European Defence
Contents

Executive summary I-XII

Introduction 01-08
Background 01-03
This review 04-08

1. Defence: the key role of the Member States 09-73
1.1 Defence: a unique domain in the EU legal and institutional framework 09-36
Specific defence provisions in the Treaties 09-19
Key stakeholders and governance arrangements 20-27
CSDP operations and missions 28
Defence cooperation in Europe and beyond 29-36
1.2 Recent developments at EU level: a new level of ambition 37-54
The EU Global Strategy and the European Defence Action Plan 37-40
Defence spending in the EU 41-54
1.3 Risks associated with the EU’s new defence ambition 55-73
An ambition for EU defence policy 56-68
Coherence with NATO 69-73

2. EU Member States’ defence capabilities and industries: a global position challenged 74-141
2.1 Strengths and weaknesses of Member States’ capabilities 75-91
Measuring military capabilities 75-78
Quantitative indicators 79-81
Qualitative analysis 82-88
The impact of Brexit 89-91
2.2 Key features of the European defence industry 92-113
The defence sector 92-94
Key trends 95-97
The European defence industrial landscape 98-100
The demand side: the Member States 101-106
The supply side: industry 107-113
2.3 Enhancing cooperation at EU level 114-127
Capability Development Plan 115-116
CARD 117-119
PESCO 120-123
The European Defence Fund 124-127
2.4 Performance risks associated with EU defence programmes 128-141
An effective EU planning process 129-132
The Member States’ participation 133-135
The impact on real capability needs 136-137
The governance and accountability framework 138-141

Concluding remarks 142-144

Annex I — Timeline
Annex II — The European defence institutional framework: a complex and multi-player domain
Annex III — Capability priorities identified in key EU documents, 2013-2019
Annex IV — Key features of EU defence industry subsectors (Aerospace, Land, Naval) 1/2
Annex IV — Key features of EU defence industry subsectors (Aerospace, Land, Naval) 2/2
Annex V — SWOT analysis – EDTIB
Annex VI — Main audit arrangements in the field of EU Defence

Acronyms and abbreviations
Executive summary

I Defence is a specific domain, at the heart of Member States’ national sovereignty. For the majority of EU Member States, European defence mainly consists of two important layers: Member States’ own self-defence capability and the collective defence offered by NATO. The Treaty on EU highlights the Common Security and Defence Policy (CSDP)’s unique nature, enshrining the Member States’ leading role and containing several limitations on the EU’s action in this area.

II Until recently, there had been limited action in the area of defence at EU level and a European Defence Union does not exist. However, in response to a challenging new global environment, the EU has launched new initiatives to enhance cooperation between Member States. For 2021-2027, the Commission has proposed to increase spending on R&D projects related to defence from €590 million to €13 billion. This represents a 22-fold increase compared to the present seven-year cycle.

III This has placed defence clearly on the ECA’s radar, as such a significant and rapid increase in funding entails performance risks. Defence involves creating real military capabilities, with a clear potential to deter possible threats and implies readiness to act when required.

IV The ECA has therefore prepared this review, which is an analytical review based on publicly available information. It specifically focuses on (i) the legal, institutional and financial framework in the area of defence and (ii) the state of play as regards Member States’ defence capabilities and industries. It aims to highlight some of the main risks associated with the EU’s new level of ambition and the proposed increase in funding.

V The EU defence-related initiatives represent attempts in an area where the EU has had little experience in the past. As of today, there is a risk that adequate goals may not have been set and proper systems may not be in place to accommodate such an increase in EU spending and the new level of ambition set in the EU Global Strategy.

VI There are clear strategic differences between EU Member States. In particular, they do not share a common perception of threats nor a common vision of the EU’s role. They have different rules of engagement and a wide range of views on the use of military force. In such a context, some concepts, such as “strategic autonomy” or “a European army”, are broad and vague.
VII The coherence of EU initiatives and synergies with other frameworks, in particular NATO, is essential. The EU and NATO share common security challenges and thus common defence interests. For 22 Member States, NATO remains the primary framework when it comes to collective defence. EU Member States have a single set of forces; therefore, in order to avoid inefficient use of the taxpayer’s money, a critical point and a key priority for the near future is whether the EU is able to complement NATO and so avoid duplication and overlapping functions with it.

VIII However, significant and uncoordinated cuts in Member States’ defence budgets, together with underinvestment, have affected their military capabilities. Currently, the EU Member States are far from having the military capabilities they need to match the EU military level of ambition. Brexit will aggravate this situation, as the UK accounts for about a quarter of EU Member States’ total defence spending.

IX Though the EU’s defence spending is due to increase in the near future, it is minor (on average about €3 billion annually) compared to the Member States’ overall military spending. It is estimated that several hundred billion euros would be needed to overcome the capabilities gap if Europe had to defend itself without outside assistance. Merely to meet the 2 % GDP guideline, EU Members of NATO would need to invest an additional €90 billion annually, i.e. about a 45 % increase compared to their 2017 level of spending.

X As for the impact of the new EU initiatives and the associated rapid increase in spending, several key conditions are not yet in place or are unknown, in particular:

- an effective EU planning process;
- the Member States’ participation;
- the impact on real capability needs;
- the governance and accountability framework.

XI The case for greater EU cooperation on security and defence has been supported by economic and industrial considerations. Previous EU attempts to support the establishment of an open and competitive European defence equipment market were unsuccessful. Limited cooperation between Member States has led to inefficiencies in the EU defence sector, thus threatening the industry’s global competitiveness and its capacity to develop the military capabilities needed. However, the significant increase in funding to support defence-oriented R&D activities also runs a risk of becoming an exercise with no real impact on the competitiveness of the European defence industry.
Contributing to better defence capacity in Europe means going beyond words and requires effective implementation of real initiatives, with the aim of supporting a competitive European defence industry and enhancing Member States’ military capabilities in full complementarity with NATO. Ultimately, the EU’s success and future in the field of defence is fully dependent on the Member States’ political will, as they play the central role in Europe’s defence architecture.
Introduction

Background

01 Recent international developments have led European leaders to reconsider defence as a key policy area, in line with European citizens’ growing security expectations\(^1\). In recent years, Russia’s annexation of Crimea, the evolving transatlantic relationship, the intensification and diversification of security threats, and the return of Great Power competition, have given EU defence cooperation new momentum.

02 The case for greater EU cooperation on security and defence has also been supported by economic considerations. The fact is that defence has a strong economic and industrial dimension. Limited cooperation between Member States, together with cuts in their defence budgets since 2005, have led to inefficiencies in the EU defence sector, thus threatening the industry’s global competitiveness and its capacity to develop the military capabilities needed\(^2\).

03 In this context, the 2016 EU Global Strategy and its Implementation Plan on Security and Defence set a higher level of ambition for the EU and its Member States, with the objective of promoting a stronger Europe. Building on this new level of ambition, several defence-related initiatives and mechanisms have been developed in recent years (see Annex I). The aim of this review is to look at the current landscape of EU defence cooperation in order to provide an overview of nascent EU defence policy and the specific environment in which it is delivered.

This review

04 This review is an analytical review based on publicly available information. It does not aim to provide a historical description of the framing of EU defence policy, but focuses on the current situation and the prospects for the new Multiannual Financial Framework (MFF).

---

\(^1\) Eurobarometer, No 90, November 2018.

This review aims to contribute to strategic reflection, thereby providing an input
for co-legislators and increasing awareness among the public and other stakeholders. It also allows the ECA to acquire knowledge and develop internal skills with a view to future audit work in this area.

In the first part, we present an overview of the legal, institutional and financial framework associated with EU defence policy. In the second part, we focus on EU defence, from both a capability and an industrial point of view, with the aim of presenting some of the recent initiatives taken at EU level. Throughout the document, we highlight challenges for effective policy delivery and the main risks involved in the latest EU ambitions and initiatives, and the proposed increase in defence funding at EU level.

The facts presented in this review derive from:

- a documentary review, including EU documents and publications from other sources (think tanks, research institutes, experts, etc.);
- interviews with staff from EU institutions and bodies, and other institutions and organisations (e.g. NATO and think tanks).

The review takes account of developments in EU defence policy up to 17 June 2019. The European Commission, the European External Action Service and the European Defence Agency were given the opportunity to comment on this paper in draft form. The opinions expressed in this review do not necessarily reflect those of the aforementioned institutions and bodies.
1. Defence: the key role of the Member States

1.1 Defence: a unique domain in the EU legal and institutional framework

Specific defence provisions in the Treaties

The Common Security and Defence Policy

09 The Common Security and Defence Policy (CSDP) is an integral part of the Common Foreign and Security Policy (CFSP). The CSDP is framed by the Treaty on European Union (TEU) and aims to provide the EU with “an operational capacity drawing on civilian and military assets. The Union may use them on missions outside the Union for peace-keeping, conflict prevention and strengthening international security in accordance with the principles of the United Nations Charter”\(^3\). In addition, Member States have an obligation of mutual aid and assistance if a Member State is “the victim of armed aggression on its territory”\(^4\).

10 One fundamental aspect of the CFSP, including the CSDP, is its intergovernmental nature, with the leading role played by the Member States. Foreign and defence policies are perceived as largely executive powers and as strong and essential symbols of national sovereignty\(^5\). The TEU highlights the CSDP’s unique nature, which is subject to specific rules and procedures.

11 In particular, the EU institutions’ role in the CSDP differs from other EU policies being implemented within the institutional framework of the Treaty on the Functioning of the European Union (TFEU) (see paragraph 19). The Commission has no

---

\(^3\) Article 42(1) Consolidated version of the Treaty on European Union (TEU) OJ C 326, 26.10.2012.

\(^4\) France used the mutual assistance clause (Article 42(7) TEU) for the first time following terrorist attacks in Paris in 2016.

\(^5\) European Parliamentary Research Service, Unlocking the potential of the EU Treaties - An article-by-article analysis of the scope for action, January 2019.
right of initiative⁶ and the European Parliament has no legislative power. In addition, with limited exceptions⁷, the Court of Justice of the European Union has no jurisdiction over the CSDP⁸.

12 The Treaty on European Union contains several limitations on the EU’s CSDP action. The first important limit is respect for the “obligations of certain Member States⁹, which see their common defence realised in NATO”¹⁰. The CSDP provisions shall not prejudice the specific nature of the Member States’ security and defence policy, for example as regards neutrality.

13 Secondly, specific arrangements allow Member States to opt out of defence cooperation. This possibility has been used by Denmark, which has an opt-out¹¹ and does not participate in the CSDP.

14 Thirdly, the TEU restricts the use of the EU budget for defence. In particular, the EU budget cannot fund “expenditure arising from operations having military or defence implications”¹². This applies, for example, to expenditure on military operations which is borne by participating Member States (see paragraph 49). In addition, Member States make civilian and military capabilities available to the EU for the purpose of implementing the CSDP, but the EU cannot own military assets.

---

⁶ Pursuant to Article 42(4) TEU, CSDP decisions shall be adopted “on a proposal from the High Representative of the Union for Foreign Affairs and Security Policy or an initiative from a Member State.”

⁷ In particular, when reviewing the legality of restrictive measures taken by the Council against individuals and legal persons, or when monitoring the implementation of the CFSP by the EU institutions which “shall not affect the application of the procedures and the extent of the powers of the institutions laid down by the Treaties for the exercise of the Union competences”.

⁸ Article 24(1) TEU.

⁹ 22 EU Member States are NATO allies.

¹⁰ Article 42(2)(2) TEU.

¹¹ Protocol 22 on the Position of Denmark annexed to the TEU.

¹² Article 41(2) TEU.
Fourthly, given the precedence of national sovereignty, unanimity is usually required to adopt a CSDP Council decision. Member States therefore have the power of veto and can thus block or limit decisions taken at EU level.

Fifthly, the Treaty explicitly limits the scope of the CSDP to “missions outside the Union”. The CSDP’s operational focus is therefore on external crises and conflicts, rather than on the territorial defence of Europe, which, for most Member States, is NATO’s responsibility.

