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Executive Summary

Defence procurement, frequently thought of as an exclusively national affair, has long since ceased to be that. European defence procurement has been developing for several decades, and the EU's role in this is increasing. It is entirely likely that the next 20 years will see a faster pace of integration among EU member states of their defence procurement policies. Indeed, it might be expected that the EU becomes the key institution forming and shaping Union defence, under control of the European Council. Shared sovereignty is an essential element of this, as both suppliers and consumers (governments) realize that modern defence technology is too complex and expensive, and their own national demand is too small economically and efficiently to produce complex defence products. Cooperative arrangements, that started in the aerospace sector will increasingly spread to land and sea applications as well. EU member states will benefit from closer cooperation with each other, under the auspices of the EU in general, and through the European Defence Agency in particular.

This paper has six topics, including:

- Analysis of the European Defence Agency (EDA) and its convergence with OCCAR (Organization for Joint Armament Cooperation) as the building blocks for further EU led defence procurement integration. This process also underpins the Common Security and Defence Policy (CSDP) led by the High Representative of Foreign Affairs for the European Union
- A summary of recent legal changes in the rules on EU public

procurement as they affect defence procurement. These are encapsulated in the EU directive EU/2009/81 and subsequent documents. These increasingly put defence purchases on the same legal footing as other forms of public procurement, emphasizing transparency and competitive bidding

- An overview of existing EU based defence projects, and an analysis of the Letter of Intent countries. This shows the considerable inter-dependence between the main European arms suppliers who are all EU members.
- The commercial response: analysis of how suppliers have formed joint ventures, and created EU based arms companies no longer owing exclusive allegiance to a single member state. Indeed, their entire *raison d'être* is to operate within the common EU defence market as an European supplier – as well as exporting to other countries outside of the EU. Companies falling into this category include Airbus, MBDA, Eurocopter and Augusta/Westland.
- Consideration of how US suppliers are frequently more willing to take opportunities offered within the EU than “national” producers are. While direct sales of finished US equipment are not great, US producers are very active in supplying critical components to many EU based defence programmes. And this, despite ITAR restrictions preventing the use of sensitive US technology outside of America.
- And finally an assessment of the position of the UK as both a supplier and a consumer of weapons platforms. As a consumer, the UK government will be keen to cooperate with others in order to reduce costs. This would become materially more difficult if the UK were to leave the EU. Then the UK has a choice of paying more for nationally based “autarkic” production, or in becoming more dependent on US suppliers – with a corresponding loss of sovereignty. Outside the EU, the chances that the UK would become a sub contractor to others will increase, while our abilities to design our own products will diminish. Less cooperation will also tend to drive up the costs and commercial risks involved with the production of new systems – as many other smaller countries have already experienced.

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Introduction

“The Admiralty has demanded six, the Treasury said we could only have four so we compromised on eight.”

Winston Churchill

Defence procurement has always been a combination of military, political, and economic factors – with a bit of luck thrown in for good measures. As the quotation from Churchill shows, what comes out of the process is not always what was intended when the process began. And events also influence and alter the shape of the weapons purchased, their number, application, and who makes them.

The European continent has a terrible history with respect to arms and wars. It has been the location of not just one, but of two world wars. A lot of the effort involved with the Cold War was to prevent another outbreak of hostilities in Europe. And any further outbreak of hostilities between, say, NATO and Russia could yet result in the incineration of the continent. Defence policy matters.

Today, as a result of these earlier conflicts, lessons have been learnt. European defence is now largely organized within alliances, particularly NATO, established in 1949, with NATO’s main orientation being, to provide collective defence against an external enemy. It involves the sharing of sovereignty, as well as a commitment to mutual self defence through Chapter 5 of the Treaty of Washington¹. NATO has a joint command structure, and member states commit varying proportions of their forces to it.

Shortly after NATO was founded, another European institution was established. This was the formation, in 1951, of the European Coal and Steel Community (ECSC). One of the aims of this organization was to prevent future wars between the European signatories, including France, Germany, Belgium, Netherlands, Italy and Luxemburg. And this too is a recurring theme explaining much of the subsequent development of the EU. To maintain peaceful, harmonious and beneficial relations between member states as a means of preventing and eliminating wars.

The ECSC was set up on an avowedly supra-national basis. The members agreed to pool their resources, in the sense of allowing them to compete with each other in a defined common market for coal and steel products – thus avoiding competition for scarce resources. And it was decided to opt for a supra-national organizational form in order to prevent old national rivalries from re-asserting themselves, which had this occurred (it didn’t), would have hindered future cooperation and moves towards closer integration between the signatories. The ECSC involved the establishment of additional organizations and was run by four institutions: a High Authority composed of independent appointees, a Common Assembly composed of national parliamentarians, a Special Council composed of nation ministers, and a Court of Justice. These organizations became prototypes for institutions more familiar to us today, namely, the European Commission, European Parliament, the European Council, and the European Court of Justice².

¹ Important to note that it was preceded by the Treaty of Brussels 1948 that only involved some European states, including the UK. It later mutated into the Western European Union (WEU).

² Jean Monnet advocated the establishment of an European Defence Community as a short cut to an European Union, a plan ultimately rejected by France.

With the formation of the European Economic Community, subsequently known as the European Union in 1958, conditions were created for the abolition of internal tariffs, and for the creation of a single European market. This process turned out to be lengthy, and is replete with exceptions and exemptions. As with the ECSC, one of the main features of the Common market is to bind the member states more closely together with a web of commercial and financial contacts. The EU remains committed to “ever closer union” between the peoples and the member states of the Union³.

1. EU Defence Capabilities, the European Defence Agency and OCCAR: A growing convergence.

Background

Defence has long since ceased to be the exclusive prerogative of individual member states. Defence in the European Treaties is seen as being an area of shared competence between member states and the Union. In the Treaty of Lisbon, article 42(7) introduced the commitment to mutual defence for all EU member states – similar in scope to Chapter 5 of the NATO agreement. And this has been reinforced by article 222 where member states have agreed to help each other against terrorist attacks.

This gradual approach towards a more integrated EU foreign policy, as well as a Common Security and Defence policy (CSDP) has been accompanied by further measures to ensure that defence procurement by member states also conforms with broader principles of the common internal market. There has been a problem that member states were too inclined to use their “national security” exemptions to bypass, undermine or negate the workings of the internal market to secure national economic advantage.

The use of these national security exemptions led to abuses in the area of defence procurement, which is part of the broader issue of public sector procurement. Public procurement is an important area of economic activity and it accounts for between 20 and 25% of EU GDP depending on the year, or 1/5th of all purchases. It is clearly important that these transactions are conducted on a fair and transparent basis. Member states have now agreed to changes in the rules affecting defence procurement.

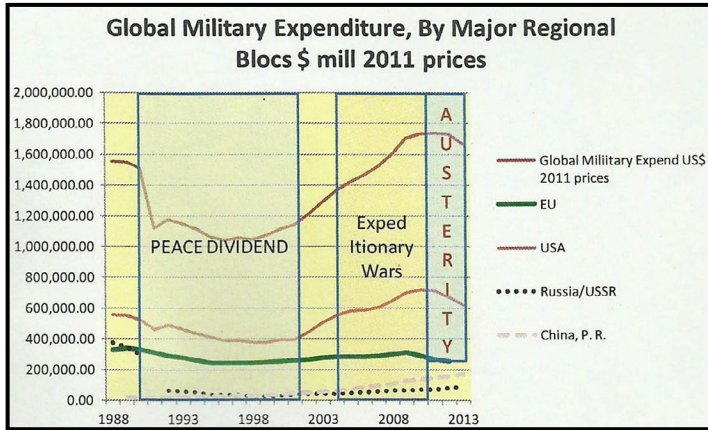
Yet for all that, the EU defence market remains highly fragmented, with 28 different buyers, unlike the US that has only one. Collectively, the EU member states are the second largest spenders on defence globally, after the USA. Yet, compared to the US, European governments get rather poor value for money. There are large individual variations in the size of each member states’ military, and in their military capability and budgets.

Chart 1 shows how defence spending has changed since the ending of the Cold War. The EU remains the second highest spending area after the USA. Expenditures are more stable than in the US, and did not rise by as much during the period of the “expeditionary wars” in Iraq and Afghanistan. The EU’s position is being challenged by China, who on current trends might overtake EU defence spending in the foreseeable future.

