



CEPS EXPLAINER

MIND THE GAP: THE ECONOMICS OF MORE EUROPE IN DEFENCE



SUMMARY

The European economy is large enough to close the big transatlantic gap in defence spending: if NATO members were to meet the 3.5% spending target, total European defence expenditure would approach US levels. However, increased spending alone will not automatically translate into stronger capabilities. The central challenge lies in the fragmentation of procurement, weak coordination and persistent national industrial jealousies that limit efficiency gains.

Recent increases in defence spending can be expected to have a significant macroeconomic impact, particularly in countries like Germany and the Nordics. EU-level instruments such as SAFE and the European Defence Fund facilitate financing and cooperation, but they primarily ease funding strains rather than generate additional spending. Fiscal rules are unlikely to be the main binding constraint; rather, high debt levels and market perceptions shape national decisions.

A key inefficiency arises from the organisation of procurement, at both the national and European levels.

At the national level, procurement is encumbered by slow-moving bureaucracies and their links with entrenched national incumbents, skewing expenditure towards expensive, domestic legacy systems.

At the European level, joint procurement often fails to deliver expected economies of scale due to 'juste retour' practices and national incentives to preserve domestic industrial capacities. As a result, collaborative projects frequently suffer from delays, cost overruns and suboptimal design outcomes. By contrast, private sector-led initiatives demonstrate greater flexibility and responsiveness.

What is required is a shift from joint procurement managed by small groups of countries to joint capabilities managed at the European level. In particular, space and cybersecurity represent critical non-kinetic domains where economies of scale are large and duplication especially costly. Expanding and refocusing projects such as IRIS², and strengthening EU cybersecurity capacity, could deliver tangible gains.

Finally, the large gap in military R&D between the US and Europe remains a structural weakness. Without a concerted effort to address this gap, Europe will continue to depend on US technology in crucial areas.



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BACKGROUND

Europe's defence 'pillar' within NATO represents a large, even if somewhat sluggish economic mass.

The combined GDP of European NATO members amounts to about EUR 20 trillion, more than two thirds that of the US. If all of them were to achieve the NATO goal of increasing military spending to 3.5% of GDP, the total – EUR 700 billion – would roughly double today's level. At current exchange rates, this is not far from the present US total of around EUR 800 billion (USD 950 billion), as US spending on defence (3.2%) has recently been somewhat below the 2025 NATO target of 3.5% of GDP.

Europe's overall capacity to produce armaments is also close to that of the US. [Data from SIPRI](#) show that the EU's share of global arms exports is about 28%. This is less than the US share of 42%, but about proportional as a ratio to GDP.

The term 'European' has a variable connotation if one analyses the economic aspects of defence. The hard core is constituted by the EU, including its four neutral members (plus EEA member Norway). Usually, only Member States (again encompassing the neutrals) are eligible for EU financing schemes for defence. The loan instrument Security for Action in Europe (SAFE) provides a partial exception: Member States can involve participants from selected non-EU countries in projects for cross-border co-production (even Canada has applied to participate in this limited sense).

There are various configurations that are mostly concentric with the EU at the core. The neutrality (which comes in various forms) of four smaller EU Member States (accounting for about 5% of EU GDP) is of little relevance in the economic aspects of defence.

The UK plays an important role in the European defence market, including its strong contribution to military R&D, though its status as a non-EU country limits its participation in some initiatives. Also, recognition of Ukraine's rapidly growing industrial capabilities is enabling it to participate in EU-led projects. This Explainer thus looks where possible at an EU+2 as the relevant European aggregate.

It starts by generally estimating the macroeconomic impact of increased defence spending and its distribution so far across Member States. It then looks at whether the fiscal rules of the EU's Stability Pact might be an obstacle to further rises. The Explainer covers EU support schemes for defence investment like SAFE, the European Defence Fund (EDF), and a European or EU preference in military procurement. Finally, it examines how joint projects work in practice and considers high-tech areas where the gains from 'Europeanising' national efforts seem most critical.