The CSDP provisions in the TEU provide the legal basis for a “progressive framing of a common Union defence policy”, the objective being to “lead to a common defence”. This depends on Member States deciding unanimously to increase cooperation in defence matters within the EU framework.

The TEU also present opportunities that have not been used so far, such as speeding up CSDP financing and setting up CSDP missions. For civilian missions, the Council can establish “specific procedures for guaranteeing rapid access to appropriations in the Union budget […] in particular for preparatory activities”. For the preparation of military operations, Member States can set up a collective “start-up fund”. So far, however, the Council has not activated either instrument.

Defence-related EU policies under the Treaty on the Functioning of the European Union

EU action in defence can also include an industrial dimension where the EU’s objective is to support the development of a strong and competitive European Defence Technological and Industrial Base (EDTIB). In this respect, legal acts relating to EU policies, e.g. for the internal market, research and industry, are governed by the TFEU.

---

13 Article 42(4) TEU, with exceptions for the European Defence Agency and the launch of PESCO.
14 Article 42(1) TEU.
15 Article 42(2) TEU.
16 For a detailed analysis, see “Unlocking the potential of the EU Treaties - An article-by-article analysis of the scope for action”, European Parliamentary Research Service, January 2019.
17 Article 41(3) TEU.
Key stakeholders and governance arrangements

20 The institutional framework and governance arrangements associated with European defence are complex, and involve an extensive network of both EU and non-EU stakeholders. The intergovernmental nature of the CSDP is illustrated by the key role played by the Member States, and thus the European Council and the Council of the EU in this area (see Annex II).

21 The European Council, as the highest EU body, sets general political directions and priorities. It also appoints the High Representative to implement the Common Foreign and Security Policy, which includes the CSDP. In December 2013, the European Council held a thematic debate on defence for the first time. Since then, European defence cooperation has been a rolling item on its agenda.

22 The Council of the EU is responsible for taking CSDP decisions. In most cases, the Council acts unanimously. There is no specific Defence Council, but defence ministers meet in a special configuration of the Foreign Affairs Council, and rely on advice from several preparatory bodies.

23 The High Representative for Foreign Affairs and Security Policy (HR/VP) is responsible for making proposals and implementing CSDP decisions. To do so, the HR/VP is assisted by relevant EEAS departments and bodies, namely the European Union Military Staff (EUMS), the Crisis Management and Planning Directorate, the Civilian Planning and Conduct Capability (CPCC), and the Military and Planning and Conduct Capability (MPCC). The HR/VP is also Vice-President of the European Commission and as such, coordinates and ensures consistency in EU foreign policy. At the Commission, the Foreign Policy Instruments (FPI) Service finances civilian missions.

---

20 I.e. the Political and Security Committee (PSC), the European Union Military Committee (EUMC), the Politico-Military Group (PMG), and the Committee for Civilian Aspects of Crisis Management (CIVCOM).
21 The MPCC is a permanent operational headquarters established in 2017. It is responsible at the strategic level for the operational planning and conduct of the EU’s non-executive military missions. There are currently three EU training missions: in the Central African Republic, Mali and Somalia. On 19 November 2018, the Council agreed to enlarge the MPCC’s scope to be able to conduct one executive military operation limited to EU battlegroup size (about 2 000 troops) by 2020.
under the CSDP. The FPI comes under the direct authority of the HR/VP, and works closely with the EEAS.

24 In parallel, a significant role of the Commission is to promote the competitiveness of the European defence industry (see paragraphs 46 and 124-127). The Directorate-General for the Internal Market (DG GROW) is the lead DG and is also responsible for the single defence market.

25 Three agencies are involved in the CSDP: the EDA, the European Union Institute for Security Studies, and the European Union Satellite Centre. Among them, the EDA, which was created in 2004, plays a central role. It supports the Council and the Member States in their efforts to improve the Union’s defence capabilities in the field of crisis management and sustains CSDP. The EDA is headed by the HR/VP and has three main roles:

1. “major intergovernmental prioritisation instrument at EU level in supporting capability development;

2. preferred cooperation forum and management support structure at EU level for participating Member States to engage in technology and capability development activities;

3. central operator with regard to EU funded defence-related activities.”

26 The European Parliament’s role in the CSDP is limited. It has a dedicated sub-committee on Security and Defence and is regularly consulted on the main aspects and basic choices of the CSDP. The European Parliament regularly assesses progress in the CSDP and may submit recommendations to the Council or the HR/VP. Outside the CSDP, the European Parliament, as a co-legislator, scrutinises defence capability and research programmes funded by the EU budget, such as the proposed European Defence Fund (see paragraph 124). However, it has limited influence in the “earliest stages of the EU defence planning process”.


The European Court of Auditors’ (ECA) audit rights are mainly linked to the sources of funding of the CSDP’s various components. The ECA has no mandate to audit CSDP military operations. The same applies to the EDA, its funded projects and CSDP operational expenditure paid by Member States; these are audited by dedicated Colleges of Auditors. By contrast, defence related projects funded by the EU budget are subject to the ECA’s audit. This is also the case for civilian CSDP missions, which are funded from the EU’s general budget and on which the ECA has issued two special reports in recent years.

CSDP operations and missions

The operational component of the CSDP has taken the form of 35 civilian and military missions and operations deployed since 2003 all over the world. There are important differences in the objectives, conduct and financing of these two types of mission. Military missions and operations involve soldiers being seconded from EU Member States to end violence and restore peace. In 2017, the EU conducted six military missions with around 3,200 military staff. Civilian missions involve civilian personnel, mainly seconded by Member States, such as judges or police officers assisting with post-conflict reconstruction of a country’s institutions by providing training and advice to national authorities. In 2017, around 1,880 staff took part in 10 civilian missions (see Figure 1).

Special Report No 15/2018 “Strengthening the capacity of the internal security forces in Niger and Mali: only limited and slow progress” and Special Report No 7/2015 “The EU police mission in Afghanistan: mixed results”.
**Defence cooperation in Europe and beyond**

The EU is one of several cooperation frameworks in the field of defence. The CSDP is part of a complex European security and defence architecture that is shaped by a multitude of frameworks or ‘clusters’ of cooperation, either at bilateral or multilateral levels, outside the EU institutional framework. In recent years, these clusters have developed both in quantitative and qualitative terms. These initiatives are of varying nature and size, and operate both in the field of (i) development and acquisition of capabilities and (ii) operations.

Two international organisations – NATO and the United Nations (UN) – play a crucial role in the area of peacekeeping and other civil and military operations.

---

NATO

31 NATO is the most powerful military alliance in the world. Its core tasks are collective defence, crisis management and cooperative security. The principle of collective defence that entails mutual assistance between allies is enshrined in NATO’s founding treaty.

32 Considering their overlapping membership, the EU and NATO share common security challenges and thus common defence interests. For the majority of EU Member States, European defence mainly consists of two important layers: Member States’ own self-defence capability and the collective defence offered by NATO. In this context, EU-NATO cooperation “constitutes an integral pillar of the EU’s work aimed at strengthening European security and defence”. As indicated in the EUGS, for most EU Member States, NATO remains the primary framework when it comes to collective defence. At the same time, the fact that certain EU Member States are not members of NATO means that “they have different European Defence Union obligations”. This does not prevent cooperation with non-NATO EU Member States from being “an integral part of EU-NATO cooperation”.

33 To fulfil its tasks of deterrence and collective defence, NATO aims to cover the entire capability spectrum, including nuclear, conventional and ballistic missile defence capabilities. It has a clear political-military chain of command supported by a command structure “composed of permanent multinational headquarters at the strategic, operational and component levels of command” with a staff of around 6 800. In

27 Article 5 of the North Atlantic Treaty.
28 22 EU Member States are NATO allies, and six EU Member States (Austria, Cyprus, Finland, Ireland, Malta and Sweden) are not part of NATO, whereas several NATO members are not part of the EU (Albania, Canada, Iceland, Montenegro, Norway, Turkey and the United States).
32 Council conclusions on the third progress report on the implementation of the common set of proposals endorsed by the EU and NATO Councils, June 2018.
addition, through the NATO Force Structure, NATO Member countries provide forces and headquarters on a permanent or temporary basis for the purpose of NATO’s operations.

34 Relations between the EU and NATO were formalised in 2001 and have led to a strategic partnership being built up. Following the EU-NATO joint declaration in 2016, a set of 74 measures are currently being implemented in several areas earmarked for enhanced cooperation: hybrid threats, operational cooperation including maritime issues, cyber security and defence, defence capabilities, defence industry and research, exercises, defence and security capacity–building, and EU-NATO dialogue.

The UN

35 Since CSDP missions and operations began in 2003, the EU and the UN have operated as partners in the field of crisis management and civilian, police and military peacekeeping. Most CSDP missions and operations are actually deployed in the same geographical areas as UN missions, providing the ground for greater cooperation. In September 2018, the EU and the UN reinforced their strategic partnership on peace operations and crisis management for the 2019-2021 period.

36 Collectively, the EU and its Member States are the largest financial contributors to the UN system. The EU Member States funded more than 31 % of the budget for UN peacekeeping operations in 2017. In 2019, almost 6 000 soldiers, police and experts came from the EU Member States, accounting for around 6.5 % of UN peacekeeping personnel. On occasion, such as in Bosnia and Herzegovina or in the Democratic Republic of Congo earlier on, EU missions took over from UN missions.

---


36 In total, 89 480 served on UN peacekeeping operations in early 2019, including 5 965 from EU Member States. UN, Summary of Troop Contributing Countries by Ranking, 28.2.2019.
1.2 Recent developments at EU level: a new level of ambition

The EU Global Strategy and the European Defence Action Plan

37 The European Union Global Strategy (EUGS) provides a strategic vision to underpin EU foreign policy. The EUGS is based on five priorities, including the security of the Union, and an integrated approach to conflicts and crises.

38 The EUGS cites strategic autonomy as an objective for the Union. Strategic autonomy is defined as the “ability to act and co-operate with international and regional partners wherever possible while being able to operate autonomously where and when necessary.”

39 Drawing on the EUGS and its subsequent Implementation Plan on Security and Defence (IPSD), the Council set the level of ambition for the EU in November 2016 (see Box 1).

Box 1

EU level of ambition

The EU level of ambition has a political and military dimension. It derives from successive texts drawn up between 1999 and 2016.

References:


38 In the continuity of a process initiated in December 2013, the European Council of June 2015 mandated the HR/VP to “continue the process of strategic reflection with a view to preparing an EU global strategy on foreign and security policy in close cooperation with Member States”. The European Council welcomed the EUGS in June 2016 and the Council adopted conclusions on implementing the EU global strategy in November 2016.

39 The five priorities are: “The security of our Union; State and Societal Resilience to our East and South; An Integrated Approach to Conflicts and Crises; Cooperative Regional Orders; and Global Governance for the 21st Century”.


41 Council conclusions on implementing the EU Global Strategy in the area of security and Defence, 14.11.2016.

42 “Protecting Europe: meeting the EU’s military level of ambition in the context of Brexit”, IISS and DGAP, November 2018.
Political dimension

From a political perspective, the latest EU level of ambition is set in the EUGS and its IPSD. The EUGS mentions three strategic priorities in the field of security and defence: (i) responding to external conflicts and crises; (ii) building up the capacities of partners; and (iii) protecting the Union and its citizens.\(^43\)

Military dimension

From a military perspective, these objectives require "full-spectrum defence capabilities".\(^44\) However, the EUGS did not lead to a complete review of the types of operations the EU and its Member States should be able to carry out.\(^45\) The EU’s current military level of ambition still derives from (i) the TEU and (ii) the Headline Goals.\(^46\)

- Under the TEU,\(^47\) the EU and its Member States should be able to carry out the following operations: “joint disarmament operations, humanitarian and rescue tasks, military advice and assistance tasks, conflict prevention and peacekeeping tasks, tasks of combat forces in crisis management, including peacemaking and post-conflict stabilisation”.\(^48\)

- The Headline Goals refer to the ability to deploy 50,000 to 60,000 personnel rapidly for the most demanding tasks within 60 days, and to sustain them for at least one year.\(^49\)

---

\(^43\) The three strategic priorities were explained further in the Council Conclusions on implementing the EUGS in the area of Security and Defence dated 14.11.2016.