³ Stated in all the major EU Treaties from Rome to Lisbon, and agreed by all member states including the UK. The UK has recently negotiated an opt out.

Chart 1:

Global Military Spending 1988 to 2013 (2011 prices)

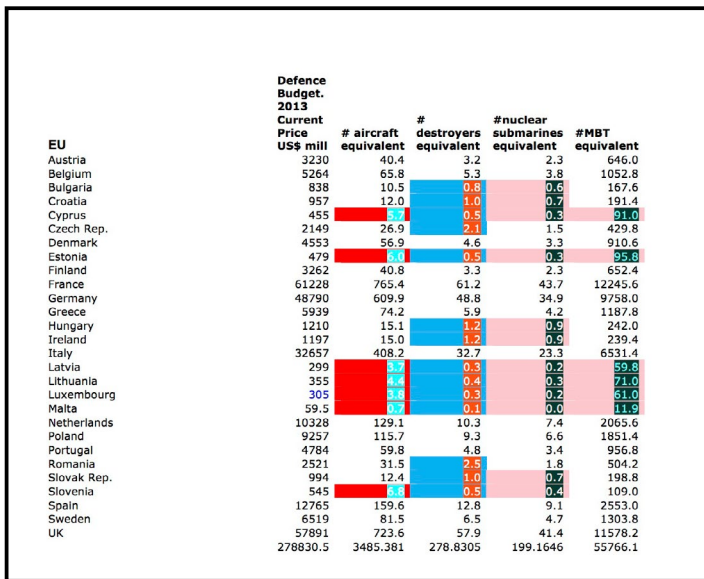


Source: SIPRI & author's calculations

When EU defence spending is examined in more detail, the situation is less satisfactory. There are great variations in the level and quality of defence spending across the Union. And the 28 member states have varying degrees of defence "credibility" as a result.

This can be seen in chart 2 below. Each member state's annual defence budget is shown, which is then converted into an equivalent number of different types of military units.

Chart 2: EU Defence Spending



Note, the figures in columns 2 to 4 show the number of units of each piece of equipment a country could afford if their entire defence budget was hypothetically spent solely on the defence equipment in question

Source: SIPRI and authors calculations

Four items of equipment have been chosen :

- A "typical" fighter/ground support fixed wing aircraft such as the Typhoon, Rafale, F-35, or Gripen
- A "typical" surface warship, such as the Type 45 destroyer (UK)

- A "typical" SSN nuclear submarine of the Astute/Barracuda/Virginia class,
- And finally, the cost of a Main Battle Tank (MBT) – estimated around Israeli models, since no MBTs are currently being produced in the EU⁴.

Minimum deterrence equipment levels have been defined as those that constitute a minimum capability to intervene. These are arbitrarily defined as either 10 aircraft, or 3 surface warships, or 1 nuclear submarine, or 100 MBTs. The shaded/coloured areas show those EU member states whose current defence posture is "incredible" in terms of possessing sufficient equipment to deter enemies, or to be able to effectively intervene elsewhere, even within an existing military alliance such as NATO.

Chart 2 shows that it is the smaller EU member states clearly have a difficulty in providing themselves, individually, with an effective defence stance. In the past this has always provided sources of instability in Europe, and a temptation for others to attack and conquer them.

Chart 3

	Defence Budget. 2013 Current Price US\$ mill	Equivalent # aircraft	Equivalent # destroyers	Equivalent #nuclear submarines	Equivalent #MBT
MAX EU Member State	61228	765	61.	44	12,245
MIN EU Member State	59	0.7	0.1	0.0	12
MEDIAN EU Member State	2875	36	3	2	575
EU total	278,831	3,485	279	199	55766
# Countries falling below critical defence threshold		7	14	12	6

Chart 3 shows the very large disparities between the largest and smallest EU member states in terms of their defence spending, and feasible equipment levels achievable under these arbitrary conditions. As expected, the majority of the low military spenders are also the smaller EU member states, particularly those in the Baltic region, and some of the smaller Mediterranean island member states too. More surprising are the relatively low levels achieved in Hungary, Slovenia, and the Czech Republic⁵. While many of the land locked nations don't need expensive naval forces, if the critical minimum level of aircraft was raised to 13 or 14, then nearly half of the member states would be considered as having inadequate defences, or around half of all member states⁶.

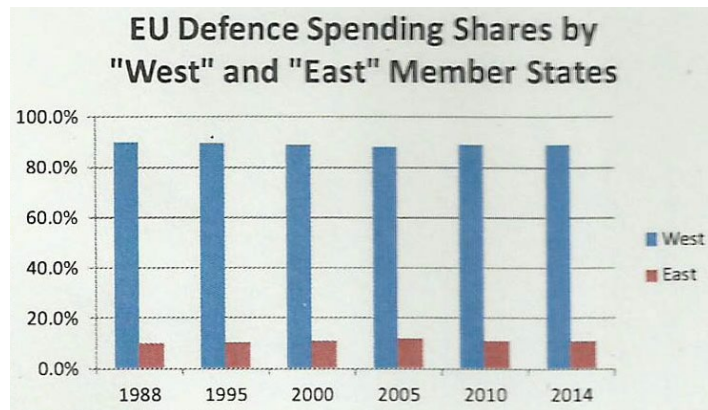
⁴ Other types of armoured vehicles continue to be produced in the EU, including Fighting Armoured Vehicles (neo tanks), and Armoured Personnel Carriers, more lightly armed.

⁵ Similar discrepancies in the size of states in the USA can be found. California has a population of over 30 million, and Wyoming a population around half a million, similar to Germany (80 million and Malta, 300 thousand). There is only one armed force in the US though.

⁶ There are also concerns about the quality of military equipment used by the smaller EU states, some of which is now old and due for retirement.

Chart 4.

Major proportion of EU defence spending comes from Western Member States



Source: SIPR

A further indication of the difference in the size of defence spending within the EU can be seen in the difference between West and Eastern Europe shown in chart 4. The Eastern member states spend the equivalent of around 10% of total EU defence outlays

The EU has in some ways been too successful, since its immediate neighbourhood has remained relatively quiet, making it easier for EU/NATO states to economize and reduce defence spending particularly in the light of post 2008 austerity. The concomitant of this is that the larger member states have obligations towards the smaller EU member states, as reflected in the Mutual Defence clause (42.7) of the Treaty of Lisbon.

These performance differences are troubling for another reason, in that since national defence capabilities are so uneven, no guarantee of an effective defence policy can be made solely on the basis of national capabilities. Something is needed at the Union level to ensure a consistency of capability to provide a plausible, union wide defence. And as the example of the Iraq war shows, there is no longer a guarantee that EU and NATO interests are identical.⁷ The Council of Ministers decided to develop a Common Security and Defence Policy (CSDP) as a response to this need.⁸ The main EU institution involved is the newly established High Representative of Foreign Affairs. And it aims to collect, collate, and agree common positions to be adopted by the EU after consultation with the member states. The EU, backed and authorized by the European Council, has also decided to provide further support for a European Defence and Technological Base (EDTIB).

There are two ways in which this is being achieved. The first is through an inter-governmental initiative, set up in 1998 called OCCAR, and the second is through the establishment of the European Defence Agency (EDA).

OCCAR. (Organisation Conjointe de Cooperationen matiere d'Armement)

OCCAR, known in English as the Organization for Joint Armament Cooperation, was established in 1998 by France, Germany, Italy the UK, and has subsequently been joined by Spain. This is an inter-governmental cooperation, and thus lies outside of the EU.

⁷ This is also understood with the Berlin Plus agreement, where EU forces can use NATO facilities to conduct EU operations, in case NATO is not in agreement.

⁸ Bar Denmark, who has an opt out

OCCAR is involved with most of the important pan-EU combined defence projects, and therefore is involved in mobilizing large and real resources towards the joint development and manufacture of new weapons systems. While this arrangement is not specific to the EU, there is a close overlap between the OCCAR members and the EU.

OCCAR represents an important step forward in determining the form the contracts should take. The deficiencies and abuses taking place in the area of public defence procurement had led to a situation where participants followed the principle of "juste retour". This meant that if a country contributed x % to the programme, it expected its national suppliers to get x% of the value of contracts awarded. It was recognized by the initial OCCAR members that this was perpetuating an inefficient and fragmented procurement process. According to article 25 bids are offered on the basis of competitiveness and not on the financial contributions of the participants. And, although this requires unanimity, article 24 states that contractors from outside of OCCAR can also be asked to bid

OCCAR programmes differ from others in that there is supposed to be a disconnect between the value of the financial contribution made to the programme by the government, in terms of purchasing the finished product, and in the values of the contracts being awarded to the various "national" producers.

