

Issue paper #3

Towards a European Defence Industry Strategy: adapting the Union's defence industrial base to the rapidly changing security environment

The Commission services, together with the European External Action Service in coordination with the European Defence Agency, has launched, based on a first overall consultation paper, a comprehensive stakeholder engagement process to inform the new European Defence Industry Strategy. This third Issue paper outlines key issues and questions for further discussion on Union's defence industry readiness in the new security environment. The purpose of this paper is to support the informal discussions with the Member States and defence stakeholders. It does not constitute an official position of the Commission and does not pre-empt the content of the future Strategy.

As called for by the European leaders, Member States must “strengthen their defence ‘readiness’ and invest in capabilities by developing the European Defence Technological and Industrial Base (EDTIB)”¹.

The EDTIB **plays a strategic role** as a direct contributor to the security of the EU and its citizens. **The EU cannot be a credible and reliable security provider without a solid EDTIB.**

The EDTIB's competitiveness is at risk

Significant difficulties and gaps hamper EDTIB long-term perspectives. As emphasised in the Joint Communication on Defence Investment Gaps Analysis and way forward², the Russian war of aggression against Ukraine has crudely exposed weaknesses resulting primarily from **uncoordinated and insufficient investment**, as well as **persistent fragmentation along national lines**. This prevents the EDTIB from exploiting economies of scale.

Following the end of the Cold War, defence companies adapted to budgetary cuts by moving from mass production and **defence readiness**, supported by a high level of defence investment by Member States, to a **new model increasingly driven by economic efficiency considerations**, resulting in **cost-cuttings** and the adoption of an ‘à la carte’ model.

The new geopolitical context is no longer compatible with this production logic. **Urgent industrial ramp-up and increased investment are needed** to support Ukraine, replenish and upgrade the national inventories, stocks and capabilities and **ensure that the Union will be prepared in case it has to face any conflict**. Defence industrial readiness is a security guarantee for Europe, its Member States as well as for Ukraine.

Taking stock of the need to fill the industrial defence gap

Measures adopted at EU level since 2016 have started tackling several facets of the defence industrial gap. Following-up on the track opened by its precursor programmes³,

¹ European Council, *Granada Declaration*, 6 October 2023

² Brussels, 18.5.2022 JOIN (2022) 24 final

³ Preparatory Action on Defence Research (PADR) and European Defence Industrial Development Programme (EDIDP)

the **European Defence Fund (EDF)** has started making **an impact on collaborative efforts for R&D within the EU**, both at governmental and industrial levels.

The response of the EU and its Member States to the immediate challenge of the Russian war of aggression against Ukraine has also been rapid and decisive, as illustrated by the **fast adoption and implementation of the Regulation on Supporting Ammunition Production (ASAP)** and more generally the Ammunition initiative.

To build the EU's long-term industrial readiness across the full spectrum of capabilities, more must be done, to **widen the scope and maximise the impact of EU action**, and to more **decisively address the structural weaknesses** that hinder the EDTIB competitiveness.

1. Improving the industrial availability of defence products manufactured by the EDTIB

Member States and the Union should support defence industry towards greater production readiness. Greater attention should be paid to time-to-market for defence products under development, agility of production capacities, availability of technologies, components and final products in quantity, quality and time.

Without such an attention, the competitiveness of the EDTIB will inevitably suffer, Member States being forced to look for alternative sources. Indeed, **channelling Member States' investments into the EDTIB is highly contingent on its capacity to meet their demand in time.** There cannot be a European reflex without enhanced availability in time and in volume of the defence equipment of the requisite quality.

Structural issues on the European Defence Equipment Market hamper ramp-up

Demand is still too fragmented at EU level (see Issue paper 2). The level of European collaborative defence equipment procurement never reached the 35% benchmark set in the EDA framework (18% in 2021). This results into diverse defence products delivered in small quantities, often with long delivery lead times, without seizing on economies of scale.