MACROECONOMIC IMPACT

Achieving the NATO goal of ramping up military expenditure to 3.5% of GDP (+1.5% on infrastructure) would lead to a significant boost in demand even if discounting some reclassification of existing expenditure. With military spending now running at about 2%

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of GDP, just achieving the 3.5% of GDP target would represent a rise of 1.5 percentage points (pp) in GDP, or about EUR 300 billion more than today. Not all European NATO members are likely to achieve this goal any time soon. But for those on course to do so (Germany and the Nordics), this increase will fuel domestic demand as a large proportion of it will be spent at home.

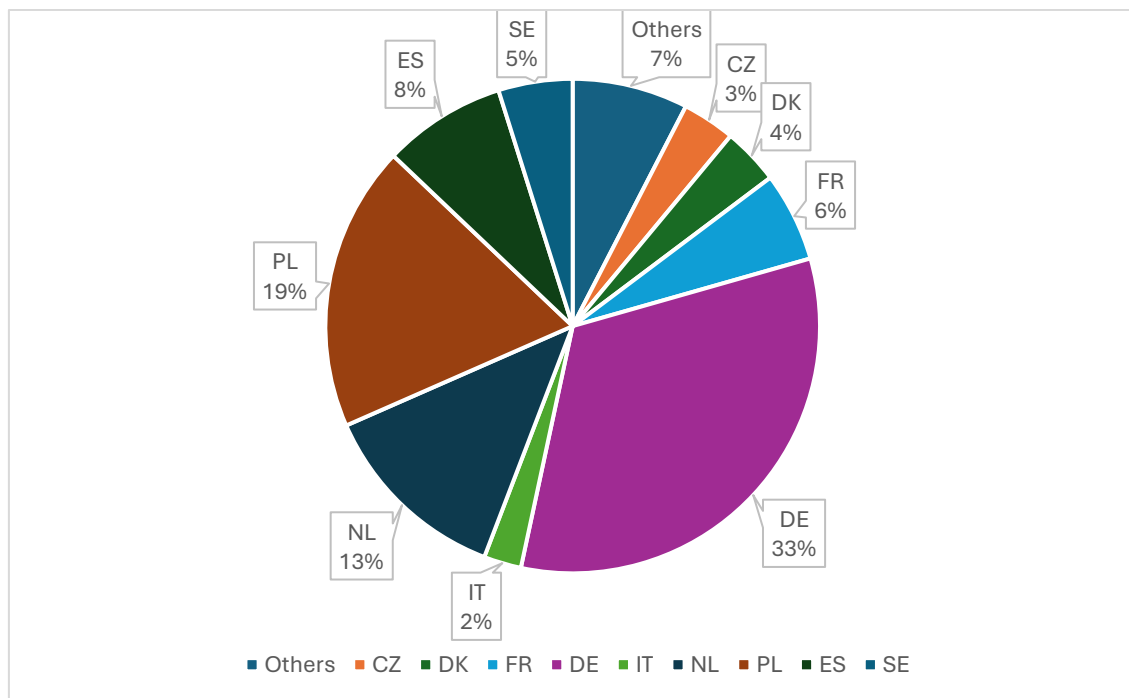
The [available research](#) suggests that each 1 pp of GDP in military spending raises demand by about 0.5 to 0.9 points of GDP. The surge still in the pipeline should thus push demand up by somewhat more than 1% of GDP (more for countries where the uplift is largest, i.e. Germany). This is substantial given a trend growth rate for the EU of around 1-1.5%.

The composition of military spending is changing as well. Up to 2022, procurement accounted for only a small share ([typically 20-25%](#)) of total military spending, with the biggest portion going on personnel (including pensions) and running costs. Now, a major share of the increase is being spent on procurement. Most members now comfortably exceed the [NATO target of 20 %](#).

The [latest EDA report](#) shows that overall EU military expenditure has risen from close to EUR 250 billion in 2022 to over EUR 350 billion in 2025 (estimated). Discounting for inflation, the rise is less impressive, but still important (from 1.5% to 2.1% of GDP in 2025). What is more, investment (in equipment plus research, development and technology) has doubled since 2022 to about EUR 100 billion in 2024, or some 30% of total defence spending. More hikes are expected in the next few years.

The overall increase is not evenly distributed. Three countries, Germany, the Netherlands and Poland, together account for about two thirds of it in the EU (Figure 1). Germany's share might grow further given the splurge planned for the next few years. The Scandinavians are also notable relative to their weights in the EU economy. By contrast, southern Member States have so far added very little to their spending on equipment, with the partial exception of Spain. Adding the UK and Norway to the total would not change the general picture.