OCCAR represents an effort by the defence consumers to obtain goods on more favourable terms. And it also helps prevent individual members from individually buying the same product from a single producer on different terms.

The extent and scale of OCCAR's operations are shown below in the section on combined European projects.

The second institution designed to focus EU defence efforts is the European Defence Agency (EDA).

European Defence Agency (EDA)

The EDA was set up in set up in 2004, and represents an outcome of a long series of plans to bring closer integration in defence policy and procurement across the EU. This includes the European Armaments Agency in 1991, and the Independent European Programme Group from 1976. The EDA has a budget of €30 million (US\$ 34 million), and a staff of 300. This is minute when compared with those of the member states. The UK alone has 150,900 military, and 53,310 civilian personnel (total 204,210), and a budget of nearly US\$ 58 billion

The EDA's mission is

"...to support the member states and the council in their effort to improve European Security and Defence capabilities in the field of crisis management and to sustain the European Security and Defence Policy as it stands now and develops in the future"

The EDA's specific goals are to:

- Develop defence capabilities
- Promote armaments cooperation
- Create a competitive European Defence equipment market and

strengthen the European Defence Technology and Industry Base

- Act as a catalyst to promote and facilitate new military collaboration

At the time of its establishment, two goals were suggested. France wanted the EDA to have a role on the armaments side. The UK wanted the EDA to concentrate more on the role of developing new capabilities. The UK was hoping that the EDA might fulfil a role as an European DARPA, DARPA being the US agency called the Defence Advanced Research Projects, which distributes funding for Research and Technology development. As can be appreciated, DARPA's funding runs in US\$ billions, while that of the EDA remains small.

So how is the EDA starting to leave a footprint on member state defence procurement decisions? Here are some of its achievements so far:

It issued its first R&T contract in 2005 to Patria, a Finnish prime contractor. In 2007 it issued a €13 million R&T contract for force protection (in the light of the Afghanistan situation). In 2008 it disbursed €15 million for "Disruptive Defence Technologies". It has encouraged various joint training exercises, and has been working more closely with OCCAR. It drew up its first framework agreement with industry on satellites in 2012.

In 2014 the EDA set up its first framework agreement on the distribution of Saab Carl Gustav Anti Tank A4 ammunition to the Baltic states, Poland and the Czech Republic. In the same year it took over the administrative procurement processes for the EUROR forces for air to ground missiles in Bosnia Herzegovina.

The EDA has also looked at dual use projects where there are both civilian and military applications. Interest has also been shown in supporting and encouraging regional clusters of technical development for the defence industry. This in turn suggests that there may be a bridge between funding regional clusters, and gaining access to EU regional structural funds, to supplement funding from local ministries of defence⁹.

The EDA can act as one centre for coordination and in bringing interested parties together to achieve better outcomes within the Union. If member states can be encouraged to pull in the same direction, possibly sweetened with some EU funding, then the EDA may be able to exert leverage over member states, disproportionate to the resources it directly controls.

Currently, the EDA tends to fill in the cracks of those areas where no one else has a strong interest, and where the benefits of an EU collective approach far outweigh any one or other member state "throwing its weight" around in order to secure some apparent advantage over others.

While this may not attract much attention or glamour, it creates an emerging EU presence in defence. It provides reference points to which the MoDs in member states can point, and if necessary gain some support from, or try to influence the EDA in their favour. As is often the case with the EU, this piece by piece approach slowly gains momentum, and by acting as a facilitator assures that the EU dimension is remembered in day to day business decisions affecting EU defence. It also provides some kind of executive arm for the High Representative to exercise some influence in member state defence affairs, areas that have previously been off limits to the EU.

Convergence

In July 2012, OCCAR and the EDA signed an administrative agreement that laid the ground for closer cooperation and work between the two agencies in the future. This means that it is highly likely that the planning of new future, large scale weapons platforms, will involve both OCCAR and the EDA. As such, longer term planning cooperation between the two organizations will intensify. The consideration of dual use products, and the possibility of using the EDA to tap into EU regional funding, may be attractive to some governments and contractors alike. And it is often at the early stages of a new procurement exercise that some of the largest benefits from joint undertakings can be seized. Given that the national procurement of expensive weapons systems appears to be increasingly out of reach for smaller and medium sized EU states, one can see a growing desire amongst weapons consumers to join forces and buy more standardized products. And closer cooperation, led by the EDA, can also be expected in those apparently unimportant areas that can nevertheless yield considerable benefits to collective action.

2. The legal underpinning: Public Procurement in the EU and Defence

The European Treaties (TFEU) stipulate that the formation of a common, internal market is a key aspect of the EU. The Union has, from its very beginning, primarily been cast in economic terms, accompanied by political and social harmonization. It was originally called the "Common Market", and in the UK today, many still see it primarily in this light, neglectful of broader political objectives laid out in the treaties and agreed among member states.

One of the areas of greatest concern around the development of the common market has been in the area of public procurement. European governments have tended, when left to their own devices, to favour local rather than foreign suppliers, and thus developed national "silos" within which these national champions developed their skills and built up strong local market shares, where entry from competitors was difficult to impossible.

Since government procurement forms around 20% of EU GDP, non-competitive behaviour is clearly threatening to the entire EU project. And one of the areas most immune to the forces of competition and transparency has been the defence sector. Member states, drawing on the legacy of their pre EU days, continued to support national defence procurement favouring national defence champions, to the exclusion of other suppliers. And since defence is important as an employer, as well as in R&D, this meant that much government policy within the EU was, at heart, protectionist and exclusive in nature – characteristics entirely at odds with the broader goals of the EU.

Owing to member state sensitivities, the European Treaties allowed for certain exemptions on national security grounds. And this then created an entire sub-culture of locally based suppliers designed to meet the demands of their national government. Where local contractors were not in position to meet the needs of their national government, and could not manufacture and supply complex defence equipment themselves, they would then enter into elaborate "offset" agreements that required the, probably foreign, prime contractor to buy certain materials from domestic local suppliers¹⁰.

⁹ Some might see in this, a first step towards identifying European defence funding, possibly along lines similar to Horizon 2020.

¹⁰ Such arrangements remain common outside of the EU between EU based suppliers and their host governments. The extensive arrangements between BAES and Saudi Arabia are a form of offset agreement, where the UK prime contractor is paid in oil, and is expected to build up local defence industrial capacities.

The apparently almost routine way in which member states called upon the “national security” exception to justify collusive and anti competitive behaviour became an ever greater eye sore for the Commission, the ECJ, and the Council of Ministers itself. And this has led to changes in EU defence procurement practice, likely to have far reaching effects.

EU Approach to Defence Procurement

There is great contention around how far defence comes within the remit of the EU at all. Member states jealously guard their prerogatives in this area. There are specific exemptions in the TFEU on defence that appear to allocate pride of place to the members states national interests, including articles 36, 52, 62 and 346 – the last being of particular importance. Article 346 stipulates that contracts can still be awarded for the protection of national security interest of a member state, in other words along protectionist lines.

For the EU, defence contracts fall under provisions of all public procurement contracts issued by member states, or by their agents. From a legal and commercial perspective, there is little to distinguish them from ordering medical supplies for nationalized hospitals, or tarmac for autobahns. In 2009 a relatively innocuous EU directive was passed. Developed by the European Commission and approved both by the European Council and the European Parliament this has subsequently been transposed into national law across the whole of the EU. The directive in question is 2009/81/EU. It is concerned with the the nature of public sector contracts in the defence area¹¹.

It starts by assuring member states that defence remains their sole “responsibility” (paragraph 1). Yet, as will become clear, this “responsibility” will be surrounded by more restrictions and qualifications in the future. The reason being that alongside member state concerns, there is now an agreed place for an EU defence policy that takes on board Union level interests. In paragraph 2, below, it argues:

The gradual establishment of a European defence equipment market is essential for strengthening the European Defence Technological and Industrial Base and developing the military capabilities required to implement the European Security and Defence Policy.

In other words, the EU will become the entity within which future weapons systems will develop, that will then develop Union and member state collective defence interests.. Directive 2009/81/EU affirms that defence supplies will be procured in the European Common Market, and will comply and conform with EU internal market rules on public procurement. The EU has now put this on the commercial and political agendas as elements of interest to the High Representative for EU foreign affairs.

