

# The Emergence of European Defence and Defence Industry Policies

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The European Union's combined GDP exceeds that of the USA, but its members only spend about half as much on defence as the US, and the EU is not considered a serious military power. EU processes of market integration and rationalisation bypassed European defence industries, which are fragmented and increasingly losing ground to their American competitors. This has prompted calls for EU defence procurement and defence industry policies, even though the EU, while more than a common market, is not a US-style federation of states. This article analyses the EU's prospects for meeting this challenge from policy, organisational and commercial perspectives.

This article focuses on the emergent defence industry policy of the European Union (EU), which this year celebrates its 50<sup>th</sup> birthday. Other articles in this edition show how single nations struggle to develop viable defence industry policies. As a multi-national entity, the EU's challenge is even greater.

This is primarily because, for the best part of its 50 years, the EU has had no common defence policy and, thus, no common approach to armaments sourcing. During the Cold War, a simple, if informal, division of labour between the EU and the North Atlantic Treaty Organisation (NATO) prevailed: the EU provided the institutions required to turn Europe into a global economic power, while NATO provided the military shield behind which European nations set about doing so.

While this division of labour yielded an economic giant (in 2005 the EU's combined GDP was over US\$10.6 trillion, compared to US\$10 trillion for the USA), it also produced a strategic dwarf: It took the Bosnia debacle in the 1990s to catalyse the emergent common European Security and Defence Policy (ESDP). But the current EU defence model is more a 'defence cooperative' of sovereign member nations that retain their full control over national security matters than a federal model along the lines of the US. While many EU politicians and officials may consider development of EU-wide armaments and defence industry policies *desirable*, there is no overriding *imperative* for the EU to do so.

The defence industries of EU members remain outside the ambit of the EU's 'common market' policies because of Art. 296 (formerly Art. 223) of the Treaty establishing the European Community:

any Member State may take such measures as it considers necessary for the protection of the essential interests of its security which are connected with the production of or the trade in arms, munitions and war material; such measures shall not adversely affect the conditions of competition in the market regarding products which are not intended for specifically military purposes.<sup>1</sup>

This has allowed member countries, especially the larger arms producers, to protect their (defence-related) 'national industrial champions' from the intra-EU as well as external competition. It has been estimated that the formation of a single EU market for defence equipment could yield cost savings of between 10% and 17%.<sup>2</sup> By the late 1990s, the unsustainability of Europe's defence industry arrangements was sufficiently obvious to prompt Javier Solana to observe:

None of us can any longer afford to sustain a healthy and comprehensive DTIB [defence technology industrial base] on a national basis. The future health, may be even survival, of Europe's defence industry requires a European approach, and a European strategy

and

We must develop greater mutual reliance on diverse centres of excellence, and less dependence on non-European sources for key defence technologies.<sup>3</sup>

The history of European defence and armaments policies and Europe's progress to date suggests that political expediency is slowly but irreversibly yielding to a simple logic of change that will extend to EU defence-related industries what the EU has already achieved in many other industries. In explaining this logic, we focus on both internal developments within the EU and external developments that have eventually led to changes within the EU. In particular, we focus on the interface between the EU and NATO. We do not discuss other international organisations with strongly European focus (e.g., the Council of Europe, the Organisation for Security and Co-operation in Europe) which are less important in this context.

## **The Development of Europe's Common Defence Policy**

Post-WWII efforts to establish a common European defence policy start with the 1948 Brussels Treaty on Economic, Social and Cultural Collaboration and Collective Self-defence signed by Belgium, France, Luxembourg, The

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<sup>1</sup> B. Schmitt, *The European Union and armaments, Getting a bigger bang for the Euro*, Chaillot Paper, no 63, Paris, European Union Institute for Security Studies, 2003, p. 9.

<sup>2</sup> K. Hartley, 'The future of European defence policy: an economic perspective', *Defence and Peace Economics*, vol. 14, no. 2 (January 2003), pp. 107-115.

