

SOLVING THE EUROPEAN DEFENCE MARKET PUZZLE



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THE EUROPEAN DEFENCE MARKET PIECES OF THE PUZZLE

Europe seeks to provide for its own security. That is the essential message of its 2016 Global Strategy, which states 'strategic autonomy' as a security political ambition. This is a reaction to emerging threats in the East and growing instability in the South. However, it also responds to an apprehension that the transatlantic alliance, an indispensable feature of Europe's present security architecture, is not guaranteed forevermore.

The definition of 'strategic autonomy' is still to be debated. Nevertheless, it is clear that the European Union will require a significantly higher degree of military capability than today in order to fulfil this ambition. This goal cannot solely be achieved by EU member states increasing their much criticised defence expenditures. They also need to tackle a considerable lack of interoperability among weapon systems and the wasteful inefficiency of defence investments. Both problems are closely related to the fragmentation of the European defence market.

EU member states still buy 80 percent of their defence equipment domestically. According to the European Commission, an amount of 25 to 100 billion euros could be saved, if more cooperation was implemented. The European armed forces' fleet of 1 000 youngest generation fighter jets consists of 3 different types, whereas the US military operates 2 500 such jets of the same type. This is just one of many examples that illustrate the fragmentation of the European defence market. It is a military industrial jigsaw puzzle.

As a liberal reader, you might wonder why the forces of demand and supply fail to solve this puzzle. One reason is that the market is too small to function according to these laws. Tanks and frigates are being produced by very few companies and bought by a very small number of customers. This creates a bilateral oligopoly. Another important reason is that decisions on defence projects have security, political and social ramifications that touch on some of societies' most sensitive nerves.

As a liberal reader, you might protest that, on any market, the State should as far as possible be limited to the role of a regulator. But on the defence market, states are not only the umpires but also the main players. They are almost always customers and, in some cases, also the most important shareholders in defence equipment manufacturing companies.

This gives political parties and most notably their delegates in parliament significant power over how the pieces of the defence market puzzle are put together. This volume is designed to provide liberal readers and security political professionals, interested or working in defence politics, with an analysis of recent trends in European armament collaboration and seeks to encourage more cross-border cooperation in the future.

The contributions to this book are pieces of the puzzle. They result from a conference held in Brussels in mid-2018, organised by the European Liberal Forum (ELF) and supported by the Friedrich Naumann Foundation's (FNF) network of defence experts. The authors – scholars and political practitioners representing seven member states of the European Union – assess the defence market from different geographical and analytical angles.

Michael Kluth analyses patterns of collaboration and non-collaboration among states and companies and discusses potential explanations for fluctuations. He also draws upon the efficiency of the most recent EU defence initiatives and the potential impact of Euroscepticism.

Building on these conclusions, Ben Jones takes a closer look at individual countries' motives to commit or not commit to common defence equipment projects and how they choose their partners. Special focus is dedicated to his home country, the United Kingdom.

The 'Franco-German couple' is often regarded as the engine of European defence cooperation. However, France and Germany have failed in the past to reach compromises on some major projects and have even deepened fragmentation on the market. Eve Roehrig asserts that they will find common ground more easily in the future and establishes nine conditions for success.

A group of countries that has demonstrated a tendency to buy American products is Central and Eastern Europe (CEE). András Radnóti explains their rationales and argues that they nevertheless make an important contribution to European defence cooperation and will continue to do so in the future.

European cross-border collaboration is often hampered by major differences in national arms' export rules. Mark Feenstra elaborates on the consequences for the Netherlands, a country that is traditionally very restrictive in this respect. He also suggests that the Netherlands could be leading the quest to form a 'naval airbus'.

Laurens Bynens provides an insider's account of the ongoing decision process on the replacement of Belgium's F-16 fighter jets. His piece illustrates both the difficult position of a relatively small country and the prevalence of national interest.

During their discussions in Brussels, all authors agreed that European Union member states should dare to collaborate more intensively when developing, producing and operating their defence equipment. This volume encourages the will and the trust necessary for such a commitment.

Enjoy the read!

Sebastian Vagt Friedrich Naumann Foundation for Freedom



SOLVING THE EUROPEAN DEFENCE MARKET PUZZLE



WHAT DRIVES COOPERATION ON THE DEFENCE MARKET?

EXPLAINING COLLABORATION AND NON-COLLABORATION

BY MICHAEL KLUTH

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; and if such manufacture could not otherwise be supported at home, it might not be unreasonable that all the other branches of industry should be taxed in order to support it.

ADAM SMITH¹

INTRODUCTION

Armament collaboration between major powers has been considered an anomaly since the so-called military revolution in the late 16th century. The decentralised model of capital-intensive European warfare reliant on self-sponsored knights in shining armour vanished with much of the French aristocracy in the muddy fields at Agincourt in 1415. It was replaced by ragtag peasant armies raised for the occasion, employing simple weaponry such as e.g. longbows. Professionalised mercenaries, including German Landsknechte and Swiss Reisläufers, increasingly augmented the latter. However, eventually the widespread adoption of firearms and artillery combined with associated advances in tactics required a boost of skills through continuous training, thus paving the way for modern standing armies as pioneered by the Swedes and the Dutch.

The military revolution thus denotes the advent of the modern centralised state, capable of sustaining significant standing militaries and mobilising the required fiscal resources through tax collection. It furthermore entails state provision of standardised modern weaponry and ammunitions through royal armouries.² This informs the perception that attainment of credible major power status necessitates defence industrial autarky, as reflected in the Adam Smith quotation above.

DEFENCE INDUSTRIAL AUTARKY AND EUROPEAN INTEGRATION

While prominent global powers such as the US, China and Russia remain reluctant to induct foreign military hardware or partake in 'symmetrical' collaborative armament projects, European states such as France, Germany and the UK counter this conventional wisdom. From the '60s and onwards, the aerospace domain has seen a host of collaborative ventures encompassing patrol, trainer and transport planes in addition to combat jets, helicopters and missiles.

In the naval domain, collaboration initially entailed one country adopting either the hull form or key sub-systems of another European navy, although the '80s witnessed the commissioning of the tripartite minehunter class in France, Belgium and the Netherlands. This was followed by pervasive collaboration between France, Italy and, to a lesser extent, Britain in the advanced warship domain, paralleled by similar endeavours in e.g. Germany and the Netherlands, often centring on electronics such as sensors, computers and communication systems.

Adam Smith, An Inquiry Into the Nature and Causes of the Wealth of Nations, Oxford, Clarendon Press, 1979 (1776), p. 522.

² Michael Roberts, The Military Revolution, 1560–1660, (1956) reprinted in Clifford J Rogers, ed., The Military Revolution Debate: Readings On The Military Transformation Of Early Modern Europe, New York, Avalon Publishing, 1995, pp. 13–36.

National projects remained dominant in the land domain well into the '90s, although the armoured fighting vehicle (AFV) segment launched several cross-national programmes after domestic companies in some smaller member states were acquired by larger foreign competitors. With the proposed Franco-German main battle tank (MBT) project and the KMW-Nexter merger, a more cooperative pattern is likely in the pipeline.

EXPLAINING EUROPEAN ARMAMENT COLLABORATION PATTERNS

Academics have attempted to explain both the European deviation from the 'armament autarky assumption' and the considerable fluctuations in the appetite for transnational collaboration across sectors and time. The most sweeping assault on the 'autarky assumption' was staged by explicitly liberal scholar, Andrew Moravcsik, as he puts forward the argument that states have no ingrained preference for defence technological and industrial self-sufficiency.³

Moravcsik argues that autarky in complex weapons systems has not been an enduring dominant preference of politico-military elites in Europe since the 'military revolution'.⁴ Nor has outflow of domestic weapon technology to foreign users been a vital concern since private companies achieved sector dominance in most European major powers.⁵ He accordingly claims that there was far more cross-national trade, exchange and collaboration in the domain of armaments during the crucial 16th and 17th centuries than proponents of the 'military revolution' thesis acknowledge.

A LIBERAL TAKE

With autarky out of the equation, we still need to identify the drivers of cross-national armament cooperation and explain why it picked up in the '60s. According to Moravcsik, European defence firms producing complex weapons systems are oligopolistic on the international market, while they often constitute monopolies domestically. Since industries have been organised along national lines in fairly small countries with limited markets, overcapacity is the norm. This increasingly became a problem as the fixed costs in R&D related to major new weapons systems kept growing. By the '60s, R&D investment requirements were reaching a level that forced even the UK, Europe's then most advanced economic, technological and military power, to stage mass project cancellations.

The amount of units through which R&D investment can be amortised is crucial for pricing. This is compounded by the observation that efficiency in complex weapons' manufacture depends on 'industrial learning'. The fewer units procured, the fewer gains are to be accrued from learning (Moravcsik, 1990, p. 67).⁶ This all paved the way for collaborative projects invoking the principal of 'juste retour', i.e. the participating countries would receive work shares proportional to their investment. Moravcsik posits that multilateral collaborative development and production projects are not markedly less efficient overall than single country complex weapons programmes.⁷ While this view has been contested by subsequent scholarship⁸,

³ Andrew Moravcsik, 'Arms and Autarky in European History', Daedalus, Vol. 120, No. 4, Winter 1991, pp. 40-41 (23-45)

⁴ Moravcsik, 'Arms and Autarky', pp. 29–36.

⁵ Moravcsik, 'Arms and Autarky', p. 38.

⁶ Andrew Moravcsik, 'The European Armaments Industry at the Crossroads', Survival, Vol. 32, No. 1, 1990, p. 67.

⁷ Moravcsik, 'The European Armaments Industry', p. 75.

⁸ See e.g.: Keith Hartley, 'Defence Industrial Policy in a Military Alliance' Journal of Peace Research, Vol. 43, No. 4, 2006, pp. 473–489. Robert Dover, 'Britain, Europe and Defense in the Post-Industrial Age', Defense & Security Analysis, Vol. 27, No 1, 2011, p. 25. Marc R. DeVore, 'International armaments collaboration and the limits of reform', Defence and Peace Economics', Vol. 25, No. 4, 2014, pp. 415–443.

Moravcsik argues that the marginally higher transaction costs of setting up and managing such programmes are offset by longer production runs due to larger volume, allowing for better learning curves and more units upon which the fixed cost of R&D can be recouped.⁹

But if the case for collaboration is so compelling, why is it not pursued more pervasively and why do so many instigated collaborative ventures falter? Given the constraints faced by even the largest West European powers, Moravcsik argues that, within states, Defence Ministries generally favour hardware already on the market at competitive terms to get 'bang for the buck', while political executives, e.g. Prime Ministers, seek a workable balance between ensuring capability needs are met within budget and maximising domestic growth and employment effects of defence procurement. When possible, this enables the two government stakeholders to converge towards a preference for collaboration, as it reduces financial risks and can leverage R&D amortisation and industrial learning over longer production runs.

Domestic industry, by contrast, has been a key advocate of national projects, provided there was confidence that such initiatives generated export prospects in the longer run, whereas weaker firms, with limited technological competencies and modest export track records favour cross-national collaborative projects.

Hence defence industry firms are the main source of fluctuations, as they assess the desirability of collaborative projects. If the workshare of future exports is assumed to be smaller than the value of anticipated exports emanating from pure national projects, firms block collaboration. This will be the case if technological outflow enables European collaborators to become stronger future competitors in export markets.¹⁰

This parallels observations by Marc DeVore and Moritz Weiss, who argue that state interest would tend to gravitate towards collaborative projects rather than more costly autarky when it comes to combat jet procurement, while domestic firms favour the latter.¹¹ However, by enlisting the 'varieties of capitalism' literature, they conclude that domestic configurations of state-industry relations, including elite bonds and dominant modes of thinking in procurement agencies, determine whether states or national defence industrial champions carry the day. In Britain, the arms-length approach to industrial regulation boosts Whitehall's autonomy, whereas the interwoven nature of French political, administrative and business elites means the national interest is subdued to business interest.¹²

Moravcsik's observations are challenged by the numerous examples of European defence industries successfully selling hardware to non-European clients, which has not been fielded by their national military, thus de-linking specific national product development projects and exports. Dassault's Mirage V combat jet grew out of an Israeli requirement. The Crotale surface-to-air missile, a resounding export success, was first developed for the South African armed forces. Its successor, the MICA-VL, has so far only been fielded by non-EU militaries. The AS.15TT anti-ship missile, first developed for Saudi Arabia, had a similar fate. And Germany, which is the Western world's most prolific supplier of frigates to foreign navies, markets a special export version branded MEKO, which deviates significantly from the vessels in use by its own modestly sized fleet.

But even if national projects and export performance are only partially linked, the observation that states harbour no ingrained preference for armament self-sufficiency does contrast conventional thinking that reaches into the founding ranks of liberal thinkers, as testified by the initial citation from 'Wealth of Nations'. And predictably, this insight has been challenged!

⁹ Moravcsik, 'The European Armaments Industry', p. 67.

¹⁰ Andrew Moravcsik, 'Armaments among Allies: Franco-German Weapons Cooperation, 1975–1985', Peter Evans, Harold K. Jacobson & Robert Putnam (eds.), Double-Edged Diplomacy: Interactive Games in International Affairs, Berkeley, University of California Press, 1993, p. 134.

¹¹ Marc R. DeVore & Moritz Weiss, 'Who's in the cockpit? The political economy of collaborative aircraft decisions' Review of International Political Economy, vol. 21, No. 2, 2014, pp. 497–533.

¹² DeVore & Weiss, 'Who's in the cockpit?'

A REALIST TAKE

Although not predominantly focusing on industrial cooperation, Tom Dyson's analysis of post-Cold War European defence reform some 20 years later mirrors Moravcsik in providing a theoretically informed account of collaborative fluctuations, only this time from a neoclassical realist perspective which often aligns with conservative political thought. Collaborative defence procurement can thus be construed as a means to enhance efficiency, but in tune with realist orthodoxy even allies have to be balanced.¹³

This suggests that states fluctuate between collaborative and national projects, as the latter serve to maintain autonomous access to technology and industrial capacity. Since this autonomy quest is spurred by balancing logics, states cannot be content with a mastery of already widely diffused technology, but must aspire to proficiency in systems constituting the contemporary state of the art. This enables national champions to maintain their rank as top-tier European players and enter future projects as peers, avoiding relegation to a secondary status which will raise the down payment required by their governments to ensure their inclusion in future collaborative ventures.

Catherine Hoeffler (2012) offers a related argument, albeit departing from political economy, drawing on Ben Clift and Cornelia Woll's concept of 'economic patriotism'.¹⁴ States accordingly harbour varying preferences on how liberal or protectionist industrial policy strategies should be for the defence sector and to what extent these are best served on the national, supranational or global level.

Hoeffler stresses that states have defence industrial strategies aiming to ensure national sovereignty by securing sovereign access to state-of-the-art systems and boosting national champions' international market shares, as domestic demand cannot sustain their considerable size. ¹⁵ She challenges 'institutional' scholarship, emphasising how e.g. 'marketization' ¹⁶ has severed ties between national defence industries and their client states, claiming it overlooks the substantial differences that remain between German, British and French state-industry relationships.

AN INSTITUTIONAL TAKE

Institutionalists observe that 'marketization' has brought about some measure of norm convergence in defence procurement among member states, but acknowledge there are persistent diverging national perceptions of the EU's role in armament cooperation.¹⁷ In this reading, a key contributing explanation for the fluctuation between armament collaboration and non-cooperation is that the EU does not constitute a "stabilized territory for defence procurement".¹⁸

¹³ Tom Dyson, Neoclassical Realism and Defence Reform in Post-Cold War Europe, Basingstoke, Palgrave Macmillan, 2010, p. 239. See also Glenn H. Snyder, 'The Security Dilemma in Alliance Politics', World Politics, Vol. 36, No. 4, 1984, pp. 461–95.

¹⁴ Ben Clift & Cornelia Woll, 'Economic patriotism: reinventing control over open markets', Journal of European Public Policy, Vol. 19, No. 3, 2012, pp. 307–323.

¹⁵ Catherine Hoeffler, 'European armament co-operation and the renewal of industrial policy motives', Journal of European Public Policy, Vol. 19, No. 3, 2012, p. 436.

¹⁶ See e.g. Malena Britz, 'The role of marketization in the Europeanization of defense industry policy', Bulletin of Science, Technology & Society, Vol. 30, No. 3, 2010, pp. 176–84.

¹⁷ Hoeffler, 'European armament co-operation', pp. 438, 443 & 446.

¹⁸ Hoeffler, 'European armament co-operation', pp. 447–448.

European armament cooperation has a legacy of organisational complexity that predates the creation of the EDA.¹⁹ In a study published in 2004 drawing on sociological institutionalist theory, Ulrika Mörth and Malena Britz conclude that there are institutionalised competing views on how armaments should be regulated at the European level.²⁰

Elevating procurement oversight and management responsibility to supranational or intergovernmental institutions may do little to confront the basic dilemmas facing policy makers. According to one study, efforts to institutionally frame the defence industry at the European level have produced rivalry between the largely supranational Commission and the more intergovernmental European Defence Agency.²¹

Moreover, the latter must accommodate competing logics internally pertaining to issues such as how to balance sovereignty concerns with aspirations to pool capabilities, what weight to accord to defence industry liberalisation vs. managed European consolidation and, finally, what role to accord to purely European security efforts vis-á-vis NATO.²²

INSTITUTIONALISING ARMAMENT COLLABORATION

The European Community was indeed not granted a role in defence industry regulation, as Article 296 (b) of the EU Treaty granted member states the right to exempt defence companies from EU rules regarding mergers, monopolies and procurement. Consequently, the numerous Cold War cross-border collaborative defence industry projects were framed by NATO, the Western European Union (WEU) or intergovernmental management arrangements.

But eventually the WEU was incorporated into the European Union, initiating a cautious mainstreaming of defence issues into the legal framework following the end of the Cold War.²³ Later, European defence industry affairs were addressed with the inclusion of Article 17 in the Treaty of Amsterdam, stating: "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."

In 1996, the intergovernmental Organisation conjoint de coopération en matière d'armement (OCCAR) was created as programme office for collaborative projects involving the founding member states of Italy, UK, Germany and France. This was complemented at the EU level by the establishment of the European Defence Agency (EDA) in July 2004. OCCAR and EDA concluded an Administrative Agreement on 27th June 2012. The real significance in market terms of both OCCAR and EDA is to weaken the principles of 'juste retour' on an individual programme basis. Hence the allocation of contracts is to be based on competition, and governments assess national returns up against best value and over several projects over many years.²⁴

Marc R. DeVore, 'Producing European armaments: Policymaking preferences and processes,' Cooperation and Conflict, Vol. 49, No. 4, 2014, pp. 438–463.

²⁰ Ulrika Mörth & Malena Britz, 'European Integration as Organizing: The Case of Armaments', JCMS: Journal of Common Market Studies, Vol. 42, No. 5, 2004, p. 969.

²¹ Fiott, Daniel: 'The European Commission and the European Defence Agency: A Case of Rivalry?', JCMS: Journal of Common Market Studies, Vol. 53, No. 3, 2015, pp. 542–557

²² Jozef Bátora, 'European Defence Agency: A Flashpoint of Institutional Logics', West European Politics, Vol. 32, No. 6, 2009, pp. 1075–1098.

²³ Jocelyn Mawdsley, 'European Union Armaments Policy: Options for Small States?', European Security, Vol. 17, Nos. 2–3, 2008, pp. 367–385.

²⁴ Mawdsley, Jocelyn, 'Arm, Agency and Accountability: The Case of OCCAR', European Security, Vol. 12 Nos. 3–4, 2003, p. 99.

On 21st August 2011, Directive 2009/81/EC on defence and sensitive security procurement came into effect.²⁵ It aims to limit the use of Article 296 to exceptional cases and signals a political commitment to infuse market transparency into procurement regimes.²⁶ Hence, while the EU does not constitute a "stabilised territory for defence procurement", significant headway in institutionally framing European level armament collaboration has been made and, with the recent creation of the European Defence Fund, additional momentum seems inevitable.

INSTITUTIONALISATION AND COLLABORATIVE DISCONTINUITY IN THE WARSHIP DOMAIN

Nevertheless, it is empirically difficult to establish a causal relationship between this institutionally deepening of European armament cooperation and a continuous rise in collaborative projects in place of the observed fluctuating patterns. A case in point is offered by the complex major warship domain.

In the aftermath of the Cold War, West European navies decommissioned their littoral brown water assets while expanding their blue water capability. This inevitably fuelled a convergence towards larger, multirole vessels with long endurance and capabilities for autonomous deployment. Most of the new warships vastly eclipsed their predecessors in size and firepower.²⁷ While fewer in numbers, they nonetheless posed a technological challenge to both industry and procurement authorities. In any case, of the 52 West European frigates and destroyers designed after the Cold War and launched between 2000 and 2015, 48 involved extensive cross-national procurement collaboration.

Italy and France commissioned or were building 18 FREMM frigates and 4 Horizon destroyers. The latter share weapons and key sensors with the UK's 6 Type 45 destroyers. Germany launched 3 F124 Sachsen frigates, sharing sensors and weapons with the Netherlands four De Zeven Provinciën and Denmark's 3 Iver Huitfeldt class. Spain launched 5 F100 frigates, while Norway procured five slightly downscaled versions, commissioned as the Fridtjof Nansen class. Only Germany's 4 innovative expeditionary F125 Baden-Württemberg frigates were purely domestic. This would suggest that the concurrent institutionalisation of cross-national armament projects has facilitated collaborative projects.

However, in 2015 the United Kingdom ordered the first batch out of 8 new anti-submarine Type 26 vessels and stated its intention to acquire 5 Type 31e general-purpose frigates. Moreover, the navies of France, Italy, Germany and Spain published plans and tenders for new warships, also pursued as distinct national programmes totalling over 35 future frigates.

Nevertheless, commonalities in requirements are evident in these national projects, with all vessels pitted as multi-role warships, albeit generally with lighter displacement than the collaborative surface combatants preceding them. Most feature a stronger focus on anti-submarine than anti-air warfare, but are presented as assets which can operate in a variety of roles, even in high threat scenarios, across the globe.

Hence collaboration could have been instigated either on full ship design, including all major sub-systems, as was the case with the Franco-Italian Horizon class anti-air warfare destroyers. Alternatively, a common hull design with some system commonalities, such as the Franco-Italian FREMM vessels, could have been chosen. Finally, pursuing collaboration on key sub-systems, such as the partially shared sensors and missile systems of

²⁵ Johanna Strikwerda, 'Sovereignty at stake? The European Commission's proposal for a Defence and Security Procurement Directive', European Security, Vol. 26, No. 1, 2017, pp. 19–36.

²⁶ Jeremy Lemer, 'Pan-European procurement: The trauma and necessity of closer collaboration', Financial Times, Sept. 8., 2009.

²⁷ Michael Kluth & Jess Pilegaard, 'Balancing beyond the horizon? Explaining aggregate EU naval military capability changes in a neo-realist perspective,' European Security, Vol. 20, No.1, 2011, pp. 45–64.

the Horizon class mentioned above, and the British Type 45 destroyers, also seems a viable option. However, none of these approaches is employed in the projects outlined above.

In short, the naval sector does not suggest that the progressive institutionalisation of European cooperative armament projects translates directly to an increase in collaborative ventures, as the complex warship domain has witnessed a dramatic reversal towards domestic frigate programmes, even after the most ambitious directive in the field has taken effect and the European Defence Agency has spent a decade honing its skills as a managing entity.

INDUSTRY STRUCTURE

Several factors militate against European defence industry collaboration, such as domestic procurement regimes organised to ensure privileged access for favoured national firms²⁸ which, despite European institutionalisation advances, remain national and continue to exhibit significant variation.

These differences are compounded by asymmetries in ownership patterns. France and Italy maintain state ownership and, in the latter country, the entire industry is dominated by one state-controlled enterprise – Leonardo (formerly Finmeccanica). Britain, on the other hand, has allowed foreign acquisitions of leading private companies. Hence the 2004 UK Defence Industrial White Paper was instrumental in assuring government backing for Thales' acquisition of Racal.²⁹ Thales is controlled by the French state! Likewise, vast tracts of the UK radar and sensor industry and its sole helicopter manufacturer are owned by Leonardo. In other sectors, London constitutes a strategic veto point through a 'golden share' arrangement.³⁰ Germany has less state ownership than the United Kingdom, but tightened rules on foreign acquisitions in 2005 make the state an important interlocutor in relation to defence-related enterprise transfers.³¹

This invites reflection on the role of the European defence industry structure. Moravcsik assumed that the European defence industry was organised in national entities. However, cross-border defence industry mergers and acquisitions accelerated towards the end of the millennium. The first post-Cold War decade was crowned by the formation of Airbus (originally named EADS – European Aeronautic Defence and Space Company), MBDA Missile Systems, Thales, and eventually Leonardo. All of the above entities encompass companies in several European countries.

Most defence industry sectors have undergone consolidation. Defence electronics and aerospace, including missile manufacture, have generally taken the process further than land systems and the naval industry. Hence, in the four major military powers of the EU, the manufacture of armoured vehicles and naval vessels is still conducted on a domestic basis by companies under national control. While this is changing with the recent KMW-Nextor merger and talks between Italy's Fincantieri and France's Group Naval, it contrasts with MBDA which accounts for 90% of the EU's missile production.

²⁸ Keith Krause, Arms and the State: Patterns of Military Production and Trade, Cambridge, Cambridge University Press, 1992.

²⁹ Mark Odell & Jean Eaglesham, 'Lowering Defences', Financial Times, May 27, 2004.

³⁰ Keith Hartley, 'Company Survey Series: I: BAE Systems plc', Defence and Peace Economics, Vol. 23, No. 4, 2012, pp. 331–342.

³¹ OECD, 'Freedom of Investment, National Security and Strategic Industries', OECD Roundtable. 21 June 2006, OECD Headquarters Paris.

