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# Defence industry cooperation in the European Union

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Rationale,  
initiatives,  
achievements,  
challenges

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## IN-DEPTH ANALYSIS

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Offering an overview of cooperation in the European defence industry and the rationale behind it, this paper begins with an analysis of the EU's political initiatives, institutional setting, instruments and laws in the context of enhancing economic cooperation in the defence sector. Having looked at achievements in and challenges for Europe's defence industry, the paper goes on to examine the potential of the EU's new instrument, the European Defence Fund and the prospects of the French-German-Spanish future combat air system project, Europe's most ambitious joint defence programme. The paper ends by outlining the European Parliament's position on defence market cooperation within the Union and closes with an outlook.

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## Executive summary

The European Union (EU) is the world's second largest military spender but does not have the same efficiency, operability and innovation power as the United States (US). Economic rationale would suggest that Member States should collaborate on common projects so as to lower unit costs and expenditure on research and development and build a durable EU alternative to the US defence industry. European defence industry cooperation agreements have resulted in various common projects such as the Puma helicopter and Eurocopter, the Tornado jet, the Eurofighter and the Airbus A400M transport aircraft. These agreements, however, were agreed and signed at intergovernmental level, without European Community/EU level involvement. The primacy of national interests has, meanwhile, at times resulted in Member States leaving joint defence industry projects.

With the dramatic changes in the security environment in Europe over recent years, the EU's common security and defence policy (CSDP) and defence technological and industrial base has gained unexpected new momentum that has translated into several political initiatives, such as the adoption of the EU Global Strategy, the inception of permanent structured cooperation (PESCO), the assignment of new tasks to the European Defence Agency, and the creation of the European Defence Fund. The EU's new impetus in security and defence matters, however, is also contested. Critics argue that it could foster the militarisation of the Union, prompting calls for greater European Parliament involvement in defence issues.

With the European Defence Fund, the EU is for the first time using the Union budget as an incentive to foster (cooperation in) military capabilities. The Fund has the potential to be a game changer in terms of financially incentivising intra-EU cooperation on common research and capability projects, but it will have to cope with a severely restricted budget for the 2021-2027 period. It is difficult to say to what extent the new fund will be able to tackle the challenges facing the EU defence industry, for instance, national defence budget constraints, cost inflation, intellectual property rights, Brexit and disruptive technologies.

Nevertheless, the stakes are high. With the future combat air system (FCAS), Member States France, Germany and Spain have initiated and are participating in the Union's most ambitious and expensive defence industry project yet. At its core is the construction of a sixth-generation stealth fighter jet. If successful, FCAS has the potential to enable the Member States (and the EU) to compete with Russia in the air, and decrease military dependence on the US. If it fails, however, future large-scale joint armament projects in Europe will become difficult to achieve, and dependencies on US manufacturers will continue to grow.

The absence of a European defence union is both the result and a cause of Member States' self-limitation in common foreign and security policy. In this field, the EU sees itself not as a geopolitical superpower, but as crisis manager responding to external conflicts and engaging in capacity-building. Yet, developing and strengthening the EU's defence capabilities and industry only makes sense if paired with clear commitments and a geopolitical dimension. In this context, the EU's forthcoming 'strategic compass' could channel the necessary direction of force.

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# 1. Introduction: The rationale of cooperation in the European defence industry

Since its inception, Member States of the European Community (EC) and later the European Union (EU) have often rejected the idea of creating a European defence community or a defence union. They have also rejected the bloc's attempts to become more deeply involved politically and legally in the development, production and procurement of military goods and services. In line with Adam Smith's words (see right), and Realism Theory and its assumptions about 'high politics', Member States frequently consider the autonomy of their defence industries as key to their national security interests.<sup>1</sup>

'If any particular manufacture was necessary, indeed, for the defence of the society, it might not always be prudent to depend upon our neighbours for the supply'.

*Source:* Adam Smith, *The Wealth of Nations*, Book IV, Chapter 5, 1776.

According to the European Commission, the EU is the world's second largest military spender, but does not have the same efficiency, operability and innovation power as the US.<sup>2</sup> While superpowers and potential rivals such as China and Russia have been upgrading their defence expenditures on a permanent basis, medium-sized powers in the EU have been shrinking their defence budgets over recent years. One way to foster the European defence market and enhance its efficiency would be to deepen Member States' cooperation in the defence industry; but this idea is not undisputed. Put simply, countries have three options when it comes to sourcing their military capabilities – operating on an exclusively national basis, buying abroad or joining common projects. Developing and manufacturing exclusively at national level may guarantee political and economic independence, but it requires a highly skilled workforce and financial viability. Off-the-shelf purchases from abroad may be less expensive, but they can lead to dependence on foreign suppliers and limit operational flexibility. Cooperation on common projects relies mainly on a market-based rationale, such as lowering costs for research and development (R&D) and units. Although this approach may keep the domestic defence industry involved in decision-making and production processes, it could lead to long-term dependency and financial risk.<sup>3</sup>

Driven mainly by the intention to build a durable European alternative to the US aerospace industry, sporadic cases of cooperation assignments in the European defence industry have been observed in the past. Examples include the common helicopter projects – Puma and Eurocopter – and the Tornado jet, the Eurofighter and the Airbus A400M transport aircraft. These assignments, however, were agreed and signed at intergovernmental level, without EC/EU level involvement. The European Commission usually comes into play when single market rules are affected. That was the case, for instance, when French, German and Spanish aerospace firms merged to form the European Aeronautic Defence and Space (EADS) company.

<sup>1</sup> Realism is an important international relations theory. It postulates that the international political system is anarchic while states (and not international organisation) are the central actors in international politics. In this school of thought, states are rationalist actors that pursue foreign policies in line with their national interests (security, economic, etc.), an approach also referred to as *Realpolitik*. While 'high politics' apply, for instance, to security or taxation policy, 'low politics' cover areas that are allegedly easier to integrate politically, such as monetary or transport policy. For an overview of international relations and European integration theories explaining EU common foreign and security policy, see C. Karakas, [Die Balkankrise als Gegenstand der Gemeinsamen Außen- und Sicherheitspolitik \(GASP\) – Die EU zwischen Integration und Kooperation](#), Peter Lang Publishers, 2004.

<sup>2</sup> See European Commission communication on the [European defence action plan](#), COM(2016) 950, 30.11.2016, p. 3.

<sup>3</sup> B. Jones, 'Choices and dilemmas for European defence acquisition: alone, together or 'off-the-shelf'', in European Liberal Forum (ed.), [Solving the European defence market puzzle](#), 2018, pp. 26-42 (26).

However, as the security environment in Europe has changed dramatically in recent years, the Union's common security and defence policy (CSDP)<sup>4</sup> and defence technological and industrial base have gathered unexpected new momentum. In the aftermath of the 2014 Ukrainian revolution, the stability of the EU's neighbourhood and its eastern Member States came under threat when Russia annexed the Crimean peninsula and triggered a civil war in eastern Ukraine. Europe has also suffered a string of Islamist terrorist attacks since 2015. Also worth mentioning are the massive rise in refugee and migrant arrivals since 2015, the 2016 referendum in the United Kingdom in favour of Brexit, and the victory of Donald Trump at the presidential elections in the United States. President Trump called into question both the transatlantic partnership and the US security guarantee for Europe (unless there was a substantial increase in EU defence budgets).<sup>5</sup>

The EU's new momentum in security and defence matters translated, not least, into the EU's Global Strategy.<sup>6</sup> The June 2016 paper called, among other things, for an 'appropriate level of ambition and strategic autonomy' to promote peace and security within the Union and beyond. The EU intended to enhance its 'efforts' in defence, cyber and counter-terrorism, and would promote the creation of a 'solid European defence industry, which is critical for Europe's autonomy of decision and action'.

Furthermore, in November 2016, for the first time, the Commission tabled a European defence action plan.<sup>7</sup> The plan announced the reinforcement of the single market for defence and, most notably, the creation of the European Defence Fund. With the fund, also for the first time, the EU would use the Community budget as an incentive to foster (cooperation in) military capabilities.

In July 2017, France and Germany agreed on the future combat air system (FCAS), which would include the development of a next generation fighter jet. The FCAS can be considered the most ambitious (and expensive) European defence project to date.<sup>8</sup>

Then, in December 2017, permanent structured cooperation (PESCO) was launched at Council level.<sup>9</sup> PESCO members are committed to increasing expenditure in defence capabilities as well as in defence research and technology. In addition, they are invited to develop and foster joint military projects. In this context, one prominent European Defence Fund-supported PESCO project is 'Eurodrone', a major EU drone project, designed to catch up with the US, UK, Israel and Turkey.

Finally, in late 2019, under the auspices of the new President of the European Commission, Ursula von der Leyen, the Commission established its first ever directorate-general for the defence industry and space (DG DEFIS),<sup>10</sup> which is part of the portfolio of the Commissioner for the Internal Market, Thierry Breton. He has been tasked to build an open and competitive European defence equipment market, and to increase military mobility. More competitiveness and cooperation in the

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<sup>4</sup> For more information on the Common Security and Defence Policy, see the European External Action Service's [dedicated website](#).

