EUROPEAN
COMMISSION

Brussels, 8.7.2024
SWD(2024) 515 final

Addendum to the proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL establishing the European Defence Industry Programme and a framework of measures to ensure the timely availability and supply of defence products (‘EDIP’) COM(2024(150)

COMMISSION STAFF WORKING DOCUMENT

Staff Working Document for a European Defence Industry Programme and a framework of measures to ensure the timely availability and supply of defence products

Accompanying the document

Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

establishing the European Defence Industry Programme and a framework of measures to ensure the timely availability and supply of defence products (‘EDIP’)

{COM(2024) 150 final}

Contents

1 INTRODUCTION: POLITICAL AND LEGAL CONTEXT 5

2 PROBLEM DEFINITION 6

2.1 What are the problem drivers? 9

2.1.1 Structural change in the security environment 9

2.1.2 Underinvestment in the EU defence sector and structural cost escalation ... 9

2.1.3 Fragmented and uncoordinated demand, limited cooperation and procurement from third countries 14

2.1.4 Limited understanding of the defence supply chains and of cross-border dependencies in the supply chains 17

2.1.5 Financial sector policies and practices limiting access to finance for defence companies, notably SMEs and mid-caps 19

2.2 What is/are the problems? 21

2.2.1 Limited production capacity, including constrained capacity to support Ukraine (industry tailored for peace time) 21

2.2.2 Limited exploitation of the true potential of the European Defence Market and Technological and Industrial Base 26

2.2.3 Unaddressed security of supply risks 29

3 WHY SHOULD THE EU ACT? 32

3.1 Legal basis 32

3.2 Subsidiarity: Necessity of EU action 33

3.3 Subsidiarity: Added value of EU action 34

4 OBJECTIVES: WHAT IS TO BE ACHIEVED? 35

4.1 General objective 35

4.2 Specific objectives 36

5 WHAT ARE THE AVAILABLE POLICY OPTIONS? 36

5.1 Baseline scenario 36

5.2 Option I - Prolongation of the emergency instruments until the end of the current MFF 38

5.3 Option II - preferred option 38

5.4 Overall implementation and effects of the measures under option II 43

5.5 Options discarded at an early stage 47

5.6 Evaluation of Option I 47

5.7 Evaluation of Option II 48

6 HOW DO THE OPTIONS COMPARE? 51

7 WHAT ARE THE IMPACTS OF THE PREFERRED POLICY OPTIONS? 56

7.1 Impact on competitiveness 56

7.2 Impact on SMEs 60

7.3 Wider economic and social impacts 61

7.4 Impact on Fundamental rights 64
7.5 Impact on the environment 65
7.6 Impact on digitalisation 66
7.7 Costs and benefits 66
7.8 Budgetary implications 69
7.9 REFIT (simplification and improved efficiency) and application of the 'one in, one out' approach 70
8 HOW WILL ACTUAL IMPACTS BE MONITORED AND EVALUATED? 70
ANNEX 1: PROCEDURAL INFORMATION AND METHODOLOGICAL APPROACH 73
ANNEX 2: STAKEHOLDER CONSULTATION (SYNOPSIS REPORT) 75
QUALITATIVE OVERVIEV 75
CONSULTATION STRATEGY & CONSULTATION METHODS AND TOOLS 75
SUMMARY OF THE STRUCTURED CONSULTATIONS 77
ANNEX 3: COMPETITIVENESS CHECK 84
1 OVERVIEW OF IMPACTS ON COMPETITIVENESS 84
2 SYNTHETIC ASSESSMENT 84
ANNEX 4: WHO IS AFFECTED AND HOW? 86
ANNEX 5: BIBLIOGRAPHY 87

Glossary

Term or acronym	Meaning or definition
ASAP	Act in Support of Ammunition Production
CRM	Critical Raw Materials
CSIS	Centre for Strategic and International Studies
DJPTF	Defence Joint Procurement Task Force
DTIB	Defence Technological and Industrial Base
EDA	European Defence Agency
EDEM	European Defence Equipment Market
EDF	European Defence Fund
EDIP	European Defence Industry Programme
EDIRPA	European Defence Industry Reinforcement through common Procurement Act
EDIS	European Defence Industrial Strategy
EDPCI	European Defence Projects of Common Interest
EDTIB	European Defence Technological and Industrial Base
EIB	European Investment Bank
ERDF	European Regional Development Fund
ESF+	European Social Fund Plus
ESG	Environmental, Social, and Governance
EU	European Union
EUCO	European Council
FAST	Fund to Accelerate defence Supply chains Transformation
FMS	Foreign Military Sales
GDP	Gross Domestic Product
GTLs	General Transfer Licenses
JRC	Joint Research Centre
MALE	Medium Altitude Long Endurance

MANPADS	Man-Portable Air-Defence Systems
MDAP	Major Defence Acquisition Programmes
MFF	Multi-Annual Financial Framework
MS	Member States
MSM	Military Sales Mechanism
NATO	North Atlantic Treaty Organization
OCT	Observatory of Critical Technologies
PESCO	Permanent Structured Cooperation
R&D	Research and Development
R&D&I	Research and Development and Innovation
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
REFIT	Regulatory Fitness and Performance Programme
SEAP	Structure for European Armament Programme
SME	Small and Medium Enterprise
SoS	Security of Supply
TFEU	Treaty on the Functioning of the European Union
UA	Ukraine
UAF	Ukrainian Armed Forces
UAV	Unmanned Air Vehicle
UN	United Nations
US	United States
USI	Ukraine Support Instrument

1 INTRODUCTION: POLITICAL AND LEGAL CONTEXT

Russia's full-scale invasion of Ukraine and broader geopolitical instability represent the European Union's (EU) greatest challenges in the area of security and defence. The global threat landscape has become more alarming and complex, in the context of increasing fragmentation and polarisation. Those trends are likely to be lasting and point to a clear need to invest more, better, together and European, as a matter of necessity and in a spirit of solidarity.

Russia's war against Ukraine poses a fundamental threat not only to Ukraine but also to European and global security, further highlighting the paradigm shift for European security, as expressed in the Strategic Compass for security and defence. The EU's ability to protect its citizens, its borders and support its neighbours, thus contributing to global security, will also depend on the European Defence Technological and Industrial Base's (EDTIB) ability to deliver, in a timely manner, the capabilities needed and in the volume needed.

Ukraine is heavily dependent on military support made available by the EU, its Member States and other partners. The production capacity of the EDTIB will play a key role in the outcome of Russia's war of aggression against Ukraine. It is however fit to respond primarily to limited Member States' needs, mostly along national borders, due to decades of public underinvestment.

The surge in demand for certain defence products in EU has faced a constrained EDTIB, limited "peace time" production capacity. In the long run, this situation, combined with Russian shift to a war economy mode poses a key challenge in terms of defence industrial readiness in Europe, i.e. the capacity of the EDTIB to respond effectively, in time and scale, to changes in European demand for defence products. This is closely linked to the broader challenge of security of supply of defence equipment in Europe.

Although this topic is not new to EU Member States, the ammunition crisis in the context of Russia's full-scale invasion of Ukraine has put it in the spotlight by exposing existing supply chains' vulnerabilities and raising the question of the EDTIB's ability to ensure the Union's Security of Supply (SoS) of defence equipment both in peace and war times.

Following Russia's full-scale invasion of Ukraine and the invitation of the Versailles' Declaration of March 2022, the Commission, and the High Representative of the Union for Foreign Affairs and Security Policy /Head of the European Defence Agency (EDA) ("the High Representative") adopted the Joint Communication on Defence Investment Gaps Analysis and Way Forward[1], in May 2022. The Joint Communication highlighted that the past decades of underinvestment in defence by Member States resulted in both capability and industrial gaps within the Union. Since the presentation of the Joint Communication of May 2022, several measures have been tabled to react to the most immediate consequences of Russia's full-scale invasion of Ukraine. Two Regulations were thus proposed by the Commission, and adopted by the co-legislators in 2023:

[1] JOIN/2022/24 final

- The Regulation establishing an instrument for the reinforcement of the European defence industry through common procurement (EDIRPA)[2], which mobilises the EU budget to incentivise Member States to jointly procure the most urgent and critical defence products from the EDTIB.
- The Regulation on supporting ammunition production (ASAP)[3], which provides financial support from the EU budget to de-risk investment in European production capacities of ammunition and missiles and to address bottlenecks in their related supply chains.

The unlawful act of aggression by Russia against Ukraine not only raised urgent challenges for the EU and its Member States, but its continuation over time also continues to aggravate structural issues affecting the competitiveness of the EDTIB and questions its ability to ensure a sufficient level of SoS to Member States. Hence, the EU now needs to move from punctual emergency responses (illustrated by EDIRPA and ASAP) to ensuring EU defence industrial readiness in the medium-long term. This entails securing the availability of consumables in the requisite volumes and pace during crisis times as well as ensuring the timely delivery of tomorrow's high end critical capabilities in the coming years.

In order to initiate longer-term action, the Commission and the High Representative launched on 27 October 2023 a comprehensive consultation process with stakeholders[4] aiming to inform and enrich the reflection on the future development of our defence industrial policy. This work paved the way for the adoption of a Joint Communication on a new European Defence Industrial Strategy (EDIS)[5], focusing on strengthening the EU's defence industrial readiness. To start implementing the vision set out in this strategy, the Commission proposed also on 5 March 2024 a Regulation establishing the European Defence Industry Programme[6] comprising a framework of measures to ensure the timely availability and supply of defence products.

To complement this package, and as provided for in the Better Regulation rules for cases where an Impact Assessment could not be prepared due to the urgency of an initiative, this Staff Working Document (SWD) aims to explain why the Union needs to act now and how it can strengthen the EDTIB and to support the Ukrainian defence industry. This SWD also provides additional information concerning the rationale behind the proposed Rregulation, sets out the problems and their drivers, identifies and evaluates the main options available to address the challenges.

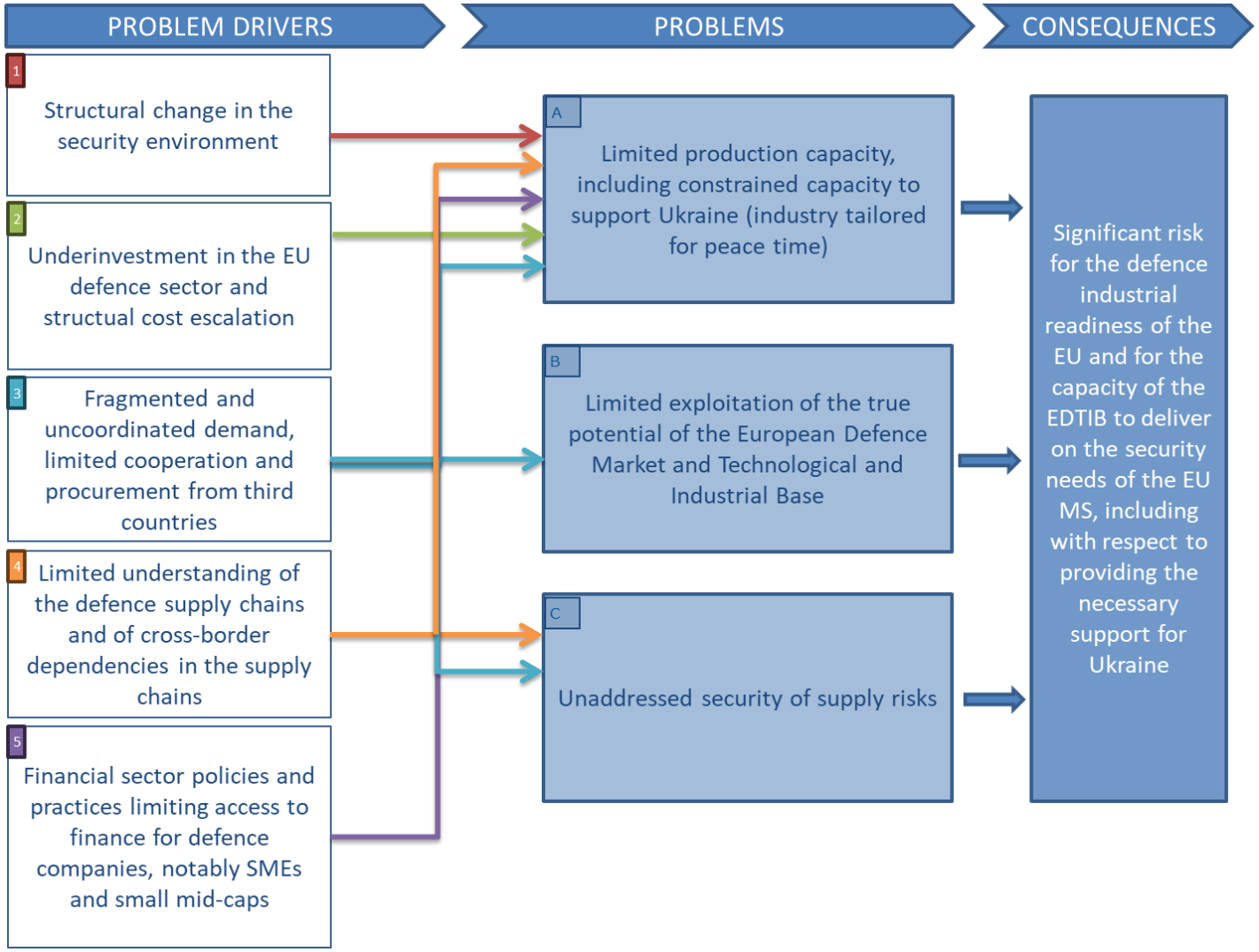
2 PROBLEM DEFINITION

The problem tree below represents the interaction between the identified problem drivers, problems and their overall consequences. It depicts an unsatisfactory and concerning situation for the European Union and its Member States, where the Union's defence

[2] Regulation (EU) 2023/2418 on establishing an instrument for the reinforcement of the European defence industry through common procurement (EDIRPA), OJ L, 2023/2418, 26.10.2023.
[3] Regulation (EU) 2023/1525 on supporting ammunition production (ASAP), OJ L 185, 24.7.2023, p. 7–25.
[4] European Defence Industrial Strategy (europa.eu)
[5] JOIN(2024) 10 final
[6] COM(2024)150 final

industrial readiness faces significant challenges. These difficulties are severe enough to call into question the EDTIB's ability to meet the current or future needs of the Union and the capacity to provide sufficient support to Ukraine.

Figure 1 - Problem tree



2.1 What are the problem drivers?

2.1.1 Structural change in the security environment

On 21 March 2022, the Council of the European Union approved the Strategic Compass for Security and Defence[7], which already highlighted the security paradigm shift currently faced by the European Union.

"*The return of war in Europe, with Russia's unjustified and unprovoked aggression against Ukraine, as well as major geopolitical shifts are challenging our ability to promote our vision and defend our interests. We live in an era of strategic competition and complex security threats. We see conflicts, military build-ups and aggressions, and sources of instability increasing in our neighbourhood and beyond, leading to severe humanitarian suffering and displacement. Hybrid threats grow both in frequency and impact. Interdependence is increasingly conflictual and soft power weaponised: vaccines, data and technology standards are all instruments of political competition. Access to the high seas, outer space and the digital sphere is increasingly contested. We are facing increasing attempts of economic and energy coercion. Moreover, conflicts and instability are often compounded by the threat-multiplier effect of climate change.*" These are long-term trends which are already having an impact and will continue to have an impact on the Union's security in the years to come.

In line with the Strategic Compass, this paradigm shift in our security landscape, is emphasised and further analysed from an industrial perspective in the European Defence Industrial Strategy (EDIS), where the Commission and the High Representative highlight the "*return of high intensity warfare in Europe*" which requires from the European defence industry "*the ability to mass produce a large set of defence equipment such as ammunition, drones, air defence missiles and systems, deep strike and intelligence, surveillance and reconnaissance capabilities, as well as the ability to ensure its swift and sufficient availability*". The EDIS also highlights that the EU and its Member States are faced "*with the contestation of Europe's access to strategic domains such as the space, cyber, air and maritime domains*".

These factors alone sum up the particularly tense security and geopolitical context currently facing the European Union and its Member States for the foreseeable future.

In this context, on 20 June 2023, the European Commission and the High Representative for Foreign and Security Policy adopted a Joint Communication on a European Economic Security Strategy, which recalls that new economic security risks are emerging because of increasing geopolitical tensions, geo-economic fragmentation and profound technological shifts. The Strategy provides a framework for assessing and addressing - in a proportionate, precise and targeted way - risks to EU economic security.

2.1.2 Underinvestment in the EU defence sector and structural cost escalation

Decades of underinvestment, combined with the structural cost escalation that characterises the defence sector, have exerted a profound influence on the EDTIB and its current structure and capacities.

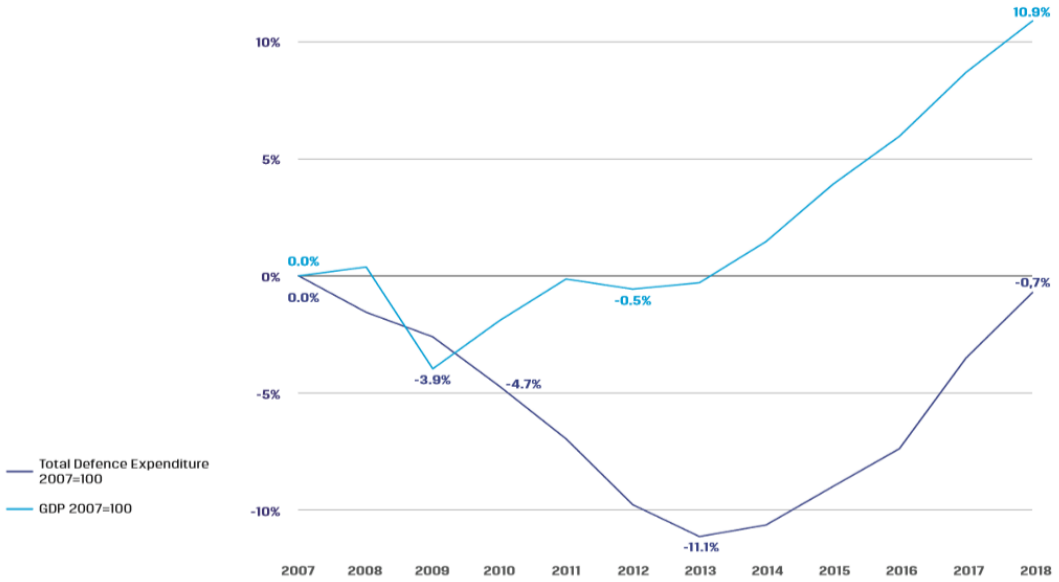
---

[7] Council of the European Union (2022)

Following the end of the Cold War, Member States have made massive cuts to their defence spending, re-allocating the "peace dividend" to address other policy challenges. The reduction in taxpayer resources allocated to defence has been further impacted by the economic and financial crisis of 2007-2008.

Figure 2 below shows the magnitude and the duration of the impact of the crisis. The contraction of defence spending has been much more severe and long lasting than the contraction of GDP: even by 2018 defence spending in constant prices had not fully recovered to its pre-crisis levels while GDP had recovered already more than 4 years earlier and was 10% higher in 2018 in comparison with the pre-crisis period.

Figure 2 - Total defence expenditure and GDP, 2007-2018 (2007=100, constant 2018 prices) (EDA 2019)[8]

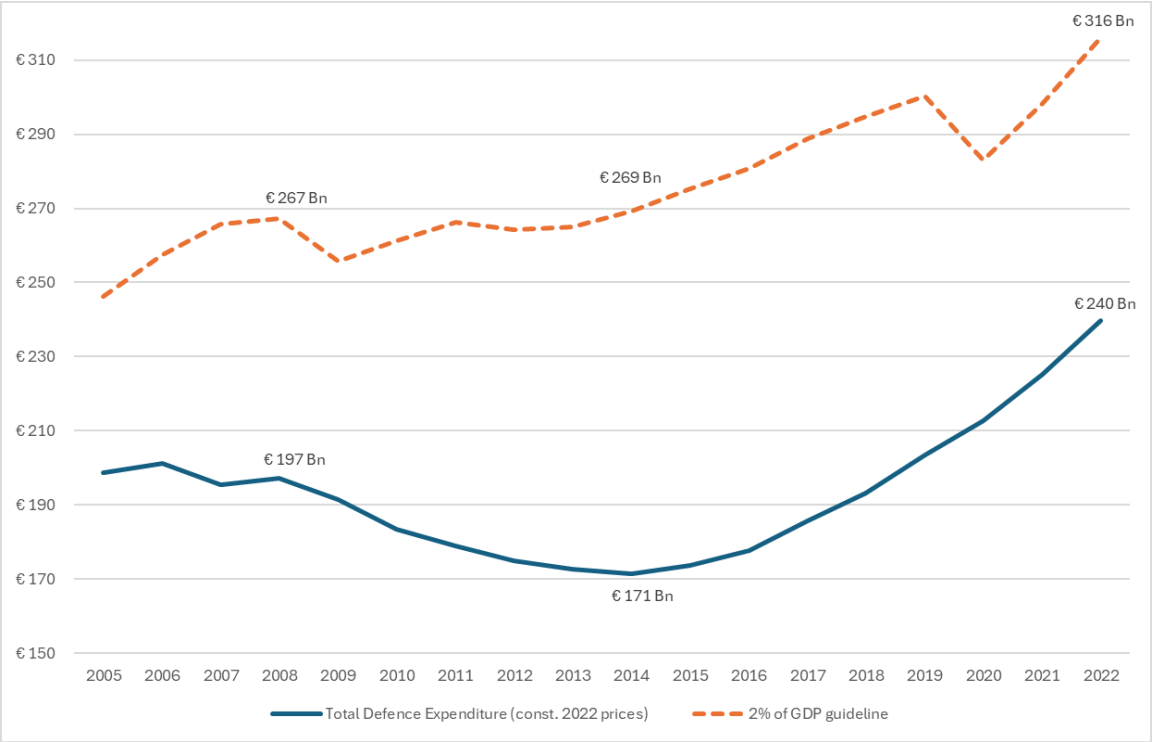


Expressed as a share of total government spending, defence spending also contracted quickly and substantially from 3,6% to 2,9% between 2007 and 2013.

While those EU Member States that are also allies withing the framework of NATO, have committed to the NATO guideline of spending at least 2% of GDP on defence, the cumulative gap between a spending level equivalent to 2% of GDP and actual defence spending has kept increasing (see Figure 3 below). Over the 2006-2022 period, this has led to a **cumulative defence spending gap by EU Member States of approx. EUR 1 250 billion** in nominal prices, **corresponding to more than EUR 1770 billion in constant 2024 prices**. Despite the steady increase in defence spending since 2014, the cumulative spending gap is still growing: more than EUR 155 billion of the above total relate to 2021 and 2022, corresponding to a 14% increase of the cumulative spending gap in nominal prices over the two years.

[8] EDA (2019), p. 3.

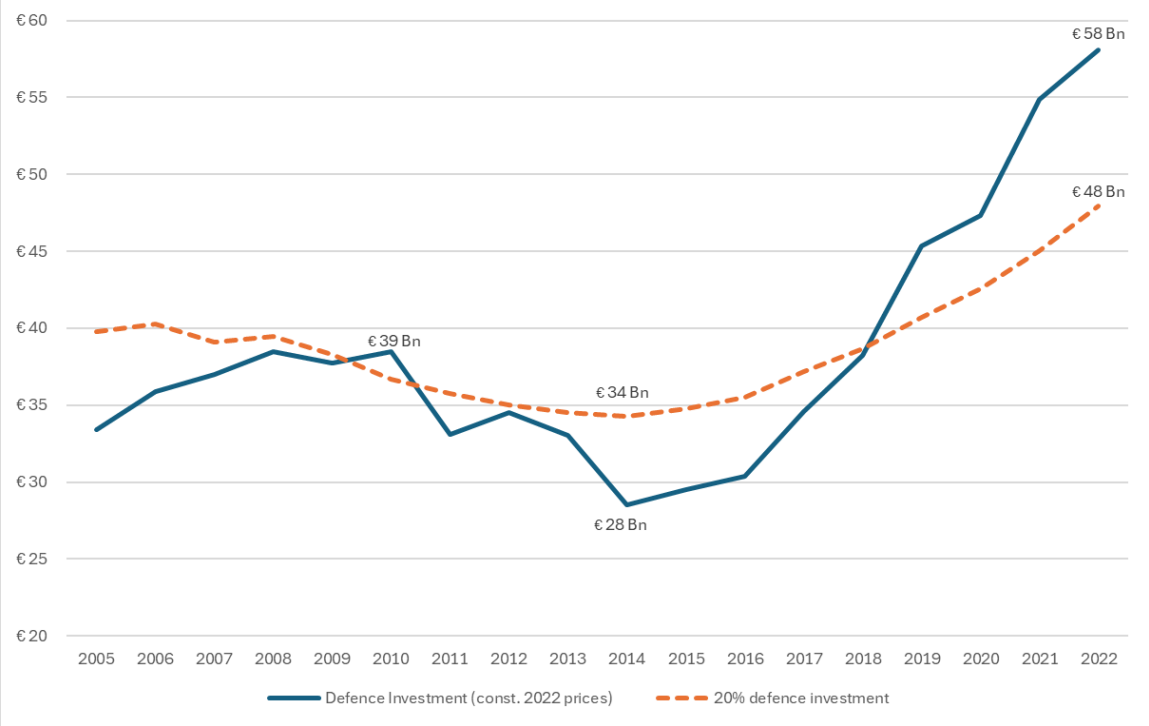
Figure 3 - Total defence expenditure and 2% of GDP guideline (constant 2022 prices, EUR billion) (Source EDA 2023)([9])



The cuts in defence investment spending[10], which is a good indicator of the level of demand of EU Member States, were even more important than for overall defence spending: it decreased by 22% between 2007 and 2014 and also recovered to pre-crisis levels only after 2018.