<sup>3</sup> Solana, Verheugen, Svensson at EDA Conference – Radical change and true European market needed to secure future of European defence industry', *European Defence Agency, Press Release*, Brussels, 1 February 2007.

Netherlands and the United Kingdom—creating the *Western Union*.<sup>4</sup> Its military responsibilities were taken over by NATO when the North Atlantic Treaty was signed in 1949. Under the *Paris Agreements of 1954*, the Federal Republic of Germany and Italy acceded to the Brussels Treaty and the Western Union was renamed the *Western European Union (WEU)*. Greece, Spain and Portugal joined later. For most of the Cold War period, the WEU provided an occasional forum for addressing European defence issues, but was otherwise of marginal military and political significance.<sup>5</sup> Creation of a *European Defence Community (EDC)* was also proposed soon after the creation of the European Coal and Steel Community in the early 1950s, but the idea was stillborn<sup>6</sup> and NATO assumed *de facto* responsibility for all west European defence.

### RELATIONSHIP BETWEEN WEU, NATO AND EU

In 1984, the WEU was asked to develop a “common European defence identity” with a view to strengthening the “European pillar” of NATO. In 1987, it promulgated the *Platform on European Security Interests*, which envisaged a common European approach to security and defence, defined the WEU relations with NATO and other organisations, allowed for the enlargement of the WEU and paved the way for its further evolution as a forum for *regular* discussions of European defence and security issues.

From the mid-1980s, the WEU also provided a convenient bridge between the maturing and expanding European Union and NATO. By the early 1990s, the WEU was accepted as the forum for reconciling demands for EU involvement in European and global security matters with increasing NATO engagement in European security provision and use of NATO military assets to deal with post-Cold War military challenges.

At the meeting of the European Council in Maastricht in December 1991, the EU began turning its attention to defence and security matters. In parallel, the WEU clarified the roles and responsibilities of WEU member states within NATO and agreed to support EU defence and armaments initiatives.<sup>7</sup>

<sup>4</sup> A large part of this section draws for much of the historical detail on: NATO, *NATO Handbook 2001*, Brussels, NATO Publications, 2001, Ch. 15 (on-line), updated 4 Nov 2002, <<http://www.nato.int/docu/handbook/2001/>> [Accessed 5 May 2007].

<sup>5</sup> ISS, *European defence: A proposal for a White Paper, Report of an Independent Task Force*, Paris, European Union Institute for Security Studies, 2004.

<sup>6</sup> N. Witney, *The EDA's goals: strengthening Europe's capabilities and defence industry base*, presentation by Chief Executive, European Defence Agency at the Transatlantic Roundtable on Defence and Security, European Institute, Washington, 14 February 2007.

<sup>7</sup> By the end of the 1990s, the structure of the WEU allowed for four different levels of membership and affiliation: *Members* (also members of both NATO and of the EU); *Associate Members* (NATO but not EU members - in March 1999, following their accession to NATO, the Czech Republic, Hungary and Poland while Iceland, Norway and Turkey were also granted Associate Member status as NATO members); *Associate Partners* (neither NATO nor EU members – beginning in May 1994 with Bulgaria, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania and Slovakia, followed by Slovenia in 1996), and *Observers* (EU

In 1992, the WEU member states promulgated the *Petersberg Declaration* of guidelines for the WEU's future development. They agreed to make available elements of their conventional armed forces to carry out humanitarian and rescue operations; peacekeeping and peace enforcement activities and other crisis management operations under the authority of the WEU—dubbed *Petersberg missions*. WEU states also established the planning and coordination machinery required to support Petersberg missions.

The Petersberg Declaration and the security provisions of the *Maastricht Treaty* were first tested in November 1996, when the Council of the European Union requested the WEU's assistance in support of the EU's humanitarian efforts in Africa. The resultant joint WEU-EU cooperation involved the planning of refugee evacuation operations, support for peacekeeping efforts, and mine clearance. To date, 16 Petersberg missions have been undertaken including, for example, those in Macedonia and Congo in 2003 and the Aceh Monitoring Mission in Indonesia in September 2005.