<sup>5</sup> In addition, technological progress in the civil domain, such as new disruptive technologies, could lead to security vulnerabilities when purchasing 5G hardware and software from autocratic countries (a case in point is Huawei, a 'state-influenced' Chinese company) – this has called the European Union's technical sovereignty and strategic autonomy into question.

<sup>6</sup> See European External Action Service, [Shared Vision, Common Action: A Stronger Europe – A Global Strategy for the European Union's Foreign And Security Policy](#), June 2016.

<sup>7</sup> European Commission communication on the [European defence action plan](#), COM(2016) 950, 30.11.2016.

<sup>8</sup> Airbus executive: What will be most important this year?, [defensenews.com](#), 11.1.2021.

<sup>9</sup> For more info, see the PESCO Secretariat's [dedicated website](#).

<sup>10</sup> See the European Commission's [info page](#).

European defence industry is vital to the credibility of the EU's common security and defence policy and the Commission's own ambitions, which according to President von der Leyen are 'geopolitical'.

This paper aims to give an overview of cooperation in the European defence industry by answering the following questions:

- What EU actions have been initiated and which laws apply?
- Is the European Defence Fund a game changer?
- What are the achievements of and challenges for Europe's defence industry?
- What role can FCAS play?
- Where does the European Parliament stand?
- With the initiatives and instruments in place, can the EU successfully enhance economic cooperation in the defence sector?

## 2. Fostering a European defence market: Legal basis, political initiatives, institutional setting

EU action in the field of defence industry cooperation must be based on Article 173 of the Treaty on the Functioning of the European Union (TFEU),<sup>11</sup> which provides the legal basis for industrial policy, and on Article 182 TFEU, which aims to improve the EU's scientific and technological base. The idea of enhanced cooperation in the defence industry dates back to the inception of the European Community. After a heated discussion, in August 1954, the French National Assembly voted against the proposed European Defence Community (EDC).<sup>12</sup> The EDC would have entailed, among other things, a European army with a joint budget, common armament and centralised military procurement. When it comes to defence industry provisions, Article 223 of the Treaty establishing the European Economic Community<sup>13</sup> – which later became Article 296 of the Treaty establishing the European Community (TEC),<sup>14</sup> and then was absorbed by Article 346 TFEU (see Box below) – granted Member States the right to exempt defence companies from common rules regarding mergers, monopolies and procurement.

European defence market affairs were again (carefully) addressed by the 1997 Amsterdam Treaty.<sup>15</sup> Article J.7 not only incorporated the Western European Union (WEU) into the European Union, but also stated that the 'progressive framing of a common defence policy will be supported, as Member States consider appropriate, by cooperation between them in the field of armaments'.

With the inception of the Organisation for Joint Armament Co-operation / Organisation Conjointe de Coopération en matière d'Armement (OCCAR) by France, Germany, Italy and the UK in November 1996, an intergovernmental organisation was created to enhance collaboration in defence equipment programmes.<sup>16</sup>

In the 1990s, the European Commission advocated – with little success – the idea of a European defence equipment market as a vehicle for market liberalisation based on internal market rules. In

<sup>11</sup> The Treaty on the Functioning of the European Union (TFEU) and its articles can be accessed [online](#).

<sup>12</sup> See Centre Virtuel de la Connaissance sur l'Europe (CVCE), [The failure of the European Defence Community \(EDC\)](#).

<sup>13</sup> Treaty establishing the European Economic Community, Part Six – General and Final Provisions, [Article 223](#).

<sup>14</sup> Treaty establishing the European Community (Nice consolidated version) – Part Six: General and Final Provisions – [Article 296](#), Article 223 of the EC Treaty (Maastricht consolidated version) – Article 223 – EEC Treaty.

<sup>15</sup> The Treaty of Amsterdam can be accessed [online](#).

<sup>16</sup> See the [website](#) of OCCAR.

September 2004, the Commission presented a green paper on defence procurement with the aim of raising the competitiveness of the European defence industry, to improve military equipment and gradually form a European defence equipment market.<sup>17</sup>

In December 2003, Council published the European Security Strategy,<sup>18</sup> calling among other things for the establishment of a defence agency; seven months later, in July 2004, the intergovernmental European Defence Agency (EDA) was set up.<sup>19</sup> All EU Member States except Denmark participate in the EDA, which, since 2012, has had a cooperation agreement with OCCAR. The agency's main functions are to: develop defence capabilities; promote and enhance European armaments cooperation; strengthen the European defence technological and industrial base, and create an internationally competitive European defence equipment market; and foster the effectiveness of European defence research and technology. In order to enhance capability prioritisation, the EDA has pioneered the 'strategic context cases' and produces the capability development plan (CDP).<sup>20</sup> The CDP is a planning tool that looks at future security scenarios and makes recommendations about potential developments. The plan has been subject to criticism, however, in the sense that the capability priority areas are too broad to identify concrete priority projects.<sup>21</sup> Another major task of the EDA is the production of the coordinated annual review on defence (CARD).<sup>22</sup> The objective of the CARD is 'to develop, on a voluntary basis, a more structured way to deliver identified capabilities based on greater transparency, political visibility and commitment from Member States'. To this end, the CARD collects data on participating Member States' defence budgets and capability development, and oversees the implementation of the priorities resulting from the CDP. The latest CARD report from November 2020 identified a total of 55 collaborative opportunities throughout the capability spectrum (e.g. counter unmanned aerial systems, military mobility), and 56 ways to cooperate in research and technology (e.g. artificial intelligence, cyber-defence).<sup>23</sup>

Looking at shortcomings in disruptive technologies, experts state that while the US launched a defence innovation initiative in 2014, Europe has no up-to-date defence technology or innovation strategy.<sup>24</sup> One suggestion here is, similar to its US counterpart, to create a European defence advanced research projects agency (DARPA) to promote an intra-EU innovation culture in defence matters.<sup>25</sup>

In 2007, EU Member States agreed to enhance the development of a European defence technological and industrial base (EDTIB).<sup>26</sup> The further development of this base is one of the main objectives of EU defence industry policy.<sup>27</sup> In this context, Member States have agreed on the [standardisation](#) of defence equipment, which is key for interoperability and has become an

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<sup>17</sup> European Commission, [Green paper on defence procurement](#), COM(2004)608, 23.09.2004.

<sup>18</sup> Council of the European Union, [A Secure Europe In A Better World – European Security Strategy](#), 15895/03, 8.12.2003.

<sup>19</sup> See the [website](#) of the European Defence Agency.

<sup>20</sup> A detailed summary of the capability development plan can be found on the EDA's [website](#).

<sup>21</sup> D. Fiott, [Strategic investment: Making geopolitical sense of the EU's defence industrial policy](#), EU Institute for Security Studies, Chaillot Paper 156, December 2019, p. 14.

<sup>22</sup> See the EDA's [website](#) on the coordinated annual review on defence.

<sup>23</sup> The report is available [online](#).

<sup>24</sup> M. Drent and D. Zandee, [More European defence cooperation: the road to a European defence industry?](#), Clingendael Institute, June 2018, p. 2.

<sup>25</sup> P.-J. Dittrich and P. Ständer, [How to bring Macron's vision of a European innovation agency to life](#), sciencebusiness.net, 14.12.2017.

<sup>26</sup> European Defence Agency, [A Strategy for the European Defence Technological and Industrial Base](#), 14.5.2007.

<sup>27</sup> C. Scheinert, [European defence industrial development programme \(EDIDP\)](#), EU Legislation in Progress Briefing, EPRS, September 2018.

important element in integrating national markets.<sup>28</sup> The EDTIB goes beyond the European defence equipment market (EDEM) initiative as it includes strategic areas such as defence research, security of supply and equipment standardisation.

The year 2009 was key in terms of fostering a European defence market. Several laws were adopted, such as the defence procurement law – Directive 2009/81/EC, which aims to facilitate companies' access to other Member States' defence markets.<sup>29</sup> Another example is Directive 2009/43/EC on intra-EU transfers of defence-related products, which aims to harmonise and simplify the conditions and procedures for transfers of defence-related products throughout the EU by, inter alia, certifying companies.<sup>30</sup> However, problems remain. As previously mentioned, the de facto application of internal market rules to the defence equipment market has been often restrained by Article 346(1) TFEU (see Box below), which provides Member States with exemption rules to protect their national security (and economic) interests.<sup>31</sup>

#### [Article 346 TFEU](#) (ex Article 296 TEC)

1. The provisions of the Treaties shall not preclude the application of the following rules:

(a) no Member State shall be obliged to supply information the disclosure of which it considers contrary to the essential interests of its security;

(b) any Member State may take such measures as it considers necessary for the protection of the essential interests of its security which are connected with the production of or trade in arms, munitions and war material; such measures shall not adversely affect the conditions of competition in the internal market regarding products which are not intended for specifically military purposes.

