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As Europe and the UK boost their defence budgets, investment in defence-related infrastructure could surpass \$100 billion annually by 2035. Governments are increasingly turning to private capital to accelerate these investments, with the UK committing to higher defence spending and reforms, and the EU's streamlining rules to facilitate investment in defence capabilities.

The approach marks an evolution from the traditional use of public-private partnerships (PPP), which have historically funded critical projects like the UK's Future Strategic Tanker Aircraft or the construction of France's defence department's headquarters (the Hexagon Balard). Amid rising public debt and escalating geopolitical tensions, private infrastructure funds are emerging as an agile and scalable solution to meet the sector's capital needs and accelerate development.

Market activity is already gaining momentum. In the first half of 2025, aggregated capital raised for infrastructure was ahead of 2024's full-year total.² Investors have been particularly bullish on infrastructure opportunities in Europe, which has seen a more positive outlook compared to other jurisdictions.³ Recent examples include BNP Paribas launching a strategic fund to capitalise on Europe's 1.5 trillion euros defence infrastructure investment,⁴ and BlackRock launching a European Defence ETF under its iShares platform.⁵

ESG policies on defence are also evolving, with many General Partners (GPs), Limited Partners (LPs), pension funds, insurers, banks, and multifamily offices easing ESG considerations to allow investments in defence, which was previously deemed off-limits. The European Commission and the UK's Financial Conduct Authority have stipulated that defence sector investments are not incongruent to ESG; this is backed by the EU's Sustainable Finance Disclosure Regulation and the UK's Sustainability Disclosure Requirements, neither of which prohibit such investments.

As governments continue to adjust policies to attract funding, a surge in private infrastructure investment is anticipated, making this an opportune time to assess and seize opportunities.

THE DEFENCE INVESTMENT LANDSCAPE^{8, 9, 10, 11, 12, 13, 14}

After a prolonged period of low spending following the end of the Cold war, the UK and Europe are entering a period of significant growth in military budgets, driven by escalating geopolitical tensions among major powers. This new era of spending is characterised not only by increasing expenditure but also by a shift in priorities, with more capital directed towards advanced technologies, production capacity expansion, and critical infrastructure modernisation.

Governments have recognised that public investment alone will not be sufficient to fill the sector's needs, and have turned to innovative financing mechanisms to bridge this funding gap. As part of its ReArm Europe Plan/Readiness 2030 programme, the EU has introduced SAFE, a loan scheme raising up to €150 billion on the capital markets to fund defence projects. It also established the European Savings and Investment Union strategy to mobilise private savings into capital markets.

NATO's ambitious spending targets illustrate the scale of this shift. By 2035, the alliance aims to bring spending on core defence activity to 3.5% of GDP, with an additional 1.5% dedicated to resilience and supply chain, bringing the aspiration to 5% of GDP.

If achieved, total defence related spending in Europe could reach \$1.5 trillion in 2035, from around \$440 billion last year (see Figure 1). About half of that amount is already accounted for in country-specific and EU-wide programmes (such as ReArm), and whilst we think it unlikely that 5% across EU and NATO nations will be realistically achieved in 10 years, it is still a dramatic increase in a short period of time.

Infrastructure spending, in particular, is poised for significant growth. Historically, European nations have allocated around 4% of their defence budgets to infrastructure, with the UK at close to 10% and the US at 2% – though we recognise that the definition of infrastructure is different in those jurisdictions and so a direct comparison is not possible. Considering the historical levels of spending and with NATO's proposed 1.5% GDP allocation for "resilience and infrastructure," the addressable market within the infrastructure asset class across the defence ecosystem could exceed \$100 billion per annum by 2035.

