EUROPEAN POLICY CENTRE

POLICY BRIEF

EUROPE IN THE WORLD PROGRAMME

27 MARCH 2026

EDF 2.0: Keeping research at the heart of Europe's defence drive

Paul Taylor

INTRODUCTION

The European Defence Fund (EDF) was launched in 2021, a year before Russia's full-scale invasion of Ukraine, in an effort to remedy decades of chronic underinvestment and fragmentation in defence research and development in Europe. It aims both to close critical capability gaps and to accelerate the transformation of defence by attracting new and non-traditional players.

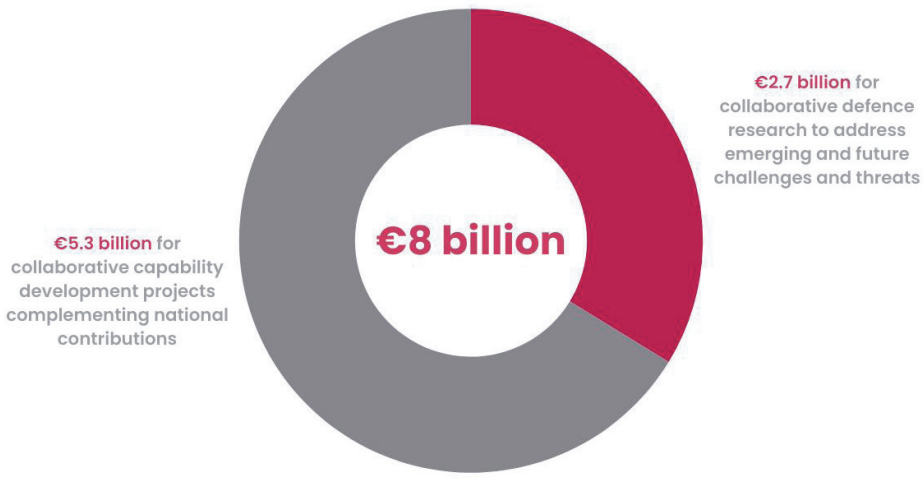
This peacetime instrument has become even more vital in turbulent geopolitical times. Yet while member states are committed to increasing their defence spending substantially over the next decade, including by leveraging the common EU budget, the shape of future research and development (R&D) funding remains uncertain given the increased focus on meeting immediate operational needs.

The European Commission's White Paper – Readiness 2030 defined twin objectives of closing critical capability gaps and transforming defence through disruptive innovation. An enhanced and increased defence research funding instrument is a key part of achieving the latter goal.

With a budget of €8 billion for 2021–2027, the EDF has become a central instrument for promoting joint R&D, fostering innovation and stimulating cross-border industrial cooperation. It is the third-largest defence R&D budget in the EU after those of Germany and France, representing 15% of all defence R&D funding in the bloc and about 50% of all collaborative defence research in the EU. It has so far funded 224 projects involving some 700 entities. Small to medium-sized enterprises (SMEs) account for 43% of beneficiaries and have received roughly 20% of the funds, highlighting the

Figure 1

EUROPEAN DEFENCE FUND FOR 2021-2027



important role of smaller enterprises. Of the total, €2.7 billion was allocated for collaborative defence research and €5.3 billion for collaborative capability development projects intended to complement national contributions.

After five years of operation, disbursing about €1 billion a year, the European Commission conducted an interim evaluation of the EDF as it was developing a more ambitious strategy to boost the European Defence Technological and Industrial Base (EDTIB).[1] European nations are under pressure to accelerate rearmament to support Ukraine, counter Russia's increasing hybrid warfare against the EU and prepare for the growing risk of high-intensity conflict. Europe needs to shorten the time-to-market for defence innovation, balancing urgent capability needs with longer-term investment to preserve its technological edge.

Europe needs to shorten the time-to-market for defence innovation, balancing urgent capability needs with longer-term investment to preserve its technological edge.

The Commission proposes to finance defence R&D in the next Multiannual Financial Framework (MFF) from 2028–2035 as part of a jumbo €410 billion European Competitiveness Fund, which would encompass existing EU defence instruments, civilian research programmes and support for strategic industries.[2] The aim is to reduce duplication, simplify procedures and close the innovation gap with the United States and China by directing large-scale investment to strategic sectors. Of the total, €125 billion would be earmarked for defence and space.

Whether member states will agree to such a large sum for common defence spending remains to be seen in the forthcoming budget negotiations. They should do, given Europe's deteriorated geopolitical position. However, in the last MFF, the Commission's initial proposal of €11.45 billion for the EDF was cut to €7.01 billion, and funding for military mobility was slashed from €5.76 billion to €1.5 billion.