In this context, in January 2018, the European Commission decided to open infringement procedures against Denmark, Italy, the Netherlands, Poland and Portugal for not – or incorrectly – applying EU rules on public procurement in defence and security markets.<sup>32</sup> Besch points out that 'because of the sensitive and highly political nature of procurement decisions', there has been 'little willingness' on the part of the Commission to challenge the accused Member States in court.<sup>33</sup>

In 2015 the European Parliament had already called on the Commission to evaluate whether, and to what extent, the provisions of Directives 2009/81/EC and 2009/43/EC were being enforced correctly, and whether their objectives had been achieved, and – if necessary – to come up with updated legislative proposals accordingly.<sup>34</sup> The Procurement Directive 2009/81/EC and the Transfer of

<sup>28</sup> In the defence sector, standardisation may even lead to a greater degree of interoperability between armed services both within and between countries. It has been calculated by a number of studies that greater standardisation in the EU and within NATO could lead to cost savings of up to 50 % and increase military capacity by 30 to 50 %. See D. Fiott, [Strategic investment: Making geopolitical sense of the EU's defence industrial policy](#), p. 37.

<sup>29</sup> [Directive 2009/81/EC](#) of 13 July 2009 on the coordination of procedures for the award of certain works contracts, supply contracts and service contracts by contracting authorities or entities in the fields of defence and security, and amending Directives 2004/17/EC and 2004/18/EC.

<sup>30</sup> [Directive 2009/43/EC](#) of 6 May 2009 simplifying terms and conditions of transfers of defence-related products within the Community.

<sup>31</sup> S. Besch, [The European Commission in EU Defense Industrial Policy](#), Carnegie Europe, October 2019, p. 2.

<sup>32</sup> European Commission, [Press release](#) 'Defence procurement: Commission opens infringement procedures against 5 Member States', 25 January 2018.

<sup>33</sup> S. Besch, [Can the European Commission develop Europe's defence industry?](#), Center for European Reform Insight, November 2019, p. 2.

<sup>34</sup> European Parliament [resolution](#) of 21 May 2015 on the impact of developments in European defence markets on the security and defence capabilities in Europe (2015/2037(INI)), 21.05.2015.

Defence-related Products Directive 2009/43/EC were the subject of a recent implementation report, and a resolution adopted by the European Parliament in March 2021.<sup>35</sup>

Another law adopted in 2009 concerned controls on trade in dual-use items, an EU competence under Regulation (EC) No 428/2009.<sup>36</sup> Dual-use items are goods, software and technology that can be used for both civilian and military applications (e.g. radio navigation systems, nuclear power technologies).<sup>37</sup> As part of the Union's trade policy, the law provides a framework for the common EU export control regime. In addition, it provides a list of dual-use items, and aims to support consistent implementation and enforcement throughout the Union. Dual-use in practice means that civilian public customers – such as border and coast guards, the police, customs – can make use of the same or comparable equipment as their military colleagues (e.g. for reconnaissance, communication, transport, etc.) to combat terrorism and transnational crime, or to tackle the illegal entry of migrants.

In June 2016, the EU presented its Global Strategy, identifying a number of defence capability priority areas in which Europe should invest more in order to develop collaborative approaches (see Box).

In his September [2016 State of the Union speech](#), the President of the European Commission, Jean-Claude Juncker, emphasised the need for a Union 'that protects, preserves the European way of life, empowers our citizens and defends at home and abroad.'<sup>38</sup>

In November 2016, the Commission presented a European defence action plan. The plan stated that 'taking greater responsibility' would translate into investing more in the development of key defence capabilities in order to deter, respond, and protect against threats. According to the plan, Europe's defence market suffered from fragmentation and insufficient industrial collaboration. A stronger industrial base could be achieved by strengthening the defence single market by, e.g. reducing duplications and improving the competitiveness of the EU defence industry. Moreover, the plan criticised the fact that the majority of defence expenditure was spent through national procurement, whereas the share of collaborative equipment procurement represented only 22 %. Investments in the defence sector would have a significant economic multiplier effect in terms of the creation of technology transfers to other sectors and job creation. The plan had three main pillars, intended to address

### The EU Global Strategy

'First, European security hinges on better and shared assessments of internal and external threats and challenges. Europeans must improve the monitoring and control of flows which have security implications. This requires investing in Intelligence, Surveillance and Reconnaissance, including Remotely Piloted Aircraft Systems, satellite communications, and autonomous access to space and permanent earth observation. (...) Second, Europeans must invest in digital capabilities to secure data, networks and critical infrastructure within the European digital space. We must develop capabilities in trusted digital services and products and in cyber technologies to enhance our resilience. (...) Third, regarding high-end military capabilities, Member States need all major equipment to respond to external crises and keep Europe safe. This means having full-spectrum land, air, space and maritime capabilities, including strategic enablers.

'To acquire and maintain many of these capabilities, Member States will need to move towards defence cooperation as the norm.'

<sup>35</sup> The [IMCO committee report](#) states that no revision of the two directives is necessary since the existing regulatory framework would be sufficient if implemented correctly and used properly. Furthermore, Members stressed the need for a strong enforcement policy and to improve the level of small and medium-sized enterprises' participation in the defence market.

<sup>36</sup> [Council Regulation \(EC\) No 428/2009](#) of 5 May 2009 setting up a Community regime for the control of exports, transfer, brokering and transit of dual-use items (Recast).

<sup>37</sup> See the European Commission's [website](#) on dual-use trade controls.

<sup>38</sup> The State of Union speech is available [online](#).

different, but complementary needs in the capability development cycle: launching a European defence fund (see chapter below); fostering investments in defence supply chains (e.g., by tackling supply risks to raw materials); and reinforcing the single market for defence (e.g. by addressing the skills gap in cybersecurity and cyber-defence).<sup>39</sup>

When looking at the institutional setting, alongside the establishment of the European Defence Agency (EDA), the launch of permanent structured cooperation (PESCO) in late 2017 by 25 EU Member States (Denmark and Malta do not take part) is key. PESCO is closely interlinked with the EDA and the EU Military Staff (EUMS) at the European External Action Service (EEAS).<sup>40</sup> PESCO operates on the basis of specific projects and binding commitments (via national implementation plans). Members are committed, inter alia, to increasing national defence expenditure (collective benchmark: 20 % of total defence spending) and national defence research and technology expenditure (collective benchmark: 2 %). For the procurement of new equipment in cooperation with other EDA Member States, a 35 % collective benchmark applies. PESCO projects are selected by the unanimity principle. Its members have pledged to develop 'strategically relevant' defence capabilities and profit from the financial support provided by the European Defence Fund. PESCO projects are committed to contributing to the European defence industry and the European defence technological and industrial base.<sup>41</sup>

'She is awake, the Sleeping Beauty of the Lisbon Treaty: permanent structured cooperation is happening'.

[Source:](#) President Jean-Claude Juncker, Twitter, 11 December 2017.

Since March 2018, PESCO has initiated more than 40 projects.<sup>42</sup> Drent/Zandee state that in the first round of projects, only a few were of (industrial) significance, such as unmanned maritime (semi-)autonomous systems for mine countermeasures or the Italian-led armoured vehicles project. Here, another point is more crucial: 'The absence of armaments projects involving the two largest defence industrial states in the European Union after Brexit – Germany and France – is striking. Apparently, the two countries prefer to conduct business as usual in a direct bilateral context ...'.<sup>43</sup>

Moreover, having all the institutions and their complex interaction in the defence market in mind, one question arises: do too many cooks spoil the broth? According to the European Court of Auditors (ECA), this is likely to happen. In its 2019 report, the ECA pointed out that the 'EU planning process is complex and involves many stakeholders. ... It consists of four overlapping layers which are fragmented between the stakeholders that lead the various processes'.<sup>44</sup> The four overlapping layers refer to the [various planning tools](#), i.e. the European Defence Agency's capability development plan (CDP) and CARD; PESCO; and the EU Military Staff's capability development mechanism. At times, these planning tools contradict each other and should be coordinated better internally. The ECA report also hints to potential overlaps between the EU's several capability development plans with those of NATO – this could create confusion for EU countries that are member of the NATO. To promote compliance, Biscop suggests interlocking the CDP and the NATO defence planning processes and making both equally binding.<sup>45</sup>

<sup>39</sup> European Commission communication on the [European defence action plan](#), COM(2016)950, 30.11.2016.

<sup>40</sup> For more information, see the EEAS's [dedicated website](#) on the European Union Military Staff.

<sup>41</sup> E. Lazarou and T. Laïci, [PESCO: Ahead of the strategic review](#), EPRS Briefing, European Parliament, September 2020.

<sup>42</sup> The Council provides a list from November 2020 that gives an [overview](#) of the projects.

<sup>43</sup> M. Drent and D. Zandee, [More European defence cooperation: the road to a European defence industry?](#), Clingendael Institute, June 2018, p. 5.

<sup>44</sup> The ECA report can be accessed [online](#).

<sup>45</sup> S. Biscop, [European Defence and PESCO: Don't waste the chance](#), EUIDEA Policy Papers, No 1, May 2020, pp. 13-14.

