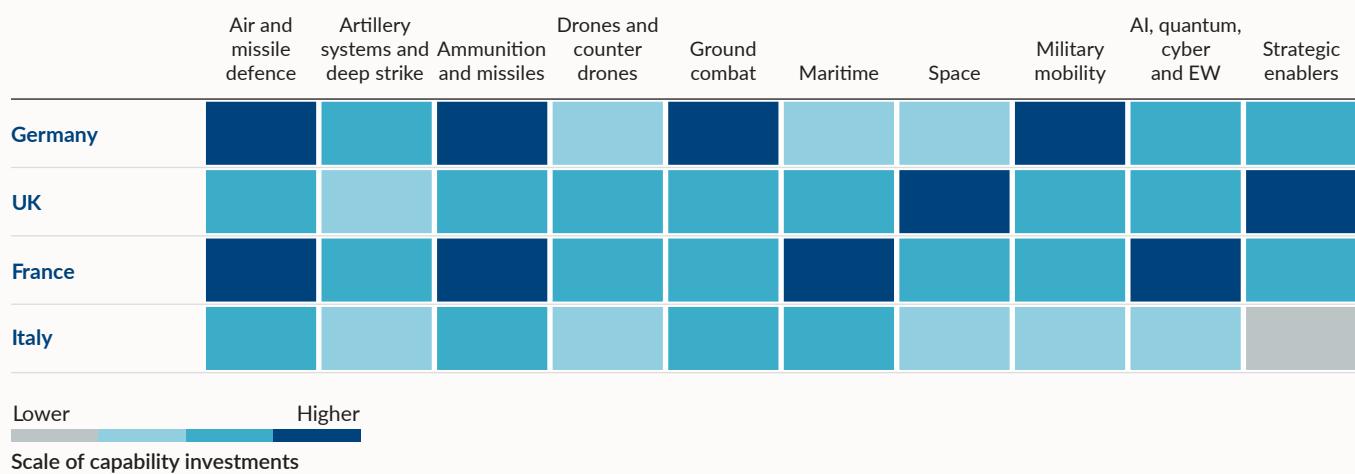
As Figure 16 shows,⁸⁷ all four nations are also taking steps to fill critical capability gaps. In December 2025, Germany became the first European country to field the Arrow air and missile defence system—developed by Israel and the United States—to counter the growing threat from intermediate-range ballistic missiles. Arrow, with a 2,400-kilometre range and exoatmospheric interception capability, will operate alongside Patriot and IRIS-T systems, plugging a major gap in national and continental air defence with full operational coverage planned by 2030.⁸⁸

The UK is currently investing heavily in space launch capabilities to address Europe's shortfall in sovereign capabilities,⁸⁹ a key barrier to strategic autonomy. In 2025, the Civil Aviation Authority granted the first licence for a vertical launch in the UK.⁹⁰ This follows the UK's commitment in 2024 to the NATO STARLIFT programme, which aims to build a network of space launch sites across the alliance in collaboration with commercial partners.⁹¹

France is also strengthening European strategic autonomy through investment in nuclear-powered submarines. Under the €10 billion Barracuda programme, France is building six next-generation attack submarines, with the fourth vessel, *De Grasse*, launched in 2025 and two more planned for delivery by 2030.⁹²

Italy is also addressing gaps in the maritime domain with a plan to acquire six new maritime multi-mission aircraft by 2030. The €592 million investment will provide advanced anti-submarine and anti-surface warfare capability, filling critical gaps in Europe's maritime patrol.⁹³

Figure 16: Planned Investments in New Capabilities by Country and Domain



Source: Oliver Wyman analysis (2026), based on Jane's GPS (2025)

Europe must continue to accelerate investment to close critical capability gaps. At the same time, nations should act deliberately in choosing whether to source solutions from external suppliers or to build sovereign capabilities, carefully weighing the balance between short-term operational readiness and long-term strategic autonomy.

National Alignment With NATO and EU Defence Readiness Initiatives

Despite varying strategic focus, Germany, France, Italy, and the UK all demonstrate a high commitment to European strategic initiatives for defence readiness, if not to the NATO spending target.

While Germany does not frame autonomy as an explicit objective, around 160 of 178 listed contractors for new Bundeswehr projects are domestic firms,⁹⁴ implying a de facto preference for national suppliers. Italy's DPP commits to strengthening the Italian industrial base through European cooperation, and around 72 per cent of listed contracts involve European contractors.⁹⁵ France is the most explicit, making European strategic autonomy a central objective of the RNS⁹⁶—only 3.5 per cent of procurement contracts placed between 2019 and 2034 were with non European suppliers.⁹⁷ The UK does not commit to European autonomy as a primary goal, although it does plan to boost domestic industrial capacity and back UK-based defence businesses, including building new munitions and energetics factories.⁹⁸

Partnerships and joint ventures add another layer of complexity. Germany, France, Italy, and the UK all participate in a high number of multinational European partnerships, as well as partnerships with other non-European allies. France, Germany, and Italy all participate alongside Spain in the Eurodrone programme, developing a long-endurance drone to compete with US and Israeli systems. France and Italy also collaborate on the FREMM (frigate) programme, while Germany and France are partners under the Main Combat Ground System (MCGS, battle tank) and JEWEL (missile early warning) programmes. These joint ventures represent just a fraction of the total number of intra-European partnerships and are indicative of a positive appetite for European collaboration.

However, this proliferation of partnerships can also be a source of duplication. Two of the most prominent programmes—the Global Combat Air Program (GCAP), of which the UK, Italy, and Japan are members; and the Future Combat Air System (FCAS), of which France, Germany, and Spain are members—are directly competing to develop a sixth-generation fighter jet.

Taken together, these efforts underscore both progress and fragmentation. National strategic priorities differ and capability gaps are being addressed through a dense web of national and multinational programmes, with evident overlaps and potential redundancies.

Recommendations for Enhancing Defence Readiness

Enhancing European defence readiness calls for a step-change in partnership between governments, finance, and industry. The chapters that follow set out actionable recommendations for how these three groups can partner more effectively to enhance short- and long-term defence readiness. The overarching aim is clear: strengthen European cooperation and collaboration across governments, finance, and industry to improve interoperability, realise economies of scale, increase the pace of innovation, reduce duplication and resource inefficiency, and close capability gaps at a continental level. This is not just a necessity for security; it is a unique opportunity to create a more innovative and globally competitive defence sector that drives economic value and resilience for Europe as a whole.

Recommendations for Government



Governments have a wide range of levers for enhancing defence readiness—from deepening European collaboration and unlocking access to multilateral funding to supporting the development of an industrial base that can surge production during a crisis. In this chapter, we recommend governments take four critical actions: strengthen the coordination of readiness priorities at a European level, develop clear innovation strategies, transform procurement pathways, and accelerate the growth of an industrial footprint that can support the defence sector at scale. Together, these actions will help nations move from fragmented responses to a robust and resilient foundation for defence readiness.

The core focus of this chapter is innovation, highlighting the innovation strategies and practices that enable European nations to proactively identify, assess, and close readiness gaps. In light of the rapidly shifting nature of Europe's current and potential capabilities, as well as our adversaries', policymakers and military leaders need less a map than a GPS, able to dynamically navigate changing readiness needs. By adopting a more structured approach to innovation, governments can ensure that defence strategies are responsive to today's security challenges, as well as sufficiently agile for future uncertainty and supportive of long-term goals.

RECOMMENDATION 1: COORDINATE READINESS PORTFOLIO AT A EUROPEAN LEVEL

The fragmented nature of European defence planning creates inefficiencies that no single nation can solve alone. European allies currently duplicate efforts, pursue incompatible solutions, apply limited resources across numerous small initiatives, and fail to achieve the economies of scale that collective action could deliver.

Coordination at the European level is not about creating new bureaucracy or superseding national sovereignty over defence decisions. Rather, it is

about connecting empowered national investment bodies into a network that can map readiness requirements, coordinate procurement for shared priorities, and optimise collective portfolios for both short-term capacity and long-term strategic autonomy.

Recommendation 1.1: Strengthen the Coordinated Annual Review on Defence (CARD) through closer collaboration with defence ministers and the creation of a financing arm, building on the model of the US Office of Strategic Capital, to direct funding towards priority capabilities

The Coordinated Annual Review on Defence, led by the European Defence Agency, monitors the defence plans of member states in an annual cycle and identifies opportunities for inter-European collaboration, presenting a final report to defence ministers.⁹⁹ Today, CARD pursues three main objectives: (1) map national defence spending and planning (who invests in what, with which timelines, and with which capability priorities); (2) identify common capability shortfalls (for instance, in munitions, air defence, strategic transport, drones, cyber, and space); and (3) identify opportunities for cooperation (where several member states plan to procure or develop similar capabilities, CARD encourages them to do so jointly rather than separately).