[9] EDA (2023), p. 4.
[10] Defence investment expenditure include including defence equipment procurement and defence R&D spending.

Figure 4 - Defence investment (constant 2022 prices, EUR billion) (Source EDA 2023)[11]



In the framework of the EDA and in the context of the Permanent Structured Cooperation (PESCO) *more binding commitments*, EU Member States have agreed to spend at least 20% of their overall defence spending on defence investment. While this percentage has been collectively reached in 2018 and exceeded in the subsequent years, one also needs to acknowledge that the overall level of defence spending remains low, as explained above. **If, between 2006 and 2022, Member States had spent 2% of their GDP on defence and 20% of that amount on defence investment, the investment spending would have accounted for almost EUR 300 billion more in nominal prices, EUR 425 billion in fixed 2024 prices**. Such a **consequential defence investment gap has negatively impacted the EDTIB's capacities**. This underinvestment has been highlighted as one of the main limiting factors by the industrial stakeholders consulted during the public consultation process, referred above.

This negative impact is compounded by the cost escalation typical for the sector. The defence sector is characterised by a **structural defence equipment costs escalation** trend**,** with defence equipment unit cost growth rates substantially outpacing general inflation levels. Some estimates of long-term cost escalation can reach as much as 5% or in some cases 10% per year in real terms [12]. It is a long-term trend characteristic for the sector and finds its roots in the technological competition in a field where relative

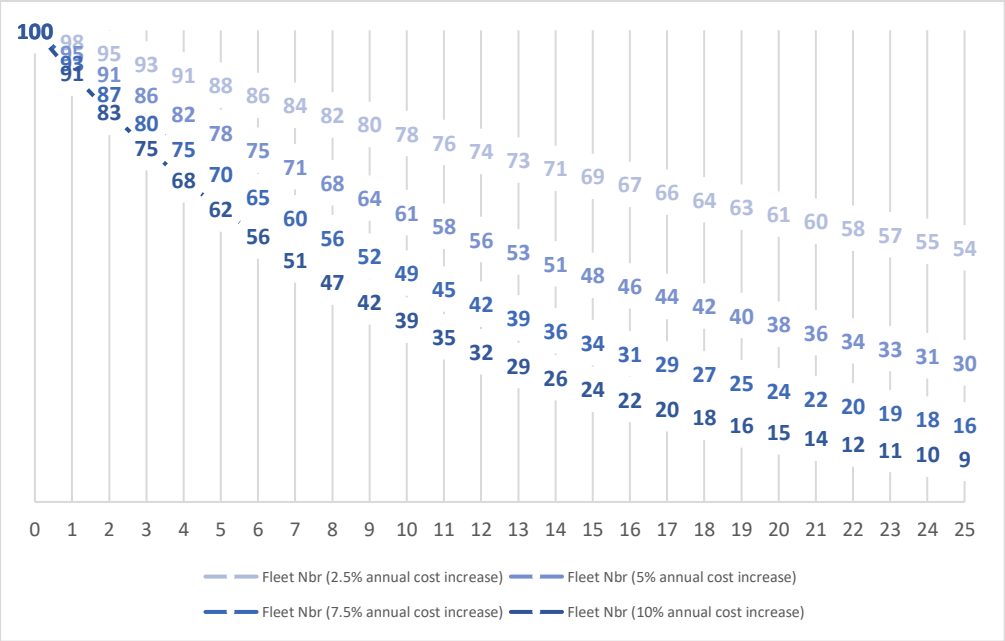
[11] EDA (2023), p. 8.

[12] Kirkpatrick (1995) and (2004); Pugh (1986), (1993) and (2009); Hove & Lillekvelland (2016); and Nordlund (2016).

performance is paramount and innovation frequently takes place at the technology frontier [13].

This trend exerts a key structuring effect on the defence sector: "*... the resulting rate of cost escalation, being much faster than any peacetime budget growth (or decline), has been the primary determinant (via changing ratios of budget to unit costs) of the numbers and types of equipment procured and, thence, of both military and industrial roles and structures*"[14]. Figure 5 below illustrates the evolution of the purchasing power of a constant defence budget for different rates of cost escalation by showing the decline in the number of units that this budget can purchase over time.

Figure 5 – Effects of defence cost escalation on budget purchase power: evolution of the number of fleet units that a constant budget[15] can buy for different levels of annual cost escalation over 25 years (Source Ianakiev 2019[16])



Underinvestment and costs rising at a speed that outpaces general inflation lead to reduction in the number of units that national budgets can afford, a decrease in the length of the series produced, a limited capacity to achieve economies of scale and a lower frequency of new development projects. The negative impacts on the EDTIB are further exacerbated by the fragmented demand and limited cooperation in the European Defence Equipment Market (EDEM).

[13] Hove & Lillekvelland (2016).
[14] Pugh (1993), p. 179.
[15] Adjusted for general inflation level.
[16] Ianakiev (2019), p. 7.

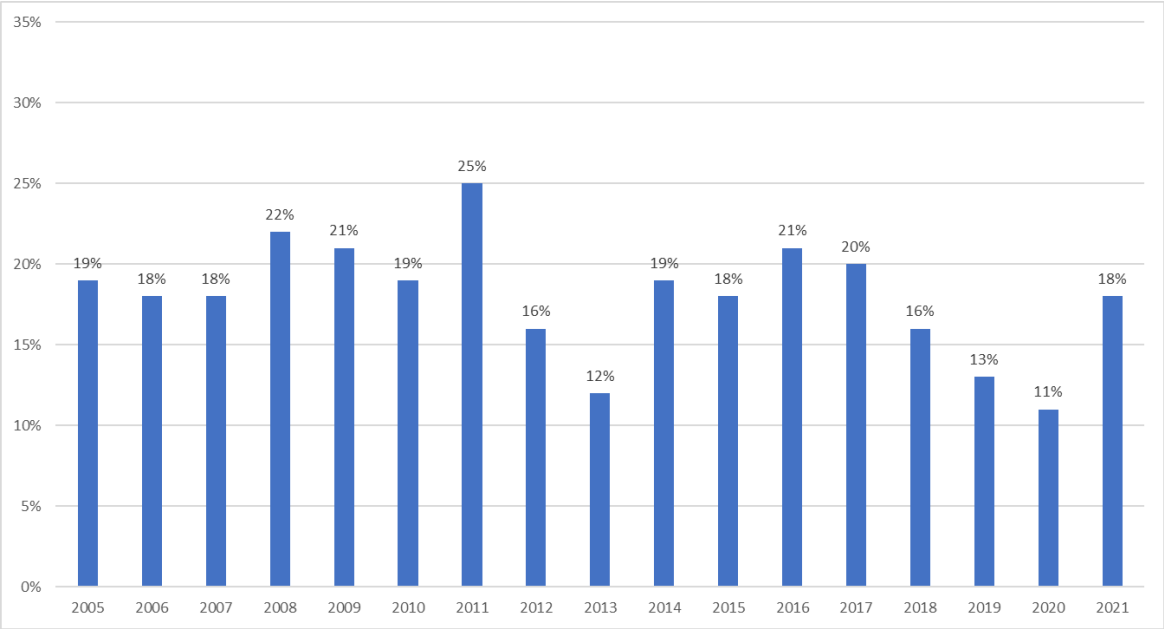
2.1.3 Fragmented and uncoordinated demand, limited cooperation and procurement from third countries

Despite the spending cuts over the past decades, the EDEM has the potential to be the world's second or third largest domestic defence equipment market, behind the U.S. market and is of comparable size to that of China[17]. In theory, this should enable the EU industrial actors to leverage substantial economies of scale and efficiency gains associated with a large market in support of their competitiveness, innovativeness and production capacity. **The EDEM however remains largely fragmented along national borders with limited coordination and cooperation and the associated substantial wasteful duplications.**

In 2007, the EU Member States agreed, in the Framework of the EDA, they should aim at European defence cooperative procurement reaching 35% of their total defence equipment procurement[18]. Figure 6 below however shows that the actual results have never even remotely approached the benchmark, with the best performance (2011) still 10 percentage points short of it and the worst performance, registered in 2020, reaching only 11%. Moreover, in 2022 only 9 EU Member States reported data to the EDA[19], thus leading to an incomplete data set[20]. This trend shows that EU Member States' demand for defence equipment, despite its recent increase, remains fundamentally fragmented and thereby deprives the EDTIB from the benefits of a truly functional EU defence market. This fragmentation of demand was identified by most Member States during the consultation process as one of the issues that had to be addressed in order to strengthen the EDTIB.

[17] According to the data on defence investment spending available from the Military Balance + database, the total of the EU Member States' defence investment expenditures is of a value roughly comparable to those of China.
[18] Established by the EDA Ministerial Steering Board in 2007.
[19] Compared with 11 and 14 in the preceding two years.
[20] EDA (2023), p.18.

Figure 6 - European collaborative defence equipment procurement as percentage of total defence equipment procurement (Source: EDA 2022)[21]



Further evidence is also found in the comparison of the dynamics of market demand and intra-EU trade in defence-related products. Between 2017 and 2021 the defence equipment procurement expenditures of EU Member States increased by approximately 65%, demonstrating a rapid surge in demand. Over the same period, the value of intra-EU trade in defence-related products has barely increased, leading to a decrease of its ratio to defence equipment procurement from 22% in 2017 to 15% in 2022[22]. For reference, the ratio of the value of overall intra-EU trade of goods and services to the EU GDP was of approximately 47% in 2021[23].

An increase in demand thus does not appear to benefit intra-EU cross-border trade, indicating that Member States prioritise their national industries and/or those of third countries. It is important to also consider that the data on intra-EU trade of defence-related products captures not only transfers of final products, but also transfers of components that are specially designed for military use. It is thus also possible to deduce that the fragmentation remains very high, not only at the level of the public buyers, but also at the higher tiers of the EDTIB supply chains. **The fragmented demand is mirrored by an EDTIB also divided along national borders.**

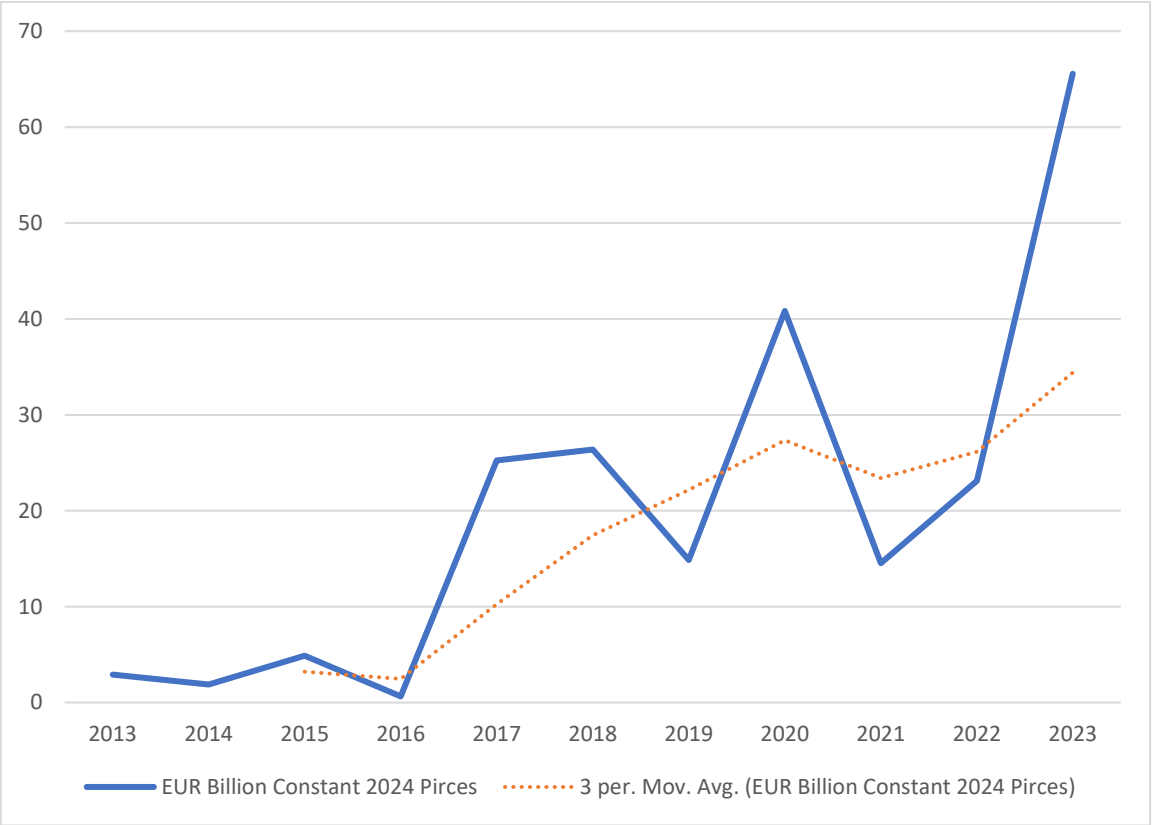
Recent studies also provide evidence suggesting **that Member States tend to direct a very large proportion of their procurement outside of the EU**. Maulny (2023)[24] estimates that from a total of EUR 75 billion spent by Member States between June 2022 and June 2023, 78% has been procured from outside the EU, out of which almost 80%

[21] EDA (2022), p. 16.
[22] Data source: data adjusted by SIPRI (notably for Member States that do not report directly on the value of arms exports) drawing on data from EEAS annual reports and database on EU Member States' Arms exports.
[23] https://european-union.europa.eu/principles-countries-history/key-facts-and-figures/economy_en
[24] Maulny (2023).

from the US (the majority being sold under the US Foreign Military Sales Programme (FMS)), 13% from South Korea, 3% from the UK and Israel.

Data on notifications to the US Congress of Major Arms Sales via the FMS to EU Member States supports the above conclusion by exhibiting a strong upward trend since 2016 as illustrated by Figure 7 below. The average value of the notifications of FMS sales to EU Member States has been multiplied by 7 between 2013-2015 and 2019-2021 and by more than 10 if the comparison is made with the 2021-2023 period. Such rates of increase vastly exceed the growth of the defence equipment spending of EU Member States and provide a clear evidence of the tendency of EU Member States to procure from the U.S. and of the increasing penetration of the EDEM by third country suppliers. This implies important challenges to the competitiveness of the EDTIB, considering that such large volumes of procurement contracts signed with third country suppliers will mobilise very significant portions of the EU Member States' equipment budgets in the coming years. It will reduce significantly the demand addressed to the EDTIB also in the medium-long term considering the usually long lifetime of defence systems. It is also important to note that the trends that can be detected through the assessment of procurement contracts will only impact defence trade data (imports from third countries) with a delay coming from the interval of time between the conclusion of a procurement contract and the actual deliveries. It would only be possible to assess the impact of these trends through defence trade data in the future.

Figure 7 - Value of notifications to US Congress of Major FMS Arms Sales to EU Member Sales, 2013-2023 (Source: Forum on Arms Trade)[25]



In view of the above, the surge in demand in some Member States does not significantly rely on, or benefit, the capabilities of the defence industries of the other Member States, either at final producer level or at the level of the actors in the defence supply chains. As a consequence, the EU industry does not benefit from potential gains that the scale and size of the EDEM should in principle provide.

Finally, uncoordinated demand also reduces the visibility of market trends. In a market that is entirely demand driven, the lack of visibility and predictability of European demand hampers the capacity of industry to invest and acts as a barrier for new companies to enter the defence sector, factor affecting in particular SMEs and mid-caps. During the consultation process enhanced predictability and consolidation of the market were identified by some of the Member States and industry representatives as prerequisites for the improvement of market conditions. This was particularly relevant for SMEs.

2.1.4 Limited understanding of the defence supply chains and of cross-border dependencies in the supply chains

While upper parts of the supply chains remain fragmented along national borders, lower tiers, including in particular for products that are not specially designed for defence use,

[25] Source: Forum on the Arms Trade: Major Arms Sales - Forum on the Arms Trade (forumarmstrade.org).

are spread across national borders within and outside of the EU. This implies the existence of both dependencies on third countries in the supply chains and of mutual interdependencies within the EU. The former can be a source of concern and require de-risking. The latter are normally a source of strength and an important factor supporting the resilience of the EDTIB, but this can be hampered by uncoordinated approaches to defence industrial policy and SoS at national level, as well as by a lacking knowledge and understanding of the functioning of the supply chains. As was evidenced during the recent efforts to ramp up industry in respect of ammunition production for Ukraine, the collective understanding of the overall supply chains, their composition and functioning remains limited.

A study by JRC from 2016 showed that 39 different processed and semi-finished materials (i.e. alloys, composites, compounds) are necessary for the manufacture of defence application systems[26]. An analysis of import dependency confirmed that the EU is almost 100% import dependent for 19 of these 39 raw materials and is more than 50% reliant on imports for over three-quarters of them. China is the major producer for one-third of the raw materials identified in defence applications. A more recent study concluded that 40 materials were critical or soon-to-be" critical.[27] Such external dependencies can be easily instrumentalised by the providers.

A foresight study on supply chains for critical sectors conclude that the defence and aerospace sector used most of the technologies, and thereby raw materials that were included in the study[28]. The study stated steel, copper, aluminium, titanium, composites, and ceramics make up the primary categories of materials utilised in aerospace and defence production. They are essential structural materials used to manufacture the core platforms and structural elements of aircrafts and defence equipment, particularly armaments and the exterior bodies of tanks, land ships and armoured vehicles). These materials are used in combination with nickel, vanadium, zinc, cobalt, antimony, molybdenum, boron, chromium, germanium, niobium, Tungsten, beryllium and lithium to form specialised alloys.

A study published by the European Commission in 2023 showed that the EU has a high import reliance for most of these materials, and that, for some of the materials, a substantial share is imported from China [29].

The mapping of the 155mm artillery ammunition supply chain performed by the Commission in 2023 revealed that propelling powder was a major bottleneck in ramping-up large calibre artillery ammunition production, with one of its key components, nitrocellulose, posing particularly important issues. Nitrocellulose requires as base material nitric acid, which can be produced in the EU in sufficient quantities, and cellulose which is mostly produced from cotton linters coming at 70% from China according to industry sources[30]. While the Union has the technology to extract military-

[26] Pavel & Tzimas (2016)
[27] Girardi, Patrahau, Cisco & Rademaker (2023).
[28] Carrara, Bobba, Blagoeva, Alves Dias, Cavalli, Georgitzikis, Grohol, Itul, Kuzov, Latunussa, Lyons, Malano, Maury, Prior Arce, Somers, Telsnig, Veeh, Wittmer, Black, Pennington & Christou (2023)
[29] Grohol & Veeh (2023)
[30] Rheinmetall CEO, as quoted by the Financial Times in Alim, Nilsson & Pfeifer (2024)

grade cellulose from wood-pulp, producing enough requires investment, time to ramp-up, and long-term commitment from European buyers.

Indeed, the European defence industry has followed the wider European industry trend to source what it saw as a “commodities" on the global market, while retaining the production of component/systems that relied on key technologies. The supply-chain crisis experienced during Covid-19 has highlighted dependencies for just-in-time production that many industry operators were previously unaware of. Defence industries have started to rebuild knowledge of their supply chain and supply chain dependencies, but much remains to be done.

Supply shortages can arise because the defence industry competes for critical inputs with companies from civilian sectors that have major demand volumes and stronger market power. Similar situations arise also regarding access to factors of production, such as machine tools, necessary for ramping-up or modernising production capacities. When demand is high, waiting times can become very substantial and defence needs may not be satisfied because the defence industry is not capable of securing prioritised deliveries within the timeframe that a potential crisis demands, especially when the supplier is located in another Member State or in a third country.

In fact, no national market, even complemented by exports can guarantee the economic sustainability. On the contrary, a cross-border web of intra-EU mutual inter-dependencies can provide economic security, competitiveness and resilience. This is the very logic and strength of the EU internal market. Most Member States during the consultation process considered that a more pragmatic approach to securing EU defence supply chains was necessary.

The lack of sufficient understanding of the defence supply chains with their intricate web of interdependencies and the absence of mechanisms for effectively managing the cross-border dimension however imply potential vulnerabilities in case of a crisis. The Covid-19 crisis for instance provided a demonstration of the risks of re-fragmentation of the EU market, which if not properly managed can endanger the Security of Supply.

2.1.5 Financial sector policies and practices limiting access to finance for defence companies, notably SMEs and mid-caps

As explained above, the new security context poses challenges to the EDTIB that are of a scale not witnessed in the past decades. Following a long period of limited orders and slow pace of production, the need to ramp-up production and reduce lead-in times in response to the surge in demand, as well as the need to innovate in order to maintain a technological edge for the EDTIB, require massive investments in production, human skills and R&D&I. It is also critical to attract new innovative entrants to the defence sector, in particular SMEs and mid-caps. The modified environment creates new investment needs, and defence companies, including companies in the supply chain, need to be able to resort to private equity and debt financing to satisfy those needs. The availability of finance is a key enabler of the capacity of the EDTIB to adapt to the new challenges that it faces. Companies deploying defence-related activities however face important barriers to access financing, which appear to have increased in past years.

Those affect first and foremost SMEs and small mid-caps active in the supply chains. They also act as a powerful barrier to the penetration of new entrants in the defence sector.

SMEs play an important role in the defence industry and are "*a key enabler for competitiveness*" [31]. They have recognised strengths such as flexibility, ability to innovate and possess specialised knowledge [32]. A study performed in 2017 [33] identified almost 1,600 SMEs active in the defence sector in the EU and estimated the total number of SMEs in defence supply chains at 2,000-2,500. It is however likely that these data still very significantly underestimate the number of SMEs in the defence supply chains.

SMEs in particular, but also suppliers in general, including mid-caps, have been assuming increasing responsibilities through the extension of the use of risk-sharing partnerships by the large system integrators in cases where the costs and risks of development are distributed across system integrator and partners in its supply chain[34]. For SMEs and small mid-caps who serve as sub-contractors to the prime contractors, liquidity management or access to working capital is challenging[35]. System integrators may also use their market dominance to extract harsh financial conditions from suppliers thus limiting or delaying the "cascading" effect of payments received from the Member States[36]. Access to finance therefore is a critical enabler for smaller actors in the EDTIB to either expand their activities or to enter the defence sector.

This analysis has been further strengthened by the public consultation process where access to diverse financial products, including not only contracts and grants, but also loans and equity investments, was seen as essential to support the range of companies within the industry. However, there is **strong evidence demonstrating that defence-related companies face significantly greater challenges in gaining access to finance than companies of equivalent size active in other sectors of the EU economy**.

In 2023, the Commission conducted a study on "Access to equity finance for defence SME's ([37]). It takes into account the results of a survey (143 replies from companies and 24 from investors mainly private equity/venture capital funds), more than 30 interviews and the analysis of public reports. The main insights from this study include the following:

Approximately 40% of SMEs reported that they found access to finance to be either difficult or very difficult, which is more than the 30% average in the general SME population.

A large share of SMEs active in defence refrained from pursuing bank loans (44% of SMEs) or equity financing (68%) during 2021-2022, a stark contrast to the 6.6% average among SMEs in the EU during the same period.

---

[31] European Commission Advisory Group Report (2016), p. 3.
[32] See for instance Europe Economics (2009) and Europe Economics (2018).
[33] IHS (2017).
[34] European Commission Advisory Group Report (2016).
[35] European Commission Expert Group Report (2018)
[36] Bellouard & Fonfria (2018).
[37] Delponte, Giffoni, Bovagnet, Picarella, Tanghe, Caccavallo, Thiele (2024).

On the investor side, close to 50% of respondents (investors side) indicated "ethical / reputational issues" and "environmental, social, and governance (ESG) criteria among factors holding back investments".

On the company side, a large number of respondents point at: "lack of knowledge of the defence sector by investors/banks" and "regulatory risks" including ESG.

The data gathered from interviews, surveys, submissions etc., shows that the challenge lies in particular in an overcompliance with sustainable finance regulations. Investors point at the following issues: lack of clarity and ambiguity surrounding the interpretation of the EU's sustainable finance framework on its social criteria and higher due diligence costs than in other sectors. As a result, a large number of financial actors refrain from investing in the defence sector, including by explicitly excluding it in their lending or investment policy.

The issue is further compounded by the fact that the lending policies of key public financial institutions in the EU still contain provisions that expressly preclude funding for defence-related activities. Amongst those institutions is the European Investment Bank (EIB) group, which plays a prominent role and is also the main implementing partner of financial instruments supported by the EU budget. Defence-related exclusion policies applied by the EIB Group, but also National Promotional Banks and Financial Institutions, hinder the ability of the defence sector to fully benefit from EU financial instruments. Defence-related exclusions applied by the EIB are very wide: the "EIB eligibility, excluded activities and excluded sectors list" excludes the financing of "ammunition and weapons, including explosives and sporting weapons, as well as equipment or infrastructure dedicated to military/police use"[38]. This provides a very strong negative signal to the market, not limited to the EIB Group's network of financial intermediaries only, but also to the wider financial sector. Indeed, The EIB's lending policy restrictions are often taken as the benchmark for lending practices throughout the EU financial sector. This was one of the main issues identified during the consultation process with the representatives of the defence industry regarding obstacles in access to finance.