Another tool to better interlock strategic objectives, principles and capabilities among Member States or the EU and NATO could be the forthcoming 'strategic compass'.<sup>46</sup> On the basis of a joint analysis on key threats and challenges to Europe (including global and regional threats; conflicts in the neighbourhood; challenges by state actors; and threats from non-state actors), Member States will enter a structured dialogue and share their thoughts on the objectives. The 'strategic compass' should strengthen a common European security and defence culture and define the 'right' objectives and concrete goals. It will address four different, inter-linked areas: crisis management missions; resilience; capabilities and instruments; and working with partners. The development of the 'strategic compass' is expected for the second half of 2021, while its adoption is planned in early 2022.<sup>47</sup>

### 3. The European Defence Fund: A game-changer?

In June 2018, the European Commission presented a legislative proposal on the European Defence Fund.<sup>48</sup> The fund seeks to foster the competitiveness and innovativeness of European defence and to contribute to the Union's desired strategic autonomy, i.e. enabling the EU to single-handedly produce the equipment and capabilities that Member States require. In this regard, the fund would support: collaborative industrial projects; co-finance the costs of prototype development; and encourage the participation of small and medium-sized enterprises (SMEs). Avoiding the 'valley of death' – the transition phase between (basic) research, (prototype) development and market launch – will be key for the EDF. It seems that governments have often been unable to offer financial support for the transition through the valley of death, with many research projects then abandoned without further development.<sup>49</sup>

The EDF will not replace national investment in defence research or capabilities. Actions funded must be based on common technical specifications if future interoperability is to be secured. The EDF is 'invited' to promote PESCO projects while avoiding duplications between the two initiatives. In this context, an interesting question could arise: which governance structure will take precedence when PESCO projects are supported by the fund?<sup>50</sup>

Furthermore, Member States will own the defence capabilities developed under the fund, so that they can make them available in the NATO framework. Synergies are also expected with EU initiatives in the field of cybersecurity, maritime transport, border management, Horizon Europe, the EU space programme, and the European Peace Facility. In addition, consideration must be given to the action plan on military mobility, which is part of the Connecting Europe Facility.

The EDF governance regime is based on the comitology procedure.<sup>51</sup> That provides the European Commission with the role of chief mediator between Member States' preferences and the

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<sup>46</sup> Council of the EU (German Presidency), [Strategic Compass: Developing strategic principles](#), 25 August 2020.

<sup>47</sup> European External Action Service (EEAS), [Towards a Strategic Compass](#), February 2021.

<sup>48</sup> European Commission, [Proposal](#) for a regulation establishing the European Defence Fund, COM(2018)476, 13.6.2018.

<sup>49</sup> In this context, Fiott hints at some humorous examples, such as: the failed attempt of the US Defense Advanced Research Projects Agency (DARPA) to develop Hannibal-inspired mechanical elephants during the Vietnam War; the psychic spy programme portrayed in the George Clooney film *The Men Who Stare at Goats*; or the interplanetary spacecraft project propelled by rearward exploding nuclear bombs. See D. Fiott, [Strategic investment: Making geopolitical sense of the EU's defence industrial policy](#), p. 30-32.

<sup>50</sup> D. Fiott, [Strategic investment: Making geopolitical sense of the EU's defence industrial policy](#), p. 13.

<sup>51</sup> See the European Commission's [website](#) on comitology.

programmes to be funded. Intergovernmental bodies such as the European Defence Agency will have observer status only.

The European Parliament has been involved in the legislative procedure.<sup>52</sup> The file was assigned to the Committee on Industry, Research and Energy (ITRE), which appointed Zdzisław Krasnodębski (ECR, Poland) as rapporteur on the Commission's draft regulation. The committee submitted a total of 457 amendments. Several informal negotiations (trilogues) took place between the co-legislators before a partial agreement was eventually reached. On 1 March 2019, Council published the agreed text.<sup>53</sup> On 17 April 2019, after trilogues with Council, the plenary voted to approve the agreed text at first reading. The text was adopted during the plenary debate, but several Members criticised the European Defence Fund over ethical concerns, arguing that the EDF would (further) contribute to militarisation of the EU.<sup>54</sup> Following agreement on the overall EU budget for the 2021-2027 period, and then on the final elements of the EDF, the second reading took place in April 2021, thus bringing the Fund (retroactively) into force.<sup>55</sup>

Some main features of the text agreed by the Parliament and Council include:

- Support for the entire industrial development lifecycle of defence products, from research (up to 100 %), to prototype development (up to 20 %) and certification (up to 80 %).
- Since most Member States reject the EU's involvement in their arms exports, the EDF regulation will not affect national arms exports conventions.
- Small and medium-sized enterprises and mid-caps are given incentives to participate: they will benefit from higher financing rates, and projects by consortia including SMEs will be favoured.
- Projects will be defined according to defence priorities agreed by Member States under the Union's common foreign and security/defence policy, but other priorities, such as those defined by NATO, can also be taken into account.
- Only collaborative projects involving at least three participants from at least three Member States or associated countries are eligible for funding.

Parliament also suggested that actions implemented under the fund must comply with values and norms reflected in the relevant national, Union and international law, including the Charter of Fundamental Rights of the European Union. Actions for the development of products and technologies, the use, development or production of which is prohibited by applicable international law, will not be eligible for funding.<sup>56</sup>

Another challenge might arise in terms of bureaucracy and intellectual property rights. Parliament called on the Commission to ensure that administrative procedures are kept as simple as possible and incur a minimum amount of additional expenditure. It also called for strengthened ownership of intellectual property arising from common actions, in relation to participating third countries in particular. In this regard, the US has criticised the EDF's rules on intellectual property rights and

<sup>52</sup> C. Karakas, [European Defence Fund – Multiannual financial framework 2021-2027](#), EU Legislation in Progress Briefing, EPRS, European Parliament, May 2019.

<sup>53</sup> The agreed text can be [accessed](#) at the Council's website.

<sup>54</sup> The plenary debate of 17 April 2019 can be [accessed](#) on the European Parliament website.

<sup>55</sup> A. Brzozowski, European Parliament backs EU's €7.9 billion defence fund, [euractiv.com](#), 30 April 2021.

<sup>56</sup> In particular, the EDF will not finance incendiary weapons, including white phosphorus, depleted uranium ammunitions, lethal autonomous weapons without meaningful human control over the critical functions of selecting and attacking individual targets, small arms and light weapons mainly developed for export purposes.

stressed that EU Member States might miss out on technological evolution and lose interoperability with US military goods and services.<sup>57</sup>

With the EDF, for the first time in history, the Union will use own resources to set financial incentives for Member States to cooperate and to spend more on capability pooling and research in the area of defence. The EDF remains disputed among some Member States and within the European Parliament. On the one hand, in the words of Fiott, the fund breaks a 'long-standing taboo' – i.e. by using the Community budget for (cooperation in) military capabilities. On the other hand, the EDF, according to Besch, represents a '[qualitative shift](#)' in the way the EU gets involved in defence.<sup>58</sup> In this respect, the EDF has the potential to become a game changer.

Indeed, since 2017, when the European Defence Fund was launched through two pilot projects,<sup>59</sup> it has funded more than 30 common projects, whereas 15 projects are to be developed in the context of permanent structured cooperation (PESCO). The two pilot projects are the preparatory action on defence research (PADR) and the European defence industrial development programme (EDIDP). With a total budget of €90 million, PADR is funding 18 collaborative research projects (e.g. on disruptive technologies) with some 200 beneficiaries.<sup>60</sup> The EDIDP, on the other hand, has allocated €500 million to support the competitiveness and innovation capacity of the Union's defence industry. Sixteen defence industrial projects with the involvement of 24 Member States and more than 220 entities have been supported.<sup>61</sup> Some examples of co-funded projects are:

- interoperability standards for military unmanned systems;
- quantum secure communication and navigation;
- projectiles for increased long-range effects using electro-magnetic railgun;
- the European cyber situational awareness platform;
- satellite communication capabilities (Galileo for EU defence);
- the upgrade of current and development of next generation ground-based precision strike capabilities.

In addition, in March 2019, two projects have been proposed for direct award: €100 million to support the development of the Eurodrone,<sup>62</sup> which, according to the Commission, is 'a crucial capability for Europe's strategic autonomy'. In addition, €37 million were allocated to support European secure software defined radio (ESSOR), to enhance interoperable and secure military communications between participating Member States.<sup>63</sup>

While the EDF pilot phase (2017-2020) can be seen as promising, the question of future financial facilities arises. In the framework of the negotiations on the multiannual financial framework (MFF) for the 2021-2027 period, the Commission had initially envisaged a budget allocation of €13 billion (in current prices) for a fully fledged defence fund. Out of the €13 billion, €4.1 billion was planned for research actions and €8.9 billion for development actions. While the European Parliament initially supported the Commission's budget allocation, the complex negotiations on the MFF and in reaction to the global coronavirus pandemic led the co-legislators, i.e. Council and Parliament, to

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<sup>57</sup> S. Besch, [The European Commission in EU Defense Industrial Policy](#), Carnegie Europe, October 2019, p. 4.