Figure 1. Shares of the increase in total EU defence investment (2022-24)



Source: European Defence Agency.

Spending on the military is of course national expenditure since the EU does not have military forces. The largest part of defence spending goes on personnel and this is naturally spent at home. Expenditure on equipment is different. If there was an integrated market one would expect a major portion of equipment spending to go on imports from other EU members. However, this is not the case. Domestic firms receive most equipment orders in the larger Member States. The Kiel Institute's [Military Procurement Tracker](#) shows that over recent years about 90% of the big German procurement contracts have gone either to German firms or German-led consortia having some assembly take place locally (e.g. [Rheinmetall is assembling 50 of its Lynx infantry fighting vehicles in Hungary](#)).

QUANTITY VERSUS QUALITY

There is no link between the macroeconomic impact of the ongoing increase in defence spending and its effectiveness in creating strong deterrence. In many countries, procurement is executed by [slow-moving bureaucracies that have no experience in the field and are used to relying on a limited number of entrenched national incumbents](#). The latter limit competition even at the national level and the former skew expenditure towards expensive legacy systems. Unfortunately, the problem seems most acute in the largest spender, [Germany, which may be lagging in innovation](#).

There is very little that can be done at the European level to foster more competition and innovation in national defence spending. Member States regard defence spending as their

national prerogative and have so far refused to submit it to European rules on public tendering.

The EU's fiscal rules also solely consider the quantity, not the quality, of defence spending.

DO EURO AREA FISCAL RULES REPRESENT A BRAKE ON DEFENCE SPENDING?

Governments find it politically impossible to reduce other spending (or raise taxes) to finance more defence expenditure. This implies that much of it will result in higher deficits. Germany even changed its constitution in early 2025 to allow much of its defence spending to be financed outside its 'debt brake'. In 2024, euro area Member States had agreed on a multi-year plan to bring deficits down to more sustainable levels. Subsequently expanding deficits because of higher defence spending would be against the rules of the Stability Pact and possibly incur fines under the excessive deficit procedure.

This is why the Commission has proposed exempting, at least temporarily, up to 1.5 pp of GDP of added defence expenditure from the country-specific plans that Member States had only recently agreed with the Commission¹. Up to now, 16 Member States have asked for this national escape clause (NEC), representing about 45% of EU GDP.

The Commission's estimate that the NEC would 'mobilise' an additional EUR 650 billion in defence spending seems difficult to reach (the total added expenditure to be mobilised given by the Commission is EUR 800 billion, of which EUR 150 billion is through SAFE). But as the countries applying the NEC account for only for 45% of EU GDP, one can only expect less than half this figure.

The countries seeking to apply the NEC are located closer to Russia. They also have a lower debt-to-GDP ratio (an average of 66% of GDP) than non-applicants (over 90%). This suggests that the main obstacle to higher defence spending financed by additional debt is recognition in high-debt countries that financial markets might require higher risk premia if a country with already high debt adds to its burden in these uncertain times.

However, the additional debt burden resulting from fully using the NEC, at most 6 pp of GDP, appears modest if seen in relation to the debt ratios of countries like Italy or France of 135% and 115% of GDP, respectively. The higher public debt resulting from financing rearmament for a few years through debt should not constitute a major cause for concern.

¹ The exception to the fiscal rules allowing Member States to exceed their previously planned deficit plans if they increase defence expenditure applies formally to all EU members but is de facto relevant only for euro area members.

CURRENT EU FINANCIAL SUPPORT FOR DEFENCE INVESTMENT

Another mechanism to support increased defence spending is SAFE. Under it, the EU will provide EUR 150 billion in loans to Member States to fund common procurement, i.e. contracts involving at least two EU Member States or one plus Ukraine (EEA countries are also eligible). For critical assets, SAFE can finance procurements by individual Member States. The main advantage of SAFE loans is not so much the slightly lower interest rate on EU bonds, but their ability to provide finance at very long-term maturities often not available to smaller Member States and those outside the euro area.