EUROPEAN DEFENCE SPENDING ENVELOPE^{15, 16, 17, 18, 19, 20}

A&M Analysis Defence Spending

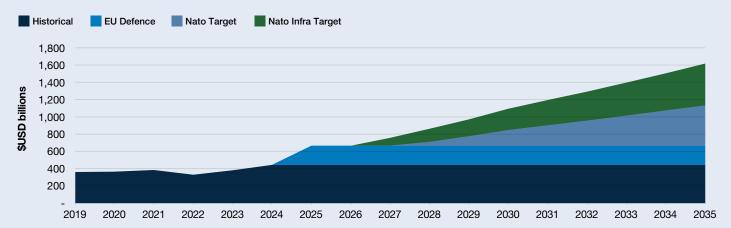


Figure 1 Overall European Defence Spending envelope based on historical trends and future announced targets

THE CONCEPT OF PRIVATE INVESTMENT IN DEFENCE²¹

As public spending in defence grows, the role of private investment through PPPs becomes crucial to ensure efficient resource utilisation, risk-sharing, and innovation in defence infrastructure development.

A PPP is a collaborative arrangement between the public and private sectors to Design-Build-Finance-Operate-Maintain (DBFOM) or deliver public services. In defence, private investment can be employed to provide equipment and support, develop and maintain military bases, training facilities, and dual-use infrastructure like defence housing. These partnerships often involve long-term contracts, such as DBFOM agreements, ensuring the integration of service delivery, operation and maintenance costs into project design. Payment structures vary, including so-called user-pays (especially in the case of dual-use infrastructure) or government-pays models (e.g., availability payments), with remuneration tied to performance outcomes.

The current surge in defence investment opens opportunities for private infrastructure funds to cofinance projects like military bases, logistics hubs, and transportation networks. Additionally, dual-use infrastructure, such as airports, ports, and communication networks, offers diversified revenue streams and broader economic impact, while specialised facilities like cybersecurity centres, space defence installations, and training hubs present high-value prospects.



BENEFITS OF PRIVATE INVESTMENT IN DEFENCE INFRASTRUCTURE PPPS^{22, 23}

PPPs offer a powerful mechanism for addressing the challenges of modern defence infrastructure development, enabling governments to deliver critical projects more efficiently, cost-effectively, and innovatively. The private sector's expertise and resources are particularly valuable to deal with the challenges of defence procurement, which is often slow and reliant on a limited pool of suppliers.

Key benefits of PPPs include:

- Streamlined Procurement Processes: PPPs introduce process improvements and enhanced capabilities in procurement and commissioning, ensuring that Value-for-Money is achieved while addressing inefficiencies in traditional defence procurement systems.
- Capacity Expansion: By mobilising private capital, governments can undertake large-scale projects that might otherwise be unaffordable, enhancing overall capacity.
- Dual-Use Opportunities: These partnerships enable the development of infrastructure that serves both military and civilian purposes, maximising resource utilisation.
- Risk Transfer: PPPs allocate significant risks to private entities, incentivising performance and ensuring better accountability.
- Innovation Utilisation: The involvement of private entities introduces technical expertise and innovative solutions, improving project quality and sustainability.
- Outcome-Based Payment Structures:
 Payments tied to performance outcomes ensure efficiency and alignment with long-term objectives.
- Whole-Life Cost Approach: PPPs integrate service delivery and maintenance costs into project design, optimising long-term value.
- Off-Balance Sheet Financing: In some cases,
 PPPs can be structured to remain off the public
 sector's balance sheet, enhancing cash availability
 for other public investments.



Despite their potential, PPPs face several challenges:

- Complex Procurement Processes: Poorly structured PPP projects, such as those with unclear objectives, inadequate feasibility studies, improper risk allocation, and inappropriate tendering processes (e.g. lack of competitive bidding, unclear evaluation criteria, unrealistic timelines) can deter credible bidders. This may lead to incomparable or unrealistic bids, and increase the likelihood of renegotiations, cost overruns, and project failures.
- Incorrect Use: PPPs that are purely set up with
 the objective to offset public funding through
 private capital will often run into delivery issues.
 This undermines the purpose of PPPs, which is to
 apportion risk away from the public sector to the
 private.
- Strategic Bidding: Due to information
 asymmetries, private bidders may submit low bids
 to tenders to win contracts, anticipating favourable
 renegotiations later. Hypothetically a bidder may
 underestimate Capex and Opex needs, anticipating
 that the government will renegotiate the contract
 to address "unforeseen" or "rising" material costs
 once the project is underway.
- Inflexibility: Adapting to evolving defence needs can be challenging under rigid PPP models, as long-term "pay-as-you-go" arrangements may become increasingly cost-intensive over time. While some flexibility in asset utilisation, such as secondary fleet use, is possible, it remains largely untested in the context of commercial operations, adding further uncertainty.
- Cost Escalation: Inefficiencies can arise if projects are not effectively structured, procured, and managed.