<sup>58</sup> S. Besch, [The European Commission in EU Defense Industrial Policy](#), Carnegie Europe, October 2019, p. 2.

<sup>59</sup> See the European Commission's [website](#) on the EDF.

<sup>60</sup> See the Commission's [website](#) on the preparatory action on defence research 2017-2019.

<sup>61</sup> See the Commission's [website](#) on the European defence industrial development programme 2019.

<sup>62</sup> The [official name](#) of the Eurodrone is European MALE RPAS (medium altitude long endurance remotely piloted aircraft system).

<sup>63</sup> European Commission, [Press release](#) European Defence Fund on track with €525 million for Eurodrone and other joint research and industrial projects, 19 March 2019.

agree to cut the initial allocation by almost 40 %. For the 2021-2027 period, the EDF will have a budget allocation of 'only' €7.9 billion. This will undoubtedly pose a major challenge for the Commission as it attempts to realise its ambitious plans to foster cooperation in the European defence market and to contribute to the Union's strategic autonomy.

## 4. Industrial cooperation in European defence: Evolution, projects, budgets, challenges

In contrast with global powers such as the US, China and Russia, which often refuse to take part in symmetrical collaborative armament projects, European countries have often taken a more cooperative stance. Since the 1960s, there have been several common projects and joint ventures, for instance on transport planes, combat jets, helicopters and missiles.<sup>64</sup> The strategic goal was to build a European alternative to the US aerospace industry. For instance, the UK and France collaborated to develop and produce the Jaguar fighter and the Gazelle, Puma and Lynx helicopters. There have also been setbacks. France, for instance, withdrew from further cooperation with the UK (e.g. on the Anglo-French variable geometry jet) and pursued instead the Mirage fighter alone, while the UK was joined by Germany and Italy to build the Tornado jet. Other examples of developing joint capabilities resulted in the FREMM frigates and the Airbus A400M. The Eurofighter is another case of multinational European defence industry project management – without France, which preferred to produce the Rafale jet alone. On the other hand, in 2001, the UK pulled out of off-the-shelf acquisitions when joining the US as the only 'tier one' partner in the development of the F-35 Joint Strike Fighter. France, however, returned to European cooperation to sustain its helicopter industry, with both the Tiger attack and NH-90 multi-role helicopters.<sup>65</sup> A 2016 report lists 39 collaborative defence projects in 2015, including the Anglo-French joint unmanned aerial jet-powered stealth combat demonstrator and a supersonic anti-ship missile.<sup>66</sup>

Most Member States in central and eastern Europe, however, are reluctant to engage in intra-EU defence industry cooperation. The EU is seen mainly as a political and economic project and not a defence community. The US (and NATO) is the strategic partner that guarantees security. In this regard, buying US military components and services is an integral part of this strategic partnership. Poland and Romania possess the largest militaries and defence industries in central and eastern Europe, and both countries are currently undergoing ambitious military modernisation programmes. Buying off-the-shelf from US companies – such as the Polish and Romanian purchase of Raytheon-made Patriot systems for the medium-range missile defence – has become the norm.<sup>67</sup>

The end of the Cold War saw a wave of industrial consolidation, i.e. mergers and acquisitions, in the defence market, such as the establishment of the Franco-German company, Eurocopter (today part of Airbus), and the creation of the Anglo-Italian AgustaWestland (today part of Leonardo). Missile divisions of European companies from the UK, France and Italy formed MBDA Missile Systems. In 2000, three major French, German and Spanish aerospace firms merged to create the European

<sup>64</sup> M. Kluth, 'What drives cooperation on the defence market? Explaining Collaboration and Non-collaboration', in European Liberal Forum (ed.), *Solving the European defence market puzzle*, 2018, pp. 8-21 (8).

<sup>65</sup> B. Jones, 'Choices and dilemmas for European defence acquisition: alone, together or 'off-the-shelf'?', in European Liberal Forum (ed.), *Solving the European defence market puzzle*, 2018, pp. 26-42 (29-30).

<sup>66</sup> A. Marrone, O. de France, D. Fattibene (ed.), *Defence Budgets and Cooperation in Europe: Trends and Investments*, July 2016.

<sup>67</sup> A. Radnóti, 'Central-Eastern Europe: Still Buying American, For Europe's Good', in European Liberal Forum (ed.), *Solving the European defence market puzzle*, 2018, pp. 62-67 (62-64).

Aeronautic Defence and Space company (EADS, now Airbus), and in 2015 the main battle tank producers of France and Germany, Nexter and Krauss-Maffei Wegmann, merged to form KNDS.<sup>68</sup>

This consolidation in the defence industry was the result of a push by Member States (most notably, France, the UK and Germany) to form transnational defence companies. The Commission can be credited for facilitating this by means of the general economic integration of the internal market.<sup>69</sup> Today, Europe's defence industrial landscape is characterised by a mix of large transnational firms – in particular in the aerospace, electronics and missile sectors – and nationally based companies that are mostly SMEs.<sup>70</sup>

According to figures provided by the Aerospace and Defence Industries Association of Europe (ASD), there are more than 3 000 companies across Europe, with 890 000 employees. In 2019, the total turnover of the industry was €260 billion, with 50 % deriving from civil aeronautics, which employs 46 % of the total staff. In the period between 2011 and 2019, turnover increased by 60 %, while during the same period, 186 000 jobs were created. In 2019, the aerospace and defence industry allocated €18 billion for R&D (including government funding) – one quarter of US spending – with a possible 40:60 split between civil and military activities.<sup>71</sup>

Looking at the challenges ahead, Member States, and others, have identified capability gaps, for instance in air-to-air refuelling or technology for intelligence, surveillance and reconnaissance.<sup>72</sup> In addition, in his October 2019 speech at the European Policy Centre, European Commission President Jean-Claude Juncker hinted at other shortcomings: 'In Europe, we have 178 types of weapons, in the US 30. In Europe, we have 17 types of tanks, in the US one. We are spending half of the American budget when it comes to defence, so we should be efficient at 50 % as the US. We are only 15 % as efficient. So, we have to reconsider this whole matter in a way that we have to work together in a better way'. Juncker stated that with enhanced cooperation on defence industry matters, the Union would save some €25-100 billion per year.<sup>73</sup> This is in line with the 2019 EPRS study on mapping the cost of non-Europe. According to the report, at least €22 billion per year in efficiency gains could be realised by increasing cooperation and standardisation to overcome non-interoperability of equipment that often results in unnecessary overlaps and duplication.<sup>74</sup>

Besides diverging weapon types, lack of interoperability and inefficient use of resources, the European defence industry has been hit by severe cuts in Member States' defence spending (mostly owing to the 2008 global financial crisis). However, prior to the pandemic, there were signs of a turnaround. The improvement in economic prospects allied with the dramatic deterioration in the security situation in Europe, had led to an increase in national defence expenditure.<sup>75</sup> Figures

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<sup>68</sup> B. Jones, 'Choices and dilemmas for European defence acquisition: alone, together or 'off-the-shelf'', in European Liberal Forum (ed.), *Solving the European defence market puzzle*, 2018, pp. 26-42 (29-30).

<sup>69</sup> M. Kluth, 'What drives cooperation on the defence market? Explaining Collaboration and Non-collaboration', in European Liberal Forum (ed.), *Solving the European defence market puzzle*, 2018, 8-21 (17).

<sup>70</sup> M. Drent and D. Zandee, *More European defence cooperation: the road to a European defence industry?*, Clingendael Institute, June 2018, p. 2.

<sup>71</sup> The Aerospace and Defence Industries Association of Europe (ASD), *2020 Facts & Figures*.

<sup>72</sup> S. Besch, *Can the European Commission develop Europe's defence industry?*, Center for European Reform Insight, November 2019, p. 3.

<sup>73</sup> European Commission, *Speech* by Commission President Jean-Claude Juncker at the European Policy Centre Thought Leadership Forum, 24 October 2019.

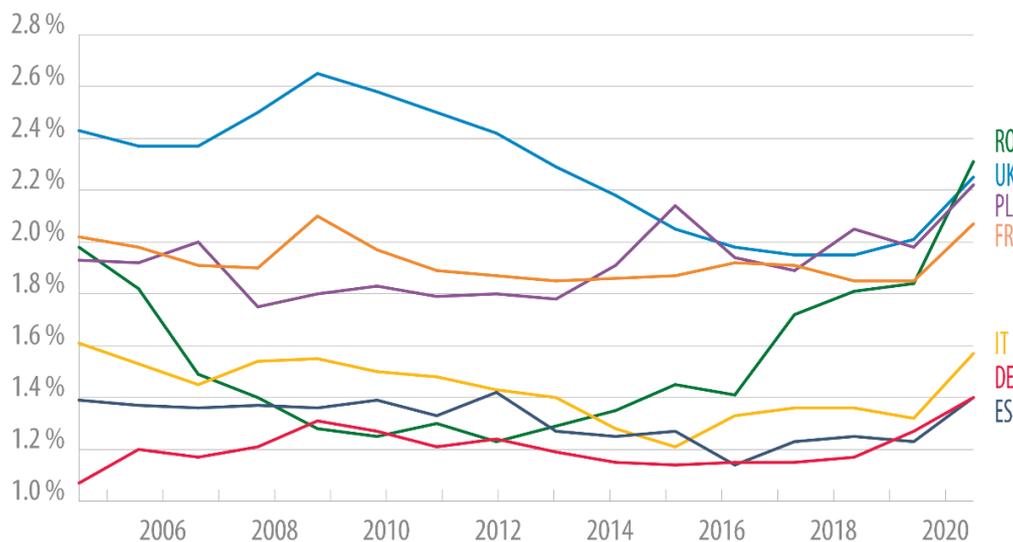
<sup>74</sup> European Parliamentary Research Service (EPRS), *Europe's two trillion euro dividend: Mapping the Cost of Non-Europe, 2019-24*, April 2019.