Demand for [SAFE loans has been strong, with 19 Member States requesting a total of EUR 150 billion](#). Not surprisingly, all Central and Eastern Member States (including Hungary) have requested SAFE loans plus France and Italy (the two large euro-area countries with risk premia above those of the EU). Among their national plans, 15 reportedly involve cooperation with Ukraine. Regrettably, negotiations about the UK's participation in SAFE have still not yielded an agreement.

For some smaller Member States like Latvia or Lithuania, SAFE loans represent a sizeable share of their GDP (close to 12% for Latvia, see Table 1). By comparison, the NEC exemption from fiscal rules makes room for at most 6% of total 'overspending' over 4 years. The NEC only allows Member States to increase their national debt by paying a risk premium. SAFE loans, by contrast, have the low interest rate of EU bonds and long maturities (officially up to 45 years) with an initial grace period of 10 years.

Table 1. SAFE loan allocations (provisional)

Country	SAFE loan (€ billion)	GDP 2024 (€ billion)	Loan/GDP ratio (%)	Spread	Gain (% GDP)
Poland	43.7	1 134	4.8	240	1.2
Romania	16.7	354	4.1	410	2.7
France	16.2	2 921	0.55	71	0.0
Hungary	16.2	206	6.6	410	4.4
Italy	14.9	2 192	0.68	71	0.0
Belgium	8.3	614	1.35	49	0.0
Lithuania	6.4	78	8.2	-	-
Portugal	5.8	285	1.8	46	0.0
Latvia	5.7	40	11.9	-	-

Source: European Commission.

In principle, the EU value added should be achieved through the requirement for projects to involve more than one EU country and potentially Ukraine, whose industry would greatly benefit from financing on these favourable terms.

For large countries like Italy or France, SAFE loans are of secondary importance (less than 1% of GDP). A better measure of their value to a country is the amount of interest payments saved. For smaller Baltic countries with low debt ratios, the interest savings are less notable, because their governments can finance themselves at low rates. But for other countries the difference between the interest on SAFE loans and national debt is greater, especially for Hungary, Romania (both of which pay about 4 pp more than the EU) and Poland (a spread of 2.4%).

Using these interest rates to calculate the interest savings², Hungary is by far the biggest beneficiary of the SAFE scheme, with a gain of over 4% of GDP³. For Romania, the interest savings amount to 2.7% of GDP and about 1.2% for Poland. For all other countries the interest savings are a negligible fraction of GDP. For Hungary, the large implicit subsidy from SAFE is another reason why the country, now under different leadership, is likely to support further defence efforts at the EU level.

While SAFE has had more take-up than the NEC, it still only provides loans for projects that might have been undertaken anyway, and the NEC just allows countries to debt-finance more defence expenditure. This implies that these two measures, while politically useful, do not pay for any additional outlays – they just make it easier for Member States to finance their own spending, with EU support conditioned on some form of collaboration.

The direct funding of defence expenditure from the EU budget would anyway be incompatible with the EU Treaty as discussed below. Existing EU funding for defence is hence limited to some support for research that has to be channelled outside the EU's budget.

THE EUROPEAN DEFENCE FUND

Of the EDF's annual budget of about EUR 1 billion (until 2027), a third is for collaborative research and two thirds for joint projects on capability development complementing national contributions. The financial support is offered primarily through grants of up to 100% of eligible costs, making it another way to encourage Member State cooperation. Its budget is less than a tenth of overall (national) defence R&D, but gives smaller

² The interest savings were calculated as 15 years of annual savings at the amount of SAFE loans allocated times the difference between the interest rate on EU bonds and national bonds.

³ The figures reported here are the initial allocations. It remains to be seen whether the Commission can subject SAFE payments to any conditionality.

countries a chance to participate in larger R&D programmes. It can also finance longer-term projects that might be too speculative for national ministries of defence.

MORE SPECIAL FINANCING VEHICLES FOR THE DEFENCE INDUSTRY?

In the immediate aftermath of the 2022 invasion of Ukraine, it was often argued that the European defence industry had difficulties ramping up production capacity, as European governments were slow in awarding long-term contracts and banks were unwilling to extend credit as they were not sure how long the war and the commitment to higher defence expenditure would last. Today, the situation is completely different, with orders multiplying across the board and the new NATO commitment of increasing expenditure providing a longer-term horizon.