\(^45\) “Protecting Europe: meeting the EU’s military level of ambition in the context of Brexit”, IISS and DGAP, November 2018.

\(^46\) Headline Goals expresses the political goal of the EU with regard to crisis management tasks, including the military level of ambition. The latest formulation refers to the targets set for 2010.

\(^47\) Article 43(1) TEU.

\(^48\) The Annex to the Council Conclusions on implementing the EUGS in the area of Security and Defence dated 14.11.2016 further illustrates the types of possible CSDP civilian missions and military operations that derived from the EU level of ambition.

\(^49\) Based on the ambition agreed by the European Council in December 2008, the EU should be able to undertake a number of civilian and military missions and operations simultaneously, based on different scenarios.
The Commission presented a European Defence Action Plan in November 2016, dealing with industrial aspects of defence. The plan entails:

- setting up a European Defence Fund to support a competitive and innovative defence industry in Europe;
- promoting investment in small and medium-sized enterprises (SMEs) and mid-caps along the defence supply chain, through EU funds and financial support from the European Investment Bank for dual-use technologies;

Defence spending in the EU

Defence-related expenditure in the EU falls into three categories:

1. national expenditure by EU Member States;
2. spending from the EU budget;
3. mechanisms that are part of the EU framework but funded by Member States outside the EU budget (mostly intergovernmental arrangements).

---

55 Expenditure included under this heading is actually part of the national expenditure of EU Member States (1). It is presented separately for the sake of clarity.
The EU’s higher level of ambition is reflected in a significant increase in the amount earmarked for defence in the EU budget, in particular for the next MFF (see paragraph 52). Though the EU’s defence spending is due to increase in the near future, it is minor (on average about €3 billion annually), and accounts for less than 2% of the Member States’ overall military spending. In fact, defence spending mainly occurs at national level.

**National budgets of EU Member States**

In 2017 alone, the EU’s 28 Member States earmarked over €200 billion of public expenditure for ‘defence’. National defence budgets are much larger than the EU defence budget: in total, they represent about 75 times the EU’s defence spending under the current MFF. Figure 2 shows overall defence spending per EU Member State in 2017.

**Figure 2 – Defence expenditure in the EU – National budgets in 2017**

![Figure 2 – Defence expenditure in the EU – National budgets in 2017](image)

Source: ECA, based on Eurostat data.

**EU budget**

The use of the EU budget for defence is limited in nature (by Treaty, see paragraph 14) and amount. The main funding programme for this purpose is the CFSP budget chapter (see Table 1).

---

56 For comparison purposes, defence funding in the EU budget for 2019 is included.
Table 1 – Main operational budget lines related to CFSP actions and security/defence expenditures, current 2014-2020 MFF

<table>
<thead>
<tr>
<th>Budget line</th>
<th>Heading</th>
<th>2019 budget (million euros)</th>
<th>2014-2020 (million euros)</th>
</tr>
</thead>
<tbody>
<tr>
<td>19 03 01</td>
<td>CFSP: support for preservation of stability through common foreign and security policy (CFSP) missions and European Union Special Representatives</td>
<td>314</td>
<td>2 066</td>
</tr>
<tr>
<td>19 03 02</td>
<td>CSFP: Support for non-proliferation and disarmament</td>
<td>20</td>
<td></td>
</tr>
</tbody>
</table>

**Instrument contributing to Stability and Peace**

<table>
<thead>
<tr>
<th>Budget line</th>
<th>Heading</th>
<th>2019 budget (million euros)</th>
<th>2014-2020 (million euros)</th>
</tr>
</thead>
<tbody>
<tr>
<td>19 02 01</td>
<td>Capacity building in support of security and development</td>
<td>30</td>
<td>100</td>
</tr>
<tr>
<td>19 02 02</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21 05 01</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Competitiveness and innovation capacity in the defence industry**

<table>
<thead>
<tr>
<th>Budget line</th>
<th>Heading</th>
<th>2019 budget (million euros)</th>
<th>2014-2020 (million euros)</th>
</tr>
</thead>
<tbody>
<tr>
<td>02 04 77</td>
<td>Preparatory action on defence research (PADR)</td>
<td>25</td>
<td>90</td>
</tr>
<tr>
<td>02 07 01</td>
<td>European Defence Industrial Development Programme (EDIDP)</td>
<td>245</td>
<td>500</td>
</tr>
</tbody>
</table>

**TOTAL**                                               634                         2 756

*Source: ECA.*

**45** The EU budget finances only civilian CSDP missions. Military operations are financed by the Member States (see paragraph 49). In addition, based on the provisions of the TFEU, the EU budget is used to support defence-oriented R&D activities.

**46** Indeed, the establishment of two pilot programmes (the PADR and the EDIDP) illustrates the scaling-up of EU defence funding. Starting in 2017 for the research strand, the PADR allows research projects for military purposes to be funded directly through the EU budget for the first time (see paragraph 124 to 127).

**47** In addition to the funding dedicated to R&D projects with a defence application, the EU budget also supports dual-use technologies. Depending on their objectives, European defence companies can access a variety of funding programmes, in particular funds to make enterprises and SMEs more competitive (COSME), and satellite systems for navigation and earth observation (Galileo and Copernicus)57.

---

57 For a full list of EU funds supporting civilian and dual-use projects, see the EDA’s Funding Gateway. Companies established in Europe can also receive support from the European
EU mechanisms financed by Member States outside the EU budget

48 Several European-level mechanisms, e.g. the European Defence Agency, are funded directly by EU Member States. The Member States’ contributions fund the Agency’s general budget. In addition, EU Member States can decide whether to participate in Agency projects according to national needs using an ad hoc approach.

49 On the operational side, CSDP military missions are financed by the participating Member States through two channels: (i) provision of personnel, services and assets, nationally financed, according to the ‘costs lie where they fall principle, and (ii) a pooling mechanism known as “Athena”.

50 Athena is an off-budget instrument which pools funds from Member States. It finances the common costs of EU military operations, but assumes only a limited share of the total costs (5 %-15 %); the vast majority of costs are borne directly by the Member States on an individual basis. Six active EU military operations currently receive Athena funding, representing an annual budget of around €78 million. Figure 3 illustrates the sources of funding according to the nature of costs and types of CSDP missions.

Network of Defence-related Regions [www.endr.eu](http://www.endr.eu), whose objective is to increase the number of defence-related projects accessing EU funding.

58 In 2018, the EDA’s general budget was €33 million and its total budget was about €94 million.

59 Member States contribute according to a Gross National Income scale. Non-EU countries participating in CSDP missions contribute on an ad-hoc basis.

60 Such as running costs of headquarters, infrastructure, medical services, etc.

61 Costs related to military staff, equipment, etc.
**Figure 3 – Funding of CSDP missions**

<table>
<thead>
<tr>
<th></th>
<th>Source of Funding</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>EU general budget</strong></td>
</tr>
<tr>
<td>CSDP missions</td>
<td><strong>Member States (except Denmark)</strong></td>
</tr>
<tr>
<td>Civilian</td>
<td>Athena mechanism (collective funding)</td>
</tr>
<tr>
<td>Military</td>
<td>National funding</td>
</tr>
<tr>
<td></td>
<td>Administrative* and operational costs</td>
</tr>
<tr>
<td></td>
<td>Administrative costs*</td>
</tr>
<tr>
<td></td>
<td>Common operational costs</td>
</tr>
<tr>
<td></td>
<td>Individual operational costs</td>
</tr>
</tbody>
</table>

* The EU budget can cover administrative costs only for the EU institutions (Article 41(1) TEU).

**Source:** ECA.

51 Also outside the EU budget, the European Development Fund supports the African Union’s efforts in the area of peace and security – including military training or equipment for Africa-led operations – through the African Peace Facility (APF)⁶².

**Proposals for the future**

52 The Commission’s proposal for the 2021-2027 MFF reflects the ambition to have defence play a more prominent role in the future. With about €22.5 billion allocated to defence in the EU budget⁶³, this represents a major increase compared to the €2.8 billion for the 2014-2020 period. **Figure 4** shows the main changes between the current MFF and the proposals for the next one.

53 Off-budget instruments are expected to play a significant role in the future funding of operational actions under the Common Foreign and Security Policy (CFSP) that have military or defence implications⁶⁴, as illustrated by the proposal to set up a European Peace Facility (EPF) outside the MFF.

54 The EPF, which is expected to be worth €10.5 billion over the 2021-2027 period, builds on and merges existing mechanisms⁶⁵ into a single Fund with the objective of

---


⁶³ €13 billion proposed for the European Defence Fund, €6.5 billion allocated to military mobility and €3 billion proposed for the CFSP.


⁶⁵ The APF and the Athena mechanism.
overcoming their existing gaps and limitations and “enhanc[ing] the Union’s ability to preserve peace, prevent conflicts and strengthen international security”\textsuperscript{66}. The proposal focuses on three main areas:

1. facilitating EU military operations by providing a permanent fund with an enhanced scope of common costs compared to the Athena mechanism\textsuperscript{67};

2. expanding the EU’s scope for financing peace support operations to third states and international organisations on a global scale\textsuperscript{68};

3. broadening EU support for the capability-building activities of armed forces in partner countries.

**Figure 4 – Proposed changes in EU defence funding**


\textsuperscript{67} As a result, the common costs of a military operation are expected to reach 35 %-45 % of overall mission costs compared to 5 %-15 % under the current Athena mechanism.

\textsuperscript{68} Through the APF, this support is currently limited to Africa and the African Union.
1.3 Risks associated with the EU’s new defence ambition

55 The EU’s defence-related initiatives represent attempts in an area where the EU has had little experience in the past. Political statements associated with the new initiatives may have raised expectations that the EU may not be able to meet. As things stand, there is a risk that adequate goals may not have been set and proper systems may not be in place to accommodate such an increase in EU spending and the new level of ambition set in the EUGS.

An ambition for EU defence policy

56 Defence is a specific domain which lies at the heart of national sovereignty. EU defence decisions are therefore the result of a political process entailing compromise between multiple rationales and interests.

57 In this context, there are clear strategic differences between EU Member States:

- they do not share a common perception of threats;
- they have different institutional frameworks with different rules of engagement and a wide range of views on the use of military force;
- ultimately, they do not share a common vision on the role of the EU.

58 For instance, some Member States tend to focus on territorial defence against the military threats posed by Russia, while others are more oriented towards security challenges originating in North Africa and the Middle East. Some Member States have a tradition of neutrality, while others are willing to participate in high-spectrum operations.

59 In such a context, some concepts, such as “strategic autonomy” or “a European army”, are broad and vague. Such terms can be perceived as counter-productive to

---


71 "In Defence of Europe: Defence integration as a response to Europe’s strategic movement", EPSC Strategic note, June 2015.
relations and cooperation with NATO, an area which is crucial for the majority of EU Member States.

**Strategic autonomy and level of ambition**

60 Europe’s strategic autonomy is one of the key concepts in the EUGS (see paragraphs 37 to 39). However, the fact that Member States do not share a common understanding of what such autonomy entails, means that the EUGS’ political level of ambition was not fully translated in military terms. Both the concept of strategic autonomy and the level of ambition, including the reference to “full-spectrum defence capabilities” are vague about what they mean in terms of defence.

61 The EUGS, in particular its third strategic priority “the protection of Europe and European citizens” lacks a clear, complete and detailed military expression. Key questions remain unanswered, for instance: is the autonomous EU level of ambition limited to operations outside the EU? Or does it mean that Member States should also be capable of defending their own territory? Some experts therefore consider that there is confusion about the EU’s defence objectives.

62 In addition, the EUGS’ high level of ambition (see Box 1) contrasts with the Member States’ available resources and relevant capabilities. Several EU countries have problems even meeting their contribution to NATO, which is the primary defence network for most Member States (see Figure 2). There is therefore a clear gap

---

72 The concept is regularly mentioned in EU official documents. For instance, the June 2019 Council stated that “By addressing Europe’s current and future security and defence needs, the EU is enhancing its capacity to act as a security provider, its strategic autonomy and its ability to cooperate with partners”.