The study mentioned above quantifies an equity financing gap in average of EUR 2 billion and a debt financing gap between EUR 1 to 2 billion for SMEs in the defence sector. These estimates are conservative since they only partially account for companies engaged in developing dual-use technologies. According to the study, public sector involvement through dedicated financing (i.e. loans guarantee, equity support on the model of the Defence Equity Facility) appears crucial to bridge the financing gap.

2.2 What is/are the problems?

2.2.1 Limited production capacity, including constrained capacity to support Ukraine (industry tailored for peace time)

Decades of underinvestment (Problem Driver 2) and fragmented and uncoordinated demand (Problem Driver 3) have left the EDTIB with limited production capabilities,

[38] European Investment Bank (2022), p. 2.

often tailored to the specific needs of narrow national markets. The EDTIB thus has a constrained capacity to respond to the needs stemming from a new and challenging security context environment (Problem Driver 1), which will prevail in the medium-long term, but also to the need to support Ukraine in defending itself against Russia's unjustified aggression in the short term.

A study on Industrial Mobilisation published by the Center for Strategic & International Studies (CSIS) in January 2021[39] provides a very clear illustration of the challenges of increasing defence production and replacing existing inventories. The study focuses on the US, where information on the economical (1-8-5) and surge production rates is available for most defence programmes([40]). Table 1 shows the mean and median number of years necessary to replace the inventories for US Major Defense Acquisition Programmes (MDAP) estimated on the basis of existing production capacities at the economical and adjusted surge production rates.

Table 1 – Time to replace MDAPs at 1-8-5 rate and adjusted surge rate (Source Cancian, Saxton, Helman, Bryan & Morrison (2021))[41]

	Economical (1-8-5) Rate	Adjusted Surge Rate
Mean (number of years)	13,8	8,4
Median (number of years)	10,2	7,2

The study also provides information on the time to replace the inventory for different categories of weapons, showing for instance that Space based systems, missiles and ammunitions and aircraft and related systems are characterised by long replacement times.

[39] Cancian, Saxton, Helman, Bryan & Morrison (2021).

[40] " *"1-8-5," or economical production rate: The comptroller's guidance defines this as "the most efficient production rate for each budget year at which the item can be produced with existing or planned plant capacity and tooling, with 1 shift a day running for 8 hours a day and 5 days a week (1-8-5)."*
... the maximum or surge production rate: The comptroller's guidance defines this as "the maximum capacity rate that a contractor can produce with extant or PY planned tooling." This represents the surge production rate that is achievable with current facilities. Sometimes this represents moving from one shift a day to three shifts, but often there is a facility constraint that prevents such a tripling of output." Cancian, Saxton, Helman, Bryan & Morrison (2021), p. 34.

[41] Cancian, Saxton, Helman, Bryan & Morrison (2021), pp. 39-40.

Table 2 - Investments type comparisons, mean and median (MDAP and non-MDAP programs) (Source Cancian, Saxton, Helman, Bryan & Morrison (2021))[42]

	Mean	Median
Aircraft and Related Systems	6.7	4.9
C4I Systems	4.4	2.4
Ground Systems	5.7	3.9
Missiles & Munitions	6.9	6.2
Mission Support Activities	2.3	2.0
Space Based Systems	7.0	7.0

This data also brings another important insight: the mean and average time to replace inventory have significantly increased between 1999 and 2020[43], showing that the US defence industrial base has become more brittle over time. Finally, while recognising the difficulty of forecasting average losses in the case of armed conflict, the authors, using historical data, tentatively estimate that if all 15 US armoured brigades were engaged in a high intensity conflict the level of attrition compared with the surge production rate for tanks would result in reducing the force to the equivalent of only two armoured brigades by month 10 of the hostilities. This shows that the available production capacities, even at the surge production rate, are not fit for sustaining effectively an engagement in a high intensity conflict as the rate of losses will significantly exceed the production capacity to replace these losses. This also clearly shows that in case of a major conflict, the US may encounter significant difficulties in supplying its European allies in view of the tensions between its production capacity and the needs of its own armed forces, which can be expected to be served in priority.

While the CSIS study looks at the US industrial base, its broader message remains largely relevant for the EU. The EDTIB is less consolidated than the US industrial base,

[42] Ibid, p. 42.
[43] The mean at adjusted surge rate has increased from 6.6 to 8.4 years, the median from 4.3 to 7.2.

which is one of the explanations advanced for the increased brittleness of the latter. However, as mentioned previously, many EU producers are tailored to serve narrow national markets and have limited production capabilities. For instance, looking at 32 major European companies active in the defence industry a study published in 2015[44] found that five companies showed a share of domestic sales in their turnover that was above 50% and for a majority of 20 companies the proportion was between 20%-50%. The comparatively lower level of concentration in the EDTIB is thus not necessarily an enabler for quicker ramp-up of production capabilities.

The fragmented nature of EDEM and EDTIB also means that even existing surge capabilities may not be used unless a better knowledge on the available production capabilities and a better coordination are achieved in the EU.

Decades of underinvestment in the EU also mean that the inventories of the EU Member States are comparatively low and would need to be increased and not only replenished.

The war in Ukraine has provided a tangible illustration of the difficulties of the defence industrial basis to cope with the return of high intensity warfare.

Large caliber artillery provides an example: at the start of the war, the production capacity of the EU industry [45] was estimated between 300,000 and 400,000 shells per year, or 25000 – 33000 per month, while Ukraine was firing 6,000 to 8,000 per day. It has reached 1 million per year in January 2024 and is expected to exceed 1.4 million/year over 2024. With the direct help of the EU budget, channelled through the ASAP, by the end of 2025, the EDTIB production capacity can reach the target of 2 million shells/year. The US industry production capacity at the start of the war was 14,000 of 155mm artillery shells per month. The US has ramped up its production capacity from 168,000 shells per year to 360,000 end of 2023, with a view of reaching 680,000 per year in the spring of 2024 and 1.2million/year by the end of 2025.

In other words, at the beginning of the war, the monthly production of the combined US and EU industries' capacity for 155mm shells was equivalent to 6 days of firing by the Ukrainian armed forces (UAF). At the very end of 2023, the monthly production was around 110,000 rounds, equivalent to 16 days of UAF firing, and just over 5 days of the 20,000 rounds/days deemed necessary by the UAF for the spring 2023 counter-offensive.

After the end of the Cold War, ammunition production capacities have been significantly downsized. They were sized to provide ammunition for training and low-intensity operations (Afghanistan, Syria) or to refill over several month or years stocks depleted by short-term (weeks) high-intensity operations (Iraq), but not for sustaining prolonged high intensity operations.

The examples above clearly demonstrate that **the current structure and capacities of the EDTIB cannot respond effectively to the challenges implied by the new security environment and that significant investments are necessary to ramp-up the production capacity, reduce lead-in time, prepare capacities that can be easily**

[44] Masson (2015).

[45] Both 155mm and its equivalent 152mm soviet-standard, still produced in the EU and used by Ukraine, but not produced in the US.

mobilised in case of need and more generally build an EDTIB that possesses the levels of defence industrial readiness, resilience and agility fit for the new geopolitical context.

Achieving this will require a better knowledge and understanding of the EDTIB capacities, its supply chains and the actual or potential bottlenecks that can affect production capacity and resilience and the possibilities to effectively ramp-up production (cf. Problem Driver 4).

It will also necessitate significant public and private investments. The reluctance from the financial sector to provide financing to defence-related companies (Problem Driver 5) represents a significant constraint for the EDTIB's capacity to grow and perform the necessary investments. The exclusion of the defence industry from both public and private funding opportunities could undermine European defence efforts and threatens to put EU companies at a competitive disadvantage while posing a security risk for the EU and its Member States.

Considering the tension on production capacity described above and the substantial needs stemming from Russia's full-scale invasion of Ukraine, it is also key to support the development of the capacities of the DTIB of Ukraine, as well as its quick integration in the EDTIB in view of the future membership of the country to the EU.

Ukraine's defence industry is a strategically important sector of the Ukrainian's economy. At the dissolution of the Soviet Union, Ukraine inherited around 1/3 of the USSR industrial military complex, employing over a million employees and producing a variety of products and systems including missiles, tanks, aircraft engines, space industry components etc [46]. In 2012, Ukraine's export-oriented arms industry had reached the world's 4th largest arms exporter[47]. Since the 2014 Russian aggression against Ukraine, the country's defence industry has refocused on its domestic military needs. The Ukrainian defence industry is estimated to currently employ around 300 000 and comprise around 500 enterprises[48]. The state owned joint-stock company Ukrainian Defence Industry (UDI), which employs around 68000 personnel in its combined enterprises [49], plays a central role in the sector. It is complemented by a fast-growing start-up ecosystem, particularly active in the field of drones [50].

Beyond the direct impact of Russian attacks to which it is a key target, the Ukrainian defence industry also suffers from more structural challenges, which prevent it from reaching its full potential in support of the current war effort, as a key enabler for the security of Ukraine and as an important member of the EDTIB in the future. These include insufficient investments, reliance on outdated technology and the need for modernisation, skills shortages, managerial deficiencies and corruption, insufficient international partnerships[51]. In order to help achieve this potential, analysists are calling

[46] Bondar (2023).
[47] SIPRI?
[48] Fiott (2024).
[49] Bondar (2023)
[50] According to Bondar (2023), 200 companies were engaged in drone production in 2023, up from only 30 at the onset of Russia's full scale invasion of Ukraine.
[51] See for instance Bondar (2023) and Fiott (2024).

for the EU to "expand its support to the development of Ukraine's defence industry to sustain the country's fighting power, reduce its dependencies on Western aid and boost its domestic economy[52].

2.2.2 Limited exploitation of the true potential of the European Defence Market and Technological and Industrial Base

The defence sector is demand driven and, as noted earlier, the fragmented nature of the demand (Problem Driver 3) is reflected by a fragmented EDTIB. Resulting duplications prevent the industry from achieving optimal production levels as comparatively small national markets are served in isolation following the prevalence of a "*systematic bias in favour of a domestic solution*" and "*a domestically oriented organization of R&D*" [53]. 11 armoured infantry vehicles and personnel carriers were for instance in production in the EU in 2013[54].

Defence industry supply chains have also been predominantly set up on a national basis [55]. Access for new suppliers, especially for those located in other Member States, remains limited [56] leading to low levels of cross-border engagement in the defence industry's supply chains as evidenced by the data on intra-EU trade above. Dependence on defence markets is shown to substantially and negatively affect the propensity of system integrators to resort to suppliers established in other countries [57].

Obstacles to the cross-border access to defence supply chains pose a serious challenge for a large number of companies for which the supply chains are the only way to access to the defence market. These companies represent the vast majority of enterprises involved in the defence industry as it is estimated that the top Tier accounts for only 2% of the companies in the overall industry supply chain [58]. Competitive suppliers may thus struggle to access the supply chains of the large system integrators, especially if established in Member States that do not possess such system integrators, and be prevented also from increasing their production and achieving better economies of scale.

Excessive fragmentation can also lead to the **emergence of capability gaps in the European defence industry**. Member States, acting in an uncoordinated manner, may for instance prefer to focus on developing those capabilities that are the easiest to afford at national level. This can lead to wasteful duplication at the EU level by **spending limited resources to develop multiple times similar capabilities, while gaps develop in other segments, in particular regarding capabilities requiring heavy investments that are no longer affordable at national level**.

---

[52] Andersson and Ditrych (2024), p. 1.
[53] Bellais (2018).
[54] Briani (2013) p.3.
[55] Constraints to cross-border engagement may for instance originate in reasons pertaining to national autonomy, protection of the ownership of defence technology and associated spillovers, employment generation and economic barriers such as higher costs of organisation and administration, transaction and search costs (Europe Economics 2018).
[56] See for instance Ianakiev & Mladenov (2008); Ianakiev (2014).
[57] Oudot (2017).
[58] IHS (2016), p.25.

Considering for example the 11 European armoured vehicles in production mentioned above: based on the estimates of usual R&D costs for land fighting vehicles provided by Maulny et al. (2018), the overall R&D costs associated to 11 such programmes could range between EUR 2,2 billion and EUR 2,75 billion. If we would assume that only 3 instead of 11 armoured vehicles would be developed, the R&D cost savings would be of a magnitude (EUR 1,6-2 billion) comparable for instance to the R&D costs for developing a Medium-altitude long-endurance Remotely Piloted Aircraft System (MALE RPAS) programme. The existing gap concerning this type of capability in the EU is only being progressively closed now with the Eurodrone project, benefiting from the financial support of the European Defence Industrial Development Programme (EDIDP), pre-cursor of the EDF, and as part of a PESCO project. Other gaps for instance exist in domains such as heavy transport helicopters, strategic airlift, vertical and/or short take-off and landing (V/STOL) aircraft, for which no EU offer is available.

Failure to capture the economies of scale and learning that the EDEM potentially offers is another important issue. The foregone economies of scale are substantial. Existing literature provides clear evidence of the expected positive impact of increased scale of production on the cost-effectiveness of the industry: according to different estimates, **costs reductions of 10-20% can be achieved when production is doubled or increased from minimum efficient scale to the ideal level** [59]. According to Dautremont (2006)[60] the returns to scale in production are increasing, with an **increase of production by 1% leading to an increase in costs by only 0,86%**.

The economic viability of the continuation of the current model is highly questionable. Improving the efficiency of the EDTIB and of the EDEM is not an aim in itself. It is rather a mean for ensuring the viability of the EDTIB in view of the structural economic trends and characteristics of the defence sector (see Problem Driver 2).

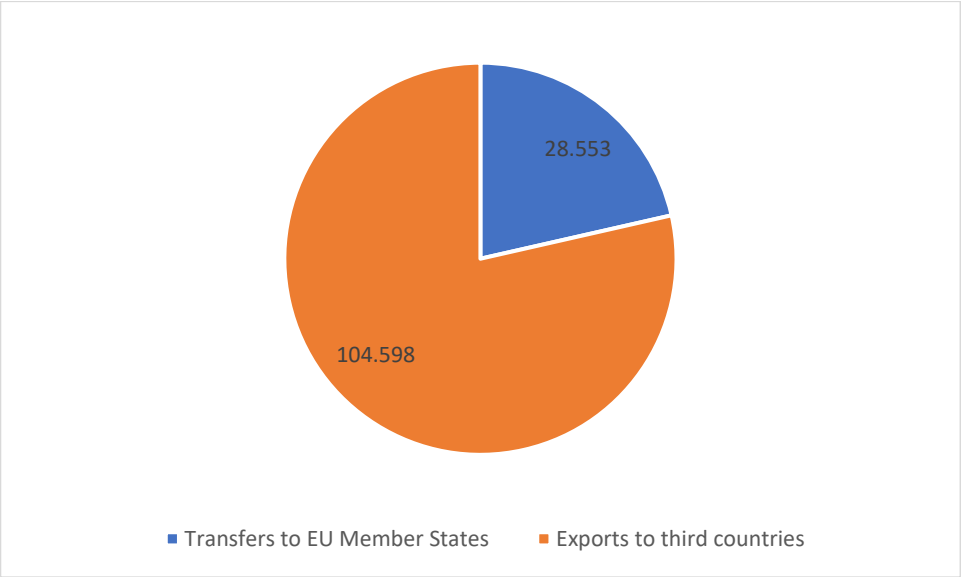
Adding to the difficulties, is the tendency to procure in priority nationally or from third countries (cf. Section 2.1.3, Problem Driver 3), which further limits the possibility of the EDTIB to achieve sufficient production volumes and economies of scale. The economic sustainability of a large number of companies and defence programmes becomes as a consequence critically **dependant on exports to third countries**. Figure 8 below shows that despite operating on what should be the second or third largest defence market in the world, the EDTIB exports 3 to 4 times more outside the EU in comparison with transfers to other Member States.

While extra-EU exports are a source of growth for EU businesses, an excessive dependence on exports to third countries implies risks for the resilience of the EDTIB and for the strategic autonomy of EU Member States. Irrespective of whether this results from a lack of visibility of the offer of the EDTIB for the EU Member States, which can be a consequence of excessive fragmentation, or from a mismatch between EU Demand and production, which can in particular be the case when wasteful duplications lead to

[59] McKinsey (2013), estimates that each doubling of volume results in an efficiency increase of approx. 20% that would lead to total potential saving of 17% of the total weapon system procurement costs under the assumption of a 40% labour costs share. National Audit Office (2001), considers that equipment unit production costs could fall by up to 10% as output doubles. Hartley (2006), estimates the median unit cost saving by increasing scale from the minimum to the ideal level at 10-20%.
[60] Dautremont (2006).

the emergence of gaps in the offer of the EDTIB, it conditions the continued operation of critical EU production capabilities on purchases from third countries and implies that the EDTIB cannot easily divert booked manufacturing slots towards EU Member States needs. And while the EDTIB is obliged to rely on exports to maintain production lines in operation, EU Member States are increasingly procuring from third countries. This leads to the **simultaneous development of dependencies on imports from third countries and of unrealised potential on the EU internal market leading to an EDTIB dependence on third country markets**.

Figure 8 – EU Member States defence-related products exports to third countries and transfers to other EU Member States (2017-2021, EUR million) (Source SIPRI)[61]



Low levels of cooperative procurement, together with limited effective uptake of existing defence standards lead to lack of interoperability and interchangeability of the equipment procured. This precludes the possibility for tapping into the substantial benefits of cooperation in the later stages of the life cycle of defence equipment, in particular as regards the possibility for performing jointly activities such as maintenance, repair and overhaul.

In case of large scale conflict this will also significantly reduce the capacity of the armed forces of EU Member States to operate together and to effectively support each other; it would also lead to high complexity in terms of logistics that will not support the agility of military operations.

MANPADS (Man-Portable Air-Defence Systems are lightweight anti-aircraft weapons) provide a good illustration of this lack of interoperability. The US has only the Stinger under production, which is the only MANPADS owned by US forces. The EU produces 3 MANPADS owned by European armed forces: Mistral (MBDA), Piorun (MESKO), *RBS 70*/Robotsystem 70 (Saab). Some Member States' armed forces are also operating

[61] Source SIPRI; see footnote 21.

the US Stinger, and one has ordered the KP-SAM Chiron (from LIG Nex1, South Korea). Moreover, some may still be operating the Soviet-designed Strela-2 and their variants. None are interoperable or interchangeable. **This makes 3 types of MANPADS produced in the EU (vs 1 in the US) and at least 5 types of MANPADS operated by EU armed forces (vs 1 in the US).**

With Russia's full-scale invasion of Ukraine, issues associated with military support also became evident: for 155mm ammunition alone, EU Member States have provided 10 different types of howitzers to Ukraine (not counting 4 other types sourced from other NATO nations), some even coming in different variants, creating a logistic nightmare for Ukraine military forces.

Moreover, while 155mm is a NATO standard, certifications mandate the use of certain howitzers with specific approved types of shells and propelling powder. In a nutshell, while being interoperable on paper, howitzers and ammunition compatibility is highly restricted, greatly limiting ammunition interoperability and the benefit of standardization.

Besides, those certifications (by manufacturers or Member States) mandates the use of specific compositions of explosives and propelling powder, which limits ramp-up of the supply chain since they have to produce and test different types of products for each client (primer manufacturers). To sum up, uncoordinated demand, persistent fragmentation, tendency to procure from third countries concur in limiting the capacity of the EDTIB to tap into the full potential of the EDEM. Forgone economies limit the competitiveness of the EDTIB and the means available for investment concurring in the development of potential industrial and capability gaps and/or of dependencies on foreign suppliers. Interoperability and interchangeability are also affected, which can decrease the capacity of EU Member States to effectively operate together and support each other in case of crisis.

2.2.3 Unaddressed security of supply risks

Security of Supply (SoS) is defined as a "guarantee of supply of goods and services sufficient for a Member State to discharge its defence and security commitments in accordance with its foreign and security policy requirements"[62]. This broad concept covers a wide range of industrial, technological, legal, and political aspects[63]. Two different levels must be taken into account: (i) the supply of raw materials, components, and goods necessary for the manufacturing of defence products, in the short term as well as through the entire life cycle of a military equipment, and (ii) the supply of finished defence products.

While in principle SoS is not a major concern for Member States during peace time[64], it becomes one in times of security crises and war, as the functioning of the international markets generally deteriorates in such contexts (stricter export control, higher demand,

[62] Guidance Note on Security of Supply (European Commission 2016c)
[63] Idem.
[64] Supply issues can occur in peace time in relation to unexpected disruptions of global production (e.g., pandemic, chips shortages), production issues at a specific supplier, obsolescence of components, transport problems, export control issues and shortages resulting from peaks in demand.

transport problems, instrumentalisation of dependencies[65], etc) and supplies for defence production, including delivery of defence products and services, can be significantly affected, or even disrupted.

SoS also comes at a cost. Under budgetary constraints, a customer may have to buy fewer pieces of equipment or have to cancel other purchases to secure SoS for a specific equipment.

Military SoS policy has been primarily defined at Member States' level since defence is a national competence. There is nonetheless an ever-stronger European dimension to SoS, as industrial supply chains have increasingly been spanning across the EU internal market and beyond. As acknowledged in Section 2.1.4 (Problem Driver 4), insufficient knowledge on the EU supply chains and dependencies on third country for critical supplies and components implies significant vulnerabilities that cannot be addressed at national level only.

Traditionally, Member States have adopted two main strategies to achieve SoS: independence at national level or negotiated interdependence. Independence at national level has become a less sustainable strategy for any Member State in light of the increasing reliance on sophisticated defence systems, the presence of intricate supply chains and the increase in external dependencies. 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. Similarly, fewer supply chains are under the control of a single Member State. Increasingly, defence supply chains often have an EU cross-border dimension, in particular in lower tiers, as illustrated by the ammunition supply chains, while in the same time the knowledge and overall understanding of the supply chains and the potential risks and bottlenecks is lagging.

Paradoxically although industrial defence supply chains are largely spanning over borders in lower tiers following the integration momentum created by the Single Market, their smooth functioning is hampered by the persistence of an essentially national approach to defence industrial policy. Uncoordinated approaches to national security generate risks in terms of SoS for both supply chains and Member States, exposing the EDTIB to risks and ultimately discouraging cross-border cooperation. Indeed, cross-border supply chains which cannot rely on an appropriate governance might be subject to disruptions during crises due to uncoordinated national measures that prioritise national consumption of those inputs under national control, as illustrated by initial responses to shortages in masks during the Covid crisis.

Traditional SoS measures at national level are also not sufficient to tackle effectively the risks involved as the cross-border effects are not duly taken into account and/or managed. For instance, regarding prioritization, some Member States have relevant mechanisms, but their scope of application stops at their border. Alternatively, some Member State may also not be in position to act effectively, for instance because their prioritization

[65] For example, on 1 August 2023, China began restricting exports of gallium and germanium, followed more recently, on 1 December 2023, with new export controls on high-grade graphite. There are however no official or aggregated reports of raw materials shortages in the European defence industry.

mechanisms cannot be used to cover the needs of another Member States. The same issues can also harm the prospects for effectively ramping up production in the absence of a better understanding of the EDTIB supply chains: a good understanding and an overview of the capacities and functioning of the supply chains for an affected industrial segment is necessary in order to target effectively the most important bottlenecks.

Therefore, any Member State's SoS strategy should increasingly integrate the EU dimension and better leverage one of the major strengths of the Union - the Single Market.

Faced with the increasingly cross-border nature of the supply chains and the ensuing interdependence, Member States have sought to support urgent orders from other Member States, notably through prioritisation mechanisms (e.g., in the framework of the Letter of Intent Framework (LoI) Agreement [66], or of the EDA[67]). However, such initiatives often rely on principles and non-binding and/or non-enforceable commitments. They offer limited responses to crisis situations, as supplies are not guaranteed by any binding mechanism or follow-up process.

Already in 2013, the European Council called "on the Commission to develop with Member States and in cooperation with the High Representative and the European Defence Agency a roadmap for a comprehensive EU-wide Security of Supply regime, which takes account of the globalised nature of critical supply chains." [68] However, in view of the reluctance of Member States [69] no progress has been made in this respect leaving many issues related to cross-border aspects of SoS unaddressed.

Finally, the EU framework on the control of intra-EU transfers of defence-related products is also of particular importance. Directive 2009/43/EC was introduced to facilitate such transfers while preserving the necessary control by Member States. In particular the General Transfer Licences (GTLs) were introduced as an instrument that can speed up transfers by replacing the ex-ante need to obtain a transfer licence with an ex-post reporting obligation. However, the instruments introduced by the Directive have still not achieved their full potential [70] and doubts exist about the fitness of the control regime currently in place with the requirements of a possible and important security crisis affecting EU Member States.

---

[66] Framework Agreement concerning Measures to Facilitate the Restructuring and Operation of the European Defence Industry, 27 July 2000. The LoI subcommittee on SoS is now 'dormant'.

[67] The Framework Arrangement for SoS between subscribing Member States, that was approved by the EDA Steering Board of 19 November 2013 and the Code of Conduct on Prioritisation adopted by the EDA Steering Board on 15 May 2014.

[68] Conclusions of the European Council (19/20 December 2013), paragraph 21.