These EU-related initiatives were echoed by developments in NATO. In 1994, the NATO summit in Brussels endorsed:

- the development of the *European Security and Defence Identity* to strengthen the European pillar of NATO and, within the framework of the transatlantic alliance, allow NATO European allies to take greater responsibility for their common security and defence;
- access to NATO assets for WEU-led operations in pursuit of the *Common Foreign and Security Policy* (CFSP); and
- the concept of *Combined Joint Task Forces* to facilitate joint operations by providing “separable but not separate military capabilities that could be employed by NATO or the WEU and would respond to European requirements and contribute to Alliance security”.<sup>8</sup>

In 1997, the EU promulgated its CFSP under Maastricht Treaty auspices and made the WEU an agent of the EU providing access to military operational capabilities to undertake the Petersberg missions, and helping frame the defence aspects of the CFSP. Until 2000, NATO and the EU had no formal relationship and the WEU provided the critical interface between

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but not NATO members - Denmark and Ireland; in January 1995, following the successive enlargement of the EU, Austria, Finland and Sweden also joined as Observers). At an operational level, however, *all* EU member states were entitled to contribute to WEU activities and to participate fully in WEU planning and decision-taking.

<sup>8</sup> NATO, *NATO Handbook 2001*, ch. 15.

the Alliance and those EU member states that wished to develop a stronger European identity within NATO.<sup>9</sup> Accordingly, the WEU “simultaneously developed as the defence component of the European Union and as a means of strengthening the European pillar of NATO”.<sup>10</sup>

At a meeting in Helsinki in 1999, the EU Council decided to assume greater responsibility for common EU defence and security, winding back the WEU role as NATO-EU intermediary. In 2000, WEU’s crisis management role was transferred to the new security and military bodies formed by the EU.

Taken together, these WEU-NATO initiatives were critical to the emergence of a viable European defence identity:

the arrangements made for NATO-WEU cooperation from 1991 to 2000 laid the groundwork for the subsequent development of the future NATO-EU relationship. In practice these arrangements were designed to ensure that if a crisis arose in which the Alliance decided not to intervene but the Western European Union chose to do so, the WEU could request the use of Alliance assets and capabilities to conduct an operation under its own political control and strategic direction.<sup>11</sup>

Since 2000, NATO and the EU have engaged directly in developing a joint framework for cooperation and consultation. In 2002, EU and NATO concluded the *Brussels agreement*, providing for a strategic partnership between the two entities based on, *inter alia*, mutual reinforcement, effective consultation and cooperation, equality and recognition of areas of decision-making autonomy and interests, coherent and synergistic development of military capabilities. EU members could now participate in:

- a NATO operation; or
- a EU-NATO operation; or
- an autonomous operation with either a lead-nation framework using national headquarters or a European headquarters.<sup>12</sup>

### **INTRA-EU DEVELOPMENTS: COMMON FOREIGN AND SECURITY POLICY**

The end of the Cold War led to questioning of the informal division of labour between the EU and NATO and of the continuing validity of the transatlantic concept of European defence.<sup>13</sup> For example, during the EU Maastricht summit in 1991 the United Kingdom advocated continuing NATO primacy and, while recognising the need for increased harmonisation of EU foreign

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<sup>9</sup> NATO, *NATO Handbook 2006*, Brussels, Public Diplomacy Division, NATO, 2006, p. 243.

<sup>10</sup> *Ibid.*, p. 245.

<sup>11</sup> *Ibid.*, p. 246.