76 Frédéric Mauro and Olivier Jehin, Institut de Relations Internationales et Stratégiques (IRIS) and Group for Research and Information on Peace and Security (GRIP), “A European Army to do what?”, April 2019.

77 At the 2014 Wales summit, NATO’s member states committed to spending at least 2% of their GDP on defence by 2024.
between what the Member States are expected to do and what they can agree on and deliver.\(^78\)

**“European Army”**

Although the concept of a European army is not mentioned in recent official EU documents, it has received renewed widespread attention in the public and political spheres and so merits further examination in this review. Indeed, the establishment of a European army, which had already been envisaged in the 1950s, \(^79\) is a recurring concept in the area of EU defence that has recently re-emerged. However, political declarations about the creation of a European army are ambiguous and unrealistic “in the foreseeable future”\(^80\). Some former military officials have questioned the relevance of a European army, thus showing that the prerequisites for one are not in place.\(^81\)

EU Member States do not all agree about the meaning of “European defence”. The lack of a common strategic culture or shared vision of the use of force, and a decision-making process that is based on unanimity, makes it unlikely that Member States could reach a consensus to deploy military forces for high-spectrum interventions.\(^82\) Some experts consider that, if pushed too far, the concept of European Army could lead to deeper divisions between EU Member States.\(^83\)

This explains why previous deployments of force did not take place under the EU banner, but rather on national grounds or under ad-hoc coalitions. For instance, EU battlegroups have never been deployed, despite being operational since 2007. The 35 missions and operations implemented under the CSDP were mainly of a civilian nature.

---


\(^79\) The treaty establishing the “European Defence Community” in 1952 provided for a common armed force, a common budget and common institutions.

\(^80\) Sophia Besch, Centre for European Reform, “An EU Army? Four reasons it will not happen”, May 2016.

\(^81\) For instance, General Charles-Henri Delcour, Belgium’s former Chief of Defence.

\(^82\) Dick Zandee, “Core groups: the way to real European Defence”, Egmont Royal Institute for International relations, February 2017.

\(^83\) See for instance Vladimir Bilcik, “After the EU global strategy: Consulting the Experts”, 2016.
or were low-intensity military operations focused on crisis management\textsuperscript{84}. The EU did not participate in the most demanding military operations, such as those in Libya or Syria. Also, it has not been involved in “the defence and deterrence in the narrow sense of military protecting territories [and] populations”\textsuperscript{85} in Europe.

\textbf{66} Based on a review of publications on the topic\textsuperscript{86}, a real and credible army would require several key elements, including\textsuperscript{87}:

\begin{itemize}
  \item a permanent standing force funded by a common budget;
  \item common defence planning to develop and acquire common capabilities;
  \item autonomous military capabilities, including fully-fledged command and control;
  \item an effective decision-making process with a unique chain of command and clear leadership with the authority and legitimacy to engage armed forces;
  \item civilian and democratic control over the military and the use of armed forces.
\end{itemize}

\textbf{67} It is clear that such elements are unlikely to be present at EU level in the near future. Building a so-called EU army entails transferring national sovereign powers to the EU supranational level, which several Member States are opposed to\textsuperscript{88}.

\textbf{68} In terms of capabilities, building an army requires a significant amount of time and money. To illustrate the amounts involved and without providing an estimate of the budget needed to build up an army, the EU’s NATO Members would need to invest

\textsuperscript{84} Frédéric Mauro and Olivier Jehin, \textit{Institut de Relations Internationales et Stratégiques} (IRIS) and Group for Research and Information on Peace and Security (GRIP), “A European Army to do what?”, April 2019.


\textsuperscript{86} E.g. Frédéric Mauro and Olivier Jehin, \textit{Institut de Relations Internationales et Stratégiques} (IRIS) and Group for Research and Information on Peace and Security (GRIP), “A European Army in what form?”, April 2019.

Judy Dempsey and experts’ contributions, Carnegie Europe, “Does the EU need its own Army?”, March 2015.

\textsuperscript{87} The elements are not a complete list of the requirements for setting up an army.

\textsuperscript{88} Claire Mills, “EU Defence: Where is it heading”, May 2019.
an additional € 90 billion annually just to meet the 2 % GDP guideline, i.e. about a 45 % increase compared to their 2017 level of spending\(^{89}\).

### Coherence with NATO

69 The coherence of EU initiatives and their synergies with other frameworks, in particular NATO, is essential. As Member States participate in several cooperation frameworks (see paragraph 29), this may dilute the respective benefits and lead to competing practices and duplication of processes.

70 This is particularly true where NATO is concerned, as EU initiatives may lead to or be perceived as duplication. Though welcoming EU defence initiatives, NATO’s Secretary-General has warned on several occasions that duplication and competition between the EU and NATO\(^{90}\) may ultimately weaken the transatlantic link and thus the security of Europe. Similarly, in May 2019, the US administration also emphasised that new EU initiatives may “produce duplication, non-interoperable military systems, diversion of scarce defence resources and unnecessary competition between NATO and the EU”\(^{91}\).

71 EU-NATO complementarity is a key point that has been repeatedly stressed in EU official documents\(^{92}\). NATO is responsible for the collective defence of its members. EU Member States have a single set of forces; therefore, in order to avoid inefficient use of the taxpayer’s money, a critical point and a key priority for the near future is whether the EU is able to complement NATO and so avoid duplication and overlapping functions with it. Efficiency means avoiding all forms of unnecessary duplication, whether of processes, structures such as operational command, or outputs.

---

\(^{89}\) ECA calculation based on Eurostat data.


Recent steps were reported in EU-NATO cooperation\(^{93}\). One good example of EU-NATO complementarity is military mobility, which illustrates potential synergies and complementarity between both organisations (see Box 2).

**Box 2**

**Military mobility**

Unlike civilian means of transport that can move freely within the Schengen zone, military personnel and equipment cannot simply cross borders\(^{94}\).

This hinders EU Member States’ capacity to respond to crises, both outside EU territory under the CSDP, or in other frameworks, such as NATO, so as to ensure the territorial defence of Europe. Military mobility has been identified as a priority area for EU-NATO cooperation.

The EC launched an Action Plan on military mobility in March 2018\(^{95}\), with a proposed €6.5 billion allocation for the next MFF. The plan proposes operational measures for military requirements, transport infrastructure and procedural issues, taking account of inputs from NATO. It also aims to develop civilian-military synergies, notably through the dual use of the Trans-European Transport Network.

As shown throughout the first part of this review and despite recent developments in EU defence policy, Member States remain in the driving seat when it comes to European defence. Their leading role is supported by legal, institutional and financial considerations.

---

\(^{93}\) “Fourth progress report on the implementation of the common set of proposals endorsed by NATO and EU Councils on 6 December 2016 and 5 December 2017”, 17.6.2019.


2. EU Member States’ defence capabilities and industries: a global position challenged

In the second part of this review, we look at European Defence from both capability and industry perspectives, with the aim of presenting the new EU initiatives developed in these areas and their underlying risks.

2.1 Strengths and weaknesses of Member States’ capabilities

Measuring military capabilities

In military terms, capability is “a combination of means and ways to perform a set of tasks”\(^96\). This broad definition includes equipment and personnel, as well as their operational readiness and ability to sustain operations over time. Military capabilities ultimately aim to provide a comparative military advantage in deterring or fighting against potential or actual enemies.

Measuring military capabilities and a country’s military power are complex, and require both quantitative and qualitative data which are often not available to the public. In addition, for any given country, the strengths and weaknesses associated with military capabilities can only be assessed against: (i) the threats identified; (ii) the capabilities of potential enemies; and (iii) the capabilities of allies.

Given the above, this section aims to highlight some key considerations of the Member States’ military capabilities on the basis of publicly available information. It does not constitute a comprehensive assessment of their military power.

---

\(^96\) The EUMC Glossary of Acronyms and Definitions (2017) defines military capability as “A combination of means and ways to perform a set of tasks or achieve an effect to a standard under specified conditions. Military capability usually includes four major components: Force Structure – personnel, numbers, size and composition of the forces; Configuration – technical sophistication of forces and equipment; Readiness – ability to provide capabilities required by the combatant commanders to execute their assigned missions; Sustainability – ability to maintain the necessary level and duration of operational activity to achieve military objectives”.

The military capability landscape in the EU continues to reflect Member States’ history, geography and national interests\textsuperscript{97}. For example, France and the UK aim to undertake full-spectrum – including high-end – operations, involving expeditionary forces to be deployed outside the EU. Germany, on the other hand, prioritises territorial defence with more heavy formations\textsuperscript{98}.

Quantitative indicators

A first global indicator generally associated with military capabilities is the defence budget. Without examining the efficient use of the resource, this indicator nevertheless provides a general idea of the size and power of the military in absolute and comparable terms. In this respect, the EU Member States are collectively the world’s second largest spender on defence, after the United States (see \textit{Figure 8}). However, significant and uncoordinated cuts in their defence budgets between 2005 and 2015, together with under–investment, have affected their military capabilities\textsuperscript{99}.

A second key indicator is the scale of military manpower. When national military personnel are counted together, the EU’s Member States have the second largest army in the world\textsuperscript{100}. Over the last decade, the consolidated number of military personnel has decreased by 23 %. The total number of deployable and sustainable land forces has also fallen, but to a lesser extent (\textit{Figure 5}).


\textsuperscript{100} After China, IISS military balance 2019 and European Political Strategy Centre, Strategic Note 4/2015, “In Defence of Europe”, 15.6.2015, p. 3.
Figure 5 – Evolution of the military personnel of EDA Member States – 2006-2016 (thousands)

![Bar chart showing the evolution of military personnel of EDA Member States from 2006 to 2016.]

Source: ECA, based on EDA data.

In terms of consolidated capabilities and range, the EU Member States possess, after the United States, a significant share of military capabilities (Table 2), even though most of their available conventional equipment has been reduced since 2000 (Figure 6).
Table 2 – EU and other military powers – selected military equipment, 2018

* Data not available for Russia.


Figure 6 – Evolution of selected military equipment of EU28 – 2000-2018 (number of units)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Main battle tanks</td>
<td>15 868</td>
<td>7 131</td>
<td>4 324</td>
<td>-73 %</td>
</tr>
<tr>
<td>Armoured infantry fighting vehicles</td>
<td>8 644</td>
<td>7 379</td>
<td>6 571</td>
<td>-24 %</td>
</tr>
<tr>
<td>Tactical aircraft</td>
<td>2 949</td>
<td>2 296</td>
<td>1 863</td>
<td>-37 %</td>
</tr>
<tr>
<td>Tanker aircraft</td>
<td>77</td>
<td>66</td>
<td>47</td>
<td>-39 %</td>
</tr>
<tr>
<td>Attack helicopters</td>
<td>283</td>
<td>360</td>
<td>373</td>
<td>32 %</td>
</tr>
<tr>
<td>Principal surface combatants</td>
<td>172</td>
<td>146</td>
<td>121</td>
<td>-30 %</td>
</tr>
<tr>
<td>Submarines</td>
<td>86</td>
<td>66</td>
<td>62</td>
<td>-28 %</td>
</tr>
<tr>
<td>Unmanned aerial vehicles</td>
<td>22</td>
<td>127</td>
<td>230</td>
<td>945 %</td>
</tr>
</tbody>
</table>

Source: ECA, based on IISS Military Balance.
Qualitative analysis

82 Analysis of military capabilities goes further than a review of quantitative data. In particular, the quality and type of capabilities available are also of crucial importance in supporting the effectiveness of military forces. Cuts in national defence budgets, coupled with a greater number of more intense operations, have placed existing capabilities under serious strain. Less frequent renewals of equipment have led to ageing military capabilities\(^{101}\), with less readiness and usability in operational terms and greater maintenance and repair times and costs (see Box 3).

Box 3

Example of readiness issues - Germany\(^{102}\)

The recent annual reports of the German Parliamentary Commissioner for the Armed Forces have highlighted recurring materiel deficiencies across all army departments. The 2017 report mentioned “the actual readiness of the Bundeswehr’s major weapons system is dramatically low in many areas”\(^{103}\).