Paragraph 3 states, inter alia,

Member States agree on the need to foster, develop and sustain a European Defence Technological and Industrial Base that is capability driven, competent and competitive. In order to achieve this objective, Member States may use different tools, in conformity with Community law, aiming at a truly European defence equipment market and a level playing field at both European and global levels.

And in paragraph 4, it states:

One prerequisite for the creation of a European defence equipment market is the establishment of an appropriate legislative framework. In the field of procurement, this involves the coordination of procedures for the award of contracts to meet the security requirements of Member States and the obligations arising from the Treaty.

The 2009/81/EU directive is a long and involved document and goes into considerable details about how different types of contracts are to be conducted within the defence procurement field, and how they will have to comply with general public procurement rules. Yes, member states retain the responsibility for defence. Their use of national security as a means of circumventing or over-riding EU procurement rules will however be more carefully monitored in future. And member states now have to account for themselves as to why they want to use this national security exemption.

In 2013, the approach was further boosted by a document entitled “Towards a more competitive and efficient defence and security sector” (European Commission, 2013) that provides further clarification, in particular around the Common Defence and Security Policy (CDSPP) that is setting goals and aspirations for future EU defence policy. In this it is aided and abetted by the European Defence Agency (established in 2004) about which more below.

The main aim of EU Commission/European Council policy is to strengthen EU defence, “**which constitutes the cornerstone of the European defence market**”¹². The EU is taking action in the following areas:

- To deepen the internal market and security through the full application of two directives, 2009/81 that moves defence procurement onto a single EU tendering and bidding platform (TED), and directive 2009/48 that greatly simplifies the licensing procedures for transferring defence equipment across the EU.
- To strengthen the competitiveness of the European Defence Technology Industry Base (EDTIB). This introduces the idea of a defence industrial policy at the European level. Within the limits set on state aids, it is a concession to those that realize that due to the close connections between defence suppliers and governments, decisions by the former clearly have implications for the latter. And for all of the Commission’s efforts, the EU is not itself a consumer of defence systems. The consumers are still the 28 member states within the EU¹³.
- To support the creation of “hybrid” technical standards that are common across the EU. The idea here is to take relevant dual use, civilian technical standards, and where possible extend them across into the military area. See below for more details
- To increase the synergies between the civilian and military sectors
- To reduce the energy consumption of EU military forces
- To assess the possibility of EU owned dual use capabilities “which may in certain areas complement national capabilities and become effective cost efficient force multipliers”. What is meant here is the EU funding of joint civil/military technologies that can then be applied and made available across the Union to all member states.

¹¹ It has the following lengthy title, which may account for its apparent innocuousness. “Coordination of procedures for the award of certain works contracts, supply contracts and service contracts by contracting authorities or entities in the fields of defence and security, and amending Directives 2004/17/EC and 2004/18/EC”

¹² EU Commission COM 2013 542 final, page 4

¹³ EU efforts to integrate the European defence market would be enhanced were the EU to become a purchaser of defence equipment. At the moment it does so by proxy, in encouraging joint, cross EU procurement programmes.

- To support R&D for the CDSP (Common Defence and Security Policy).

These, ambitious, goals, are to be implemented following an action programme.

EU Action Plan

The Commission had developed an action plan calling for **EU market competition and access rules to take priority over national rules and practices in this area**, and in the process, to try and reduce the level of fragmentation currently found in the EU defence market.

There are a number of principles that the EU regards as binding on defence contracts, and these are designed to bring procurement practice in the defence area in line with other public procurement decisions and processes.

There are repeated references to the possibility of major exemptions to the proposed processes on the grounds of essential national security interests. And the definition of these interests is up to the member states. **Although this comes with a warning that the default position in defence procurement is that not everything will be allowed as a "major exemption". These have to be established on an individual basis in front of the ECJ.**

Compliant behaviour is expected of the member state contracting authorities, in other words those organizations like the MoD, the DE&S in the UK, the DGA in France etc. And this can also be extended to member state contracting authorities at province/regional (Laender) and local levels.

The other general principles involved are:

- that defence procurement policy should not be discriminatory.
- Defence contracts should be governed by public law and be transparent.
- Offset agreements are outlawed in defence contracts between member states.
- That the EU market as a whole is the relevant unit for the local of suppliers, not just the local member state market.

Generally, EU defence procurement policy has the following aims.

1. **Market efficiency will be increased by monitoring the openness Member State arms procurement practices.**
2. **Market efficiency will be increased through demand pooling.**
3. **The Commission wants to reduce defence market distortions.** And this means tackling "persistent unfair, discriminatory practices". This specifically means that the Commission **wants to outlaw offset agreements**. As they say, "offset requirements are discriminatory which stand in contrast to both EU treaty principles and effective procurement needs, **therefore they cannot be part of the internal market for defence**" (page 6) item 2.2). The Commission's aim is to phase out offset agreements, and to withdraw any national legislation that permits them. The issue here is that offset agreements may, but

don't always involve, government to government transactions. Some offset agreements are, technically, between consenting suppliers, as seen above.

4. **Market distortions will also be reduced by pressuring member states** to reduce state aids to their local defence manufacturers. Exemptions to this under article 346 will be investigated more carefully in the future. The burden of proof will be now on the member states, and article 346 exemptions are clearly going to be challenged in the future.
5. There are some interesting exemptions around the following types of contract:
 - a. International contracts – with the US, or UN or other organizations
 - b. Purchases by NATO – not that NATO is a large purchaser in its own right
 - c. Cooperative European programmes by member states. These include R&D development programmes, as well as programmes sponsored by **the EDA**, and by **OCCAR**. This leaves a "gateway" open to continuing previous practices, within the framework of an expressly European combined defence approach
 - d. Contracts awarded outside of the EU for operational purposes. Examples such as UORs that became important during the Afghanistan NATO campaign in all the participating countries.
 - e. Contracts between governments themselves. This may turn out to be more of a spoiling factor than is generally realized, since it will encourage more complex transactions between governments, rather than between a purchaser and a supplier¹⁴.
6. **Defence markets will be improved by increasing security of supply.** This refers to the implementation of directive 2009/43 on the transfer of arms within the EU. This will involve the issuance of a single license for the transfer of arms within the EU. This license can either be on an individual, general or global basis. A single, harmonised, license therefore replaces a welter of individual national licenses for intra EU exports, that from a member state point of view have been viewed as international transactions that fall under UN supervision and reporting requirements. This has the implication that it is now much easier to export to other member states, and that there can be no intra-EU barriers to such trades and transfers. This means that the arguments about "security of supply", or the lack of it for sourcing components from other member states falls away. This allows easier access from sources within the EU, but outside of a member state. This strikes a blow at those countries, e.g. Spain, that have tried to attract inward investment from other member states to set up defence production facilities as part of a deal to win a national defence

¹⁴ A typical pattern might be government contracting agency buying from a prime supplying contractor. Under this exemption, the purchasing government would contact the supplier's government, who then acts as the counterparty. The prime contractor then effectively supplies to its local/host government, rather than to the customer directly.

order (a kind of an offset agreement). For the EU, the relevant market definition is now the combined internal market, and not that of an individual member state. The reasons for refusing a contract on security supply grounds are limited to professional misconduct by the supplier, and to proven unreliability in delivering on time. Otherwise, the default position is that any supplier can deliver to any customer across the EU without legal interruption¹⁵.

7. There are also security of supply concerns relating to the foreign ownership (ie from non EU companies) of sensitive parts of the EU defence supply chain. This is different from security of supply concerns within the EU. It is suggested that there should be an EU wide notification system if parts of a member state's defence industry are taken over by foreign non EU suppliers. Again, many details remain to be clarified

The Commission is interested in increasing internal competition within the EU defence industry using an array of other, ancillary methods of support and encouragement. And these provide an umbrella that opens up a wide range of additional supportive measures to EU member states, and will not necessarily be open to outsiders¹⁶.

These include the following initiatives:

- Developing more common, and "hybrid" standards between civil and military joint use projects. These will be voluntary, and will also respect NATO Stanag regulations.
- SMEs are to be supported, using the European Strategic Cluster Partnership, and the Enterprise Europe Network (EEN).
- The EU intends to develop other programmes to improve skills needed in the defence industry, as well as providing various R&D support programmes, including in space, such as Galileo and Copernicus.