The EDF has proven complex to implement. Critics say it lacks strategic direction and is constrained by annual budgeting, which makes it impossible to provide binding funding commitments beyond one year, only an "indicative multiannual perspective".[3] It is also hampered by the lack of co-financing from member states, which undermines continuity and limits industry incentives to invest, as it is uncertain if the supported activity will continue.

No EDF project had yet been completed by the time of the Commission's June 2025 evaluation. While officials and researchers note that several projects have produced significant results, these remain largely unknown outside specialist circles, as security classification limits dissemination. Greater visibility of the EDF's achievements could nonetheless help persuade member states to support a more ambitious second round of EU defence R&D funding.

Defence industries rely both on innovation, as illustrated in the Russia-Ukraine war, and on deep tech knowledge. That requires the involvement of agile SMEs and research institutions. It is essential that defence research does not become disconnected from development and production in the rush to transform ideas and innovation into capabilities. Otherwise, the risk is that the needs of today crowd out the needs of tomorrow.

BACKGROUND

The EU was long a strictly civilian project. The Treaty on European Union prohibits using common budget funds for "expenditure arising from operations having military or defence implications".[4] The creation of a European Security and Defence Policy in 1999 led to small-scale joint peacekeeping interventions without common funding, training missions with partial EU funding and the creation of an EU military committee and military staff without an operational command.

Two directives adopted in 2009 sought to regulate defence equipment procurement, with the aim of increasing transparency and cross-border competition and facilitating intra-EU transfers of defence equipment. However, Directive 2009/81 on procurement had little impact in curbing national preference due to a crucial loophole (Article 346 TFEU), which allows member states to bypass competitive tenders by invoking national security.[5] Likewise, directive 2009/43 did not significantly reduce national controls on intra-EU transfers.[6]

Only in 2017, after the shock of the UK's vote to leave the Union, did the EU adopt a broader package of measures to implement the goal of strategic autonomy set out in the Global Strategy approved in 2016. These included Permanent Structured Cooperation (PESCO) allowing groups of member states to collaborate on dozens of defence projects ranging from military mobility to cybersecurity and secure field communications; a Coordinated Annual Review of Defence (CARD) to identify capability gaps; and a declaration calling for a more competitive and integrated defence industry. This, in turn, led to the Commission's 2017 proposal to create the European Defence Fund.[7]

The EDF was launched in 2021, replacing two small pilot programmes – the Preparatory Action for Defence Research and the European Defence Industrial Development Programme – that had a combined budget

of €600 million. Its objective was to create networks of universities, national research organisation and companies, especially SMEs, working on research relevant to EU- and NATO-identified capability gaps. Financial support is provided primarily through grants covering up to 100% of eligible costs across 34 thematic and horizontal areas of action spanning all military domains and enabling technologies. Allocations were linked to a bonus system that takes into account SMEs, mid-cap participation and links to PESCO projects.

STATE OF PLAY

The EDF has established itself in its first five years of operation as a central instrument for promoting joint research and capability development, defence innovation and cross-border cooperation. However, the Commission's June 2025 interim evaluation acknowledges that without procedural simplification, stable co-financing by member states and more strategic, multi-annual planning, the EDF cannot realise its full potential.

Many of the constraints identified are political. They reflect enduring reluctance among member states – especially Germany and France – to delegate strategic choice in defence research and development, even as they acknowledge the need for greater European coordination.

ABOUT THE EDF

The EDF is structured around two pillars – Research and Development – which differ in terms of technological maturity, funding rates and submission requirements. Development projects face additional requirements, such as co-financing from other sources and a letter of intent from a ministry of defence. This structure has the key benefit of bringing the research community and industry together, maximising the prospect of research being turned into effects.

Beneath these pillars are the EU Defence Innovation Scheme (EUDIS) and the Defence Equity Facility. EUDIS, launched in 2022 with a budget of close to €2 billion, supports innovative defence projects involving smaller players, especially SMEs. It runs initiatives such as hackathons – a sort of 'speed-dating' format to translate scientific ideas into defence solutions – and spin-in calls aimed at adapting civilian innovations for defence use.[8]

The Defence Equity Facility combines €150 million from the EDF with €300 million from the European Investment Fund to support private funds investing in companies developing innovative defence technologies and products. By providing anchor financing, it aims to crowd in private capital and stimulate the European defence investment ecosystem. While widely welcomed, its scale remains insufficient to meet current needs.[9]

Without procedural simplification, stable co-financing by member states and more strategic, multi-annual planning, the EDF cannot realise its full potential.