For instance, only 39 % of Leopard 2 battle tanks were available for use due to a lack of spare parts. At times, none of the six submarines were available and less than half of the Eurofighters and Tornado combat aircraft were able to fly. In addition to the potential incapacity to deploy forces rapidly, this situation also occasionally prevented military staff from training adequately.

83 The Member States’ military capabilities are also characterised by a high level of duplication and fragmentation, meaning that European armed forces are less interoperable\(^{104}\). In 2017, there were 178 different weapons systems in use in the EU, compared to 30 in the US\(^{105}\). The wide variety of systems in operation – and thus the lack of common technical standards – is detrimental to the interoperability of the

---

\(^{101}\) For instance, around 80 % of the resources for sea control, frigates and corvettes are more than 15 years old (source: EDA, “Future capabilities, emerging trends and key priorities”, 2018).

\(^{102}\) 59th and 60th annual report of the Parliamentary Commissioner for the Armed Forces, Dr Hans-Peter Bartels.

\(^{103}\) 59th annual report of the Parliamentary Commissioner for the Armed Forces, Dr Hans-Peter Bartels, 20.2.2018, p. 41.

\(^{104}\) “Joining Forces, the way towards the European Defence Union”, European Political Strategy Centre, 14.2.2019.

various armed forces in Europe. In a context where collaborative missions and operations are the norm, an appropriate degree of interoperability is vital for effective (co-)operation.

84 The lessons learnt from operational interventions in Libya (2011) and Mali (2013-2014) led to the identification of critical capability shortages, as evidenced on the ground by heavy reliance on United States strategic capabilities. In particular, the lack of strategic enablers such as precision-guided munitions, air-to-air refuelling, command and control, or intelligence surveillance and reconnaissance were reported by both the EU and its allies. The same applies to strategic deterrence (including nuclear defence), where EU Member States depend heavily on the United States.

85 At the same time, Russia, China and other major nations are currently investing large amounts in acquiring high-end capabilities and developing innovative technologies, such as hypersonic weapons. Rapid developments in technology offer new possibilities for armed forces and trigger new military capability needs. As the EUGS acknowledges, there is a need for EU Member States to invest in “digital capabilities to secure data, networks and critical infrastructure within the European digital space”. In 2017, a report presented at the Munich Security Conference estimated that USD30 to 50 billion in annual investments were needed to close the

106 “NATO chief: Mali shows holes in EU defence”, EU Observer, 4.2.2013.

107 Strategic enablers allow for the deployment, effectiveness and sustainability of military operations.

108 Press conference by NATO Secretary-General Anders Fogh Rasmussen, following the Defence Ministers’ meeting, 5.10.2011; and interview with General Mikhail Kostarakos, former Chairman of the European Union Military Committee (EUMC), European Defence Matters, issue 11/2016.


“interconnectedness and digitisation gap of European Forces”\textsuperscript{113} in areas such as connecting platforms and command, control, communications, computers, intelligence, surveillance and reconnaissance.

**86** Currently, EU Member States are far from having the required military capabilities they need to match the EU military level of ambition\textsuperscript{114} (see *Box 1*). A recent study by the International Institute for Strategic Studies (IISS) and the German Council on Foreign Relations (DGAP) assesses to what extent the EU is able to fulfil this level of ambition, based on the Member States’ current capabilities and those projected for 2030\textsuperscript{115}. Assuming different contingencies derived from the EU level of ambition, the study concludes that “there are extensive capability gaps across all domains and often less than one-third of the force requirement would be met” and therefore “the European strategic autonomy is limited to the lower end of the operational spectrum”.

**87** Moreover, if EU members of NATO had to defend themselves against military aggression without relying on military protection from the US, it is estimated that an investment of several hundred billion euros would be needed to overcome the current capabilities gap. Indeed, assuming a hypothetical scenario of a limited regional war in Europe against a third state, another IISS study “assesses that European NATO members would have to invest between USD288 billion and USD357 billion to fill the capability gaps generated by this scenario”\textsuperscript{116}.

**88** Identifying capability priorities is a dynamic exercise. As shown in *Annex III*, defence capability needs evolve over time, based on the nature of identified threats


\textsuperscript{114} “Coordinated Annual Review on Defence”, *EDA factsheet*, 26.11.2018: “The EU Military Committee’s contribution to the CARD Trial Run established that the EU does not have available all of the required military capabilities necessary for the implementation of the EU CSDP military Level of Ambition (LoA) derived from the EU Global Strategy”.

\textsuperscript{115} “Protecting Europe: meeting the EU’s military level of ambition in the context of Brexit”, IISS and DGAP, November 2018.

\textsuperscript{116} D. Barrie et al., “Defending Europe: scenario-based capability requirements for NATO’s European members”, The International Institute for Strategic Studies, April 2019.
and the EU level of ambition\textsuperscript{117}. Box 4 illustrates some key capability shortfalls, based on available information.

**Box 4**

**Examples of capability shortfalls**

Academic articles published between 2016-2019 most often identify examples of capability gaps in the EU Member States in the following areas:

- Air – unmanned aerial vehicles (drones), air-to-air refuelling, strategic and tactical airlift, air command and control systems, precision munitions, ballistic missile defence capabilities, anti-access area-denial capabilities, suppression of enemy air defence capabilities;

- Space – satellite communication and earth observation, autonomous access to space;

- Information superiority – intelligence, surveillance and reconnaissance capabilities;

- ICT technologies – cyber warfare, artificial intelligence;

- Naval – maritime surveillance, amphibious ships, submarines, overseas deployment capacity;

- Strategic enablers – military mobility, strategic transport, and medical evacuation;

- Land – ground-based precision strike capabilities, modern armoured fighting vehicles.

**The impact of Brexit**

89 Without prejudging the outcome of Brexit, the UK’s departure from the EU is likely to have consequences for EU defence. The UK has traditionally been Europe’s

\textsuperscript{117} At EU level, the Progress Catalogue 18 (classified document) defines the level of fulfilment of the EU CSDP military level of ambition and presents prioritised EU military capability shortfalls, known as the High Impact Capability Goals. They represent the capability gaps to be addressed in the short (2026) and medium (2032) terms.
biggest spender on defence. In 2017, its defence budget accounted for about one quarter of the EU Member States’ total defence spending\(^{118}\). Seen from a different perspective, the UK’s departure from the EU means that 80 % of NATO’s defence spending will take place in non-EU countries\(^{119}\). Also, British companies have a strong position in the European defence market\(^{120}\).

90 In operational terms, the UK’s contribution to both CSDP civilian and military missions and operations has been limited overall: it has accounted for about 2.3 % of the Member States’ personnel contributions and has provided assets such as naval vessels, aircraft and troop reinforcements on standby\(^{121}\). On the other hand, the loss of strategic enablers in Air (air-to-air refuelling and intelligence, surveillance and reconnaissance capabilities) and special operation forces are an example of capability domains that would be greatly affected by Brexit.

91 Consequently, the EU27 will have considerably fewer resources to fill in the identified gaps in capabilities and military research. In both areas, shortages will most likely be aggravated by Brexit: even if not evenly distributed across the capabilities spectrum, Brexit would entail a material reduction in the EU’s overall existing capabilities (\textit{Figure 7}) and an investment gap in research and development\(^{122}\).

\(^{118}\) In 2017, the UK invested €45.3 billion in defence, i.e. 22.1 % of the €205.1 billion spent by the EU28. Eurostat figures, General government expenditure by function (COFOG), published on 22.3.2019.


\(^{120}\) Based on the SIPRI top-100 ranking, their share of defence-related turnover among European companies was 38 % in 2018.


\(^{122}\) Defence R&D expenditure was €3.2 billion in the UK in 2017 (EDA data).
2.2 Key features of the European defence industry

The defence sector

The defence market is unique compared to traditional commercial markets. The main distinctive feature is the central role of governments. Indeed, the national defence market is often referred to as a monopsony: there is one buyer – the State – and several suppliers. As the only end-customers, governments initiate, specify, regulate and fund the development and procurement of defence equipment.

The defence sector is of strategic importance. The industry contributes to the state’s autonomy of action by producing the required capabilities and ensuring security of supply. The sector is therefore highly regulated at national level. In particular, defence products may be subject to restrictions on exploitation of intellectual property or export opportunities. In addition, access to the national defence market is often restricted by government procurement policy, on the grounds


---

123 DG GROW website.

of protecting essential security interests and supporting the national industrial base. As a result, market entry and exit barriers are high.

94 The defence sector is research and development (R&D)-intensive. The development of defence capabilities requires innovative and high-end technology, the aim being to provide a comparative military advantage. This entails significant up-front investments and long capability-development cycles, with no ultimate guarantee of commercialisation for defence companies. In order to mitigate the technological and financial risks associated with developing capabilities, defence research is usually 100% funded by governments.

Key trends

95 The defence industrial sector is characterised by new forms of dependency. First, it is becoming more globalised. Major defence companies are more dependent on export sales, and their supply chains are more complex, diverse and international.

96 In addition, the defence sector is increasingly dependent on innovation in the civilian sector. Major opportunities and challenges arise from dual-use R&D, as cutting-edge technologies – such as artificial intelligence, unmanned vehicles, big data or nanotechnologies – are mainly developed and produced in the civilian sector.

97 Another key structuring trend in the defence sector is the increasing cost of defence equipment and systems. In a context of technological competition, the intergenerational cost growth of defence equipment in recent decades has been disconnected from and considerably exceeded the growth of defence budgets. This has resulted in a “falling number of units that national budgets can afford, a reduction in

the length of the series produced, a limited capacity to tap on economies of scale and a lower frequency of new development projects”

The European defence industrial landscape

A comprehensive set of data on the European Defence Technological and Industrial Base (EDTIB) does not exist. The European defence industry has a turnover of about €100 billion and employs about 500,000 people directly. It is structured like a pyramid, with a limited number of large defence companies – the prime contractors – on the top. All along the supply chain, these companies are supported by 2000-2500 lower-tier companies – mainly mid-caps and SMEs – that provide subsystems or components to the prime contractors.

The EDTIB is not evenly spread across the EU. Mirroring the level of national budgets, defence industries are concentrated in the six Letter of Intent (LoI) countries, i.e. France, Germany, Italy, Spain, Sweden and the United Kingdom. These generate more than 80% of turnover in the European defence sector. The capacities, capabilities and competitiveness of the DTIB differ between Member States and sub-sectors (see Annex IV for the key features of the aerospace, land and naval sectors). This fragmented base is the result of geographical, historical and military cultures that have contributed to shaping the industrial landscape in the various

---


134 The Letter of Intent was signed on 20.7.1998 by six EU countries to set up a cooperative framework to facilitate the restructuring of the European defence industry.


Member States. In Europe, there are as many DTIBs as there are Member States and related national policies in the fields of defence, technology, markets, procurements, etc.

Studies have pointed out the strengths of the defence sector in Europe. In particular, Europe’s defence industry overall has been described as “globally competitive, innovative, high-tech and capability-driven”. The European defence industry is able to provide a full spectrum of defence capabilities, from large and complex platforms to innovative products. However, several negative trends have impacted the EDTIB and its global competitiveness in recent years (see Annex V).

The demand side: the Member States

The competitiveness of the defence industry is highly dependent on demand from the Member States. Between 2007 and 2015, significant cuts of about 15% were made in the EU’s national defence budgets, set against a global increase in military spending. Since 2015, the trend in overall defence spending in the EU has been positive, although in real terms defence expenditure in 2017 was still below its 2007 level (Figure 8).

---


140 CARD trial-run findings.
Declining internal demand in the EU market, together with growing demand on international markets, has led the EU defence industry to increase its exports to non-EU markets. As Figure 9 shows, the EU – though still behind the United States and Russia – represents a significant share of total arms exports, which illustrates the competitiveness of its defence industry.

Source: ECA, based on SIPRI database.

102 In this review, we use the databases of the Stockholm International Peace Research Institute (SIPRI) as a reference for our analysis. For the limitations of the underlying data and the attendant impact on our analysis, see https://www.sipri.org/databases.