G IF THE WORKSHARE OF FUTURE EXPORTS IS ASSUMED TO BE SMALLER THAN THE VALUE OF ANTICIPATED EXPORTS EMANATING FROM PURE NATIONAL PROJECTS, FIRMS BLOCK COLLABORATION.

INDUSTRY CONSOLIDATION AND COLLABORATIVE FLUCTUATIONS

A recent comparative study of defence electronics and missile procurement suggests a national bias towards systems with a domestic origin diminish when sectors are subject to a high level of cross-border consolidation. Moreover, the market share of European systems in major EU markets has increased at the expense of US-supplied hardware in segments dominated by pan-European defence firms. Hence cross-border defence industry consolidation challenges the core assumption in much scholarship on armament cooperation and furthermore constitute a possible predictor of successful collaboration.³²

A pan-European consolidated defence company would have an interest in reducing its product portfolio to increase economics of scale (learning curve). This would entail reducing the number of products on offer developed for national clients by the constituent companies and replacing these with globally competitive European offerings meeting the requirements of all relevant European military services.

MBDA has not been entirely successful in this regard, as it still markets three roughly similar anti-ship missiles (Exocet, Otomat/Teseo and Sea Eagle), and two fairly comparable surface-to-air missiles (MICA-VL and CAMM), etc. However, it has managed to ensure some commonality across different weapons systems, as is the case of the active seeker in the short-to-medium-range MICA, the medium-to-long-range surface-to-air

³² Michael Kluth, 'European Defence Industry Consolidation and Domestic Procurement Bias', Defense & Security Analysis, Vol. 33, No. 2, 2017, pp. 18–25

Aster missile family and the long-range air-launched Meteor missiles. Likewise, Sea Eagle, the latest MM40 Block III Exocet and the SCALP cruise missile (MBDA Storm Shadow) share their turbine engines, with minor variations.³³

Moreover, consolidation can spur commonality (and hence interoperability) by reducing the number of possible suppliers, who in turn may re-combine sub-systems to meet a specific requirement. France will accordingly employ the latest compact version of the Thales CAPTAS 4 Variable Depth Sonar (VDS) on its upcoming FTI frigates which, besides the previous collaborative FREMM and Horizon, have also been selected for the Royal Navy's Type 26 frigates under construction. This sonar system largely grew out of a British requirement and utilises technology resident in the Thales UK subsidiary. This will be coupled with a Kingklip Mk II hull-mounted sonar, which pairs the back-end of the previous Mk I with the transducer of the UMS 4110 used on the Horizon and FREMM ships.

But even as Italy's Leonardo has attained workshares and some IPRs in relation to both the CAPTAS-4 sonar and the commercially successful Eurotorp MU-90 light torpedo developed jointly with Thales of France, Rome has nonetheless opted to fund the development and install the new domestic Black Shark Advanced heavy torpedo together with Leonardo's new ATAS VDS in the 'Full' version PPAs. So, even when a highly consolidated European defence company has a share in products scoring significant export successes, it can still persuade a government to fund and procure new systems largely comparable to existing offerings.

Consolidation is therefore not a sure way to diminish collaborative fluctuations, although it may push preferences towards transnational projects. Some studies suggest that demand side collaboration on multinational procurement has been a driver in cross-border defence industry consolidation, ³⁴ as e.g. OCCAR and EDA diminish the role of governments acting as agents on behalf of domestic firms in collaborative R&D, production and procurement.³⁵ Others, however, argue OCCAR rather constitutes a response to these mergers and acquisitions.³⁶

This could decisively impact preference formation in merged pan-European defence firms. Do they harbour an intrinsic, commercially driven desire for scale economics, thus contributing to genuine industry integration through a streamlining of production and a lean product portfolio? Or do pan-European defence firms comprise a collection of domestic constituent firms opportunistically pursuing rent-seeking when political conditions provide windows of opportunity for costly national armament projects?

In the latter case, constituent firms in highly consolidated pan-European naval companies would not lobby governments against distinct domestic frigates projects, whereas in the former case the corporate centre might orchestrate endeavours by national units to inch domestic procurement agencies towards communalities in requirements.

Moreover, if consolidation is a long-term result of competitive pressures and commercial cooperation, firms may serve as a remedy against oscillations due to changing political moods. If consolidation, on the other hand, is driven by political action and aspirations, a change in these moods may not encounter institutional resistance from firms.

³³ Kluth, 'European Defence Industry Consolidation', p. 168.

³⁴ See e.g. Stefan Tornqvist, 'Demand side collaboration and multinational procurement', RUSI Journal, Vol. 166, No. 2, 2001, pp. 66–68.

³⁵ Helmut Reda, 'A New Era in European Arms Procurement: Understanding OCCAR, The DISAM Journal, Vol. 21, Vol. 2, 1999, p. 83.

³⁶ Emmanuel Crollen, 'Prospects for increased cooperation in European defence industry policies', European Security, Vol. 12, No. 2, 2003, p. 96.

THE IMPACT OF POLITICAL INTEGRATION

Terrence Guay's pioneering work in collaboration with Robert Callum, makes a case for industry consolidation being a product of European level policy initiatives. In addition, member states have pushed for mergers and acquisitions, as is evident from the Letter of Intent signed by the Governments of the UK, France and Germany in the summer of 1998, explicitly aimed at facilitating the creation of transnational defence companies.³⁷

Guay's initial analysis centred on European defence industry integration featuring corporate alliances, mergers and acquisitions.³⁸ Even though the sector was exempt from common market provisions, the EU was credited for facilitating this through general economic integration, such as the Internal Market and the EMU, supplemented with a 'nascent defence industrial policy' and the development of the European Security and Defence Policy.³⁹ These drivers were designated 'Reactive Spillover'.

The preceding transnational collaboration in both dual-use high tech and R&D projects also paved the way for cross-border mergers and acquisitions.⁴⁰ In addition, the "role of institutions (particularly the EU) and the dynamics of regional ... political integration" is deemed crucial for "consolidation occurring almost exclusively among the defence companies of EU member states".⁴¹ Reactive Spillover was complemented by broader external variables such as the "context shaping role of the international economy ... and the international political and security environment".⁴²

Besides the global triumph of liberal policies following the implosion of the Soviet empire, external factors facilitating cross-border mergers include consolidation in the US industry, which created a competitive pressure and a fear of potential US domination of the European defence industry. The second factor was a combination of the European-US technology gap, demonstrated by the first Gulf War and the Kosovo campaign, and the need to achieve long production runs in dwindling defence markets to make up for the technology induced explosion in defence equipment prices. The fundamental logic informing company behaviour in this regard is very much in line with Moravcsik's observations, but Guay and Callum embrace a neo-functionalist inspired mode of thinking, which accords more importance to European institutions and political drivers than Moravcsik's liberal take.

EUROSCEPTICISM AND ARMAMENT COLLABORATION

But can the argument be reversed? Will a prolonged crisis in the EU produce 'reactive spillback'? Is Brexit and the electoral prominence of Eurosceptic parties in numerous member states, fuelled by changing public sentiments in the wake of the Euro-crises, a manifestation of 'integrative fatigue', explaining the abrupt shift from collaboration to single-nation projects witnessed in the warship domain?

Support for this view can be garnered from the discourse analytical approach on the emergence of the ESDP employed by Jocelyn Mawdsley. She contends that "during periods of crisis existing edifices of thinking

³⁷ Ulrika Mörth, 'Europeanization as Interpretation, Translation, and Editing of Public Policies' in Featherstone, Kevin; Radaelli, Claudio M. (eds.), The Politics of Europeanization, Oxford, University Press, 2003, p. 167.

³⁸ Terrence, Guay, 'Integration and Europe's defence industry: A 'Reactive spillover' approach' Policy Studies Journal, Vol. 24, No. 3, 1996, pp. 404–419.

³⁹ Terrence, Guay & Robert Callum, 'The transformation and future prospects of Europe's defence industry', International Affairs, Vol. 78, No. 4, 2002, pp. 757–776.

⁴⁰ Guay, 'Integration and Europe's defence industry', pp. 408–409.

⁴¹ Guay & Callum, 'The transformation and future prospects of Europe's defence industry', pp. 776, 775.

⁴² Guay, 'Integration and Europe's defence industry', p. 412.

and restrictive defining characteristics can be completely changed."⁴³ Just as the discourse conditioning the surprising emergence of the ESDP was facilitated by crises of state failures and civil wars in the wake of unipolarity, reversals in European collaborative armament may be conditioned by Eurosceptic discourses in the wake of the Euro-crises.

While this reading may appeal to our intuition, it is challenged by recent developments. Hence, if the dramatic shift from collaborative to national naval procurement reflects integrative fatigue, we would expect the pattern to be mirrored in other realms of defence cooperation. However, from around 2015, several elaborate collaborative armament and capability enhancement initiatives have materialised.

A 2016 report by Italy's Istituto Affari Internazionali lists no fewer than 39 collaborative defence projects for 2015.⁴⁴ Prominent among these are Anglo-French funding for a joint unmanned aerial jet-powered stealth combat demonstrator and a joint concept definition project for a supersonic, stealthy, long-range cruise and anti-ship missile.

France and Germany have also instigated a number of high profile collaborative initiatives. At a joint cabinet meeting on 13th July 2017 in Paris, Merkel and Macron announced "France and Germany agree to develop a European air combat system, under the leadership of the two countries, to replace their current combat aircraft fleets in the long term." It was further stated that the two countries were "examining the potential for a European maritime-patrol aircraft". In addition, they pledged to "moving ahead with an intelligence, surveillance and reconnaissance medium-altitude long-endurance unmanned aerial vehicle".

According to industry sources, a joint Franco-German study for a main battle tank (MBT) was moreover initiated in 2015 and linked to the merger between the family-owned Leopard II MBT manufacturer KMW and state-run Leclerc II MBT builder NEXTER. Poland has expressed interest in joining the above Franco-German "Main Ground Combat System" (MGCS) effort.

In December 2016, Italy officially joined the French-initiated Aster BLOCK 1 NT upgrade, which adds antitheatre ballistic missile defence capabilities to the system. Italy has pledged that it aims to field the new missiles on five of its new PPA frigates. In July 2017, Italy further committed to purchase the CAMM-ER, which is an extended-range development of the original British system. Avio has been working on the new engine since 2013 in agreement with the UK and, as the French vertical missile launcher supplier to the PPA programme suggests, it is a likely candidate for deployment on these vessels.

New main battle tanks, ballistic missile defence, a new generation of combat jets, stealth combat drones, long-range surveillance drones and maritime patrol aircraft are among the most salient big-ticket defence items. These project announcements have been compounded by the hallmark creation of the European Defence Fund. First proposed by Commission President Juncker in September 2016, it attained Council approval in December 2016 and was formally established in June 2017. The first years will disperse a modest \in 600 million, but from 2020 and onwards, annual spending will include \in 500 million for collaborative procurement. The latter leverages domestic spending with a factor from 1 to 5, meaning that the European funds can generate a total of \in 5 billion-worth of joint defence procurement per year.

Collaboration in key capability areas has also been on the rise, exemplified by the integration of European fixedwing transports and aerial-refuelling assets under the unified European Air Transport Command established

⁴³ Jocelyn Mawdsley, 'The Arming of the European Union: Explaining the Armaments Dimension of European Security and Defence Policy', Perspectives: The Central European Review of International Affairs, Vol 22, No. 1, 2004, p. 9.

⁴⁴ Alessandro Marrone, Olivier De France & Daniele Fattibene (eds.), Defence Budgets and Cooperation in Europe: Trends and Investments, Rome, Istituto Affari Internazionali (IAI), 2016.

in 2010, which assumed operational control of the approximately 200 aircraft from the seven continental EU partner nations in 2015. As an interesting twist, the Dutch initiated a five-nation 'Multinational MRTT Fleet', which grew out of a 2012 European Defence Agency proposal and will acquire an additional eight A330 aerial-refuelling planes. While owned by NATO, the planes are funded and exclusively available to the consortium which is investigating if the assets can be placed under the European Air Transport Command.

In 2016, the navies of the Netherlands and Germany agreed on sharing the logistics and amphibious landing support vessel, HNLMS Karel Doorman, which practically amounts to integrating the German Sea Battalion into the Royal Dutch Marine Corps. This has been complemented by integrating airborne units of the German, Dutch, Romanian and Czech armies.

Last but not least, plans for a permanent EU military HQ have gained renewed support in view of Brexit, as the Defence Ministers of France, Germany, Italy and Spain have rallied around a September 2016 proposal to elevate the prospective entity to an EU institution, rather than simply a parallel arrangement under the auspices of 'Permanent Structured Cooperation'.

While not ascertained through a comparative analysis involving the preceding post-Cold War decades, it seems that the rate of collaborative European armament ventures has peaked at an all-time high in the past three years and the proposition that the shift from collaborative to national procurement of major navy surface combatant is linked to reactive spillback cannot be verified. However, from a pragmatic perspective, it seems unwise to presume sustained Eurosceptic political moods have no impact on integrative momentum.

Nevertheless, the developments outlined above clearly point in the opposite direction and to a very different explanatory factor. Prominent statements by Chancellor Merkel and President Macron suggest this flurry of collaborative initiatives in part are a response to the Trump administration's criticism of Europe's contribution to the NATO alliance and Washington's general challenge to what EU leaders perceived as a shared transatlantic understanding of the 'Western Order'. In reference to Glenn Snyder's insights, which informed Dyson's analysis, fears of abandonment by the US would seem to constitute a novel external driver of European armament cooperation.

CONCLUSION

Even Adam Smith subscribes to the widespread assertion that credible major power status requires defence industrial autarky. However, Andrew Moravcsik's path-breaking work confronts this autarky assumption from a liberal vantage point. Moravcsik instead attributes fluctuations in European cooperative armament to the diverging interests of national defence companies. This is contrasted by the neoclassical realist take of Tom Dyson, which explains collaborative fluctuations with variations in the interest of states over time.

DeVore & Weiss' Political Economy contribution expands on Moravcsik's work, by taking account of differences in the relations between government and industry in advanced market economies such as France and the UK, while Catherine Hoeffler's work leans towards Dyson's approach by insisting that states harbour diverging, albeit deeply rooted, preferences for sovereign defence-industrial autonomy. This makes some collaborative constellations difficult while others, involving either particular countries or capability domains, reach fruition most of the time.

Insufficient European level institutionalisation of defence markets also explains the absence of collaborative continuity. But, while the value of supportive mechanisms is broadly acknowledged, it is also evident that post-Cold War institutional expansion does not correlate uniformly with the appetite for collaborative armament projects. Moreover, some of the tensions found in domestic procurement settings are elevated to the European level, whether institutionally ordered in a supranational or intergovernmental manner.

An illustrative example is offered in the domain of major surface combatants which have seen limited collaboration since the '60s. From 2000 to 2015, however, there was a surge in collaborative efforts. However, as the latest and most ambitious European procurement directive took effect, member states initiated no less than six frigate programmes on a purely national basis.

As recently suggested, collaborative armament projects benefit from cross-border defence industry consolidation. In the area of missiles and defence electronics where mergers and acquisitions have produced a handful of pan-European groups, EU member states are more inclined to purchase 'European' as opposed to purely national or US-supplied systems than prior to the consolidation process. This may explain the wild fluctuations in the naval domain, where the industry is still fragmented along national lines. This is contrasted, however, by some of the subsystems supplied by the highly consolidated defence electronics sector. Fiscally challenged Italy has e.g. funded the development and procurement of national sensors and weapons for its latest frigates, even though the Rome-based pan-European champion Leonardo has a stake in globally competitive collaborative offerings.

Nevertheless, consolidation can ensure a degree of commonality at the sub-system level as manufacturers aspire to streamline their product portfolio in order to achieve 'economics scale' while also meeting specific national requirements. Examples can be found in shared engines and seekers in different missiles and the re-combination of existing 'front-ends' (e.g. antennas) and 'back-ends' (e.g. signal processing) in sensors such as radars and sonars.

Finally, Guay and Callum's work offers the concept of 'reactive spillover' as a key variable, suggesting that European defence industry integration was stimulated by general integrative advances, even though the sector was exempt from EU's internal market provisions. The chapter discusses whether the argument can be reversed, suggesting that a prolonged general integrative crisis in the EU may produce 'reactive spillback'. Brexit and the electoral prominence of Eurosceptic parties in numerous member states are taken as changing public sentiments in the wake of the Euro-crises. While this intuitive explanation corresponds with the abrupt shift from collaboration to single-nation projects witnessed in the warship domain, it carries little explanatory power in relation to the momentum of European security integration at large, which peaked after the 2016 Brexit referendum.

In sum, no mono-causal explanation can account for the many opposing trends observed in relation to European armament cooperation. The dynamics likely differ from one sector to another and contemporary issues decisively impact individual projects. However, over time the trend is towards more collaboration and this is consistent with persistent political efforts to ensure a European supply base for most hardware needs. More institutionalisation will probably facilitate more collaboration, but it is not a guaranteed outcome. However, if combined with increased cross-border consolidation and fewer clientelist liaisons between procurement agencies and defence companies, including less direct interference in company management, the chances are that more collaborative and economically viable projects meeting requirements will materialise.

The figure below seeks to illustrate the drivers behind both continuity and fluctuations in European cooperative armament.



REFERENCES

Britz, Malena, 'The role of marketization in the Europeanization of defense industry policy', Bulletin of Science, Technology & Society, Vol. 30, No. 3, 2010, pp. 176–84.

Clift, B. and Woll, C. (2012) 'Economic patriotism: reinventing control over open markets'. Journal of European Public Policy, Vol. 19, No., 3, pp. 307–323.

Crollen, Emmanuel, 'Prospects for increased cooperation in European defence industry policies', European Security, Vol. 12, No. 2, 2003, pp. 89–98.

DeVore, Marc R. & Weiss, Moritz, 'Who's in the cockpit? The political economy of collaborative aircraft decisions' Review of International Political Economy, vol. 21, No. 2, 2014, pp. 497–533.

DeVore, Marc R. (2014) International armaments collaboration and the limits of reform, Defence and Peace Economics, Vol. 25, No. 4, pp. 415–443.

DeVore, Marc R., 'Producing European armaments: Policymaking preferences and processes', Cooperation and Conflict, Vol. 49, No. 4, 2014, pp. 438–463.

Dover, Robert, 'Britain, Europe and Defense in the Post-Industrial Age', Defense & Security Analysis, Vol. 27, No 1, 2011, pp. 19–30.

Dyson, Tom.: Neoclassical realism and defence reform in post-cold war Europe, Basingstoke, Palgrave, 2010.

Fiott, Daniel: 'The European Commission and the European Defence Agency: A Case of Rivalry?' JCMS: Journal of Common Market Studies, Vol. 53, No. 3, 2015, pp. 542–557

Guay, Terrence, 'Integration and Europe's defence industry: A 'Reactive spillover' approach' Policy Studies Journal, Vol. 24, No. 3, 1996, pp. 404–419.

Guay, Terrence & Callum, Robert, 'The transformation and future prospects of Europe's defence industry', International Affairs, Vol. 78, No. 4, 2002, pp. 757–776.

Hartley, Keith: "Defence Industrial Policy in a Military Alliance" in Journal of Peace Research, Vol. 43, No. 4, 2006, pp. 473–489

Hartley, Keith, 'Company Survey Series: I: BAE Systems plc', Defence and Peace Economics, Vol. 23, No. 4, 2012, pp. 331–342.

Hoeffler, Catherine (2012) 'European armament co-operation and the renewal of industrial policy motives'. Journal of European Public Policy, Vol. 19 No, 3, pp. 435–451

Lemer, Jeremy, 'Pan-European procurement: The trauma and necessity of closer collaboration', Financial Times, Sept. 8., 2009.

Marrone, Alessandro, De France, Olivier & Fattibene, Daniele (eds.), Defence Budgets and Cooperation in Europe: Trends and Investments, Rome, Istituto Affari Internazionali (IAI), 2016.

Mawdsley, Jocelyn, 'Arm, Agency and Accountability: The Case of OCCAR', European Security, Vol. 12 Nos. 3–4, 2003, pp. 95–111.

Mawdsley, Jocelyn, 'The Arming of the European Union: Explaining the Armaments Dimension of European Security and Defence Policy', Perspectives: The Central European Review of International Affairs, Vol 22, No. 1, 2004, pp. 7–21.

Mawdsley, Jocelyn, 'European Union Armaments Policy: Options for Small States?', European Security, Vol. 17, Nos. 2–3, 2008, pp. 367–385. Moravcsik, Andrew, 'Armaments among Allies: Franco-German Weapons Cooperation, 1975–1985', Peter Evans, Harold K. Jacobson & Robert Putnam (eds.), Double-Edged Diplomacy: Interactive Games in International Affairs, Berkeley, University of California Press, 1993, pp. 128–168

Moravcsik, Andrew: "Arms and Autarky in European History" in Daedalus (Winter 1991).

Moravcsik, Andrew, 'The European Armaments Industry at the Crossroads', Survival, Vol. 32, No. 1, 1990, pp. 65–85.

Mörth, Ulrika, 'Europeanization as Interpretation, Translation, and Editing of Public Policies' in Featherstone, Kevin; Radaelli, Claudio M. (eds.), The Politics of Europeanization, Oxford, University Press, 2003

Ulrika Mörth & Malena Britz, European Integration as Organizing: The Case of Armaments, JCMS: Journal of Common Market Studies, Vol. 42, No. 5, 2004, pp. 957–973.

Kluth, Michael & Pilegaard, Jess, 'Balancing beyond the horizon? Explaining aggregate EU naval military capability changes in a neorealist perspective', European Security, Vol. 20, No.1, 2011, pp. 45–64.

Kluth, Michael, 'European Defence Industry Consolidation and Domestic Procurement Bias', Defense & Security Analysis, Vol. 33, No. 2, 2017, pp. 18–25

Krause, Keith, Arms and the State: Patterns of Military Production and Trade, Cambridge, Cambridge University Press, 1992.

Odell, Mark & Eaglesham, Jean, 'Lowering Defences', Financial Times, May 27, 2004.

OECD, 'Freedom of Investment, National Security and Strategic Industries', OECD Roundtable. 21 June 2006, OECD Headquarters Paris.

Reda, Helmut, 'A New Era in European Arms Procurement: Understanding OCCAR, The DISAM Journal, Vol. 21, Vol. 2, 1999, pp. 82–85.

Roberts, Michael, "The Military Revolution, 1560–1660" (1956) reprinted in Clifford J Rogers, ed. (1995). The Military Revolution Debate: Readings On The Military Transformation Of Early Modern Europe. Avalon Publishing. pp. 13–36.

Smith, Adam, An Inquiry Into the Nature and Causes of the Wealth of Nations, Oxford, Clarendon Press, 1979 (1776) p. 522.

Snyder, Glenn, 'The Security Dilemma in Alliance Politics', World Politics, Vol. 36, No. 4, 1984, pp. 461–95.

Strikwerda, Johanna, 'Sovereignty at stake? The European Commission's proposal for a Defence and Security Procurement Directive', European Security, Vol. 26, No. 1, 2017, pp. 19–36.

Tornqvist, Stefan, 'Demand side collaboration and multinational procurement', RUSI Journal, Vol. 166, No. 2, 2001, pp. 66–68.



SOLVING THE EUROPEAN DEFENCE MARKET PUZZLE



CHOICES AND DILEMMAS FOR EUROPEAN DEFENCE ACQUISITION:

ALONE, TOGETHER OR 'OFF-THE-SHELF'?

BY DR BEN JONES

INTRODUCTION

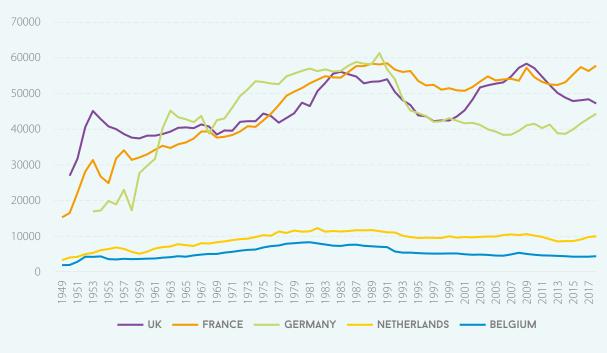
Since the 1960s, European states have found it increasingly difficult to sustain their own indigenous defence industries¹. While for smaller European states the aspiration to source a broad spectrum of military capabilities domestically has not been credible since at least World War II, if ever, the larger European states continue to make a lengthy transition from reliance on domestically-produced military capabilities to those either bought directly from abroad or in collaboration with others. While buying 'off the shelf' from foreign producers may in some cases be more economically attractive, it is likely to lead to significant dependence on a foreign supplier, limitations to operational flexibility and the curtailment or complete loss of the domestic investment that would arise from an exclusively national purchase. On the other hand, cooperation offers states the opportunity to retain some of the economic and political advantages that come with an autonomous domestic defence industry, yet it may still expose them to long-term dependencies, loss of decision-making flexibility in their industrial choices and considerable financial risk.

This chapter first considers how a shifting economic and international security context has come to challenge the ability of larger European states to sustain autonomous defence industries. It then goes on to look at how these contextual international factors, combined with characteristics and circumstances specific to particular European states, shape their choices of whether to buy equipment from domestic suppliers, produce it with other states or purchase 'off the shelf' from abroad, usually the United States (US). Finally, the chapter examines how long-term trends and divergent characteristics and circumstances of European states might shape the future of defence industrial collaboration on defence in the region.