<sup>75</sup> B. Jones, 'Choices and dilemmas for European defence acquisition: alone, together or 'off-the-shelf'', in European Liberal Forum (ed.), *Solving the European defence market puzzle*, 2018, pp. 26-42 (30).

provided by the Stockholm International Peace Research Institute (SIPRI) confirm this trend (see the two graphs on military expenditure, Figures 1 and 2).<sup>76</sup>

Although the European Defence Agency (EDA) confirms the trend towards increased defence expenditure, the figures remain below the collective benchmarks. According to January 2021 figures provided by the EDA, 2019 saw the highest defence expenditure in 15 years, with €186 billion. EDA Member States spent €41.4 billion on defence investments (equipment procurement and research and development). This represented 22 %, meeting the benchmark of spending at least 20 % of total defence expenditure on defence investment for the first time since 2010. In 2019, Member States spent a total of €7 billion on the procurement of new equipment in cooperation with other Member States. This represented 20 % of their total equipment procurement in cooperation with other EU Member States, well below the 35 % collective benchmark. Spending on defence research and technology (R&T) meanwhile amounted to €1.7 billion. Member States failed to reach the collective benchmark of spending 2 % of their total defence expenditure on defence R&T.<sup>77</sup>

Figure 1 – Military expenditure as a percentage share of GDP since 2005



Note for Figures 1 and 2: DE: Germany; ES: Spain; FR: France; IT: Italy; PL: Poland; RO: Romania; UK: United Kingdom.  
Data source: SIPRI [Military Expenditure Database](#).

In addition to budgetary aspects, another challenge for the EU defence market may come from Brexit, and the departure of the UK, one of Europe's most developed defence industries and one of the world's biggest defence exporters.<sup>78</sup> In this context, the UK may become a serious competitor to ongoing and future EU defence projects, attracting and committing Member States to its projects.

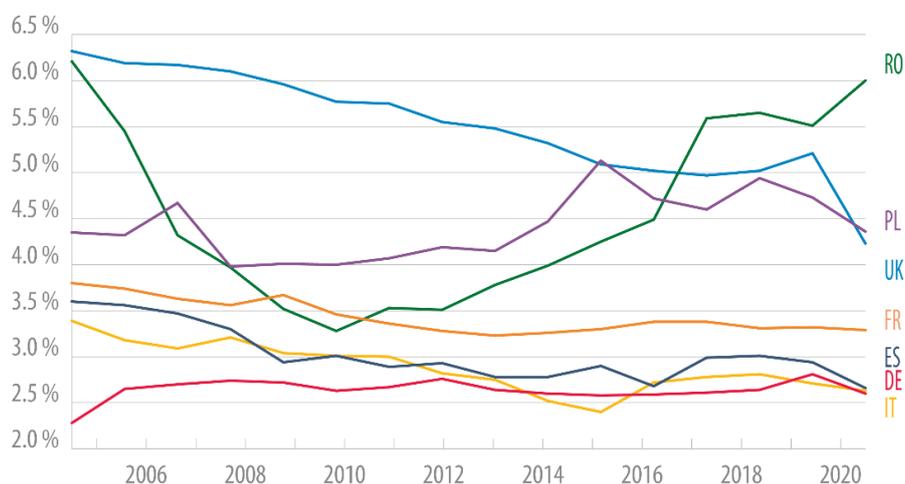
<sup>76</sup> Cf. Stockholm International Peace Research Institute (SIPRI), [Military Expenditure Database](#).

<sup>77</sup> European Defence Agency, [Defence Data 2018-2019](#), 28 January 2021.

<sup>78</sup> UK Government, [Official Statistics – UK defence and security export statistics for 2019](#), 6 October 2020.

Further challenges could derive from disputes over the workshare between countries or diverging national requirements regarding common projects – these factors can result in increased costs and create annoyance (as was the case with the Tiger and NH-90 helicopters and the A400M transport aircraft). To this end, cooperation in the European defence industry is beneficial, but at times also problematic.<sup>79</sup>

Figure 2 – Military spending as a percentage share of government spending since 2005



Note for Figures 1 and 2: DE: Germany; ES: Spain; FR: France; IT: Italy; PL: Poland; RO: Romania; UK: United Kingdom.

Data source: SIPRI [Military Expenditure Database](#).

Another challenge might derive from cost inflation, i.e. rising personnel costs and ever-increasing unit costs for high-tech military capabilities, such as fighter jets. The latter often require huge development costs that can easily go beyond initial cost projections. In this context, Kirkpatrick states that 'within most classes of combat equipment (such as fighter aircraft), the unit cost of equipment increases from one generation to the next by a factor of between three and ten (with a few exceptional classes outside this range), equivalent to a trend of 5-10 % per year'.<sup>80</sup>

The trend in cost inflation seems to confirm one of Norman R. Augustine's famous 'laws', which postulates that the more sophisticated and expensive defence technologies and systems become, the fewer units governments will be able to purchase.

Furthermore, technological innovation is another major challenge.<sup>81</sup> Much of the European defence industry is lagging behind the rapid pace set by disruptive technologies such as artificial intelligence, quantum technology and nano-

#### Augustine's Law XVI

'In the year 2054, the entire defence budget will buy just one tactical aircraft'.

*Source:* Cited after Ben Jones, *Solving the European defence market puzzle*, 2018, p. 28.

<sup>79</sup> B. Jones, 'Choices and dilemmas for European defence acquisition: alone, together or 'off-the-shelf'', in European Liberal Forum (ed.), *Solving the European defence market puzzle*, 2018, pp. 26-42 (27).

<sup>80</sup> D. Kirkpatrick, ['Is Defence Inflation Really as High as Claimed?'](#), RUSI Defence Systems, Vol. 11, No 12, 31 October 2008, pp. 66-71 (70).

<sup>81</sup> M. Drent and D. Zandee, [More European defence cooperation: the road to a European defence industry?](#), Clingendael Institute, June 2018, p. 2.

electronics. To use big data, robotics or blockchain technology properly, most European defence firms depend on the innovation of non-European civilian companies.

## 5. Future combat air system (FCAS): Too big to fail?

The FCAS is considered by many experts as the largest and most important defence project in the EU. It would have the potential to enable the Union to compete with Russia in the air and to decrease its military dependence on the US.<sup>82</sup> For Vogel, both technologically and militarily, FCAS has the potential to set new standards and revolutionise the use of air power. Politically and economically, FCAS would be a 'litmus test' for the EU's capability to cooperate in the security policy and in the defence market while developing its own capabilities by, inter alia, downgrading national interests.<sup>83</sup>

While the discussion began in 2001, it was only in July 2017 that France and Germany agreed on the development of a European air combat system. Moreover, both countries expressed their interest in examining the potential for a European maritime-patrol aircraft.<sup>84</sup> The Franco-German initiative resulted in a future combat air system that, at its core, contains the creation of a sixth-generation stealth fighter aircraft.<sup>85</sup>

However, unlike the Eurofighter project, FCAS will also include an operational network of existing systems (e.g. Tiger helicopters, naval vessels) and future ones (e.g. Eurodrone). Moreover, it will contain a range of next-generation weapon systems, such as swarms of unmanned aerial carriers (drones) interconnected by an air combat cloud, surveillance and command aircraft, cruise missiles, satellites and ground stations.

In June 2019, Spain joined the FCAS initiative. Now, nine companies from three Member States are involved in FCAS, which contains seven development fields, including engine, remote carrier (drones), sensors and cloud solutions.<sup>86</sup> The participation of at least three EU Member States makes FCAS eligible for financing from the European Defence Fund.

In 2020, both France and Germany each approved €78 million for a combat study on the FCAS and on R&D aspects. The first flight of the prototype is scheduled for 2025/2026, and it should be ready for deployment by 2040.<sup>87</sup> In this context, a major step forward was taken in April 2021, when the

<sup>82</sup> R. Vanholme, [Seven issues with the ambitious Future Combat Air System for participating nations](#), FINABEL European Army Interoperability Centre, Info Flash, March 2020.

<sup>83</sup> D. Vogel, [Future Combat Air System: Too Big to Fail?](#), SWP Comment No. 2, January 2021, p. 1.