Implications of more open competition in European Defence Procurement for CDSF

Taking these initiatives together, the CDSF is a coherent effort to push the European Defence procurement system and industry into a more cooperative and competitive mode. And seen in the long term, this has to be a good thing.

This is because of the dysfunctional nature of the current individual member state defence procurement system that leads to low production volumes and short production runs of equipment. Pooling resources within the EU brings with it the opportunity to supply more equipment, at lower prices, to more member states, and thus increase economic efficiency. As we shall see below, there are still strong tendencies within the EU towards national silos, although these have weakened over time.

This also helps to increase military efficiency, since it is less expensive to operate one common system rather than several different systems. Both NATO and the EU are interested in greater standardization of, and in raising the inter-operability of equipment. This implies that while the 28 separate armed forces will continue to exist, they will increasingly resemble each other in terms of the equipment used, and the training given.

3. EU Shared Defence Projects

There are more shared EU defence procurement projects taking place than is generally realized or understood. Yes, the EU national exemptions in letting the member states continue to determine defence, and defence procurement policy continue. On the ground though, member states have realized that there are considerable advantages in cooperating, pooling resources, and in that sense sharing defence sovereignty. Chart 5 shows the main, current extant OCCAR shared projects. The UK is a member of 3 out of the 12 projects listed

Chart 5

OCCAR Programmes	Countries Involved. EU members in CAPITALS, non EU members lower case
A400 M Transport Aircraft	B, F, D, E, UK, tur
Boxer Armoured Car	D, NL
COBRA Weapons Locating System (counter battery)	D, F, tur
ESSOR European Secure Software Defined Radio	F, I, PL, E, S, SF
FREMM Frigate Programme	F, I
FSAF and munitions for PAAMS	F, I, UK
MLSS Logistics support ship	I
MMCM Maritime mine countermeasures	F, UK
MUSIS Space components	F, I
PPA Future Warship	I
Tiger attack helicopter	F, D, E

This list forms an important part of the development of new defence platforms and systems being undertaken by EU member states, within the EU. In the next section a number of joint projects are analysed, starting with the A400M military transport.

Example of EU defence sharing and pooling: Military Transport Aircraft

For many years the military transport aircraft of choice was the C130 Hercules, made by Lockheed Martin, and produced in the US. There were several smaller EU based rivals, none of which made anything like the same impact, and were very probably loss makers for their manufacturers.

The C130s are coming to the end of their operational lives, and the US warhorse also needs some upgrading, if only to keep up with civilian avionics. A decision was made to develop the A400M, as a combined Euro military transport plane, designed to provide a superior specification to the C130, made in Europe by EADS/Airbus.

This new aircraft will form the backbone of military air transport for many European armed forces in the years to come. When faced with replacing the old Hercules "war horse", no single European government was in the position to fund a replacement without taking on a very large commercial risk, that they were generally unwilling to do. And there was another danger that several member states might push ahead with their own new aircraft, thereby guaranteeing that all would fail commercially. So in this case, the national "silo" procurement model was inappropriate to meet future military transport needs across the EU and among NATO's European members. And no successor to the C-130 was being planned in the US either.

The collaborative approach is designed to save money, and through collective purchasing by most member states, ensures that initial

¹⁵ Given the general unreliability of suppliers among prime contractors for new defence platforms, some governments might use this to protect the interests of their local suppliers – assuming of course they are more "reliable" than others – a highly doubtful proposition.

¹⁶ The role of US prime contractors is discussed below.

production volumes are at a sufficient scale to reap some economies. The alternatives would be either to continue with a high cost, fragmented national approach, or to remain reliant on US suppliers¹⁷.

The approach to broader, EU based pooling and sharing of defence resources continues through the joint leasing of several different aircraft types, such as tankers and longer range transport aircraft. Eleven EU countries lease 3 C17 Globemasters for strategic airlift duties¹⁸. This is one of the first examples where EU (not NATO, since the list includes Sweden) has succeeded in pooling resources, to achieve a better outcome than would be available to any single member state, and at a lower cost.

NH Industries NH 90 Helicopter

This was an effort to combine EU member state purchasing power around a common design of transport helicopter, what became known as the NH 90. This was built by NH Industries, a composite holding company owned by Eurocopter (including French and German interests) 62.5%, AgustaWestland, 32%, Fokker 5.5%. It was originally going to be produced at three sites, one in Germany, one in France and one in Italy, which is a fairly typical work share agreement in the defence industries, and is regarded as being both collusive and inefficient. The number of production sites was later extended to include locations in Australia, Spain and Finland, not designed to add to efficiency either. The programme was extended to include New Zealand, and Oman, who also wanted to buy the helicopters.

This was an ad hoc solution to a specific weakness shown by the participants, in needing a military transport helicopter, and in not wanting to buy US models (Black Hawk from Sikorsky). The NH 90 programme has been "successful", and 270 were delivered.

Eurofighter/Typhoon

The Eurofighter programme involves producing an interceptor jet fighter, designed to achieve air superiority in the European theatre against the then perceived threat posed by the Soviet Union. As this threat diminished, so efforts have been made to adapt the aircraft to a ground support role. The main reason for this international cooperation between member states, was the realization that none of the countries could, individually, afford to build their own aircraft without running high commercial risks. The extent of national budgets were too small to make the production of an entirely new aircraft economically feasible. All the interested parties considered that a joint project would be cheaper, and hence more sustainable

The participating countries are Germany, the UK, Italy and Spain. These national interests are represented commercially by the following prime contractors and shareholdings. DASA, Germany, 33%. DASA became part of the Airbus group. BAES, 33%, UK. The Eurofighter (Typhoon) is the company's only large military aircraft programme. There are concerns about what will happen to the production capacity after this programme ends. Alenia (a subsidiary of Finmeccanica) owns 21% and CASA in Spain, 13%. Both Italy and Spain are junior partners in the arrangement,

¹⁷ The history of post war UK aircraft production is a salutary warning of the dangers of following an exclusively national approach. Barely affordable then, it is beyond reach today, except for some of the largest aerospace corporations such as Boeing and Airbus. Airframe manufacturers are keen to lay off as much risk as they can onto their suppliers. The B 787 Dreamliner, and the Lockheed Martin F 35 Lightning being cases in point
¹⁸ The countries involved are International consortium of Bulgaria, Estonia, Finland, Hungary, Lithuania, the Netherlands, Norway, Poland, Romania, Slovenia, Sweden and USA. Source:<http://www.forsvarsmakten.se/en/about/our-mission-in-sweden-and-abroad/current-missions/hungary-heavy-airlift-wing/>

reflecting their requirements for smaller numbers of aircraft.

The Typhoon has achieved modest success in selling to other countries, and Saudia Arabia, Kuwait, Oman and Austria have bought the plane. The programme was constructed and maintained by four member states of the EU, with the UK playing a key leading role.

European Procurement Trends by Defence Domain

Aerospace has broadly become sufficiently important, and expensive virtually to rule out individual member states from pursuing their own projects. The commercial risk for the prime contractor is too high ,and the costs are now also so high for individual governments that they too quail before taking the national route. The major exception to this is, of course, the US, who can still afford to fund not just one, but several aerospace programmes. Even the US is increasingly interested in reducing risk and defraying costs, by trying to bind in possible purchasers with various work and technology share programmes. The F-35 Lightning is a good example of this¹⁹. Missiles and helicopters have both benefited from the formation of EU wide purchasing and manufacturing consortia.

Sea/marine weapons platforms still remain largely national in focus. There are exceptions though, including the FREMM and Horizon frigate programmes. There is some specialization occurring, such as ThyssenKrupp and conventional submarines; and there is some sharing of designs occurring, such as between DCNS (France) and Navantia (Spain). Naval shipbuilding remains curiously parochial, and has thus far failed to benefit from moves towards greater EU integration. And the nuclear submarine programmes run by DCNS and BAES are not internationally traded.

Land weapons systems are a mixture. In the past they tended to follow national silo models. Today, the costs for individual programmes have risen. And gratifyingly, EU rules about open bidding are also playing a role, as are price conscious procurement agencies. Recently Nexter (state owned (France)) merged with Krauss Maffei Wegman (KMW, privately owned, Germany)), the producer of the Leopard tank, merged. Future armoured vehicles from this company will be European rather than nationally based. It is probably at this level that the open EU market is having the strongest influence on purchasing decisions.