THE DRIVERS OF EUROPEAN DEFENCE INDUSTRIAL COOPERATION

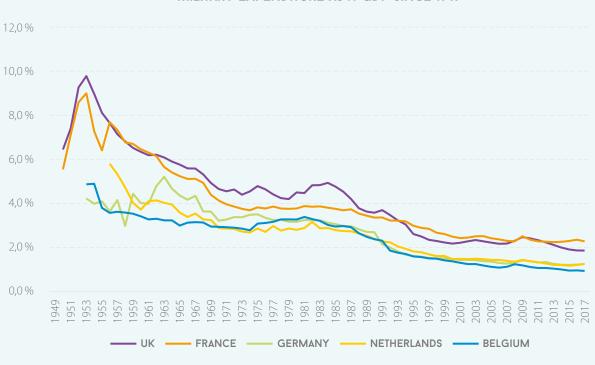
The motivation for any single defence industrial collaboration project is complex and multi-dimensional, but the most important driver in post-war Europe has been the declining economic viability of an exclusively national approach to the generation of military capabilities. Since the end of the Cold War, defence budgets in Europe have fluctuated in response to shifts in international security and domestic economic performance. However, overall, resources allocated to defence have tended to stay broadly flat in real terms, and thus in decline as a percentage of GDP, as can be seen in Charts 1 and 2 below.

^{1 &#}x27;Europe' in this article refers to European NATO and/or EU Member States.



REAL TERMS MILITARY EXPENDITURE SINCE 1949 (CONSTANT USD 2016)

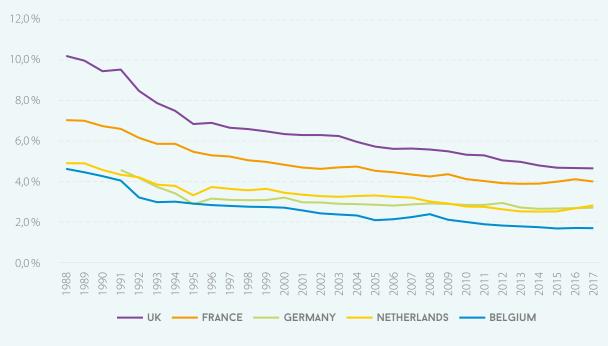
SOURCE: SIPRI



MILITARY EXPENDITURE AS % GDP SINCE 1949

SOURCE: SIPRI

The end of the Cold War saw European states take a considerable 'peace dividend' and subsequently transfer the proceeds of their economic growth away from defence and towards other areas of public policy, as can be seen in Chart 3.



MILITARY EXPENDITURE AS % SHARE OF GOVERNMENT SPENDING SINCE 1988

SOURCE: SIPRI

28

Within the context of relatively flat defence spending, European states have also struggled to deal with the effects of ever-increasing unit costs for high-tech military capabilities and rising personnel pay. Although such inflationary trends are perhaps most pressing for European states, they are a long-standing and global phenomenon from which no state with technologically advanced armed forces is immune. In the late 1970s, Norman Augustine used established trends in equipment cost inflation in the US defence budget to calculate that: "In the year 2054, the entire defence budget will buy just one tactical aircraft." In 2015, Augustine noted that his prediction was still "right on track"². Similarly, British economist David Kirkpatrick has observed that: "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 trend), equivalent to a trend of 5–10% per year"³.

² Augustine, N., 'Augustine's Laws and Major System Development Programs' [a new preface], Defense Acquisition Review Journal, 2015, Vol. 22, No. 1, p 3.

³ Kirkpatrick, D., 'Is defence inflation really as high as claimed?' RUSI Defence Systems, October 2008, London, RUSI, p. 70.

With cost inflation outstripping modest or flat growth in European defence budgets, and the post-Cold War period seeing significant reductions in units of major equipment, the European defence industry has found itself particularly vulnerable. The pressure is acute on the most high-tech and therefore expensive capabilities, of which defence aerospace, particularly fighter jets, is perhaps the most prominent example. Such programmes require huge development costs, which regularly swell beyond initial cost projections, sometimes by very large margins⁴. As such, defence equipment budgets risk being swamped by the spiralling costs of a few major programmes. If states are not prepared to countenance bearing these costs and the risk and uncertainty that may be inflicted on long-term capability planning, they are then faced with a choice. They can either buy from abroad, thus at least avoiding the problem of unpredictable and spiralling development costs (though these must still be paid for to some degree in the unit cost) and benefiting from the economies of scale of large production runs, usually by US defence companies. Alternatively, they can seek partners in a similar situation and attempt to mitigate the disadvantages of off-the-shelf acquisition through industrial collaboration.

Both options have significant drawbacks over an exclusively national solution. Buying from abroad, usually but not exclusively from the US, will probably mean giving up much or all of the macro-economic benefits that may accrue from domestic investment in high-tech manufacture, including spin-offs into other industries. And, from a security perspective, buying off the shelf also means giving up on the domestic supply of cutting-edge technologies and industrial capacity in the face of an uncertain future, while also taking on a higher level of dependency and potentially sacrificing flexibility in adjusting capabilities quickly to changing strategic and operational conditions. While the second option of cooperation may preserve levels of domestic investment and provide a long-term hedge on uncertainty and greater operational flexibility, nevertheless it may still entail a high degree of mutual dependence and even levels of financial risk that come to rival that of a domestic solution. However, despite these downsides, European states have increasingly turned to both options, and particularly to cooperation in their most prized high-tech industries.

THE RISE OF EUROPEAN DEFENCE COOPERATION

Although collaboration in military programmes took place between European states as early as the 1950s, notably between France and Germany over the Brequet Atlantique maritime patrol aircraft, perhaps the first significant wave of cooperation that reflected the dilemmas outlined above was led by the UK and France in the 1960s. The rationale behind the British push for defence industrial cooperation with France was set out in the 1965 'Plowden Report' on the future of the British aircraft industry. It was argued that the UK could no longer sustain an independent civilian or military aerospace sector of the scale it had built up in the previous decades; it would therefore need to work with other European states if it was to preserve existing capacity and avoid total dependence on US technology and equipment⁵. The strategic goal was therefore to build a viable European alternative to the US aerospace industry. Early collaboration between the UK and France produced successful aircraft, including the Jaguar fighter and the Gazelle, Puma and Lynx helicopters. However, France withdrew from cooperation with the UK on what would have provided both countries with their principal fighter, the Anglo-French Variable Geometry jet. While France pulled out of the programme to pursue instead the Mirage fighter alone, the UK sought out alternative partners, subsequently joining with Germany and Italy to build the Tornado. This same grouping, plus Spain, then went on to work together on the Eurofighter, with France once again taking part only to withdraw from the project and produce the Rafale alone. But this preference for national autonomy was already something of an exception in wider French defence aerospace policy. France turned to European cooperation to sustain its helicopter industry, with both the Tiger attack and NH-90 multi-role helicopters. And in the same area, the UK pursued European and

⁴ Hartley, K., White Elephants? The Political Economy of Multi-National Defence Projects, 2012, New Direction Foundation for European Reform, Brussels, p. 7.

⁵ Cmnd 2853, Report of the Committee of Inquiry into the Aircraft Industry (Plowden Report), 1965, HMSO, London.

American options, cooperating with Italy over the EH101 medium-lift helicopter and with the US over the Apache attack helicopter, which was assembled and modified under licence in the UK. The UK also acquired the Chinook from Boeing at an early stage and continues to rely on this aircraft for its heavy-lift helicopter capability.

Reflecting the fall in anticipated production following the end of the Cold War, a second wave of defence industrial cooperation and consolidation came about in the 1990s and early 2000s. In 1992, the European helicopter industry underwent further consolidation with the establishment of the Franco-German company, Eurocopter, and the creation of the Anglo-Italian AgustaWestland in 2000. Also in that year, three major French, German and Spanish aerospace firms merged to create European Aeronautic Defence and Space (EADS). In the following year, the missile divisions of three European defence companies from the UK, France and Italy formed MBDA, a single complex weapons company. In the naval domain, France, Italy and the UK worked together on the common 'Horizon' frigate programme. And, while the UK later decided to withdraw, the centrepiece radar and missile systems of the Royal Navy's Type 45 destroyer drew heavily on this collaboration. This period also saw several European states committing to work together on a major defence aerospace project, the Airbus A400M transport aircraft. In parallel to the consolidation of the European defence industry, however, there were further moves towards 'off-the-shelf' or 'modified off-theshelf' solutions, particularly in the UK. In 2001, the UK took the critical decision to join the US as the only 'tier one' partner in the development of the F35 'Joint Strike Fighter', which would replace the British-designed and built Harrier as well as the Tornado. Under this arrangement, the UK retains a significant workshare of 15% on the F35⁶, but it remains very much a junior partner, and the workshare is low compared with the British role in the production of the Eurofighter, which stands at 37.5 % ⁷.

RECENT TRENDS

The 2008 financial crisis had a further negative impact on European defence spending, with the resulting fiscal tightening in the UK leading to an 8% cut in the British defence budget, and significant defence cuts elsewhere across Europe⁸. France indefinitely postponed its plans to build a second aircraft carrier, and it was noted that its 'Military Programme Law', the cycle of planning for forthcoming defence spending, was unable, or only barely able, to ensure a defence model that is credible and consistent with the 1994 or 2008 White Papers'9 . In 2010, the UK made significant cuts to its armed forces, reducing its deployable forces by approximately one-third, and taking the unprecedented decision to forego carrier strike and maritime patrol capabilities for at least a decade ¹⁰. In 2011, the Dutch Army withdrew its Leopard 2 tanks from service, sparking widespread concern¹¹. However, while the financial crisis provided a shock to European treasuries, the longer-term factors outlined above continued to take their toll, undermining the viability not only of indigenous national industries but also the ability of the larger states to sustain a broad spectrum of military capabilities. It has been noted that of the £74 bn 'black hole' that faced the British defence budget in 2010, over one-third was made up of commitments that would have been unaffordable even in the absence of the financial crisis.¹² The recent improvement in economic prospects across Europe, combined with the deterioration of the security situation in the East due to a renewed threat from Russia, has led to fresh commitments by European NATO states to meet the NATO 2% of GDP defence spending target. France has

⁶ Written Answer, House of Commons Hansard, October 9, 2017.

⁷ Typhoon Fact Sheet, BAE Systems, 2013.

⁸ Brune, S. C., Cameron, A., Maulny, J., Terlikowski, M. (2010), Restructuring Europe's Armed Forces in Times of Austerity: The United Kingdom, France, Germany and Poland, SWP, Berlin.

⁹ Foucault, M., 'The Defense Budget in France: between Denial and Decline', Focus stratégique n° 36 bis, Institut francais des relations internationals. 2012. Paris. p. 50.

¹⁰ UK Government (2010b), The strategic defence and security review: securing Britain in an age of uncertainty, 19 October, 2010, The Stationary Office, London.

¹¹ Steinglass, M. (2011), 'Dutch tank crews take aim at cuts', Financial Times, April 29, 2011.

¹² Chalmers, M., RUSI Briefing Paper, 'Looking into the Black Hole', September, 2011, RUSI, London, p. 3.

announced real-term increases in funding for defence and intends to meet the target in 2024; Germany, however, only expects to reach 1.5 % by 2024¹³. The UK has also pledged to maintain its spending at 2 %, but given its ongoing policy of fiscal restraint, is unlikely to push spending much beyond this level. While such commitments will provide some mitigation of the affordability challenge, they will not be sufficient to avoid the difficult decisions that now face European states over their defence acquisition choices.

Indeed, the UK continues to move towards off-the-shelf and 'modified off-the-shelf' solutions, i.e. bespoke to British requirements and assembled in the UK, but based on foreign designs, such as the General Dynamics 'Scout' reconnaissance vehicle and the German-Netherlands 'Boxer' armoured fighting vehicle. The shift in aerospace from domestic production to foreign purchase, as observed in previous decades, also continues in the UK. The latest purchase of Apache helicopters has been undertaken directly from the US and without modification to British specifications, as was done previously through AgustaWestland¹⁴. The US-built General Atomics armed drone, known as Reaper, is now in operation across many European states, none of which have a similar capability. And the UK has decided to source its future maritime patrol aircraft directly from Boeing in the US, having abandoned its own Nimrod MRA4 programme in 2010.

In terms of a future European fighter to succeed Eurofighter and Rafale, the UK decision to work with the US on the F35 has left it struggling to afford a future programme by which it can continue to maintain the present scale of indigenous research and design capacity in the UK; it had been hoped this would in part be achieved through cooperation with France on a future unmanned drone, but the prospects of the programme are now unclear ¹⁵. Germany too, with its requirement for a fast jet, able to deliver nuclear gravity bombs in line with its NATO commitments, will soon need to find an appropriate replacement for its Tornado; and in the absence of a European alternative, this is likely to mean the F35. Nevertheless, European consolidation is also moving forward. Significantly, while France pursued an exclusively national option with both Mirage and Rafale, it is not expected to do so again and indeed has sought out cooperation with both the UK in this field, and more recently Germany over a 'Future Combat Air System' ¹⁶. In the land domain, France and Germany recently agreed a merger of their main battle tank producers, Nexter and Krauss-Maffei Wegmann, into KNDS. And a grouping of European states, including Germany, the Netherlands and Norway, have joined together to acquire and operate through NATO a new air-to-air refuelling fleet, which will be built by a consortium of European companies ¹⁷.

THE END OF THE NATIONAL OPTION?

The decades since the 1960s have thus seen a sustained shift away from national solutions for military capability and towards cooperative or off-the-shelf solutions. It should be noted, however, that some areas remain more resolutely national. Cryptography and high-level communications systems often remain national requirements, although even here, such capacity may be ring-fenced within a multinational company. And for both France and the UK, production of their nuclear-powered submarines and nuclear warheads, and for France its inter-continental ballistic missiles (the UK draws from a pool of US maintained and manufactured Trident D5 missiles), production remains largely autonomous. Although, even here, in 2010 the UK and France pledged to share assets for the simulated testing of their warheads ¹⁸. Again, for the larger European states, despite the earlier Horizon frigate programme, all continue to turn to a national

¹³ Chazan, D., Huggler, J., 'France and Germany to increase defence spending amid fears Donald Trump may pull US troops from Europe', Telegraph, July 8, 2018.

¹⁴ Allison, G., 'Boeing to remanufacture 38 Apache helicopters for UK', UK Defence Journal, May 15, 2017.

¹⁵ Thisdell, D., 'Brexit throws Anglo-French FCAS programme into doubt', FlightGlobal, March 8, 2018.

¹⁶ Bronk, J., 'UK Prospects for the New Franco–German Fighter', Commentary, RUSI, London, July 31, 2017

¹⁷ Multi-Role Tanker Transport Fleet (MMF) expands significantly, European Defence Agency News Release, 25th September, 2017, Brussels.

¹⁸ Jones, B., Occasional Paper 88, 'Franco-British Military Cooperation: A New Engine for European Defence?', European Union Institute for Security Studies, 2011; Harries, M., 'Britain and France as Nuclear Partners', Survival, January 2012.

prime contractor in the maritime domain. For example, the new British frigate, known as the Global Combat Ship (GCS), is largely produced by the UK's BAE Systems, although the technology on board is increasingly multinational ¹⁹. And the planned future Dutch-Belgian multi-purpose frigates will also probably procure key technologies from abroad. France and Italy are also deepening cooperation in the naval domain ²⁰. Thus, while the hulls themselves may still be designed and built on a national basis, the equipment on board is increasingly likely to be multinational, to a greater or lesser extent.

Of the three broad options by which European states can source their military capabilities – exclusively national, 'off the shelf' and cooperative – the foregoing discussion suggests that national-only solutions are likely to continue to shrink across all the domains of military operations, with pockets of 'sovereign' capabilities retained in a few core areas and defined increasingly in terms of technology rather than equipment or platforms. If current trends continue, it seems highly likely that defence industrial decisions will in future rarely focus on the viability of a purely national solution and more on the balance between 'off-the-shelf' (or 'modified off-the-shelf') equipment, on the one hand, and cooperative programmes, generally though not exclusively European, on the other. The aim for the larger states will be to preserve capacity in certain areas of technology, rather than the ability to build entire platforms. This scenario, which has played out over decades and continues to play out today, raises difficult choices for all European states, but particularly for those with a longer history of sourcing their military capabilities domestically. To consider the trade-offs and balances between these options in greater depth, the following section of the chapter will now take a more conceptual approach to these issues. In doing so, it will consider how European states must find a strategic synthesis of several interlinked factors, primarily though not exclusively, those of military autonomy, domestic economic impact and efficiency.

SOURCING MILITARY CAPABILITY -FINDING A STRATEGIC SYNTHESIS

While the larger European states have a history of producing their own cutting-edge military capabilities, they do not have unlimited resources to dedicate to their defence and, in economic terms, they are mediumsized powers, relatively small compared to the US and China and forecast to fall behind other rising powers in the near future. For the reasons outlined above, their defence industrial sectors have struggled with falling orders, high-cost inflation and high risk and uncertainty in development costs. For several decades, even the largest European states have been unable to domestically source all their military capabilities, and in recent years the situation has grown more acute. European states thus face difficult trade-offs between considerations of long-term and day-to-day operational military autonomy, the interests of their domestic economies and the most efficient means of generating specific capabilities. These decisions must also be taken in the context of wider diplomatic objectives, particularly with other European states and the United States. The following section will consider the salience of these factors in turn.

AUTONOMY, DEPENDENCE AND MUTUAL DEPENDENCE

While this chapter will not draw heavily on international relations theory, it may be beneficial to use a broadly 'neorealist' frame of reference when considering the motivations of European states to preserve their autonomy with respect to military capability. With its assumption that sovereign states prioritise their survival

¹⁹ There are, for example, important roles for equipment produced by the American firm General Dynamics and the European company MBDA on board the British GCS.

²⁰ Balmer, C., 'France confirms Fincantieri-STX shipyard deal, cautious on defence merger', Reuters, August 1, 2018.

in a fundamentally anarchic international environment, neorealism suggests that states ought to pursue policies that maximise their autonomy and freedom to act ²¹. As such, they might be expected to prioritise, as far as is possible, the maintenance of a cutting-edge domestic defence industrial base that can provide them with as high a level of military autonomy as possible. Yet while it is the case that military autonomy is important to all European states and that this reflects the uncertainty of an international anarchy, there are three important caveats to the realist perspective. Firstly, the aspiration to source all military capabilities from domestic manufacturers is not, and never has been, realistic for all states; only the 'great powers' of an international system can genuinely aspire to this, and there are few in the current system, perhaps only the US in terms of fielding truly 'full spectrum' military capabilities on a considerable scale. In other words, the credibility of a state's military autonomy is always relative to that of others, and closely related to its economic weight in the world. This means that there is a considerable difference in terms of the defence industrial aspirations of the US compared with France or the UK, and they compared with Belgium. As will be seen, this fundamental difference in size has its own ramifications for European defence industrial cooperation.

Secondly, as argued by the economic historian Alan Milward, in determining their military expenditure, even the most powerful of states tend to pursue a 'strategic synthesis' of both international and domestic aims²². Even during the existential 'total war' of World War II or the super-power stand-off of the Cold War, the protagonists did not necessarily subordinate domestic calls on their resources to the extent that might be expected by a neorealist perspective²³. Defence spending is never purely a function of the inherent uncertainty of the international system and the perceived level of threat at any given time. States must balance their international security with their internal political priorities. Thirdly, as neorealist scholars concede, European NATO states find themselves in a peculiar international context; the protection they are afforded by the US serves to suppress the security dilemma that might normally be engendered between states in an anarchic international system²⁴. This lack of 'balancing' between European states provides for a more benign security environment among them. On the one hand, this may suppress defence spending and therefore also the defence industrial base; as members of a heavily asymmetric alliance dominated by the US, marginal shifts in the resources that Europeans dedicate to defence are unlikely to have any significant impact on the overall security of the alliance. The situation may even encourage a degree of 'free-riding', although it should also be noted that all European states tend to value the provision of credible military contributions to the alliance, in part in an attempt to have some influence over the US and their other allies²⁵.

Moreover, there will always remain uncertainty over the longevity of the NATO alliance, a concern that may be more acute at some times more than at others. Moreover, even if the American commitment to NATO's Article 5 mutual assistance clause remains robust, there may be uncertainty as to the degree of assistance that the US will provide to Europeans in situations wherein it does not perceive a direct or sufficiently pressing interest. Europeans thus still require confidence in a reasonable level of military autonomy and freedom of action. For the larger European states, future uncertainty provides an incentive to retain defence industrial capacity and the ability to deploy military capabilities relatively unhindered by the US or others. On the other hand, a second effect of this context of suppressed anarchy in Europe is that the lack of fears over each making relative gains over the other provides an opportunity to develop deep cooperation across policy areas, including in the most sensitive field, that of military capabilities.

With these caveats in mind, it is clear that military autonomy will mean different things to different states, relative to their size, foreign policy aspirations and systemic circumstances. Nonetheless, autonomy remains a key consideration for all, and for European states it still encompasses, although to greatly varying degrees, the ability to sustain an indigenous defence industry. The degree to which this need be the case is shaped

²¹ The classic statement of neorealism is set out in: Waltz, K., Theory of International Politics, Waveland Press, 1979.

²² Milward, A. S. (1979), War, Economy and Society 1939–1945, University of California Press, Berkeley, p. 18.

²³ Friedberg, A. L., 'Why Didn't the United States Become a Garrison State?', International Security, Vol. 16, No. 4, Spring 1992, pp. 109–142.

²⁴ See, for example: Joffe, J., 'Europe's American Pacifier', Foreign Policy, 1984, No. 54, pp. 64–82.

²⁵ Snyder, G. H. (1984), 'The Security Dilemma in Alliance Politics', World Politics, Vol. 36, No. 4, pp. 461–495.

by various factors. Aside from their own local territorial defence obligations, in any operational scenario, most European states will usually expect to deploy alongside their allies, most importantly the US, France, and to a lesser extent the UK, and still seek to retain the ability to act autonomously on a significant scale through expeditionary forces. Even for these states, however, the ability to operate without any assistance at all from allies is both increasingly challenging and unlikely. Despite this reality that no European state can act alone on any significant scale for long, there remain two key reasons to retain an indigenous defence industrial base (be it sustained nationally or cooperatively). The first relates to the inherent uncertainty in the longevity of the transatlantic alliance. If European states, particularly the largest states, built up a complete industrial dependency on the US, it would leave them highly vulnerable in the event of a shift in policy in Washington. Secondly, even when it is assumed that the alliance will remain robust, a dependency on US technology might impair Europeans' ability to act where the US was of an indifferent (or negative) opinion over a proposed operation. In such a situation, it is claimed that the ability to 'fine-tune' military capabilities in response to operational contingencies relies upon a national or at least 'European' indigenous industrial capability ²⁶. In a submission to the UK House of Commons Defence Committee Enquiry into Defence Acquisition in April 2012, one major defence company made the argument that an indigenous defence industrial base ensures that the British armed forces have access to an extensive 'Body of Knowledge' that allows for a high degree of operational sovereignty, 'in command and control terms, military operations in novel circumstances make extensive calls on this Body of Knowledge.' 27

It is argued, for example, that in Afghanistan and Libya rapid modifications to UK capabilities were only possible due to the Body of Knowledge that the defence industrial base is able to provide. It goes on to argue that unrestricted access to intellectual property (IP) will in future be the key test of operational sovereignty,

"Onboard integration of technologies, across and between platforms, is now fundamental to the design of those platforms and their systems. These aspects represent the direction in which defence capability is heading for in the future, where unfettered access to IP is paramount, not only to the understanding of the limits of operational performance but also in ensuring that it can be adapted, modified or enhanced, without impediment from non-UK authorities."²⁸

Thus, retaining a level of defence industrial autonomy from the US has benefits for those larger European states which can sustain this vision of high-level operational autonomy and freedom of action. For such purposes, the retention of exclusively national autonomy would be the ideal means by which to hedge against the inherent uncertainty of the international system, including the unlikely but possible return to anarchy in European security. As noted above, for the larger states, particularly the UK and France, industrial autonomy remains prevalent in certain areas such as cryptography and nuclear weapon capabilities. Nevertheless, while states may increasingly ring-fence capacity to design and build the most sensitive technologies, the actual production of equipment platforms into which those technologies will go is now rarely undertaken on a national basis. Thus, it is through cooperation with each other that European states have chosen to hedge against dependence on, and potentially abandonment by, the US. In many areas, where they have sought to avoid both dependence and the increasingly high cost of national autonomy, Europeans have opted for mutual dependence on each other.

The degree of mutual dependence implied by cooperation has shifted and will no doubt continue to shift over time. Collaboration over Tornado and Eurofighter, for example, may have entailed mutual dependence over the research and development of particular technologies and ultimately the supply of those aircraft, particularly once specialisation in production was undertaken. But even so, it enabled the states involved

²⁶ Dorman, A., Uttley, M., Wilkinson, B., A benefit not a burden: the security, economic and strategic value of Britain's defence industry, April 2015, King's College, London, p. 33.

²⁷ Finmeccanica UK written submission to House of Commons Defence Committee, Defence Acquisition -

Seventh Report of Session 2012–13, London.

NORMAN AUGUSTINE USED ESTABLISHED TRENDS TO CALCULATE THAT: "IN THE YEAR 2054, THE ENTIRE DEFENCE BUDGET WILL BUY JUST ONE TACTICAL AIRCRAFT."

to sustain their own broad-based defence aerospace expertise and knowledge, which might *in extremis* underpin a national-only solution in an uncertain future. If current affordability trends continue, however, more extensive rationalisation and specialisation is likely to be necessary if a European defence industrial base of international significance is to be preserved. This may mean larger states giving up on aspects of design, technologies and production that in the past would have been taken for granted, and turning away from consortiums of national defence companies towards the model of single European prime contractors. Here, the complex weapons sector provides a potential vision of the future.

As part of its 'centres of excellence' programme, MBDA, the pan-European complex weapons company, has embarked on a programme of specialisation in the production of elements of its missiles. France and the UK have agreed to specialise in different aspects of future missiles, wherein some technologies will be developed in France, some in the UK²⁹. Thus, while both states may retain access to and insight into all areas, including those they no longer specialise in, they will move from autonomy to mutual dependence in this field. Such cooperation ought to allow for greater efficiency in the organisation of the sector and the retention of some of the benefits of autonomy from the US, but it also means that greater mutual dependencies will be created between the partners. In the missile sector, for example, states would become reliant on each other for production, not only of a platform or technology that they deploy themselves, but also for the ongoing armament of those platforms. Such a model, based on more extensive long-term industrial specialisation in Europe, may eventually be extended to other sectors and areas of technology.