142 “The extra-EU defence exports’ effects on European armaments cooperation”, Study to the European Parliament’s Subcommittee on Security and Defence, June 2015.
The EDTIB is increasingly dependent on exports, which raises challenges for the future. The first challenge is the differences between EU Member States’ arms-export policies and legislation. As the supply chains of Europe’s major defence manufacturers are increasingly integrated, the fact that Member States’ export policies differ may limit opportunities for major EU companies to be competitive on the international market.

In addition, transfers of the technology required to access foreign markets, coupled with significant defence investments in foreign countries, have led to the emergence of new international competitors. To sustain its competitive advantage, the EU’s industry is dependent on its capacity to innovate.

However, EU Member States’ defence budgets are characterised by a high share of personnel expenses (49 %) when compared with investment expenditure (21 %). In addition, previous cuts in defence budgets have negatively impacted R&D

---


105 Defence data for 2016-2017, EDA.
expenditure \(^{146}\). The fact that Member States do not collectively reach the 2 % target for defence research and technology \(^{147}\) raises questions about their long-term capacity to innovate in future technology \(^{148}\) and so jeopardises the competitiveness of the EDTIB.

**106** Until now, cooperation between EU Member States in R&D and defence-equipment investments has been limited and below target \(^{149}\) ([Figure 10](#)). Previous EU attempts to support the establishment of an open and competitive European defence equipment market were unsuccessful. In particular, implementation of the 2009 Defence Procurement Directive has been uneven across Member States \(^{150}\). A very significant share of defence procurement expenditure, in particular for high-value and strategic defence systems, still occurs outside the Directive \(^{151}\), resulting in contracts being awarded mainly to national companies.

---


\(^{147}\) In November 2007, the EDA Ministerial Steering Board approved four collective benchmarks for investment:

- Equipment procurement: 20 % of total defence spending;
- Collaborative equipment procurement: 35 % of total equipment procurement;
- Defence R&T: 2 % of total defence spending;
- Collaborative R&T: 20 % of total defence R&T.


\(^{151}\) Ibid.
The supply side: industry

In order to adapt to the increasing globalisation of the defence market, the defence sector has undergone a process of consolidation through mergers and acquisitions, leading to the emergence of a few large multinational companies, such as BAE, Airbus and Thales. However, cross-border consolidation has been limited mainly to the aerospace and electronics sectors. The prevalence of national sovereignty considerations led to a consolidation process that took place mainly at national level, in particular in the land and naval segments.

A lack of cooperation on the demand side, i.e. between Member States, has prevented further integration and consolidation in the European defence equipment market. This fragmentation in turn leads to inefficiencies in the form of duplication, overcapacity in some areas and missing economies of scale, which ultimately hinders the competitiveness of the European defence industry on the global market and, from an operational perspective, does not support interoperability between the Member States’ armed forces. Compared to the US with its 11 defence platforms and systems,

---

Europe had 36 in production in 2013\textsuperscript{153}, even though EU military expenditure is 2.5 times lower than in the US.

\textbf{109} The global position of the EU defence industry is reflected in its share of the turnover of the top 100 defence companies\textsuperscript{154}. The EU’s main companies account for a significant share of global turnover (about a quarter), but remain far behind US companies, which are in a dominant position. The trend over the past 20 years (\textit{Figure 11}) illustrates increasing competition from non-EU and non-US-based companies. In terms of major players, the turnover generated by the top five EU and US companies (\textit{Figure 12}) shows that the main US companies operate on a much larger scale than the EU’s.

\textbf{Figure 11 – Turnover share of the top 100 defence companies, 2007 to 2017}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure11.png}
\caption{Turnover share of the top 100 defence companies, 2007 to 2017}
\end{figure}

\textit{Source:} ECA, based on SIPRI Database.


\textsuperscript{154} The SIPRI top-100 ranking does not cover Chinese arms-producing companies.
The respective positioning of the EU and US defence industrial bases in the global market highlights the competitiveness of the European defence industry. In terms of industrial and commercial links, EU imports from US companies are close to intra-EU exchanges over the 2010-2018 period and amount to 40% (Figure 13). Over the same period, more than 50% of US arms imports originated in the EU Member States\textsuperscript{155}, but this represents a limited amount in absolute terms\textsuperscript{156}. The imbalance in transatlantic trade in favour of the US is related to (i) US technological dominance, but also to (ii) trade restrictions in accessing the US defence market for foreign and thus EU competitors\textsuperscript{157}, and (iii) the lack of European preference among Member States.

\textsuperscript{155} ECA calculation based on SIPRI data.


\textsuperscript{157} “Anticipating restructuring in the European defence industry”, BIPE, March 2008.
The degree of EDTIB dependence on non-EU-based production differs by segments. As shown in Figure 14, 2.5 % of the main military ships used by EU Member States come from non-EU suppliers, whereas this increases to 18.5 % for main battle tanks and 39.3 % for fighter aircraft158.

---

111 The degree of EDTIB dependence on non-EU-based production differs by segments. As shown in Figure 14, 2.5 % of the main military ships used by EU Member States come from non-EU suppliers, whereas this increases to 18.5 % for main battle tanks and 39.3 % for fighter aircraft158.

---

**Figure 14 – Origin of production for defence products in use in the EU (2017)**

-On a global level, the dominant US position in international trade is not uniform across segments. In particular, US defence companies have a clear lead in exports of aircraft, air defence systems, armoured vehicles and missiles. By contrast, EU companies\(^{159}\) have a competitive advantage in exports of ships and sensors (**Figure 15**).

**Figure 15 – Origin of defence products in international markets (“trend indicator values”) – 2010-2018**

---

112 On a global level, the dominant US position in international trade is not uniform across segments. In particular, US defence companies have a clear lead in exports of aircraft, air defence systems, armoured vehicles and missiles. By contrast, EU companies\(^{159}\) have a competitive advantage in exports of ships and sensors (**Figure 15**).

---

\(^{159}\) Based on LoI countries and the Netherlands, which represent 95 % of EU exports.
Although a complete overview of foreign dependency in the supply chain does not exist, it is often reported that the European defence industry is dependent on specific technologies or sub-components (US) and critical raw materials (China). For instance, the EDTIB is fully dependent on imports from a small number of third countries for 19 of the 39 critical raw materials it needs for its production processes. This dependency on external sourcing threatens not only the EU Member States’ autonomy of action but also the competitiveness of the European defence industry.

2.3 Enhancing cooperation at EU level

Based on the rationale that increased cooperation between Member States would enhance their defence capabilities and strengthen the European defence industry, several initiatives have been developed in recent years to promote defence cooperation at EU level.

Capability Development Plan

The Capability Development Plan (CDP) is both a document and a process, developed by the EDA, in collaboration with the EUMS/EUMC and the Member States. It provides an overview of capability requirements, with the aim of making national defence planning processes more consistent and supporting Member States’ cooperation in the area of capability development.

The CDP is regularly updated and was revised and adopted by Member States in June 2018. In particular, the 2018 CDP takes account of the new EU level of ambition as set out in the EUGS (see Box 1) and reflects the need for “full-spectrum” capabilities, in particular high-end land, air, sea, space and cyber warfare capabilities. As part of the 2018 procedure, the EDA identified 11 strategic priorities (see Annex III), covering short- to long-term capability development needs and opportunities.

---

161 “The EU Capability Development Priorities”, 2018 CDP revision, EDA.
162 The priorities are further categorised into 38 detailed sub-areas in the 2018 CDP revision of “The EU Capability Development Priorities”.
CARD

117 The Coordinated Annual Review of Defence (CARD) was introduced following Members States’ adoption of the IPSD in November 2016. CARD is an intergovernmental mechanism, implemented on a voluntary basis, with the aim of providing “a more structured way of developing the required capabilities, based on greater transparency and commitments from the Member States”\(^\text{163}\).

118 CARD aims to structure the planning process and enhance cooperation at EU level through greater transparency and sharing of information by Member States. By means of systematic monitoring by the EDA, the CARD process provides an overview of (i) Member States’ defence plans; (ii) progress made towards CDP priorities; and (iii) the development of European collaboration.

119 The first CARD, in the form of a trial run, took place in autumn 2018. Building on this trial run, a full CARD is expected to take place in autumn 2019.

Box 5

Conclusions of the CARD 2018 trial run\(^\text{164}\)

The first CARD report noted some recent positive trends, in particular the level of defence spending and the relative share of collaborative programmes in capability development between Member States.

However, defence R&T remains an area of concern, with a decrease in the share of investments allocated to it. This jeopardises Member States’ long-term capacity to innovate in the area of future technologies.

PESCO

120 Permanent structured cooperation (PESCO) was introduced by the Lisbon Treaty in 2009\(^\text{165}\). The Treaty allowed “Member States whose military capabilities fulfil higher criteria and which have made more binding commitments to one another” significantly to deepen their collaboration on defence. PESCO is a Member State-


\(^{165}\) Articles 42(6) and 46 and Protocol 10 TEU.
driven process within the EU framework. Being both a permanent framework and a structured process, it differs from other ad hoc cooperative frameworks.

121 PESCO was formally established on 11 December 2017\(^{166}\) with the participation of 25 Member States\(^{167}\). It includes two levels: (i) the fulfilment of high-level commitments and (ii) the development of collaborative defence projects.

122 A key feature of PESCO is the legally binding nature of the commitments involved. The participating Member States agreed on 20 commitments to invest, plan, develop and operate defence capabilities\(^{168}\). Progress towards fulfilment of the commitments is assessed annually by the High Representative, based on the National Implementation Plans the Member States have submitted.

123 The second level of PESCO concerns collaborative projects. So far, the Council has adopted 34 projects in total\(^{169}\), dealing with both capability development and operations. The Member States’ participation in individual projects is voluntary, with a current average of five Member States per project. The capabilities developed under the PESCO framework are owned by the Member States, which can decide to use them in other frameworks such as NATO.

The European Defence Fund

124 The idea of a European Defence Fund was proposed by the Commission in the European Defence Action Plan in November 2016 (see paragraph 40). In practice, two pilot programmes were set up during the 2017-2020 period, the aim being to test the feasibility and added value of acting at EU level and to prepare for the future European Defence Fund that will be implemented for the next MFF (2021-2027):

- the Preparatory Action on Defence Research (PADR), with €90 million to support collaborative R&T projects for 2017-2019;

\(^{166}\) Council Decision (CFSP) 2017/2315 of 11 December 2017 establishing permanent structured cooperation (PESCO) and determining the list of participating Member States.

\(^{167}\) Denmark, Malta and the UK do not participate in PESCO.

\(^{168}\) https://pesco.europa.eu/.

\(^{169}\) 17 initial projects were approved on 6.3.2018, and the Council agreed on another batch of 17 projects on 19.11.2018.
the European Defence Industrial Development Programme (EDIDP), with €500 million to co-finance joint industrial projects in the development phase for 2019-2020 (Box 6).

Box 6

EDIDP – First joint defence industrial projects

In March 2019, the Commission issued the work programme for the EDIDP. A share of the €500 million budget has been allocated to calls for proposals, in the following areas:

1. enabling operations, protection and sustainability of military forces: €80 million;
2. intelligence, secured communication and cyber-defence: €180 million;
3. ability to conduct high-end operations: €70 million;
4. innovative defence technologies and SMEs: €27 million.

In addition, the Commission selected two projects for direct award:

5. €100 million for the development of European long-endurance drones (RPAS MALE);
6. €37 million for a secure radio system (European Secure Software defined Radio).

For the next MFF, the European Defence Fund builds on the PADR and EDIDP by integrating the research and development components into a fully-fledged fund, with a substantial increase in funding, from €590 million to €13 billion. This represents a 22-fold increase compared to the present seven-year cycle. The current proposal has a budget of €13 billion, split into €4.1 billion for research and €8.9 billion for development (see Figure 16), thus making the EU the fourth-largest European contributor to R&D activities related to defence.


The objective of the Fund is “to foster the competitiveness, efficiency and innovation capacity of the European defence industry, (...) thus contributing to the Union’s strategic autonomy, in technological and industrial terms”\(^\text{172}\). To do so, the fund aims to stimulate and support collaborative actions and cross-border cooperation through financial incentives for legal entities in both research and development.