The stock market is also providing strong signals and access to risk capital, including for many start-ups. The initial hesitation of banks has also been overcome along with early concerns about environmental, social and governance aspects. Furthermore, national development banks now provide generous financing for defence-related projects and the [EIB has greatly expanded its financing for the sector](#).

Finally, more risk-taking can be expected from defence contractors themselves. Firms wanting to grow do not have to wait for a contract before investing.

THERE'S LITTLE NEED TO CREATE ANOTHER MULTINATIONAL BANK DEDICATED TO FINANCING DEFENCE COMPANIES

In all, there's little need to create another multinational bank dedicated to financing defence companies⁴. This includes a [European Rearmament Bank](#) project modelled on the European Bank for Reconstruction and Development ([EBRD](#)). The EBRD's justification was that local capital markets in Central and Eastern Europe were underdeveloped (when EBRD was founded). This is no longer the case, at least for most EU Member States.

CAVEATS ON A EUROPEAN OR EU PREFERENCE FOR MILITARY PROCUREMENT

Some have argued that too much European procurement spending goes on imports from non-EU countries, especially the US. The [Draghi report](#) asserts that of 'a total of EUR 75 billion spent on procurement by Member States between June 2022 and June

⁴ The proposal for a global Defence, Security and Resilience Bank for NATO allies and like-minded countries no longer makes sense after the publication of the US Security Strategy, which views European governments as civilisation antagonists.

2023, 78% of it went on purchases from suppliers outside the EU, of which 63% were based in the US' (p. 165).

This number has been widely reported and used as an argument for an EU preference in military spending. [Reality is very different](#). The Kiel Institute's [Military Procurement Tracker](#) finds that for the three largest spenders (Germany, the UK and Poland) for which detailed data are available since 2020, the share of procurement going to non-EU countries is about 25% for 2022-24⁵.

Most European spending on US products is for weapons systems for which there are no equivalent European substitutes, like the F-35 and Patriot air defence systems. It is unclear what a preference for European suppliers would achieve. Developing European alternatives in these areas should of course be a priority but must be done at a reasonable cost. Unfortunately, many flagship projects have experienced large cost overruns and/or underdelivered in terms of capability. For instance, the production and further development of the Franco-Italian SAMP/T have not been ramped up after three years of war, which is a major failing. Cooperation alone is not sufficient for success.

The SAFE instrument and the EDF already incorporate some form of EU preference. This is explicit in the EDF regulations that make the grants available only to EU producers. SAFE is open for projects involving collaboration with non-EU countries, including Ukraine, but politically there's a strong preference for EU-led projects and suppliers.

COMMON FINANCING FOR DEFENCE

It is often argued that since defence is a public good it should be financed by issuing common debt, like the NextGeneration EU (NGEU) programme. However, there's a key problem with issuing common debt that is then transferred to Member States: money is fungible. Member States that get funding for defence expenditure might use the budgetary leeway they gain to increase other spending.

This is what happened under the NGEU programme, when EU funding was indeed used for its official purposes. Yet many of the projects would have been undertaken anyway. Some Member States used the budgetary headroom created by NGEU financing (both grants and loans) to finance unrelated, vast expenditure schemes like the 'super bonus' for home insulation in Italy.

⁵ The Draghi report does not give a source for its data. It's possible that for a shorter period of 12 months (June 2022 to 2023) the percentages it mentions are correct if this period comprises large German and Polish aircraft orders and Polish orders for South Korean tanks. But the longer-run average reported here shows a very different picture.

Using EU bonds to finance what essentially remains national military expenditure would raise the cost for Germany (the yield on EU bonds is about 0.3% higher than on German government bonds) while the benefits for most euro area countries, even including France and Italy, would be modest (currently, the yield on the bonds of these two countries is only about 0.3-0.4% higher than on EU bonds). Once again, as for SAFE the main beneficiaries would be Hungary, Romania and Poland.

JOINT PROCUREMENT VERSUS JOINT CAPABILITIES

The main problem is not so much whether enough money and financing will be available, but how it will be spent in a way that better integrates European forces and capabilities. There are no fully satisfactory solutions to this problem.