²⁹ Bouvier, A., 'MBDA, a test case for Anglo-French cooperation in defence', 2014, INFO, French Chamber of Commerce in Great Britain, London, p. 48.

It should be clear from the above discussion that there is no single 'European' approach to the question of defence industrial autonomy. Some European states are simply too small for it to be considered a genuinely strategic matter. Moreover, even for the larger European states that retain significant indigenous defence industries, important differences exist in the way that they are justified by policy-makers. France has traditionally set more store by autonomy in its foreign policy than has the UK, with its very close relationship with the US. This approach has clearly had an impact on French defence industrial decisions, particularly as regards turning to national and European rather than American programmes. In the UK in recent years, the question of the contribution of indigenous industry to operational autonomy and freedom of action has been controversial, with some government policy documents apparently advocating 'off the shelf' as a 'default' approach ³⁰. On the other hand, in important respects, the UK does seem to remain committed to a philosophy that defence industrial autonomy is important for underpinning "operational advantage and freedom of action"³¹. Of course, this confluence of French and British opinion over the importance of an indigenous defence industrial base, which underpinned the 2010 'Lancaster House' treaties on defence and security, may not last forever. The pros and cons of 'off-the-shelf or 'modified off-the-shelf' options remain part of an open debate. The degree to which European states will in future commit to the vision of 'strategic autonomy' in defence, as recently championed by the EU's High Representative, and the extent to which this influences decisions between off-the-shelf or European cooperative solutions, may also be of increasing importance, but EU strategy will need to find ways to bridge the deep differences that exist between individual European states.

THE BENEFITS OF ONSHORE INVESTMENT

It can be safely assumed that the larger European states invest in their national industries, at least in part, to retain a hedge against an uncertain future and to ensure greater operational flexibility. But it might be argued that a purely economic motive is equally or even more important in determining whether European states choose to work together or buy off the shelf. For European states, the sums involved in a major defence acquisition and ongoing support costs can be in the order of tens of billions of euros; thus, such spending may have important macro-economic effects that would be non-existent if the resources were sent entirely abroad. A recent report by King's College, London points out that

"The UK defence industry is a significant domestic industrial sector that directly employs 162 400 people, indirectly generates a further 114 200 jobs in the defence supply chain and supports a further 95 800 induced jobs in the UK economy.

It is a leading edge, high-technology and high-value sector: over half of the employees in UK defence companies are involved in R&D (22 per cent) or engineering and production and assembly (31 per cent). The industry's turnover in 2013 was an estimated \pm 22.1 billion and it returned approximately \pm 8.2 billion in gross value added to the UK economy. Our findings also suggest that the UK defence industry forms a vital national hub generating science, technology and skills within the national workforce."³²

The counterpart figures for other European states with a significant defence industrial base can be assumed to be of a broadly similar magnitude. Thus, a domestic defence industry may be a vital component of a state's manufacturing and high-tech sector. Research undertaken on the amount of project spending that returns to government via taxation suggests that this can be between 10% and 36% of the total. While it is difficult to find a generally reliable figure, this does at least suggest that a simple unit-cost comparison between domestically produced equipment and an off-the-shelf alternative may be quite misleading.

³⁰ National Security Through Technology: Technology, Equipment, and Support for UK Defence and Security, UK Government, 2012.

³¹ Industry for Defence and a Prosperous Britain: Refreshing Defence Industrial Policy, UK Ministry of Defence, 2017, p. 6.

³² A benefit not a burden', p. 5.

The so-called 'modified off-the- shelf' approach may to some degree mitigate the loss of such investment by ensuring that there is some work for the customer state in terms of assembly line production and some roles for domestic suppliers. Yet such a solution must be balanced against loses in terms of cutting-edge research and intellectual property.

A national or European solution also allows potential revenues from exports, which, if successful, may provide a significant amelioration of the overall programme cost in terms of tax returns, economies of scale and viability of the companies involved. Thus, if a significant contribution to the domestic economy is the primary objective of retaining an indigenous national or collaborative European defence industry, then the 'value-for-money' question must tackle the extent to which these wider economic benefits are greater than the savings available in terms of unit cost from buying off the shelf. This is a difficult calculation to make, particularly at the outset of a programme, the final costs of which are unknown, but it reinforces the point that any value-for-money assessment of a defence industrial project is a complex question. This final point also raises the question of the level of efficiency and risk that may arise from collaborative programmes; this will be tackled in the remainder of this section.

EFFICIENCY AND AFFORDABILITY

What might be termed the 'Plowden rationale' for European defence industrial cooperation, as set out by the UK in the 1960s, has recently come in for criticism ³³. The British hope that a European aerospace industry would gain from the greater economies of scale that would be delivered through collaboration, and would thus grow to rival American industry, was largely achieved in the civil domain via the development of Airbus. However, in defence aerospace, with substantially fewer orders compared to equivalent US manufacturers, smaller defence budgets and fractured national projects and companies, the European defence aerospace industry has struggled to attain that goal. As Hartley points out, today the UK has opted for a largely American solution for its next generation fighter jet, the F35 ³⁴. It is further noted that complicating factors in cooperation, such as negotiations to determine workshare between states, and problems reconciling different national requirements into a single product, have pushed up costs. In this regard, cases such as the Tiger and NH90 helicopters and the A400M transport aircraft have become notorious case studies among decision-makers and industrialists. Thus, the notion that European defence cooperation would inherently work so as to reduce costs through economies of scale remains highly contentious. Indeed, France's Rafale and Sweden's Gripen are often cited as evidence that a national option can be more efficient than a European solution ³⁵.

Unfortunately, there are too few cases to establish any definitive view on this matter. Given the political and economic complexity of each and every major defence equipment programme, it is difficult to isolate the general from the idiosyncratic. Yet, as Hartley notes, in the European defence aerospace sector this criticism may now be something of a moot point, as exclusively national solutions are simply no longer affordable. As such, the stronger justification for European defence cooperation on major projects is not so much the argument that collaboration may deliver cheaper unit cost (it may do the opposite), but rather that the cost of a national programme is so prohibitive that it can only be undertaken via collaboration. As Michael Quinlan, a former senior British Ministry of Defence official, argued:

"even where a project undertaken collaboratively will cost 3X whereas the uncomplicated national route would cost only 2X, if each of the countries can afford no more than X, collaboration may still be the only realistic way of making the project possible." ³⁶

³³ Hartley, White Elephants, p. 5.

³⁴ Ibid. p. 30.

³⁵ Ibid. p. 27

³⁶ Quinlan, M., European Defense Cooperation: Asset or Threat to NATO?, Woodrow Wilson Centre Press, Washington D. C., 2001, p. 11.

Thus, even with the potential inefficiencies of a collaborative approach, it may be that it provides the only affordable means by which the larger European states can retain both the benefits to the domestic economy and the more strategic rationale for military autonomy. In terms of production runs, compared with the US, European states will struggle to compete on economies of scale, particularly as smaller states have often preferred to buy American. But a different approach to efficiency may provide something of an answer here. As discussed above, the specialisation of production across states under a single prime contractor may provide the most efficient approach. In addition, equally importantly, in future programmes cooperating partners will need to sacrifice or compromise their own specific capability requirements to lessen the degree of risk and complexity in any given programme.

The foregoing section has demonstrated the complex strategic synthesis that European states must aim for when making choices over the sourcing of their military capabilities in relation to their domestic defence industrial bases. The general trend away from exclusively national options raises several interlinked questions, particularly for the larger European states. To what extent is national or 'European' autonomy essential in any given capability or technology? When is it both strategically acceptable and economically more efficient to purchase off the shelf or to pursue a modified off-the-shelf option? To what extent do the benefits accrued from domestic expenditure to the wider economy offset a potentially less expensive offthe-shelf option? And, how far can commercial rationalisation and national specialisation in the European defence industrial base increase efficiency and reduce costs? In addition to these questions raised by the search for a strategic synthesis, however, there is a final complicating factor and that is found in the differences between European states themselves and the extent to which these differences have an impact on choices involving cooperation.

COOPERATION – CHOOSING PARTNERS

Thus far, this chapter has set out the economic and strategic background and the trade-offs that states must consider when finding a strategic synthesis for both the resourcing and sourcing of their military capabilities. It can be argued convincingly that, due to their systemic location as junior partners in a stable but highly asymmetrical alliance, European NATO states have sufficient confidence in each other to cooperate deeply on defence industrial matters, including the most sensitive technologies and capabilities. Nevertheless, the characteristics of individual European states are also important in determining whether this fruitful strategic context for cooperation gives way to concrete collaborative programmes. There are, of course, myriad differences between European states that may have some impact on their propensity to cooperate, but the following section will focus on four: symmetry of size and scale, similarity of foreign policy aspirations, timing of acquisition and diplomatic factors³⁷.

I. SYMMETRY OF SIZE AND SCALE

As noted above, the size of a state has an important influence on who it is likely to partner with. The big European defence aerospace collaborations have taken place among the largest states that wish to sustain their own industrial bases in that field. The smaller European states have no comparable industrial capacity to preserve, though they may retain niche industrial capabilities. As such, smaller European states will often buy American rather than European products; as, for example, with the F16 aircraft operated by Belgium, Denmark,

³⁷ For a more comprehensive consideration of factors that may lead to cooperation, see: Valasek, T. Surviving Austerity: The case for a new approach to EU military collaboration, 2011, Centre for European Reform, London.

the Netherlands and Norway. While they are free to choose an American or European option, these states arguably benefit from the existence of a European industry, as it provides an alternative option by which they can bargain more effectively with American suppliers. Thus, size and scale, and the technologically advanced and expensive nature of the capability itself, will play a significant role in determining the prospects for collaboration. The UK and France are the only two nuclear powers in European NATO, thus there is only one possible partnership for such cooperation. And France and the UK have indeed agreed recently to substantial cooperation in this sector through the sharing of facilities for simulated testing of nuclear weapons. In other domains, smaller states may also have the capacity and similar resources which may enable cooperation, with each other or even with larger states. During the Cold War, for example, the Netherlands, France and Belgium cooperated over the design and build of the 'tripartite' mine counter measures (MCM) ship. And the Netherlands and Belgium are set to cooperate over both replacement MCM ships and new multi-purpose frigates, on which they will be equal partners.

Of course, there is not always perfect symmetry in the size and requirements of partner states. This has often led to complex workshare arrangements, where states divide up the scale and quality of their own national share according to their financial contribution to the entire programme. This can introduce considerable inefficiencies into a programme and may mean that a company is selected for a role not necessarily on its own merits but rather because it is based in a particular partner state. Further inefficiencies may also be introduced when several partner states different national requirements to the design of the equipment. This introduces complexity and risk into the programme that might otherwise have been avoided. Indeed, it was in part on this basis that the UK and France justified their reinvigorated bilateral partnership with a series of cooperative industrial ventures in 2010, the centrepiece of which is the Future Combat Air System. Yet while reducing the number of partners may reduce complexity and thus risk, it also reduces production runs and the economies of scale that are derived from a larger number of orders. It may also push potential partners towards off-the-shelf requirements and thus further diminish the broader European defence industrial base.

II. SIMILARITY OF FOREIGN POLICY ASPIRATIONS

It has been argued that 'strategic culture' and trust provide important underpinnings for defence cooperation ³⁸. As noted above, from a systemic perspective as allies in a longstanding asymmetric alliance, there is a general level of trust among European NATO states. Nevertheless, there are also significant differences, particularly as regards the use of force for anything other than self-defence. Indeed, such an alignment of 'cultural' outlooks was an important leitmotif in the justification for the Franco-British 'Lancaster House' treaties and the collaborative programmes announced in 2010; British Prime Minister David Cameron hailed the two countries as 'natural partners' ³⁹. The treaties were underpinned by a strong sense of a shared outlook, based on a close relationship with the US, as the leading players in European defence cooperation and as states with the capacity and will to use military force to scale on expeditionary operations. However, it is also important to point out that defence industrial cooperation generally takes place at a remove from the frontline of operations. Increasingly, the distinction may become blurred as states that operate the same equipment together look towards cooperative arrangements for its support on the frontline. The very deep forms of cooperation that the Dutch and Belgian navies have undertaken through mutualised support arrangements, for example, may well require a close understanding in terms of foreign policy outlook and culture. For now, at least, this seems less necessary in terms of defence industrial cooperation, although as military cooperation moves closer to the frontline, perceptions may change.

³⁸ e.g. Valasek, Surviving Austerity.

³⁹ UK-France Summit Press Conference, November 2, 2010.

III. TIMING OF ACQUISITION AND DIFFERENT REQUIREMENTS

The timing of acquisition of military equipment is a simple but vital point that may have a critical impact on the possibility for cooperation. While historical decisions to collaborate may mean that there may be some alignment on the most significant aerospace programmes, i.e. principal fighter jets such as Typhoon, in other areas states can have their cycles of procurement so badly aligned that cooperation is simply not a practical option. Likewise, where states have a fundamentally important requirement that does not align with another, e.g. for a nuclear-capable or carrier- launched aircraft or a particular form of air defence for its navy, then this may be too much of a barrier to overcome and the disadvantages of cooperation will outweigh the advantages. A key question then for the future is to what extent these problems of alignment are hindering the development of deeper cooperation and the price that is paid for this lack of cooperation in other areas of the strategic synthesis. Is it possible that, in future, the necessity of maintaining a viable European industrial base will be such that the criteria for efficient cooperation will be prioritised above specific national capability requirements?

IV. DIPLOMACY

Finally, the individual agency of various officials and politicians in the wider political context will always be an important factor in determining cooperation between European states. The emphasis placed on bilateralism in the Franco-British Lancaster House treaties was, for example, convenient for the Conservative Prime Minister David Cameron, whose party was deeply Eurosceptic and suspicious of any place for the European Union in British defence policy. Moreover, major programmes such as the Tiger helicopter or A400M aircraft may come to represent a strong element of the diplomatic relationship between two states or even as a totemic symbol of European cooperation itself. Experience perhaps demonstrates that diplomacy alone is not a viable basis on which to progress, and that in a time of constrained defence spending, other areas of the strategic synthesis must surely take precedence.

CONCLUSION – THE FUTURE OF EUROPEAN DEFENCE ACQUISITION

This chapter has attempted to place defence industrial cooperation between European states in the broader context of the choices and dilemmas that these states face when sourcing their military capabilities. Their systemic position as junior partners in an asymmetric alliance with the US serves to suppress defence spending, in that they do not fear their neighbours as competitors. However, for the same reason, this relationship also allows them to cooperate closely in the most sensitive areas of defence industrial research and production. It has been argued that, within this international context, all European states, but particularly the largest, must attempt to find a synthesis of three aims: military autonomy, domestic economic impact and efficiency. While it may be that, in principle, these aims are best reconciled by pursuing exclusively national solutions, it has also been shown that, due to strategic shifts in the security environment and economic trends in the cost of military capabilities, such an option is no longer possible for European states in all but a few areas. This chapter has done no more than to highlight the importance of these contextual factors and the form of the policy synthesis that is pursued and to raise some key questions as to how this synthesis might be optimised in future. However, some broad conclusions can be drawn.

Exclusively national acquisition of military capabilities remains the preference for some areas of military capability in the largest European states, but even in these areas its viability is likely to continue to decline in the face of punishing cost inflation and relatively flat budgets. In future, the question will therefore increasingly be one of the choice between off-the-shelf or collaborative programmes. If European states wish to have among themselves states armed with both technologically cutting-edge capabilities and meaningful operational autonomy, as well as to preserve the benefits of a defence industry to domestic economic investment, then they will need to continue and further deepen their industrial cooperation. This does not mean an end to off-the-shelf acquisition, which would at this stage be a highly impractical and probably unaffordable option. Rather, there needs to be a more strategic approach to national and wider European defence industrial bases, and particularly to the prioritisation of technologies and capabilities. It is vital, however, that such cooperation prove itself in terms of the third element of the policy synthesis described above, and that is concerning economic efficiency. Collaborative programmes need to reduce those aspects that engender high financial risk, such as manifold requirements and complex workshare arrangements. They also need to move towards further commercial rationalisation and the expansion of industrial specialisation. Given the trends identified above, even if such remedies are pursued and have a positive impact, the viability of the European defence industrial base taken in aggregate will be difficult to sustain. The alternative, however, is for European states to accept greater dependency on the US, to embrace all the risks this entails and to reduce their strategic ambitions accordingly.

REFERENCES

Allison, G., 'Boeing to remanufacture 38 Apache helicopters for UK', UK Defence Journal, May 15, 2017.

Augustine, N., 'Augustine's Laws and Major System Development Programs' [a new preface], Defense Acquisition Review Journal, 2015, Vol. 22, No. 1.

Baldwin, H., Written Answer, House of Commons Hansard, October 9, 2017.

Balmer, C., 'France confirms Fincantieri-STX shipyard deal, cautious on defence merger', Reuters, August 1, 2018.

Bouvier, A., 'MBDA, a test case for Anglo-French cooperation in defence', 2014, INFO, French Chamber of Commerce in Great Britain, London.

Bronk, J., 'UK Prospects for the New Franco–German Fighter', Commentary, RUSI, London, July 31, 2017.

Brune, S. C., Cameron, A., Maulny, J., Terlikowski, M. (2010), Restructuring Europe's Armed Forces in Times of Austerity: The United Kingdom, France, Germany and Poland, SWP, Berlin.

Chalmers, M., RUSI Briefing Paper, 'Looking into the Black Hole', September, 2011, RUSI, London.

Chazan, D., Huggler, J., 'France and Germany to increase defence spending amid fears Donald Trump may pull US troops from Europe', Telegraph, July 8, 2018.

Command Paper 2853, Report of the Committee of Enquiry into the Aircraft Industry (Plowden Report), 1965, HMSO, London.

Dorman, A., Uttley, M., Wilkinson, B., A benefit not a burden: the security, economic and strategic value of Britain's defence industry, April 2015, King's College, London, p. 33.

Finmeccanica UK written submission to House of Commons Defence Committee, Defence Acquisition – Seventh Report of Session 2012–13, London.

Foucault, M., 'The Defense Budget in France: between Denial and Decline', Focus stratégique n° 36 bis, Institut français des relations internationals, 2012, Paris

Friedberg, A. L., 'Why Didn't the United States Become a Garrison State?', International Security, Vol. 16, No. 4, Spring 1992, pp. 109–142.

Harries, M., 'Britain and France as Nuclear Partners', Survival, January 2012.

Hartley, K., White Elephants? The Political Economy of Multi-National Defence Projects, 2012, New Direction Foundation for European Reform, Brussels, p. 7

Industry for Defence and a Prosperous Britain: Refreshing Defence Industrial Policy, UK Ministry of Defence, 2017.

Joffe, J., 'Europe's American Pacifier', Foreign Policy, 1984, No. 54, pp. 64–82.

Jones, B., Occasional Paper 88, 'Franco-British Military Cooperation: A New Engine for European Defence?', European Union Institute for Security Studies, 2011;

Kirkpatrick, D., 'Is defence inflation really as high as claimed?' RUSI Defence Systems, October 2008, London, RUSI, p. 70. Milward, A. S. (1979), War, Economy and Society 1939–1945, University of California Press, Berkeley, p. 18.

'Multi-Role Tanker Transport Fleet (MMF) expands significantly', European Defence Agency News Release, 25th September, 2017, Brussels.

National Security Through Technology: Technology, Equipment, and Support for UK Defence and Security, UK Government, 2012.

Quinlan, M., European Defense Cooperation: Asset or Threat to NATO?, Woodrow Wilson Centre Press, Washington D. C., 2001.

Steinglass, M. (2011), 'Dutch tank crews take aim at cuts', Financial Times, April 29, 2011.

Snyder, G. H. (1984), 'The Security Dilemma in Alliance Politics', World Politics, Vol. 36, No. 4, pp. 461–495.

Thisdell, D., 'Brexit throws Anglo-French FCAS programme into doubt', FlightGlobal, March 8, 2018.

Typhoon Fact Sheet, BAE Systems, 2013.

UK Government, The strategic defence and security review: securing Britain in an age of uncertainty, 19 October, 2010, The Stationary Office, London.

UK-France Summit Press Conference, November 2, 2010.

Valasek, T. Surviving Austerity: The case for a new approach to EU military collaboration, 2011, Centre for European Reform, London.

Waltz, K., Theory of International Politics, Waveland Press, 1979.



SOLVING THE EUROPEAN DEFENCE MARKET PUZZLE



FRANCO-GERMAN INDUSTRIAL COOPERATION -AN EXAMPLE FOR EUROPE?

TO WHAT EXTENT CAN FRANCO-GERMAN MILITARY-INDUSTRIAL COOPERATION PLAY A ROLE IN THE ACHIEVEMENT OF THE STRATEGIC AUTONOMY OF EUROPE?

BY EVE ROEHRIG

INTRODUCTION

The Franco-German relationship has no equivalent in the world. Whereas the two states were opposed on everything in previous centuries, France and Germany have succeeded in creating a great number of bilateral structures that stretch from the political to the economic spheres and include civil society. After the end of World War II, the two countries signed the Elysée Treaty in 1963 which is the starting point of a network of cooperative structures. The new collaboration between old enemies is expected to achieve such an intense and complete partnership as to avoid any lack of understanding that could lead to a new conflict¹. This significant cooperation, firstly developed on a pragmatic basis, is at the heart of the European Union. The aim, formulated in the famous Schuman Declaration of 9 May 1950, was the avoidance of war by the communitarisation of the coal and steel production of the participating countries. This also contributed to the indirect control of Germany (and its armaments industry).² Nevertheless, the two states succeeded in mutually agreeing with Italy and the Benelux countries to launch the European Coal and Steel Community (ECSC). Functionalism was thus born as a model of European integration according to the motto "form follows function"³, the institutional structured results from a concrete problem.

However, in the armaments sector, several issues are at stake, which threaten Europe's strategic autonomy: the global defence sector has been transformed over recent decades, with the increased importance of technologies and changing defence alliances and requirements. This has reinforced US dominance. The European market is facing major financial issues to sustain R&T, but is also facing structural issues due to the size of its local market, overcapacity⁴ and the lack of interoperability in various areas. This pressure to safeguard technological capacities and to guarantee a strategic autonomy at a European level results in the European member states cooperating and restructuring their product development and acquisition procedures at an intergovernmental level.

The European defence industries are facing the double threat of American groups⁵, which benefit from public contracts representing more than 40% of global arms spending, and emerging-country industries (China, South Korea, India, Russia, Turkey, etc.) taking advantage of their lower production costs, the growth of military spending in their internal market⁶ and, to a certain extent, of technology transfer.

Specifically with regard to armaments, cooperation between France and Germany has a long tradition, starting in the '60s with products such as the Transall transport aircraft and the Milan anti-tank missile weapon, later followed by the Alpha Jet fighter aircraft. As recent discussion shows, Germany and France want to cooperate to an even greater extent in the future. The partners hope not only to enjoy financial benefits, but truly to stake their leadership role within the European Union (EU) and to activate a European signal.

The pooling and savings allowed by successful collaboration are most necessary as it is clear that, contrary to other nations, western European countries have frozen their military budget in the past 20 years. In the early 2010s, global military expenditure returned to a level higher than by the end of the Cold War.⁷ If we consider the USA, its military budget has increased by about 7% this year, to US\$ 716 billion, almost equalling the 2010

¹ Gareis S. B., Leonhard N., La cooperation militaire franco-allemande: fer de lance des forces armées européennes, 1988, p 482.

² See: Gaillard M., Chapitre 3. La CECA, la France à l'origine de l'idée communautaire , dans France-Europe. Politique européenne de la France de 1950 à nos jours, 2010, pp. 27–50.

³ Mitrany D., A Working Peace System, Royal Institute of International Affairs, London, 1943, p. 236.

⁴ With three models of jet fighters in Europe vs. one in the US; 14 types of tanks in Europe vs. one in the US,

see: McKinsey&Company, 2013, p. 14.

⁵⁻ Such as Boeing, Lockheed Martin, Honeywell international, General Dynamics, etc..

⁶ Cour des Comptes, La coopération européenne en matière d'armement. Un renforcement nécessaire, soumis à des conditions exigeantes, avril 2018, p. 16.

⁷ Cour des Comptes, p. 11.

record. On the Eastern side of the world, China is ramping up its military spending to US\$ 224 billion. Regarding these numbers, the willingness of European members of the North Atlantic Treaty Organisation (NATO) to currently increase their defence efforts will not fill the aforementioned gap in funding. Nevertheless, as a motor of EU integration, Franco-German cooperation could create a spillover effect in the military and, thanks to lessons learned, could assist European member states to further cooperate in the armaments sector.

When discussing Franco-German industrial cooperation as a possible example for Europe, the question is not to determine which country is going to gain the leadership in Europe, but what the two countries are going to do in common, what they want to do together, what challenges they wish to take up. In this regard, this paper is going to discuss the following question: to what extent can Franco-German military-industrial cooperation play a role in the achievement of Europe's strategic autonomy?

Three steps are necessary to secure Europe's strategic autonomy. Firstly, (1) there must be a necessary convergence of strategic analysis (2) that can only be achieved by the independent and sovereign access to high-level capacities based on industrial champions. (3) Various winning factors are therefore essential when several states decide to cooperate on military industrial programmes. If these conditions are fulfilled, Europe's strategic autonomy will be ensured *in fine*.

A COMMON UNDERSTANDING OF THE GEOPOLITICAL CONTEXT AND SHARED AMBITIONS AS INGREDIENTS OF A SUCCESSFUL MILITARY COOPERATION

The first step leading to a successful strategy in Franco-German military cooperation is to have a common understanding of the geopolitical context and shared ambitions.