The Fund has the following key features:

- Collaborative projects must involve at least three eligible entities from three Member States or associated countries.
- The proposed level of funding can be up to 100 \% for the research phase and from 20 \% to 80 \% co-financing (with Member States’ budgets) for the development phase.
- Bonuses in the form of higher funding rates are envisaged to promote SMEs and mid-cap participation and for PESCO projects.

A share of 4%-8% of the €13 billion budget should be devoted to supporting disruptive technologies in defence.

2.4 Performance risks associated with EU defence programmes

Compared to the limited advances in defence in EU history, the recent initiatives (PESCO, CARD and the European Defence Fund) can be regarded as a “step change”\(^\text{173}\). However, as for the impact of these new EU initiatives and the associated rapid increase in spending, several key conditions for these initiatives to be effective are not yet in place or are unknown.

An effective EU planning process

Until the 2018 CDP revision (see paragraph \textit{116}), a recent study for the European Parliament\(^\text{174}\) found that previous initiatives had not succeeded in creating a meaningful EU planning process as a basis for development capabilities. As things stand, a proper defence planning process, in the form of a White Book comparable to national planning documents, is still lacking at EU level. In practice, Member States carry out defence planning and acquisition from a national perspective, which highlights the need for greater alignment in their defence plans\(^\text{175}\).

The EU planning process is complex and involves many stakeholders. In the above-mentioned study, it was reported as non-cyclical, incomplete due to a lack of clear military ambition (see paragraphs \textit{60} to \textit{61}), and characterised by logical flaws\(^\text{176}\). It consists of four overlapping layers which are fragmented between the stakeholders that lead the various processes\(^\text{177}\). At the same time, steps to increase the capacity of

\begin{itemize}
\item \textit{173} European Political Strategy Centre, “Joining forces – the way towards the European Defence Union”, February 2019.
\item \textit{174} “The European defence planning process is ineffective and complicated; it has produced virtually no capability since it came into existence” from Frédéric Mauro, “EU Defence: The White Book implementation process”, study requested by the European Parliament’s Subcommittee on Security and Defence, 12.12.2018, p. 64.
\item \textit{175} EDA, Factsheet on Coordinated Annual Review on Defence CARD, updated on 26.11.2018.
\item \textit{177} “This [EU] system was set in place in successive stages, like layers one on top of the other, and its overall coherence is by no means assured. Indeed, there is not just one capability process in the EU, but four: the Capability Development Mechanism (…) the CDP, (…), CARD
\end{itemize}
EU defence planning also tend to increase activities that are parallel to NATO’s, as well as potentially overlapping\textsuperscript{178}.

\textbf{131} As things stand, the capability planning processes of the EU and NATO lack consistency. NATO’s Defence Planning Process has existed for almost 50 years and has been described as a well-established, structured process\textsuperscript{179}. By contrast, the EU’s recently established capability process is not yet mature. The potential exists to align CDP and CARD more closely with NATO’s planning processes, the aim being to ensure that outputs and timelines are consistent and to limit the inefficiencies associated with processes being duplicated\textsuperscript{180}.

\textbf{132} The new initiatives bring additional elements to structure the planning process. Consistency and appropriate sequencing, i.e. from priorities to capability development, are of critical importance\textsuperscript{181}. However, in reality, the parallel launch of the various mechanisms has not yet allowed a logical flow to take place. In fact, the first PESCO projects were adopted in March 2018, whereas the CDP was revised only in July 2018. In parallel, PADR projects started as early as 2017, followed by EDIDP in early 2019. Meanwhile, the EDA completed a CARD trial run only in November 2018. Effective links and consistency between all the initiatives is yet to be demonstrated in practice.

\textbf{The Member States’ participation}

\textbf{133} The implementation and effectiveness of CARD, the European Defence Fund and PESCO depends on the Member States’ willingness and fulfilment of their

\textsuperscript{178} Dick Zandee, “PESCO implementation: the next challenge”, Clingendael Institute, September 2018.


\textsuperscript{180} The Headline Goal process, which is the EU’s systemic approach in developing the necessary military capabilities for CSDP, has recently been synchronised with the NATO Defence Planning Process, in terms of timelines, taxonomy and tools.

\textsuperscript{181} EDA, Factsheet on Coordinated Annual Review on Defence CARD, updated on 26.11.2018.
commitments. As it is the Member States that set priorities, and develop and use capabilities, the new initiatives cannot be a success without them\(^{182}\).

134 As a voluntary process, CARD is heavily dependent on trust between Member States. PESCO entails binding commitments, but Member States’ willingness to achieve them remains an unknown factor, amplified by the fact that the ability to enforce those commitments is, for both legal and political reasons, very uncertain\(^{183}\).

135 In addition, the European Defence Fund assumes a buy-in from the Member States that should co-finance development expenditure. Therefore, the number and types of project will be contingent upon Member States’ willingness to invest additional funds. Another risk is that EU financial incentives might replace rather than complement national funding\(^{184}\).

The impact on real capability needs

136 The significant and rapid increase in funding to support defence-oriented R&D activities entails performance risks for the European Defence Fund. In particular, there is a risk that the funding could be used as an exercise which is not going to make the European defence industry more competitive, or create and build the capabilities that are needed. Implementing it therefore requires an appropriate balance to avoid being perceived as a subsidy for SMEs in smaller Member States, or as a tool dedicated solely to major companies in bigger Member States\(^{185}\).

137 With regard to PESCO, a study carried out by the European Leadership Network and the IISS concluded in February 2019 that although the first 34 PESCO projects were useful, it was unlikely that they would have a significant impact on the EU’s requirements, in particular as regards the shortfalls identified for the EU level of


\(^{184}\) Bastian Giegerich, “After the EU global strategy: Consulting the Experts”, 2016.

ambition\textsuperscript{186}. Defence involves creating real military capabilities, with a clear potential to deter possible threats, and implies readiness to act when required.

The governance and accountability framework

\textbf{138} Governance at EU level is complex and involves many stakeholders.

\textbf{139} In particular, the governance of defence capability development in the EU is in the process of being fundamentally changed\textsuperscript{187}. With the set-up of the European Defence Fund, the Commission, the European Parliament and the EU budget are now involved in developing defence capabilities, a domain traditionally governed by intergovernmental arrangements. The European Defence Fund aims to connect two different and complex systems – the EU and national defence systems – each of which has specific operational characteristics, traditions and rules\textsuperscript{188}.

\textbf{140} Lastly, from an accountability perspective, CSDP bodies, missions and operations do not have similar audit and discharge arrangements (see paragraphs \textsuperscript{26} and \textsuperscript{27}). In particular, EDA and CSDP military missions lack oversight from the European Parliament, have specific audit arrangements, and lie for now outside the ECA’s audit mandate. As noted in the past, the ECA considers that it should be appointed to act as the external auditor of all bodies set up to implement EU policies, including the EDA\textsuperscript{189}.

\textbf{141} The development of European Defence cooperation, in particular through new initiatives such as PESCO, CARD and the European Defence Fund, is likely to create additional complexity. Indeed, while the initiatives are supposed to be mutually reinforcing, they are distinct and have different legal bases, and therefore may be subject to different audit and discharge arrangements (see \textit{Annex VI}). This could prevent effective and comprehensive control over EU defence and security policy. The


\textsuperscript{187} Dick Zandee “Developing European defence capabilities - bringing order into disorder”, Clingendael Institute, October 2017.


European Parliament has repeatedly called on the Member States to increase the CSDP’s transparency, accountability, and parliamentary oversight in line with its powers in other areas\textsuperscript{190}.

\textsuperscript{190} European Parliament resolution of 12 December 2018 on the annual report on the implementation of the Common Security and Defence Policy (2018/2099(INI)), paragraphs 60-63.
Concluding remarks

142 Until recently, there had been limited action in the area of defence at EU level and a European Defence Union does not exist. However, in response to a challenging new global environment, the EU has developed new ambitions and launched new initiatives to enhance cooperation between Member States.

143 In this review, our aim has been to highlight some of the main challenges associated with the EU’s new level of ambition in defence and the proposed increase in funding. As it is too early to assess the impact of recent EU initiatives, the value added by acting at EU level in the field of defence is yet to be demonstrated in practice.

144 Contributing to better defence capacity in Europe means going beyond words and requires effective implementation of real initiatives, with the aim of supporting a competitive European defence industry and enhancing Member States’ military capabilities in full complementarity with NATO. Ultimately, the EU’s success and future in the field of defence depends entirely on the Member States’ political will, as they play the central role in Europe’s defence architecture.

This Review was adopted by Chamber III at its meeting of 16 July 2019.

For the Court of Auditors

Klaus-Heiner LEHNE
President
Annex I — Timeline

Source: ECA.
Annex II — The European defence institutional framework: a complex and multi-player domain

EU institutions and agencies

HR/VP

EUROPEAN COUNCIL

Council

Foreign Affairs Council

COREPER II
PSC
CIVCOM
EUMC
Pol. Mil. Group
Other working parties

CSDP agencies

European Defence Agency

Member States – Multilateral defence frameworks

OCCAR
Movement Coordination Centre Europe
Eurocorps
EI2
Nordefco
Visegrad group

International organisations

UNITED NATIONS
NATO
ORGANISATION FOR SECURITY AND CO-OPERATION IN EUROPE
AFRICAN UNION

Third states participating in CSDP missions

Source: ECA.
## Annex III — Capability priorities identified in key EU documents, 2013-2019

<table>
<thead>
<tr>
<th>2013 European Council</th>
<th>2014 CDP</th>
<th>2016 EU Global Strategy</th>
<th>2018 CDP</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Air</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unmanned aerial vehicle (UAV)</td>
<td>Inter-Theatre Air Capabilities</td>
<td>Air mobility</td>
<td></td>
</tr>
<tr>
<td>Air-to-air refuelling</td>
<td>Single European Sky Air Traffic Management Research (SESAR)</td>
<td>Air superiority</td>
<td></td>
</tr>
<tr>
<td><strong>Command, Control, Information and Cyber</strong></td>
<td></td>
<td>Integration of military air capabilities in a changing aviation sector</td>
<td></td>
</tr>
<tr>
<td>Cyber defence</td>
<td>Counter Cyber Threats (Cyber Defence)</td>
<td>Enabling capabilities for cyber-responsive operations</td>
<td></td>
</tr>
<tr>
<td>Satellite communication</td>
<td>Space-based information service</td>
<td>Space-based information and communication services</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Enhance Battlespace Information and Communication Services</td>
<td>Information superiority</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Remotely Piloted Aircraft providing Surveillance</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Provide SATCOM Capabilities</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Land</strong></td>
<td>Intra-Theatre Combat Capabilities</td>
<td>Ground combat capabilities</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Enhance Logistic Support for Deployed Forces</td>
<td>Enhanced logistic and medical supporting capabilities</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Provide Medical Support for Operations</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Maritime</strong></td>
<td>Maritime Patrolling and Escorting</td>
<td>Naval manoeuvrability</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Naval Surveillance systems</td>
<td>Underwater control contributing to resilience at sea</td>
<td></td>
</tr>
<tr>
<td><strong>Transversal</strong></td>
<td>Energy and Environmental Protection</td>
<td>Full-spectrum land, air, space and maritime capabilities, including strategic enablers</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Modelling, Simulation and Experimentation</td>
<td>Cross-domain capabilities helping to achieve EU’s level of ambition</td>
<td></td>
</tr>
</tbody>
</table>