The ongoing sudden increase in demand and the lack of coordination generated strong price inflation and crowding out effects along supply chains. The situation is further aggravated by two factors:

- **the lacking standardisation** of the defence products.
- **the competition in lower tiers of supply chains for components and raw material with companies from civilian sectors** having major demand volumes.

Moreover, Member States are **not fully aware of, and often underestimate the actual production capacity** in the Union. In the absence of a comprehensive and shared picture of the EDTIB, the intricacies of existing supply chains are not well known. This **prevents the early identification and mitigation of disruption risks and potential bottlenecks in the supply chains** (see forthcoming Issue Paper #4 on Security of Supply).

One of the major strengths of the Union, its single market, needs to be leveraged in the defence sector as well. A **Europeanisation of supply chains** would multiply business opportunities for defence companies, generate economies of scale, as well as benefit

more widely to the European economy, generating highly skilled jobs and technological edge.

De-risking and accelerating productive investments in defence supply chains

Due to the specificities of the defence market, characterised by the monopsony position of EU Member States **defence industry investment decisions in the EU** follow firm orders. Industry normally does not enter into own investment before firm orders are placed. This is particularly problematic in crisis times when high quantities of defence materials are urgently needed.

The **lack of anticipation of the necessary investments results in bottlenecks and long delivery lead times**. This has been the case for ammunition in the context of the Ukrainian crisis. To address this urgency, the EU put in place ASAP to anticipate and accelerate the ramp up of ammunition and missiles production. The ASAP intervention logic is to optimise a limited amount of EU budget to de-risk the investment in manufacturing capacities necessary to respond to an increased demand that had not yet materialised into firm orders.

A possible completion of an industrial policy toolbox at EU level might therefore need a framework to support anticipated investments by industry in the industrial ramp up of defence equipment, in particular those urgently needed mature products, following as such the ASAP logic of intervention. Such a framework would imply identifying in advance the **defence products in question** and the related needs (in volume and timing). It would also require reflection on whether a tool designed for the ammunition market would need adaptation to other, possibly more complex systems.

Such approach would not be sufficient without the necessary stable, long-term predictability of Member States procurement plans and firm orders (*see Issue Paper #2 "Investing better and together"*) but could complement it. In this respect, the EDIRPA logic, by incentivizing the pooling of demand, appears a logic of intervention maximising the impact of Union's budget.

The sole increase in predictability of demand and the anticipated investment into industrial ramp up might fall short of the **flexibility needed to evolve with market developments and to adapt to possible downturns**. In this respect, Member States and the Union might also wish to invest in the building up of ever-warm/flexible manufacturing facilities and stocks of non-perishable supplies that can be mobilised in case of emergency whenever this is possible.

Questions:

- ⇒ *How can we further address the current fragmentation of defence supply, in particular the lack of standardised products at Union level, so that they can meet Member States' requirements in time, scale and quality?*
- ⇒ *How could we further de-risk productive investment along defence supply chains to facilitate the ramp up? Would there be merit in extending the ASAP logic beyond its current (temporal and/or material) scope of application? What adaptations of the ASAP framework might be needed to support the ramp up of other systems manufacturing capacities?*

- ⇒ *How could we support industry in adapting to the demand cycles and in particular adapting to downturns? Would the support of ever-warm facilities be an option?*
- ⇒ *How could the EU budget incentivise the availability of defence products and equipment?*

2. Reconciling the short and long terms through sustained coordinated efforts in R&D

Efforts to improve the availability of defence products manufactured in the EU should be complemented and leveraged by **increased efforts in the fields of research, development and innovation**.

With the **increasing cost and complexity of state-of-the-art capabilities**, no single Member State can afford to develop, produce, and sustain, on a purely national basis, the whole spectrum of defence capabilities.

In addition, the **ever-faster pace of technological innovation**, increasingly coming from the civilian sector, needs to be better considered in the development cycle of complex weapon systems.