Joint procurement is often seen as a way to unlock efficiency gains because of economies of scale and shared development costs, but gains from it should not be overestimated. For most land-based systems (tanks, infantry fighting vehicles and artillery, including mobile anti-aircraft) development costs are not that high, and economies of scale are exhausted after production runs of a few hundred. In this area, European producers seem competitive even if there are arguably still too many of them.

Development costs are much higher relative to the final price for high tech items such as airplanes, space-based assets and ships, and thus sources for potential efficiency gains. Their joint procurement could lead to big cost savings. Still, many common development projects are plagued by delays and cost overruns due to national incentives to add further capabilities to joint aircraft or ships. These are usually at the insistence of ministries of defence (often pushed by national champions), with add-ons corresponding to the product lines of their national champions. The costs for the added features and resulting delays are borne by everybody whereas the benefits are national. Moreover, rigid '*juste retour*' principles lead to inefficient production in which the enterprises of all countries must have their 'fair' share.

Two examples – one from the past and the other from the present – illustrate these two fundamental handicaps of collaborative projects.

The A300 transporter was years late and its development costs, at EUR 30 billion, were EUR 10 million over budget. With fewer than 200 planes built so far, the development costs alone amount to EUR 150 million per plane, the same order of magnitude as the production costs and the price at which these planes are sold.

The other example concerns the SAMP/T, an air defence system based on Aster missiles – a project that began in the early 1990s, which [has since developed](#). It is reportedly similar in capabilities to the Patriot missile system (except against medium-range ballistic

missiles) but very few are being produced. The MBDA consortium building it claims that it takes 22 months to produce more missiles and 3-4 years for new systems. The reason is that many components must be sourced from specific suppliers in the three participating countries. The parts are then shipped multiple times across frontiers.

The Member States behind MBDA (mainly France, the UK and Italy) have so far refused to allow more flexible production for fear of losing industrial capacities. Despite Ukraine's urgent needs and the geopolitical imperative of having a European alternative to the US Patriot, a contract to accelerate production was not [signed until early 2025](#). This was due to the necessity of having three countries (with frequent government changes) agree on amending the original deal for the system.

There is a stark difference between government-dominated consortia and purely private players. For instance, Rheinmetall greatly expanded its production facilities even before it had firm contracts. It has increased production much more rapidly because it has been able to choose its suppliers without national quotas. According to the firm's [2024 Annual Report](#) (p. 93), it now employs more staff outside Germany than at its home base. A privately owned for-profit MBDA would certainly have seen the immense market potential for its product and found ways to spur production, with new suppliers, perhaps even outside Europe. Valuing intellectual property is also much easier within a private consortium than between government-led entities.

BETTER MANAGEMENT FOR JOINT PROJECTS

The management of common projects needs to fundamentally change to align incentives with the common goal of developing something that might not fully satisfy every national request, but costs less than developing the ideal prototype at the national level.

The incentive problems affecting common procurement would disappear in projects that develop a joint capability. If a European agency develops and then owns and operates a particular system (e.g. a satellite constellation) it can optimise the system without having to reconcile many different requests going in different directions. This gain of productivity only applies if the procurement is not subject to the *juste retour* principle. An example of an EU-owned system is [Galileo](#). Its management is entrusted to the EU space agency EUSPA, which in turn engages private companies.

The chief underlying problem is not just sovereignty in military matters, but also the prevailing industrial logic. Defence planners regard it as their duty to preserve certain industrial capacities (and intellectual property) at home. This tendency is of course stronger in larger EU countries (and the UK).

There's already a European intergovernmental organisation that in principle could manage joint capabilities, operating outside the EU framework: the Organisation for Joint Armament Cooperation (OCCAR). It facilitates and manages collaborative armament projects for participating governments (initially France, Germany, Italy, Spain and the UK, although other countries have joined OCCAR more recently). The projects themselves are

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defined in detailed agreements between the countries. These agreements typically specify the financial contribution of each and the share of the total works that have to go to each country in some detail.

It is this industrial logic that is behind the insistence on the *juste retour* principle. The desire to keep certain industrial capabilities at

home is strongest in high tech areas, especially electronics. The areas where Europe lags behind the US (e.g. avionics and missiles) are precisely where collaborative projects are most needed, but also where countries are most reluctant to abandon the *juste retour*.