## Annex IV — Key features of EU defence industry subsectors (Aerospace, Land, Naval) 1/2

<table>
<thead>
<tr>
<th>Subsector</th>
<th>Turnover (billion €)</th>
<th>Employment</th>
<th>Example of products</th>
<th>Main locations</th>
<th>Main EU companies</th>
<th>Main non-EU stakeholders</th>
<th>Key features of the EU industry</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Aerospace</strong></td>
<td>45</td>
<td>187,000</td>
<td>Aircraft, Aero-engines, Helicopters, Missiles, Space systems</td>
<td>France, Germany, Italy, Sweden, United Kingdom</td>
<td>BAE Systems (UK), Airbus (EU), Thales (Fr), Leonardo (It), MBDA (EU)</td>
<td>Lockheed Martin Corp. (US), Boeing (US), Raytheon (US), Northrop Grumman Corp. (US), General Dynamics Corp. (US)</td>
<td>The sector includes a small number of large industrial groups and many SMEs and Mid-Caps in the supply chain. It has a high level of consolidation at national and European level, with global companies such as Airbus and EADS. However, the main EU companies are relatively small compared to their US counterparts. The sector is R&amp;D-intensive (up to 30% of total costs for a combat aircraft) and strongly interconnected with the civilian sector. Except for a few cases (such as BAE Systems, MBDA and Saab), the main leading companies are involved in dual-use activities and are not fully dependent on the defence sector.</td>
</tr>
<tr>
<td><strong>Land</strong></td>
<td>28</td>
<td>258,000</td>
<td>Armoured vehicles (Main battle tanks, etc.), Artillery, Small arms and ammunition, Engines, Sensors, C4ISR</td>
<td>France, Germany, Italy, United Kingdom, Finland</td>
<td>BAE Systems (UK), Leonardo (It), Rheinmetall (De), Krauss-Maffei Wegmann (De), Nexter (Fr)</td>
<td>General Dynamics (US), Oshkosh Corp. (US), Textron (US), Mitsubishi Heavy Industries (Jp), Indian Ordnance Factories (In), High Precision Systems (Ru), Uralvagonzavod (Ru)</td>
<td>The sector is less concentrated than in aerospace. Main integrators are concentrated in LoI countries. However, SMEs play a significant role as subcontractors and specialised product suppliers operating in niche markets across the EU. The set-up of the “KNDS” joint venture between Nexter and Krauss-Maffei Wegmann illustrates a recent consolidation of the sector in the EU. The sector is relatively more defence-dependent and public ownership is still present. The sector is as well less R&amp;D intensive (&lt;15% for land-based armament programme) than the aerospace one and there are less dual-use opportunities.</td>
</tr>
<tr>
<td><strong>Naval</strong></td>
<td>22</td>
<td></td>
<td>Surface ships, Amphibious ships, Submarines, Naval weapons</td>
<td>France, Germany, Italy, United Kingdom, Spain, The Netherlands</td>
<td>BAE Systems (UK), Naval Group (Fr), ThysenKrupp (De), Fincantieri (It), Navantia (Sp), Damen (Nl)</td>
<td>Northrop Grumman Corp. (US), General Dynamics Corp. (US), Huntington Ingalls Industries (US), United Shipbuilding Corp. (Ru)</td>
<td>European suppliers are concentrated around six major naval companies that act as prime contractors and system integrators. By nature, the sector relies on a diverse supply chain, made up of a large number of specialised suppliers, often with links to other sectors, in particular electronics (Thales) or aerospace for weapons or engines (Rolls Royce and MBDA). The sector is relatively dependent on defence (except for Fincantieri). State ownership is relatively high (Naval group, Fincantieri and Navantia) and the main EU companies (except for BAE Systems) are usually specialised in the naval sector. Opportunities arising from dual-use technologies are increasingly considered in the supply chain.</td>
</tr>
</tbody>
</table>

## Annex IV — Key features of EU defence industry subsectors (Aerospace, Land, Naval) 2/2

<table>
<thead>
<tr>
<th>EU collaboration</th>
<th>Main collaborative programmes</th>
<th>Capacities, competence, competitiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Aerospace</strong></td>
<td>AA60 NH-90</td>
<td>The sector is able to deliver key military capabilities and cutting-edge technologies, such as modern combat aircraft, missiles, helicopters and strategic airlift and air tanker capabilities.</td>
</tr>
<tr>
<td></td>
<td>Eurofighter Typhoon</td>
<td>A technological gap exists in Medium-Altitude Long-Endurance (MALE) Drones that until now have mainly been purchased from the US and Israel. However, several collaborative projects are ongoing at EU level (e.g., European MALE RPAS).</td>
</tr>
<tr>
<td></td>
<td>MALE RPAS</td>
<td>The industry is currently well positioned in the global market with top players. Some EU products had strong export records, e.g., combat aircraft (Rafale and Typhoon), missiles (MBDA) or helicopters (Eurocopter). However, the market is still dominated by main US companies and emerging competitors may challenge the competitiveness of EU industry in this sector.</td>
</tr>
<tr>
<td></td>
<td>Meteor</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tiger</td>
<td></td>
</tr>
<tr>
<td><strong>Land</strong></td>
<td>Boxer</td>
<td>The sector is able to design, manufacture, upgrade and support key military capabilities for land warfare, such as main battle tanks and armoured fighting vehicles, ammunition, precision munitions, artillery systems and missile launchers.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The sector performs strongly in exports (Leopard and armoured vehicles) to South East Asia, India, Middle-Eastern countries, Brazil or Australia.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Competition in the global market involves players from countries across the world (US, Russia, Japan, India and South Korea).</td>
</tr>
<tr>
<td><strong>Naval</strong></td>
<td>FREMM</td>
<td>The European naval industry is able to design, integrate and produce the whole range of key capabilities in the naval sector, from ships to almost all core systems and components. There is no dependency on non-EU countries for critical systems.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The industry is highly competitive in international markets, as reflected by a strong market share and export results, especially in market segments of higher added value such as submarines, destroyers and frigates.</td>
</tr>
</tbody>
</table>

The naval sector is increasingly dependent on exports. The main export markets are the Middle East, Africa, Asia and South America. There is growing competition from China, South Korea and Russia.

Sources: ECA, based on:
- ASD facts and figures 2017
- Study to the European Parliament’s Subcommittee on Security and Defence — “The development of a European Defence Technological and Industrial Base (EDTIB)” – June 2013
- Study commissioned by EDA on Industrial and Technological Competences in the Naval Sector – 2016
- TNO - Development of a European Defence Technological and Industrial Base – 2009
- IKEI Research and Consultancy - Study on the Perspectives of the European Land Armament sector – 2012
Annex V — SWOT\textsuperscript{191} analysis – EDTIB

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presence of European leaders in the global markets</td>
<td>Fragmented defence market with excess capacity, duplications and missed economies of scale</td>
</tr>
<tr>
<td>Capacity to design and produce a wide range of military products in aerospace, land, naval and electronic segments</td>
<td>Increasing costs of defence equipments and systems</td>
</tr>
<tr>
<td>Experience in multinational cooperation (in particular in aerospace sector)</td>
<td>Relative low level of R&amp;D expenditures</td>
</tr>
<tr>
<td>Highly skilled workforce</td>
<td>Lack of collaborative defence procurements and R&amp;D</td>
</tr>
<tr>
<td></td>
<td>Divergence in Member States’ exports policies</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Opportunities</th>
<th>Threats</th>
</tr>
</thead>
<tbody>
<tr>
<td>Growth in global military expenditure</td>
<td>Competition from traditional and emerging competitors</td>
</tr>
<tr>
<td>Momentum for EU defence cooperation supported by Member States</td>
<td>Loss of innovative capacity and technological superiority, hindering global competitiveness</td>
</tr>
<tr>
<td>Launch of large new collaborative programmes (Future Combat Air Systems programme, Eurodron MALE, European Main Battle Tank)</td>
<td>Security of supply with increased dependency on international and complex supply chains</td>
</tr>
<tr>
<td>Potential for rationalisation and restructuring, in particular in the land and naval sectors</td>
<td>No preference for using EU suppliers by Member States</td>
</tr>
<tr>
<td>Dual-use possibilities and growing interaction with the civilian sector</td>
<td>High entry barriers in non-EU market</td>
</tr>
</tbody>
</table>

Source: ECA.

\textsuperscript{191} Strengths, Weaknesses, Opportunities and Threats.
Annex VI — Main audit arrangements in the field of EU Defence

<table>
<thead>
<tr>
<th>Current MFF (2014-2020)</th>
<th>ECA</th>
<th>College(s) of Auditors</th>
<th>National audit institutions and bodies</th>
</tr>
</thead>
<tbody>
<tr>
<td>CFSP Chapter including civilian CSDP missions</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EEAS administrative expenditures, including EU military staff</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Military CSDP missions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Common operational costs (ATHENA mechanism)</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Military CSDP missions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Individual operational costs</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>CSDP Agencies, including the European Defence Agency</td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>African Peace Facility</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>PESCO - Projects without EU budget funding</td>
<td></td>
<td></td>
<td>?</td>
</tr>
<tr>
<td>PESCO - Projects with EU budget funding</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>PADR</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>EDIDP</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Capacity Building in support of Security and Development (financed under IcSP)</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>MFF 2021-2027</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>European Defence Fund*</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>European Peace Facility**</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Military mobility*</td>
<td></td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

* Based on the Commission’s legislative proposals
** Based on the proposal of the HR/VP

Source: ECA.
Acronyms and abbreviations

APF: African Peace Facility
CARD: Coordinated Annual Review of Defence
CBSD: Capacity building in support of security and development
CDP: Capability Development Plan
CFSP: Common Foreign and Security Policy
CIVCOM: Committee for Civilian Aspects of Crisis Management
CPCC: Civilian Planning and Conduct Capability
CSDP: Common Security and Defence Policy
DG GROW: The Commission’s Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs
DTIB: Defence Technological and Industrial Base
ECA: European Court of Auditors
EDA: European Defence Agency
EDIDP: European Defence Industrial Development Programme
EDTIB: European Defence Technological and Industrial Base
EEAS: European External Action Service
EUGS: European Union Global Strategy
EUMC: European Union Military Committee
EUMS: European Union Military Staff
FPI: Foreign Policy Instrument
HR/VP: High Representative for Foreign Affairs and Security Policy
IISS: International Institute for Strategic Studies
IPSD: Implementation Plan on Security and Defence
**LoI**: Letter of Intent

**MFF**: Multi-annual Financial Framework

**MPCC**: Military and Planning Conduct Capability

**NATO**: North Atlantic Treaty Organisation

**NORDEFCO**: Nordic Defence Cooperation

**OCCAR**: Organisation for Joint Armament Cooperation

**PADR**: Preparatory Action on Defence Research

**PESCO**: Permanent Structured Cooperation

**R&D**: Research and Development

**R&T**: Research and Technology

**SIPRI**: Stockholm International Peace Research Institute

**SME**: Small and Medium-sized Enterprise

**TEU**: Treaty on European Union
ECA team

This ECA’s Review - European Defence was adopted by Chamber III External action/Security and justice. The task was led by ECA Member Juhan Parts, supported by Ken-Marti Vaher, Head of Private Office and Margus Kurm, Private Office Attaché.
COPYRIGHT DISCLAIMER

Reproduction is authorised provided the source is acknowledged.

For any use or reproduction of photos or other material that is not under the European Union copyright, permission must be sought directly from the copyright holders.

Figure 1, map: © OpenStreetMap contributors. The cartography in the map tiles is licenced under the Creative Commons Attribution-ShareAlike 2.0 licence (CC BY-SA).
Defence is a specific domain, at the heart of Member States’ national sovereignty. Until recently, there had been limited action in the area of defence at EU level. However, in response to a challenging new global environment, the EU has launched new defence-related initiatives to enhance cooperation between Member States. This has placed defence clearly on the ECA’s radar, as the significant and rapid increase in funding associated with new EU ambitions and initiatives entails performance risks. Therefore, the ECA has prepared this review, which is not an audit but an analytical review based on a documentary review of publications on the topic and interviews with staff from EU and other institutions and bodies. It specifically focuses on (i) the legal, institutional and financial framework in the area of defence and (ii) the state of play as regards Member States’ defence capabilities and industries. The idea of this review is to look at the current landscape of EU defence cooperation and to highlight some of the main risks associated with the EU’s new level of ambition and defence-related initiatives that have been developed in recent years.

Contributing to better defence capacity in Europe means going beyond words and requires effective implementation of real initiatives, with the aim of supporting a competitive European defence industry and enhancing Member States’ military capabilities in full complementarity with NATO. Ultimately, the EU’s success and future in the field of defence is fully dependent on the Member States’ political will, as they play the central role in Europe’s defence architecture.