While CARD already produces valuable insights on how to achieve specific readiness, closer collaboration with defence ministers and senior officials' throughout the review cycle could help to translate insights into action. CARD could further amplify its impact if EU+ nations, such as those in the European Free Trade Association and the UK, were included in the process.

Creating a supporting funding facility, modelled on the US Office of Strategic Capital, would help European nations to deliver on CARD's recommendations. Launched in 2022, the US office uses a range of financial products to help scale private capital into 31 identified frontier technologies. This funding facility could direct capital towards the gaps identified by CARD, helping to ensure resources are not diluted across too many small or duplicative projects but instead are channelled into high-priority capabilities.

Governments should also consider the following supporting recommendations:

Recommendation 1.2: Increase joint procurement between European nations—strengthening current European Union initiatives such as ASAP and EDIRPA—to achieve better economies of scale and reduce “scarcity-driven procurement”

Recommendation 1.3: Systematise the involvement of third countries (e.g., the UK) in an “EU+” format, bringing together countries willing to be more associated with European initiatives in order to foster greater collaboration, attract broader investment, and build defence readiness at a genuinely continental level

Recommendation 1.4: Leverage multilateral funding mechanisms—e.g., EU Security Action for Europe, European Investment Bank, NATO Innovation Fund—to strategically address gaps in European financing readiness and crowd in private capital to key areas of defence, using public funding to anchor private investment

Recommendation 1.5: Optimise EU defence readiness strategies and initiatives to strike a balance between short- and long-term goals, sourcing capacity to improve defence readiness in the short term (which will likely require procurement from outside Europe) and developing sovereign capabilities which will further Europe's long-term objectives for strategic autonomy

RECOMMENDATION 2: DEVELOP NATIONAL INNOVATION STRATEGIES

European defence ministries today lack a coherent understanding of current and projected readiness gaps. Defence experts interviewed for this paper spoke of a lack of centralised direction for innovation, with new investment in Europe remaining “largely tactical or opportunistic rather than driven by a centrally held, coherent innovation thesis,” as one senior official surmised.¹⁰⁰ This is critical in the contemporary threat environment, where the source of military advantage is shifting from an emphasis primarily on mass to instead a superior ability to adapt platforms to suit different contexts, rapidly onboard new capabilities, and scale up cost-effective solutions.

The theory and practice of corporate innovation management should be actively applied to help European defence ministries direct investment across a range of capabilities and across time frames.¹⁰¹ The pace of commercial technology development, driven by accessible design tools, reduced prototyping costs, and market-driven pressure to innovate, has forced companies to increase pace of experimentation and iterative adaptation to remain competitive. Defence ministries in turn need to learn similar lessons to preserve military advantage in this new era of technology-enabled warfare.

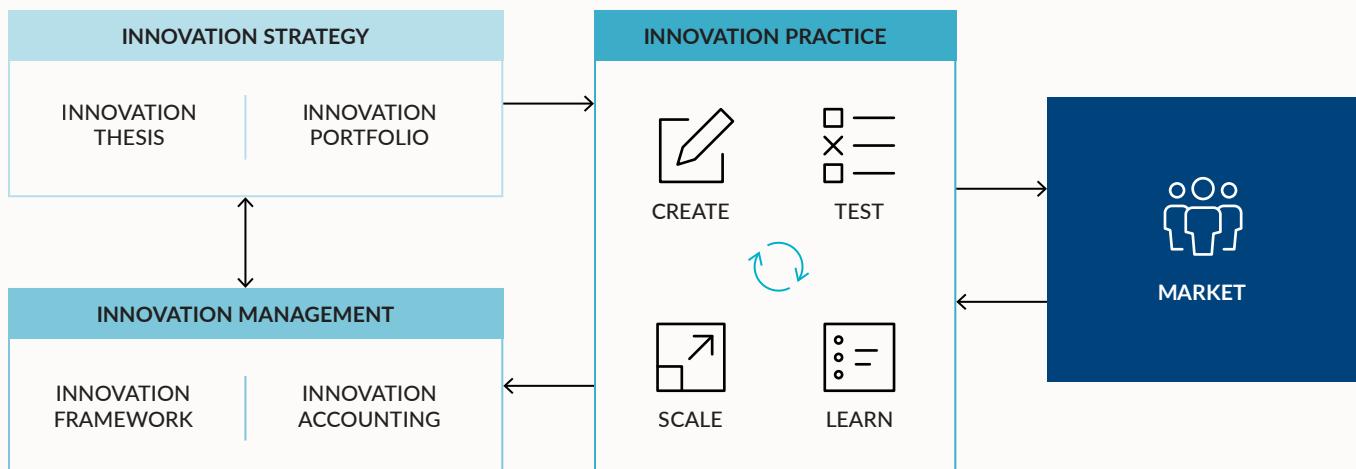
Recommendation 2.1: Appoint national chief innovation officers (or equivalent) with dedicated teams, budgets, and authority

In previous decades, innovation was the purview of R&D heads, but the escalating centrality of innovation for organisational survival has led to the rise of the chief innovation officer (CINO) as a crucial leadership role. However, experts warn that CEOs and organisation heads must demonstrate a clear and personal commitment to innovation to give CINOs the authority and alignment needed to act on their shared vision.¹⁰²

Once the CINO is in place, ministries should incorporate three main building blocks of corporate innovation best practice, which we discuss over the course of this chapter: (1) create and execute an innovation strategy that involves an articulated innovation thesis and innovation portfolio; (2) commit to innovation best practices to effectively create, test, and scale new products; and (3) undertake innovation management to account for new learnings and refresh the initial portfolio (see Figure 17).¹⁰³

Recommendation 2.2: Develop national “innovation theses” based on dynamically closing readiness gaps, using it to guide ministry strategy and serve as crucial input into military planning

Figure 17: Building Blocks of Innovation



Source: Viki, Toma and Gons (2017)

An innovation strategy comprises two essential components: an innovation thesis and an innovation portfolio. The innovation thesis articulates an organisation's vision of the future and its strategic innovation objectives, clearly delineating what aligns with these priorities and, crucially, what falls outside them.¹⁰⁴ It provides the guidance needed to make deliberate innovation investments, preventing random or uncoordinated efforts.

For defence ministries, beliefs about future priorities hinge on assessments of emerging technologies and their potential effects. However, as one defence innovation expert observed, European defence ministries often lack this fundamental clarity: "Ministries are often placing blind bets. They don't have a good analysis of that future requirement picture and what future warfare will look like."¹⁰⁵

Current national and multilateral innovation agencies might develop implicit or explicit innovation theses, but the activity is often undertaken piecemeal and on the periphery of defence ministries' purview. Some ministries have appointed new officials who might develop such documents, but the comprehensiveness and binding nature of any such plans remains unclear and inconsistent across European nations. Europe needs a consistent and systemic approach to innovation for the best coordination of resources.

Otherwise, internal readiness gaps can go unidentified, while the strategic relevance of promising efforts by external entrepreneurs, investors, and technologists are overlooked. Without deliberate, centralised orchestration to both surface internal pain points and evaluate external possibilities, ministries cannot develop informed innovation theses or optimal innovation portfolios.

Recommendation 2.2.A: Ministries should publish planning assumptions so that external innovators can better comprehend the desired effects militaries might demand to fulfil current and future missions

Innovation theses serve dual purposes: orienting innovation internally while providing a foundation to communicate priorities to external stakeholders. Interviewees indicated that no centrally compiled innovation thesis developed by European defence ministries existed, although their possible creation was warmly welcomed.¹⁰⁶ While many militaries went through intensive planning assumptions and scenario testing, these were not communicated widely enough to spur innovation, with one respondent advocating that the UK in particular return to its pre-2010 publicly published assumptions.¹⁰⁷

Several respondents noted that documents such as the UK's forthcoming Defence Investment Plan (DIP) and Germany's multiyear procurement frameworks represent important steps towards that kind of transparency and planning but were necessary rather than sufficient for driving innovation. Interviewees emphasised that such documents are primarily acquisition lists of existing or planned systems rather than articulating desired operational effects, capability outcomes, or innovation priorities.¹⁰⁸

Recommendation 2.2.B: A team reporting to the chief innovation officer or relevant national officer could actively rotate around different parts of the military and ministry to discover potential pain points and opportunities

Leading corporations empower internal teams (sometimes called "radar functions") to survey technologists, cutting-edge companies, and venture capitalists about their sector's future. These teams generate innovation propositions based on what they learn.