Currently, the deterioration of the strategic context, characterised by a convergence of threats, requires a greater involvement by European countries. We can classify these threats into two categories: external and internal. On the one hand, the external threats are diffused, various and numerous. Among them, the most important are jihadism, terrorism, the growing instability observed in neighbouring countries (in the Sahel region, as well as in the Middle East and Libya), political risks faced from regional power states such as Russia (Donbass, submarines) and Turkey (Cyprus, Greece), cyber-attacks, protection of undersea cables, energy supply issues (gas), securing trade routes, etc. Besides these external threats, internal ones also exist that carry a risk of the fragmentation of our societies. Different crises have arisen (sovereign debt crisis, migration and climate crises), different states are subject to contestation at heart by populist movements or by governments (Hungary, Poland but also France and Germany to some extent). Regionalism, interference of foreign powers in our democracies, represents a risk of destabilisation of our societies.

It is usually admitted in the literature that France and Germany have different priorities in their foreign political agenda⁸. This said, many observers tend to identify a rapprochement between the French and the German understanding of their role. In recent decades, Germany has made regular adjustments to its defence tools.

⁸ Germany is more focused on guaranteeing security on its own territory and more careful about what is happening to its East, whereas France claims its will to intervene outside its territory and has developed a Southern tropism focused on Africa and the Middle East, See: Tardy Thierry, Europe et défense: indispensable et fragile couple franco-allemand, Policy paper, Question d'Europe n°455, Fondation Robert Schuman, Paris.

The commitment to a new phase of transformation from 2010 onwards is the mark of a process of change, or even a break, unprecedented in German defence policy.⁹ Speaking of Germany, officials have shown this new will of the country to get more involved in foreign and defence policies. As far as France is concerned, the special relationship with Germany is assumed and has been repeated in several official documents (Defence White Book, French strategic review, Military Programming Act 2019–2025). Moreover, France seems ready and truly willing to work closer within the European framework, something Germany has been stressing for a long time. Once the two countries have agreed on their understanding of the security environment and have set up clear priorities, a permanent strategic dialogue ¹⁰ and strong institutions are then a necessary basis to define a common level of ambition for Europe's autonomy.

This compulsory shared understanding of the above-mentioned framework led Emmanuel Macron to present the European intervention initiative (EII), with the objective of developing a "common strategic culture" ¹¹. Macron suggested that, by the next decade, this EII should lead Europe to develop a common doctrine and common budgetary instruments. The logic is far from flawed, but achieving convergence does require concrete arrangements and decisions.

Before launching the Ell, several initiatives had already been set up, embodying European cooperation in many areas. Among others, the most successful cooperation is the European Air Transport Command (EATC), an effective example of shared capacities in the domains of military air transport, air-to-air refuelling, and aeromedical evacuation, tasked by France and Germany, but later joined by Belgium, the Netherlands and Luxembourg and associating about 120 aircraft¹². The EATC takes multinational collaboration a big step forward: if operational control rests under the supervision of the EATC structure, it can be temporarily recalled for a national task if needed. ¹³ The ATARES (Air Transport, Air-to-Air Refuelling and other Exchanges of Services) system allows each partner to exchange information and services in air force activities. The programme shows the extent to which benefits of sharing (productivity impact, better integration and organisation of air force activities) can be achieved without far-reaching agreements to surrender sovereignty. The programme is functioning so well that Spain recently asked to join and is now part of the accession process.

With regard to Franco-German projects only, the French-German Brigade¹⁴ remains the ultimate symbol of the ongoing cooperation and diplomacy between the two nations. Furthermore, Germany and France recently announced that the two countries are setting up a joint air transport squadron, consisting of four French and six German C-130Js based at the French airbase in Évreux, Normandy.¹⁵ More than just having their national fleets combined, the two countries will pool their training of pilots, loadmasters and technicians.¹⁶

In this regard, it is important to ensure a common understanding of the defence environment. This goes through common formations, such as the current programmes on the Tiger helicopters and the A400M aircraft. A network of 'exchange' officers has also been set up to make this cooperation more fluid and to create the conditions necessary for the conduct of joint operations.

All these projects are part of the Common Security and Defence Policy (CSDP). The European Defence Agency (EDA) is facilitating the emergence and operational ruling of these common projects, as well as the emergence of a common industrial culture. Excluded from the community field since the Treaty of

⁹ See: Goffinet Karl-Erik, Défense et Industrie n°2 pour la Fondation pour la Recherche Stratégique, October 2014.

¹⁰ Kempin R., Kunz B., France, Germany, and the Quest for European Strategic Autonomy, Franco-German Defence Cooperation in A New Era, Notes du Cerfa n°171, 2017, p. 11.

¹¹ Emmanuel Macron, Initiative pour une Europe souveraine, unie, démocratique, Paris, 2017.

¹² As of April 2013

¹³ McKinsey&Company, The Future of European Defence: Tackling the Productivity Challenge, 2013, pp. 14–19.

¹⁴ Consisting of 5000 soldiers, formed in 1989

¹⁵ With an initial operational capability in 2021 and full operational capability in 2024

¹⁶ Kempin R., Kunz B., p. 18.

Rome (Article 223), armaments are part of intergovernmental cooperation. Historically, the Maastricht Treaty considered the need to build a Europe of armaments as a component of European defence.

In December 1995, Germany and France decided to implement new principles of cooperation, known as 'Baden-Baden'. Quickly the United Kingdom and Italy joined this process and, on 12 November 1996, the four states jointly created OCCAR (the French acronym for Organisation Conjointe de Coopération en matière d'Armement), an international organisation whose core business is the life-long management of cooperative defence equipment programmes. Since the 2000s, OCCAR has acquired a legal personality and the ability to contract on behalf of governments and stakeholders. In 2003, Belgium joined the organisation, followed by Spain two years later. OCCAR has six member states and its scope could expand with the possible entry of new member countries such as the Netherlands and Sweden. OCCAR embodies a new approach to cooperation between European states in the field of armaments, the aim of which is to overcome the shortcomings of traditional collaboration. Flexible rules allow non-member states to participate in a programme, provided that they respect its principles. Currently, seven non-member states joined programmes run by OCCAR. Thanks to this institution launched after a Franco-German initiative, European weapon procurement programmes are better coordinated, and this has further increased the prospect of an integrated European defence market.

The bilateral Franco-German defence dialogue was established and institutionalised from 1982 onwards, with summit consultations under the authority of the four Foreign and Defence Ministers. It then became clear to the world that France and Germany share common strategic interests. This new state of mind allowed for the reactivation of the Western European Union (WEU) in 1984, the multiplication of joint exercises of the French and German forces between 1985 and 1987, and the establishment in 1988 of the Franco-German Defence and Security Council ¹⁷. This Council expands cooperation on security and defence issues and contributes to the ongoing strategic dialogue between the two nations. The Franco-German 2020 Agenda clearly stressed the will to intensify cooperation regarding armaments. ¹⁸

INDEPENDENT AND SOVEREIGN ACCESS TO HIGH-LEVEL MILITARY CAPABILITIES AND CUTTING-EDGE TECHNOLOGIES GUARANTEE EUROPE'S STRATEGIC AUTONOMY

Germany and France are willing to ensure the realisation of key capabilities and technologies in Europe, if not on their own territory, when the competences are considered guaranteeing the fundamental interest of the nation. In order to create the best conditions to allow Europe's strategic autonomy, two levers of actions are possible: either to implement common projects or to create European industrial champions thanks to increased industrial integration.

Germany is an old partner to France, as one of the first emblematic and successful collaborations dates back to 1958 with the agreement on the development of the C-160 Transall aircraft. As "a key partner for the reinforcement of a European defence and security ambition", as stated in the French Strategic Defence Review and National Security of October 2017, the political ambitions of the two countries in the military area are regularly repeated in the reports of the Franco-German Council of Ministers.

¹⁷ Composed of the President of the Republic and the German Chancellor, the Ministers of Foreign Affairs and Defence, and finally the Chief Army Staff and the Inspector General of the Bundeswehr

¹⁸ Franco-German 2020 Agenda, 2010, pp. 8-9.

Beyond the common weapons programmes, such as the Tiger helicopter, born of political ambition, or the A400M aircraft, several projects will be able to unite France and Germany in the future as Paris and Berlin are willing to expand their cooperation in specific domains, such as air combat, satellite communications, cyber-defence and drones. To do so, the two countries have been fostering the implementation of various projects: the Eurodrone MALE project, the Future Combat Air System (FCAS)¹⁹, the Main Ground Combat System (MGCS)²⁰, the Common Indirect Fire System (CIFS)²¹ and the PATMAR aircraft for the Navy²². In the cyber-security field, the German National Cyber-security Agency and its French counterpart have been working together for many years to strengthen digital security in France, Germany and throughout Europe. The new European Secure Cloud common label for trusted Cloud Computing service providers further reinforces this shared vision.

On the other hand, and given the fact that France and Germany are key industrial players in the EU, closer cooperation between their major companies seems to be an obvious path to choose – and probably the only chance for European defence industries to survive in the long term, when considering the size and financial means of American companies, for example.

The main achievement of the Franco-German couple is the creation in 1999 of the future Airbus group, whose first shareholders are public French and German (11 % each). More recently, in his preface to the 2017 National Defence and National Security Review, Emmanuel Macron has called for the relaunching of a Europe of defence, in particular "by consolidating our defence industries so that they retain their technological excellence and remain competitive on a global scale." One of the best examples of this momentum is the alliance between the French company, Nexter, and Germany's Krauss-Maffei Wegmann, which joined the two land armament industry groups in the KNDS holding. This is 50% owned by French public entities and 50% by a German holding company combining private family interests²³. It is to be noted here that this rapprochement was not supported by an armament programme conducted in common, but by a willingness of the two countries and the two companies to move forward together and then to propose a new weapons programme.

Germany's announcement of increased future investments in defence equipment and its openness to cooperation offer new opportunities. Germany intends to use its financial strength and budgetary room for manoeuvre to strengthen its defence industry and acquire new skills, particularly in the field of combat aviation. The experience of past programmes must then be used to smooth out the difficulties noted, so that cooperation is no longer hampered by constraints related to internal institutional functioning. Cooperation helps to develop innovation in an economy where products and services are increasingly complex. R&D costs increasingly more and justifies stronger partnerships, in which knowledge transfer forms an additional value, greater than that of a situation where knowledge is not shared.²⁴ Companies therefore benefit from cooperation and knowledge sharing, rather than keeping it to themselves.

A rapprochement of German and French companies will enable Europe to assert itself on the international scene and will *de facto* lead to a harmonisation of the armament systems bought and used by European armies. This development will certainly encourage other European companies to join the newly created consortia or to create new ones in areas where it makes sense (for example, in the navies between France

¹⁹ In the words of French President Emmanuel Macron, the aim of the joint fighter jet project is "to do research and development together [...], to use it together [...] and to coordinate on exports" (joint press conference with Angela Merkel, 2017)

²⁰ The MGCS is a great symbol of the cooperation, as the future tank will combine the chassis of Germany's Leopard 2A7 tank with the turret of France's Leclerc.

²¹ To replace CAESAR and LRU. These two programmes are the subject of technical-operational studies carried out by the ISL, i.e. the Franco-German Research Institute of Saint-Louis.

²² Substituting the French ATL2 and the German P3 in the '30s or '40s.

²³ At the beginning of the negotiation talks, there was the idea of organising a merger between two German companies, KMW and Rheinmetall.

²⁴ See: Loebecke C. et al., Co-Opetition and Knowledge Transfer, The Data Base for Advances in Information Systems, 1999, in Dupuy, R., l'industrie européenne de défense : changements institutionnels et stratégies de coopétition des firmes, Innovations, vol. 42, no. 3, 2013.

A RAPPROCHEMENT OF GERMAN AND FRENCH COMPANIES WILL LEAD TO A HARMONISATION OF THE ARMAMENT SYSTEMS BOUGHT AND USED BY EUROPEAN ARMIES.

and Italy, and for the submarine combat system between Germany and Norway). Beyond the agreement on common weapons systems, the partners will have to identify which supplier to work with and to reorganise the whole production chain from development to maintenance. Franco-German industrial cooperation will generate segment-specific consolidation among their suppliers, European SME. Speaking of SMEs, the European defence sector remains highly fragmented along national lines, with a multiplicity of national competitors operating on a sub-efficient scale. Consolidation of the European defence sector, starting with the French and the German, can unlock supply-side efficiencies.²⁵

²⁵ McKinsey&Company, 2013, p. 13.

NINE CONDITIONS FOR A SUCCESSFUL INDUSTRIAL COOPERATION IN THE MILITARY

What conditions will make industrial projects successful in adjusting European defence and ensuring European political, operational and industrial autonomy?

I. A POLITICAL WILL OF HIGH-LEVEL INDIVIDUALS EMBODYING 'THE FRANCO-GERMAN COUPLE'

The Franco-German friendship has only been possible thanks to the will of the people and the affinity between men and women. After the 2nd World War, several 'couples' made this cooperation possible. More recently, with the launch of the FCAS programme, the importance of the political will was made clear. All newspapers stressed the good relationship between Ursula von der Leyen, the German Minister of Defence and her French counterpart, Florence Parly. In France, the importance of partnerships, especially with Germany, in the military domain was stressed in the Act on Military Programming 2019–2025²⁶. Moreover, it is important to note that France and Germany intend to pursue their work of influence within multinational institutions, such as the EDA or the OCCAR, especially in the context characterised by new initiatives in the armaments sector (e.g. the European Defence Fund).

II. THE ROLE OF EACH STATE AND THEIR LONG-TERM COMMITMENT TO ENCOURAGE EUROPEAN INDUSTRIAL COOPERATION

In trade, trust is an important notion, especially as part of a joint programme.²⁷ For finding solutions to ensure the long-term commitment of individual partner states, to limit the uncertainties of political change, it is vital to rely on industrial partners. The will of each individual state to launch or take part in armament projects is a *sine qua non* condition for successful governance. The coalition of the willing configuration allows stronger commitment and might be an easier way to make decisions.²⁸ Alignment of military strategies and constancy in their industrial choices are therefore only possible with a strong and lasting commitment by states.

III. AGREEMENT ON MATERIAL SPECIFICITIES AND BUDGETARY CALENDARS IS NECESSARY TO ALLOW EUROPE'S OPERATIONAL AND INDUSTRIAL AUTONOMY

The convergence of operational needs and financial means are imperative conditions to ensure Europe's industrial capacity and therefore its autonomy. The harmonisation of capacity needs and budget schedules make it possible to limit the number of material versions and to favour the series effect during the production phase which automatically reduces the final pricing.

^{26 &}quot;These multilateral initiatives are complementary to the bilateral relations that we have with our partners, particularly Germany, with the ambitious joint roadmap resulting from the Franco-German Council of Ministers of 13 July 2017", in Rapport annexé, Military Programming Act 2019–2025.

²⁷ See: Carney M., 'The competitiveness in networked production: the role of trust and assets specificity,' in Journal of Management Studies, 2002.

²⁸ Cour des comptes, p. 81

France, Germany and the EU would benefit from a more strategic approach to defence cooperation. This approach should be derived from strategic necessities defined at the political level. In line with the measures taken to improve European political autonomy, Paris and Berlin should thus jointly identify key technologies and where to build them: what critical systems need to be available 'at home'? What can and perhaps even should be imported from allies? What can be purchased on the world market? The Franco-German partnership is, in this manner, based on a capability sharing balance and requires national sovereignty. This is what is at stake in the current development of a future combat aircraft, so that the future fighter jet can be European-made, while also developments do not result in asymmetric technology transfers.

Back to the role of the political will and high-level decisions, it is important to stress that European projects must be preceded by a precise political definition of their framework. A clear expression of requirements through a set of specifications, which are subject to political arbitration, is needed to avoid the mere juxtaposition of participating countries' needs. But more than just an agreement before the production phase, it is just as important for states to agree on a precise budgetary timetable.

The two main factors observed in the failure of cooperation are the absence of common specifications, which are determined in advance, and changes during the programme.²⁹ The A400M aircraft is, in this respect, a particularly integrated programme insofar as the specifications are set up on a 'Common Standard Aircraft' (CSA) platform. The success of the FCAS programme shows the value of harmonising military needs. On the other hand, the Tiger helicopter and FREMM frigate programmes are two examples of divergent specifications as soon as the development contracts were awarded. In the case of the Tiger, divergent technical specifications during the programme, ranging from anti-tank to support-destruction function, were observed and led to various problems (delay, costs, etc.). Moreover, the variation in the number of devices purchased vs. the number of helicopters that had originally been paid for was very significant (215 helicopters originally targeted, but only 71 actually ordered by France). Such variations are not viable in a joint programme, the initial budget of which has been poorly protected.

When a decision is made on a joint programme, interoperability should be aimed at, since it makes the product development easier. When the renewal of the Tiger helicopter programme was decided, France and Germany had different positions regarding a boarded missile (at the beginning of the talks, Germany wanted to arm its Tiger with a Rafael missile, but France wanted to keep using an MBDA missile. Last negotiation reports state that there seems to be agreement on a Thales missile). Having the same kind of specifications creates smart sharing models' possibilities that maximise the potential of industrial autonomy, whilst minimising loss of autonomy.³⁰ Interoperability is one of the biggest challenges Europe will face, since it will end the long tradition of each country favouring its own manufacturers under the guise of different technical requirements. This said, full interoperability requires a different level of integration which is not on the current agenda. Only a certain degree of interoperability is needed to ensure successful industrial cooperation (similarly to NATO).³¹

IV. A PROJECT OWNER CANNOT BE A POOL AND IT IS IMPORTANT TO CLEARLY DEFINE OWNERS OF PROJECTS

Project management of the joint programmes, and in particular the contractualisation work with companies, is often delegated by the partner-states to joint programme agencies, for example, the joint organisation for

²⁹ Cour des comptes, p. 80.

³⁰ To be fully effective, pooling and sharing requires three major prerequisites according to a McKinsey&Company study: "first, a process for joint capability planning has to be actively embraced. Second, transparency on procurement pipelines is required among partners. And third, an alignment of replacement cycles across collaboration partners has to be achieved," McKinsey&Company, 2018, p. 2.

³¹ Cour des comptes, p. 25.

armament cooperation. OCCAR is the delegated project manager for the majority of shared programmes among France, Germany and other European partners.³² But when it has been decided that OCCAR should be the project owner, it is important that national states do not try to negotiate bilaterally with private companies. Even then, they must ensure to have the results of their negotiations recorded by OCCAR, a step that is essential to give contractual value to the agreement.³³ This attitude questions states' credibility and impedes OCCAR from playing its role.

When OCCAR is not part of the game, it is important that the State, or a private company, takes lead of the project and that each subcontractor to the programme perfectly understands its scope for action. When Germany obtained the lead of the Eurodrone MALE programme, France obtained the optic military reconnaissance satellite. When the military needs are identical, national specificities can be decided. This is what has been foreseen regarding the observation satellites: France developing the optical channel, Germany and Italy the radar route, the three countries exchanging the images obtained.³⁴

Regarding the future combat aircraft, it "will be developed by Dassault Aviation, which will take control of the programme. When there is (industrial) cooperation, the nations must agree on a leading nation. As for the FCAS, it will be France," German Defence Minister Ursula von der Leyen said at a joint press conference along with her French counterpart Florence Parly, after signing an agreement to launch the project. But even if the French Dassault has the lead on this project, its CEO Eric Trappier did not hesitate to assume that this decision "demonstrates the total commitment of our companies to European sovereignty in defence and security. Cooperation and high technologies legitimize the leadership of European industry and guarantee the strategic autonomy of Europe" ³⁵. Thus, even emblematic companies have integrated the fact that working together with other European states is key to reaching European industrial autonomy.

V. FRENCH AND GERMAN TIMETABLES FOR JOINT WEAPONS PROGRAMMES MUST BE IN LINE

Defence product developments are long-lasting projects, conceived by national government together with industrial champions. Due to the long lifetime of armament systems, aligning the upgrade cycles, the withdrawal of ageing materials and the in-entry date of new products is not a trivial task. It requires good joint planning, as participants in the programme development must have perfectly matching calendars, taking into consideration the potential costs of extending the maintenance of some equipment under operational conditions. Therefore, it is necessary, in a cooperative framework, to agree on the articulation of the calendars. Taking the Main Ground Combat System (MGCS) programme as an example required the synchronisation of French and German budgets and human capital mobilisation to launch its development. Moreover, it is also essential that the two countries have the same product replacement cycle. In this manner, the withdrawal of the service of the Leopard 2 and Leclerc tank would logically take place at the same time.³⁶

Last April, a letter of intent was also signed to launch the development of a new maritime patrol aircraft, materialising and confirming the willingness of both Ministers of Defence to engage with each other. This cooperation is also part of the road map set out by governments last July during the Franco-German Defence

³² For example, regarding the A400M transport aircraft, missiles of the FSAF programme, the TIGER helicopter, the FREMM frigates, the MALE drones and part of the MUSIS / CSO space observation system.

³³ Cour des comptes, p. 65.

³⁴ Ibid, p. 52.

³⁵ Dassault press release, 2018.

³⁶ In the letter of intention signed by Ministers Florence Parly and Ursula von der Leyen, "France and Germany have a shared schedule, which provides for a development contract in 2025 and the first deliveries from 2030 [...] and a deployment phase from 2035 onwards." Yet it is important to note here that the calendar for the renewal of the tanks is slightly different, since Germany needs its tank by 2030 while France has launched a modernisation programme for its Leclerc until 2040.

and Security Council. As France and Germany must both replace their maritime patrol systems by 2030, the goal of this new project is to study the conditions for the development of a European solution to have an autonomous, efficient and sovereign maritime patrol capability in Europe.

VI. EUROPEAN INDUSTRIAL AUTONOMY DEPENDS ON THE LEGITIMACY OF INDUSTRIAL CONTRACTORS, CHOSEN ON THE BASIS OF REAL EXPERTISE AND WITHOUT ONLY CONSIDERATION OF THE RIGHT OF INDUSTRIAL RETURN

With the objective of appointing one dedicated project owner, it is necessary to consider the different candidates from an objective point of view regarding their competences and not only through the "global balance" prism. If political considerations are important to back national economies, it is more important to keep in mind that a project can only be sustainable in a 'high-valued for the best price offer' format.

The 'global balance' principle states that partners expect industrial counterparties for their investment in the programme. This can be the completion of preliminary studies or equipment's production by their domestic industries.³⁷ This principle is at the heart of the functioning of OCCAR.³⁸ But this principle does not foster industrial optimisation. Furthermore, the geographical return strategy may have another more damaging consequence: in order to get the most jobs done "at home", some countries could be tempted to tender in many projects for which their skills are still underdeveloped in the light of current technological requirements.³⁹

Appointing one legitimate industrial prime contractor is important to avoid, for example, the A400M disaster: firstly, because there were intense negotiations between countries to get some parts of the aircraft's production done on their soil. In making political choices, it is strongly recommended to keep one specialist at the European level, capable of being competitive against emerging countries' manufacturers and with significant technological expertise to compete with American suppliers. The best example for a strong political choice was the designation of Heckler & Koch and its HK 416 for the procurement of French rifles, as a replacement for the national FAMAS. In this manner, it is important to note that defence industries are not only pure 'suppliers'. Whereas the biggest French defence companies are former state-owned companies and still count the country as a strategic shareholder, Germany's most important defence companies belong to families. This structure reflects the complex legacy of this sector and emphasises the difficulty of stepping aside from the "global balance" concept.

In the domain of satellite production and optic space components (CSO), France and Germany have reached a deep level of integration since the end product is considered the most important. A particularity of this agreement is that Germany, although providing two-thirds of the investment, will have very little, if any, industrial spin-offs. All CSO satellites are manufactured in Toulouse at Airbus Defence and Space, with Thales Alenia Space providing the optics. The acceptance of this is simple: in terms of observation, the technological choices were clearly made between the two countries. Paris favoured optics, while Berlin developed a satellite system using a radar, called SAR-Lupe. Both countries will be able to exchange capabilities and data provided by the CSO and SAR-Lupe satellites.

³⁷ Cour des comptes, p. 27.

³⁸ This calculation is not made programme by programme, but on the overall OCCAR programmes in which a certain state participates, but at the level of all the weapons programmes in which they participate and for the entire duration of development and production

³⁹ Cour des comptes, p. 52.

VII. COOPERATION ALSO CALLS FOR STATES' COMMITMENT TO A LONG-TERM CAPABILITY AMBITION AND COMPATIBLE FINANCIAL TRAJECTORY

The lack of coherence between material and budgetary programming is a major difficulty. Participation in cooperative armament programmes does not protect against national arbitrations, mainly driven by budgetary objectives. Thus, due to the states' inability to maintain order volumes in the long term, because of a lack of budget over the entire programme duration, it is often the case that actual orders are lower than expected. Thus, the French target of FREMM frigates was reduced from the original 17 vessels to 8, while that of TIGER helicopters went from 215 aircraft at the beginning to only 71.⁴⁰ The State is then obliged to re-negotiate with industrials to balance the shortfall. Ultimately, European armed forces are weakened on the fieldwork.

The consequences of these adjustments are diverse and affect the overall project, both in terms of delays in the programmes' advancement, equipment's late delivery to the forces or the reduced quantity of delivered material (at a high unitary price). In 2001, after the validation of the A400M programme, it took Germany two years to sign the contract – the delay being due to funding problems. Thus, it is important not to launch a new weapons programme without being sure of the associated national budgeting realism. On the contrary, if we consider the example of NATO, one may conclude that European funding could help to avoid a unilateral decision by one participating state.