THE ROLE OF INFRASTRUCTURE FUNDS²⁵

Infrastructure funds have the potential to play a pivotal role in supporting defence modernisation. They will need to engage with defence procurement bodies and governments to navigate the complex challenges involved, ensuring that a model is adopted which brings the best aspects of private finance whilst recognising the imperatives and priorities of defence.

Infrastructure funds typically adopt one of two primary strategies:

- Brownfield Projects: These involve mature
 assets that already generate stable cash flows.
 Investments in brownfield projects are generally
 lower risk and provide predictable returns. For
 example, this could take the form of improvements
 to an existing defence facility.
- Greenfield Projects: These are early-stage or opportunistic projects that carry higher risk but offer the potential for greater returns. Greenfield investments often involve the development of new infrastructure assets like a new defence facility.

Infrastructure funds usually have a lifespan of 10 to 12 years, whereas PPPs can exist for 25 to 30 years plus construction. During this period, infrastructure funds will invest in and manage projects to achieve their financial and operational objectives. The structured nature of these funds ensures that they align with the long-term needs of defence infrastructure development while providing returns to investors.

Within an infrastructure fund's remit, they could finance critical defence assets such as military bases and training facilities, ensuring the availability of modern and efficient infrastructure. They can also support defence suppliers by developing and financing facilities that enhance production and logistics capabilities. Furthermore, infrastructure funds can contribute to the development of dual-use infrastructure, such as ports, airfields, and cyber-resilient energy grids, which balances military needs with economic efficiency and public utility.

As infrastructure funds typically have a lifespan that is about one-third the duration of a PPP, there are various options and opportunities for the two vehicles in the context of defence infrastructure:

- Infrastructure funds can mobilise private capital during the early stages of a PPP's operations, enhancing its bankability, in the form of long-term financing, bridging funding gaps, and supporting government objectives by supplementing limited public resources.
- Additionally, infrastructure funds could either exit
 their investment at the end of their typical lifecycle
 or extend their involvement with the PPP, by
 choosing to roll over their investment for another
 term or until the end of the PPP's lifecycle.
- The other option is for the GP of an infrastructure fund to create bespoke co-investment opportunities, such as through joint ventures into a PPP, to lock in investment for the full PPP duration.

These options could generate returns for infrastructure funds from either the PPP's end-of-life value, through divestment, or from ongoing income streams.

FUTURE OPPORTUNITIES AND RECOMMENDATIONS

Private capital can be a highly effective vehicle to coordinate and accelerate investment in defence, helping governments modernise critical infrastructure and enhance national security.

For projects to be successful, A&M recommends that public and private actors focus on three keys strategies as a starting point:

1. Innovative Financing Models: Options involve modular financing or outcome-based procurement which can spread costs over the lifecycle of a large-scale project. Modular financing, for instance, can reduce risks such as upfront financial burdens whilst maintaining flexibility as private capital requirements change over time. Outcome-based procurement will tie investments to measurable outcomes achieving tangible benefits and improved operational efficiencies.

2. Streamlined Procurement Processes:

Simplifying procurement and reducing administrative burdens can encourage broader participation from private investors. Bureaucratic and arduous tender processes will halt private capital, especially from those in infrastructure funds or GPs seeking to invest into long-term arrangements like PPPs. Ensuring that government runs processes that have clear tender documents, and realistic expedited timelines, will signal to the market a more investor-friendly atmosphere that will attract diverse sources of private capital.

3. Performance-Driven Contracting: Flexible contracting approaches that tie payments to specific outcomes can align incentives with public and private stakeholders whilst ensuring accountability. When private funds flow in, investors will need to know how performance benchmarks are tied to outcomes such as operational readiness, cost savings, or sustainability targets. These measurable outcomes not only ensure the project delivers value to the public sector but also create predictable revenue streams for investors. For example, meeting these outcomes could trigger milestone payments or bonuses, while long-term contracts tied to availability payments or shared cost savings can provide steady, reliable returns over the lifecycle of the project.