A team reporting to the chief innovation officer or relevant national officer could actively rotate throughout different military and ministry units to discover such pain points and opportunities, systematically documenting readiness gaps that innovation might address.¹⁰⁹

Recommendation 2.2.C: The same radar function systematically surveys leading entrepreneurs, investors, prime contractors, and researchers to understand future innovation trends

As one interviewee noted, "Most European countries, certainly the UK in recent years, have shifted toward engaging the industrial base more effectively beyond transactional processes. This needs to happen much earlier—things like wargaming together, bringing in industrial players and military to understand scenarios and needed capabilities."¹¹⁰

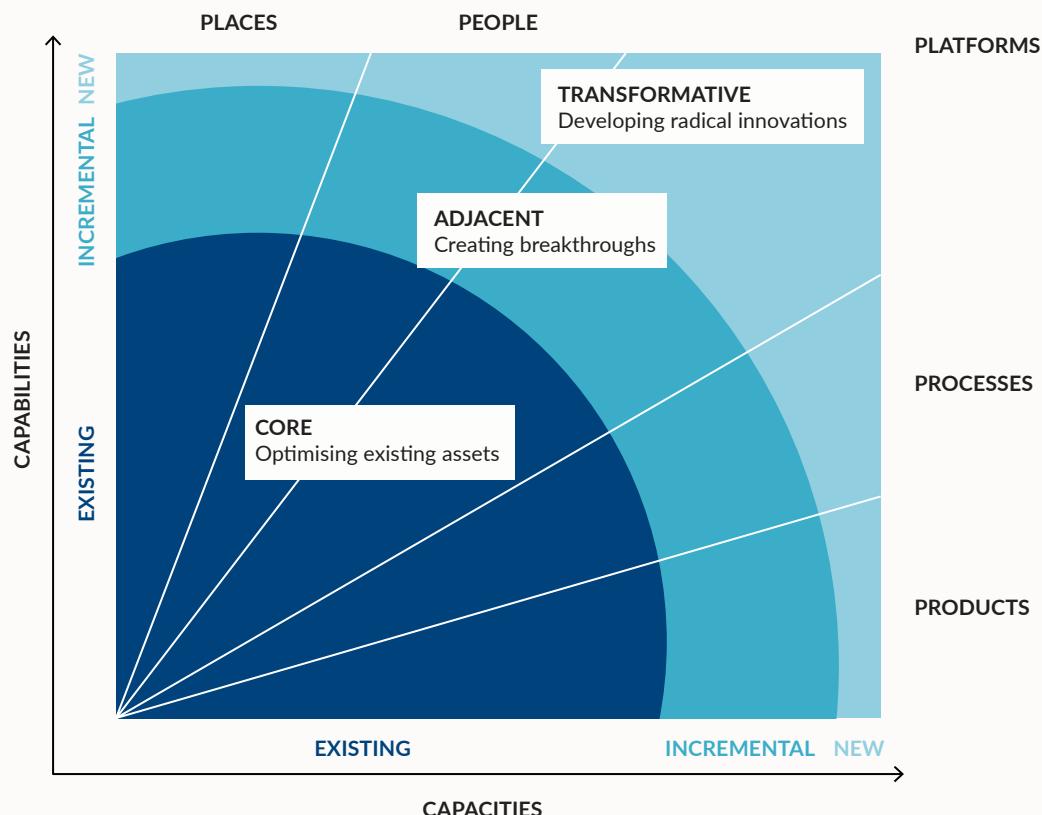
This systematic engagement would ensure ministries remain aware of cutting-edge technological developments and can assess whether emerging capabilities should form part of their innovation thesis. The knowledge generated by radar functions at the national level would also improve European coordination efforts; enabling relevant national offices (e.g., through CINOs) to share intelligence on emerging technologies, common pain points, and innovation opportunities that might benefit from joint investment.

Recommendation 2.3: Develop national "innovation portfolios" based on a balanced series of bets across both current and forecasted defence readiness gaps

The actionable result from developing an innovation thesis is generating an innovation portfolio—a managed programme of experiments in innovation across different parts of an organisation based on a balanced series of bets across both current and projected defence readiness gaps. Like any good investment portfolio, bets must be diversified and tied to the organisation's understanding of its risk tolerance. This means corporates typically invest across three main areas: to refresh core assets and capabilities, generate adjacent products, and develop potentially higher risk but transformative capabilities.

Figure 18 shows how the approach might work across a defence innovation landscape: from places (e.g., infrastructure) to people (e.g., recruitment and training technology), platforms (e.g., carriers, frigates), processes (e.g., logistics and supply chains), and products (e.g., drones and independent systems).¹¹¹

Figure 18: The Defence Innovation Matrix



Source: Milken Institute (2026), adapted from Nagji and Tuff (2012)

Feedback from interviewees indicated that defence ministries were too conservative overall when allocating budgets, particularly for transformative technologies. The United States has made the pursuit of dominance in critical technologies a rallying point for transformative investment.¹¹² When trying to balance portfolios, ministries should draw on two important lessons: first, that defence spending only has a positive multiplier effect on the broader economy when spending is skewed towards technological breakthroughs and R&D; and second, that public investment to commercialise critical technologies has historically had the greatest effect on productivity and growth—more so than relying on private capital alone.¹¹³

Just as all investment portfolios have winners and losers, organisations need to become comfortable with taking innovation bets that both work out and those that do not. If all bets paid off, this would suggest leaders were not taking enough risk, whereas if all failed over time, these overly risky “moonshots” may have sacrificed important incremental gains.

Years of underfunding have created a bias towards filling immediate gaps, risking innovation aimed at “winning the last war” rather than disciplined allocation across time horizons.¹¹⁴ Portfolio construction must be congruent with wider military planning assumptions to reflect readiness gaps both now and into the future. To get authorisation from finance ministries, investment cases have tended to become subject to routine value-for-money-based

frameworks, making risk-adjusted innovation bets harder to execute. High uncertainty in future readiness gaps and technology breakthroughs has also contributed to potential rewards being heavily discounted in favour of tangible, short-term investments.

A multiplicity of organisations undertake activity to develop innovative defence solutions, from NATO's Defence Innovation Accelerator for the North Atlantic (DIANA) and the EU Defence Innovation Scheme (EUDIS) to innovation-specific bodies both within and outside defence ministries. However, feedback from our interviews suggests this activity is often undertaken on the periphery of defence ministries' purview, creating a fragmented landscape where promising innovations struggle to transition from experimentation to deployment. Even when pilots are successful, military budgets frequently do not follow through on innovation bets, leading to "pilotitis" and "innovation theatre" or elongated sales cycles that kill venture-backed businesses. While experimentation should largely remain localised, scaling, funding, and coordination must be guaranteed centrally if key performance indicators (KPIs) are met. The centre (embodied in the office of the CINO or equivalent) needs to become more effective at ingesting dispersed ideas, prioritising them, and providing large enough contracts to justify initial investment.

Key activities:

- Explicitly balance investments across core, adjacent, and transformative innovation based on strategic readiness priorities
- Include assumptions about expected payoffs, costs, uncertainty levels, and learning timelines in innovation investment decisions, and update these as new information becomes available
- Establish explicit risk tolerance for the portfolio overall and individual bets
- Enable coordination with allied nations to reduce duplication and achieve economies of scale

Having generated a portfolio of innovation bets, the head of an innovation function can engage the market to find potential innovation providers that the ministry can either partner with, acquire, or invest in—or build the technology itself.

Recommendation 2.4: Establish a national innovation measurement function with appropriate staffing, policies, and budgets to capture data on an ongoing basis on innovation KPIs

Innovation measurement ensures the collection of data needed to assess portfolio progress, allowing leadership to decide whether to double down on promising solutions or redeploy scarce resources elsewhere.¹¹⁵ To do this effectively, all bets need systematic measurement along the same variables, with clear milestones for continued funding. Currently, confidence in the government as a reliable counterparty is depressed by the lack of these measures.

We propose measuring all innovation bets against four variables: (1) up-to-date estimates of solution effectiveness; (2) up-to-date estimates of risks/costs; (3) up-to-date costs of project scaling; and (4) speed of learning against remaining uncertainty.