<sup>84</sup> FCAS / MALE / MAWS: Advances in Franco-German Cooperation on Capabilities, [defense-aerospace.com](#), 26 April 2018.

<sup>85</sup> In this context, it should be noted that the European defence industry did not build the fifth-generation of fighter jets (like the US with the stealth fighter F-35 and F-22), but stands at the fourth plus-generation (e.g., Eurofighter, Rafale). With the FCAS fighter jet, the European industry would jump directly from the fourth to the sixth generation. The classification along generation is based mainly on the technical stage of development. An overview of fighter jet generations can be seen in D. Vogel, [Future Combat Air System: Too Big to Fail?](#), SWP Comment No. 2, January 2021, p. 5.

<sup>86</sup> The companies and development fields are listed in D. Vogel, [Future Combat Air System: Too Big to Fail?](#), SWP Comment No. 2, January 2021, p. 3.

<sup>87</sup> A. Brzozowski, Berlin wants to open Franco-German arms projects for European partners, [euractiv.com](#), 14 February 2020.

propulsion partners agreed on the framework for the creation of a new engine to power the next generation fighter.<sup>88</sup>

In parallel to the FCAS project, the UK is currently developing its own sixth-generation stealth fighter aircraft, the 'Tempest', which would employ new technologies such as optional manning, swarming drones and hypersonic weapons.<sup>89</sup> Tempest would probably be ready for deployment by 2035. In this context, FCAS suffered a setback when Sweden and Italy signed a trilateral memorandum of understanding with the United Kingdom to join the Tempest project. The memorandum, among others, defines general principles for cooperation on an equal basis between the three countries.<sup>90</sup>

In addition to intra-European competition, Vanholme lists seven further challenges for the FCAS project.<sup>91</sup> One might be the industrial workshare between the participating Member States, since each country wants its own industries to get involved more in order to secure more jobs. However, even within Member States, there can be disputes over the selection of companies.<sup>92</sup>

Another challenge could arise from disagreements over intellectual property rights, since each Member State might need technology-related information from other Member States' companies for maintenance or modification purposes. It is unclear to what extent foreign companies will disclose technological know-how – and this uncertainty could result in operational insufficiencies. A further problem might derive from technological difficulties. Stealth fighter programmes are very complex and often result in delays, making the initial cost calculation obsolete. In this context, national budget restrictions could delay the development of FCAS and create tensions between the Member States participating. France has already stated that it will proceed alone if, for instance, Germany blocks the budget in the future.<sup>93</sup>

Problems could also arise from a lack of viable customers and from arms export rules. Germany invited other Member States to join the FCAS. While some Member States from central and eastern Europe have expressed an interest in modernising their fighter jet programmes, it is not a given that they will 'buy European'. Poland and Romania, for instance, have made the point that the scope and planning of FCAS would not match with their own preferences or needs. Both countries are seeking to modernise their military capacities within a 10-year period, i.e. by no later than 2030. The FCAS sixth-generation jet, however, will be ready for deployment only by 2040. As a result, both Poland and Romania have expressed an interest in purchasing fifth-generation fighter jets from the US in the coming years.<sup>94</sup>

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<sup>88</sup> D. Perry, European propulsion partners agree framework for engine on Next Generation Fighter, [flightglobal.com](https://flightglobal.com), 29 April 2021.

<sup>89</sup> Optional manning means the aircraft can be flown remotely without an on-board pilot. Hypersonic missiles travel over five times the speed of sound, making interception extremely difficult. The swarms of drones act as offensive capabilities to ease the workload on the pilot, and the aircraft would utilise artificial intelligence and machine learning to optimise the swarming drones' behaviour. See S. Roblin, Forget the F-35: The Tempest Could Be the Future (Armed with Lasers, Hypersonic Missiles and Swarms), [nationalinterest.org](https://nationalinterest.org), 21 July 2018.

<sup>90</sup> S. D'Urso, Italy, United Kingdom and Sweden sign Tempest FCAS Cooperation Memorandum of Understanding, [theaviationist.com](https://theaviationist.com), 5 January 2021.

<sup>91</sup> R. Vanholme, [Seven issues with the ambitious Future Combat Air System for participating nations](#), FINABEL European Army Interoperability Centre, Info Flash, March 2020.

<sup>92</sup> A case in point is Spain. Airbus [invited](#) the Spanish government to rectify its 'mistake' of choosing Indra over Airbus since Indra is a sensors and equipment producer lacking capabilities in airplanes, drones and satellites.

<sup>93</sup> R. Vanholme, [Seven issues with the ambitious Future Combat Air System for participating nations](#), FINABEL European Army Interoperability Centre, Info Flash, March 2020.

<sup>94</sup> A. Radnóti, 'Central-Eastern Europe: Still Buying American, For Europe's Good', in European Liberal Forum (ed.), [Solving the European defence market puzzle](#), 2018, pp. 62-67 (64).

It is obvious, however, that without sufficient European demand for FCAS, it will be necessary to rely on exports to ensure economies of scale (reducing unit costs for instance). However, diverging national arms export laws can restrict selling abroad since, for example, Germany has a stricter arms export control regime than France.<sup>95</sup>

Despite the challenges, many defence market experts encourage the further development of FCAS. To Vanholme, for instance, the FCAS 'is paramount for the EU to remain technologically competitive in this field, to enhance its sovereignty and independence, and to once again become a big player on the international fighter market'.<sup>96</sup>

## 6. European Parliament position

In recent years, Parliament has adopted several resolutions that refer to the European defence market. Generally speaking, Parliament is in favour of more integration in the European security and defence (market) sector.

In its resolution of 21 November 2013, Parliament called for reinforcement of European industrial cooperation, and stressed the need to support CSDP missions through common research and development using the Horizon 2020 research programme. Moreover, it invited Member States to increase the openness of their defence markets.<sup>97</sup>

The resolution of 21 May 2015 criticised the 'largely uncoordinated cuts' to the defence budget in most Member States, weakening the defence potential and preparedness to ensure national and European security. The resolution also stated that the current security threats were common to the EU as a whole and should be addressed in a united way. For Parliament, it was essential to make progress on the establishment of a European defence equipment market and on the development of a competitive European defence technological and industrial base (EDTIB). Parliament therefore invited the European Council to take concrete measures towards overcoming the fragmentation of the European defence market, and to provide specific guidelines for defence policies and the European defence market, in order to increase its transparency and competitiveness. Parliament also suggested that VAT exemption should be generalised to all European Defence Agency collaborative activities. In addition, Member States were asked to remove national rules that did not comply with the Transfer of Defence-related Products Directives 2009/43/EC and the Procurement Directive 2009/81/EC, and that were hindering the internal market for defence procurement.<sup>98</sup>

In its resolution of 13 April 2016 on the EU in a changing global environment, Parliament stated that the Union and its Member States must be prepared to take greater responsibility for their collective security and territorial defence, relying less on the United States, especially in Europe's neighbourhood. Parliament called on the EU and the Member States to step up their defence capabilities, in order to be prepared to respond to the broad spectrum of civilian, military and hybrid threats and risks, in synergy with NATO. In addition, Parliament supported the principle that Member States should commit to using at least 2 % of their GDP for defence expenditure and 2 %

<sup>95</sup> M. Drent and D. Zandee, [More European defence cooperation: the road to a European defence industry?](#), Clingendael Institute, June 2018, p. 4.

<sup>96</sup> R. Vanholme, [Seven issues with the ambitious Future Combat Air System for participating nations](#), FINABEL European Army Interoperability Centre, Info Flash, March 2020.

<sup>97</sup> European Parliament [resolution](#) of 21 November 2013 on the European defence technological and industrial base (2013/2125(INI)).