The **EDF has been designed to enable more cooperation** between undertakings and to kick-start the cross-border structuring of future defence supply chains.

An interim evaluation of the implementation of the EDF will take place in 2024, to draw the first lessons identified, point to potential improvements and suggest a potential way ahead for the medium-long term, in line with relevant avenues identified by the future strategy.

Spending more on the right priorities

With EUR 7.2 billion (after reallocation required for launching IRIS², EDIRPA⁴ and ASAP initiatives), **the EDF has a limited budget**, even though it makes the EU one of the top defence R&D investors in Europe. Given the scale of investment needed in terms of the overall defence R&D across the EU, **this budget is insufficient** to prepare the future.

The proposed additional budget of EUR 1.5 billion, (within the framework of the MFF 2021-2027 mid-term revision in relation to the Strategic Technologies for Europe Platform ('STEP'))⁵ is considered the essential minimum under current conditions to support and leverage the EDF. The present discussion process with Member States is an opportunity to prepare future reflections on an adequate **budget of the EDF and the other defence industrial instruments under consideration** to ensure an adequate support to EDTIB defence R&D investments beyond 2027.

Additional efforts towards more strategic steering of the EDF might be necessary to ensure the effectiveness of EU support. This strategic steering would increase the focus of the programme on a **limited number of priorities**, chosen from and thus consistent with the EU Capability Development Priorities, which would be consistently supported

⁴ European defence industry reinforcement through common procurement act (EDIRPA), Infrastructure for Resilience, Interconnectivity and Security by Satellite (IRIS²)

⁵ Both the Mid Term Review of the MFF and the STEP are subject to agreement by co-legislators at this stage.

in a multiannual manner with a long-term programming to deliver major capabilities, in a timely manner, that can structure the European defence landscape.

The outcome of the implementation of the Economic Security Strategy, and in particular those measures under the ‘promote’ pillar, as well as the outcome of the Observatory of Critical Technologies, will also be very relevant to drive future investments.

Ensuring the market uptake of EDF projects’ results

One of the main objectives of the EDF is to make cross-border cooperation the norm. **Making sure that EDF-supported projects lead to or are integrated into defence capabilities** effectively procured, owned, operated and maintained by Member States, where possible on a joint basis, **is an imperative to make the EDF a success.**

This notably requires addressing **complex and differentiated export control and Intellectual Property Rights rules** that can hamper R&D projects and even worse, become an obstacle to future cooperation on end-products, as already outlined in the Communication ‘Commission contribution to European defence’⁶.

As projects supported by the EDF or one of its precursor programmes will be mature enough to enter a post-development phase after 2025, there would be an opportunity to test within the forthcoming European Defence Investment Programme (EDIP), **new forms of EU support to ensure the effectiveness, consistency and continuity of EU support.** In particular, the de-risking of investments linked to the **industrialisation phase** of EDF supported projects may be key to ensure that collective investments within EDF projects transform into products and capabilities for the Armed Forces.

Creating truly European and cross-border supply chains involving SMEs and mid-caps

The attractiveness of the **EDF over the years has demonstrated the Fund’s potential to forge new partnerships between defence companies and cross-border cooperation.** This potential can be further stimulated.

As already outlined in the European Defence Action Plan, fostering cross-border market access, and the opening of supply chains, is crucial for an efficient and effective European Defence Equipment Market, while ensuring respect of contractor’s commercial freedom. In particular, as regards sub-suppliers, which are often SMEs, there is a need to ensure a fair chance to access defence supply chains, regardless of their location within the Single Market.