Just as VCs release follow-on investment based on commercial progress, innovation leaders must surface sufficient data to make ongoing allocations of scarce capital.

RECOMMENDATION 3: TRANSFORM PROCUREMENT PATHWAYS

Procurement in European defence must evolve into an active lever for shaping readiness, resilience, and long-term competitiveness. This means creating demand signals that incentivise ongoing development, establishing commercial models that reward continuous improvement rather than single delivery, and designing contracts that enable iterative deployment as technologies mature. In modern conflict, capabilities with short innovation cycles, such as software, autonomous systems, and sensors, are increasingly determining competitive advantage through continuous iteration and rapid assimilation with existing platforms.¹¹⁶ By making procurement pathways clearer, more dynamic, and more closely tied to operational cycles, governments can ensure that resources flow more efficiently, SMEs and innovative suppliers gain fair access, and Europe is able to keep pace with both immediate challenges and disruptive technological change.

Recommendation 3.1: Establish common technical standards across Europe so that systems can be adopted by multiple nations, reducing national variants and enabling larger common fleets, including through open standards and NATO and EU regulation

Even when nations procure ostensibly similar capabilities, variations in technical standards, interfaces, and protocols undermine genuine interoperability. As one interviewee emphasised: "We need to be more prescriptive about interoperability so that even if we can't move governments away from national champions, what they produce is genuinely interoperable."¹¹⁷

Modular Open Systems Approach (MOSA) principles establish open standards that enable multiple suppliers to develop compatible components, allowing greater competition. This is one option, alongside following NATO Standardisation Agreement protocols¹¹⁸ and EU Defence Procurement Directives,¹¹⁹ for harmonising technical standards across member states.

Procurement of systems that solve cross-continental problems should increasingly happen across national borders, especially as new systems can be developed on a continent-wide basis rather than relying on national champions. This functionalist approach to building truly European defence companies as new capabilities and firms emerge would follow the precedent set by earlier European efforts to pool sovereignty and resources for common functions.¹²⁰

Recommendation 3.2: Adopt dynamic and multi-source procurement strategies to maintain competitive tension and reduce friction for commercial routes to market—improving supply chain resilience

Some products with short innovation cycles but long-term needs require multiple suppliers competing on new features. However, they might also represent potential dependencies, so ministries should encourage multiple providers to maintain capability domestically, from European partners, and from leading solution providers.

Rather than single-source, winner-takes-all contracts, ministries should employ multi-source awards that maintain competitive tension for key products with short innovation cycles and rapid development potential. Contract sizing becomes crucial: Awards should be large enough to sustain company operations and justify investor capital yet

distributed across multiple providers to prevent counterproductive market consolidation. Dynamic procurement frameworks allowing new suppliers to join at any time could also reduce incumbency advantage, while multi-source contracts build in more supply chain resilience with multiple suppliers and varied component supply chains.

Recommendation 3.3: Reform procurement processes, particularly for SMEs and systems with shorter innovation cycles, to facilitate increasing pace of procurement and drive innovation (e.g., through MOSA and/or multi-source procurement)

Recommendation 3.3.A: Establish a partnership team to accelerate innovation execution

Interviewees consistently reported that defence organisations lack a coherent entry point for innovators.¹²¹

Partnership teams should serve as single points of contact for innovation partners, providing:

- Navigation through organisational structures
- Direct connections to appropriate decision-makers and technical experts
- Proactive identification and resolution of bureaucratic obstacles
- Regular communication on timelines and expectations

These teams should report to the chief innovation officer and maintain awareness of the entire innovation pipeline.

Recommendation 3.3.B: Design pilots with strategic KPIs tied to capability advancement

Pilots must be carefully designed to measure what matters for innovation management, with clear KPIs tied to capability advancement rather than simply technical functionality.

Partnership teams should ensure that each trial has: (1) clearly defined success criteria aligned with operational needs; (2) appropriate innovation KPIs that balance potential impact, acceptable risk levels, cost considerations, and learning rate; and (3) predetermined pathways to scale proven solutions rapidly based on performance milestones.

Recommendation 3.3.C: Invest in testing and validation infrastructure as though public utilities

Some interviewees suggested that one blockage in the rapid deployment of new innovation was the speed to test and validate solutions. Treating testing infrastructure as public utilities, and investing accordingly, could dramatically accelerate the pace at which innovations are scaled. Ministries should provide incentives to improve testing and validation capabilities, including:

- Digital twins and simulation environments for rapid iteration without physical prototypes
- Access to synthetic data to enable innovators to develop contextually relevant solutions
- Physical testing facilities to validate performance under realistic conditions

Recommendation 3.3.D: Reform procurement pathways to enable rapid innovation adoption

Feedback consistently indicated that European procurement practices were too opaque and slow to unlock the innovation needed for meaningful progress, having been designed primarily to minimise risk for large, costly programmes rather than to enable rapid iteration and adoption of emerging technologies.

Partnership teams should help usher partners through bespoke procurement pathways specifically designed for innovation, with the aim that:

- Onboarding for smaller companies is expedited, with streamlined processes and reduced administrative barriers
- Rewards for innovation are clearly defined up front, with potential milestone payments and eventual at-scale contracts transparently set out at the start of engagement and consistently adhered to throughout the process
- Pathways are tailored to different products and timeframes, rather than applying uniform processes designed for traditional platform acquisition

Important reforms in this spirit are already underway in several European nations. The UK, for instance, is in the process of developing the role of a national armaments director to coordinate requirements across agencies, providing a more coherent pathway from research to commercialisation, alongside an integrated procurement model that segments sought capabilities based on urgency and complexity.¹²² More European nations would benefit from pursuing similar structural reforms.

Recommendation 3.4: Adapt procurement award criteria to explicitly assess and reward value generated for national and regional economies, for example, through talent development and retention, investment, job creation, and IP development within the European defence industrial base

Defence expenditure delivers substantial economic benefits, with gross value added (GVA) multipliers typically ranging from 2 to 3, meaning that for every euro invested in defence, an additional €1 to €2 is generated in economic activity. Joint defence programmes can achieve even greater impact, with multipliers reaching up to approximately 4. To maximise overall value, procurement award criteria should explicitly incorporate GVA multipliers, ensuring that public investment delivers economic growth alongside enhanced security outcomes.

Governments should also consider the following supporting recommendations:

Recommendation 3.5: Increase clarity and transparency of procurement requirements, using more assertive language (e.g., “at least” rather than “up to”) and publishing comprehensive procurement plans (e.g., Germany’s military wish list) to drive industry and investor confidence

Recommendation 3.6: Investigate alternative contract structuring, moving away from COST+, to make contracts more economically effective for suppliers, give suppliers more control over innovation, and incentivise cost efficiencies

Recommendation 3.7: Streamline emergency procurement processes, building a strategy which levers shortened acquisition cycles for critical technologies, decentralised and delegated procurement authority, simplified contracting for SMEs, and a dedicated crisis oversight mechanism to fast-track approvals that can be activated in emergencies

RECOMMENDATION 4: ACCELERATE THE DEVELOPMENT OF AN INDUSTRIAL FOOTPRINT CAPABLE OF SUPPORTING DEFENCE

As the war in Ukraine has underscored, Europe's current industrial footprint is not equipped for rapid surge. Years of lower defence spending and constrained procurement have resulted in an industrial base that is not yet equipped to meet the demands of Europe's emerging security environment. Yet Ukraine's national response points to practical solutions. From utilising commercial off-the-shelf drones to cataloguing domestic suppliers of critical components, the Ukrainian government has leveraged its commercial industrial base at every stage of military equipment development and production. By streamlining emergency approval requirements for new weapons systems, Ukraine has also reduced the minimum timeline for adoption into service from a year to just over a month.¹²³

NATO has also begun to explore ways in which closer collaboration with commercial players can be leveraged to build surge readiness, such as the Commercial Space Strategy which facilitates rapid access to critical space capabilities through flexible, prearranged contracts.¹²⁴ By combining better mapping of the existing industrial base capable of supporting defence, pre-negotiated commercial frameworks to mobilise commercial industry, targeted incentives for industrial adaptation, and streamlined regulatory pathways, governments can ensure the industrial base is ready to surge and adapt as new threats emerge.