CONCLUSION

The unparalleled level of defence spending across Europe and the UK presents an unprecedented opportunity for private investment to enhance the defence infrastructure landscape. By leveraging the proven PPP model and engaging infrastructure funds, governments can modernise critical assets, expand capacity, and drive innovation while balancing economic efficiency and national security. With defence budgets across Europe set to potentially exceed \$1 trillion annually by 2035, and infrastructure needs estimated up to \$100 billion per year, the stage is set for private capital to play a pivotal role in shaping the future of defence. As governments adjust policies and market activity accelerates, now is the time to act and unlock a new era of collaboration between public and private sectors.





A&M's Infrastructure and Capital Project Group supports infrastructure funds, corporates, private equity, sovereign wealth funds, and family offices with end-to-end infrastructure expertise, delivering strategic and practical bottom lines to maximise the utilisation and value of assets. From fund structuring and deal execution to portfolio optimisation, project delivery and asset disposal, our integrated team of experts provides an integrated breadth of service and senior leadership across the entire infrastructure investment lifecycle.

With over 40 years of experience, we take a holistic and precise approach to address the real challenges and complexities your business faces. We deliver results-driven solutions tailored to your unique needs, leveraging our proven reputation and expertise. Our team of infrastructure experts includes more than 975 senior leaders, operators, C-suite executives, consultants, and industry experts, operating from over 91 offices across more than 35 countries. We serve over 200 mid- and large-cap private equity firms, as well as over 50 public sector organisations, driving tangible results for a diverse range of clients.

Our deep-rooted projects expertise, combined with reputable due diligence capabilities and operational excellence, are unparalleled within the transaction services market. We offer guidance on clients' most critical project challenges and drive performance in all areas of infrastructure investments, including acquisition and vendor due diligence, risk mitigation, capital efficiency, project execution, financial modelling and cost rationalisation. With a global network of private equity and capital projects professionals across the US, Europe, Latin America and Asia, our robust team is comprised of transaction advisory specialists, tax and accounting experts, engineers, former industry operators and C-suite executives, all armed with next-level infrastructure insights to guide you in your next deal.

ENDNOTES

- A&M estimates that the total addressable market for European NATO public investment in defence will reach \$1.6 trillion by 2035. Within this, A&M estimates that typical EU and UK allocations to defence infrastructure will range between 4% and 8% of total defence budgets. This would result in approximately \$120 billion in annual infrastructure spending by 2035.
- "Infrastructure Q2 2025: Preqin Quarterly Update," Preqin, August 5, 2025, https://www.preqin.com/insights/research/quarterly-update
- "Q2 2025 Infrastructure Pulse North America, Europe and Australia," GIIA and Alvarez & Marsal, June 18, 2025, https://giia.net/sites/default/files/2025-06/AMTAG_InfrastructurePulse_Q2_2025_11_0.pdf
- "BNP Paribas Asset Management launches Europe Strategic Autonomy Fund to capitalise on shifting geopolitical priorities," BNP Paribas Asset Management, June 3, 2025, <a href="https://www.bnpparibas-am.com/en/press/mediaroom-en-bnp-paribas-asset-management-launches-europe-strategic-autonomy-fund-to-capitalise-on-shifting-geopolitical-priorities-2/#_ftnref1-%20Press%20-%20BNP%20Paribas%20Asset%20_Management%20-%20Corporate%20EN
- "iShares Europe Defence UCITS ETF," iShares, October 20, 2025, https://www.ishares.com/ch/professionals/en/products/343289/ishares-europe-defence-ucits-etf
- Joe Marsh, "How investors are adapting ESG policies on defence," Private Equity International, September 22, 2025, https://www.privateequityinternational.com/how-investors-are-adapting-esg-policies-on-defence/
- "ESG and Defence in the UK and EU navigating the politics and legal requirements to include defence projects in sustainable investment funds," Hogan Lovells, September 1, 2025, https://www.hoganlovells.com/en/publications/esg-and-defence-in-the-uk-and-eu-navigating-whether-defence-projects-are-compatible
- Sebastian Clapp et al., "ReArm Europe Plan/Readiness 2030," European Parliamentary Research Service, April 2025, https://www.europarl.europa.eu/RegData/etudes/BRIE/2025/769566/EPRS_BRI(2025)769566_EN.pdf
- 9. "Public-private partnerships in security and defence," *European Investment Bank*, April 10, 2025, https://www.eib.org/attachments/lucalli/20240222_100425 ppp in security and defence en.pdf
- "Defence expenditures and NATO's 5% commitment," NATO, updated August 27, 2025, https://www.nato.int/cps/en/natohq/topics-49198.htm
- Albert L, "NATO Allies Agree On New Defence Spending Commitments," Overt Defense, June 26, 2025, https://www.overtdefense.com/2025/06/26/nato-allies-agree-on-new-defense-spending-commitments/
- "Long-Term Implications of the 2025 Future Years Defense Program," Congressional Budget Office, November 2024, https://www.cbo.gov/publication/61017