Behind the Scenes: National purchasing inter-dependencies

There is a great deal more trade taking place in the EU between member states. Large prime and tier 2 contractors have largely broken out of the "national" silos, and routinely trade across borders. On some occasions they compete, and on other occasions they combine with each other to win procurement orders. This differs substantially from the national silo model, and shows that sovereignty sharing and pooling are becoming the main way of conducting business in the EU defence sector.

Chart 6: Suppliers by origin, ordinal ranking by number of references²⁰.

Purchasing Country	Supplying Country ----->						
	USA	UK	Germany	Italy	Spain	France	Europe
UK	1	2	5	6	0	3	4
Germany	2	5	1	6	17	3	4
Italy	1	5	4	2	16	3	7
Spain	1	4	3	6	5	2	8
France	2	3	4	5	0	1	

¹⁹ The F-22 Raptor was also discontinued as costs became too high even for the US government.
²⁰ Incomplete data on contract values and quantities makes it difficult to get a more accurate picture of the relative importance of different national suppliers.

Chart 6 shows the ranking of numbers of suppliers from a source country – row headings, to the destination, or purchasing country, left hand column headings. The listing are made up of the number of observations of prime, secondary and tertiary contractors in our proprietary database

Thus the top left cell says that there were more references to US suppliers to the UK than from any other country, exceeding even the number of UK based suppliers.

Following on from this, the number of suppliers to the UK from France are ranked 3rd, and suppliers from European defined companies (see below) are ranked 4th in number. There were fewer suppliers to the UK from Germany and Italy, and none at all from Spain²¹.

The strength of a national silo is measured on the diagonal (the grey cells). We might expect there would be more mentions of national suppliers than those from other countries, and we would expect the diagonals to be ranked first. Our analysis shows this is only true for Germany and France. After considering that Airbus, in particular, is largely located in these two countries, then there are probably more interaction between France and Germany than with the other countries.

Another significant result is the relative importance of US based suppliers. They are more frequently mentioned than national suppliers for the UK and Italy. They also take the top or second position, in terms of number of references, for all the other countries as well. This is most probably associated with the competitive strength of US suppliers in aerospace products, particularly in engines, missiles and other components.

Finally, Spain is something of the “odd man out” in this group. It has relatively few national suppliers, and there are more mentions of US, French and German companies supplying to the Spanish market. There are very few mentions of Spanish companies exporting to the other EU countries as well.

As a rough guide it looks as if everyone is buying from the US. France and Germany are more associated with each other. Italy and the UK are both associated with the US. And Spain is dependent on the US, and to a lesser extent France. This picture is markedly more complex than “simple” national silos, and suggests that the one of the impacts of the EU has been to encourage a more diversified approach to EU defence procurement.

Further details of international supply dependencies are shown in appendix 1 below.

4. The Commercial Response

While the politicians have debated and prevaricated, and while the military has been frustrated by high costs and poor value for money, the European Defence Procurement Industry has partially reorganized itself. This has been driven by poor profitability, and by the problem of high volatility in orders from national governments. While those preaching the benefits of national defence sovereignty have tried to prevent further consolidation of the European supply industry, they have also, through the imposition of austerity policies, undermined the very basis of a national approach.

²¹ Recall that the rankings refer to the number of references of companies located in the supplying country. They do not refer to the values or quantities of equipment supplied.

Since wholesale nationalization of defence assets is ruled out under EU competition rules, and since many of the defence companies in Western Europe are emerging from various forms of state control, some defence procurement companies have reformed themselves along European, rather than along national lines. The following is a list of just a few of them. And as the data on international trade flows and dependencies shows, even nationally based suppliers are increasingly diversifying their output to supply more than national customers.

Airbus/EADS

This company is part of the global duopoly making medium and long haul commercial jet aircraft. Before it combined French, German, and eventually some British interests, the European suppliers were too small and weak to compete with US rivals. Today only Boeing is bigger, and the global industry has diversified with other producers in Brazil (Embraer) and Bombardier (Canada). Airbus is one of the EU's great success stories.

It has recently become more distant from its German and French government interests, and is behaving on a more commercial basis. There was talk of a merger between BAES and Airbus, rejected largely on the grounds of German fears that the Airbus Cassidian defence division, largely based in Germany, might be re-structured as a result.

Eurocopter

Airbus owns Eurocopter, that has also become a diversified European group. Mainly based in France, it also produces helicopters elsewhere, and has a successful track record in setting up joint production/work share arrangements in other countries, such as in Finland.

AgustaWestland

Eurocopter is joined by AgustaWestland, as an international “European” company. AgustaWestland is a subsidiary of Finmeccanica, and Italian prime contractor. Agusta successfully developed a range of civilian helicopters, that together with Eurocopter became the largest producers of helicopters in the world, eclipsing the fortunes of Bell (Textron) and Sikorsky (ext UTD and now owned by Lockheed). It was the decision to sell Westland to Agusta, and merge the two, that rescued Westland. For the first time, Westland had access to broader EU and global markets, and has prospered under improved management.

MBDA

Finally, MBDA developed into the second largest global producer of missiles after Raytheon in the USA. This came about through the merging of missile interests from various national prime contractors in the UK, France and Italy. It is a formidable, European, competitor, and again represents an EU success in the defence procurement industry.

Post Scriptum BAES

BAES is Britain's largest manufacturing company. Annoyed by criticism from the UK MoD at the beginning of the century, it made two questionable decisions, firstly to pull out of civil aviation, and secondly to partially emigrate to the US, in order to reduce dependence on the MoD. Buying into US assets at the top of the market, it found that the US defence market has down as well as upsides. And its decision to push for the US, led it to neglect further expansion within the EU. A member of the Eurofighter consortium, it has missed out on other aerospace

projects, and is likely to become a sub contractor to Lockheed Martin with the F-35 programme. Although called an aerospace company, it now increasingly entrenched in the naval shipbuilding industry.

Letter of Intent Agreement (Lol)

A Letter of Intent was signed in London by six Defence Ministers aiming to take Measures to facilitate the Restructuring of the European Defence Industry in 1998. The signatories were France, Germany, Italy, Sweden, Spain and the UK. These are the main armaments producing countries within the EU.

The arrangement was cemented by a further agreement in July 2000, specifically designed to support the European Defence Technological and Industrial Base (EDTIB). The group, representing a form of enhanced cooperation within the EU, has 6 main areas of interest, security of supply, the transfer and export of arms procedures, security of information, R&D, the treatment of technical information, and the harmonization of military requirements. These areas all have sub committees, and the entire organization is overseen by an Executive Committee. As EU Defence procurement policy has developed, so the Lol countries have agreed to monitor and influence the European Commission with respect to the EDA, to improve communications with industry, and to work with other third parties, such as the USA. The Lol is an inter-governmental agreement, yet aims to restructure the European defence procurement industry to improve its collective performance.

5. The Role Of US & other external suppliers

At the end of WW2, European armed forces were reliant on US military equipment. Over the decades this has changed, and starting with the Letter of Intent (Lol) nations, who are mainly independent of US equipment, followed by most other Western European member states are as well.

The situation amongst the Lol countries is,

- EU producers have become self sufficient in the manufacture of warships and armoured vehicles
- EU Producers have also become largely self sufficient in the production of fighter aircraft and jet trainers. This has come about through much greater cooperation in aerospace, and through the creation of European company suppliers
- EU Producers have become more competitive in missiles, again through the formation of an European company, MBDA, and the merging of sub optimally scaled units in France, Italy and the UK.
- EU Producers have become self sufficient in the production of armoured vehicles and other military transport equipment (except transport aircraft). This has been achieved on a national basis
- EU Producers have become largely self sufficient in jet engines and other forms of propulsion

- Producers remain dependent on the US for various types of missiles, and crucially on a lot of electronic equipment, radars, communication equipment
- There remain some areas of clear dependence on the US, and in particular that of the UK nuclear deterrent– which in some respects is compromised in way the French deterrent is not.

This has gradually reduced the role of US exports to the Lol defence producing countries. US contractors remain important, particularly in the UK, Spain, and to a lesser extent, Italy. Their roles though are concentrated in those product categories where US companies continue to have a technological edge.

The situation differs though when the broader picture of all 28 EU member states is considered. Here there is a clear difference between the Lol countries, that supply to them, and the remaining 22 countries that, broadly speaking, import arms from external, non national sources.