Governments should consider the following supporting recommendations:

Recommendation 4.1: Map existing industrial capacity against defence requirements, cataloguing manufacturers along critical supply chains, drawing on the example of Ukraine's Library of Components, to identify gaps, bottlenecks, and opportunities for dual use

Recommendation 4.2: Pre-negotiate access to commercial capabilities by establishing framework contracts with pools of commercial providers that can be activated in a crisis, following the example of NATO's Commercial Space strategy to coordinate this in other areas of defence at a supranational level

Recommendation 4.3: Create targeted tax and R&D incentives for commercial manufacturers to build and maintain capacity that can support the defence industrial base in a surge, including expanding EU and national grant programmes that co-fund defence relevant innovation, plant adaptation, and workforce reskilling

Recommendation 4.4: Reduce regulatory bureaucracy and clarify requirements by issuing clear, sector-specific guidance and standardised compliance templates for firms supporting defence

Recommendations for Finance



To meet the significant readiness challenges that Europe faces, its defence ecosystem needs to have access to sufficient capital. With European defence budgets rising and new sources of funding, such as the SAFE initiative, being mobilised, the private sector is uniquely positioned to play a pivotal role in expanding and enhancing Europe's defence industry, contributing to the development of a more robust and globally competitive industrial base. Three key priorities for finance and investment emerge: reducing private financing barriers to enable defence companies to access the capital they require to scale; financing contingent capacity so that resources can be rapidly mobilised in crisis; and consolidating fragmented supply chains to build resilience and achieve the scale to compete globally.

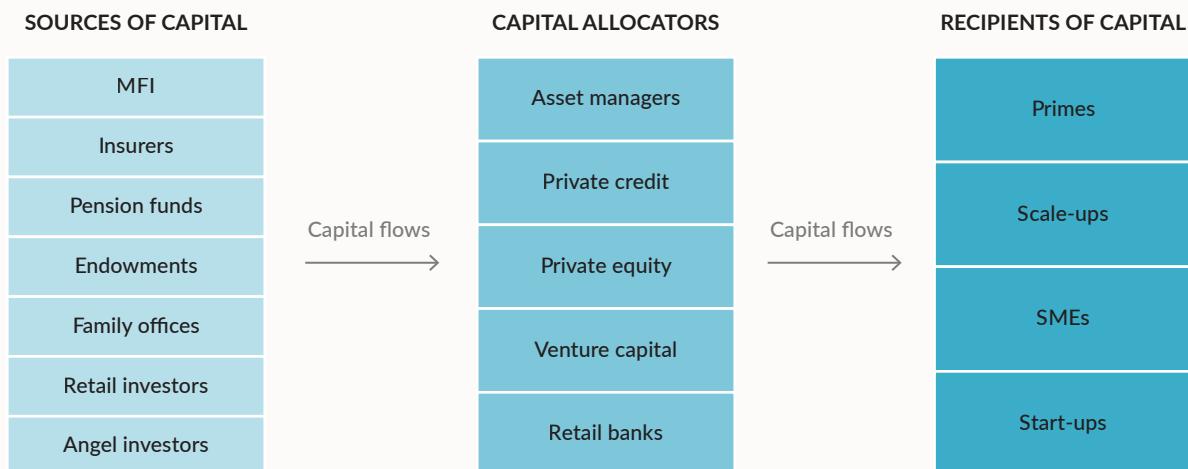
The defence sector faces a unique predicament: It is restricted on the demand side by reliance on single defence ministries as primary—or even sole—customers, and on the supply side by barriers to accessing capital. How finance and investment can better collaborate with government and industry to reduce these barriers will be the focus of this chapter. Improving Europe's defence readiness requires a comprehensive suite of policies to improve access to liquidity for all companies that operate in the marketplace, as well as reducing barriers which restrict new entrants. These policies should also, in concert, improve the end-to-end process for new companies, from seed stage through scale-up, to help them become established in the defence ecosystem and contribute to Europe's readiness needs.

RECOMMENDATION 1: REDUCE PRIVATE FINANCING BARRIERS

The Ukraine war has radically shaken up Europe's defence environment. Commitments by European governments to significantly increase defence spending have strengthened demand signalling to the ecosystem, helping support investment in long-term products and capabilities. War in Europe has prompted a reappraisal of the ethics of investing in defence by large-scale asset owners and attracted new types of investors into the sector.¹²⁵

However, there is evidence that capital flowing into the sector is not being allocated into parts of the ecosystem where it is most needed.¹²⁶ If Europe is to move on from a business-as-usual state to one of enhanced preparation and readiness to match the increasing complexity and rapidly evolving nature of the threats it faces, it will require a step-change in investment into the defence sector and its wider supply chain. A key tenet of this will be unblocking barriers which prevent the efficient allocation of capital between asset owners, investors across the capital stack, and defence capability providers both in Europe's current and potential supplier base (see Figure 19).¹²⁷

Figure 19: The Different Actors in the Defence-Finance Ecosystem



Note: MFI denotes multilateral finance institutions

Source: Milken Institute analysis (2026)

Recommendation 1.1: Create a European “fund of funds”, backed by public capital, to attract investment in early- and scale-up-stage defence-tech companies

Recent investment in European defence start-ups has been significant: in 2025 alone, firms in defence and dual use technologies raised €3.7 billion across 126 deals versus €1.85 billion in 2024 across 71 deals.¹²⁸ Two start-ups achieved unicorn status with valuations over €1 billion in 2025.¹²⁹

Europe's ecosystem is attracting both domestic and international capital. Several new VC firms plan to invest in Europe's defence ecosystem in the coming years, including a US-based VC with almost \$19 billion in assets under management which is targeting up to a dozen European defence start-ups.¹³⁰

Despite significant growth in investment in early-stage defence companies, Europe's venture ecosystem lags that of the US. From 2021 to 2024, the total venture capital volume for defence start-ups in the US was 2.4 times greater than that for Europe.¹³¹ This is partly due to Europe's VC and private equity sectors lacking specialised funds. In the US, there are a range of funds specifically supporting companies engaged in national security services, as well as counterterrorism operations and dual-use capabilities.¹³²

Start-ups in Europe's defence ecosystem face two main problems. First, Europe lacks a pipeline of investable defence opportunities, with venture funding largely directed towards a few promising new frontier technologies; a record \$4.3 billion has flowed into European defence start-ups since 2022, with drones and robotics attracting the most attention from VCs.¹³³ Significantly less has flowed into other technologies such as energetics and advanced materials. Furthermore, as our interviews identified, start-ups tend to be too small to attract investment from large asset owners that require a minimum allocation size to justify their investment.

To address this challenge, we propose the creation of a "fund of funds" that invests in European start-ups. Such a fund could include 15 to 20 of the most promising defence tech VCs on the continent, making it genuinely cross-border to maximise impact across European countries.

The second problem facing start-ups is a perception that returns for investors—particularly institutional investors—are too low to justify investment. This perception of risk stems partly from the sector's reliance on a single customer, long procurement cycles, and capital intensity in an environment where, as the Ukraine war showed, new technologies become obsolete quickly.

If defence ministries were to allocate some of their budgets to this "fund of funds", for example through mechanisms including a "first loss" in the capital stack, the risk/return profile would be made more attractive for large institutional investors. This would also give defence ministries a financial interest in the health of the innovation ecosystem, so that policies can be better directed in a way which improves the functioning of the market.

Recommendation 1.2: Create a defence incubator that connects innovative start-ups to private capital and other financing bodies

Defence scale-up companies—typically those growing their turnover by 20 per cent annually and in funding rounds from series A to series C—face particular difficulties in accessing capital.

In order to grow, companies of this size must cross the "valley of death"—the period between initial seed funding and generation of sustainable revenue when scale-up money comes into play. This is not a unique phenomenon to defence: It proliferates among emerging technologies and innovative scale-ups in the tech space. However, it is particularly problematic in defence, where companies trying to scale need contracts linked to government programmes to justify expansion and against which they can raise capital.