- 13. "Strategy for defence infrastructure 2015-2030," *Ministry of Defence*, November 11, 2016, https://assets.publishing.service.gov.uk/media/5a801982e5274a2e87db7d94/20161111-Strategy-for_Defence_Infrastructure_2015-2030.pdf
- 14. Disclaimer: EU NATO members contributed an average of 2.02% of GDP to defence in 2024, with NATO requiring an increase to 3.5% by 2035, plus an optional 1.5% infrastructure uplift. Spending projections are based on a linear increase to these targets, adjusted for flat GDP growth as forecasted by the IMF. Defence expenditure is modelled with 30% allocated to CAPEX and 70% to OPEX, incorporating approximately USD 889 billion from EU initiatives like ReArm Europe, SAFE, EDIP, EDIRPA, ASAP, and EDF, distributed evenly over four years and assumed flat thereafter.
- "ReArm Europe Plan/Readiness 2030," European Parliamentary Research Service, April 2025. https://www.europarl.europa.eu/ RegData/etudes/BRIE/2025/769566/EPRS_BRI(2025)769566_ EN.pdf
- Ben Barry et al., "Defending Europe Without the United States: Costs and Consequences," International Institute for Strategic Studies, May 15, 2025, https://www.iiss.org/research-paper/2025/05/defending-europe-without--the-united-states-costs-and-consequences/
- "Chapter Three: Europe: The Military Balance: Vol 125, No 1," Taylor & Francis Online, February 11, 2025, https://www.tandfonline.com/doi/full/10.1080/04597222.2025.2445475
- "Defence expenditures and NATO's 5% commitment," NATO, updated August 27, 2025. https://www.nato.int/cps/en/natohq/topics_49198.htm
- "International Comparisons of Defence Expenditure and Military Personnel: The Military Balance: Vol 124, No 1," Taylor & Francis Online, February 12, 2024, https://www.tandfonline.com/doi/full/10.1080/04597222.2024.2298600
- Alessandra Cepparulo and Paolo Pasimeni, "Trends in Defence Spending in the European Union," Open Book Publishers, December 11, 2024, https://books.openbookpublishers.com/10.11647/obp.0434/ch9.xhtml
- 21. "Public-Private Partnerships Reference Guide Version 3," World Bank, April 27, 2017, https://ppp.worldbank.org/sites/default/files/2024-08/PPP%20Reference%20Guide%20Version%203.pdf
- 22. lbid.
- 23. "NATO Professional Staff Procurement Manual, FC(2017)103-REV1(2023), NATO, https://www.nato.int/nato_static_fl2014/assets/pdf/2023/6/pdf/230605-FC-2017-103-ProcurementManual.pdf
- "Public Private Partnership in a NATO Context (Partenariat public-prive dans le contexte de l'OTAN)," NATO Science & Technology Organization, June 2019, https://apps.dtic.mil/sti/tr/pdf/AD1078555.pdf
- "Private Funds: Key Business, Legal and Tax Issues," Debevoise & Plimpton, February 2025, https://www.debevoise.com/-/media/files/insights/publications/2025/02/cookbook-private-funds.pdf



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