Given agreement among member states on the need to strengthen European defence, and in the light of ongoing negotiations on the next MFF, there is an opportunity now to unleash the EDF's potential. Tying future defence research funding closely to the capability targets agreed by coalitions of member states offers the best prospect of securing their political and financial support.

Constraints on the EDF

The EDF has been a significant tool harnessing universities and national research organisations to deliver impactful research that strengthens European defence capabilities, though barriers remain. Smaller players in particular have welcomed the opportunity to cooperate with larger entities and to become embedded in a cross-border network.

On the downside, extensive national security reporting requirements and the near impossibility of disseminating results – a core condition for academic career advancement and future funding – have caused deep frustrations. Evaluation criteria that reward cooperation with companies in other EU countries over working with an institution's own national SME ecosystem have added complexity. The legal paperwork involved in sharing project information across borders can be as onerous as that associated with exporting finished weapons, researchers say. Differing national rules make for an uneven playing field, while national export controls severely limit the ability to share results with entities that could and should benefit from the research. These hurdles are particularly problematic for small institutions that do not have large legal departments.

Industry welcomed the EDF as a longer-term EU financial instrument for defence R&D, whereas member states' spending is often more focused on short-term outcomes. Some defence companies would like direct involvement in defining the requirements in EDF calls. However, this raises potential conflicts of interest, and industry already exerts substantial influence through home member states and via the European Defence Agency (EDA). Research actors, too, seek greater input into the design of the annual work programmes.

Criticisms of the EDF

Without detracting from its achievements in nurturing a cross-border European defence R&D ecosystem, the EDF has drawn criticisms for several shortcomings.

These include protectionist features, complex procedures, a 'sprinkler' rather than 'firehose' funding approach, a slow path to delivering operational capabilities, disconnection from end-users (especially military), and limited success in bridging the so-called 'valley of death' between prototype development and scaled-up production. Letters of intent and co-financing requirements may signal interest, but they do not create binding commitments for adoption or scale-up, leaving even successful projects exposed at the transition stage.

EDF beneficiaries must not be under third-country control, defined as ownership from outside EU member states or Norway. This provision, intended to ensure that intellectual property developed with EU funds remains in Europe and is not subject to third-country export restrictions, was fiercely contested by the US and UK governments and companies during negotiations on the EDF regulation. However, EU scientists and research and technology organisations (RTOs) say the rule spares them from applying for dual-use export licenses and becoming entangled in US technology control regulations (such as ITAR), which can make joint technology development US entities unattractive.

An analysis by the International Institute for Strategic Studies, co-authored by a former Brussels representative of major UK defence contractor BAE Systems, argues that these restrictions have blunted the EU's ability to partner on cutting-edge technologies with third country-owned entities. According to the authors, this "makes the process of capability generation less efficient and more risky. As currently configured, the EDF may even render some capability developments unviable, hindering rather than helping the EU's strategic-autonomy ambitions, whilst also undermining cooperation with trusted allies and partners".[10]

However, global trends since the EDF's inception have moved towards greater sovereign protection of technology. The Trump administration's declared aversion to the EU in its National Security Strategy makes revision of the EDF's rules on third-country entities unlikely. The one exception is Ukraine. Originally excluded like other third countries, the EU's co-legislators agreed in late 2025 to associate Ukraine with the EDF as part of the so-called defence 'mini-omnibus' – a package of measures simplifying EU defence legislation and broadening existing EU research programmes to cover defence and dual-use activities. Under the initial arrangement, the EDF would reimburse costs linked to testing carried out in Ukraine.[11]

The EU's defence R&D ecosystem has much to learn from Ukraine, not least to address the perception that the EDF remains disconnected from some urgent capability issues, and from military end-users. Russia's war of aggression forced Kyiv to innovate its defences far more rapidly than any EU or NATO member, including by leveraging civilian industries. Faced with rapidly changing battlefield conditions, Ukrainian engineers were embedded with frontline units, creating tight feedback loops that allowed weapons designers and manufacturers to adapt quickly as Russian capabilities evolved and to counter Moscow's advances in drones, electronic warfare and unmanned systems.

This operational experience has enabled Ukrainian industry to adapt and field innovations in a matter of weeks rather than months or years. A country at war cannot afford lengthy testing and qualification processes. No equivalent model exists in the EU, although some European defence establishments and companies maintain personnel in Kyiv to harvest such know-how. The core lesson is not speed alone, but the compression of feedback loops among operators, engineers and doctrine developers, with early involvement of military end-users.