In the US, challenger "neo-primes" have emerged, whereby innovative software firms—both those specialising in defence and new market entrants capitalising on the dual use of their technology—have scaled to compete with existing primes. By contrast, Europe has still yet to create similarly sized, agile firms with sufficiently large balance sheets to compete. Part of the problem for European software companies operating in defence has been a lack of access to the capital required to achieve scale. Midsize European defence companies also have fewer opportunities to attract equity investors, with the EU lagging behind the US in terms of later-stage financing rounds such as series B.¹³⁴

Europe has already undertaken some steps to help companies in the defence sector achieve scale. The EIB has tripled the support it provides for defence SMEs to €3 billion and created a new venture debt product specifically for this purpose.¹³⁵

However, Europe needs to do more to ensure that its innovative start-ups and SMEs can access the capital they need to grow and compete. In particular, Europe needs to be better at connecting its centres of innovation with finance and government. This is especially important in defence, where information asymmetries prevent innovative companies from accessing the tools they need to raise capital and access the front door of defence ministries. Furthermore, while access to capital is important, our interviews identified how this is not the only barrier to promising European defence companies scaling—they also need access to mentorship, help finding workers with the right skills, strategic guidance, and export finance to help them better grow and compete.¹³⁶

To address this problem, Europe should create a defence accelerator that ensures scale-ups and other midsize companies wishing to scale have access to the human, financial, and technical resources they need to cross the “valley of death.” Such an institution should link up promising companies with the stakeholder networks they need to grow their companies and secure access to defence markets across the continent.

Recommendation 1.3: Consider whether carveouts for defence firms from current Basel III rules would make sense as a means to unlock bank finance to SMEs

Europe’s defence supply chain is hugely reliant on specialised SMEs making individual components for larger programmes, making it necessary to support the expansion of capacity and capabilities as well as the servicing of increased readiness needs.¹³⁷ To achieve those goals would require providing these companies better access to pools of financial capital. Our interviews identified three main levers to creating more specialised SME capacity and increased servicing: (1) providing improved access to pools of financial capital; (2) streamlining procurement processes; and (3) encouraging greater investment by primes in their supply chains.

SMEs in the defence space primarily access capital via traditional lenders such as banks. A recent survey found that debt financing, primarily in the form of bank loans, was the choice for 55 per cent of the SMEs in the sample, with 38 per cent seeking equity financing.¹³⁸ However, securing financing from banks can be extremely difficult and expensive. Of the SMEs surveyed, only 32.9 per cent of respondents were able to successfully secure loans from lenders, and even fewer—just 13.3 per cent—were able to obtain equity financing.¹³⁹

Studies indicate that defence SMEs encounter higher barriers to financing than companies in other industrial sectors.¹⁴⁰ This is due to a range of factors relating to the structure of the defence market, including limited investment by primes in their supply chains, lengthy procurement cycles, and extensions to the length of payment terms. Procurement-cycle length and capital-intensive investments mean that small suppliers can struggle with cashflow and making milestone payments.¹⁴¹ Ethical concerns and regulatory frameworks related to responsible finance further add costs and barriers to entry for SMEs.¹⁴²

This combination of factors has discouraged investment in SMEs from capital allocators, particularly into those which are highly exposed to the sector. Defence-related lending is an increasingly risky endeavour for banks—the preferred source of finance for SMEs in the sector—in the wake of regulatory changes that have reduced the appetite of lenders to provide loans to entities deemed riskier. For instance, the Basel III banking rules have increased capital ratios to banks and lessened the financial institutions’ risk appetite, requiring that they hold more and higher-quality capital.¹⁴³ The updated Basel 3.1 rules will impose further restrictions, including a 20 per cent

to 25 per cent reduction in the lending capacity of mid-tier banks, applying upward pressure on SME borrowing costs.¹⁴⁴ While these new rules do not come into force until 2033, they are expected to disproportionately impact the defence sector.

Europe has already undertaken certain measures to address sector-specific challenges that apply downside pressure on SME liquidity. For example, the UK has mandated 30-day payment terms for subcontractors under the 2023 Procurement Act,¹⁴⁵ and the EU has undertaken initiatives such as the European Defence Fund that provide grants to SMEs and mid-caps for R&D projects in defence. However, these measures have been insufficient to improve the cashflow position of defence SMEs and unlock capital to allow them to invest and grow.

One action financial regulators could consider taking to improve defence SME's liquidity would be a change in Basel III rules that would unlock additional capital for these defence suppliers. These could take the form of specific capital requirements (risk weights) for lending to defence SMEs, which have already been proposed for certain other sectors, including real estate lending.¹⁴⁶

Recommendation 1.4: Consider tightening the requirements around exclusions for public-sector pension schemes so that they are only justified in extreme cases

Europe's defence ecosystem is dominated by a handful of large prime contractors with the scale and sophistication necessary to oversee the development of large and complex programmes. By virtue of their market-dominant position, primes are uniquely able to influence procurement decisions by governments.¹⁴⁷

However, primes face two main barriers in terms of their ability to raise finance. The first relates to the issue of demand signalling by governments, with primes heavily dependent on major contract awards to develop their capabilities and raise finance.¹⁴⁸ The second relates to exclusions that limit the ability of defence contractors to raise finance on public and private markets, with primes adversely affected by virtue of their reliance on raising finance from these sources. Share prices for major defence contracts across Europe have seen significant appreciation since the 2022 Russian invasion of Ukraine. However, there is some evidence that this is being felt unevenly due to exclusions, as large investors such as Norway's sovereign wealth fund continue to avoid companies that produce components for nuclear weapons systems.¹⁴⁹

One interviewee noted how the EIB has exclusions in place for weapons, and many European retail banks use the EIB's rules as a model for best practice.¹⁵⁰ While the EIB has expanded its eligibilities to precisely define excluded activities as much as possible,¹⁵¹ the exclusions for weapons systems and ammunition have significantly restricted capital for these manufacturers. Exclusions even impact defence funds, with around half of such vehicles unable to back weapons start-ups.¹⁵²

Exclusions are often conflated with environmental, social, and governance (ESG) policies: ESG policies help incorporate otherwise unmeasured risk into investment decisions. While some exclusions are governed by regulation, many are from the internal policies of individual asset allocators, based on activism from investors or reputational concerns.¹⁵³ Regulators have already sought to clarify the position of such policies on defence investments, with the UK's Financial Conduct Authority (FCA) stating that its rules on sustainability do not preclude investments in defence companies.¹⁵⁴ While research suggests that worries around ESG in terms of defence are overblown,¹⁵⁵ our interviews have identified that exclusions remain a problem for companies across the supply chain.

To unlock additional capital, European governments could consider reducing the friction imposed by exclusions, such as the rules preventing public-sector pension funds from investing in the defence sector. These rules could be tightened so that they are only justified in certain cases. This would be an important signal and provide cover for other actors in the marketplace to review their own exclusion policies, helping not just primes but all defence companies across the ecosystem access greater pools of institutional capital and bank lending.

RECOMMENDATION 2: FINANCE CONTINGENT CAPACITY

Ensuring that Europe's defence base can rapidly scale output in times of crisis depends not only on industrial readiness, but on flexible, reliable access to capital. When surge capacity is required, companies across the supply chain need immediate funding for production, inventory, and supply chain expansion—resources that cannot be mobilised at short notice unless financial contingency planning is built in from the start.

By working proactively with governments, the finance industry can play a critical role: supporting the creation of specialised instruments that share risks across allies, building surge financing facilities that offer standby capacity, and partnering with national and multilateral development banks to deliver rapid supply chain finance. Governments can act as anchors, taking on first loss where necessary to crowd in private capital and speed deployment. These initiatives represent a strategic opportunity for financial institutions and investors, not only to strengthen European defence readiness, but to support a more resilient, attractive, and competitive industrial environment. As threats evolve, the imperative is clear: Those who help finance Europe's contingent capacity will shape both its security and its economic future.

Finance and investment should consider the following supporting recommendations:

Recommendation 2.1: Identify means of improving financial contingency planning for a crisis event, including investigating the possibility of creating instruments that can mutualise financial risks between allies

Recommendation 2.2: Create surge financing facilities, structured as standby credit lines, partnering with government to provide guarantees and subsidise commitment fees, reducing the cost to industry of maintaining “just-in-case” capacity

Recommendation 2.3: Partner with national and multilateral development banks to create programme and portfolio level supply chain financing mechanisms for priority capabilities, supporting rapid capacity ramp up and contingent production when demand surges

RECOMMENDATION 3: CONSOLIDATE SUPPLY CHAINS

Europe's defence supply chains are dominated by relatively small, nationally focused Tier 1 and Tier 2 suppliers. This fragmentation limits their ability to achieve economies of scale, invest significantly in R&D, and support the demands of major multinational programmes. Smaller firms often struggle to weather operational shocks, lack cross-border reach, and are less able to attract investment or compete on the global stage, problems that ultimately increase costs for primes and governments alike. Now, as private capital is increasingly drawn to the surging defence sector, there is a clear opportunity to accelerate the consolidation of these suppliers. By pursuing strategic buy-and-build approaches, investors can build more resilient, competitive, and innovative supply chains that are better positioned to win larger and more international contracts—delivering higher returns while directly strengthening Europe's defence readiness.