Questions:

- ⇒ *How can we better target the most relevant R&D priorities to be supported by the EDF, given its limited budget? How to better link technology roadmaps stemming from OCT and funding instruments?*
- ⇒ *Is there a need for EU support beyond the R&D phase to ensure that EDF projects transform into industrial projects? Would a pilot project in the current MFF timeframe be appropriate to test such a scheme?*
- ⇒ *Would Member States agree to work on a commonly agreed, streamlined IPRs and export control regime applicable to outcomes of EDF funded actions?*

⁶ COM 2022/60

⇒ *How to further support Europeanisation of supply chains and the better cross-border market access of SMEs and mid-caps?*

3. Ensuring that the EDTIB can master and protect critical technologies

To ensure the capacity of the EDTIB to manufacture high-end products, it is **essential that it masters or develops critical technologies**. Due attention should be paid as well to critical raw materials used in defence⁷.

However, inefficiencies of the European defence market result in **technological gaps in some areas**, such as remotely piloted aircraft systems, as well as **general dependencies in areas such as digitisation**. Recent crises have also shown that extra-EU supply chains, even with like-minded partners, may be subject to different priorities or limited production capacities when an emergency arises.

To foster technological sovereignty of the EDTIB, **better exchanges between civilian and defence research and innovation communities** and an improved ability of the EDTIB to integrate civil technologies are needed.

Protecting critical technologies from commonly identified economic security risks

As underlined in the Joint Communication on Economic Security Strategy⁸ and its related Recommendation on critical technology areas⁹, the outcome of a detailed collective risk assessment by the Commission and Member States can serve as the basis for further discussion on the need for any precise and proportionate measures to promote, protect or partner on any of these technology areas, or any subset thereof. Efforts in this sense include national policies - and their implementation, once identified, will require increased coordination between Member States and EU institutions and between defence and civilian policy-making communities. Loss of know-how in the EU, can lead third countries to match or surpass EDTIB performance, harming the competitiveness of the sector¹⁰.

Supporting innovation

Defence R&D is strictly dependent on national customers' military needs and it is almost exclusively the result of public funding at national level, or at EU level with EDF. Still, defence products embed the result of civilian R&D developed for wider commercial market and adapted for specific constraints of defence environment.

⁷ To tackle critical raw material supply chain security, the European Commission proposed in 2023 the Critical Raw Materials Act, which will equip the EU with the tools to ensure the EU's access to a secure and sustainable supply of critical raw materials, crucial to technologies important to Europe's green and digital ambitions and for defence and space applications.

⁸ JOIN 2023/20

⁹ COM 2023/6689

¹⁰ The evaluation and possible revision of the regulation on Foreign Direct Investment screening and reflections on the need to better regulate outbound investment are taking place in dedicated fora. Their interaction with subjects addressed in the European Defence Industry Strategy will need to be duly considered.

While during the cold war defence R&D was predominant, the current limited size of defence R&D budgets compared to civilian ones results in general innovation being generated by civilian companies, often SMEs and Start-ups. Reaping the full benefit of their innovation potential is key to ensure that defence products are at the edge of current technological innovation. Hence, removing existing obstacles and barriers to innovative companies' entry in the defence sector is key. To that end and as part of the EDF, the Commission launched the European Union Defence Innovation Scheme (EUDIS), a combination of **specifically designed R&D calls for proposals** and **innovation support services**. In addition, the EDA established a complementary initiative with the EU Hub for Defence Innovation (HEDI).

The adequacy of this support to SMEs and start-ups in the current environment, and possible needs for development and expansion, **needs to be discussed with defence stakeholders. They are notably facing specific challenges** in terms of market uptake, for the phases of technology maturation, validation and commercialisation towards civilian and defence markets. Obtaining necessary investments for scaling up is also a major hurdle. As emphasised in the European Economic Security Strategy, reflexion is needed on how to ensure EU leadership and competitiveness by allowing defence sector to better tap into faster civil innovation cycles in key technologies (dual use research).