<sup>12</sup> ISS, *op. cit.*

<sup>13</sup> S. Duke, *The Elusive Quest for European Security: From EDC to CFSP*, Basingstoke, Macmillan, 2000.

polices, opposed the transfer of responsibilities for defence to the EU.<sup>14</sup> France, conversely, favoured the EU-coordinated military collaboration. The resulting debate yielded the EU CFSP, which was intended to safeguard the common values, fundamental interests and independence of the Union, strengthen its security and preserve peace and enhance international security. The CFSP constituted one of three institutional “pillars” of the EU and a platform for the development of the common European defence.<sup>15</sup>

### **INTRA-EU DEVELOPMENTS: EUROPEAN SECURITY AND DEFENCE POLICY**

In 1998, the Bosnia debacle prompted Britain and France to call for the EU to “have the capacity for autonomous action, backed up by credible military forces”—the *St-Malo Declaration*<sup>16</sup>—which, in turn, precipitated the ESDP. The St-Malo Declaration marked a turning point in the British attitude to European defence and the French attitude to the transatlantic relationship, enabling the European Council to initiate, in 1999, the development of EU institutions for managing the political, operational and doctrinal aspects of EU defence activity.<sup>17</sup>

Also in 1999, EU states agreed on the ESDP *Headline Goal* which specified ambitious (and ultimately impracticable) targets for the development of readily deployable capability in support of the Petersberg missions. In 2004, the timeline for achievement of the Headline Goal was extended to 2010 to provide *Headline Goal 2010*. The ESDP also provides a mechanism for *civilian* participation in conflict prevention and crisis management, again drawing on the EU member states’ resources—for example, police for peacekeeping.

As of 2006, the key elements of the ESDP were:

- The European Defence Agency (see below);
- The European Rapid Reaction Force and European Union battle groups to be deployed in support of Petersberg missions;
- The European Gendarmerie Force; and
- The EU Institute for Security Studies.

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<sup>14</sup> ISS, *op. cit.*

<sup>15</sup> Duke, *op. cit.*

<sup>16</sup> ISS, *op. cit.*

<sup>17</sup> The US accepted the development of European capacity for autonomous action with NATO support. However, to preserve the integrity of NATO, the US insisted that the ESDP should avoid *duplication* of NATO efforts, prevent *decoupling* from the US and NATO, and avoid *discrimination* against non-EU NATO members such as Turkey.

### **INTRA-EU DEVELOPMENTS: EUROPEAN SECURITY STRATEGY**

The EU now envisages a Europe ready to “share in the responsibility for global security and in building a better world,” ... “develop a strategic culture that fosters early, rapid and when necessary, *robust intervention*”, ...and “be able to act *before* countries around [it] deteriorate, when *signs* of proliferation are detected, and *before* humanitarian emergencies arise”.<sup>18</sup> To this end, the EU has promulgated a *European Security Strategy*, the main elements of which include:

- when responding to threats of terrorism, WMD proliferation and organised crime, “the first line of defence now lies abroad”;
- European security requires economic stabilisation in its neighbourhood (the Balkans, Middle East); and
- Europe should be involved in actions upholding international law and the UN charter.<sup>19</sup>

In 2003, the *draft EU Constitutional Treaty* went further by stipulating that the common European Security and Defence Policy

shall include the progressive framing of a common Union defence policy. This will lead to a common defence, when the European Council, acting unanimously, so decides.<sup>20</sup>

### **INTRA-EU DEVELOPMENTS: EUROPEAN DEFENCE AGENCY**

The draft Constitutional Treaty<sup>21</sup> also introduced<sup>22</sup> the concept of “a European Agency for Armaments Research and Military Capabilities” to be tasked with:

- monitoring the Member States capability plans and commitments;
- harmonisation of operational needs and procurement methods;
- promotion of multi-national projects and programs;
- supporting defence technology research; and
- development of policies to strengthen defence industry and technology.

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<sup>18</sup> The Council of the European Union, *A Secure Europe in a Better World, European Security Strategy*, Brussels, 12 December 2003, pp. 1 and 11 [emphasis added].

<sup>19</sup> *Ibid.*

<sup>20</sup> Art. 1-41 2.

<sup>21</sup> Art III-207.

<sup>22</sup> The concept of the EU European Armaments Agency goes back to the early 1990s (e.g., WEA declaration in Maastricht Treaty annexes).