[69] As noted in the European Defence Action Plan of November 2016 (COM(2016) 950 final): "The Commission supports the initiative of Member States, through the EDA, for a political commitment to facilitate transfers of defence-related and to provide mutual assistance in times of crisis. The Commission takes note of Member States' unwillingness to go beyond such a political commitment at this stage and agree on an EU-wide regime on Security of Supply."

[70] See the evaluation performed by the European Commission in 2016 (European Commission (2016d, 2016e), COM(2016) 760 Final, and SWD(2016) 398 Final/2) and a more recent study performed by the EPRS (EPRS (2020)).

In view of the risks that the new security environment implies, the loopholes in the EU SoS regime detailed above are becoming increasing unsustainable. Taking into account it is neither possible nor desirable that every Member States tries to establish fully national supply chains, it is crucial to develop solutions that can deliver, for intra-EU cross-border procurement, and purchases down the supply chain, a level of SoS comparable to that achieved when procuring nationally.

3 WHY SHOULD THE EU ACT?

3.1 Legal basis

To effectively address the problems identified above, the EU should establish a set of measures and lay down a budget aimed at supporting the defence readiness of the Union and its Member States. To do so, several areas of action at EU level exist. The EU's action can take place relying on the following four different legal bases:

- Article 173 TFEU in relation to the competitiveness of the EDTIB. In line with Article 173 paragraph 1, the Commission can take action aiming at speeding up the adjustment of the defence industry to structural changes. Finally, according to Article 173 paragraph 2, the Commission may take any useful initiative to promote coordination amongst Member States in the field of defence industrial policy.

- Article 114 TFEU in relation to the European Defence Equipment Market (EDEM). To ensure the functioning of the internal market and following the ordinary legislative procedure, co-legislators can adopt the measures for the approximation of the provisions laid down by law, regulation or administrative action in Member States. When it comes to defence, the functioning of the internal market, or more specifically the EDEM in this case, depends notably on the availability of defence goods and services in sufficient quantities to satisfy the needs of Member States.

- Article 212 TFEU in relation to the strengthening of the Ukraine Defence Technological and Industrial Base (Ukrainian DTIB). The Union can support a third country, by means of economic, financial and technical cooperation measures, including assistance.

- Article 322(1) TFEU in relation to the need for a maximum budgetary flexibility duly justified in the context of the exceptional needs to tackle the identified problems. To respond to the constantly evolving security situation and considering the circumstances of a limited budget, a number of targeted complementary rules and derogations from the Financial Regulation are necessary, including specific rules concerning carry-over of appropriations and reuse of decommitments, in order to allow for full implementation of a limited budget in the most effective and efficient way while taking into account the complexities and uncertainties in the timeline of award and implementation of defence industrial and procurement actions.

3.2 Subsidiarity: Necessity of EU action

The three first legal bases (Article 173, 114, 212 TFEU) described above are part of the shared competences of the EU. This means that action at EU level need to respect the subsidiarity principle. Hence it can be demonstrated that action at EU level is necessary to address the problems identified.

Support to the competitiveness of the EDTIB:

- The Union and its Member States are faced on one side with a drastic change of their security environment resulting in particular in an increase of European demand for defence equipment, and on the other side an EDTIB constrained by limited "peace time" production capacity. The new security paradigm will persist over time and will continue to structurally affect and worsen the competitiveness of the EDTIB assessed primarily in relation to its capacity to respond effectively to the needs of the Member States armed forces. The fact that Member States never achieved the collective benchmark of dedicating 35% of their total defence equipment procurement to European collaborative procurement since 2007 demonstrates that they face considerable difficulties preventing them from increasing their common procurement of defence equipment. Therefore, the Union is best placed to take measures to incentivise aggregation and harmonisation of EU demand for defence equipment, as well as to facilitate Member States' long-term cooperation throughout the life cycle of defence equipment. Such action at Union level seems all the more required, as it addresses needs expressed during the public consultation. Member States have clearly reaffirmed their support for increased coordination, cooperation in defence related procurements and more transparency in the procurement planning. A joint approach to procurement was also strongly advocated by industrial stakeholders during the consultation process.

SoS of defence equipment in Europe:

- Member States are primarily responsible to ensure their military SoS, as a matter of national defence. However, there is an increasingly European dimension to SoS, notably considering that the lower tier of the EDTIB's supply chain is largely cross-border. The current geopolitical context results in a general increase of defence equipment needs and a surge in demand for specific defence products in the Union and possibly at global scale. This situation affects the functioning of internal market for these products and threatens their security of supply. Strong uncoordinated demand for certain products or components, can cause prices to soar and can result in a crowding out effect of Member States with more limited purchasing power. It is therefore necessary to strengthen solidarity between Member States when it comes to SoS, by ensuring better coordination at European level. This is all the more relevant when such a surge in demand is linked to a crisis threatening the security of European citizens.

- Also, there is a clear legal vacuum regarding the coordination between Member States during a security of supply crisis for defence products. It is particularly essential to establish a predefined framework set by the co-legislators to address

effectively such situations. It would ensure that Member States are not left helpless in a situation of crisis and would provide them with a precise and legally sound toolbox of measures for an effective and coordinated response across Europe.

- Finally, notably as illustrated in the supply crisis of ammunition addressed by ASAP, divergent national legislation, in particular regarding the certification of defence products and divergent approaches to national security have proven to be bottlenecks for European defence products supply chains and obstacles to interoperability. Therefore, ensuring the functioning of the internal market, by avoiding shortages of defence products in the Union, can be best addressed through action at Union level.

Strengthening of the Ukrainian DTIB:

- Ukraine is seeking to maintain and increase its production capacity to meet its national defence equipment needs. However, the scale of damage, caused by Russia's illegal act, to the Ukrainian DTIB infrastructures is such that Ukraine will require a specific support that no Member State could provide alone. Also, in view of Ukraine's accession to the EU, it is necessary to enhance cooperation with Ukraine at industrial level. Measures to directly strengthen the Ukrainian DTIB and strengthen its ties with the European defence industry are required to pave the way toward its integration in the EDTIB.

3.3 Subsidiarity: Added value of EU action

Beyond the necessity to act, the subsidiarity principle is also respected as there is a real added value to act at European level to address the problems identified.

Support to the competitiveness of the EDTIB:

- Pressed by a new security environment, the Union cannot afford to wait until the EDTIB has sufficient predictability of orders to invest in adapting its production capacity. The European defence industry needs to adapt as quickly as possible to the new market situation. This means that there is a need to support de-risking industry's investments in flexible manufacturing capacities. Such investments at Member State level only could lead to imbalances in the geographical distribution of investment and in an increase of the fragmentation of supply chains. Without ensuring a better understanding of the European capacities and supply chains for specific defence products needs, such investments at national level may also not address the most important bottlenecks but focus instead at just reinforcing the existing national industrial capabilities. Hence, the European Union can bring added value in ensuring this improved understanding of specific segments of the EDTIB and their related supply chains, in order to better de-risk investment in the EDTIB, throughout the Union and with a view to helping the sector develop a flexible production apparatus.

SoS of defence equipment in Europe:

- Even though defence SoS has been primarily defined at Member State's level since defence is a national competence, there is an increasingly European dimension to SoS, as industrial supply chains increasingly span across the EU internal market and beyond. This is in particular true for critical components and raw materials on which Member States are also increasingly interdependent. Also as illustrated by the ammunition plan, Member States have little visibility on the overall capacities and of the supply chains of the EDTIB, preventing them from making more informed decisions. Therefore, in order to ensure a sufficient level of SoS, including in crisis time, it is appropriate to envisage at Union level the establishment of an EU-wide SoS regime under EDIP. Such framework will enhance the coordination of responses to supply crises of defence products and Member States' trust in cross-border supply chains, as well as strengthening the EDTIB's resilience, for the benefit of all Member States, in a more effective way than through a patchwork of parallel national measures.

Strengthening of the Ukrainian DTIB:

- The EU is in a unique position to encourage in time and at scale both DTIBs to meet in a joint effort the needs of Ukraine and of Member States. With its presence on the ground in Ukraine through its Delegation, the EU can ensure comprehensive access to information on developments affecting the country. The EU is a major actor in the field of military assistance provided to Ukraine and also participates in most of the multilateral processes aimed at addressing defence challenges that Ukraine is facing. This allows the EU to be constantly aware of new needs in terms of defence equipment and circumstances of Ukraine's defence production capacities and, therefore, to adapt support according to evolving needs, coordinating closely with other national or industrial stakeholders. The objective of preparing candidate countries and potential candidates for Union membership can also be best addressed at Union level.

4 OBJECTIVES: WHAT IS TO BE ACHIEVED?

4.1 General objective

To address the problems identified and described above, the European Union can no longer postpone improving its defence industrial readiness. This has already been highlighted in the Strategic Compass which stressed the need to invest more and better in capabilities and innovative technologies, fill strategic gaps and reduce technological and industrial dependencies.

As recalled in the European Defence Industrial Strategy, it is time to move from emergency responses to respond to the most urgent consequences of the Russia's full-scale invasion of Ukraine, to a more structural approach to achieve a European defence industrial readiness across all time horizons. To do so, the EU needs a competitive EDTIB capable of maintaining its technological excellence while delivering what is needed, when it is needed, without restrictions stemming from excessive external dependencies or bottlenecks. The EU also needs to secure the availability to its Member

States and partners of consumables in the requisite volumes, including during crisis times, while ensuring the timely development and delivery of next generation of high-end critical capabilities in the coming years. This also takes into account the Ukrainian defence needs.

The achievement of the European defence industrial readiness is fully consistent with the overarching, long term objectives of the European Union, in particular the goal of building a stronger Europe in the world.

4.2 Specific objectives

To achieve a true European Defence Industrial readiness, the Union must organise its actions around 3 essential and mutually reinforcing specific objectives:

- **Strengthen the competitiveness and responsiveness of the EDTIB.** By strengthening the competitiveness of its industry, the Union will have an industrial apparatus and production capacity that are more adapted to the reality of its current and future needs. It will also enable it to be a more reliable partner.

- **Enhance the ability of the EDTIB to ensure the timely availability and supply of defence products**. By relying on the strength of its internal market and ensuring that it functions as optimally as possible, even in crisis situations, the Union and its Member States have the means to strongly enhance the SoS for defence products.

- **Contribute to the recovery, reconstruction and modernisation of the Ukrainian DTIB**. By reinforcing Ukraine's defence production capacity and by enhancing defence industrial cooperation between the EU and Ukraine, the Union is not only strengthening its own security and that of Ukraine, but is also preparing the future of the European defence industrial readiness.

5 WHAT ARE THE AVAILABLE POLICY OPTIONS?

5.1 Baseline scenario

This scenario implies a continuation of only the existing measures, notably the implementation of the European Defence Fund (EDF), which expires at the end of the current MFF, the Defence Joint Procurement Task Force (DJPTF), which remains as an informal structure, and the emergency funding measures, namely EDIRPA and ASAP, which both expire at the end of 2025.

- **EDF:** Established in 2021, the EDF is the only EU programme supporting collaborative research and development (R&D) in the field of defence. The EDF aims to incentivise and support collaborative, cross-border R&D in defence technology in the Member States and Norway. The Fund supports competitive and collaborative projects throughout the entire cycle of R&D. The Fund aims to increase the EU’s technological edge and develop the defence capabilities that are key for the EU strategic autonomy, i.e. the EU’s ability to act and to deploy and operate the requisite military capabilities independently if needed.

EUR 7,3 billion from the EU budget is dedicated to the European Defence Fund for 2021-2027. This amount has been reinforced with EUR 1,5 billion in the context of the MFF Mid-Term Review[71].

- **DJPTF:** As announced in the Joint Communication of May 2022, the Commission, and the High Representative/Head of Agency established the DJPTF to work with Member States to support the coordination of their very short-term procurement needs. The Task Force focused on de-confliction and coordination to avoid a race to secure orders. The DJPTF also conducted an estimate of the most urgent needs on an aggregated basis and highlighted the need for expansion of the EU industrial manufacturing capacities necessary to answer these needs, thanks to a preliminary mapping exercise. It also contributed to assess the most relevant bottlenecks that needed to be addressed, thus providing insights critical to the designing of a work programme for the ASAP that could focus on and effectively tackle the most critical constraints limiting ammunition production capacity.
- **EDIRPA:** Also as announced in the Joint Communication of May 2022, in July 2022 the Commission presented the EDIRPA programme, aimed at incentivising through financial support, Member States' cooperation on procurement of the most urgent and critical defence equipment. EDIRPA Regulation was adopted by the co-legislators on 18 October 2023 and contributes to strengthen the adaptation of Union's defence industry to structural market changes. EDIRPA will end on 31 December 2025.
- **ASAP:** The capability gaps highlighted by the Joint Communication of May 2022 were numerous, but in light of the evolution of the situation in Ukraine, a specific pressing need for ground-to-ground ammunition and artillery ammunition, as well as missiles emerged. This was formally recognised by the Council, agreeing on 20 March 2023 on a three-track approach for the delivery and common procurement of ammunition for Ukraine. In this context, in May 2023 the Commission tabled the ASAP Regulation proposal to face the sudden surge of demand for these products and urgently enable their timely availability, by mobilising EU budget to support investments in the ramp up of the EDTIB's production capacities in this field. The ASAP Regulation was adopted by the co-legislators on 20 July 2023. It will end on 30 June 2025. The Commission began implementing this Regulation in record time: the work programme, the call for projects and the results of the calls were all adopted between the entry into force of the Regulation in July 2023 and March 2024 (i.e. in the space of 8 months). The ASAP programme is a clear proof that the EU can act effectively and address emergency situations while adhering to the ordinary legislative procedure. The programme will end on 30 June 2025.

With the end of ASAP and EDIRPA in 2025, the baseline scenario implies a sudden discontinuity of financial support measures to an EDTIB that will need to further adapt to the market realities resulting from the new geopolitical situation. In this baseline scenario, the introduction of a legal framework aimed at ensuring security of supply, as

[71] Council Regulation (EU, Euratom) 2024/765 of 29 February 2024 amending Regulation (EU, Euratom) 2020/2093 laying down the multiannual financial framework for the years 2021 to 2027, OJ L, 2024/765, 29.2.2024.

requested by co-legislators when adopting the ASAP Regulation[72], would be delayed. The possibility to support the production capacities of the Ukrainian defence industry would also be absent from this scenario.

Finally, this baseline scenario implies that the Commission does not respond to the European Council repeated calls[73] to present a proposal for the European defence Industry Programme, which was announced in the Joint Communication of May 2022.

5.2 Option I - Prolongation of the emergency instruments until the end of the current MFF

To avoid a sudden lack of EU financial support for the EDTIB as it needs to adapt to new market realities, measures could be taken following the end of EDIRPA and ASAP implementation. Beyond ongoing support for defence R&D through the EDF, ASAP, EDIRPA, and the work of the DJPTF could be extended with additional funding to bridge the gap until the next MFF.

Under this option the ambition and scope of the financial support to the EDTIB would remain limited and support for more structural change of the EDTIB would be deferred to the next MFF. Regarding the budget allocation for extending ASAP and EDIRPA, funds could be reallocated from the reinforcement of the EDF budget as part of the MFF Mid-Term Review. This transfer would support the continuation of these programs. This could allow to further provide support to cooperative procurement but only for the most urgent and critical defence products and additional support for industrial ramp-up actions but limited to the ammunition and missiles segments only.

The introduction of a legal framework aimed at ensuring security of supply, as requested by co-legislators when adopting the ASAP Regulation, would be delayed. The possibility to support the production capacities of the Ukrainian defence industry would also be, like in the baseline scenario, absent from this option I.

As with the baseline scenario above, the option I would also mean that the Commission is not responding to the European Council repeated calls to present a proposal for a European defence Industry Programme.

5.3 Option II - preferred option

The Option II offers the possibility to tackle the three general objectives which will enable the EU to move towards a more structural approach of enhancing the Union's defence industrial readiness. Option II entails several actions that can be regrouped in 3 pillars, each of them addressing one of the three specific objectives:

Measures to strengthen the competitiveness and responsiveness of the EDTIB (first pillar)

[72] joint statement of the European Parliament and of the Council upon the adoption of the Regulation on Supporting Ammunition Production (ASAP)

[73] European Council meeting (29 and 30 June 2023) – Conclusions, Brussels, 30 June 2023, EUCO 7/23; European Council meeting (14 and 15 December 2023) – Conclusions, Brussels, 15 December 2023, EUCO 20/23.

In this first pillar, Option II puts forward a number of measures aiming at supporting the EDTIB's adaptation to the new market realities.

- **Extension of the EDIRPA logic**: Option II notably entails a programme to extend in time and scope the EDIRPA financial support logic. This concretely means that the EU budget would be mobilised to incentivise common procurement of defence products (i.e. not only the most urgent and critical defence products), from 2025 to 2027, thereby ensuring a continuity of financial support between 2025 (i.e. end of EDIRPA) and the next MFF. The extension of the EDIRPA logic would encourage the harmonisation of demand from Member States and increase the magnitude of orders placed with the EDTIB. It was also supported by the majority of Member States and industry representatives consulted during the consultation process.

- **Extension of the ASAP logic**: Same goes with the ASAP intervention logic. This approach was supported by the Member States during the public consultation process, which insisted that any future initiatives should draw on the lessons learned from the implementation of ASAP and EDIRPA to date. Option II entails this possibility to mobilise the EU budget to de-risk investment into the production capacities of certain defence products (i.e. not only for ammunition and missiles). This would involve co-financing actions aimed at this purpose for the period 2025-2027 as the ASAP ends in 2025. Hence, it would be possible to use of EU budget to enhance production capacities and address bottlenecks in the production of particularly needed products at a specific moment of time during this period. The extension of the ASAP logic was viewed positively by the majority of Member States and industry representatives consulted during the consultation process. By extending the ASAP logic in terms of scope, Option II also offers the possibility to ensure more consistency with Member States' collaborative R&D efforts. Option II could for instance financially support the industrialisation or productization of products stemming from EDF funded actions or other EU cooperative frameworks, thereby ensuring a harmonised and coherent approach with the EU's defence R&D programme. This would support EDF projects in becoming a tangible reality beyond the R&D phase and further strengthen the competitiveness of the EDTIB. This possibility to allow the support to post-EDF productization was also viewed positively by a majority of Member States during the consultation process.

- **Creation of a Fund to facilitate access to finance for SMEs and mid-caps**: Considering the problems identified in terms of access to finance for the defence sector and in particular for the SMEs, Option II would also mobilise EU budget by creating a Fund for SMEs and small mid-caps, the Fund to Accelerate defence Supply chains Transformation (FAST). Such Fund would enable access to debt and/or equity financing for SMEs and small mid-caps industrialising defence technologies and/or manufacturing defence products or having imminent plans to enter those activities. The Fund would allow generating a multiple of the allocated budget in loans or equity investments and leverage additional public and private investments in support of defence SMEs. FAST would contribute to support the development of an ecosystem of investors focused on growth stages,

investing in critical defence suppliers and supporting the scaling-up of innovative defence companies. It would provide new solutions for particularly vulnerable types of companies that are subject to problems of access to finance. The creation of such Fund, which would target supporting SMEs in particular, was one of the elements strongly supported by the industry during the public consultation process. This design of FAST takes into account and responds directly to the problems identified by the industry during the consultation process.

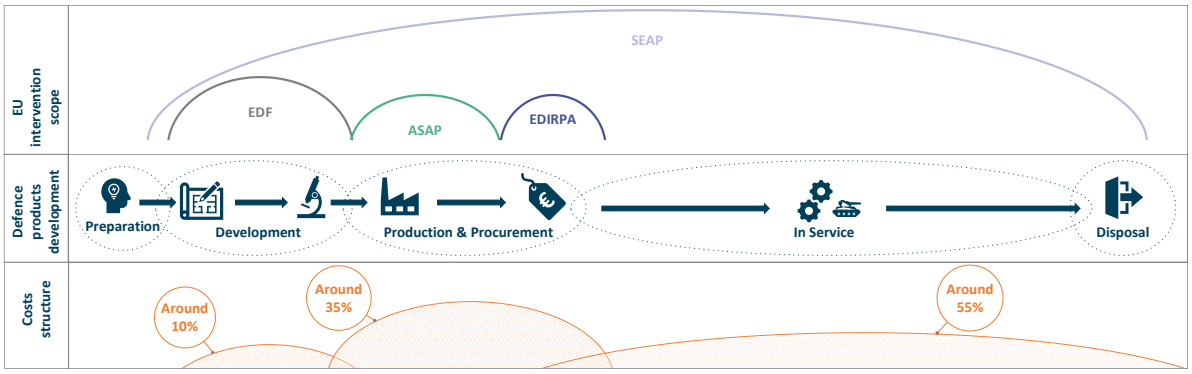
- **European Defence Projects of Common Interest**: In addition, Option II would provide the possibility to financially support capabilities which no single Member State could develop or procure alone, namely: European Defence Projects of Common Interest. By co-financing and facilitating the deployment of such large-scale projects with Member States, Option II would ensure that the EDTIB is tasked to deliver major and critical projects. Member States will be able to maximise the impact of their investments on the EDTIB while developing and operating full-spectrum capabilities. The industry representatives during the consultation process have expressed their support for such projects especially when it comes to addressing strategic capabilities beyond the scope of individual Member States.

- **Creation of the Structure for European Armament Programmes (SEAP)**: Beyond the action undertaken through its financial support, Option II also proposes a voluntary legal framework to facilitate Member States cooperation on defence equipment. The Structure for European Armament Programmes (SEAP) would be a new framework in which Member States could be encouraged to run their cooperation throughout the life cycle of a defence equipment. The SEAP would represent a new layer of incentive, consistent with the financial support provided under the programme; it would enable collaborative behaviours on the demand side from the R&D phase to the decommissioning, covering as well the in-service support phase, which constitute a significant portion of the costs during the life cycle of a defence equipment. According to a study[74] for the European Parliament, the costs structure of the equipment life cycle can in general be split as follows: around 10% for R&D costs, 30-35% for investment costs (production and purchasing) and 55-60% for operating, support and disposal costs. This is illustrated by the figure 9 below. This approach, supporting cooperation through a product's lifecycle, and therefore allowing for long-term visibility, was identified by the industry during the public consultation as one of the ways of strengthening the EDTIB.
  Overall, as illustrated in the Figure 9, what is aimed at with the Option II is the EU's ability to provide financial support for the different stages in the life cycle of defence equipment, and a legal framework dedicated to ease collaborative efforts throughout the full life cycle of defence equipment. It should be highlighted that the SEAP and the extension of the EDIRPA logic could also be instrumental to maximise the uptake of projects stemming from EDF, thereby ensuring a consistent action at EU level when it comes to the support to the EDTIB in this

[74] Review of the Preparatory Action on Defence Research (PADR) and European Defence Industrial Development Programme (EDIDP): lessons for the implementation of the European Defence Fund (EDF) (europa.eu)

new security context. Actions undertaken in this framework should be mutually reinforcing with those carried out under the Common Foreign and Security Policy (CFSP), in particular in the context of the Capability Development Plan (CDP) and of PESCO.

Figure 9 - EU tools and frameworks to provide support for the crucial stages in the life cycle of defence equipment



- **European Military Sales Mechanism (1/2)**: Option II also proposes to better align European demand and its industrial base. As experienced during the implementation of the ammunition plan, Member States often lack visibility on the production capacities of the EDTIB and the availability of equipment it produces. With a dedicated set of measures proposed in the context of Option II, namely the European Military Sales Mechanism (MSM), it is possible to contribute in addressing this issue. The MSM would set up a single, centralised, up to date catalogue of defence products developed by the EDTIB, which could improve the visibility of European defence equipment solutions among Member States. Another element of the MSM would be the creation, in the context of a SEAP, of defence industrial readiness pools to increase availability and speed up delivery time of EU-made defence products. Option II would financially support the purchase of additional quantities of defence capabilities that Member States have decided to jointly procure within the SEAP. This would allow the creation of strategic reserves that could quickly be made available for additional customers. The MSM would also facilitate common procurement from the EDTIB, through the support to administrative capacity building. These two last elements contribute to encourage and facilitate common procurement of defence products from European suppliers and unlock the benefits of a more harmonised European demand for the EDTIB.

- **Solidarity with Ukraine**: In a spirit of solidarity with Ukraine, the preferred option would also allow for the possibility for Ukraine to participate in schemes such as the SEAP and the MSM in order to mobilise the EDTIB to also directly address the Ukrainian defence equipment needs. Most of the Member States declared their openness to the idea during the consultation process considering that Ukrainian participation can bring added value for the EU.

Measures to enhance the ability of the EDTIB to ensure the timely availability and supply of defence products (second pillar)

- **Preparedness, monitoring and surveillance of supply chains and crisis modes**: With its second pillar, Option II would set up a modular and gradual EU Security of Supply regime to enhance solidarity and effectiveness in response to tensions along the supply chains or security crises and allow for the timely identification of potential bottlenecks. Different sets of measures are proposed to tackle two types of crises:
    - Supply crises, where shortages of civilian or dual-use components, or of raw materials, seriously threaten the timely availability and supply of defence products. In this case, after activation by the Council of a "crisis state", a toolbox of measures will ensure the supply of the concerned components and/or raw materials for defence supply chains, including, where necessary and justified by the overarching public interest, by ensuring priority over some or all civilian supplies (priority rated orders).
    - Supply crises which are directly linked to the existence of a security crisis within the Union or its neighbourhood. To face such scenarios, the Council would be given the possibility to activate a second, upper level of the crisis state to resort to targeted measures necessary and proportionate to the resolution of the crisis (mostly focusing on the supply of products specifically designed for military use).