VIII. AGREEMENT ON COMMON EXPORT RULES SHOULD BE FOSTERED, SINCE THE INTERNAL MARKET WILL NEVER BE SUFFICIENT FOR EUROPEAN COMPANIES TO ENSURE SUSTAINABLE PLANNING

With shrinking domestic markets, export potentials are actually likely to be a key incentive for countries to join PESCO or to cooperate actively in armament programmes.⁴¹ However, export policies have traditionally been a bone of contention, with Germany being stricter than France. This has been the case for the sale of a missile contract in the Gulf region that Germany blocked. At present, the great coalition agreement has adopted a strict export policy (for example, with the countries engaged in the Yemeni war). If France and Germany are truly to work together in the industrial field, a common outlook on the matter is consequently indispensable. Defining a joint approach to weapon exports is a *sine qua non* condition for successful cooperation. For example, Emmanuel Macron declared the aim of the joint fighter jet project is "to do research and development together [...], to use it together [...] and to coordinate on exports." At the stage of development, it shows that the issue has been identified.

As previously developed in this paper, Franco-German armament projects are growing steadily. Common export rules are needed more than ever, and the 1972 Schmidt-Debré Agreement must therefore be reviewed or at least implemented.

IX. ADAPTATION TO BREXIT

Brexit is going to have various consequences regarding current and future industrial cooperation programmes. First of all, without the UK, Europe will have to reconsider its strategy and already existing bilateral partnerships (the Lancaster Treaty, for example). Even though the pertinence of these programmes is not questioned and the UK will still be bound with the EU through "a partnership, such as has never been

⁴⁰ Ibid., p. 65.

⁴¹ Kempin R., Kunz B., p. 26.

with any third country"⁴², their coherence has to be redesigned with the coming agreement on Brexit (British access of the European market and British participation in the European Defence Fund).

The first reaction of EU Heads of State and Government after the Brexit vote was to reaffirm the need of the EU "not only to guarantee peace and democracy but also the security of our people".⁴³ As Kunz and Kempin state in their article "What was true in the past holds true in the post-Brexit EU 26: a truly joint Franco-German approach in the area of security and defence policy can be the starting point of a European project." ⁴⁴

With Brexit in view, France and Germany are taking the lead and will develop several projects together, of which the UK could have been a part of. This is especially the case for the fighter and strategic drones' part of the FCAS project. As future weapons will be a 'system of system', it creates *de facto* a need to think globally and to exchange with our closest partner, as potential buyers – the UK being one emblematic partner.

Finally, the withdrawal of the UK from the EU is synonymous of the loss of a major contributor to the EU budget that France and Germany should be accompanying and compensating for to a certain extent if Europe wants to retain its ambitious goals in the field.⁴⁵

CONCLUSION

In times of strategic uncertainty and limited resources, strengthened defence requires more cooperation among EU member states. At the heart of European integration, France and Germany play a specific role regarding further industrial cooperation in the armament field.⁴⁶ Beyond strengthening their respective national military assets, France and Germany can contribute to European autonomy both through (1) pushing for capability development and procurement at EU level and (2) engaging in broadening bilateral cooperation, open to others and contributing to an ever more autonomous EU.

Even though they have different strategic cultures (albeit complementary), France and Germany do share a common understanding of the geopolitical context and consider Europe's strategic autonomy extremely valuable. Industrial cooperation among the two states is one important prerogative to ensure an independent and sovereign access to high-level capabilities and cutting-edge technologies. On the French side, the Defence and National Security Strategic Review stresses that "the convergence of threats on Europe requires Europeans to be more committed to their own security, and work towards the ambition of common strategic autonomy". To achieve this objective, the French Military Programming Act for 2019–2025 establishes that "the number of programmes in cooperation with European partners will be increased by 36%". Beyond only applying to the French-German couple, the nine success factors also apply to European industrial projects.

Finally, key success factors of joint programmes are in the hands both of European companies as well as those of the client states. Thanks to partnerships, states foresee economies of scale and also succeed in maintaining skills and volume of production in Europe that can no longer be held within national borders. Given that the success of a Franco-German joint programme is able to create a spillover effect, one can expect that European integration in the military sector will help to build a common culture, ranging from opportunistic to strategic cooperation, to ensure Europe's autonomy.

⁴² Michel Barnier, 2018.

⁴³ The Bratislava Declaration, 2016, p. 1.

⁴⁴ Kempin R., Kunz B., p. 9.

⁴⁵ Ibid, p. 17.

⁴⁶ Gareis S. B., Leonhard N., p. 496.

REFERENCES BOOKS, ARTICLES & PRESS RELEASES

Belan G, NH 90: les avancées du programme, 22.12.2009, in: TTU online, https://www.ttu.fr/nh90-les-avancees-du-programme/

Bessoul Yann, Airbus A400M. L'histoire d'une catastrophe industrielle, in : Ouest France, 28.02.2017, https://www.ouest-france.fr/economie/ entreprises/airbus/airbus-a400m-l-histoire-d-une-catastropheindustrielle-4826647

Bloch Raphaël, Le budget du Pentagone dépasse les 700 milliards de dollars, in Les Echos, 14.08.2018, https://www.lesechos.fr/monde/ etats-unis/0302115095185-le-budget-du-pentagone-depasse-les-700-milliards-de-dollars-2197963.php

Bodeen Christopher, What we know about China's increased defense spending in 2018, in: Defensenews, 05.03.2018, https://www.defensenews.com/global/asia-pacific/2018/03/05/ what-we-know-about-chinas-increased-defense-spending-in-2018/

Boquet Justine, Tigre : l'Espagne et l'Allemagne font confiance à Thales pour leurs roquettes, Air&Cosmos, 14.02.2028, https://www.air-cosmos.com/tigre-l-espagne-et-l-allemagne-fontconfiance-a-thales-pour-leurs-roquettes-107185

Carney Mike, The competitiveness in networked production: the role of trust and assets specificity, in: Journal of Management Studies, 16.12.2002, https://onlinelibrary.wiley.com/doi/ abs/10.1111/1467-6486.00105

Darnis Jean-Pierre, The European defense industry's future : how European ?, 2013, in : Think Global Act European, policy paper n°67, Notre Europe, https://institutdelors.eu/wp-content/ uploads/2018/01/europeandefenceindustry-darnis-ne-jdi-feb13.pdf

Dassault press release, 26.04.2018, https://www.dassault-aviation. com/fr/groupe/presse/press-kits/airbus-dassault-aviation-leonardoreaffirment-engagement-total-envers-premier-programme-dedrone-male-100-europeen/

Dunne Paul, Defense – Challenge for the future in: European Monitoring Centre on Change, 23.12.2015, https://www.eurofound. europa.eu/observatories/emcc/articles/business/defencechallenges-for-the-future

Gaillard Marion, Chapitre 3. La CECA, la France à l'origine de l'idée communautaire, dans France-Europe. Politique européenne de la France de 1950 à nos jours, sous la direction de Gaillard Marion. Louvain-la-Neuve, De Boeck Supérieur, Le point sur... Politique, 2010, pp. 27–50, https://www.cairn.info/france-europe--9782804160166page-27.htm

Gallois Dominique, à la France les satellites d'observation, à l'Allemagne les drones, in :le Monde, 30.03.2015, https://abonnes. lemonde.fr/economie/article/2015/03/30/a-la-france-les-satellites-dobservation-a-l-allemagne-les-drones_4606001_3234.html?

Gareis Sven Bernhard, Leonhard Nina, La cooperation militaire franco-allemande: fer de lance des forces armées européennes, 1988

Goffinet Karl-Erik, Défense et Industrie n°2 pour la Fondation pour la Recherche Stratégique, october 2014, https://www.frstrategie.org/ publications/defense-et-industries/transformation-de-la-politiquede-defense-allemande-ruptures-et-perspectives-2-1

Guillermard Véronique, Nexter et KMW se préparent à developer la cher du future, in: Le Figaro, 06.02.2018, http://www.lefigaro.fr/ societes/2018/02/06/20005-20180206ARTFIG00278-nexter-et-kmwse-preparent-a-developper-le-char-du-futur.php Heck Dennis, La culture stratégique allemande face à la guerre en Afghanistan, mémoire master, ULB, Bruxelles, septembre 2012

Kempin Ronja, Kunz Barbara, France, Germany, and the Quest for European Strategic Autonomy. Franco-German Defence Cooperation in A New Era, Notes de l'Ifri, Notes du Cerfa n°171, December 2017

Lagneau Laurent, le futur char de combat franco-allemand devrait être opérationnel en 2035, in Opex360, 20.06.2018, http://www.opex360.com/2018/06/20/futur-char-de-combatfranco-allemand-etre-operationnel-2035/

Loebecke C., Van Fenema P., Powell, P., Co-Opetition and Knowledge Transfer, The Data Base for Advances in Information Systems, 1999, in Dupuy, Romuald. L'industrie européenne de défense: changements institutionnels et stratégies de coopétition des firmes, Innovations, vol. 42, no. 3, 2013

Mitrany David, A Working Peace System. Royal Institute of International Affairs, London, 1943

Noll Andreas, Deutsch-französische Rüstungszusammenarbeit. Freunde mit gewissen Vorzügen, Andreas in Deutschlandfunk, 19.10.2016, https://www.deutschlandfunk.de/deutsch-franzoesischeruestungszusammenarbeit-freunde-mit.724.de.html?dram:article_ id=368995

Stacey Jeffre, Merkel's Military Revival, in Foreign Policy, 28.03.2018, https://foreignpolicy.com/2018/03/28/merkels-military-revival/

Tardy Thierry, Europe et défense : indispensable et fragile couple franco-allemand, Policy paper, Question d'Europe n°455, Fondation Robert Schuman, Paris, 11 décembre 2017

REFERENCES REPORTS, SPEECHES & LAW

Cour des Comptes, La coopération européenne en matière d'armement. Un renforcement nécessaire, soumis à des conditions exigeantes, avril 2018

McKinsey&Company, The Future of European Defence: Tackling the Productivity Challenge, https://www.mckinsey.com/~/media/ mckinsey/industries/public%20sector/our%20insights/enlisting%20 productivity%20to%20reinforce%20european%20defense/the%20 future%20of%20european%20defence.ashx

McKinsey&Company, More European, More Connected and More Capable. Building the European Armed Forces of the Future, 2017, http://european-defense-report.securityconference.de/

Emmanuel Macron, discours Initiative pour une Europe souveraine, unie, démocratique, Paris, Université de la Sorbonne, 26 Septembre 2017, https://www.elysee.fr.

Franco-German 2020 Agenda, 04.02.2010, https://www.franceallemagne.fr/IMG/pdf/DeutschFranzoesischeAgenda.pdf, pp. 8–9

Sous la direction d'Arnaud Danjean, Revue stratégique de defense et de sécurité nationale, 2017, https://www.defense.gouv.fr/dgris/ politique-de-defense/revue-strategique/revue-strategique

Florence Parly, Ministre des Armées, Military Programming Act 2019–2025, http://www.assemblee-nationale.fr/dyn/15/dossiers/ programmation_militaire_2019–2025

EU Heads of State and Governements, The Bratislava Declaration, Bratislava, 16 September 2016, https://www.consilium.europa.eu.



SOLVING THE EUROPEAN DEFENCE MARKET PUZZLE



CENTRAL-EASTERN EUROPE:

STILL BUYING AMERICAN, FOR EUROPE'S GOOD

BY ANDRÁS RADNÓTI

INTRODUCTION

Central-Eastern Europe's (CEE ¹) rapidly growing defence markets remain dominated by American products. Arms imports from the US will assist some capable armies to emerge in the region over the next decade, bolstering overall European security. The continued US dominance also means that, despite bilateral political differences between CEE states and the US, and despite the US-EU trade dispute, there are strong structural incentives for all parties to keep the North Atlantic alliance stable. However, the emergence of a unified EU arms market will only be moderately hindered by US imports. CEE EU members' attitude towards European arms projects and defence cooperation will grow warmer in the longer-term outlook, although they are set to remain followers, rather than drivers, of these initiatives.

Upon the collapse of the Soviet bloc in 1989–90, CEE countries inherited militaries of varying sizes, uniformly armed with Soviet, and sometimes locally-supplied, weapons. Already then, Poland and Romania boasted the largest militaries, and the most sizeable defence industries. They are also the countries engaged in the most ambitious military modernisation programmes today. Their defence policies are therefore the most consequential for the European defence market. This article will pay special attention to them, while discussing other CEE countries in passing.

US DOMINANCE: NOT HISTORICAL, BUT HISTORICALLY DETERMINED

Integrating with Western political and security structures emerged as the top foreign policy goal of CEE states in 1990. Political and security integration were universally seen as essentially separate projects, however: EU integration was considered as primarily political, and NATO integration, as primarily concerning a strategic alliance with – and a security guarantee by – the US. This separation has proven fateful; the EU's security component still struggles to gain traction among CEE populations.

The drive to integrate with NATO – and to do so fast, before Russia recovers from its temporary weakness – meant that CEE states needed to update their arsenals to NATO standards. Existing weaponry was often updated to NATO standards, and new acquisitions were made from suppliers within NATO. Initially, these were not overwhelmingly US imports, largely because purchasing (and often receiving) second-hand weaponry from European countries proved cheaper for cash-strapped CEE governments.

Nevertheless, at any rate in the decades after the transition from Socialist rule, CEE countries' focus was on political and – primarily – economic convergence, and large, Soviet-era military-industrial behemoths were a political hot potato. As a consequence, the area of defence was neglected both financially and politically. Military structures also proved highly resistant to erratic reform efforts. Reform was, however, badly needed; partly due to NATO's pressure, CEE governments acknowledged that their militaries, which had been designed with territorial defence in mind, had to be transformed into more mobile forces. This meant reorganisation, which was politically difficult. It also meant acquisitions, the funds for which were scarce.

In the years between 1995 and 2015, upticks in acquisitions were periodic, and the data show no clear American dominance. True, the upticks largely represented single high-value procurements, such as Hungary's purchase of JAS-39 Gripen fighter jets in 2001 and Poland's purchase of Leopard-2 tanks in 2002 and 2003. Still, these

¹ Central-Eastern Europe (CEE) is understood in this article as the countries which were members of the Warsaw Pact before 1990 and are members of the EU today: Bulgaria, the Czech Republic, Hungary, Poland, Romania, Slovakia.

deals proved to be important inroads into CEE markets for EU manufacturers, particularly German, Italian, and Swedish ones. But only recently have several CEE states, most notably Poland and Romania, begun ambitious military modernisation programmes with the aim of turning their old-style, territorial-defence militaries into capable, modern, highly mobile forces that build on their competitive advantages within NATO and can operate with ease within the alliance. These programmes include large acquisition components and this time, US manufacturers are set to come top in many tenders. They have not always done so – but neither have CEE states embarked on military modernisation programmes of a comparable scale.

Poland has by far the largest defence budget in the region, spending US\$ 52.2 bn² between 2000–2017. The Czech Republic follows a distant second, with a combined expenditure of US\$ 23.8 bn over the same period; Romania is third with US\$ 18.2 bn. The Czech Republic has not, however, begun to modernise, reorganise, and invest in its military in earnest – at least not yet.

US companies accounted for 46.6% of all Polish arms imports in the period 2000–2017. Romania's figure for the same period is only 15.1%, with EU (UK, Portugal, Germany, Italy, the Netherlands,, France, Norway, Spain) sources taking a whopping 73.3% share. That is deceptive, however, as much of the EU imports were in fact second-hand American arms. The most notable of these is the country's squadron of Lockheed Martin F-16 fighter jets, purchased from Portugal in 2016 and 2017 – by far the largest acquisition deal Romania has signed in recent years, although many more are set to follow. This suggests that EU manufacturers' lead over the US in the 2000–2017 period in Romania is once again due to the overall financial neglect of the armed forces and the government's choice of more economical second-hand imports over custom-made or off-the-shelf US acquisitions. However, Romania is now experiencing an economic boom, with growth at 7% in 2017. It is also spending qualitatively more on defence, with a commitment to keep the defence budget at 2% of GDP for at least 10 years, and to spend 40% of that budget on procurement. These factors enable the government to turn to US manufacturers for cutting-edge equipment.

That turn-around has already begun. For example, both Poland and Romania have purchased Raytheonmade Patriot systems for their medium-range missile defence needs, and both are likely to purchase fighter jets made by Lockheed Martin (with the F-16 being the likely frontrunner in Romania and the F-35 in Poland). Poland is already spending big on air capability, with deals signed for Lockheed Martin-made JASSM-ER and Raytheon-made AMRAAM and Sidewinder missiles. Both countries have also bought Lockheed Martin's HIMARS rocket launcher. In general, however, European and domestic producers are better placed to benefit from land and naval acquisitions in both countries. Alongside American companies, Dutch and German manufacturers have already been commissioned for equipment for Romania's ground forces, while Polish defence giant PGZ may expect commissions for transport vehicles, howitzers, and potentially also tanks, from the country's Ministry of National Defence.

In Romania as well as in Poland, there is an emerging focus on the development of local production capacity. Offsets, technology transfer and co-production arrangements are seen by policymakers as the primary avenues for bringing local manufacturers up to scratch to support, if not drive, the production processes of complex weapons systems. Over the long term, a more developed local production capacity ensures more autonomy, thus more muscle on the international stage. Over the short to medium term, this means jobs for the local population, thus votes for the politicians who deliver these deals – or so they hope, at least.

² All data related to military expenditures and arms transfers in this article are from the Stockholm International Peace Research Institute (SIPRI).

WHY 'BUY AMERICAN?'

A number of factors combine to produce an outlook in which US arms manufacturers are likely to dominate CEE markets. The most obvious one is that American systems are already used by the region's militaries across domains, but particularly in air and missile defence and the air force – focus areas of both the Polish and Romanian modernisation programmes. Purchasing new systems from the same manufacturers is typically an easy choice, allowing governments to save on training, maintenance, and transaction costs. They can also hope to secure more beneficial offset and technology transfer deals.

Furthermore, American manufacturers – along with some European ones – nurture long-term relationships with local suppliers, and are likely to be able to build on those relationships, benefitting from the modernisation drive in coming years. Lockheed Martin, for example, owns PZL Mielec, a Polish manufacturer, where the company's subsidiary, Sikorsky, produces Black Hawk helicopters. UM Bucuresti, a Romanian producer, has partnered with General Dynamics European Land Systems to manufacture Piranha V infantry fighting vehicles. These partnerships have demonstrated a potential for production sharing, thus creating jobs at home. In Poland in particular, Lockheed Martin's local representation bears significant lobbying power and is considered to have a good relationship with defence decision-makers. Decision-makers, for their part, are extremely interested in maintaining and expanding local production capacity. The country's ruling Law and Justice (PiS) party is strongest in the central and eastern regions of Poland, where much of the military industry is located.

As important as economic and political drivers – offsets and production sharing – is the strategic significance CEE governments attach to 'buying American.' The strategic choices of many CEE states, most notably Poland but increasingly Romania too, are driven by Russia's military build-up along its Western borders (on land in Poland's case and on sea in Romania's) and fears of a potential incursion. Their populations and policymakers alike see the US as *the* guarantors of their security – and buying American arms is considered a natural component of that partnership. With the partial exception of Slovakia, the US remains highly popular across CEE. According to a 2007 poll by Hungarian pollster Nezopont Institute, 83% of Poles want tighter political ties with the US or are happy with the – already tight – status quo. The same figure is 76% for Hungary, 70% for the Czech Republic, and 63% for Slovakia. Naturally, US popularity means that it is politically expedient for leaders to be seen to deliver deals with the US and to strengthen the strategic partnership. Due to the association of the US with security on Europe's eastern flank, cutting arms deals with the US means delivering security for constituents. That is an extremely gratifying position, as the spread of terrorism and the refugee crisis have driven security to the top of voter agendas in all CEE countries.

The EU, however, is still seen in CEE as primarily a political and economic project. A 2017 poll by the International Republican Institute (IRI) showed that the vast majority of Poles, Czechs, Slovaks and Hungarians regard financial assistance, the common market, and border-free travel as the EU's main benefits, with only 6–9% mentioning security. The EU's defence component is not widely acknowledged, and EU defence initiatives elicit less faith from people – and thus less enthusiasm from leaders. On a more practical plane, the scope of and the wait for current EU projects do not appear to meet CEE countries' needs. They are seeking to modernise capacities across domains and within a ten-year period. The New European Fighter Jet project, for example, is slated to bear fruit towards the middle of the 2030s. Poland, however, has expressed plans to acquire fifth-generation fighter jets around 2025. Likewise, Romania's plans to invest in new combat aircraft extend to 2026, at which point the country's outstanding demand for combat aircraft is likely to diminish for several decades.



MORE US ARMS IN CEE MEANS MORE SECURITY FOR EUROPE

US arms shipments are likely to assist a couple of rather capable militaries to emerge in the CEE region in the coming decade, making NATO's eastern flank stronger. In air and missile defence and air capacity, in particular, Poland and Romania are likely to bolster the alliance's defences with new US-made medium-, short-, and very short-range assets. That is as precise as we can be: should NATO fall apart, as some analysts began to fear in the wake of US President Donald Trump's repeated attacks on European members, CEE states' defence and security strategies – which are based on NATO – would be left in the void. That may be an argument for more active CEE participation in European defence projects – in fact, it often is.

What is often overlooked is that US arms sales to CEE in themselves strongly militate for the stability of the alliance. Put bluntly, weapons sales, particularly to CEE, are one of the alliance's political bedrocks. As long as the US exports large quantities of weapons to CEE, bilateral political differences between the region's states and the US do not fundamentally threaten the strategic alliance between them. To cite one example, US concerns over a recent Polish law banning the blaming of Poland for crimes committed during the Holocaust never threatened the US Congress' rubber-stamp on the sale of Patriot and HIMARS missiles to Poland.

In fact, in the spirit of 'America first,' the Trump administration is actively working towards increased US arms sales to Europe. The Conventional Arms Transfer policy, revealed in April, will aid US defence manufacturers to sell certain types of weapons systems, including unmanned aerial vehicles, to US allies

directly, without having to go through the government and Congress. More US arms exports to Europe will mean that more US jobs depend on it, depressing political incentives for jeopardising the alliances substantiating these deals.

More broadly, therefore, the stability of American arms exports to CEE lends a degree of stability to the transatlantic alliance, putting current tensions between the EU and the US related to trade and NATO contributions into perspective. Questions over the US commitment to Europe's security drive Europe to further invest in autonomous military capacity and import less; European imports fell by 41% between 2011 and 2015. In a self-perpetuating cycle, that investment – diverted from US imports – contributes to a decrease in the US commitment to European security. CEE's sustained commitment to American arms should ensure that the decrease will not decisively affect US incentives to remain involved in Europe. The EU is likely to benefit from a stronger arm for its strategically vulnerable Eastern border – and it will benefit from a more stable American commitment to it, too.

CEE TO BANDWAGON WITH EU DEFENCE INITIATIVES

The attitude of CEE states to EU defence initiatives has ranged from lukewarm to openly hostile in the past, albeit with variations within the region. Romania, for example, was among the first to express interest in the EU's new Permanent Structured Cooperation (PESCO), stating that it did not regard PESCO as rivalling NATO, while Poland only joined at the last minute, fearing exactly such a rivalry. All CEE states maintain some degree of participation; all are members, for example, of the European Defence Technological and Industrial Base.

Nobody wants to be left behind, and political and economic ties ensure a strong partnership with Europe as well. Should Western EU members go ahead with integration in the defence sphere, building on PESCO and other achievements, CEE states can be expected to join in. Aside from arms sales, the US economic presence in the region is dwarfed by Europe's; most of CEE's foreign direct investment – which their economic growth depends on – comes from the EU, and most of their trade is with the EU. These economic indicators strongly militate for an increased EU role in their defence markets as well.

Political motives to engage in more EU defence cooperation are also emerging in CEE, although, for now, only in isolated instances rather than as a region-wide trend. For example, the strong anti-immigration stance of Hungarian Prime Minister Viktor Orban has led him to call for a common European army on several occasions. Whether these rhetorical calls will be translated into action remains to be seen, but Orban's recent protests at plans to boost Frontex' capacity and personnel numbers – contradicting his own earlier stance for more European assistance in border control – lend little hope that they will, and suggest that Hungary in the years ahead will resist pooling any further sovereign powers, or creating competing powers. No significant investment in defence procurement is looming in Hungary either, despite a much-vaunted, but to-date unpublished, military modernisation plan, the Zrinyi 2026 programme.

The resilience of long-standing security strategies based on the US as the guarantor of CEE countries' security, alongside its political consequences – popular support for strong relations with the US – means that CEE states' support for European defence initiatives will remain lukewarm for decades to come. However, over the longer term, participation in European projects will mean that CEE countries' dependence on the US for their security will shift to a two-legged security architecture reliant on both the US and European cooperation. CEE will almost certainly not drive defence cooperation in Europe, but it will bandwagon with Western members in it, should they go ahead.

CEE: A FELLOW-TRAVELLER AND A GUARDIAN OF STABILITY

CEE's commitment to procuring arms from the US is likely to hold in the coming decades, albeit to a decreasing degree. Poland and Romania have set the trend for late arrivals; countries, such as the Czech Republic, which may embark on military modernisation programmes in coming years, will follow similar paths. That means building on comparative advantages within NATO, concentrating on turning territorial-defence armies into more mobile forces, and putting a special emphasis on air and missile defence. It also means putting ever more emphasis on developing domestic production capacities, which production sharing and offset deals with American producers are seen to drive, while still procuring a lot of equipment off the shelf, as domestic production capacity remains inadequate to produce cutting-edge equipment.

At the same time, if, as seems likely, 'core' EU member states push ahead with integration in the defence sphere, concentrating in particular on strengthening European production capacities and creating a common defence market, CEE is unlikely to stand in the way. On the face of it, their preference for American arms contributes to the fragmentation of the European defence market, of course. But the continued strength of economic and political ties with Western EU members – always a key indicator of arms imports prognoses – suggests that CEE states' participation in European arms projects will increase, if only slowly. Romania already appears likely to put more emphasis on strengthening EU ties as it prepares for Council presidency in 2019. Poland's relations with the EU – now at rock bottom – would very possibly normalise if PiS lost in the elections in autumn 2019, which is not an improbable scenario. The IRI's 2017 poll confirms that the citizens of the four Visegrad states (Poland, the Czech Republic, Slovakia, and Hungary) are more committed to strong relations with the EU, Germany and the UK, than with the US, although commitment to the US is also high at 45%.