Although the draft constitution was shelved after rejection by French and Dutch voters, the ESDP has continued to evolve and, in 2004, the *European Defence Agency* (EDA) was established in Brussels, reporting to the Council of the European Union. The EDA is open to all EU Member States and tasked with:

- development of defence capabilities in support of ESDP including implementation of the European capabilities action plan, support for Headline Goal 2010, harmonisation of defence requirements, and initiation of collaborative initiatives;
- promotion and enhancement of European armaments cooperation, including project/program management;
- working to strengthen the European defence technology and industry base and for the creation of an internationally competitive European defence equipment market; and
- enhancement and the increased effectiveness of European defence research and technology.<sup>23</sup>

The EDA's *Long-term Vision* statement<sup>24</sup> marks an important departure from the traditional concepts of European warfare:

It concludes that we must decisively break with the old concepts of warfare which obtained in the last century, which were all about unloading as much ordnance as possible on conventional opponents. It underlines that application of force will have to be increasingly modulated with what is happening in the political arena; that operations will likely take place in constrained and ambiguous circumstances, under tight rules of engagement and 24/7 media scrutiny. It emphasises that the decisive capabilities of the future will be less heavy metal and high explosive, and more the capabilities that provide situational awareness, and allow rapid communication and decision-taking. Operations will be expeditionary, and multinational, placing a premium on interoperability, deployability and sustainability.<sup>25</sup>

## The European Defence Industry

Traditionally, larger European military powers (e.g., the UK and France) and some smaller countries, such as Sweden, have insisted on a high degree of self-sufficiency in military materiel. In the late 1990s, France claimed to be able to design and manufacture 90% (by value) of the equipment needed by its armed forces.<sup>26</sup> The UK has maintained an equally broad range of

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<sup>23</sup> *EDA Background*, Brussels, European Defence Agency, 1 January 2005.

<sup>24</sup> *An Initial Long-term Vision for European Defence Capability and Capacity Needs*, Brussels, European Defence Agency, 3 October 2006.

<sup>25</sup> Witney, *op. cit.*, pp. 5-6.

<sup>26</sup> T. Kausal (ed.), G. Humily, T. Taylor and P. Roller, *A Comparison of the Defense Acquisition Systems of France, Great Britain, Germany and the United States*, Ft Belvoir, Defense Systems Management College, Defense Systems Management College Press, 1999, p. I-69.

defence industry capabilities but is more trade dependent, relying especially on imported US products and technologies.<sup>27</sup> Among the smaller countries, Sweden manufactured around 55-60% of the equipment needed by its armed forces in 2000.<sup>28</sup> These 'local content' (import substitution) policies have resulted in considerable fragmentation, duplication and underutilisation of European defence industry capabilities.

### INDUSTRY CAPABILITIES

The end of the Cold War resulted in large scale downsizing of defence industry in Europe as elsewhere: global employment in defence industries halved between 1990 and 2000, that in the US by 35% and in the EU by 75%.<sup>29</sup> This downsizing and consolidation proceeded in two phases: a decline from the Cold War peak in 1987 that bottomed out around 1998 and recovered between 1998 and 2005, driven mainly by US defence spending.<sup>30</sup> While the post-Cold War decline in sales of defence industry products has been arrested, the rebound has been weaker in the EU countries than in the US, exacerbating the structural pressures on the former.

The most striking structural change over the past three decades has been the gradual transformation of many *specialised equipment manufacturers* into cross-platform *systems integrators*. However, US suppliers continue to dominate *network-centric mega-systems* and the two largest European defence companies, the British BAE Systems and the French Thales, cannot match the scale and scope of the largest US firms.<sup>31</sup>

European companies such as BAE Systems, Thales, EADS, Augusta-Westland and Finmeccanica Group have maintained the capability to produce *major platform-based systems* (e.g., fighter aircraft, helicopters, frigates). However, as these systems are becoming increasingly complex—reflected in the exponential growth of their production costs—few EU members will be able to fund their development and production in the future. The shift from platform-based capability to systems-based capability renders this segment of European defence industry increasingly vulnerable. Thus, the consolidation and rationalisation of production capabilities has been considered the only realistic and manageable approach. The multinational Eurofighter is an example of the European solution to complex product

<sup>27</sup> See also the article by Hartley in this edition.