  To underpin the effective, efficient, and proportionate use of this two-layer crisis framework, Option II proposes to perform an identification and monitoring of critical products for certain defence supply chains, to be identified together with Member States in the frame of a Defence Industrial Readiness Board, established under EDIP to support the Commission in implementing the proposed Regulation[75]. This constitutes a major difference with the ASAP Regulation proposal[76] (i.e. Articles 13 to 20 of the ASAP Regulation proposal). This regulatory pillar was eventually discarded during the negotiations between co-legislators, notably because of the emergency context in which these negotiations were taking place, which made it highly challenging to debate the measures related to the identification of bottlenecks and the mapping of ammunition and missiles production capacities in the EU. Hence, as it was requested by co-legislators when they adopted the ASAP Regulation[77], Option II offers a unique opportunity to discuss, in a more appropriate timeframe of negotiation, SoS related measures. The latter also take into account the need for an enhanced role and involvement of the Member States, which was an element often highlighted in Member States' contributions during the consultation process.

- **European Military Sales Mechanism (2/2)**: This second pillar also covers one of the MSM measure. Indeed, the MSM also introduces an 'Industrial Solidarity Clause' to existing and future contract Member States would be able to benefit from other Member States' defence contracts and framework agreements with

[75] The European Defence Industrial Readiness Board should be composed of the Commission, the High Representative/Head of the Agency and Member States. Its functioning and tasks are described under Article 57 of the EDIP Regulation proposal.

[76] Proposal for a Regulation of the European Parliament and of the Council on establishing the Act in Support of Ammunition Production

[77] Joint statement of the European Parliament and of the Council upon the adoption of the Regulation on Supporting Ammunition Production (ASAP)

EU-based manufacturers. This would diminish their administrative burden (as well as the industrial one), and obtain equipment with a reduced delivery lead time. Consequently, this would enhance the accessibility of these products and improve the related security of supply.

Measures to contribute to the recovery, reconstruction and modernisation of the Ukrainian DTIB (third pillar)

Finally, Option II entails a third pillar, aiming to provide financial assistance to Ukraine with a particular focus on contributing to strengthen the production capacities of its industry, ensuring more cooperation between the UA DTIB and the EDTIB, and preparing the integration of the Ukrainian defence industry into the EDTIB.

- **Ukrainian Support Instrument (including EDIRPA and ASAP logic extended to Ukraine)**: Option II introduces a dedicated programme, "the Ukrainian Support Instrument" (USI). It mobilises the EU budget to extend the EDIRPA and ASAP types of financial support not only in time (2025-2027) and scope (any type of defence products) but also in terms of beneficiary: the participation of Ukraine (for the EDIRPA logic) and of Ukrainian companies (for the ASAP logic). Such openness would ensure that the EU contributes to the reinforcement of the Ukrainian defence industry.

5.4 Overall implementation and effects of the measures under option II

As illustrated by Table 3, the measures envisaged will involve several stakeholders and produce various effect aiming to achieve the different specific objectives

Table 3 implementation and effects of option II

Measure of Option II	Commission	Member States	EDTIB	Ukraine	Ukrainian DTIB
Extension of the EDIRPA logic	The Commission provides financial support to incentivise common procurement of defence products from the EDTIB	Member States can engage in common procurement supported by EDTIB	Businesses will benefit from increased (aggregated) orders from Member States	N/A	N/A
Extension of the ASAP logic	The Commission provides financial support to industrial reinforcement actions of the EDTIB	N/A	Businesses can benefit from financial support to engage in industrial reinforcement actions	N/A	N/A
FAST	The Commission sets up the FAST to support SMEs and small mid-caps industrial reinforcement actions	N/A	Businesses can benefit from the FAST financial instrument support to engage in industrial reinforcement actions	N/A	N/A
European Defence Projects of Common Interest	The Commission can identify and financially support EDPCIs	At least 4 Member States can set up EDPCIs	EDPCI can only mobilise businesses from the EDTIB	N/A	N/A
SEAP	The Commission will assess applications for SEAP, adopt decision to set up SEAPs, and can repeal decision setting up a SEAP	At least 2 Member States and another Member State, Ukraine or an Associated Country, can submit application to set up a SEAP. Once set up, Member States have to comply with the SEAP provisions of EDIP	Businesses will benefit from increased (aggregated) and predictable orders from SEAP	Ukraine can join a SEAP*	Businesses will benefit from increased (aggregated) and predictable orders from SEAP*
European Military sales - catalogue	Commission will contribute to set up and maintain the catalogue	Member States can benefit from an increased visibility of the EU-developed products	Business can include EU-developed products into the catalogue and benefit from increased visibility	N/A	Business can include EU-developed products into the catalogue and benefit from increased visibility*

European Military sales - readiness pools	Commission can financially support the joint acquisition of additional quantities in view to set up readiness pools and provide financial support for the management and maintenance of the readiness pool	Member states can procure additional quantities in their common procurement and set up readiness pools in the context of a SEAP to make other Member States joining the SEAP benefit from increased availability and speed up delivery time of EU-made defence products	Businesses can benefit from increased orders	Ukraine can benefit from the readiness pool when joining a SEAP*	Businesses can benefit from increased orders*
European Military sales - administrative capacity	Commission can support administrative capacity building related to public procurement of defence products, with the aim of facilitating common procurement	Member States can benefit from increased administrative capacity to proceed to common procurements	Businesses can benefit from increased (aggregated) orders		Businesses can benefit from (aggregated) increased orders*
European Military sales - solidarity clause	N/A	Member States can open their existing or future framework contracts to other Member States	Businesses can benefit from increased (aggregated) orders	N/A	N/A
SoS preparedness	At the request of Member States, the Commission can implement measures entailed in the SoS preparedness (e.g. procurement)	Member States can request the Commission to implement measures entailed in the SoS preparedness mode (e.g. procurement)	N/A	Ukraine can participate to joint procurement with the Commission as well as advanced purchase agreements and off take agreements*	N/A

Sos monitoring and surveillance	The Commission can implement with Member States measures related to the SoS monitoring and surveillance mode	Member States will assist the Commission (through the Defence Industrial Readiness Board) to implement the measures related to the monitoring and surveillance. They can contribute to the monitoring and surveillance	Businesses may on a voluntary basis comply with measures of the monitoring (e.g. information requests from Member States)	N/A	N/A
SoS crisis modes	The Commission can implement with Member States measures entailed in the SoS crisis mode	Member States can collectively decide to activate the crisis modes through a Council implementing act; they can decide to put in place some of the related measures	Businesses may have to comply with measures of the crisis modes put in place (e.g. information requests and priority rated orders in the context of the supply crisis mode)	N/A	N/A
USI - EDIRPA logic	The Commission provides financial support to incentivise common procurement of defence products from the Ukrainian DTIB and EDTIB	Member States can engage in common procurement supported by EDTIB	Businesses will benefit from increased (aggregated) joint orders from Member States and Ukraine	Ukraine can participate in common procurement with Member States*	Businesses will benefit from increased (aggregated) joint orders from Member States and Ukraine
USI - ASAP logic	The Commission provides financial support to industrial reinforcement actions of the Ukrainian DTIB and EDTIB	N/A	Businesses can benefit from financial support to engage in industrial reinforcement actions if they cooperate with Ukrainian companies	N/A	Businesses can benefit from financial support for their industrial reinforcement*
* Need for associate agreement					

5.5 Options discarded at an early stage

Under the baseline scenario no specific further legislative or funding measures at the Union level would be established beyond the existing supports to the long-term collaborative research and development (EDF) and the emergency instruments in support of Ukraine focusing on both common procurement (EDIRPA) and industrial ramp up (ASAP). This, despite the existence of specific and persistent difficulties encountered by the European defence industry. A number of risks arise here – (i) reputational damage as a reliable partner and lack of credibility following leaders call for support to Ukraine and (ii) an abrupt gap from 2025 (explained by the end of EDIRPA and ASAP) in the financial support from the EU budget given to the EDTIB to adapt to the new market realities resulting from the security paradigm shift.

Not responding to the European Council repeated calls to "*swiftly*"[78] present a proposal for the EDIP, and to the indication that it "*will revert to the matter of security and defence, including Europe's need to increase its overall defence readiness and further strengthen its defence technological and industrial base, at its next meeting in March 2024, with a view to agreeing on further steps to make the European defence industry more resilient, innovative and competitive*"[79], is not an option.

Also, Ukraine is heavily dependent on military support made available by the EU and its Member States, including due to the fact that its defence industrial base has been seriously damaged because of the war. The absence of measures to support the rebuilding and strengthening of Ukraine's defence industry production capacities would hinder the country's ability to effectively confront Russia's war of aggression against its territory. The baseline scenario would also represent a missed opportunity to pave the way for a successful future integration of the Ukrainian DTIB into the EDTIB.

Not proposing any intervention would risk destabilization, continued inadequacy of the EDTIB to the new security environment and would risk to further undermine the EU and its Member States' security in the future.

5.6 Evaluation of Option I

Effectiveness

Under Option I, the range of measures proposed is limited to a simple extension of the existing emergency measures adopted to address the immediate consequences of Russia's full-scale invasion of Ukraine on the European defence industry. Under this option limited in scope, many of the structural problems would remain unaddressed leading to a continuation of lack of competitiveness and responsiveness of the overall EDTIB.

Without specific measures to address access to finance, support the adaptation of the defence industrial apparatus beyond the scope of ammunition and missile or the most urgent and critical defence products production, the overall industry responsiveness

[78] European Council meeting (14 and 15 December 2023) – Conclusions, Brussels, 15 December 2023, EUCO 20/23.
[79] Special meeting of the European Council (1 February 2024) – Conclusions, Brussels, 1 February 2024, EUCO 2/24

would remain low and its existing limited ability to produce more of what is needed in the timeframe required by member States would persist. Industry would also continue to hold the view (as expressed in the extensive consultation phase) that the greater proportion of risk in relation to ramping-up remained firmly with it.

In addition, cooperation between Member States on capability development and deployment would continue on a largely ad hoc and unstructured basis, leaving the industry with a lack of opportunity to exploit the economies of scale that would be possible with more consolidated demand.

Furthermore, one of the key challenges identified is the limited security of supply when it comes to defence equipment. Option I would likely perpetuate the current situation where the EU and its Member States lack an adequate legal framework to prevent and address, in a coordinated way, the risks and crises in the supply of specific defence equipment.

Similar to the baseline scenario, Option I would not include measures to directly support the rebuilding and strengthening of Ukraine's defence industry production capacities. Consequently, this option would only limit the EU's support in helping the country effectively confront the Russian war of aggression on its territory. Additionally, option I would be a missed opportunity to prepare for the future integration of the Ukrainian DTIB into the EDTIB.

Consistency with existing policy

Without being inconsistent as such with existing policy, Option I, due to its limited scope, would have restricted opportunities to exploit possible synergies with other existing policies. This limitation would hinder the ability to fully leverage and integrate with broader strategic initiatives, thereby reducing the overall effectiveness of the EU's support mechanisms.

5.7 Evaluation of Option II

Effectiveness

Option II encompasses several measures aiming at effectively tackling the three identified specific objectives.

The first pillar is composed of measures to ensure that the conditions necessary for the competitiveness of the EDTIB exist. Measures like the extension of the EDIRPA and ASAP intervention logic, the set-up of the SEAP legal framework as well as the establishment of FAST will help the EDTIB to adapt to the new market reality.

The second pillar is composed of measures which have as their object the functioning of the internal market and in particular the EDEM. The set-up of an EU-wide SoS regime for defence equipment relies on several aspects:

- Firstly, Option II includes measures to enhance the preparedness of Member States in the new geopolitical context characterized notably by the need to replenish stocks and further expand defence capabilities' as soon as possible.

Option II notably includes measures to simplify the re-opening of existing and future framework contracts with the EDTIB to other Member States extending beyond the limited scope of ammunition and missiles already provided for under the ASAP Regulation.

- Secondly, Option II entails measures to perform a targeted identification and monitoring of critical products and industrial capacities in the supply chains of certain defence products.
- Finally, when a supply crisis arises, Option II provides for a modular and gradual crisis management framework, with the possibility given to the Board to decide on the most appropriate mode of crisis management and, for the more serious crises, on measures to be activated (e.g. information gathering, priority rated orders or Priority rated requests). Hence, Option II will ensure that supply disruptions are well anticipated and addressed without delay to preserve the functioning of the internal market and ensure an adequate level of SoS for Member States. By way of comparison, it is interesting to note that the US can make extensive use of similar types of measures to address security of supply issues. For instance, the US Department of Defense (DOD) uses the Defense Priorities and Allocations System provisions to place rated orders on approximately 300,000 contracts annually. US companies are required by law to accept such rated orders and provide preferential scheduling if necessary to meet required delivery date(s). In addition, the Departments of Commerce and Defense estimate that approximately 400,000 rated orders are “flowed down” annually through the supply chain to support those rated orders.

The third pillar comprises measures contributing to the recovery, reconstruction and modernisation of the Ukrainian DTIB and its progressive integration into the EDTIB. Special attention shall be given to the objective to support Ukraine to progressively align with Union rules, standards, policies and practices (‘acquis’) with a view to future Union membership. With this third pillar, the Union's operations will complement and reinforce those of the Member States.

All the measures constitute a coherent approach to address, in different ways, the need for strengthening of the Union’s defence industrial readiness.

Table 4 - Measures

Specific objective	Legal basis	Pillar	Measure
Strengthen the competitiveness and responsiveness of the EDTIB	Article 173 TFEU	Pillar 1	- The programme (EDIRPA and ASAP intervention logic) - FAST - EDPCI - MSM (catalogue, capacity building, readiness pools) - SEAP
Enhance the ability of the EDTIB to ensure the timely availability and supply of defence products	Article 114 TFEU	Pillar 2	- MSM (solidarity clause) - SoS regime
Contribute to the recovery, reconstruction and modernisation of the Ukrainian DTIB	Article 212 TFEU	Pillar 3	- USI (extension of the EDIRPA and ASAP intervention logic to Ukraine and Ukrainian businesses)

Consistency with existing policy

The support under Option II will be consistent and complementary with existing collaborative EU initiatives in the field of defence industrial policy and with other forms of bilateral support for Ukraine provided through other EU instruments, including the Ukraine Facility. It will complement, the EU's main programme in this policy area, the European Defence Fund (EDF). Notably, by supporting EDF projects in the later stages of defence equipment development, EDIP can help bring the program's results to market. Option II will also build on the experience acquired in the context of other EU programmes, such as EDIRPA or ASAP, in particular by extending their financial support logic and expanding their scope to other types of equipment. It will finally consolidate the efforts and dialogue undertaken as part of the DJPTF.

EDIP will generate synergies with the EU defence policy and the implementation of the Strategic Compass for Security and Defence. It will be implemented in full consistency with the EU Capability Development Plan (CDP) identifying the defence capability priorities at EU level, as well as with the EU Coordinated Annual Review on Defence (CARD), which inter alia identifies new opportunities for defence cooperation. EDIP will also facilitate Member States cooperation efforts in the Permanent Structured Cooperation (PESCO) initiative. It should serve the implementation of PESCO projects, including by providing increased funding for actions developed in the context of a PESCO project, under certain conditions, and contribute to speed up, ease and support the fulfilment of the more binding commitments undertaken by Member States in this context. EDIP will complement the European Defence Agency's (EDA) preexisting action in the field of SoS. EDIP will also build notably upon EDA's Key Strategic Activities work strand to inform discussions held in the framework of the Defence

Industrial Readiness Board. EDIP will also be implemented in full consistency with the EU's military assistance to Ukraine in the context of the European Peace Facility (EPF). EDIP will usefully complement the objectives of recovery and reconstruction pursued by the EU under the Ukraine Facility, notably by strengthening Ukraine's ability to defend itself by relying on a resilient and responsive DTIB. More broadly, account may also be taken of relevant activities carried out by the North Atlantic Treaty Organisation (NATO) and other partners where they serve the Union's security and defence interests and do not exclude any Member State from participating.

By providing an EU-wide SoS Regime through notably a two-tier crisis framework, EDIP will complement the Internal Market Emergency and Resilience Act (IMERA)[80], which does not concern defence products. The IMERA aims to mitigate the harmful impacts on the Single Market, safeguard the free movement of persons, goods and services and maximise the availability of products needed in the crisis response by establishing a comprehensive preparedness and crisis-response architecture composed by a governance structure, a framework for the anticipation and preparedness for Single Market emergencies, a framework for Single Market vigilance and a framework for Single Market emergencies, which allows for the activation of additional tools for coordination and emergency response. The IMERA is expected to be formally adopted by the end of 2024 and to become applicable in the course of the first half of 2026.

The EDIP is also complementary with the Critical Raw Materials (CRM) Act introduced to answer supply challenges and which covers the critical raw materials used for defence and security applications. The CRM Act entered into force on 23 May 2024 and will boost the EU supply capacity along the value chain and diversify supply of those materials through the selection and support of Strategic Projects. It also contains measures on the monitoring, risk mitigation and stockpiling of those materials.

Measures available to the Commission within the EDIP crisis framework for certain non-defence products critical for the supply of defence products identified as having priority only aims at ensuring that concerned defence supply chains may access, as a matter of priority, the components and materials required for ensuring an adequate level of SoS at EU level.

6 HOW DO THE OPTIONS COMPARE?

The option II entails measures that appear to be the most appropriate and effective to address the problems identified. Hence, Option II was considered as the preferred policy option and has been adopted on the 5 March 2024 as the Commission Regulation proposal establishing the European Defence Industry Programme and a framework of measures to ensure the timely availability and supply of defence products (EDIP).

The table below shows that the baseline scenario does not address any of the problems identified. It also highlights that the option I presents some elements to partially address the two first problems identified but does not provide any solution to tackle the third

[80] On 19 September 2022, the Commission proposed a Single Market Emergency Instrument (SMEI) to ensure greater transparency and coordination when a critical situation emerges. Following the political agreement reached on 1 February 2024, the instrument was renamed Internal Market Emergency and Resilience Act (IMERA).

problem. The table nevertheless demonstrates that option II, by contrast, allows to address the three problems identified and entails better solutions than option I for the two first problems.

Table 5 - Comparison of options

Problems identified	Baseline scenario	Option I	Option II (EDIP)
Industry tailored for peace time / Limited production capacity and constrained capacity to support Ukraine	0	+ (limited scope of ASAP and lack of absence of direct support to UA)	++ (extended scope of ASAP and support to UA)
Limited cooperative procurement (and losses of efficiency and effectiveness) and limited procurement from EDTIB (notably cross-border)	0	+ (limited scope of EDIRPA)	++ (extended scope of EDIRPA, SEAP and MSM)
Unaddressed security of supply risks	0	0	+ (SoS regime)

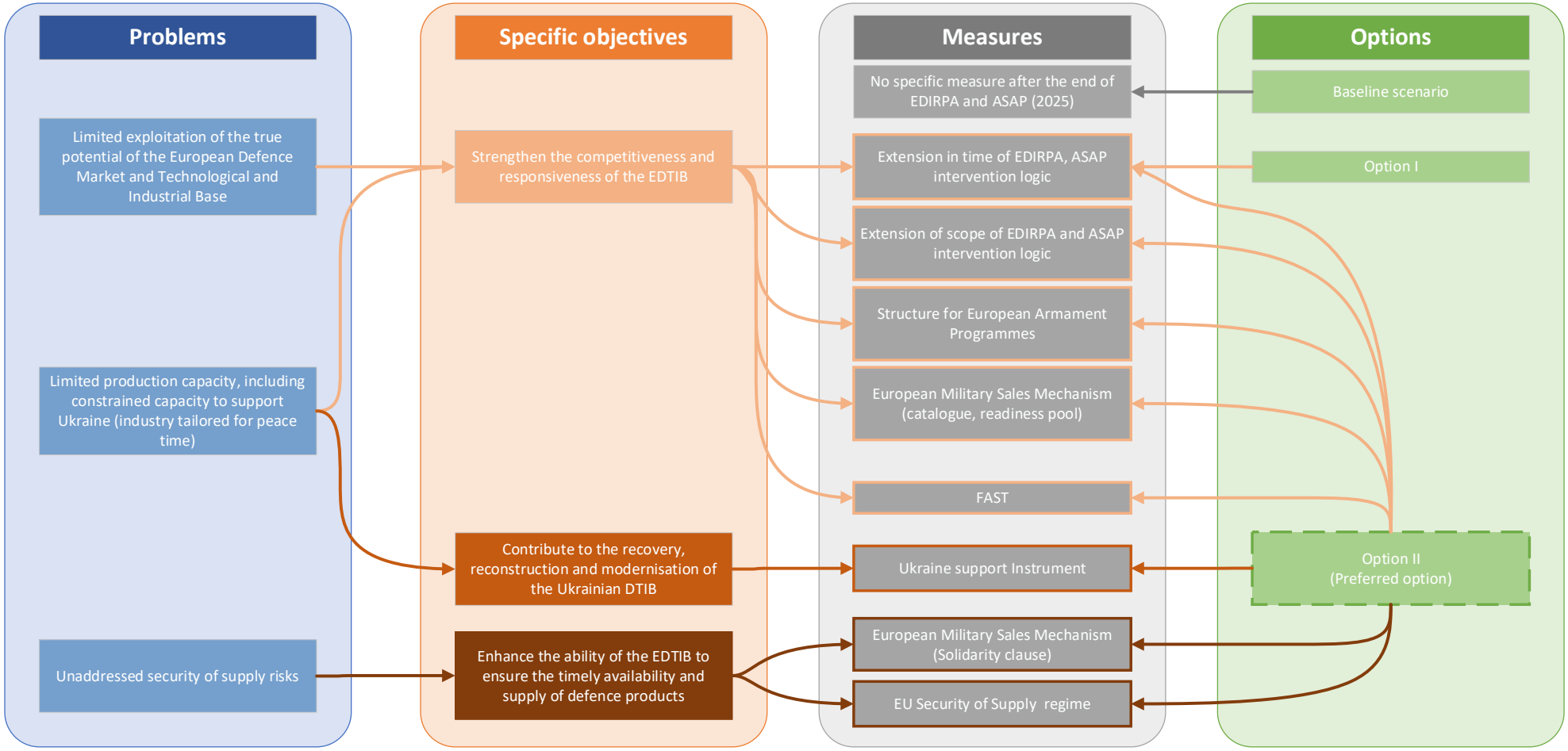
Option II, unlike Option I, also enables a combined approach to be taken to the 3 problems identified as a whole. This is a major comparative advantage for Option II, as the various measures complement and reinforce each other. There are several illustrative examples of this synergetic approach.

- The SoS regime which aims first and foremost to address the SoS risks and crisis, can help to identify tensions and possible bottlenecks on some supply chains related to a specifically required type of defence product. This in turn can help the Commission to target better the financial support delivered in the context of the extension of the ASAP logic, notably to address the bottlenecks identified, which will help to unleash the full potential of the European production capacities for this specifically required type of defence product.
- The extension of the EDIRPA logic as well as the use of the SEAP legal framework by Member States, should lead to an enhanced aggregation of the European demand for defence products from the EDTIB. This will mean also more significant orders for the European defence industry which should in turn enable it to increase its production capacities with the aim of matching this level of demand.
- The extension of the ASAP logic coupled with the possibility to increase the visibility and availability of the defence products proposed by the European defence industry, thanks to the EU MSM can also encourage the European demand to turn to these products, creating potential opportunities for cooperation in the joint acquisition of products from the EDTIB.

By taking this combined approach, Option II makes it possible to exploit all the synergies and complementary interactions of the measures proposed, and helps to tackle the problems identified even more effectively.

The figure 10 below presents the intervention logic of the EDIP. It illustrates how the various measures proposed under EDIP enable, in contrast to the discarded alternative options (Option I and the baseline scenario), addressing the different identified problems while adhering to the three specific objectives.

Figure 10 - Intervention logic



7 WHAT ARE THE IMPACTS OF THE PREFERRED POLICY OPTIONS?

It should be noted that the feasibility of a comprehensive evaluation of impacts is seriously constrained in the defence industrial sector, in comparison with many other industrial and policy areas. This limitation is driven primarily by the lack of available and/or reliable data due to the nature of the defence industrial sector and the security considerations and sensitivities associated with data sharing and making data publicly available. Beyond the sensitivity of data, the defence sector is also very poorly captured by existing statistical nomenclatures; for instance, business statistics on the EDTIB are not generally available because of the impossibility to separate defence-related activities from civil activities in a large number of relevant NACE[81] categories used for the collection of business statistics.

It should also be noted that EU interventions in the defence industry (notably ASAP and EDIRPA) are very recent and results and outcomes are not yet mature enough to draw sufficiently reliable conclusions from their implementation. This problem is exacerbated by the comparatively long lifecycle of defence products, notably the length of time between R&D and product development and subsequent deployment where impacts can take significant time to become apparent.

Furthermore, in view of the urgency, the Commission did not have the necessary time to rely on external experts/consultants to conduct a dedicated analysis beyond the studies already completed and the availability of open-source data relied upon for this impact assessment.