The EU's defence R&D ecosystem has much to learn from Ukraine, not least to address the perception that the EDF remains disconnected from some urgent capability issues, and from military end-users.

Transferring this model to EU member states would be difficult without changes to current practices on certification, standards and export controls, as well as a shift from protecting incumbent industries towards allocating greater responsibility to purchasers.

Other criticisms have focused on the dispersion of relatively small grants across many projects and countries rather than targeting a handful of game-changing capabilities. As with the launch of PESCO, the EU faced a dilemma between efficiency and geographical balance. It opted for the latter to ensure wide political buy-in and a form of budgetary *juste retour*.[12]

Reviewers have noted relatively limited German engagement with the EDF, although participation has increased as the programme has matured, along with Nordic involvement. A study by the Robert Schuman Foundation found that Spain, France and Greece together captured 63% of EDF funding in its first year. This has since declined to 40%, while the proportion going to the Netherlands, Denmark and Estonia has grown.[13]

Some European officials initially viewed the EDF as a potential EU equivalent of the US Defence Advanced Research Projects Agency (DARPA), Since its creation in 1958, DARPA has driven US defence innovation and produced everything from satellites and stealth aircraft to flat screens and Siri. Its model concentrates authority in empowered programme managers with long time horizons, a high tolerance for failure and a mandate to kill non-competitive solutions quickly ('fail fast').

By contrast, the EDF was built to fund cross-border collaboration, balance national interests and embed cooperation as a political objective in its own right. EU institutions are more risk averse by design. DARPA's strength lies in mission authority and strategic discretion; the EDF's lies in legitimacy and integration. The question is whether the EDF can be endowed with sufficient clarity of mission, delegated authority, continuity of funding and operational flexibility to deliver genuine strategic effects.

The question is whether the EDF can be endowed with sufficient clarity of mission, delegated authority, continuity of funding and operational flexibility to deliver genuine strategic effects.

PROSPECTS AND RECOMMENDATIONS

The massively increased political priority for defence in Europe offers the opportunity to significantly expand the funding and impact of the EDF in the next seven-year budget cycle.[14] The proposed European Competitiveness Fund is a chance to unify and rationalise a dozen ad-hoc EU defence programmes. That could create more strategic programming, streamline and simplify procedures and help bridge the gap between civilian and defence R&D.[15]

However, the Commission's initial proposal for an ECF regulation risks decoupling research and disruptive innovation from development and production. It is essential to preserve the integration of the whole R&D cycle.

As negotiations on the MFF begin, the EU should build the next phase of the European Defence Fund or its successor instrument around the following priorities:

1) **Don't break what works.** Defence research requires time and must not be sacrificed on the altar of speed. **The ECF must not decouple R&D from deployment but strengthen the connectedness of the whole defence ecosystem.** Embedding the habit of cross-border collaboration in defence involves a deep culture change that still has a long way to go. Defence ministries struggle to integrate European cooperation into their functioning in the absence of an open, competitive market for defence goods.

2) **Integrate Ukraine fully into the EDF's successor programme**, giving it the same status as Norway. The EU's co-legislators took an important step towards this in December 2025 by adopting the mini omnibus for defence, and the proposed ECF regulation would grant Kyiv full inclusion in the defence window. Member states and their industries must learn from Ukraine's feedback loop, which allows rapid adaptation of capabilities leveraging insights gathered from the battlefield. At the same time, it should be recognised that a multinational alliance like NATO with its incrementally evolving defence doctrine cannot replicate Ukraine's level of enforced improvisation.

3) **Tear down national barriers** to cross-border EU defence R&D collaboration. Most of the obstacles to cooperative R&D lie at national level, and only some are amenable to EU legislation or policy action. Member states should commit to removing or drasticaly reducing barriers to transferring defence research findings and products within the EU by accepting a common secure EU system for exchanging such classified data. They should adopt a system of mutual recognition of national testing, evaluation and qualification of defence products based on NATO standards, pending a broader harmonisation of norms and testing.

4) **Move to multi-year programming** to permit binding financial commitments to institutions and SMEs joining EDF projects. This will require that the Commission reform, or create targeted exceptions from, the EU's Financial Regulation, which only allows annual awards. The Commission should also continue to simplify, streamline and speed up application processes to make participation easier for universities, RTOs and SMEs.