<sup>28</sup> *Facts about the Swedish Defence Industry 1999-2000*, Stockholm, The Association of Swedish Defence Industries, 2000, p. 5.

<sup>29</sup> K. Hartley and T. Sandler, 'The Future of the Defence Firm,' *Kyklos, International Review for Social Sciences*, vol. 56, no. 3 (August 2003), pp. 361-380, Table 1, p. 364.

<sup>30</sup> P. Dunne and E. Surry, 'Arms production', in *Armaments, Disarmament and International Security, SIPRI Yearbook 2006*, Oxford, Oxford University Press, 2006, ch. 9, pp. 387-418. In real terms, the 2005 world defence spending exceeded that of 1987 and the US spending increased by 50% between 1996 and 2005.

<sup>31</sup> However, the US subsidiary of BAE Systems is the 6<sup>th</sup> largest US defence producer (see below).

development, while the Joint Strike Fighter is, arguably, an example of the transatlantic-cum-global approach.

Europe is stronger in the production of *major sub-systems*, such as propulsion systems, radars or ship hulls, and *major equipment* such as armoured vehicles, artillery, and missiles. These capabilities reside in companies such as Rolls-Royce, SNECMA Group, Finmeccanica Group and Saab. However, European manufacturers such as Rolls Royce or SNECMA can no longer depend on their home demand and have had to broaden their product market base. While design, product and process know-how (their core capabilities) may continue to be concentrated in their home markets, the location of through-life support facilities follows global demands—leading companies such as Rolls Royce and SNECMA to expand their global footprint in maintenance, modification and parts supply.

Similarly, European producers of *major military equipment* such as armoured vehicles and artillery once found their domestic markets profitable and exported from this base. Even some smaller but highly industrialised European countries (e.g., Sweden, Finland, Switzerland) could export their products despite a limited home base. This is increasingly difficult as weapons systems become more system-based and large cross-platform system integrators are less likely to source supplies from 'independents'. In the future, these specialised producers are likely to become second tier suppliers to large system integrators.

Producers of *materials, components, consumables, and support equipment* (e.g., munitions, electronic components) are very diverse. Production of strategic materials like cobalt, chromium, manganese and tungsten is highly globalised and the production of commodity-type components (e.g., electronic components) tends to be highly concentrated in a small number of global suppliers. However, many smaller European countries insist on retaining domestic capacity to manufacture munitions and some critical consumables; most also insist on domestic capacity to maintain, adapt and modify equipment, facilities, and software and to provide specialised, system-related services (e.g., training, testing, and evaluation). This is an obvious area for the rationalisation of European capabilities as strategic arguments for their retention are increasingly unsustainable.

### **CONCENTRATION AND INTERNATIONALISATION**

Much of Europe's technological capability to integrate complex systems and business capability to manage projects as prime contractors is now concentrated in the hands of a small, oligopolistic group of 'national champions' (system integrators and first-tier Original Equipment Manufacturers). The emergence of national champions limited the scope for competition and impeded cross-border restructuring.

By the early 1990s, European defence industry had begun to consolidate around these national champions. The European response to the wave of US mergers and acquisitions in the 1980s and the early 1990s was delayed until the mid-1990s. Under the pressure of changes in the US, however, European defence industrial consolidation has tended to follow three paths:

- *Full globalisation*—encouraging European companies to build a global presence or become a part of existing global firms;
- *Transatlantic consolidation*—where a European company acquired a significant presence in the US or became a part of a larger US company; and
- *European consolidation*—encouraging European companies to acquire significant assets in other European countries or become part of larger European corporation.