7.1 Impact on competitiveness

The EDIP is implemented notably under Article 173 TFEU and one of its specific objectives is to foster the competitiveness of the EDTIB and support its adaptation to the new security realities. The measures proposed are expected to produce a significant positive impact on the competitiveness of the EDTIB.

When approaching the competitiveness of the EDTIB it is however important to consider the critical strategic and social roles played by the sector: the EDTIB's competitiveness is to be assessed primarily through its capacity to provide for the needs of the EU Member States' armed forces, delivering the required level of technical performance, in a timely manner, in the requisite volume and at a competitive cost, taking into account the new security environment in which the EU and its Member States will be operating in the foreseeable future. The EDTIB's resilience is also a key element in view of the need to rely on an industry capable to adapt to the challenges of the new security situation.

Enhancing the EDTIB's competitiveness would critically depend on improving its capacity to tap into the full potential of the EDEM, in particular by achieving higher production levels and benefiting from economies of scale.

To achieve this, the EDIP will deploy complementary measures addressing both the supply and the demand sides.

[81] NACE is the "statistical classification of economic activities in the European Union"; the acronym stands for "Nomenclature statistique des activités économiques dans la Communauté européenne".

On the supply side, to support the EDTIB's capacity to ramp-up production capacities, the EDIP proposes to extend the support logic implemented under the ASAP in time and in scope. It is possible to already draw some limited preliminary conclusions from the implementation of the ASAP. The projects selected under the ASAP will be funded with €513 million from the budgets of the EU and Norway. This funding will attract additional investment from industry through co-financing, resulting in a total investment of around EUR 1,4 billion in the supply chain. The ASAP is thus capable of leveraging an additional EUR 1,73 billion of investment for every 1 Euro committed from the EU budget. Similar effects are expected to be achieved under the extended ASAP logic part of the EDIP.

ASAP also focuses on powder and explosives, which were identified through the mapping performed by the Commission as key bottlenecks for ammunition shell production. This has enabled a precise targeting of the ASAP Work Programme and calls for proposals by allocating some three quarters of the programme's budget to these key bottlenecks. Such a precise piloting of the programme would not have been possible without the work done in order to assess the situation and improve the understanding of the functioning and constraints in the ammunition value chain. ASAP will support projects increasing the annual production capacity by more than 10 000 tons of powder (enabling to propel up to 1.3 million shells), and by more than 4 300 tons of explosives (enabling to fill 800,000 shells). For this purpose, The Union will invest EUR 248 million in powder manufacturing capacity and EUR 124 million in explosives manufacturing capacity.

The FAST will also support the capacity of smaller actors, many of which are active in the supply chains, to increase their investment capacity by benefiting from better access to finance. The deployment of financial instruments supported by the EU budget allows financial intermediaries to provide funding to the target undertakings, typically at better interest rate and/or collateral requirements. This will have a positive impact on the competitiveness of SMEs and small mid-caps involved in defence-related activities.

The action on the supply side needs to be complemented by actions addressing the demand angle, which is crucial in view of the demand-driven nature of the sector. The extension of the EDIRPA logic, the MSM, SEAP and EDPCI together will result in coordinating and aggregating demand, directing it better towards the EDTIB and incentivising cooperation in procurement and along the entire life cycle.

The potential efficiency gains resulting from higher economies of scale and the economies linked to better cooperation and coordination that can be achieved are very substantial. While it is not possible to precisely quantify the expected effects of the EDIP measures as such, because of the above-mentioned issues of data availability and limited experience in the implementation of similar measures in the past, some orders of magnitude can be drawn from the existing literature.

Reducing fragmentation and wasteful duplications will have an important effect on the unit costs of the products produced by the EDTIB. A first very simple source of economies is the distribution of R&D costs over a larger number of units produced. European Commission (2018) provides an illustration, estimating that if only one of the three European combat aircrafts currently in production had been developed and had realised sales equivalent to total sales of the three programmes, the R&D cost per unit produced could have been reduced by 41 to 83%[82].

Another illustration can be made, using data on the costs of defence programmes provided by Maulny et al. (2018). Table 6 below shows the decrease in the R&D costs per unit for some types of equipment, if we assume that the instruments put in place incentivise the replacement of three national programmes by one collaborative one, with the same total of units as the three separate programmes. These simple examples look only at one single source of scale economies: the distribution of R&D costs over a larger production scale.

Table 6 – Reduction of R&D costs per unit with increased production

	R&D cost (EUR mln)	Quantities	R&D cost per unit (EUR mln)	R&D cost per unit if production tripled (EUR mln)	Reduction of R&D cost per unit (EUR mln)
Fighting Land Vehicles	250	1000	0,25	0,08	-0,17
Fighting Sea Surface Platforms	2000	15	133,33	44,44	-88,89
Tactical Missiles	700	1000	0,70	0,23	-0,47

Estimates of economies of scale in the defence sector have also been presented Section 2.2.2. Building on the results of one of these studies (Dautremont (2006)), Heuninckx (2008) explains "***… that if two States procure collaboratively the same quantity of military equipment, the production cost per unit would fall by 9%. For three States, this reduction would be 14%***"[83]. The above shows that the magnitude of the gains that can be expected is very substantial, which will have a significant impact on the competitiveness of the EDTIB. It also shows that the there is a significant added value in trying to incentivise wider cooperation, going beyond a bilateral cooperation framework only.

[82] European Commission (2018), Annex 2.
[83] Heuninckx (2008), p.20.

As regards, the later stages of the lifecycle, McKinsey (2013) estimates the **potential savings arising from sharing maintenance depots and personnel for the top 12 platforms in the EU to be roughly EUR 500-600 million per year**. To provide a comparison, this amount is roughly comparable to the R&D costs of a tactical missile programme[84].

The increased efficiency is critical in enabling the EDTIB to address existing gaps. By providing unfettered access to a larger pool of potential suppliers, a more integrated EDEM also contributes to the resilience of the EDTIB.

The EDIP also introduces support measures that would increase resilience by preparing the EDTIB's capabilities to ramp up and adapt in crisis situations. By compensating for the resulting costs, the necessary reserve capacity and agility can be achieved without negatively affecting the cost performance of the EDTIB and thus preserving a net positive effect on its competitiveness.

Measures relating to SoS will also have a positive effect on the EDTIB's competitiveness. A SoS framework that brings the trust in EU suppliers and supply chains to levels comparable to national procurement would represent a key competitive advantage for the EDTIB and EU defence supply chains over their external competitors. Indeed, by providing a level of SoS that none of the latter could offer, EU defence supply chains could enjoy a 'trust premium' from Member States. Enhanced SoS would also enable more cross-border cooperation bringing further benefits by allowing easier access for competitive EU subcontractors and suppliers to the market and supply chains in other EU Member States. Furthermore, the implementation of the industrial readiness pools would also enable the EDTIB to respond more quickly to the needs of EU Member States, further reinforcing the competitive advantage.

Support for developing the DTIB of Ukraine and for integrating it into the EDTIB will also have important impacts.

Firstly, increasing the production capacities of Ukraine will reduce its dependence on aid from the EU and the US and will provide a strong contribution to the country's war effort.

Secondly, both the EDTIB and the Ukrainian DTIB have an interest to engage in a more in-depth cooperation, as demonstrated by the already ongoing private cooperation projects based for instance on licensing production in Ukraine[85]. Failing to create a strong relationship between the respective industrial bases may result in acause missed business opportunities in the short-term and lead to in economic and strategic dependencies in the medium to long-term. Ukraine is currently devoting more than 30% of its GDP to defence and a" *truly modernised Ukrainian defence industry would rank as one of the*

[84] Maulny, Mattely, Colomina & Bellouard (2018).
[85] For examples, see for example Andersson and Ditrych (2023) or Fiott (2024).

largest defence markets in Europe."[86] Missing the opportunity of an earlier integration within the EDTIB poses significant integration issues at later stages especially if the Ukrainian industry becomes dependant on third country technologies implying significant levels of control and restrictions by third countries[87]. Such concern is especially valid in light of Ukraine's ongoing accession path to the EU.

The issue of enhanced cooperation has been raised also during the consultation with Member States on EDIS, whereby notwithstanding the overall support, the importance of mutual benefits was clearly highlighted.

7.2 Impact on SMEs

SMEs constitute the backbone of the EDTIB, and as agile players, SMEs play an increasingly important role as providers of disruptive technologies and innovative solutions in the defence community. Therefore, EDIP pays particular attention to their specific needs, accommodate their specificities and facilitate their participation into projects it financially supports:

- In order to enhance access to finance for the EDTIB, the EDIP proposes to establish the FAST specifically targeting SMEs (including start-ups and scale-ups) and small mid-caps. This Fund[88] will aim to leverage, de-risk and speed-up investments needed to increase the defence manufacturing capacities of EU based SMEs and small mid-caps. It will enable SMEs and small mid-caps to benefit from better financing conditions and will mobilise additional funding from financial intermediaries through an important multiplier effect that could be expected to range from three[89] for equity instruments similar to the Defence Equity Facility that leverages funding from the EDF,[90] to more than 11 times for simpler debt operations where the multiplier effect of the Invest EU can serve as reference[91].

- The FAST will complement the Defence Equity Facility in providing a solution to the access to finance difficulties, which not only limit the capacity of companies already active in defence-related activities to access the funding necessary to sustain the investment effort, but also act as a significant barrier to entry for potential new entrants to the defence sector. The latter also face the combined challenge of increased costs necessary to function in the defence sector with the risk of seeing their access to finance limited, not only in relation to any new defence activities, but even possibly affecting their non-defence business. It may

[86] Fiott (2024).
[87] See for instance Greenwalt (2019) for an in-depth assessment of the way in which US International Traffic in Arms Regulations (ITAR) can lead to US control on the use of the defence equipment and systems controlled and of the way this represents a barrier to cross-border industrial cooperation.
[88] Article 19.
[89] i.e. for 1 EUR contributed from the EU budget, an total investment of 3 EUR would be made possible.
[90] Defence Equity Facility (europa.eu)
[91] Frequently asked questions about the InvestEU Fund - European Union (europa.eu)

affect the ability of the defence sector to leverage civilian innovations and increases exposure to foreign capital. *"The European defence industry may struggle to meet the growing demand for defence capabilities while coming under pressure from increased imports to meet security needs.*"[92]

- The EDIP also entails a specific award criterion focusing on the projects involving SMEs, small mid-caps and other mid-caps, which encourage applicants to the EDIP financial support to include SMEs as recipients, as subcontractors or as other undertakings in the supply chain[93]. Moreover, the EDIP provides for enhanced co-financing rates for projects where "*the beneficiary is an SME or small mid-cap or the majority of beneficiaries participating in a consortium are SMEs or small mid-caps*"[94].

- Finally, the EDIP pays particular attention to adopt a proportionate approach towards SMEs when it comes to the measures of the Security of Supply regime. Indeed, it imposes that "*the Commission shall pay particular attention to SMEs to minimise administrative burden resulting from the information collection*"[95] and that the use of the supply-crisis emergency measures *"shall avoid placing disproportionate administrative burden in particular on SMEs*".

7.3 Wider economic and social impacts

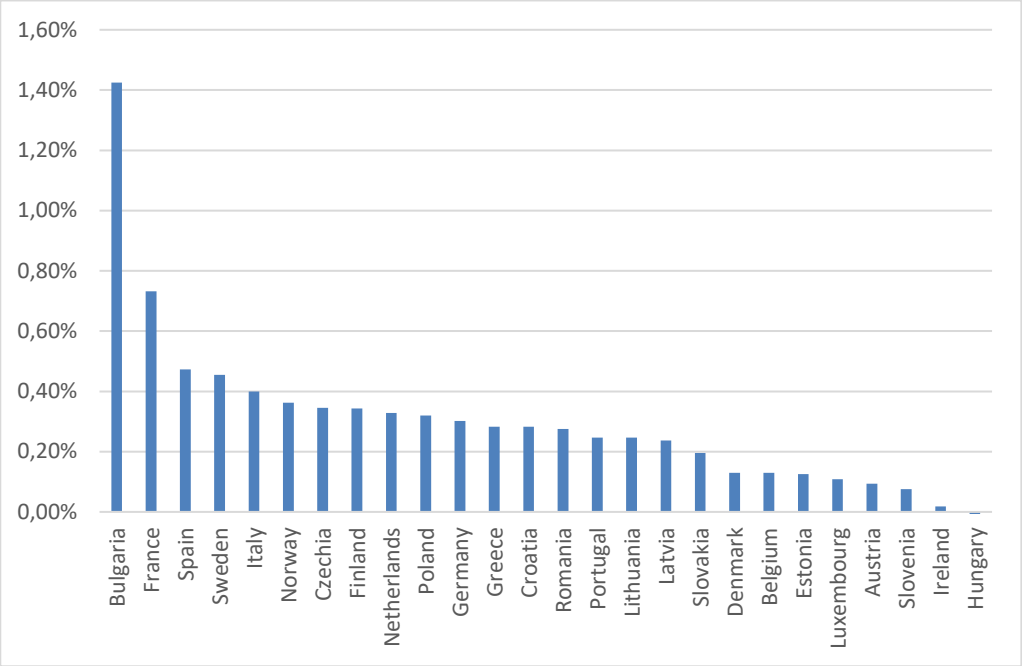
As already mentioned in the introduction to Section 7, official harmonised business statistics on the turnover and employment of the EDTIB are not available, in particular because the NACE code nomenclature used to classify economic activities does not allow to distinguish civil from defence-related activities within many categories[96]. Estimates relying on demand side data have however been developed by the SIPRI. The EDTIB's estimated annual turnover for 2021 was of the order of EUR 70 billion and it was estimated that some 500,000 people across the EU were employed in the sector[97].

While the EDTIB is not a comparatively large sector, it does nevertheless play a significant economic role in the economy of most EU Member States. In absolute value terms, the defence industry turnover and employment are naturally concentrated in the larger EU Member States. The ratio of the estimated defence industry turnover to GDP (Figure 11 below) however provides a better indication of the economic importance of the sector in the economy of each Member State.

---

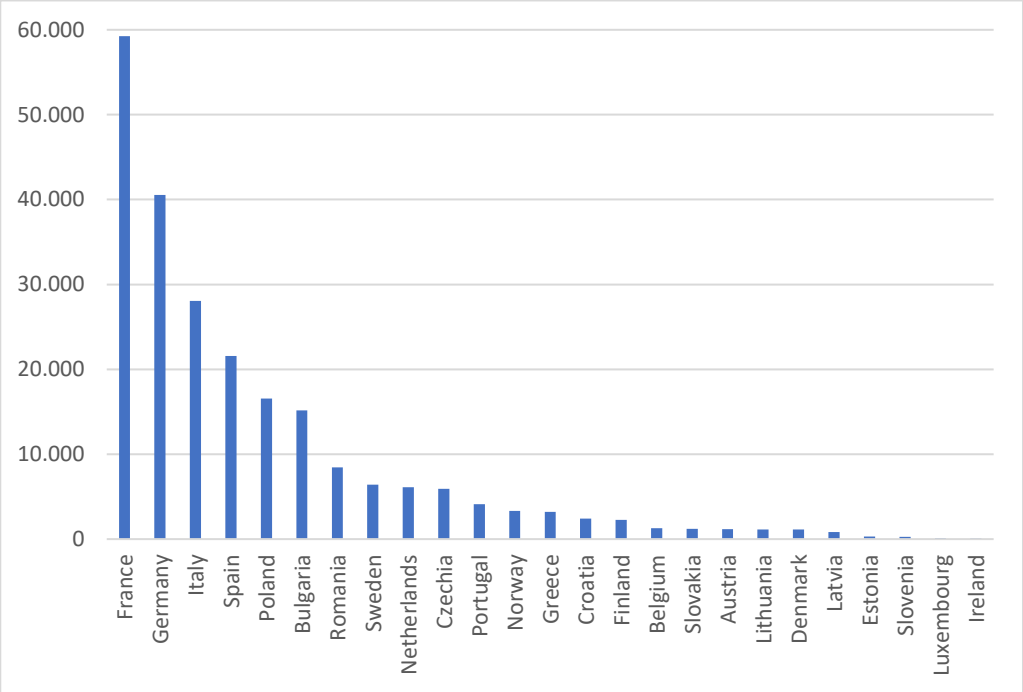
[92] Delponte, Giffoni, Bovagnet, Picarella, Tanghe, Caccavallo, Thiele (2024), p. 12.
[93] Article 16§1 (c)
[94] Article 17§2 (d)
[95] Article 41§2
[96] In the future, a partial improvement may be expected through the separation of defence and civil activities in categories concerning in particular aviation and shipbuilding. However, such data is not yet available and will in any case only partially improve the situation with business data availability as many other segments would remain undistinguishable within lager categories mixing civil and defence activities.
[97] Data source: SIPRI estimates for the European Commission.

Figure 11 - Estimated turnover of the EU defence industry in percentage of GDP (SIPRI)



The defence sector produces high value added and technologically sophisticated products and employs highly qualified personnel. It also often plays an important role in terms of regional development.

Figure 12 - Estimated Defence Direct Employment in the EU Defence Industry (SIPRI)



The support provided through the EDIP will exert a positive effect on employment. Considering that the key effects pursued by the EDIP include the increase in the production capacity of the EDTIB, the increase in the demand adressed to the industry, the improved access to funding for SMEs and small mid-caps operating in the supply chains, a substantial net job creation in the EDTIB can be expected.

The absence of historic data on comparable support instruments (ASAP and EDIRPA implementation is not sufficiently advanced to provide useful indications on job creation) prevents a precise estimation of the job creation resulting from the EDIP. More general studies however can nevertheless provide some tentative indications: one study for instance estimated that each EUR 1 million invested in the EU defence sector can generate 28.7 jobs [98]. Positive impacts are also expected to flow beyond the EDTIB: a study on the impact of investments in the UK defence industry noted that for each job created within the defence industry, 1.6 jobs are created elsewhere in the economy[99]. Even though these figures cannot be used to infer reliable estimates in relation to the effect of the EDIP as such, it is possible to nevetheless deduce that the positive effects on employment would be significant, including in small and medium size EU Member States that possess a significant defence industrial sector.

[98] Europe Economics (2013).
[99] Oxford Economics (2011).

7.4 Impact on Fundamental rights

Enhancing the security of EU citizens contributes to safeguarding their fundamental rights. Also, actions related to defence common procurement of goods or services, which are prohibited by applicable international law, shall not be eligible for support from the Programme.

Moreover, actions with a view to the common procurement of lethal autonomous weapons without the possibility for meaningful human control over selection and engagement decisions when carrying out strikes against humans shall not be eligible for support from the EDIP.

In addition, Article 16 of the Charter of Fundamental Rights of the European Union ('the Charter') provides for the freedom to conduct a business. Nevertheless, some measures under pillar 2 needed to ensure the SoS of defence equipment in the Union may temporarily limit the freedom to conduct a business and the freedom of contract, protected by Article 16 and the right to property, protected by Article 17 of the Charter. Any limitation of those rights in this proposal will, in accordance with Article 52(1) of the Charter, be provided for by law, respect the essence of those rights and freedoms, and comply with the principle of proportionality.

- First EDIP entails provisions on requests for information and prioritization mechanisms (priority rated orders and priority rated requests) which are strictly conditional on the activation of the most appropriate crisis mode through the adoption of a Council implementing act when it comes to a supply crisis mode and when it comes to a security-related supply crisis mode.

- Second, the obligation to disclose specific information to the Commission, provided that certain conditions are met, respects the essence of and will not disproportionately affect the freedom to conduct a business (Article 16 of the Charter). Any information request serves the objective of general interest of the Union and is appropriate and effective to assess the crisis at hand. Since information on the supply situation is not available otherwise, there is not any equally effective measure to attain the information necessary to enable European decision-makers to take mitigation action. In light of the serious security consequences of defence products shortages, information requests are proportionate to the desired aim. Furthermore, the limitation to the freedom to conduct a business and the right to property are offset by appropriate safeguards. Any request for information may only be launched for crisis-relevant defence products, raw materials or components thereof, that are specifically identified by the Commission through an implementing act, and that are affected by disruptions or potential disruptions leading to significant shortages.

- Third, the obligation to accept and prioritise priority rated orders respects the essence of and will not disproportionately affect the freedom to conduct a

business and the freedom of contract (Article 16 of the Charter) and the right to property (Article 17 of the Charter). This obligation serves the objective of general interest of the Union. The obligation is appropriate and effective to address crisis-relevant products supply disruptions. There is no equally effective measure. It is proportionate to oblige undertakings which are involved in the supply chain of the latter to accept and prioritise certain orders. Appropriate safeguards ensure that any negative impact of the prioritisation obligation on the freedom to conduct a business, the freedom of contract and the right to property does not amount to a violation of these rights. Any obligation to prioritise certain orders may only be launched for crisis-relevant products that are specifically identified, by the Commission and through an implementing act, and that are affected by disruptions or potential disruptions leading to significant shortages.

7.5 Impact on the environment

The environmental impacts of the production of defence equipment in the EU are regulated, inter alia, by the Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)[100], which protects human health and the environment from the risks that can be posed by chemicals. The EDTIB has to comply within the existing framework of European and national regulatory constraints to minimise the environmental impact of its activities. The measures proposed in the preferred option, especially those related to the strengthening of the European production capacities, do not affect this situation. Actions supported under the preferred option would remain subject to the existing legislation aiming at limiting the environmental impact of industrial activities in the Union. It should be noted that the possible environmental impact of the deployment of European Defence Projects of Common Interest and the planning, construction and operation of related production facilities are also strictly limited to the project's compliance with the Article 6(4) and Article 16(1), point (c), of Directive 92/43/EEC[101] which aims to protect biodiversity and related habitats, and of Article 4(7) of Directive 2000/60[102] on water protection.

Moreover, the financial support provided under the preferred option can lead to the modernisation and optimisation of the EDTIB's production capacities or the creation of new production facilities using greener technologies which in turn can potentially help the sector in saving energy and reducing the deployment of resources.

[100] Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.

[101] Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora, OJ L 206, 22.7.1992, p. 7–50

[102] Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy, OJ L 327, 22.12.2000, p. 1–73

Finally, by supporting and facilitating procurement of defence equipment developed and produced by the EDTIB, the preferred option also contributes to encourage procurement from an industry subject to stricter control and environmentally friendly measures during its manufacturing processes, preventing environmental impacts compared to other world regions where defence equipment is manufactured without the need to adhere to such controls.

7.6 Impact on digitalisation

As part of its objective to strengthen the competitiveness of the EDTIB, the EDIP will for instance support "the optimisation, expansion, modernisation, upgrading or repurposing of existing, or the establishment of new, production capacities"[103] or "the training, reskilling or upskilling of personnel in relation to"[104] the EDIP activities (including for instance modernisation of production capacities). Hence the support to such activities is expected to induce positive effect on the digitalisation of the defence sector in the EU.

The EDIP also seeks to exploit synergies with other EU programmes contributing to enhance the mastering of digital skills in the Union such as the ESF+ or the ERDF, for instance through the possible use of the seal of excellence[105].

The EDIP also envisages the possibility of supporting the "the procurement of (…) cyber protection systems in relation to the activities"[106] such as for instance the establishment of new production capacities. This could in turn contribute to reinforce the ability of the European defence sector to tackle cyber threats.

Finally, the financial support to actions "fostering industrialisation and commercialisation of defence products that have been developed in the framework of actions funded by the Union"[107], in particular the EDF results, may eventually lead to facilitate the market uptake of modern and state of the art type of equipment which would better exploit digital technologies and would be more resilient to cyber threats.

7.7 Costs and benefits

Affected actors

The measures proposed by the EDIP will primarily affect the actors in the EDTIB, including in the supply chains, and the Member States. Some specific measures foreseen in response to supply crisis or security-related supply crisis under Sections 3 and 4 of Chapter IV of the draft EDIP Regulation may also have an impact on undertakings operating in other sectors that are providing inputs to the EDTIB or which may be in competition with the EDTIB for the purchases of inputs. The only customers of the

[103] Article 11§3(a)
[104] Article 11§5(c)
[105] Article 7
[106] Article 11§5(c)
[107] Article 11(3)(e)

defence industry being State actors, the measures are not expected to have any direct impact on consumers.