The contribution to European security that CEE's enduring preference for American arms brings should certainly not be overlooked. On the one hand, the emerging European security bloc will probably count on at least one (Poland), but possibly two (Poland and Romania), highly capable militaries in the 20-year outlook – no mean feat as Russia continues to consolidate military assets along the EU's eastern border. On the other hand, a steady flow of American arms into CEE is a structural factor in EU-US relations that strongly militates for the stability of the alliance. And whilst a strong autonomous European military capacity is no doubt a laudable long-term goal, a resilient alliance with the US certainly remains key to European security in the medium term.



SOLVING THE EUROPEAN DEFENCE MARKET PUZZLE



FURTHERING EUROPEAN DEFENCE COOPERATION

MEMBER STATES-DRIVEN OPERATIONAL COOPERATION AS CORNERSTONE FOR A MORE EFFECTIVE UNION IN SECURITY AND DEFENCE

BY MARK FEENSTRA

In light of the changing security environment, the European Union Global Strategy for Foreign and Security Policy (EUGS) started a process in 2017 aimed at closer cooperation in security and defence. In order to increase the effectiveness of the European Union (EU) in addressing security challenges, member states agreed to step up the EU's work in this area by acknowledging that enhanced coordination, increased investments in defence and the development of capabilities were key requirements for achieving this aim. On 11 December 2017, a total of 25 member states decided to sign the decision of the European Council to establish the 'Permanent Structured Cooperation (PESCO) on security and defence' 1. This cooperation platform was designed to contribute to making European defence more efficient and to deliver more output by providing enhanced coordination and collaboration in the areas of investment, capability development and operational readiness. According to the European Council, this could allow for the decrease in the number of different weapon systems in Europe and therefore strengthen operational cooperation among member states, connect their forces through increased interoperability and enhance industrial competitiveness². In conclusion, the European Council stated that PESCO will assist in reinforcing the EU's strategic autonomy to act alone when necessary and with partners whenever possible. Whilst PESCO is underpinned by the idea that sovereignty can be better exercised when working together, national sovereignty remains effectively untouched, as military capacities developed within PESCO remain in the hands of member states that can also make them available in other contexts, such as NATO or the UN³.

This introduction covered the European Union External Action vision on PESCO and outlined their arguments for furthering cooperation between EU member states in security and defence. This paper seeks to give a brief liberal conservative response to these standpoints and provides an alternative 'working method' to achieve European defence cooperation. The European Council stated that PESCO "was designed to contribute to making European defence more efficient and to deliver more output by providing enhanced coordination and collaboration in the areas of investment, capability development and operational readiness". According to the European Council, this could "allow the decreasing of the number of different weapon systems in Europe and therefore strengthen operational cooperation among member states; connect their forces through increased interoperability; and enhance industrial competitiveness". I cannot fully agree with this vision. From my perspective, furthering European defence cooperation and reducing the number of weapon systems in Europe should start with operational cooperation between the armed forces of two or more member states. This operational cooperation should be member states-driven, as the foundation for this cooperation will be stronger if it is in the best interest of the participating countries. This article will briefly illustrate my argument that member states-driven cooperation should be the cornerstone for furthering European defence cooperation, by giving an example of Belgian-Dutch naval cooperation and how this cooperation could serve as an example to other EU member states for furthering European defence cooperation, and why PESCO could be a 'step too far' for some countries in the Union.

BELGIUM-NETHERLANDS OPERATIONAL COOPERATION (BENESAM)

The Belgium-Netherlands naval cooperation is an old and intensive one. Since 1948, the Belgian and Dutch navies have worked together. In the last decennium, this cooperation has spilled over into daily cooperation on all levels and terrains. Contact between the Royal Netherlands Navy and the Belgian Navy is now excellent,

¹ Treaty on the Functioning of the European Union, Art. 42(6), 46, Protocol 10

² Permanent Structured Cooperation, European External Action Service, https://eeas.europa.eu/headquarters/headquarters-Homepage/34226/ permanent-structured-cooperation-pesco-factsheet_en, (accessed 13 October 2018).



but this was not always the case. Due to budgetary limits, the Belgian Navy decided to focus on developing their minehunter capacities after World War II, which resulted in limited possibilities for cooperation. This also led Belgian politicians to fear being dominated by the Dutch, whose navy vastly outclassed that of Belgium⁴. From the start, this cooperation went as far as to place the command of the combined navies under one Commander in times of war⁵.

On 17 March 1948, the Brussels Treaty was signed between France, Belgium, Luxembourg and the United Kingdom, entering into a pact that decided to further military cooperation⁶. On 10 May 1948, the Belgian Minister of Defence, Colonel Raoul De Fraiteur, and the Dutch Minister of War, Alexander Fiévez, signed a secret agreement to further the Belgian-Dutch cooperation on defence. The contents of this agreement have long been a secret. The agreement sparked three committees that covered the procurement of weapons, standardisation of weapons and – to some extent – the collaboration between fleets⁷. Between 1947 and 1949, 41 Belgian naval men received their education in the Netherlands⁸. From the outset, regular meetings took place between both countries to further cooperation: one of the first steps taken was allowing Belgian and Dutch vessels to use each other's harbours and the right of passage through territorial waters⁹.

⁴ D.C.L. Schoonoord, Pugno Pro Patria, De Koninklijke Marine tijdens de Koude Oorlog, Uitgeverij Van Wijnen, 2012, p. 111

⁵ J. Karremann, Belgisch-Nederlandse marinesamenwerking, marineschepen.nl, 2018, https://marineschepen.nl/dossiers/belgisch-nederlandsesamenwerking.html, (accessed 13 October 2018)

⁶ Ibid.

⁷ Nederland en België krijgen gelijk georganiseerde legers, Leids Dagblad, 13 May 1948

^{8 &#}x27;Belgische Jantjes in ons land', De Tijd : godsdienstig-staatkundig dagblad, 26 March 1949

^{9 &#}x27;Samenwerking met Belgische marine', De Tijd : godsdienstig-staatkundig dagblad, 4 October 1949

While these were small steps, the Dutch Navy was much larger than the Belgian one. The Netherlands commanded destroyers, an aircraft carrier, submarines and a naval air force. The Belgian Navy, only founded in 1946, merely had possession of a few minehunters and corvettes. In this sense, collaboration started more as Dutch support to Belgium, rather than real cooperation. Nevertheless, the seeds were planted ¹⁰. The biggest steps forward were taken in the '60s. In 1964, Belgium and the Netherlands decided to join forces in minehunter-training. The two organisations had already worked together for 16 years, during which time the Belgians had built an advanced minehunter school, whereas the Dutch minehunter training basically took place in attic-rooms. In April 1965, the Belgian school opened, and the first Dutch students started their training ¹¹. In 1975, the school was formally integrated as a Belgian-Dutch organisation and opened up courses for NATO partners. In 2006, the Belgian-Dutch 'minehunter school' was accredited by NATO as the *Naval Mine Warfare Centre of Excellence* ¹².

In 1970 there was an agreement between the Royal Dutch Navy and the Belgian Navy to continue working together on new Belgian frigates (the Wielingen-class)¹³. In 1972, the BeNeSam steering group was founded, covering cooperation in terms of training, technical support, minehunter programme, legal assistance, financial assistance and the procurement of materiel. Other arrangements were made to improve software for the Belgian frigates through the 'centre for the automatisation of weapon and command systems' (CAWCS) of the Royal Dutch Navy in Den Helder¹⁴. From the '80s, the Belgian and Dutch navies also worked together on the material level through the Tripartite project with France, giving the three countries the same type of minehunters. Since the commissioning of the former Dutch multipurpose (M)-frigates in 2007 and 2008, another unique collaborative programme started ¹⁵. Belgium is now tasked with the education and training of the crew for minehunters, as well as the logistics and maintenance of these vessels; whereas the Netherlands has the same obligations for the M-frigates ¹⁶. This last step has led to where we are today. According to the replacement letter, successful cooperation between the Netherlands and Belgium is built on the principle that both countries have identical capabilities and (near-)identical materiel. On 30 November 2016, Belgium and the Netherlands signed a letter of intent, stating their intention to cooperate on the common development, procurement and maintenance of minehunter and M-frigate capabilities. Moreover, the Netherlands and Belgium submitted a proposal in PESCO, whereby they seek to develop semiautonomous underwater systems for tracking mines and munitions¹⁷.

FURTHERING EUROPEAN DEFENCE COOPERATION

The abovementioned overview shows the history of cooperation between Belgium and the Netherlands in the naval domain, starting in 1948 and ending with the agreement to replace the minehunters and M- frigates in 2016. This trajectory took 70 years to take its current form, contrasting with new initiatives like PESCO. In further collaboration, I believe EU member states should first look towards their neighbours and identify possible areas in which they can cooperate. By starting at the basics, foundations can be built which can foster other forms of cooperation. When mentioning European integration, people often refer to the *spillover theory*¹⁸. Spillover theory is mentioned in neofunctionalism, stating that integration is a linear, progressive

- 13 Karremann
- 14 Ibid.
- 15 Ibid.
- 16 Ibid.
- 17 Ibid.

¹⁰ Karremann

¹¹ Ibid.

¹² History, Eguermin.org, https://www.eguermin.org/welcome/misc/history/, (accessed on 13 October 2018)

¹⁸ B. Rosamund, Theories of European Integration, New York, St. Martin's Press, 2000, p. 51–52

phenomenon; that once started, dynamics would be set in place to continue the momentum. PESCO is an initiative which fits the idea of this 'spillover', as it takes previous cooperation as the basis for furthering defence cooperation. It is based on 'dynamics' that have been 'set in place' and, assuming this neofunctionalist point of view, will continue the momentum of integration. However, when examining phenomena like Brexit, or the current situation in Hungary, European integration is no longer a linear progression (if it has ever been a linear progression). I believe that starting a potential new spillover, by having neighbouring member states cooperate, an environment can be created where the EU can move towards more coordinated defence cooperation. As stated above, the Belgium-Netherlands naval cooperation is an old and intensive one. "Since 1948, the Belgian and Dutch navies have worked together. In the last decennium, this cooperation has 'spilled' to daily cooperation on all levels and terrains". In this example, the Netherlands could take a leading role in establishing such 'operational cooperations' with European neighbouring member states, by outlining the benefits of the Belgian-Dutch, or the German-Dutch defence cooperation. Individual member states could be stimulated to start talks with their neighbours. However, for it to be successful, this cooperation should be member states-driven. Durable cooperation, resting on a strong foundation, can only come into fruition when the incentive originates in one of the member states – as the Belgian-Dutch example shows.

This does not mean that initiatives like PESCO will not work. Of course, PESCO allows for more opportunities for the co-creation of defence capabilities. However, this 'member states-driven' cooperation and PESCO can reinforce one another. For example – as stated above – the Netherlands and Belgium have submitted a project in PESCO to build semi-autonomous underwater systems for tracking mines and munitions. This project complements the initiatives of the Netherlands and Belgium to replace their minehunter capacities together: they identified something they can cooperate on and correspondingly submitted this project. This also presents opportunities for the industries of participating countries: the Belgian and Dutch navies can already become 'launching customers' for this capability. Theoretically, if more countries decide to cooperate with one another, the number of weapon systems in Europe will decline as they end up procuring shared or similar capabilities in the future. As stated above, "successful cooperation between the Netherlands and Belgium is built on the principle that both countries have identical capabilities and (near-)identical materiel." When this is the case, one of the goals stated by PESCO can be achieved.

As stated above, the European Council asserted that PESCO "was designed to contribute to making European defence more efficient and to deliver more output by providing enhanced coordination and collaboration in the areas of investment, capability development and operational readiness". As the example of Belgium and the Netherlands shows: this is something that took decades of cooperation to establish. A decision like PESCO – to make countries cooperate with one another – will not automatically cause civil servants and the military to change their attitude or working patterns: such a thing will take years to take root in individual member states. Therefore, having member states-driven cooperation – where individual member states decide to cooperate with their European partners – is something that could occur on a larger scale, so that PESCO's goal of "decreasing the number of different weapon systems in Europe and therefore strengthen operational cooperation among member states; connect their forces through increased interoperability and enhance industrial competitiveness" can be achieved. However, as the example of the Netherlands and Belgium shows: it took 70 years before this cooperation actually resulted in the decision to start a joint replacement programme; a long time before actual material cooperation started. It is positive that initiatives like PESCO seek to affect a more efficient and effective Defence Union, yet it is important to remain realistic regarding its short-term efficiency and output.

CONCLUSION

In conclusion, this article sought to put forward the argument that member states-driven cooperation should be the cornerstone for furthering European defence cooperation. I briefly illustrated my argument by giving an example of Belgian-Dutch naval cooperation and how this cooperation could serve as an example to other EU member states and why PESCO could be a 'step too far' for some countries in the Union. The Belgian-Dutch cooperation has been fostered over the past 70 years, leading to the decision in 2016 to start a joint replacement programme for minehunters and M-frigates – giving the Netherlands and Belgium identical materiel for possible joint operations in the years to come. This collaboration also resulted in submitting a project in PESCO for semi-autonomous underwater systems for tracking mines and munitions. Therefore, member states-driven cooperation with neighbours and the identification of areas in which cooperation can take form, could enforce the current PESCO framework and lead to a stronger Union in security and defence. By enhancing operational cooperation between member states, the North Atlantic Treaty Organisation (NATO) will also increase in strength. The Netherlands and Belgium submitted their project to PESCO, as it complemented their project. Similar cooperation by other member states could allow for new areas in which EU partners can cooperate, take shared risks for the co-creation of new capabilities and put forward innovative ideas which can benefit the entire Union. But in order to know what one needs, one needs to identify what one is lacking or missing. Therefore, member states-driven cooperation should be the cornerstone for furthering European defence cooperation, as it is better to identify capabilities on an actual 'working level', than through EU committees identifying and putting forward new ideas.

REFERENCES

'Belgische Jantjes in ons land', De Tijd : godsdienstig-staatkundig dagblad, 26 March 1949

B. Rosamund, Theories of European Integration, New York, St. Martin's Press, 2000, p. 51–52

D.C.L. Schoonoord, Pugno Pro Patria, De Koninklijke Marine tijdens de Koude Oorlog, Uitgeverij Van Wijnen, 2012, p. 111

History, Eguermin.org, https://www.eguermin.org/welcome/misc/ history/, (accessed on 13 October 2018)

J. Karremann, Belgisch-Nederlandse marinesamenwerking, marineschepen.nl, 2018, https://marineschepen.nl/dossiers/ belgisch-nederlandse-samenwerking.html, (accessed 13 October 2018) Nederland en België krijgen gelijk georganiseerde legers, Leids Dagblad, 13 May 1948

Permanent Structured Cooperation, European External Action Service, https://eeas.europa.eu/headquarters/headquarters-Homepage/34226/permanent-structured-cooperation-pescofactsheet_en, (accessed 13 October 2018).

'Samenwerking met Belgische marine', De Tijd : godsdienstig-staatkundig dagblad, 4 October 1949

Treaty on the Functioning of the European Union, Art. 42(6), 46, Protocol 10



SOLVING THE EUROPEAN DEFENCE MARKET PUZZLE



NEW FIGHTER JETS FOR BELGIUM

A TALE ABOUT THE PITFALLS OF PROCUREMENT

BY LAURENS BYNENS

BELGIUM AND ITS F-16: A GOLDEN ERA

Belgium is planning to retire its fleet of F-16 fighter jets between 2023 and 2028, and is expected to choose a new combat aircraft out of different candidates. As with the purchase of the F-16 in the 1970s, the procurement of new fighters has been dubbed the 'purchase of the century' and has sparked a lot of debate and controversy. In the 1970s, Belgium ordered 116 F-16s, to which another 44 were added in the 1980s. The country thus entered the Multinational Fighter Program. Throughout their lifespan, the fighters received regular upgrades to ensure that they remained operationally and militarily relevant. The first F-16 was used in 1979, while the oldest plane currently still active dates back to 1983. The F-16 programme has been regarded as a great success for two major reasons:

Firstly, the F-16 has been a reliable part of Belgium's military. The jets have guarded Belgium's airspace since 1981 and have operated alongside allies in the Balkans (1996–2001), Kosovo (1999), Afghanistan (2005–2006), Libya (2011), the Baltics (various missions) and more recently in Iraq and Syria (2016-?). Belgium has been a part of the Multinational Fighter Program, together with the Netherlands, Denmark, Norway, Portugal and the USA. However, since many partner nations are replacing their F-16s, this programme is bound to become smaller over time, and the costs to maintain the fleet could be decreasingly divided among partners.

Secondly, Belgium's participation in the F-16 programme has assured economic returns and the accompanying industrial growth. Alongside the maintenance and support of the F-16, a whole aviation industry has flourished that has been an important part of the country's economy. One regularly hears that, without the F-16, the (civil) aeronautic industry would never have come to life, and that the F-16s' costs have been recovered through industrial activity¹. Belgium's National Bank has estimated that 'air transport and airport activities' in 2015 represented 1.5% of domestic employment and generated six billion euros (1.5% of the GDP)².

PLANE AND SIMPLE (?): A PROCUREMENT COMPETITION

In June 2014, under the federal caretaker government, the former Minister of Defence, Pieter De Crem, asked the military to explore, on an ad-hoc basis, possible replacements for the F-16. This resulted in a 'Request for Information' (RFI) survey to five government agencies. This RFI described, among other things, the types of missions Belgium wants to be able to perform and in which operational frameworks, e.g. collective defence. The survey was non-binding, and its stated goal was not a comparison or an evaluation, but rather to get to know the different candidates³ and to prepare the further process. The document stipulated that Belgium did not just want to procure fighter jets, but a multidimensional partnership for up to 50 years including weapons, training, logistical support, NATO/EU interoperability, etc. Therefore, the agreement would be

¹ Agoria (2014) Memorandum Agoria in aanloop naar de federale verkiezingen 2014. http://www.voteztechnologie.be/www.wsc/webextra/ prg/nwAttach?ENewsID=94834&TopicID=10284&Appl=v2014&enewsdetid=164265&attach=30.137802001393833485.pdf, p. 20.

² National Bank of Belgium (2017) 'Economic importance of air transport and airport activities in Belgium – Report 2015'. https://www.nbb.be/doc/ts/publications/wp/wp324en.pdf

³ From these talks, the military learnt that the candidates all stressed a number of elements: the survivability of the jets, multi-role tasks (C2/ ISTAR, air-to-air and air-to-ground capabilities), an increased stand-off through new weaponry, low detectability and active detection systems, sensor fusion and data fusion in order to achieve an overview of the battlefield, etc. Source: Belgian Chamber of Representatives (2016) Hearing with Colonel Harold Van Pee, Director Air Combat Capability Program. http://www.dekamer.be/FLWB/PDF/54/1782/54K1782001.pdf

between Belgium and a foreign government, not between Belgium and a company. In order to fulfil its international commitments and to ensure interoperability, only EU or NATO member states could enter the competition.⁴

The current coalition ⁵ under Prime Minister Charles Michel (of the francophone liberal party MR) reaffirmed this intention in its 2014 coalition agreement ⁶. A new entity, the Air Combat Capability Program (ACCaP), was founded some months later and was officially mandated to organise the replacement process. In December 2015, the government decided to start several military investments, including the replacement of the F-16. Contrary to the F-16 programme, Belgium would buy these new jets 'off the shelf' with an available budget of 3.6 billion euros, instead of also being involved in production and development. The estimated total budget would be 15 billion euros over 40 years for procurement, training, personnel, etc., including keeping the F-16 operational until the replacement is complete. Under the current defence budget, this requires 15% of the yearly budget. The government also considered but turned down other options, including keeping the existing F-16 fleet afloat for an additional six years with limited operationality, upgrading the current fleet to remain fully operational for another six years, buying second-hand F-16s, or even establishing a mixed fleet with both new jets and existing F-16s.

In mid-2016, the Minister of Defence Steven Vandeput (of the Flemish nationalist party N-VA) published his Strategic Vision⁷, which lays out Belgium's global outlook, the role of the Belgian Army and the plans to reform and improve the armed forces by 2030. The Vision included the purchase of 34 multi-role fighter jets. This would allow for six jets to be deployed for foreign missions and two jets on permanent stand-by in Belgium for Renegades and Quick Reaction Alert (which Belgium performs together with the Netherlands for the Benelux region)⁸. Furthermore, the federal parliament approved a 'military programming law' in order to enshrine (future) investments in fighter jets, drones, frigates, etc.⁹ In December 2016, Belgium published a document outlining its 'essential security interests' in the context of public procurements ¹⁰.

The ACCaP office sent out a 'Request for Government Proposal' (RFGP) in March 2017. The 247-page document was also published publicly on the Internet, probably globally for the first time ever. The goal was to gather detailed technical proposals from the candidates, which would be evaluated based on three domains (capabilities – financial – essential security interests) and their respective subdomains. Furthermore, it describes a number of operational scenarios in order to assess the candidates' potential, e.g. "Belgium is participating in coalition operations based on a UN Security Council Resolution to support rebel forces in their fight against an oppressing regime". Separate ACCaP teams reviewed different parts of the proposals, which were then brought together to compile a complete review. These technical reviews allow the government to make a decision, consisting of three elements (none of which are in the end judged in isolation): Firstly, a military-technical element based on the evaluation of the ACCap team. Secondly, an economic evaluation performed by the federal Department of Economy to see which offer makes the most sense in economic terms. Thirdly, a (geo-) political element which weighs the benefits and disadvantages of each partnership with the different countries.

⁴ Belgian Defence (2014) Air Combat Capability Successor Program Preparation Survey. https://www.mil.be/sites/mil.be/files/files_library/140602_accap_-_preparation_survey_-_final_v2.pdf

⁵ The current government under Charles Michel consists of N-VA (Flemish Nationalists), CD&V (Flemish Christian Democrats), Open VId (Flemish Liberals) and MR (French-speaking Liberals).

Regeerakkoord – 10 October 2014. https://www.premier.be/sites/default/files/articles/Accord_de_Gouvernement_-_Regeerakkoord.pdf, p. 208
 Steven Vandeput (2016) De Strategische Visie voor Defensie.

<sup>https://www.vandeput.belgium.be/sites/default/files/articles/Strategic-Vision-Belgian-Defense-NL.pdf
While the military has said that attaining previous operational ambitions cannot be reached with 34 jets, the required targets can still be met, since more training will be performed through simulators, and because each new aircraft can last longer than the F-16.</sup>

Belgian Chamber of Representatives (2016) Military Programming Law for Investments 2016–2030. http://www.dekamer.be/FLWB/PDF/54/2137/54K2137001.pdf

¹⁰ The Belgian Defence (2018) De Belgische belangen op het vlak van Defensie en veiligheidsbeleid. https://www.mil.be/sites/mil.be/files/files_library/20161019-belgische_esi-_nl.pdf

In September 2017, the candidates sent their initial tenders based on the RFGP, which led to further negotiations with the ACCaP team and resulted in two official 'Best and Final Offers' (BAFOs) for the F-35 and Typhoon in February 2018¹¹. The Rafale team did not produce such a tender, but made an offer outside the outlined procurement process, which will be discussed later in this text. Many expected the government to make its choice by the July 2018 NATO Summit in Brussels, but this did not happen. At the time of writing, there is still no winner.

RETURN TO TENDER: THE FIVE CANDIDATES TO REPLACE THE F-16

F-35A

The F-35 Lightning II (Joint Strike Fighter) is produced by Lockheed Martin and represented in the procurement process by the American 'F-35 Joint Program Office'. Although the F-35 allegedly has a lot of support among Belgian military staff because of its potential and their long-time cooperation with the American armed forces, the fighter jet also has fierce opponents in civil society and politics. Critics have claimed that Belgium's competition is designed to make the F-35 win no matter what, even if the government has stressed repeatedly that its competition is designed to obtain the best jet for the best price. Various marches and blogs have been organised to protest the acquisition of fighter jets, often specifically aimed at the F-35. In contrast, the former Belgian Minister of Defence¹² (currently serving as Secretary of State for Foreign Trade) has openly advocated the F-35 and opposed the Typhoon and Rafale¹³.

The Belgian and Dutch armed forces work closely together; for example, they guard the entire Benelux airspace in turn with their F-16s. The Netherlands has been involved in the F-35 programme from the start, and will receive up to 37 fighters ¹⁴. Proponents of the F-35 have pointed to such interoperability if Belgium were to buy the F-35. In January 2018, US Defence Secretary Mattis wrote a letter to his Belgian counterpart Vandeput to point out that Belgium does not honour its NATO defence spending commitments, but by picking the F-35, Brussels would affirm its good intentions to the US ¹⁵. Even individual members of the Belgian parliament have reportedly been approached by their American counterparts with the message that the US can go easier on the 2% mark: "buy the F-35 and it's 'kay for us" ¹⁶. In July 2018, a Lockheed Martin official declared at the Farnborough Air Show in the UK(!) that the F-35 would be cheaper than the projected amount of 3.6 billion euros ¹⁷.

RAFALE

The Rafale is built by Dassault and represented by the 'Direction Générale de l'Armament'. Contrary to the F-35 and Typhoon, the Rafale has not entered the official competition. Instead, they launched a 'media offensive', in which they have over time increased their offer and pressure. In December 2017, French Minister of Defence

¹¹ Belgian Chamber of Representatives (2018) Hearing with the ACCaP office on the replacement of the F-16 fighter jets. http://www.dekamer.be/doc/CCRI/pdf/54/ic872.pdf, p. 27–28.