<sup>98</sup> European Parliament [resolution](#) of 21 May 2015 on the impact of developments in European defence markets on the security and defence capabilities in Europe (2015/2037(INI)).

of defence spending to promote R&D. Moreover, it requested the launch of an EU-funded defence research and technology programme in the next multiannual financial framework (MFF). Parliament suggested strengthening the role and resources of the European Defence Agency and the European defence technological and industrial base (EDTIB) and the European defence market. The resolution strongly criticised the Commission for not completing the tasks entrusted to it by the European Council in 2013 in good time, regarding a planned roadmap for a comprehensive EU-wide security-of-supply regime, a planned green paper on the control of defence and sensitive security industrial capabilities, the monitoring of defence and security procurement and 'government-to-government sales' in the defence sector. Parliament called for the establishment of a permanent EU military headquarters to improve military crisis management capability and ensure the interoperability of forces and equipment. It also supported the adoption of a white paper on EU defence, based on the EU Global Strategy. Parliament urged willing Member States to establish permanent structured cooperation in defence (PESCO).<sup>99</sup>

On 22 November 2016, Parliament adopted a resolution on a European defence union. It considered that the worsening perception of risks and threats in Europe made the establishment of the European Defence Union a matter of urgency, particularly given the increasing deterioration in the security environment at the EU's borders. The resolution emphasised the need to establish a defence ministers Council format to provide sustained political leadership and coordinate the framing of a European defence union. In addition, Parliament called on the Council to establish a permanent meeting format to bring together the defence ministers of Member States committed to deeper defence cooperation, as a forum for consultation and decision-making. It called on the High Representative/Vice-President of the European Commission to bring together major companies and stakeholders of the European defence industry with the aim of developing a European drone industry and to develop strategies and a platform for the joint development of defence equipment.<sup>100</sup>

Parliament's resolution of 12 December 2018 on the annual report on the implementation of the EU's common foreign and security policy (CFSP) argued that the establishment of permanent structured cooperation (PESCO) on defence projects and a coordinated annual review on defence (CARD) would help the Member States deepen their defence cooperation and spend their defence budgets more effectively. In addition, it considered that the development of a strong defence industry would strengthen the technological independence of the EU, including through the promotion of a single market for cybersecurity products.<sup>101</sup>

On 15 January 2020, Parliament adopted two resolutions on the implementation of the CFSP. One called for the establishment of a defence union that would ensure the best use of already existing EU instruments, such as PESCO, military mobility and the European Defence Fund. It also called for the creation of a mechanism for parliamentary democratic control of new instruments in the field of defence.<sup>102</sup>

The other resolution pointed out, *inter alia*, that the European Defence Fund (EDF) was the first initiative for which Community funds had been used to support common EU defence projects

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<sup>99</sup> European Parliament [resolution](#) of 13 April 2016 on the EU in a changing global environment – a more connected, contested and complex world (2015/2272(INI)).

<sup>100</sup> European Parliament [resolution](#) of 22 November 2016 on the European defence union (2016/2052(INI)).

<sup>101</sup> European Parliament [resolution](#) of 12 December 2018 on the annual report on the implementation of the common foreign and security policy (2018/2097(INI)).

<sup>102</sup> European Parliament [resolution](#) of 15 January 2020 on the implementation of the common foreign and security policy – annual report (2019/2136(INI)).

directly – marking 'a major step forward' for European defence. Parliament also noted that the EDF could contribute to the financing for structural projects such as the European future combat air system, tanks, heavy-lift aircraft or a European anti-missile defence capability. It welcomed the Commission's two EDF pilot programmes, which, among other things, allocated funding for research on electromagnetic spectrum dominance and future disruptive defence technologies, two key areas for maintaining the Union's technological independence. Furthermore, Parliament welcomed the Commission's budget planning for the joint development of defence capabilities, including the Eurodrone, which it considered a key capability for Union's strategic autonomy. Finally, Parliament called for better alignment between the CARD and the EDF. It called on Council and the Commission to draft an EU White Paper on security and defence jointly with Parliament, the white paper being a long-standing Parliament request. According to Parliament, it would be seen as a form of interinstitutional agreement and strategic paper on the defence industry.<sup>103</sup>

On 20 January 2021, Parliament adopted a resolution on the implementation of the Common Security and Defence Policy. The resolution, among other things, emphasised the importance of the 'strategic compass' to define common threats and challenges as well as a strategic approach, specific goals and objectives (no later than 2022) in the four key areas: crisis management, resilience, capabilities and partnerships. Parliament hoped that the 'strategic compass' would be a first step towards the development of an independent EU operational capacity to 'pave the way towards a more harmonised strategic culture and thus facilitate Union decision-making'. At the same time, Parliament asked to be involved in the process through putting forward its own reports and recommendations on the key areas of the 'strategic compass'.<sup>104</sup>

## 7. Outlook

The global pandemic has pushed public attention to health-related issues and the recovery of the economy, but since the security environment in Europe remains under threat, reinforcing industrial cooperation in the European defence market will soon return to the political agenda. The election of Joe Biden as US President, a marked contrast to President Trump with a multilateral agenda and a less aggressive rhetoric, will change little in terms of the pressure on European NATO members to fulfil their budgetary obligations and contribute more to common military capabilities.

EU-level initiatives, such as the EU Global Strategy, PESCO, the upgrading of the European Defence Agency (EDA) and the European Defence Fund, accompanied by the intergovernmental future combat air system, have set the level of ambition. The Union's strategic objectives and (planned) defence industrial projects, however, need to be interlinked. Several instruments (mainly through the EDA) are now being employed to highlight capability gaps and the potential for more collaboration, while PESCO provides a binding framework for operational and capability cooperation. Better internal coordination is necessary to avoid overlaps and contradictions in the planning, as pointed out by the European Court of Auditors. In this context, the introduction of the 'strategic compass' in 2022 could be a qualitative step forward in terms of better interlocking strategic objectives, principles and capabilities among Member States as well as between the EU and NATO.

<sup>103</sup> European Parliament [resolution](#) of 15 January 2020 on the implementation of the common security and defence policy – annual report (2019/2135(INI)).

<sup>104</sup> European Parliament [resolution](#) of 20 January 2021 on the implementation of the Common Security and Defence Policy - annual report 2020 (2020/2207(INI)).

Moreover, there is consensus in the Council, Commission and Parliament on the need to strengthen the European defence market and its defence industry. A more integrated European defence technological and industrial base (EDTIB) would make it possible to overcome fragmentation, share costs, foster cooperation on research and development, and reduce growing and prevent further technological obsolescence, while helping to enhance the EU's strategic sovereignty.<sup>105</sup> In order to foster more research and innovation in the EU defence market, the Union might consider establishing, a European defence advanced research projects agency (DARPA) similar to its US counterpart.

In the absence of an EU-led DARPA, a fully fledged European Defence Fund (EDF) is able to provide incentives for common relevant research and capability projects. The fund would even have had the potential to become a game-changer had it not suffered a severe budget cut from the initial €13 billion to €7.9 billion for the 2021-2027 period. Either way, the European Commission should make sure that the EDF is capability- and output-driven and not a subsidy for national investments. Furthermore, with the EDF, the Commission has upgraded its role from regulator to investor in the defence market.

With all the new initiatives, tasks and instruments now in place, in principle, the EU could successfully enhance economic cooperation in the defence sector. However, challenges such as the question of accountability and democratic control remain. Addressing critics who are worried about militarisation of the EU, the discussion on greater involvement of the European Parliament in defence market issues will surely continue.

Another challenge is the primacy of national interests. Member States, for instance, interpret and apply the Procurement Directive differently, depending on their national interests. Moreover, they defend their right to invoke Article 346 TFEU and reject the idea of creating a level playing field. Zandee raises the right question, namely: why attack one specific element of market distortion while the 'big fish is left untouched?'.<sup>106</sup>

The primacy of national interests has also often prevailed in common industry projects. On several occasions, the European defence industry has proved its potential to deliver on common projects. At times, however, national preferences have jeopardised joint ventures and led to setbacks – this challenge is also of relevance for the future combat air system (FCAS). The FCAS, with the sixth-generation stealth fighter jet at its core, is the most ambitious defence industry project in the Union yet. Nevertheless, several Member States have either joined the UK's competing stealth fighter jet project or prefer to buy off-the-shelf from US companies. According to Vogel, the FCAS is 'too big to fail'. He predicts that if the FCAS is not successfully completed as a multilateral EU project, then 'future major joint armament projects in Europe will become increasingly unlikely', whereas dependency on US manufacturers will continue to grow.<sup>107</sup>

Here, the absence of a European defence union and of a white paper on security and defence come into play, being both the result of and a reason for Member States' self-limitation in common foreign and security policy.

Constrained by Member States' self-imposed limitations on the CFSP, the European Union is foremost a reactive crisis manager as opposed to a geopolitical superpower. The EU's main mission is to respond to external conflicts while protecting the Union and its citizens, and to engage in

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<sup>105</sup> S. Anghel, [Strategic sovereignty for Europe](#), EPRS Ideas Paper, September 2020.

<sup>106</sup> D. Zandee, [The future of European defence industry](#), Clingendael Institute, 2016, p. 4.

<sup>107</sup> D. Vogel, [Future Combat Air System: Too Big to Fail?](#), SWP Comment No. 2, January 2021, p. 8.

capacity-building. Puglierin suggests that in the course of the current reflection process for the 'strategic compass', Member States should discuss what types of missions and operations the EU really wants to engage in.<sup>108</sup> Developing and strengthening the Union's defence capabilities and industry only makes sense if paired with a clear commitments statement, including geopolitical aspects. As Fiott rightfully points out, the crisis management dogma 'limits the extent to which the Union can justify investments in high-end military technologies: after all, why would you need stealth fighter jets to deal with pirates?'.<sup>109</sup>

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<sup>108</sup> J. Puglierin, [Direction of force: The EU's Strategic Compass](#), European Council on Foreign Relations (ECFR), April 2021.

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Offering an overview of cooperation in the EU defence industry, this paper aims to answer the following questions: What EU action has been taken and which laws apply? Is the European Defence Fund a game-changer? What are the achievements of and challenges facing Europe's defence industry? What role can the future combat air system play? Where does the European Parliament stand? With these initiatives and instruments in place, will the European Union be able to successfully enhance economic cooperation in the defence sector?

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