BEYOND THE KINETIC: SPACE AND CYBER SECURITY

A key constraint on EU action in the field of defence is [Article 41\(2\) of the Treaty](#), which prohibits using the EU budget for financing any operations having 'military or defence implications'. At first sight, this seems to be very restraining. How strictly this provision should be interpreted is increasingly contested. But it clearly rules out direct EU expenditure on military hardware.

At the same time, there are sectors that are important for security without being military in the kinetic sense. Space and cyber security are two examples. These are also fields that are high tech and where duplication efforts are particularly wasteful. The NATO target of spending 1.5% on defence infrastructure is not only about roads, bridges and airfields, but also about these two sectors.

EUROPEAN PILOT PROJECTS IN SPACE?

The most pressing need for European capabilities and economies of scale is in space. A withdrawal of US satellite data for Ukraine remains a constant threat.

EU countries are already cooperating in various formations, often only bilaterally, on a number of military space projects (mostly signals intelligence and observation). But this cooperation is limited to the biggest ones, and the data are not shared. These projects should be brought under an EU umbrella and be run by an EU institution.

Moreover, existing European flagship projects like IRIS² ([Infrastructure for Resilience, Interconnectivity and Security by Satellite](#)) and [Copernicus](#) should be expanded and repurposed as quickly as possible to close critical capabilities gaps in secure communication and space-based observation.

It will be critical to separate commercial from security aspects. Europe's space industry is unfortunately no longer competitive. For example, the annual revenues of the two main leaders on the private side, SES and Eutelsat, amount to around EUR 2 billion each. The annual budget of Hispasat is only about EUR 200 million. These sums pale in comparison with the revenues of Starlink, which will soon be valued in the hundreds of billions as part of the IPO of SpaceX.

IRIS² needs to refocus on providing a public service as the starting point of European capabilities in space. Its most useful aspect is that it can quickly provide secure access for government communications based on existing satellite connectivity. It should be developed into a system for secure communication with software solutions that allow for segregated channels. Any additional satellites capable of yielding military grade intelligence should also be organised in such a way that their output can be shared while preserving the ability of participating states to reserve their own slots for particular areas of observation. This might be especially attractive for some smaller countries that otherwise could only fall back on commercial satellites.

Several national governments are planning their own constellations of satellites (a couple of hundred for Germany alone), which would then not be needed. They would anyway constitute a wasteful duplication of effort in developing satellites and maybe even launchers.

CYBERSECURITY

Cybersecurity represents another area where action at the national level is clearly inadequate. Yet, it has proved impossible to agree on collective action.

The European Union Agency for Cybersecurity ([ENISA](#)) is clearly under-resourced. Its annual budget is only EUR 26 million (planned to increase to EUR 40 million) with 120 staff. The German cybersecurity agency has a budget eight times larger (EUR 240 million, with 1 600 staff). The budget for the US civilian cybersecurity agency CISA is USD 2.7 billion and that for the military cybersecurity command is USD 1.7 billion (with staff running into several thousand).

ENISA's brief is only 'improving cybersecurity across Member States by developing expertise, providing recommendations, and supporting the implementation of digital security'. This means it cannot take concrete action to stop cyber-attacks or find their origin. It is essentially a mixture of a network, a training centre and a think tank. Even so,

Member States have so far vetoed giving ENISA any executive or implementing powers as cybersecurity is considered a national prerogative (with cybersecurity offices extending to the Laender level in Germany).

MILITARY R&D

The private sector undertakes surprisingly little R&D. For larger industrial groups that derive a big share of their revenues from military equipment, the R&D amounts to a small percentage of sales on both sides of the Atlantic. For example, [R&D for Lockheed Martin over the last few years added up to less than 5% of sales](#) (a smaller percentage of that for car manufacturers like VW).