The US remains an important supplier to many of those European arms importing countries in Western Europe with some continuing to buy what they see as cheaper and yet effective weapons systems from the US. Thus, a country might opt to go for a cheaper Boeing F-18 Hornet, or the Lockheed Martin F-16 in preference to one of the several more advanced European offerings, such as the Rafaele (France), the Typhoon (Europe) or the Gripen (Sweden).

The situation in the new Eastern EU member states though is entirely different. Here the major arms provider in the past was Russia /Soviet Union. Russia (then including the Ukraine) provided almost all military equipment to the Warsaw Pact countries. Defence industries in the Czech Republic and Slovakia provided some equipment to other Warsaw Pact members. Yugoslavia, perched uneasily between East and West, also produced some of its own arms equipment, as did Romania.

With the collapse of the Soviet Union, and subsequent budget stringency/austerity, Eastern European countries retain a large stock of depreciating ex Soviet materiel, most of which will have to be replaced at some point. Given political sensitivities over the Ukraine, there has been no rush by Western European (Lol) companies to enter into these markets. Earlier "inducements", such as offset agreements, given to the purchasing governments have moreover now been outlawed by EU public sector procurement practices²².

US producers continue to get involved in the sale of important components to European defence companies and governments. In some areas, such as with AWACS and the P3 Orion naval intelligence/surveillance areas, they possess technology that represents better value for money than anything the EU can currently provide. Some US suppliers have worked their way into the very fabric of the EU, by setting up, or taking over other companies, and for all intents and purposes becoming part of the local supply landscape. And it should be noted that the same process has occurred in the other direction with both BAES and Finmeccanica having a significant presence in the US defence market.

Two US companies, General Dynamics and Lockheed Martin, stand out in becoming "Europeanised". General Dynamics has taken over, or has interests in a number of armoured vehicle producers in Spain, Austria and Switzerland and Lockheed Martin with the new F-35 programme, see below.

²² Lol producers therefore either have to establish subsidiaries in Eastern Europe, or they have to find other, legitimate ways of binding them in through joint ventures, neither of which is easy in the current financial climate.

General Dynamics operates, arguably the most “European” armoured vehicles operation within and outside of the EU. And it has access to some of the best designs in the industry, some of which were successfully exported back to the US²³.

Lockheed Martin, as part of the F-35 programme, has constructed an elaborate network of component supply agreements with several European countries, as a means of reducing its commercial risk for the F-35 Lightning programme. This programme is a global equivalent of the Eurofighter that also involves de-centralized production. Countries like the UK, Italy and Norway have all become important suppliers of components, and will be engaged in some of the manufacturing operations of the new aircraft. In the UK’s case, this has involved pushing for a separate version of plane (vertical take-off and landing), for the UK carrier fleet. And, the UK, to the surprise of some, Lockheed Martin has managed, with the help of the US government, to secure funding for this, despite objections from Congress²⁴.

Yet this programme also raises a deeper question around the control over programme technology. Even the UK, which arguably enjoys the closest relationship of the external suppliers with the prime contractor, will not be given access to key codes needed for the avionics and electronics crucial for the aircraft’s performance. Moreover the aircraft falls under the complex and restrictive ITAR²⁵ regulations, that block the transfer of various key US technologies to others, including allies. So non-US participants cannot control the re-sale of these aircraft to other 3rd parties without the express permission of the US government²⁶.

A subsidiary of GE, CFM (based in France) works very closely with GE, and supplies most of the engines for the Boeing 737, a civilian product. There are also areas of cooperation on military engines, engines for helicopters etc. And for most purposes, CFM is treated as being an European company²⁷.

Thus the picture for US producers within the EU is quite complex. US suppliers have relatively low visibility, yet have important roles to play in certain key high tech areas. There is little doubt that the effectiveness of much EU produced aerospace products is enhanced by the use of US components.

The significance of US producers is perhaps less striking within the EU, than it is in third markets. And here, EU and US companies compete with each other. This is particularly marked in two areas, the Middle East, and Eastern Asia. EU and US companies compete for sales of aircraft, helicopters, armoured vehicles and electronics. US companies are restricted by severe anti corruption and ITAR laws in the US. EU regulations on trade outside of the EU are less strict than those in the US.

Moreover, the fragmented, and generally smaller size of the EU procurement market, means that export orders can become proportionately more important for EU than for US firms. The single US market means that order are placed for thousands or tens of thousands of units, compared with hundreds or possibly a thousand or two by an individual national procurement deal in the EU. Scale economies help reduce per unit costs, making US products cheaper than their EU rivals. On the other hand, strict ITAR rules mean that US companies are

increasingly having to “de-tune” their products to comply with US rules, making them less attractive to buyers.

The proportional impact of additional orders from Brazil, for Saab’s Gripen, or from India, for France’s Rafaele can make the difference between making an overall profit or loss on a particular programme.

6. The UK Position: Staying or Leaving?

The UK is currently a member of OCCAR, the EDA, NATO, and the EU. It is a signatory to a host of agreements on the international flow of arms, and is part of various NATO and UN initiatives controlling arms exports. It is part of many, but not all EU joint arms procurement initiatives. And it trades extensively with others within the EU. It is also one of the Letter of Intent countries. It is already deeply committed to joint defence procurement programmes, the Eurofighter/Typhoon being perhaps the best example.

On the political front, remaining in the EU maintains the UK’s role and influence. It means the country can continue to influence the CSDP. As the EU’s own competences in this area grow, so the UK can continue to exercise influence – to our advantage. This also means being able to prevent developments that might appear detrimental to UK interests.

On the military side, the UK would in any event remain part of NATO. However, NATO’s role relative to the EU is likely to diminish over time. And in the eventuality that NATO and EU policy diverge, this could leave the UK isolated. Or obliged to be part of a “coalition of the willing” – similar to the role Sweden has with respect to NATO.

On the economic/commercial side remaining in the EU means that UK producers can continue to trade openly, without let or hindrance, within the single market. They will not be subject to protectionist measures, and can compete freely for public sector contracts.

BREXIT ?

In the event of BREXIT, the immediate short term loss would be in access to the internal market. The UK could no longer, as a matter of course bid for EU defence contracts, unless specific exemptions were made. It would also not be part of the EDA. Its membership of OCCAR would be in some doubt, since moving goods between the UK and the EU would be subject to trade restrictions, tariffs and other forms of controls. And this would affect not just large suppliers such as BAeS, Rolls-Royce and AgustaWestland, but a large number of much smaller contractors, many of whom have successfully bid for EU work. The UK has good technical skills, and has advantages in selling within the EU.

Alternative markets exist. However, access is difficult. The BRIC and other emerging market countries are developing their own arms industries, making exports from Europe generally more difficult. Weapons deals increasingly involve transfers of know-how and technology, which are difficult to implement. The UK might well find itself delivering more weapons to regimes of dubious quality to compensate for being effectively locked out of its most important regional market, the EU. And it would be illusory to think that being outside of the EU would improve an UK position in supplying countries such as the US, Canada, Australia

²³ The Stryker wheeled armoured vehicle is based on the Swiss Piranha design.

²⁴ In particular regarding different engines for the VTOL version, to be made by Rolls Royce. Congress wanted to restrict this in order to reduce overall costs.

²⁵ ITAR (International Traffic in Arms Regulations)

²⁶ Acting as a reminder of what real losses of sovereignty mean in the event of a weakened EU.

²⁷ The only non US supplier that comes close to having this relationship in the US market is Rolls Royce.

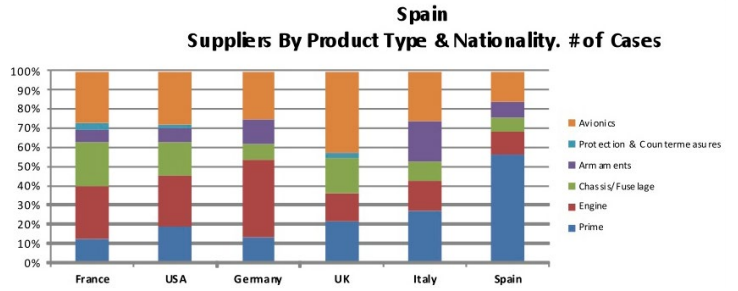
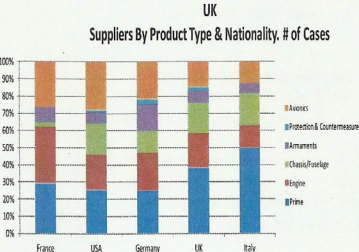
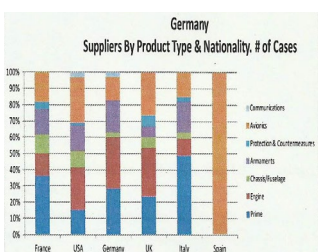
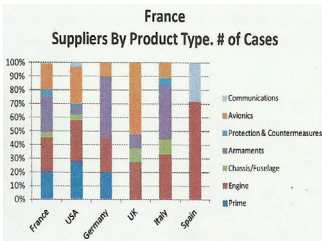
etc. The UK already competes for their business, with decidedly mixed results, due more to our lack of competitive products than to anything related to the EU.