Questions:

- ⇒ *How to mitigate the impacts of strategic dependencies?*
- ⇒ *What additional measures could be developed to support defence innovation in the EU and to reduce barriers for new entrants to access the defence sector?*

4. Enhancing cooperation with the Ukrainian DTIB

The **perspective of Ukraine joining the Union following the enlargement process is a potential game-changer for the EDTIB**, as the Ukrainian defence industry would become an integral part of it. Current efforts from Member States and defence industry to enhance cooperation with Ukrainian defence industries should be welcomed and supported. In addition, **strengthening the Ukrainian economy and integrating it into the single market, including Ukrainian defence industry, would constitute a core element of EU's future security commitments** to Ukraine which will help the country to defend itself, resist destabilisation efforts and deter acts of aggression in the future.

Questions:

- ⇒ *Should we further support the current efforts to enhance cross-border cooperation between the EDTIB and the Ukrainian defence industry?*
- ⇒ *How can we make sure that the European Defence market benefit from the UA DTIB acquired competences during the war effort?*
- ⇒ *Should ongoing and future Union defence industry programmes be open to Ukrainian entities on the same footing as currently associated countries?*

5. Securing budgetary means in support of EU defence industrial readiness

The EDIRPA and ASAP regulations foresee financial support to the Union's defence industry respectively until end 2025 and 30 June 2025. To start implementing the new ambition of defence industrial readiness, and subject to availability of resources, **an**

EDIP covering the short term (2025, 2026 and 2027) is being considered. This could in turn serve as a bridge to a fully-fledged programme for the MFF post-2027, by underpinning, and feeding with relevant experience, reflections on how to address programming and budgetary needs under an appropriately resourced 'Heading'. Such an EDIP would need to embed financial incentives covering both the demand and supply sides of the European Defence Equipment Market.

On the **demand** side, possible content such as incentives for joint procurement and reinforcement of the administrative capacity of Member States have been described in issue paper 2.

When it comes to **supply side**:

- While ASAP focuses on the sector of ammunition and missiles, it is key that **Member States identify collectively critical areas where sustained production capacity and short-term availability is necessary**, drawing lessons from the current conflict in Ukraine. Those areas could be supported by de-risking investment in increased production capacity or alternatively by putting in place a **system of 'ever-warm' facilities** while supporting increased availability of European defence equipment (through a sort of EU Foreign Military Sale – see issue Paper 2)
- **Investment in the industrialisation phase** of large cooperative programmes stemming from the EDF could also be considered, if there would be added value from EU funding, to ensure a continuous support from R&D to the final product.

Such an effort would require a translation in budgetary terms. While Member States are increasing their defence budgets, the overall current Union's budget support to the defence sector **amounts to some EUR 1 billion per year, of which €400m/year for industrialisation over 2023 and 2024**. In a context of increased defence spending at national level and price inflation of defence equipment, an evolution of the defence industrial policy toolbox **would require a rethinking of the modalities, added value, leverage and volume of Union funding** to avoid the erosion of the incentive effect, undermining progress made in terms of Europeanisation of supply chains.

It appears also essential to maintain a strong ambition for the **Strategic Technologies for Europe Platform (STEP)**. Investing in critical technologies via EDF is essential but not sufficient. Given its limited budgetary means, innovative companies active in defence often need alternative funding sources to develop and flourish. Venture capital investment plays a key role in the development of DTIB in other advanced countries. On top, venture capital investments could be an alternative to promote and protect companies being targeted by foreign investment according to a predatory logic.

Finally, support to **Ukraine, via the European Peace Facility** the off-budget instrument aimed at enhancing the EU's ability to strengthen international security may also be leveraged to strengthen the competitiveness of the EDTIB.

Questions:

⇒ *Should the ASAP and EDIRPA models be expanded to other critical Defence industry areas? If so, which ones?*

- ⇒ *What should be the level of ambition for EDIP?*
- ⇒ *What should be the overall EU investment to match the needs identified to sustain the competitiveness of the EDTIB?*
- ⇒ *How can the European Peace Facility support the competitiveness of the EDTIB and the integration of the Ukraine defence industry?*