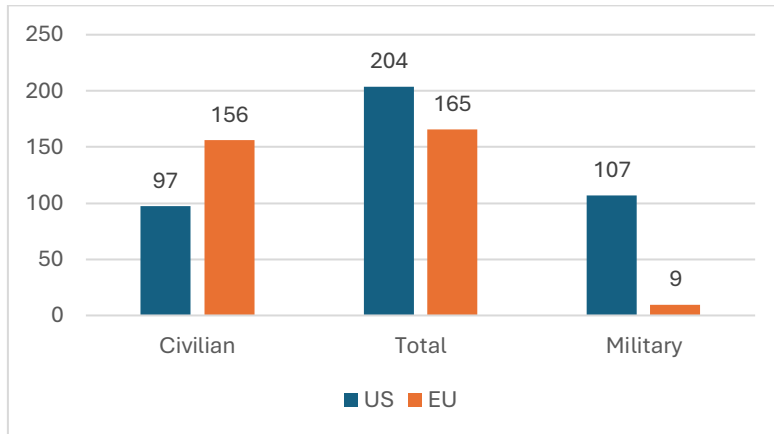
[Fuest et al. \(2024\)](#) show that total *private* R&D expenditure on aerospace and defence (the defence sector alone is not available in most statistics, partly because most aerospace firms also have important military sales, often with cross-subsidies) is about EUR 9-10 billion in both the EU and the US. For the European firms average R&D spending amounts to about 5-6% of sales against about 3% for the US. But this small advantage of the European sector in terms of R&D intensity is overwhelmed by the enormous difference in total military R&D spending by the US government.

OECD data on *government* R&D expenditure by purpose shows that the US government spends more than 10 times as much as all of Europe put together. This has been the case for a long time. It's not surprising that the relatively limited share of overall European defence capabilities sourced from the US is concentrated on high-tech weapons systems, or that for airplanes, radars, anti-missile defence and so on, US equipment represents a very large share of European spending.

Figure 2 **Error! Reference source not found.** shows that the difference between the US and EU is relatively small (about 30%) in terms of total government expenditure on R&D (as a share of GDP, the two are equal). However, there's an abyss in terms of military R&D, with the US running at over USD 100 billion, compared with USD 9 billion for the EU, two thirds of it attributable to France and Germany. Adding the UK to the EU total would bring it to about USD 13 billion, still only a small fraction of the US value. Three big European countries, Germany, France and the UK, account for the bulk of military R&D spending.

The annual budget of DARPA, the renowned US Defense Advanced Research Projects Agency, is only about USD 4 billion. It thus represents just a very small part of the entire military expenditure of the US government. Most of it comes from the budget of the Pentagon, which spends a much higher share on R&D than its European counterparts.

Error! Not a valid bookmark self-reference. Figure 2. Government spending on R&D in the US and EU, 2024 (billion USD, purchasing power parity)



Source: OECD.

This enormous difference in R&D spending underlies US dominance in high-tech weapons. Unfortunately, there is little sign of a concerted European effort to close or at least narrow this gap. Until this happens, Europe will always have the difficult choice between depending on US technology or using second-rank European solutions.

CONCLUSIONS

Europe has the economic wherewithal to rapidly strengthen its conventional military and develop a competitive defence industry. Yet this requires more than ramping up spending at the national level. European producers are competitive in many mid-tech (mostly land-based) systems. The private sector is now investing heavily in these areas and expanding production at a quick pace.

However, multiple gaps remain in military capabilities – mostly in high-tech areas like air and missile defence, cyber and space-based intelligence. There are promising European alternatives in a number of cases, but they are not being scaled up fast enough. That is because Member States are not willing to lose control over them. They prefer their national champions to remain big fish in a small pond, rather than making them fit for a much larger and more competitive EU market.

The only advantage Europe might have is that close proximity to Ukraine enables absorption of the latter's rapid advances in drone warfare. Recent agreements between Germany and Ukraine point in this direction. But here again, the main movements are at the national level by fiscally strong governments like Germany and the Nordics.

The funds provided by the SAFE instrument can already be spent on Ukrainian-made equipment. This choice is nonetheless for EU governments to make, as they are the only ones eligible for SAFE funding. A step change in the Europeanisation of defence spending could be achieved if, in a hypothetical SAFE 2.0, Ukraine could also be among the

recipients of EU funding. National governments always have a tendency to favour their national incumbents. By contrast, Ukraine has every incentive to buy the best equipment and it also knows what is needed on the battlefield – knowledge that the procurement bureaucracies in most European countries lack.

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