It is true that countries such as Israel, Brazil, and to a lesser extent South Africa, have developed viable armaments industries. They depend though on high levels of domestic protectionism, and high levels of national government subsidy. And these countries are not really competitive in making their own, larger platforms and programmes. Leaving the EU foregoes the advantages of being within it, while providing virtually no upside alternatives. And were this to happen, then count the days until BAeS becomes AAeS, or the American Aerospace Systems inc.

Appendix 1 Supply interdependencies between the UK, France, Germany, Italy, Spain and the US.

The charts below summarizes information about the type of goods provided to each of the purchasing nations, broken out by broad product categories, and by their source of origin.. Each vertical bar shows the proportion of the total number references there are imported from a specific country, broken down by the following product categories

- Communications (radio, telecoms),
- Avionics (radar, detection, fire control, navigation),
- Protection and countermeasures (mostly electronics),
- Armaments (ammunition and guns),
- Chassis/fuselage (aerospace and vehicle body parts),
- Engines, and
- supplies from named prime contractors (exact good not specified, but as counter parties).



The first point is that all the countries import substantial amounts of equipment from each other, and from the US. The patterns vary significantly.

For instance, Spain supplies only avionics to Italy and Germany, and nothing at all to the UK. On the other hand Spain supplies quite a varied bundle of goods to France.

For France, there is a paucity of involvement by prime contractors from other countries. There is an interest in buying various types of engines from all the other countries. Armaments feature from Germany and Italy, and avionics from the US and the UK

Italy shows a greater willingness to deal with other national's prime contractors. Otherwise, engines and avionics are the most frequently mentioned purchasing references.

For Germany. Prime contractors from France and Italy are frequently found. There are many references to engines from the US, Germany and the UK. Armaments supplied from France, the US, Italy. And avionics from the US, UK, Spain, and France.

For the UK, there are many mentions of prime contractors from Italy, the UK, France and fewer references from the US prime contractors. The role of Italy is emphasized by its position as owner of AgustaWestland. The UK obtains avionics from France, the US, and Germany, suggesting there is a considerable cross border trade in these items. There are appreciable mentions of chassis/fuselage components from all the countries bar Spain, and only a few references to French suppliers.

The picture emerging from this analysis is that while national silos can still be discerned, probe more deeply, and there is a considerable interchange of components and parts at the tier 2 and 3 contractor levels. The US companies may have taken more advantage of the EU than the national suppliers have.

Understanding the complexity of European defence procurement supply helps account for the enthusiasm expressed recently by Senior UK military figures about the importance of staying in the EU²⁸. Were the UK to be outside of the EU, then the free flow of military goods, services, could no longer be taken for granted.

²⁸ See Steven Swinford, and Ben Riley-Smith, "Military leaders to warn against a Brexit," Daily Telegraph 21 Feb 2016

References

Bobbit, Philip, "The Shield of Achilles", (2002), PenguinMcDonald, Forrest (1979). Alexander Hamilton: A Biography. W.W. North & Co. Silviya Guzelytè, National Defence Data 2013 of the 27 EDA Member States. EDA. 2013.

European Commission: REPORT FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS, "A New Deal for European Defence Implementation Roadmap for Communication Towards a more competitive and efficient defence and security sector COM (2013) 542;

European Council: DIRECTIVE 2009/81/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 13 July 2009

European Commission: "COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS: A STRATEGY FOR A STRONGER AND MORE COMPETITIVE EUROPEAN DEFENCE INDUSTRY Brussels, 5.12.2007 COM(2007) 764 final

Elena Bratanova, "*Legal Limits Of the National Privilege in the EU*", Bonn International Centre for Conversion, paper 34. 2004

Directorate General Internal Market and Services: "Directive 2009/81/EC on the award of contracts in the fields of defence and security Guidance Note: Security of Supply European Parliament: DIRECTORATE-GENERAL FOR EXTERNAL POLICIES POLICY DEPARTMENT, STUDY The impact of the 'defence package' Directives on European defence. EU 2015

OCCAR, (Organisation Conjointe de Cooperation, en matière d'Armement), "CONVENTION ON THE ESTABLISHMENT OF THE ORGANISATION FOR JOINT ARMAMENT COOPERATION

European Defence Agency, "EDA's Pooling & Sharing", Fact Sheet

Luis Simon ed: "*European Defence capabilities No Adaptability without Co-operation*", Rusi, Occasional Paper, March 2010

SIPRI: Military Expenditure Database, Stockholm. Downloaded March 2016 Digit Ltd. Proprietary Supply Chain database.

Letter of Intent Agreement: www.gov.uk/guidance/letter-of-intent.

Glossary of Terms

A400M: Military transport aircraft built by Airbus for sale to many EU states. Medium range

Customer 1: The defence procurement agency. The organization representing the government commercially in negotiating with suppliers
Customer 2: The military; the people and institutions who actually use the equipment

C17 "Globemaster": Long range strategic airlift aircraft, made by Boeing

CFM: French subsidiary of GE. Makes turbofan and other jet engines

CSDP: Common Security and Defence Policy for the EU

DCNS: Largest French naval shipbuilder. Nationalized, although will be privatised at some point

ECSC: European Coal and Steel Community. A supranational organization that preceded the EU. Established in 1951. Could have been complemented by the European Defence Community, proposed by Jean Monnet, and voted down by the French National Assembly
EDA: European Defence Agency. Reports to EU High Representative for Foreign Affairs. Supports collaborative EU projects. Acts as intermediary in defence deals

EDTIB: European Defence Technological Industrial Base. European defence industries and R&D efforts

EU: European Union

Eurofighter: Jointly produced fighter aircraft by UK, Germany, Italy and Spain. Separate, international, company set up to produce it

FREMM: Common Frigate programme. Includes France and Italy. UK dropped out.

GFC: Global Financial Crisis. Started in 2008 in the US/UK as a result of too cavalier attitudes to risk in property markets by banks. Subsequent liquidity crunch continues to affect affairs today

Horizon Programme: France and Italy joint destroyer project. UK dropped out, and built hugely expensive Type 46 destroyer instead costing GBP 1 billion apiece.

ITAR: International Traffic in Arms Regulations run by the US government. Designed to stop illicit transfer of technology to non US interests. Acts as a non tariff trade barrier, and is probably damaging longer term interests of US defence contractors

Krauss Maffei Wegmann: German producer of Leopard tank and other armoured vehicles. Privately owned

Long War: The period between 1914 and 1989/1990

Lol: Letter of intent countries. An association of the main arms producing countries in Europe: France, Germany, Italy, Spain, Sweden, UK. Aims to coordinate policies and influence

MBT: Main Battle Tank

MoD: Ministry of Defence

NATO: North Atlantic Treaty Organization, established in 1949 at the Treaty of Washington. Based on a alliance of sovereign states

NH Industries: International consortium producing the NH90 Military helicopter. France, Germany, Italy, Netherlands. Makes NH90 helicopter

OCCAR: International organization to purchase complex defence equipment. Original members are France, Germany, UK and Italy. Others have joined since.

R&T: Research and Technology

STANAG: Standardization Agreement used by NATO to ensure that equipment meets minimum performance standards. Facilitates interoperability. Is increasingly used as a global standard for military equipment

TFEU: European treaties that establish the European Union, agreed to by all member states

Tier 1, 2 and 3 Contractors: Tier 1 are prime contractors. They organize the acquisition, production, assembly and sale of the completed product.

Tier 2 and 3 contractors provide sub-assembly and components to the prime contractors. They also make spare parts. Rolls Royce is a tier 2 contractor, BAES a prime contractor, Babcock International a Tier 3 contractor.

2009/81/EU: An EU Directive setting up new rules for dealing with defence procurement issues within the EU