¹² Pieter De Crem of CD&V (Flemish Christian Democrats).

¹³ Knack (2018) 'Pieter De Crem: "Als je de belastingbetaler op kosten wil jagen, moet je voor de Rafale kiezen." http://www.knack.be/nieuws/ belgie/pieter-de-crem-als-je-de-belastingbetaler-op-kosten-wil-jagen-moet-je-voor-de-rafale-kiezen/article-longread-1163223.html

¹⁴ F-35 Lightning II for the Netherlands. https://www.f35.com/global/participation/netherlands

¹⁵ Knack (2018) 'De lobbycampagne van de eeuw: de vervanging van onze F-16's'.

http://www.knack.be/nieuws/belgie/de-lobbycampagne-van-de-eeuw-de-vervanging-van-onze-f-16-s/article-longread-966999.html 16 De Morgen (2018) 'Amerikaans congreslid fluistert Yüksel in: "Koop de F-35 en we zijn tevreden".

https://www.demorgen.be/politiek/amerikaans-congreslid-fluistert-yuksel-in-koop-de-f-35-en-we-zijn-tevreden-b9c0d2bd/

¹⁷ De Tijd (2018) 'Goedkopere F-35 biedt Michel kans om dossier te ontmijnen'.

Florence Parly published an opinion piece in a Flemish and Walloon newspaper, promising four billion euros in economic returns ¹⁸. In that same month, Dassault upped the offer to 20 billion euros; four billion would go to innovation centres, Smart City projects, etc. (these ideas were dismissed in Belgium as being very vague). The other 16 billion would comprise the continuation of existing French projects in Belgium for another 20 years (800 million euros x 20). Minister Vandeput called the promises "too good to be true", lamenting the fact that the French proposal amounted to a couple of pages, whereas the other candidates' proposals were enormous documents. 'A source close to the subject' commented: "[It's a threat to take away what's already in place. Don't mind calling it economic blackmail]" ¹⁹.

Critics have underlined the considerable power France has over Belgium in strategically important sectors like banking, energy and food. Economist Geert Noels wrote sourly: "France blackmails Belgium as if it is a colony".²⁰ In February 2018, Rafale announced it would not enter the Belgian RFGP procedure: "[As a friend and neighbour, we have a much broader offer for Belgium that does not fit within the current competition's constraints]"²¹. In May 2018, the French proposed giving Belgian jets access to the French aircraft carrier, to open the French airspace to Belgium and to let Brussels have a voice in the development of both the Rafale and the Franco-German initiative for a Future Combat Air System (FCAS). The Belgian Cabinet of Defence called the proposal "a blank cheque". ²² Minister Vandeput has sought legal advice to check if the government could face problems either because of its continued negotiations with Rafale outside the competition, or if it ignored the competition and picked the Rafale. Hence, Mr. Vandeput has stated that Belgium should stop talking with the French. In contrast, the French government and Rafale have countered with their own legal advice, which concludes the opposite, namely Belgium's competition does not hinder it from talking to the French²³, nor does it preclude picking the Rafale outside the competition²⁴. In July 2018, the Belgian government announced that France had demanded that Brussels sign a secrecy clause ('Non-disclosure Agreement') before handing over a more substantial Rafale dossier. The Belgian government has refused to do so.

Minister Vandeput has always been opposed to the French proposals, saying in an interview in early June 2018: "We can't act as if the Rafale is part of the procedure". Be that as it may, at a press conference in June, Prime Minister Michel declared that he would consider all options, including the Rafale and a possible life-extension of the F-16²⁵. The Prime Minister has reportedly wanted to keep the Rafale in the race to maintain good relations with French President Macron, and because of the strong industrial presence of Dassault in Wallonia²⁶.

In July 2018, as the costs of the Typhoon and F-35 would allegedly be lower than expected, an elegant solution seemed to emerge: buy the F-35 or the Typhoon, and invest the remaining budget into the future European fighter jet (FCAS), thereby also investing in a (future) partly French fighter. However, French

¹⁸ De Tijd (2017) 'Hele Belgische industrie profiteert van militaire samenwerking met Frankrijk.'

https://www.tijd.be/opinie/algemeen/hele-belgische-industrie-profiteert-van-militaire-samenwerking-met-frankrijk/9959395.html 19 De Standaard (2017) 'Economische compensatie? Economische chantage, ja'

http://www.standaard.be/cnt/dmf20171227_03270461 (quote translated by author)

²⁰ VRT Nieuws (2017) 'Geert Noels: Frankrijk chanteert België alsof het een kolonie is' https://www.vrt.be/vrtnws/nl/2017/12/29/opinie-geert-noels-f16/

²¹ De Standaard (2018) 'Frans bod te mooi om waar te zijn? Geloof het toch maar'.

http://www.standaard.be/cnt/dmf20180213_03354634 (quote translated by author) 22 De Standaard (2018) 'Fransen gooien vliegdekschip in de strijd voor vervanging F-16's'.

http://www.standaard.be/cnt/dmf20180515_03513884

²³ Knack (2018) 'Advieskantoor Rafale-constructeur gaat in tegen Vandeput over aankoop gevechtsvliegtuigen'. http://www.knack.be/nieuws/ belgie/advieskantoor-rafale-constructeur-gaat-in-tegen-vandeput-over-aankoop-gevechtsvliegtuigen/article-normal-1175257.html

²⁴ Het Laatste Nieuws (2018) Vervanging F-16's: 'België kan zonder juridische problemen voor Franse Rafale kiezen'. https://www.hln.be/nieuws/ binnenland/vervanging-f-16-s-belgie-kan-zonder-juridische-problemen-voor-franse-rafale-kiezen~a85252d6/

²⁵ Knack (2018) 'Michel verrast: regering wil Rafale en verlenging F-16's herbekijken, beslissing valt pas in oktober'. http://www.knack.be/nieuws/ belgie/michel-verrast-regering-wil-rafale-en-verlenging-f-16-s-herbekijken-beslissing-valt-pas-in-oktober/article-normal-1161533.html

²⁶ De Morgen (2018) 'Michel wil nog geen 'non' zeggen tegen Frankrijk'. https://www.demorgen.be/politiek/michel-wil-nog-geen-non-zeggen-tegen-frankrijk-b071cbe2/

Ambassador Claude-France Arnould strongly dismissed this option: should Belgium buy the F-35, it would not be allowed to co-develop the FCAS. She did not indicate whether buying the Typhoon would have the same consequences. Prime Minister Michel responded that her activism in the media was counterproductive and that he would not be intimidated: "Not by Trump, and not by an Ambassador". Newspaper De Standaard quoted a 'close source': "[Time and time again the French seem to think they know what we want better than ourselves. It's disgusting]" ²⁷.

TYPHOON

The Typhoon is built by the Eurofighter consortium (UK, Germany, Italy and Spain) and is officially represented by the British Ministry of Defence²⁸. Like the other candidates, Eurofighter has carried out a serious lobbying campaign in Belgium. In December 2017, Eurofighter promised to assist Belgium with cybersecurity, with support from British intelligence. Its campaign director Anthony Gregory added: "[Cybersecurity is high on the Prime Minister's agenda. A recent report stated that, because of leaks in internet security, malware, hacks and cyberfraud, every year 1.6 billion euros is lost in Belgium. If we can fix the holes, that amount will flow directly back into the investment of new fighter jets]"²⁹. In February 2018, the British Ambassador reportedly visited various newspapers to promote the Typhoon. In an open letter, the Eurofighter countries' Ambassadors have "conservatively" estimated economic contributions up to 19 billion euros for the Belgian economy³⁰.

The uncertainty of Rafale's chances resulted in stronger public marketing for Eurofighter, on the one hand, by the British and German Ambassadors and BAE Systems, and Airbus on the other hand. Airbus has pushed back against the idea that Belgium would need to pick the Rafale in order to help develop the FCAS: "France has the lead, but that does not mean that only they can decide which countries can participate" ³¹. BAE Systems has argued that Eurofighter is the only true European jet instead of just a French aircraft: "We have Germany, Italy and Spain on board. Also after Brexit [...]. But Airbus, Leonardo and BAE Systems are and will remain the biggest aeronautics and defence players of Europe. Together we're much bigger than Lockheed Martin" ³². In July 2018, BAE Systems said at the Farnborough Air Show that the Typhoon, similarly to the F-35, would cost less than 3.6 billion euros for Belgium.

F/A-18 E/F SUPER HORNET

The F-18 is constructed by Boeing and officially represented in Belgium by the US Navy. Boeing informed Belgium in April 2017 that it would not enter a tender for the F-18: "We regret that, after reviewing the request, we do not see an opportunity to compete on a truly level playing field [...]"³³. Minister Vandeput deplored the message's tone and argued that the competition was neutral, while the Chairwoman of the Belgian parliamentary Defence Committee (of N-VA) said that Boeing was frustrated by the American government's preferential lobbying for the F-35³⁴.

²⁷ De Standaard (2018) 'Fransen gooien eigen ruiten in'. http://www.standaard.be/cnt/dmf20180719_03624477 (quote translated by author)

²⁸ Until January 2016, UK Trade & Investment represented the Typhoon.

²⁹ De Morgen (2017) '34 straaljagers kopen? U krijgt er gratis cyberveiligheid bij'.

https://www.demorgen.be/binnenland/34-straaljagers-kopen-u-krijgt-er-gratis-cyberveiligheid-bij-b2decffc/ (quote translated by author) 30 Alison Rose Et. Al. (2018) An open letter from the Ambassadors to Belgium of the UK, Germany, Italy and Spain.

https://www.baesystems.com/en-be/article/an-open-letter-from-the-ambassadors-to-belgium-of-the-uk--germany--italy-and-spain 31 De Standaard (2018) 'Rafale? Wat is de betrouwbaarheid van België dan nog?'.

http://www.standaard.be/cnt/dmf20180627_03586491

³² Ibid

³³ Defense-Aerospace (2017) 'Boeing Statement on Not Competing for Belgium Fighter Replacement'. http://www.defense-aerospace.com/articlesview/release/3/183008/%2A%2A%2Aboeing-pulls-out-of-belgian-fighter-competition-%3Ci%3E%28updated%29%3C%C2%A7i%3E.html

³⁴ De Morgen (2017) 'Geen wedijver op gelijk speelveld'.

AMIDST ALL THE TALK ABOUT A MORE SOLIDARY AND AUTONOMOUS 'EUROPEAN DEFENCE', THE F-16'S REPLACEMENT IN BELGIUM PROVES THAT NATIONAL INTERESTS STILL WEIGH HEAVILY IN THIS ARENA.

GRIPEN E

The Gripen is built by Saab and represented by the Swedish Defence Material Administration. In July 2017, Sweden left the competition: "In their Request for Government Proposal, Belgium is also seeking extensive operational support from the delivering nation. This would require a Swedish foreign policy and political mandate that does not exist today. Therefore Sweden and the FMV choose not to submit an answer to the Belgian request" ³⁵. Some have interpreted this statement as a reference to a potential future demand by Belgium to make it possible for the new fighters to carry nuclear weapons ³⁶, even if the government has stressed that this 'dual capacity' is not part of the current procurement process.

³⁵ FMV (2017) Sweden declines Belgian RFGP for new fighter procurement.

https://www.fmv.se/en/News-and-media/In-focus/Sweden-declines-Belgian-RFGP-for-new-fighter-procurement/. 36 De Standaard (2018) Waar de F-16-zaak echt om draait: kernbommen.

http://www.standaard.be/cnt/dmf20180403_03444616

TURBULENCE AHEAD: POLITICAL UPHEAVALS

In March 2018, opposition party sp.a (Flemish Social Democrats) revealed two reports by Lockheed Martin that had been leaked by a military source dubbed 'Colonel X' in the media. According to sp.a, the documents proved that the F-16 could remain operational for another six years. Up until that point, Minister Vandeput had repeatedly said that extending the F-16's lifespan was not possible because the fleet was limited to 8 000 flying hours. Colonel X had tried to urge his superiors via email to inform the Minister and Chief of Defence of these reports ('force structure projections'), but X claimed that he was told to back off. Minister Vandeput at first seemed off balance. He reacted harshly on television, calling it "at least a lapse of judgement" and even "if someone has intervened actively to withhold information, [...] manipulation" ³⁷. He said he was not aware of the reports' existence, and refused to comment on a possible life extension of the F-16³⁸.

Several questions had arisen, such as: could the F-16 fly longer than originally assumed? Had military officers kept information from politicians? The opposition demanded that the Minister of Defence step down and that the procurement procedure be put on halt, which the government rejected. The Federal Parliament decided to organise a number of hearings to collect all relevant information and hear 27 people connected to the replacement. The government ordered an internal investigation by the armed forces and an external audit by a governmental investigation office. Several military officers were suspended. The parliamentary hearings sparked a lot of media attention. Members from the opposition blamed the military staff for organising "a putsch", with one member fiercely blaming the Army for withholding information from politicians with the mindset of having "a state within a state" ³⁹.

The armed forces' internal investigation concluded, among other things, that assessing the meaning and substance of the memos required vast technical knowledge (the officer in charge thought the memos did not contain new information), and that there had been no conscious effort to withhold information. However, communication channels to discuss such information had not been used sufficiently often. The Federal Internal Audit found that Lockheed Martin's memos and the flow of information had been managed properly and did not impact the procurement process.⁴⁰

Colonel X, by now known as Lieutenant-Colonel Rudi Decrop, testified in parliament. He said that the Lockheed Martin memos were very important and proof that Belgium could save 900 million euros by extending the F-16's service life by six years, be it that the documents solely focus on metal fatigue, not e.g. the engines or future operational relevance⁴¹. Later, several other officers contradicted Decrop's assertions. They did not refute the fact that the fleet could theoretically perform more airtime, but only with a lot of conditions, and cited for example the Americans' warning about "significant investment and time in the program introducing additional risk into the [Belgian Air Force's] operation and maintenance procedures"⁴². The memos were meant to be used to manage the fleet to reach at best 8000 flying hours (already a serious challenge), not as a tool to extend their service life. ACCaP leader Harold Van Pee also flat-out contradicted Decrop's calculations.

³⁷ VRT Nieuws (2018) 'Komt positie van Vandeput in gevaar? Ik wil mijn verantwoordelijkheid niet ontvluchten'. https://www.vrt.be/vrtnws/nl/2018/03/20/vandeput-terzake/

³⁸ VRT Nieuws (2018) 'Lockheed Martin says Belgian F-16s can fly for another 6 years'.

https://www.vrt.be/vrtnws/en/2018/03/20/lockheed_martin_saysbelgianf-16scanflyforanother6years-1-3166109/

³⁹ Belgian Chamber of Representatives (2018) Hearing with the Material Resources agency on the replacement of the F-16 fighter jets. http://www.dekamer.be/doc/CCRI/pdf/54/ic871.pdf, p. 45.

⁴⁰ Belgian Chamber of Representatives (2018) Hearing with the Minister of Defence on the steps taken in the F-16 dossier. http://www.dekamer.be/doc/CCRI/pdf/54/ic862.pdf.

⁴¹ Belgian Chamber of Representatives (2018) Hearing with the Material Resources agency on the replacement of the F-16 fighter jets. http://www.dekamer.be/doc/CCRI/pdf/54/ic871.pdf

⁴² Ibid, p. 58

Frederik Vansina, Commander of the Belgian Air Force, explained how the F-16 has been an excellent fighter jet. At one point, after a mid-life update in the '90s, it was one of the kings of the sky. In the future, Belgium could still police its own national airspace with the F-16. However, if the country wants to do more (a political choice), for example, protect the Baltics, then this type of jet will not suffice. According to Vansina, Russia has created an environment which increasingly makes the F-16 outdated:

"[The Russians also have what in NATO-speak is called Anti Access Area Denial, A2/AD. The Americans call it contested areas. They have now in Crimea, above Moermansk, Latakia, in Kaliningrad installed forts of ground-air rockets, linked to radars, linked to jammers, electronic warfare, linked to gpsjammers, linked to hyper-modern fighter jets that are showing up more and more, type Soechoj-30 and Soechoj-35. [...] Our people have operated above Syria, an area admittedly less covered by this integrated air defence, but where it was very clear [...] that the only reason why we with our F-16 today [...] could operate [...] was that the owner of this zone, in casu Russia, agreed that the coalition did so. [Within less than a decade] we with the F-16 will not be deployable anymore vis-à-vis an air defence system of this kind. [...] I can assure you that if one of our pilots has to intercept a Soechoj-35 with their F-16 [...] just north of NATO's Air Defense Identification Zone of the Baltic States, then this is like walking in the forest and hearing a very scary dog growl, while his owner says the dog will not do something. This is the same. This is a jet that will outclass ours in all domains, even if our pilots are world class: in maneuverability, radar strength, the radar's possibilities for electronic attacks and in armaments. We have pretty much zero chance against this. That is simply the reality of today.]"⁴³

The American speakers, from the US Air Force and Lockheed Martin, downplayed the importance of Lockheed Martin's memos, as they are only one part of a complex puzzle: "[...] the study was never intended to go to the audience that it has gone to today. When we wrote it, we wrote it with the intent that another engineer would be reading it". Firstly, they emphasised that the US has retired their Block-15 F-16s and only operates younger versions, so any comparison to the Belgian Block-15 F-16s is pretty useless. Secondly, for the Belgian fleet, there is only limited historical data for a part of the fleet (16 – 20%), which makes predictions about future usage spotty: how 'tired' is each individual fighter jet, as each plane has a unique usage history? The Air Force could start measuring these data to examine if life extension is possible, but carrying out these measurements would require technical modifications. The results would be available by 2023, with no guarantee of a positive result. A Lockheed Martin speaker remarked that modifying one component impacts others, e.g. changing the radar means upgrading the environmental control systems. The US Air Force concluded: "To upgrade the F-16 with just a few years, even if you can get a few more years out of it, to me, would require a significant amount of investment for very little return on your investment in those years and operational environments that it could operate in."⁴⁴

In a later hearing, Harold Van Pee of the ACCaP also argued against postponing the replacement, since at that stage the F-35 would be the only candidate: ["The most important thing is that, at this moment, there is real competition. [...] If we postpone all this a couple of years, there is a strong chance that there no longer would be any competition. This would completely change everything, especially for the Belgian industry. As you know, Europe makes it quite difficult for us to demand economic returns. It is almost impossible to demand this outright. It has to come automatically. They have to offer it themselves. They will only do it if there is competition. This will have an important effect on economic returns]."⁴⁵ Finally, the Minister of Defence presented calculations that extending the service life of the F-16s by six additional years instead of replacing them as planned would cost 271 million euros more⁴⁶.

⁴³ Belgian Chamber of Representatives (2018) Hearing with (former) Defence representatives on the replacement of the F-16 fighter jets. https://www.dekamer.be/doc/CCRI/pdf/54/ic876.pdf, p. 43–45. (translated by author).

⁴⁴ Belgian Chamber of Representatives (2018) Hearing with representatives of the US Air Force and Lockheed Martin on the replacement of the F-16 fighter jets. https://www.dekamer.be/doc/CCRI/html/54/ic872x.html

^{45 (}translated by author)

⁴⁶ The Brussels Times (2018) 'Defence Minister: No new study on F-16s lifespan.'

http://www.brusselstimes.com/belgium/11754/defence-minister-no-new-study-on-lifespan-f-16s

BUY EUROPEAN AND BYE AMERICA?

Military procurements are often a tricky business in which political, military and industrial interests intersect. In the 1990s, Belgium was rocked by the 'Agusta Scandal'⁴⁷, when several senior officials (including NATO Secretary General Willy Claes⁴⁸) were forced to resign after bribes and money-laundering were revealed in connection with the procurement of 46 Italian military helicopters. Since then, Agusta's ghost looms large over any major procurement dossier. Still, compared to, for example, the replacement of the Belgian frigates, the replacement of the Belgian F-16 fleet has come under intense media and political scrutiny. The doubts and discussions concerning a possible life extension of the F-16 strongly added to the mediatisation and politicisation. The Chief of Defence Marc Compernol has been frustrated by these events and the media's reporting⁴⁹, telling parliament at one point: "[I believe one shouldn't believe everything one can read in the newspapers]" ⁵⁰. Likewise, the political world has been frustrated by the revelations and events, concluding, for example, that these troubles could have been avoided if the military had more actively shared its information.

The Belgian government has organised a procurement competition, on the one hand to find the best fighter jet in terms of performance and costs, on the other hand in an attempt to de-politicise the choice as much as possible. Nevertheless, because the decision will be based on technical, economic and political elements, it is by no means a mere simple 'adding up the numbers'. Issues like a possible Brexit and the aggressive trade measures by President Trump's government are also at play.

Amid all this, the candidates have engaged in intense lobbying campaigns. Here, the links and mutual interests between foreign governments (with one of whom Belgium will conclude an agreement) and aviation industries have become very visible. Especially the Rafale has highlighted France's strong pressure on Belgium. Dassault, Lockheed Martin and the Eurofighter consortium have all concluded 'Memoranda of Understanding' with numerous Belgian companies to invest in future industrial activities and jobs, but these deals are of course only valid if their aircraft is chosen. Remarkably, Belgian industry itself has been sceptical about the economic benefits, since – in contrast to the F-16 – Belgium is not involved in the jets' manufacture and development. In addition, European rules concerning public procurements legally exclude direct economic returns⁵¹.

Apart from finding an F-16 replacement, the government is very interested in the potential future European fighter jet as planned by France and Germany. Historically, Belgium has always been a driving force towards a stronger and more integrated European defence. Participation in such a European project could therefore be very important, but one cannot blame Belgium for being cautious. Indeed, as Calcara⁵² remarks: "(...) protectionism, oligopolistic market straining and primary resource to domestic suppliers have prevented a more structured defence-industrial cooperation. In other words, defence-industrial relations among European countries are characterised by both cooperation and conflict". This can be illustrated by the French-German cooperation on the future fighter jet on the one hand, and the current Typhoon-Rafale competition on the other. Amidst all the talk about a more solidary and autonomous 'European defence', the F-16's replacement in Belgium proves that national interests still weigh heavily in this arena.

⁴⁷ BBC (1998) 'World: Europe Background: The Agusta affair'. http://news.bbc.co.uk/2/hi/europe/241345.stm

⁴⁸ The New York Times (1995) 'NATO Secretary General Questioned in Belgian Scandal'.

https://www.nytimes.com/1995/03/01/world/nato-secretary-general-questioned-in-belgian-scandal.html

⁴⁹ Knack (2018) 'Generaal Marc Compernol: "De Rafale doet niet mee, als het aan Defensie ligt". http://www.knack.be/nieuws/belgie/generaalmarc-compernol-de-rafale-doet-niet-mee-als-het-aan-defensie-ligt/article-longread-1171677.html

⁵⁰ Belgian Chamber of Representatives (2018) Hearing on the replacement of the F-16 fighter jets – internal and external audit and study F-16. http://www.dekamer.be/doc/CCRI/pdf/54/ic866.pdf (quote translated by author).

⁵¹ VRT Nieuws (2018) Technologiesector gelooft niet dat België miljardencompensaties krijgt bij aankoop gevechtsvliegtuigen."

https://www.vrt.be/vrtnws/nl/2018/02/12/technologiesector-gelooft-niet-dat-belgie-miljardencompensaties-/

⁵² Calcara, A. (2018) 'Cooperation and conflict in the European defence-industrial field: the role of relative gains'. Defence Studies, 18:2, p. 1–24.

CONCLUSION

European states are too small to sustain an autonomous defence industry in today's world. The ever- rising costs of high-tech military equipment as well as the need to spend taxpayers' money efficiently have driven states to cooperate to an extent unparalleled in history. However, the European defence market is still highly fragmented and thus not efficient enough for Europe to meet its long-term ambition to be strategically autonomous. What does it need to solve the puzzle? In this volume, the authors provide some pieces of the puzzle for further discussion.

As Michael Kluth observes, there is a general trend for more cooperation on the defence market. However, there are significant fluctuations across time periods and domains, as demonstrated by the recent recess of multinational naval projects. More cooperation in the future is not guaranteed and might also depend on the performance of Eurosceptics in some EU member states. Collaboration on the defence market is linked to the process of European integration as a whole.

Ben Jones points out that the exponentially increasing costs of weaponry are just one factor among others that encourage cooperation. A shared strategic vision is an equally important precondition for multinational defence projects. When states disagree on the nature of the threat, they are unlikely to demand or buy the same equipment. A common security strategy is therefore an indispensable piece of the puzzle.

Eve Roehrig finds that this linking piece is also missing in the core couple of European defence, France, that traditionally looks South, and Germany that usually looks East. Both countries' cooperation needs to become strategic rather than opportunist. If they succeed, their projects might possibly spill over into other EU member states.

András Radnóti agrees that Central and Eastern European countries will be fellow travellers in French and German initiatives. However, he argues that in the near future they will rather continue to buy American equipment, which is an often underestimated but important contribution to European security.

Mark Feenstra takes a closer look at the Dutch naval industry and points to the necessity to sell frigates and corvettes overseas if projects are to be profitable. However, when cooperating multinationally, companies often face uncertainty over allowances as to where their products may be exported. Common European arms export rules would encourage cross-border projects and provide another piece of the puzzle.

Laurens Bynens advised his party in parliament during the selection process of a new fighter jet for the Belgian Air Force. Laurens' account shows how limited the bargaining power of Belgium was. Large EU member states like France and Germany will have to take their smaller partners more seriously if they want to encourage them to join European projects rather than continue to buy American.

The European defence market puzzle will never be completely solved. Events such as the looming departure of the United Kingdom from the European Union will potentially blow out some pieces and create new divides. Nevertheless, the pieces provided in this volume hopefully help to set up a more complete, more efficient and more collaborative picture. If European states succeeded in closer cooperation on the defence market, a traditional bastion of national sovereignty, it would also be a powerful confirmation of the European idea.

Sebastian Vagt Friedrich Naumann Foundation for Freedom

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