Finance and investment should consider the following supporting recommendations:

Recommendation 3.1: Pursue buy-and-build strategies that consolidate smaller Tier 1 and Tier 2 suppliers, leveraging private capital to create larger, more resilient European defence companies that have the scale to compete for larger, more international contracts

Recommendations for the Defence Industry



As investment in defence ramps up across the continent and procurement ambitions grow, the defence industry faces a pivotal opportunity. Industry can seize their expanding role to raise the bar on future efficiency, responsiveness, and competitiveness. Meeting these ambitions will require far more strategic partnerships across government, finance, and the full spectrum of industrial players—from primes to start-ups and SMEs. By fostering greater collaboration, industry can turn new investment and political will into a lasting advantage both for Europe's security and its global competitiveness.

RECOMMENDATION 1: FOCUS ON PRIORITY CAPABILITIES

The European Commission's Defence Readiness Roadmap 2030 identifies nine initial priority capability areas for European defence, recommending that European countries (including the UK) focus resources on closing gaps in these critical areas. The government's decision to provide priorities will allow defence firms to direct resources where demand is greatest, scaling more efficiently, enabling larger production runs, and building competitive advantage in technologies that are decisive for both industry and Europe's security.

Recommendation 1.1: Concentrate investment on the priority capability macro-areas identified by the European Commission, with particular focus on specific capability gaps such as integrated air-and-missile defence (IAMD); tactical unmanned aerial systems (UAS); space intelligence, surveillance, and reconnaissance (ISR); and C4ISTAR, which are critical to defence readiness

With the creation of SAFE, the most significant source of defence procurement funding now available to many European states, the imperative for industry to align with European capability priorities has never been clearer. Defence companies seeking to win government contracts funded by SAFE must focus their R&D and production on the priority capability areas designated by the European Commission. Concentrating investment and innovation is also critical for accelerating European strategic autonomy, reducing dependence on non-European suppliers and advancing both industrial and continental security.

IAMD, tactical UAS, space ISR, and C4ISTAR are among the most critical capability gaps in Europe's defence today. Investment and development in these specific areas, as well as in the broader categories identified by the European Commission, will be imperative for achieving long- and short-term defence readiness for the continent.

RECOMMENDATION 2: ACCELERATE COLLABORATION BETWEEN PRIMES

Fragmentation and national siloes are a major source of inefficiency in European defence, particularly when compared with the US defence industry, generating both significant resource inefficiencies in platform development and substantial operational inefficiencies with the proliferation of platforms. More extensive European collaboration is essential to overcome these inefficiencies and maximise the impact of higher budgets. Many European primes already work together on major programmes, such as the multi-purpose frigate venture, FREMM and Eurofighter, the turbo prop, mid-altitude, low emission UAV, but this collaboration must now intensify. By pooling resources, talent, and technologies, primes can achieve the scale required to deliver ambitious, multinational initiatives and compete in the global market.

Recommendation 2.1: Accelerate joint programmes, converging on common cross-European programmes to concentrate resources and avoid duplication

Europe's defence industry must accelerate the convergence of development and procurement around common, cross-border programmes. Focusing resources on a smaller number of high-impact, multilateral initiatives not only reduces duplication and fragmentation, but also allows for larger production runs, lower per-unit costs, and faster delivery of operational capability.

Case Study

The UK, Italy, and Japan are partners on the Global Combat Air Programme (GCAP), a joint venture to develop a sixth-generation fighter aircraft. In parallel, France, Germany, and Spain are advancing a rival sixth-generation programme: the Future Combat Air System (FCAS). While both ventures demonstrate important progress towards multinational collaboration, maintaining two separate efforts results in significant inefficiencies.

Analysis suggests that merging GCAP and FCAS could generate savings of approximately €45 billion—16 per cent of total lifetime costs for separate development—with particularly striking benefits in the concept and development phase, where costs could be reduced by 38 per cent (see Figure 20).¹⁵⁶ Converging on common cross-European programmes would avoid these inefficiencies, reducing both costs and development timelines and improving Europe’s ability to close key capability gaps with sovereign solutions.

Figure 20: Cost Savings Generated by Combining GCAP and FCAS (€ billions)

Estimated full lifetime cost breakdown for GCAP and FCAS

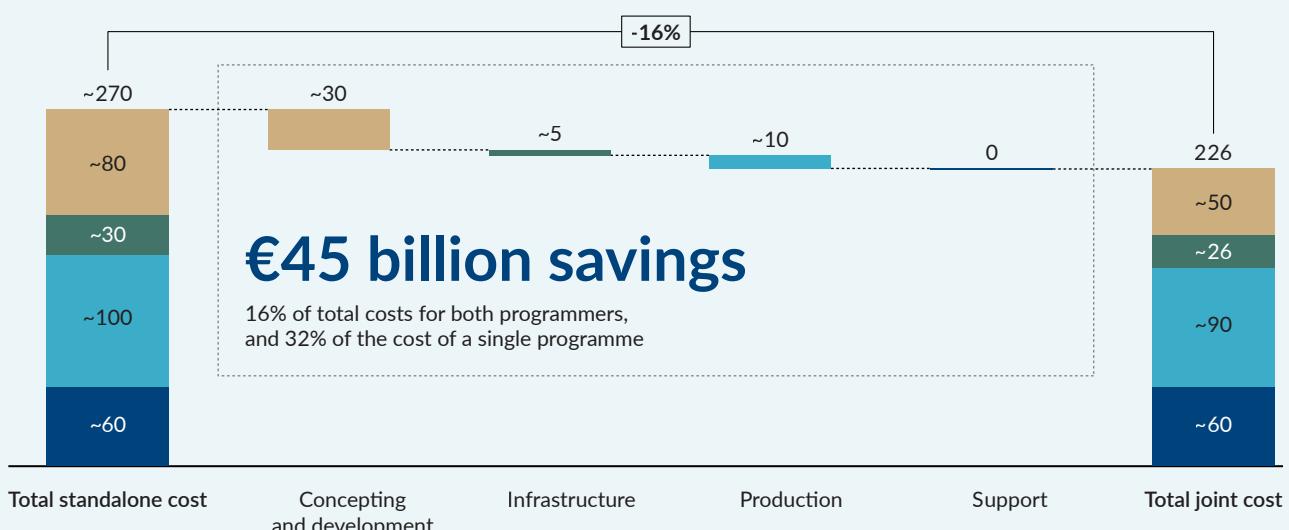
■ Support ■ Production ■ Infrastructure ■ Concepting and development



€270 billion

Total investment for GCAP & FCAS on a standalone basis

Estimated cost savings generated by combining GCAP and FCAS into a single programme



Note: Costs of GCAP and FCAS as standalone are assumed to be comparable; cost of production and support are based on 300 units for GCAP and FCAS; potential concepting and development cost savings of up to 70 per cent are partially offset by inefficiencies of joint development; ~40 per cent cost saving possible on concept and development infrastructure which account for one fifth of infrastructure costs, ~10 per cent saving on remaining infrastructure costs; ~15 per cent saving possible on supplier costs, which account for two-thirds of total production costs; negligible savings on support costs

Source: Oliver Wyman analysis (2026)

Converging on multilateral partnerships also avoids the proliferation of equipment variants, enabling manufacturers to secure larger contracts, achieve economies of scale, and accelerate production ramp-up. Crucially for defence readiness, this approach strengthens continental cooperation through common fleets, driving operational efficiencies. Similar convergence on programmes in other domains, such as the MCGS, would yield similar benefits.

Recommendation 2.2: Partner with other primes to pool complementary capabilities to strengthen European competitiveness at global level

Partnering to combine talent and technology enables European primes to better match the scale of global peers, increasing European competitiveness and strengthening European development of sovereign capabilities.

Case Study

Three European primes recently announced a joint venture, known as Project Bromo, combining their existing space portfolios to create a single, jointly owned space company. The new company will offer end-to-end space solutions, from satellite manufacturing to services, and aims to employ 25,000 people across Europe.¹⁵⁷ By pooling complementary assets and technologies of three major primes, the new company will unlock operational synergies, accelerate innovation in space, and achieve the critical mass required to compete globally. This represents a step towards both strengthening European strategic autonomy and boosting the competitiveness of European industry.