Costs and benefits

Some of the measures contained in the EDIP proposal can result in an additional burden for industry and/or the administration of EU Member States. While, in view of the overall constraints explained in the introduction to this section, it is not possible to quantify precisely those effects, **most of the measures proposed in the EDIP rely on an incentives-based approach** to influence the actors' behaviour rather than on a normative approach that would have created mandatory obligations for them. As a result, the **balance of the expected costs and benefits will be positive at the level of the affected actors as otherwise they would not undertake the actions for which incentives (financial or non-financial) are provided**. This is particularly valid for the **measures included in the programme of the EDIP such as the extension of the EDIRPA and ASAP instruments, EDPCI and FAST.**

Regarding support to joint defence procurement and cooperation, it can be noted that the cooperative approach can involve additional coordination and other transaction costs for participating Member States and the industrial players involved, notably in the initial phases of setting up the collaborative project. It is however widely recognised that the division of fixed costs amongst several participants and the efficiency gains resulting from the cooperative approach generally outweigh the additional costs of cooperation[108]. In addition, the **extension of the EDIRPA approach under the Programme (of the EDIP) and the introduction of the SEAP** both aim at reducing the additional costs and complexity that could result from adopting a cooperative approach: the former provides direct financial support from the EU budget to offset this burden, while the latter aims at making available a dedicated legal framework that would make cooperation easier and less costly. These measures thus aim at incentivising voluntary cooperation by reducing and/or offsetting the resulting transaction costs and complexity and not at imposing the cooperation. The use of the instruments introduced would be voluntary and would thus

[108] See for instance Hartley & Martin (1993). A report from the French Court of Auditors also underlines the importance of sharing development cost though collaborative programmes (Cour des Comptes 2018). Comparing collaborative and national defence programmes also does not provide clear evidence of a supposed efficiency disadvantage of the former, the latter being also frequently affected by important cost overruns and delays. Hartley (2008) shows that the Eurofighter Typhoon's cost and time escalation is not abnormal in comparison with other contemporary national defence projects. Hartley also notes that industrial duplications in the project were limited to the final assembly line which represented only 5% of production costs. Hartley (2018) looks at a limited sample of projects and notes that it shows "national projects with higher cost increases compared with collaborative projects and similar delays". Heuninckx (2008) also confirms that once collaborative defence procurement has been launched the cost overruns and delays of collaborative projects and similar national projects appear comparable. Finally, in a recent paper Ford (2022) concludes that "*The analysis has identified a number of flaws with the assertion found in the defence economic literature that cooperation is inefficient. All credible analysis, including that by cooperation's detractors, indicates that cooperation provides significant cost avoidance … administrators and policy makers should recognise that international co-development will generate considerable cost avoidance for nations. As a means of optimising the allocation of resources it is unlikely to be bettered.*"

occur only when the expected benefits outweigh the costs. In addition, for the Member States lacking the sufficient experience and/or administrative capacity, support for the necessary reforms and building of administrative capacity can be made available at EU level. As announced in the EDIS, as part of the EU Military Sales Mechanism, Member States can also request support under existing EU instruments, such as the Technical Support Instrument (TSI), for administrative capacity building, as well as for the implementation of relevant reforms to facilitate joint defence procurement. This could also lead to further reducing the additional costs of cooperation as explained above.

The different components of the **EU Military Sales Mechanism** also rely on a voluntary approach. Therefore, it can be assumed that use of the mechanism by Member States would imply that benefits outweigh the costs, including through improved speed and efficiency, and reduced costs associated with procurement. Creating a single, centralised, up to date catalogue of defence products developed by the EDTIB can impose and frontload a limited burden on the participating industry actors, necessary to provide and maintain the necessary up-to-date information on defence products it produces and available to procure. The catalogue, which aims also to drive behavioural change, would be fed on a voluntary basis and it is expected that associated additional costs would be more than offset by the prospects of having additional visibility and generating greater sales volumes as a result of the participation in the catalogue. The existence of the catalogue is also expected to have a significant burden reduction effect for the administrations of the EU Member States, which should be able to obtain comprehensive and centralised information from the catalogue, when the alternative would be to perform market research at their own costs.

The introduction of the 'Industrial Solidarity Clause', that enables Member States to open their existing defence framework contracts/agreements to other Member States, will also result in a significant reduction in the administrative burden, costs and time delays, in view of the fact that the alternative would involve the launching of a completely new procurement procedure. The cost-benefit associated with these measures would also be clearly positive for the Member States. In addition, the imposition of strict conditions aiming at protecting the legitimate interests of industrial actors, other than the one with whom the original contract has been concluded, ensure that no significant negative effects would arise for those industrial actors either.

Finally, some of the **measures foreseen under Sections 3 and 4 of Chapter IV of the draft EDIP Regulation, in response to supply crisis or security-related supply crisis**, **may involve some direct or indirect impact on industry and/or on the Member States**. These proposed measures would be however limited to crisis situations and are accompanied by assessment obligations and activation mechanisms that would **ensure a strict observance of the principle of proportionality**. The activation of the crisis-related measures would be based on a mechanism requiring an in-depth assessment by the Commission, the activation of the relevant crisis stage by the Council of the European Union and the definition, in the latter's decision, of the type of measures that would be activated. The Commission's assessment has to take into account the negative

and positive effect and the consequences of the crisis, which ensures a proportionate response.

Regarding more specifically Priority Rated Orders (PRO), they have to be placed at a fair and reasonable price reflecting the opportunity costs of the economic operator. The costs incurred by the later would also be significantly reduced by the waiver of contractual liability proposed under the PRO. Similarly, for information gathering, the draft EDIP Regulation requires that the information requested would be strictly limited to what may be necessary to assess the nature of the crisis and identify and assess potential mitigation measures. The costs tha t such instruments may imply for the economic operators concerned would thus be limited to the minimum and offset by the overall benefits stemming from the resulting capacity to effectively mitigate or address the supply crisis situation and to ultimately improve the security of the EU and its Member States in times of crisis.

7.8 Budgetary implications

For actions reinforcing the EDTIB, the EDIP Regulation proposal foresees a financial envelope of EUR 1.5 billion for the implementation of the Regulation for the period until the end of 2027. While this amount remains limited in the context of the challenges we face and in view of the constraints on the funds available under the current MFF, it would enable to ensure a continuity in the support to the EDTIB by bridging the gap between the emergency ASAP and EDIRPA measures and a possible programme under the next MFF.

Member States, European Union institutions, bodies and agencies, third countries, international organisations, international financial institutions or other third parties, will also be free to provide additional financial contributions to the Programme and to the USI representing external assigned revenue.

In addition, actions reinforcing the Ukrainian DTIB would be funded by external assigned revenue arising from the unexpected and extraordinary revenues from Russia's immobilised sovereign assets. For this purpose the Commission will conclude a framework agreement with Ukraine for the implementation of the actions which concern Ukraine or legal entities established in Ukraine receiving Union funds.

On the 21 May 2024 the Council adopted a set of legal acts concerning the net profits stemming from unexpected and extraordinary revenues accruing to Central Securities Depositories (CSDs) in the EU, as a result of the implementation of the EU restrictive measures. These will be used for further military support to Ukraine and for supporting its defence industry capacities and reconstruction[109]. The key to distribution, which will be reviewed annually, foresees that 90% of the amounts will be used for military support

[109] Extraordinary revenues generated by immobilised Russian assets: Council greenlights the use of net windfall profits to support Ukraine's self-defence and reconstruction - Consilium (europa.eu)

to Ukraine through the European Peace Facility and 10% for support to Ukraine's defence industry capacities and reconstruction needs with EU programmes.

Finally, it is worth noting that the draft EDIP Regulation does not provide for a specific distribution of the budget between the different measures comprised in the EDIP. This preserves the flexibility necessary in order to be able to react to possible evolutions in the geopolitical situation and to the needs of EU Member States. It allows to target the EU support where it is most needed. The Commission will define the funding priorities and conditions through one or several work programmes in coordination and with the agreement of the Member States represented in the EDIP Programme Committee. The definition of priorities should also be supported by the work of the Defence Industrial Readiness Board.

7.9 REFIT (simplification and improved efficiency) and application of the 'one in, one out' approach

EDIP is not expected to increase the administrative burden. The proposed performance-based approach available for its eligible actions, relying on the conditionality between the disbursement of payments and the achievement of milestones and targets by the consortium, is for instance an element of simplification in the implementation of this Regulation.

The reduction of the number of award criteria of the EDIP financial support should also constitute another element of simplification in the implementation of this Regulation. Indeed, although it replicates similar financial support logic, compared to the 6 award criteria of ASAP and the 10 award criteria of EDIRPA, EDIP only entails 4 award criteria, with the aim of simplifying the application and evaluation process. This choice is a direct consequence of the lessons learned from the implementation of ASAP and EDIRPA.

The ASAP and EDIRPA Regulations will end in 2025. The EDIP Regulation is expected to be adopted in 2025 notably to allow for the continuation and extension in time and scope of the action performed in the context of ASAP and EDIRPA Regulations.

8 HOW WILL ACTUAL IMPACTS BE MONITORED AND EVALUATED?

The proposed monitoring and evaluation activities should, first, be based on the data which are already collected and published by various organisations active in the European defence sector. Generally, the key data used in this this SWD should continue to be collected and should serve as a benchmark for the future ex-post evaluation.

The Commission will also ensure that the necessary indicators used for the monitoring of programme implementation will be put in place by the entity entrusted with the programme implementation. These will include:

- increase of production capacity for defence products within the EU;

- reduction of production lead-times;
- number of economic operators receiving a facilitated access to finance;
- number of Member States participating in cooperation in common procurement;
- number of new cross-border cooperations with undertakings established in another Member State or associated country;
- increase in support to Ukraine.

The above indicators capture notably some of the expected results of the implemntation of the EDIP. The first three indicators aim to capture the effect of the EDIP in relation to Problem A (cf. Figure 1) "Limited production capacity, including constrained capacity to support Ukraine (industry tailored for peace time)" by measuring the additionnal production capacity and the reduction in lead times achieved with the support of the EDIP. The third indicator will measure the number of economic actors receiving facilited loans or equity investments through the FAST, which will provide a ueful indication of the reach of the Fund.

The fourth and fifth indicators indicators aim at capturing results in reponse to Problem B "Limited exploitation of the true potential of the European Defence Market and Technological and Industrial Base". The first five indicators are all related to the progress in respect of the specific objective to "Strenghten the competitiveness and responsiveness of the EDTIB". The last indicator is related to the Specific objective of "Contributing to the recovery, reconstruction and modernisation of the Ukrainian DTIB".

It is expected that the Commission will be capable of collecting the necessary information above directly in the implementation of the measures or by requesting information from the beneficiaries. For the indicator concerning facilitated access to finance, the necessary reporting requirements would be imposed to the implementing partner that would be selected for the implementation of FAST.

While preliminary data on some of the indicators above may be available as from the moment of the conclusion of the corresponding grant agreements, taking into consideration the short period of implementation and the need to limit the administrative burden it may be proportionnate to collect data once in view of the final evaluation of the Programme, which will take the form of a retrospective evaluation after the end of the programme implementation. The Commission will draw up the evaluation report not later than 30/06/2027 and submit it to the European Parliament and to the Council. The report shall evaluate the impact and effectiveness of the actions under the Programme.

Exceptionnal measures, that can be activated in case of crisis, can only be subject to evaluation with regard to their direct effects in cases they are effectively activated and used.

In a medium and long term perspective, the impacts of the EDIP should be reflected in the assesment of key indicators used in this SWD and reflecting the situation of the EDTIB and the EDEM. These include for instance the share of collaborative defence

equipment procurement, the ratio of intra-EU defence transfers to defence equipment procurement spending and an assesment of the degree to which the EU Member States rely on the EDTIB for their defence procurement; these elements are specifically mentioned also in the European Defence Industrial Strategy as targets to assess progress in the implementation of the Strategy, of which the EDIP is an integral part.

The collection of some of the above information could involve an additional burden for firms or Member States; the detailed requirements may therefore need to be investigated in more detail to ensure that the costs are not excessive.

Additionally, sources and methods such as targeted surveys and interviews with stakeholders could be used in the future to analyse the extent to which the proposed legislation has met its objectives.

ANNEX 1: PROCEDURAL INFORMATION AND METHODOLOGICAL APPROACH

Lead DG: The Directorates-General for Defence Industry and Space (DEFIS) is the DG responsible for the preparation of this initiative.

Decide reference: PLAN/2024/1411. Inter service consultation held from 19 June 2024 to 21 June 2024 and involved SG, SJ, DG COMM, DG BUDG, DG ECFIN, DG GROW, DG COMP, DG FISMA, DG REGIO, DG TAXUD, DG TRADE, DG NEAR, FPI, EEAS.

CWP reference: this initiative is linked to action 11 "A Stronger Europe in the World: European defence industrial strategy", in CWP 2024.

Work on this Staff Working Document (SWD) was initiated immediately after the adoption of the EDIP Regulation, it was completed entirely by Commission staff. The SWD has been carried out internally by the Commission services, using mainly open-source data and draws on previously completed studies without the assistance of external consultants. It referred to multiple external studies carried out by academia, public institutions, industry associations or consultancies specialised in the defence industry.

The SWD builds also on the information provided by key stakeholders during the three-months long consultation process undertaken by the Commission. Many of the proposals featured in the EDIP proposal were either informed or validated by stakeholders' views during that process.

The scope and ambition of the SWD was constrained by the short available time and by the constraints on data availability and reliability typical for the defence sector. For instance, standard business statistics on the EDTIB are not generally available because in many relevant NACE categories defence-related activities are not separated from civil activities. Comprehensive information and EU wide data on defence production capacities, production rates and lead times, composition and bottlenecks in the supply chains is not available in view of the high sensitivity and confidentiality of such information and of the limits in the existing knowledge on the EDTIB supply chains. When possible, without disclosing sensitive information, the SWD has relied on examples drawn from the work on ammunition undertaken since the beginning of Russia's war of aggression against Ukraine. As explained in the SWD, the voluntary mapping and information gathering performed has been for instance key for defining and targeting the ASAP work programme. However, the information necessary for that purpose is not generally available, which is also why the EDIP as such foresees specific provisions regarding the targeted mapping and monitoring of relevant specific segments of defence supply chains. In view of these constraints and of the short time available for the preparation of the SWD it is not possible to prepare a precise ex ante evaluation of the impacts of the proposed measures.

The difficulty is further exacerbated by the absence of sufficient past experience with the application of the type of measures proposed in the EDIP. The emergency instruments that preceded the EDIP proposal, ASAP and EDIRPA, are still in their early stages of implementation and accordingly no assessment of the results and impacts can be carried out at this stage. When possible, the SWD has nevertheless relied on some preliminary lessons learned from the implementation of the ASAP, which is the most advanced of the two. The possibility to undertake a detailed and precise ex ante assessment of economic, social and environment impacts however remains highly constrained.

ANNEX 2: STAKEHOLDER CONSULTATION (SYNOPSIS REPORT)

QUALITATIVE OVERVIEV

The stakeholder consultation aimed to collect qualitative and quantitative data and feedback on key issues that ought to be addressed in a European Defence Industrial Strategy (EDIS) and a European Defence Industrial Programme (EDIP). In this context Commission engaged with a wide range of stakeholders directly involved in the European Defence Technological Industrial Base (EDTIB). Input and comments were received from a significant number of those stakeholders representing EU Member States; national authorities, industry, think-thanks, and representatives of the financial sector.

In view of the division of competences enshrined in the Treaties Member States played a crucial role, offering information on national policies, the specificities associated with their respective industries, national priorities, and existing best practices. Input was also sought from the European Defence Industry companies and associations as they are pivotal in understanding the industry's needs and challenges. Feedback from think-tanks and the financial sector was also considered vital to comprehensively address the strategic objectives and financing-related challenges in relation to the European Defence Industrial Strategy.

CONSULTATION STRATEGY & CONSULTATION METHODS AND TOOLS

The Commission’s consultation strategy was based on structured dialogue with the stakeholders, informed by five Issue Papers prepared by the Commission, with together or with the support of the EEAS and EDA as appropriate. These papers served as a basis for discussions during a series of workshops. The workshops organised by the Commission, were targeted at four pre-identified groups: (1) Member States (five dedicated workshops held by Commission together with the European External Action Service in coordination with the European Defence Agency)(2) Defence Industry ((the Commission expert group on policies and programmes relevant to EU space, defence and aeronautics industry as well as national and EU defence industry associations). (3) Financial sector, (4) Think tanks and Academia. Other stakeholders were invited to submit their written contributions based on the publicly available issue papers. Commission also invited written submissions from other intereseted parties via a dedicated webpage.

The consultation period commenced on 27 October 2023 and closed on 29 December 2023. In addition to the structured consultation process, Commission met bi-laterally with those Member States who wished to avail of the oppotunity further discuss each of the thematic areas. More than half of the Member States availed of that opportunity.

The five issue papers prepared covered different areas which would be targeted by EDIS and EDIP:

- Issue paper 1: Overall consultation paper
- Issue paper 2: Investing better and together
- Issue paper 3: Adapting the Union's Defence Industry
- Issue paper 4: Enhancing our Security of Supply
- Issue paper 5: Mainstreaming defence industrial readiness

Commission services organised 5 dedicated workshops, discussing each of the issue papers were organised with the Member States, as well as two workshops with the Industry, one workshop with the Think-Thanks and one with the financial sector.

The written contributions of the Member States, guided by the Issue Papers, were provided in the form of answers to questions prepared by Commission services, helped analyse the respective Member States' positions more efficiently. Additionally. Member States were encouraged to provide their additional comments if they so wished (structured contributions). Furthermore, throughout the consultation process Member States and other stakeholders were invited to submit any position paper, non-papers and other contributions outlining their views on the proposed initiatives (non-structured contributions).

Figure 1 Number of contributions received by stakeholder group

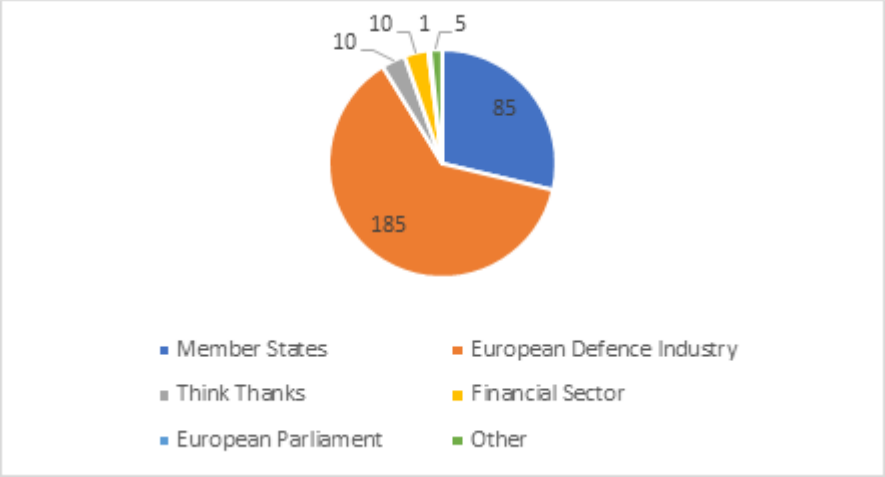


Figure 2 Number of contributions per issue paper (all contributors)

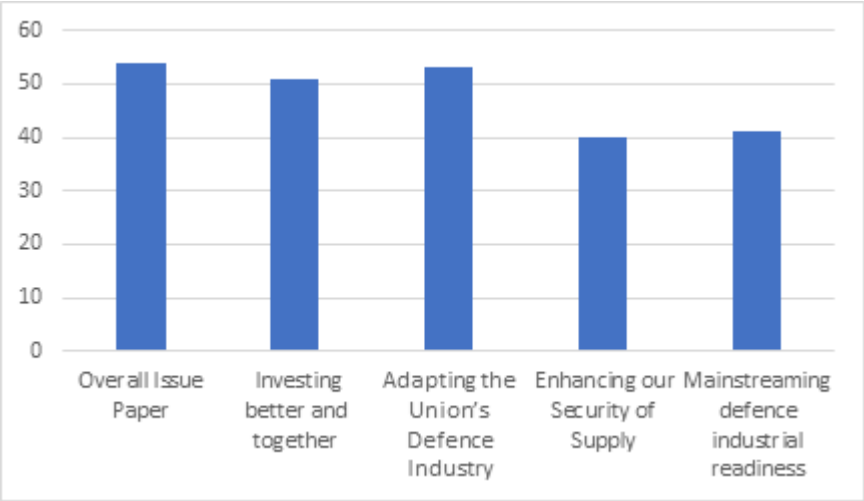
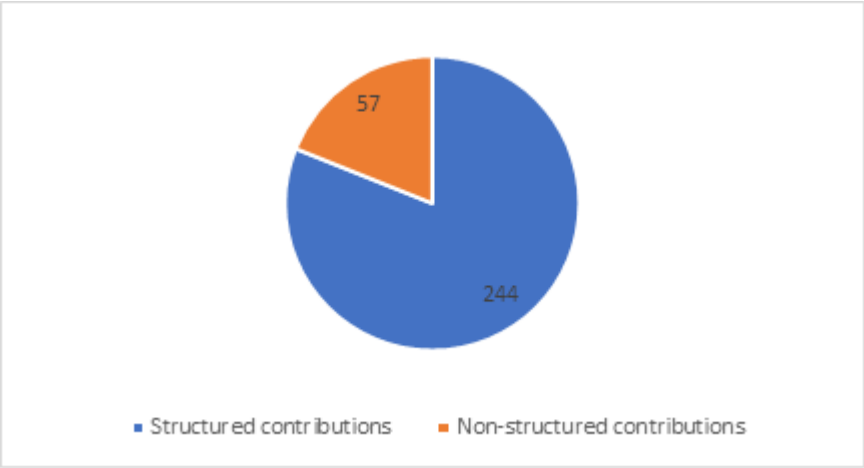


Figure 3 Number of written contributions received by type



All 27 Member States participated in the consultation process through the workshops and 21 Member states provided additional written contributions. 12 Member States provided 4 or more contributions with an average number of written replies per Member States over 4, showcasing a very strong participation in the consultation process despite the challenging deadlines for Member States contributions.

SUMMARY OF THE STRUCTURED CONSULTATIONS

Issue paper 1 – Overall Issue Paper

Member States expressed diverse views on the European Defence Technological and Industrial Base (EDTIB); some advocated for enhanced predictability and consolidation, while others were satisfied with its current state on the basis that the market was functioning effectively i.e.no market failure. There was a consensus on the need for common procurement, with several Member States suggesting EU financial incentives, regulatory simplification, and a greater role for the European Defence Agency (EDA) as a procurement agent. Most Member States supported EU-level defence spending, coordination with NATO, and expressed the need for high-quality collaborative projects, while also identifying European defence infrastructures and strategic enablers. The EU was encouraged to harmonise export and transfer legislation, improve defence industry financing, and establish a uniform security framework. Balancing production ramp-up with long-term security of supply was critical, as was investment in defence innovation and technology. Transparency in long-term procurement plans was deemed necessary to signal demand to EDTIB. Member States favoured a pragmatic approach to securing supply chains over a blanket strategy, with a call for the EU to stockpile critical materials and monitor the defence industrial base. Caution was urged in leveraging Ukrainian defence industry experiences, ensuring no technology or IPR leakage occurs. Member States agreed on the importance of the defence sector for EU resilience and support investment in EDTIB and skills, advocating for equal access to EU funding and regulatory simplification to address barriers posed by non-defence EU legislation.

There was broad consensus amongst the industry regarding the need for Member States to share coherent, coordinated arms purchase plans, with some advocating an EU-level instrument linked to CARD to help aggregate and align capability needs, advocating for regulation to push for common standards. Many suggested financial incentives for multi-year contracts and, while not unanimously, some propose a "Buy European for Ddefence Act." To enhance common procurement, an early 'European consultation phase' in national armament planning was recommended, along with a financial aspect to CARD that requires clear budget plans. There was a push for agreement on IPRs, improved synergy between PESCO and EDF, and expansion of ASAP and EDIRPA, with EDIP leading to industrialization of EDF projects. Opinions varied on setting a market share target for EDTIB by 2035.

The industry broadly agreed on the need for better collaboration between funding programs, an enhanced role for the EIB in defence investment, and consistent financial market initiatives to support EDTIB's access to finance. Skill shortages in the defence sector will require increased academia-industry collaboration. Excessive bureaucracy was seen as a barrier, with a call to support SMEs without disadvantaging larger companies. Significant concerns were raised over various EU legislative acts, such as the potential REACH revision (under discussion) and the Defence Procurement Directive, which are seen as impeding EDTIB's contribution to EU defence readiness. Some specific proposals included a target for EU Member States to spend at least 80% of defence budgets on equipment produced within the EU by 2035 and some expressed support for President Von der Leyen's proposal to reduce reporting burdens for companies in the EU by 25%, as stated in her State of the Union speech in October 2023.

Issue Paper 2 - Investing better and together

In discussions regarding the European Defence Industrial Strategy (EDIS), many Member States highlighted the need for existing defence collaboration mechanisms such as CDP, CARD, and PESCO to be utilised more efficiently. It was emphasised by some that new initiatives should maintain geographical balance, benefit all Member States, and include small and medium-sized enterprises (SMEs), while avoiding duplication with NATO, particularly regarding standards. Concerns were raised about the lack of transparency in procurement planning and the complexity of national procurement legislation, which can hinder defence product availability and common procurement efforts. The possible extension of EDIRPA beyond 2025 is viewed positively, but it was suggested that lessons should be learned from its implementation. Innovation was noted to be as crucial as the upgrading of defence equipment.

For the European Defence Innovation Programme (EDIP), proposals included focusing on post-European Defence Fund (EDF) productization for the next Multiannual Financial Framework (MFF), enhancing the exchange of best practices on national procurement processes, intra-EU government-to-government projects, and successful common procurement cooperation. Proposals also called for reducing the administrative burden for SMEs and exploring the potential of a 'one-stop-shop' for financial support or a lead nation concept to assist Member States with limited resources in procurement activities.

Some industry stakeholders expressed scepticism about the mapping of defence capabilities, particularly regarding information requests from the Commission due to sensitivity concerns. There was consensus on the potential for European defence projects of common interest, with the expectation that such projects should address strategic capabilities beyond the scope of individual member states and ensure geographical balance including SME participation. Companies favour support for cooperation throughout a product's life cycle, emphasising the need for long-term visibility, maintenance, training, and logistics to make projects more attractive. Transparency in Member States defence procurement and harmoniation of standards, particularly with NATO, are seen as necessary for interoperability. Simplified governance structures, such as a "lead nation-leading industrial prime" model, were suggested to mitigate the risks of Member States withdrawing from projects.