5) **Make dual use by default or dual use by design the guiding principle** of research funding. There have been some promising statements in this direction, but implementation will be key. The Commission should remove the civilian-only clause in the Horizon Europe to open EU research funding to projects with potential military applications, reflecting the increasingly crossover nature of technologies and maximising the security return on EU science spending. In addition, the successor to Horizon Europe should issue specific calls for dual-use technologies, as outlined, for example, in the Commission's Quantum Europe Strategy. SMEs working on defence innovation should be granted access to EU civilian testing and evaluation infrastructure.

6) **Recognise the limits of mainstreaming defence R&D.** While greater integration with the wider EU research ecosystem is desirable, defence R&D will continue to require a dedicated instrument ringfenced within the ECF to reflect security constraints and the central role of national defence industries. The balance between research and development spending should be maintained at current levels (roughly 1/3 R&T, 2/3 development).

7) **Make dissemination easier to bridge the gap between research and development.** Classification and restrictions on information transfer call for a cooperative approach in which industry participates in research and can carry technologies to the end-user, while universities and RTOs contribute to development. This co-creation process can compensate for limits on wider information sharing and help ensure continuity from research to field deployment.

8) **Improve communication and visibility** of EDF achievements within the limits of security classification to win wider political and societal buy-in for EU investment in defence R&D. The scant literature about EDF projects does little to inform the public or politicians about the content or success of the initiatives. The Commission should lead an effort to publicize key advances that can make Europe more secure.

9) **Build out the defence equity facility** to crowd in growth capital for defence and dual-use technologies and accelerate the adoption of disruptive defence technologies. The budget for this instrument should be multiplied at least tenfold to enable it to take stakes in promising defence start-ups and SMEs.

10) **Systematise member state co-funding** to ensure that ECF-funded R&D projects result in the delivery of new capabilities. The European Defence Agency (EDA) can help achieve greater buy-in by national defence ministries. ECF-funded development projects should be accompanied by adoption or scaling pathways, backed by committed funding from participating member states or EU instruments. Moving beyond non-binding letters of intent would reduce the risk that successful projects stall at the prototype stage and strengthen the link between research, development and deployment.

The EU may never match the vast sums invested in defence R&D by the US or China, but a strategic approach adopting these priorities offers the best prospect of providing European countries with a defence innovation ecosystem and the technologies essential for strategic autonomy.

The support the European Policy Centre receives for its ongoing operations, or specifically for its publications, does not constitute an endorsement of their contents, which reflect the views of the authors only. Supporters and partners cannot be held responsible for any use that may be made of the information contained therein.

NOTES

[1] European Commission (2025), Report from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: The European Defence Fund, Brussels, COM(2025) 299 final.

[2] European Commission (2025), Proposal for a Regulation of the European Parliament and of the Council on establishing the European Competitiveness Fund (ECF), Brussels, COM(2025) 555 final.

[3] European Commission (2025), European Defence Fund: Indicative multiannual perspective 2026–2027, Brussels, Commission Implementing Decision C(2025) 8719 final.

[4] European Commission (2025), Proposal.

[5] European Union (2009), Directive 2009/81/EC of the European Parliament and of the Council of 13 July 2009 on the coordination of procedures for the award of certain works contracts, supply contracts and service contracts by contracting authorities or entities in the fields of defence and security, *Official Journal of the European Union*, L 216.

[6] European Union (2009), Directive on transfers of defence-related products, *Official Journal of the European Union*, L 146/1.

[7] European Commission (2017), Launching the European Defence Fund, Brussels, COM(2017) 295 final.

[8] European Commission, "Our common defence industrial strategy," EU Defence Industry.

[9] European Commission, "Defence Equity Facility," EUDIS Tracks.

[10] Lawrenson, Tim, Sabatino, Ester (2024), "The Impact of the European Defence Fund on Cooperation with Third-country Entities", The International Institute for Strategic Studies.

[11] Council of the European Unon, "Investments in Defence: Council and Parliament agree to support faster, more flexible and coordinated investments in European defence", 5 November 2025.

[12] Ianakiev, Gueorgui (2019), The European Defence Fund: a Gamechanger for European Industrial Collaboration, Paris: Institut des Relations International et Strategiques.

[13] Brehon, Nicolas-Jean (2025), Unsettling shifts in the European Defence Fund, Paris: Robert Schuman Foundation.

[14] Lausberg, Philipp, "The proposal for the next Multiannual Financial Framework: a bold step towards more strategic investment," The European Policy Centre, 16 July 2025.

[15] European Policy Centre, 2025, "The next MFF: an adequate response to EUrope's challenges?"

With the strategic support of King Baudouin Foundation
Working together for a better society