Pooling capabilities in other areas could generate similar synergies. By aggregating complementary portfolios, European primes can enlarge their offering, accelerate the pace of technological progress, and achieve a critical mass necessary for sustained leadership in the international market.

RECOMMENDATION 3: ENHANCE SUPPLY CHAIN RESILIENCE

Recent shocks have exposed vulnerabilities in Europe's supply chains. Historical underinvestment and fragmented national approaches have limited Europe's ability to surge output, as demonstrated by the war in Ukraine. Strengthening supply chain resilience is essential both to credible defence readiness and to primes' ability to deliver and sustain major programmes.

Recommendation 3.1: Consolidate suppliers—through capability-focused consortia, partnerships, and M&A—to improve supply-chain resilience and meet the scale needed to support large programmes (e.g., electronic-warfare-focused consortium within GCAP)

Forming multinational or cross-border consortia enables the pooling of resources, production capacity, and expertise, addressing vulnerabilities and bottlenecks in today's defence supply chains. By sharing risk and collaborating on critical technologies, suppliers can achieve the volume and robustness required to support large multinational programmes.

Case Study

To support GCAP, leading defence electronics suppliers from Japan, the UK, and Italy formed a consortium known as the GCAP Electronics Evolution (G2E) to deliver integrated sensing and communications system.¹⁵⁸ This consortium approach enables the partners to meet the ambitious timelines of the programme, ensure resilience across supply chains, and provide robust through-life support, while balancing accountability and preserving each country's freedom of action.

Within flight systems there are further technological areas, such as flight control, electrical power systems, actuators, landing gears, and fuel systems, where supply chains are similarly fragmented. Programmes such as GCAP present a unique opportunity to consolidate highly fragmented supply chains across critical subsystems. By organising capability-focused consortia within these programmes, industry can pool resources and expertise, streamline supplier networks, and ensure robust, scalable production for high-value components.

Recommendation 3.2: Adopt more rigorous supply chain risk-management practices, such as dual-sourcing for critical inputs, limits on single-supplier exposure, and structured monitoring of supplier risk

Strengthening supply chain resilience requires defence firms to diversify sources for critical components, set clear limits on supplier dependency, and rigorously monitor supplier risk. These measures help prevent operational bottlenecks and allow companies to identify and address potential disruptions before they escalate, ensuring operations remain robust, especially under stress or surge conditions.

RECOMMENDATION 4: SCALE UP INDUSTRIAL CAPACITY

Scaling up industrial capacity is a critical priority as Europe's defence budgets rise and readiness returns to the forefront of policymaking. Meeting Europe's renewed defence ambitions will require the industry to rapidly expand production capabilities and expand the skilled workforce. As detailed in Chapter 2, the gap is significant: Achieving the level of readiness needed will mean increasing today's production value by 1.7 times and adding an estimated 200,000 skilled workers across Europe. To succeed, defence manufacturers must take bold, innovative approaches to widening the supplier base and growing their industrial footprint.

Recommendation 4.1: Expand defence industrial footprint by reskilling workers and repurposing manufacturing plants from other industries

Europe's commercial industrial base can and should be utilised as a critical lever to support the required defence capacity ramp-up in the defence industry. Defence manufacturers across Germany, Belgium, and France are already taking the initiative to adapt manufacturing plants and workforces from other industries to increase their production capacity.

Case Study

In Germany, defence budgets are expected to rise sharply over the next five years. If the committed defence budgets and procurement goals are met, Germany will require an additional approximately 90,000 skilled workers in the defence industry to meet the required expansion of industrial capacity (see Figure 21).¹⁵⁹ This represents almost a tripling of the current skilled workforce, and a significantly larger jump than other European nations with more conservative procurement goals.

Figure 21: Projected Skilled Worker Gap in the German Defence Industry by 2030



Note: Skilled workers defined as engineers, software developers, system architects, production technicians, welders, machinists and cybersecurity specialists; German 2025 workforce modelled as a proportion of total European skilled workers according to Germany's defence expenditure as a percentage of European defence expenditure; required 2030 workforce modelled based on projected German defence expenditure
Source: Oliver Wyman analysis (2026), based on ASD (2025), and NATO (2025)

Reskilling workers from other industries is one way the German defence industry has already begun to close this workforce gap. Defence manufacturers have capitalised on closures in the automotive and other adjacent industries to repurpose factories for defence production, in many cases also retaining the employees. Across four factory acquisitions announced in 2025, German defence manufacturers have committed to convert up to 900 employees.¹⁶⁰ As layoffs continue in the automotive and supplier sectors, and with the German Association of the Automotive Industry estimating that 140,000 jobs will be lost by 2030,¹⁶¹ defence manufacturers have an opportunity to ramp up their own capacity while supporting the wider economy by reskilling workers from these industries.

To streamline the process of reskilling workers and directing talent where it is needed most, defence companies should consider developing dedicated training pathways for specialised engineers. If this approach is implemented across Europe, defence companies will not only expand their own production capabilities but also drive regional economic regeneration, turning industrial transition into a strategic advantage for both defence readiness and the broader economy.

Recommendation 4.2: Incorporate more commercially available parts in defence manufacturing by design to improve supply chain resilience and surge readiness

Commercial components often have shorter lead times, wider supplier bases, and proven reliability at scale. Incorporating these parts by design reduces bottlenecks, lowers costs, and allows defence manufacturers to respond more flexibly to sudden shifts in demand or operational requirements.

Case Study

Ukraine's response to wartime demand demonstrates the value of embedding commercial technology into defence manufacturing. At the beginning of the war, the Ukrainian army employed a high number of commercially available drones and off the shelf components to supplement its arsenal while defence production was ramping up.¹⁶² This approach allowed Ukraine to avoid the long wait times typical of custom defence procurement and rapidly scale its operational capacity.

As the war has progressed, Ukraine has continued to leverage the commercial sector to increase defence industrial capacity and drive down costs.¹⁶³ In 2025, the Ukrainian Ministry of Defence created a "Library of Components," an index of over 170 domestically produced parts which made it easier for defence manufacturers to quickly locate and source critical components from domestic suppliers.¹⁶⁴

European defence companies stand to benefit from similarly incorporating commercial manufacturing in supply chains, enabling the use of commercial parts by design. This will increase supply chain resilience by widening the pool of potential suppliers, shorten production timelines, and generate cost savings for defence manufacturers, as well as build up the surge readiness of the broader defence industry.

Recommendation 4.3: Innovate manufacturing processes to increase throughput, improve flexibility to switch between variants, shorten lead times, and strengthen production resilience

For the European defence industry to become more competitive, and maximise defence readiness, manufacturers must consider not only how to increase capacity, but also how to increase throughput. Modernising manufacturing methods enables defence firms to respond more rapidly and efficiently to shifts in demand and improve operational resilience.

Digital twins are one way in which defence companies can increase throughput. Now employed by a number of primes, the digital twin accelerates product development by creating a live, detailed virtual model of the system. This transparency enables teams to predict failures and maintain readiness, since engineers can simulate faults or design changes before they reach production. The digital twin also centralises complex system knowledge, enabling rapid upskilling of personnel with an immersive training tool.¹⁶⁵ Through these kinds of operational enhancements, as well as increases to capacity, MBDA has significantly increased production, with a 33 per cent increase in missile output between 2023 and 2024 alone.¹⁶⁶

Further innovation to improve engineering and manufacturing processes will allow defence companies to respond to accelerating demand more quickly and efficiently and increase the competitiveness of the European defence and technological base.

Appendix: Methodology

This research draws upon insights derived from 26 semi-structured interviews with defence experts across the European and wider defence ecosystem between November 2025 and January 2026. Extensive Oliver Wyman analysis has also been leveraged to provide an evidence base and validate the recommendations of the report.

The expert cohort comprises senior military veterans, entrepreneurs, defence accelerators, SMEs, industry associations, policymakers, academic researchers, and asset managers (from VCs to family offices and pension funds), ensuring comprehensive coverage of the defence innovation, financing, and commercial landscape.

The Milken Institute also hosted two events to deepen our analysis and discuss our emerging findings.

The first was hosted jointly with RUSI in London in November 2025, and the second at Davos hosted jointly with Oliver Wyman in January 2026. Attendees at these roundtable discussions included major European prime defence contractors, senior military leaders, industry executives, leading asset managers, and senior government officials.

Where specific insights are attributed anonymously, this reflects adherence to Chatham House Rule confidentiality arrangements that permit use of information while protecting individual and/or institutional attribution. A list of participating organisations is provided in the appendix.

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