Again, there was broad agreement amongst industry regarding the procurement process. Many considered it to be overly complex, noted that it was hindered by slow decision-making, security requirements, and divergent national standards. Obstacles to cooperation include a lack of harmonisation in the implementation of the procurement directive, lengthy timelines, and varied challenge procedures for procurement decisions across Member States. Companies favour long-term framework contracts, demand aggregation, and support the concept of a "one-stop-shop" for more efficient procurement processes.

Issue paper 3 - Adapting the Union’s Defence Industry

Member States have acknowledged the pros and cons of fragmentation in defence industries, emphasising the importance of harmonising early-stage R&D to mitigate fragmentation risks. They have called for fixed industry orders and robust public-private partnerships to stabilise investment. Adaptable production and focus on disruptive technologies are also prioritised, alongside cautious support for EDF projects to avoid market distortion. While recognising the benefits of transatlantic ties and SME contributions to innovation, there's caution over Ukraine's participation in EU programmes. Extensions of defence programmes like EDIRPA and ASAP are welcomed, with a stress on learning from past experiences. Finally, there's an agreement on the need for the EDIP to be inclusive and beneficial to entities across all member states and the EU industry.

Many industry stakeholders emphasised the importance of prioritising procurement from the European Defence Technological and Industrial Base (EDTIB) to maintain competitiveness. They advocate for the use of common standards and greater transparency in their availability. Confirmed orders from Member States were seen as the most effective way to ramp up production, and while supporting 'ever warm' facilities was recommended for industrial readiness, it was noted by some that they were not feasible for all components due to rapid obsolescence. Skills development was considered crucial for maintaining industrial readiness. Industry expected significant budgets for EDIP, EDF (proposing EUR 25 billion for the next MFF), and ASAP, with the EDF linked to Member States procurement commitments and a strategic focus that aligns with various defence initiatives and NATO. There's also a call to extend financial support beyond R&D phases, stabilize the security of the information framework, and address the risk of losing a technological edge. Most companies view an extension of the scope of EDIRPA and ASAP positively. There was a consensus on EDIP's role in boosting production capacity, incentivising procurement from EDTIB, fostering common procurement, and acting as a precursor programme. Additionally, with European stocks running low and further aid to Ukraine likely to require new production, many companies suggested that the European Peace Facility (EPF) should offer preferential treatment to EDTIB.

Issue paper 4 - Enhancing our Security of Supply

Member States expressed divergent opinions on supply chain management and the Security of Supply (SoS) in the EU's defence sector. While some preferred minimal EU market intervention and highlighted that defence procurement remained a national prerogative, others supported initiatives such as the Defence Joint Procurement Task Force for information sharing and were open to supply chain mapping and maintaining 'warm' production capacities. Opinions on revising Directive 2009/81/EC varied, with some advocating for its full implementation or review and others deeming it sufficient. Suggestions to improve SoS included flexible procurement, stress testing, and strategic stockpiling, with a push for SoS criteria to be factored into European Defence Fund projects and procurement programs. Innovation and circularity in materials are considered important for resilience, but there's a concurrent call for simplicity to avoid

complicating tendering and management processes. Overall, there's support for cross-border SoS mechanisms and the current stance of Directive 2009/43/EC.

The industry expressed diverging views between resilience and emergency measures in their comments on defence sector strategies. Some called for strategic stockpiling, EU funding for critical raw materials, and minimum purchase requirements to keep facilities 'ever-warm', with others pointing to the Finnish model for inspiration and advocating for geographical diversification of production. For emergencies, they welcomed a comprehensive framework and advised against supply chain interventions, instead suggesting the EU promote member states' procurement from European sources. Regarding Directive 2009/81/EC, the industry was unanimously dissatisfied, considering the SoS provisions inadequate and complex, and had proposed revisions or the complete removal of these provisions, favoring the inclusion of SoS as a criterion in procurement evaluations.

The industry's responses were divided on the prioritisation of defence product orders, with some opposing the scheme proposed in ASAP and others supporting the need for prioritisation. The majority agreed that prioritising defence supply chain inputs was a step in the right direction, although there was scepticism about the feasibility of ASAP's proposed scheme.

The industry had emphasised the importance of considering security of supply from a 'lifecycle' perspective, including R&D. They had suggested that Member States could already include specific SoS requirements in EDF calls. A potential SoS assessment could be based on analyses from other relevant frameworks.

There were opportunities identified for a more thorough implementation of Directive 2009/43/EC, with the industry urging member states to fully implement provisions that facilitate intra-EU transfers of defence-related products. The industry had acknowledged that few member states had published rules facilitating such transfers and had called for greater oversight by DG DEFIS to ensure compliance, particularly among larger member states. The industry had proposed a revision of Directive 2009/43/EC to reduce administrative burdens, improve competitiveness, and update provisions for software and new technologies. They had suggested promoting greater harmonisation of national legislation and potentially revising the Directive to introduce more streamlined procedures for intra-EU defence product transfers.

Issue paper 5 - Mainstreaming defence industrial readiness

Member States concurred on promoting a security and resilience culture, highlighting defence's essential role in society and advocating for the engagement of various social sectors in preparation for crises. They called for consistent financing of defence programs and clearer communication on defence's societal and sustainability contributions to encourage positive financial market signals. Integration of defence into ESG considerations, financial guarantees, and efforts to mobilize private capital were

recommended, alongside learning from existing funds and easing regulatory barriers for SMEs. The need for a supportive environment through privileges, partnerships, innovation support, and ESG-aligned reporting and incentives was also echoed. A variety of financial instruments for the defence sector's access to finance were suggested without specifying a preferred option, and the importance of skills development was emphasized.

From the industry's perspective, there was an emphasis on the need for stable and predictable funding mechanisms to support long-term planning and investment in defence. The industry advocated for regulatory frameworks that enhance competitiveness and reduce administrative burdens, possibly including tax incentives or preferential treatment for defence-related research and development. They stressed the importance of public-private partnerships and the role of the defence industry in driving innovation and economic growth. Furthermore, the industry highlighted the challenges of aligning defence activities with ESG criteria and called for clear guidelines that consider the unique nature of the defence sector. Access to diverse financial products, including grants, loans, and equity investments, was seen as essential to support the range of companies within the industry, from SMEs to large corporations. Finally, the industry also underscored the critical need for investment in workforce development to ensure a skilled labour pool for the future of defence technology and production.

Many of those consulted from the financial sector emphasised the need for high-level communication campaigns to foster a positive public narrative about the defence industry, signaling to the market that defence is a sustained public policy priority. They advocated for simplifying the European defence market's structure, streamlining regulations and foreign investment rules, and facilitating export promotion through credit facilities and agency guarantees. Innovation funds and grants for Defence R&D were suggested to de-risk private investment, with calls for the European Investment Bank (EIB) and the European Investment Fund (EIF) to actively finance the defence sector, including issuing sovereign bonds similar to green bonds.

There were mixed opinions on integrating the defence sector with ESG criteria. Some in the financial sector highlighted the compatibility of ESG governance principles with defence, urging clearer messaging from the EU and member states and calling for the defence sector to align with sustainability goals and contribute to European sovereignty and resilience. Others cautioned against the risks of greenwashing and reputational issues, suggesting that defence activities do not align with the EU Taxonomy's climate goals.

The financial sector also expressed differing views between 'sustainability' in its ESG context and as a factor in investment decision-making, with some calling for clear exclusion of defence from harmful activities in any social taxonomy. Proposals included establishing frameworks to assess sustainability risks in the defence sector and clarifying due diligence requirements to prevent liability for equipment misuse. Training programs for financial institutions on evaluating sustainability risks and engagement with stakeholders were recommended. High-level communication from the EU is needed to

address greenwashing risks, and a code of conduct for the defence industry could improve transparency and investor confidence. SMEs were recognized as needing tailored initiatives for financing, with some institutions suggesting specific financial products such as export credits, equity financing, and venture capital to support the defence sector's diverse financial needs.

ANNEX 3: COMPETITIVENESS CHECK

1 OVERVIEW OF IMPACTS ON COMPETITIVENESS

Dimensions of Competitiveness	Impact of the initiative (++ / + / 0 / - / -- / n.a.)	References to sub-sections of the main report or annexes
Cost and price competitiveness	+	2.2.2. Limited exploitation of the true potential of the European Defence Market and Technological and Industrial Base; 7.1 Impact on competitiveness
International competitiveness	+	7.1 Impact on competitiveness
Capacity to innovate	+	n.a.
SME competitiveness	+	7.2 Impact on SMEs

2 SYNTHETIC ASSESSMENT

The magnitude of the impacts on competitiveness takes into account the limited duration and budget of the EDIP.

As explained in Section 7.1, the measures entailed in the EDIP Regulation proposal are expected to have a general positive impact on the competitiveness of the EDTIB.

On cost and price competitiveness, different measures will aim to facilitate and incentivise the exploitation of the potential of the EDEM, notably by ensuring that the EDTIB can better exploit economies of scales. By encouraging aggregated demand of Member States, the defence industry can benefit from economies of scale, leading to lower costs per unit. This reduction in cost can translate into lower prices for defence products, making them more competitive. Support for investments to enhance or optimise production capacities can also lead to more efficient manufacturing processes, reduction of waste and lower operational costs. These savings can be passed on to customers in the form of lower prices. Support to modernisation of production facilities should also increase production speed and reduce downtime, further enhancing cost-efficiency. Strengthening the security of supply in the Union will also make the EDTIB's supply chains more resilient to market fluctuations and disruptions, ensuring consistent competitiveness.

On international competitiveness, the elements mentioned on cost and price competitiveness should also support the international competitiveness of the EDTIB. In addition, the financial support to increase interoperability and interchangeability of defence products proposed by the EDTIB can make European defence products more attractive to international buyers by ensuring compatibility and interoperability. It is

however important to recall that the main objective is to improve the capacity of the EDTIB to respond to the needs of the armed forces of the EU Member States.

Regarding the capacity to innovate, it should be noted that the EDF remains the Commission's main programme to support collaborative defence R&D and Innovation. The effects of the EDF are not within the scope of the present SWD and therefore no dedicated assessment on innovation capacity is performed either, taking into account the key role of the EDF. However, the EDIP Regulation proposal's measures can also have a positive impact on the EDTIB's capacity to innovate, notably by creating the conditions of the demand aggregation for R&D projects, but also by ensuring the continuity of Member States cooperation beyond the R&D phase. Better visibility on demand will also allow companies to better prepare and respond by providing innovative solutions. The financial support provided for the commercialisation phase can also indirectly impact positively the capacity to innovate of the EDTIB. Finally, the overall positive effect on SMEs will also lead to a positive effect on innovation capacity in view of the particular role of this type of enterprises and of the increased capacity to attract new entrants in the defence sector.

Regarding SMEs competitiveness, on top of the elements described for the cost and price competitiveness, the EDIP Regulation proposal entails elements directly targeting the specificities and needs of SMEs (as described in Section 7.2). For instance, the creation of FAST as well as the incentivisation of SME participation in actions financially supported will have a positive effect on the overall competitiveness of SMEs. Improving access to finance through EU supported financial instruments is key for the competitiveness of SMEs active in defence-related activities. In addition, the increased aggregated demand at the European level can lead to more subcontracting opportunities for SMEs, helping them better integrate into cross-border supply chains and allowing them to expand.

ANNEX 4: WHO IS AFFECTED AND HOW?

The measures proposed by the EDIP will primarily affect the actors in the EDTIB and the Member States.

The former category includes notably companies of all sizes active in the EDTIB, including in the supply chains, but also possibly Research and Technology Organisations. Some specific measures foreseen in response to supply crisis or security-related supply crisis under Sections 3 and 4 of Chapter IV of the draft EDIP Regulation may also have an impact on undertakings operating in other sectors that are providing inputs to the EDTIB or which may be in competition with the EDTIB for the purchases of inputs.

The only customers of the defence industry being State actors, the measures are not expected to have any direct impact on consumers.

As explained in detail in Section 7.7 of this SWD, the majority of the measures foreseen in the EDIP rely on an incentives-based approach to influence the behaviour of the concerned actors and do not introduce mandatory obligations. The incentives-based approach can be based on the use of the EU budget as is for instance the case for the extended ASAP and EDIRPA logic measures. The cost-benefit balance of incentives-based measures is expected to be positive for the affected actors, which would otherwise not undertake the supported actions.

Some of the measures foreseen, such as the 'Industrial Solidarity Clause' part of the MSM or the SEAP, also explicitly aim at reducing the burden the administrative burden on Member States.

Finally, some of the measures foreseen under Sections 3 and 4 of Chapter IV of the EDIP Regulation proposal, in response to supply crisis or security-related supply crisis, may involve the imposition of mandatory obligations that will have a direct or indirect impact on industry and/or on the Member States. The use of these measures is however bound by strict conditions and procedures that aim at ensuring that the activation of any measure is carefully assessed by the Commission and validated by the Council so that the respect of the principle of proportionality is ensured.

For more details, please refer to Section 7.7 of the SWD.

ANNEX 5: BIBLIOGRAPHY

Alim, A. N., Nilsson, P. & Pfeifer, S., "European defence groups warn over reliance on Chinese cotton used in gunpowder", Financial Times, 8 April 2024.

Andersson, J. J., Ditrych, O., 'Made in Ukraine: How the EU can support Ukrainian defence production', EUISS Policy Brief, 2024. [Accessed at https://www.iss.europa.eu/sites/default/files/EUISSFiles/Brief_2024-5_Ukraine.pdf]

Bellais, R., 'Chapter 6: The Economic Imperative of Europeanizing Defense Innovation', N. Karampekios et al. (eds.), *The Emergence of EU Defense Research Policy*, Springer International Publishing AG, 2018, pp. 93-109.

Bellouard, P. & Fonfria, A., *'Prime Contractor/SME Relationship. How to Best Manage and Fund Cooperative Programmes'*, ARES Policy Paper, 2018.

Bondar, K., "Arsenal of Democracy: Integrating Ukraine Into the West's Defense Industrial Base", Carnegie, 4 December 2023. [Accessed at https://carnegieendowment.org/research/2023/12/arsenal-of-democracy-integrating-ukraine-into-the-wests-defense-industrial-base?lang=en]

Briani, V., 'Armaments duplication in Europe: A quantitative assessment', *CEPS Policy brief*, No. 297, Brussels, 16 July 2013b.

Cancian, M. F., Saxton, A., Helman, O., Bryan, L. A. & Morrison, N., "Industrial Mobilization: Assessing Surge Capabilities, Wartime Risk, and System Brittleness", CSIS, 2021.

Carrara, S., Bobba, S., Blagoeva, D., Alves Dias, P., Cavalli, A., Georgitzikis, K., Grohol, M., Itul, A., Kuzov, T., Latunussa, C., Lyons, L., Malano, G., Maury, T., Prior Arce, Á., Somers, J., Telsnig, T., Veeh, C., Wittmer, D., Black, C., Pennington, D., Christou, M., 'Supply chain analysis and material demand forecast in strategic technologies and sectors in the EU – A foresight study', Publications Office of the European Union, Luxembourg, 2023, doi:10.2760/386650, JRC132889

Cour des Comptes, *La Coopération Européenne En Matière D'armement - Un renforcement nécessaire, soumis à des conditions exigeantes*, 2018.

Council of the European Union, Outcome of Proceedings – A Strategic Compass for Security and Defence - For a European Union that protects its citizens, values and interests and contributes to international peace and security, 7371/22, Brussels, 21 March 2022.

Delponte, L., Giffoni, F., Bovagnet, A., Picarella, F., Tanghe, T., Caccavallo, G., Thiele, R., 'Access to Equity Financing for European Defence SMEs', Publications Office of the European Union, 2024. [Accessed at https://data.europa.eu/doi/10.2889/698738]

Dautremont, S., Prix d'économie de la défense: 'Econometrie des Contrats de Défense', Direction des Affaires Financières Observatoire Économique de la Défense, n°40, janvier 2006.

European Council, Conclusions of 19/20 December 2013, EUCO 217/13, Brussels, 2013. [Accessed at https://data.consilium.europa.eu/doc/document/ST-217-2013-INIT/en/pdf]

Europe Economics, *Study on the Competitiveness of European Small and Medium sized Enterprises (SMEs) in the Defence Sector*, London, 2009b.

Europe Economics, *The economic case for investing in Europe's defence industry*, London, 2013. *This work has received funding from the European Defence Agency. It reflects only the author's views.*

Europe Economics, *Defence SMEs and Defence Supply Chains - Final Report*, London 2018.

European Commission, 'Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions: European Defence Action Plan', COM(2016) 950 final, Brussels, 2016a.

European Commission, Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs Final Report: 'Evaluation of Directive 2009/43/EC on the Transfers of Defence-Related Products within the Community', 2016b.

European Commission, Directorate General Internal Market and Services: 'Directive 2009/81/EC on the award of contracts in the fields of defence and security: Guidance Note: Security of Supply', 2016c.

European Commission, Proposal for a Regulation of the European Parliament and of the Council on establishing the European Defence Industry Programme and a framework of measures to ensure the timely availability and supply of defence products ('EDIP'), COM(2024) 150 final, 2024.

European Commission, 'Report from the Commission to the European Parliament and the Council: Evaluation of Directive 2009/43/EC of the European Parliament and of the Council of 6 May 2009 simplifying terms and conditions of transfers of defence-related products within the Community', COM(2016) 760 final, 2016d.

European Commission, Staff Working Document: Evaluation of the Transfers Directive accompanying the document "Report from the Commission to the European Parliament

and the Council on the evaluation of Directive 2009/43/EC of the European Parliament and of the Council of 6 May 2009 simplifying terms and conditions of transfers of defence-related products within the Community", SWD(2016) 398 final/2, 2016e.

European Commission, Staff Working Document of the European Commission accompanying the document "Proposal for a Regulation of the European Parliament and of the Council establishing the European Defence Fund", SWD(2018) 345 final, 2018.

European Commission Advisory Group Report, 'European Commission Advisory expert group on cross-border access for SMEs to defence and security contracts: Final Report and Recommendations', Brussels, 2016.

European Commission Expert Group Report, 'Financial instruments in support of resilient and autonomous European defence sector', Brussels, 2018.

European Commission & High Representative of the Union for Foreign Affairs and Security Policy, Joint Communication to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions – A new European Defence Industrial Strategy: Achieving EU readiness through a responsive and resilient European Defence Industry, JOIN(2024) 10 final, 2024.

European Commission & High Representative of the Union for Foreign Affairs and Security Policy, Joint Communication to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions – On the Defence Investment Gaps Analysis and Way Forward, JOIN(2022) 24 final, 2022.

European Defence Agency, 'Defence data 2017-2018', Brussels, 2019. [Accessed at https://eda.europa.eu/publications-and-data/brochures/defence-data-2017-2018]

European Defence Agency, 'Defence data 2021-2022', Brussels, 2022. [Accessed at https://eda.europa.eu/publications-and-data/brochures/eda-defence-data-2020-2021]

European Defence Agency, 'Defence data 2022', Brussels, 2023. [Accessed at https://eda.europa.eu/publications-and-data/brochures/eda-defence-data-2022]

European Investment Bank, 'EIB eligibility, excluded activities and excluded sectors list', 2022. [Accessed at https://www.eib.org/en/publications/eib-eligibility-excluded-activities-and-excluded-sectors-list]

European Parliament, Directorate-General for External Relations, 'Study: Review of the Preparatory Action on Defence Research (PADR) and European Defence Industrial Development Programme (EDIDP): lessons for the implementation of the European Defence Fund (EDF)', Brussels, 2021.

European Parliamentary Research Service, 'Study: EU Defence Package: Defence Procurement and Intra-Community Transfers Directives – European Implementation Assessment', Brussels, 2020. [Accessed at https://www.europarl.europa.eu/RegData/etudes/STUD/2020/654171/EPRS_STU(2020)654171_EN.pdf]

Fiott, D., 'War Economy: Ukraine, the European Union and the Defence Technological and Industrial Base', CSDS Policy Brief, 2024. [Accessed at https://csds.vub.be/publication/war-economy-ukraine-the-european-union-and-the-defence-technological-and-industrial-base/]

Ford, R., 'The myth of cooperative inefficiency', DEFENSE&Industries n°16, juin 2022. [Accessed at https://www.frstrategie.org/publications/defense-et-industries/myth-cooperative-inefficiency-2022]

Girardi, B., Patrahau, I., Cisco, G. & Rademaker, M., "Strategic raw materials for defence: Mapping European industry needs", HCSS, 2023.

Greenwalt, W., 'Leveraging the National Technology Industrial Base to Address Great-Power Competition: The Imperative to Integrate Industrial Capabilities of Close Allies', Atlantic Council Report, 2019.

Grohol, M., Veeh, C., *Study on the critical raw materials for the EU 2023 – Final report*, Publications Office of the European Union, 2023.

Hartley, K., 'Defence industrial policy in a military alliance', *Journal of Peace Research*, Vol. 43, No. 4, Sage Publications, London, 2006, pp. 473-489.

Hartley, K., *The industrial and economic benefits of Eurofighter Typhoon*, University of York, York, 2008. [Accessed at http://www.defense-aerospace.com/dae/articles/reports/Typhoon_studyJune2006.pdf on 20 April 2018]

Hartley, K., 'Chapter 5 The Economics of European Defense Industrial Policy', N. Karampekios et al. (eds.), *The Emergence of EU Defense Research Policy*, Springer International Publishing AG, 2018, pp. 77-92.

Hartley, K., & Martin, S., 'Evaluating Collaborative Programmes', *Defence and peace economics*, 4(2), pp. 195-211, 1993.

Heuninckx, B., 'A Primer to Collaborative Defence Procurement in Europe: troubles, Achievements and Prospects', *Public Procurement Law review*, Vol. 17, Issue 3, Sweet & Maxwell, Nottingham, 2008, pp. 123-145.

Hove, K. & Lillekvelland, T., 'Investment cost escalation – An overview of the literature and revised estimates', *Defence and Peace Economics*, Vol. 27, No. 2, Taylor & Francis, London, 2016.

Ianakiev, G., 'Defence Offsets: Regulation and Impact on the Integration of the European Defence Equipment Market', *The Evolving Boundaries of Defence: An Assessment of Recent Shifts in Defence Activities*, ed. Renaud Bellais, Emerald, Bingley, 2014, pp. 251-270.

Ianakiev, G., 'The European Defence Fund: A Game Changer for European Defence Industrial Collaboration', ARES Policy Paper, Paris, 2019.

Ianakiev, G. & Mladenov, N., 'Offset Policies in Defence Procurement: Lessons for the European Defence market', *Défense nationale et sécurité collective – Les marchés publics de défense*, Comité d'études de défense nationale, Paris, 2008, pp. 185-194.

IHS, '*Analysis of defence-related SMEs'* composition in EU', 2017. *This work has received funding from the European Defence Agency. It reflects only the author's views.*

IHS, '*Support to the Implementation of the Supply Chain Action Plan'*, 2016. *This work has received funding from the European Defence Agency. It reflects only the author's views.*

Kirkpatrick, D. L. I., "The rising unit cost of defence equipment — The reasons and the results", Defence and Peace Economics, 6:4, 1995.

Kirkpatrick, D. L. I., "Trends in the costs of weapon systems and the consequences", Defence and Peace Economics, 15:3, 2004.

Masson, H., 'Comprendre le profil des principaux fournisseurs européens d'équipements de défense', *Défense & Industries*, No. 4, Fondation pour la recherche stratégique, Paris, June 2015.

Maulny, J-P., 'The Impact of the War in Ukraine on the European Defence Market', IRIS Policy Paper, 2023.

Maulny, J-P., Mattely, S., Colomina, P. and Bellouard, P., 'Magnitude of the Cost Structure of Defence Research and Development Programmes and Optimal EU Intervention to Incentivize Cooperation', *Institute for International and Strategic Affairs* (IRIS), 2018.

McKinsey, *The future of European defence: Tackling the productivity challenge*, McKinsey & Company, Brussels, 2013.

National Audit Office, *Maximising the benefits of defence equipment co-operation*, London, 2001.

Nordlund, P., 'Defence-specific inflation – The Swedish perspective', *Defence and Peace Economics*, Vol. 27, No. 2, Taylor & Francis, London, 2016.

Oudot, J., 'Stratégies et performances des entreprises de défense à l'international', *L'Observatoire Économique de la Défense*, ECOeDEF issue 90, March 2017.

Oxford Economics, *Economic case for investing in the UK defence industry: A report for ASD and the Defence Industries Council*, Oxford, 2011.

Pavel, C. C. & Tzimas, E., "Raw materials in the European defence industry", EUR 27542 EN; doi:10.2790/0444, Luxembourg, 2016.

Pugh, P., *Source book of defence equipment costs*, P. G. Pugh, Bedford, 2009.

Pugh, P., *The cost of seapower*, Conway Maritime Press, London, 1986.

Pugh, P., 'The procurement nexus', *Defence Economics*, Vol. 4, No. 2, Taylor & Francis, London, 1993.

Regulation (EU) 2023/1525 of the European Parliament and of the Council of 20 July 2023 on supporting ammunition production (ASAP), OJ L 185, 24.7.2023.

Regulation (EU) 2023/2418 of the European Parliament and of the Council of 18 October 2023 on establishing an instrument for the reinforcement of the European defence industry through common procurement (EDIRPA), OJ L, 2023/2418, 26.10.2023.