BAE Systems has taken the *global path* by combining European acquisitions (equity in the Swedish Saab and the Italian Alenia Marconi Systems) with wholly-owned subsidiaries in the USA and Australia and a stake in South Africa's Denel. It now sells more to the US Department of Defense than to the UK Ministry of Defence, and 40% of its global income comes from the US. In 2005, BAE Systems acquired United Defense—the largest ever acquisition of a US defence company by a non-US company. It is now the 6<sup>th</sup> largest US defence contractor.<sup>32</sup>

Similarly, after acquiring the British company Racal, Thales became the second largest defence contractor in the UK, a joint-venturer in the USA and a global supplier with interests in Australia (ADI) and Korea (Samsung Electronics). Thales sells only 28% of its defence products in France, 31% in the UK and the rest of Europe, 21% in Middle East and 14% in Asia.<sup>33</sup>

The European Aeronautic Defence and Space Company (EADS) was formed by combining former national champions Aerospatiale-Matra of France, DASA of Germany and CASA of Spain. This created the first truly European (transnational) defence firm, which is expanding globally, e.g., it has already acquired Hawker Pacific in Australia and is expanding its US interests.

The large US market has attracted additional European firms and companies such as Rolls Royce have developed a strong presence there.<sup>34</sup> Shipbuilding is rationalising on a transatlantic basis with AFCON, a strategic

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<sup>32</sup> Dunne and Surrey, *op. cit.*

<sup>33</sup> A.D. James, 'Comparing European Responses to Defence Industry Globalisation', *Defense and Security Analysis*, vol. 18, no.2, (2002), pp. 123-143.

<sup>34</sup> Other UK companies that have adopted the *transatlantic model* include Smith Group, QinetiQ and VT Group.

alliance between Bazan (Spain), general Dynamics/Bath Iron Works and Lockheed Martin (USA) to design and build frigates. European land system industries have also consolidated on a transatlantic basis with American firms buying into the German Krauss-Maffei Wegmann (KMW) and Rheinmetall.<sup>35</sup> However, for European companies the benefits of large scale diversification into the US market tend to be primarily financial rather than technological. The US government insists that foreign parent companies of US subsidiaries have very limited access to latest technologies funded by the US government. Thus, US subsidiaries of European firms such as BAE Systems and Rolls Royce tend to be technologically separate from other elements of the European parent.<sup>36</sup>

The *European consolidation path* has been taken by the UK Alvis acquiring the Swedish Hagglands and GKN forming a joint venture with the Italian Finmeccanica. The German HDW acquired the Swedish submarine builder Kockums and also expanded its interests in Greece, Spain and Italy.

The largest European system integrators and their US competitors have both targeted global demand and, in their search for global product markets, have developed overseas footprints. However, Europe remains the key source of demand for most major system integrators. In this respect, the lack of common European demand is a disadvantage for European companies. According to one observer:

In many respects, European defence contractors are finding that they have got ahead of their customers. The supply side may now be organised on a European, transatlantic or global scale but the demand side remains primarily national in organisation.<sup>37</sup>

## **OWNERSHIP**

Traditionally, European governments were heavily involved in the production of defence materiel, with France, Italy and Spain being the most conspicuous examples. Defence suppliers are predominantly privately-owned in Germany, the UK and Sweden. Countries such as Switzerland maintain a balance between public and private ownership.<sup>38</sup>

Since the early 1980s, European governments have been increasingly persuaded that private manufacturing and service provision is the most efficient way of sourcing defence materiel. The UK has led the way by privatising government-owned productive assets and contracting out non-essential (non-core) government services. In the 1990s, the Swedish

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<sup>35</sup> James, *op. cit.*

<sup>36</sup> S. Markowski and P. Hall, *Models of Defence Procurement and Their Relation to Industry Development*, Report prepared for the Department of Industry, Tourism and Resources, Canberra, 2003.

<sup>37</sup> James, *op. cit.*, p.137.

<sup>38</sup> Markowski and Hall, *op. cit.*

government divested itself of much of its equity in the Swedish defence industry. In the late 1990s, France privatised Thomson-CSF and merged/part-privatised Aerospatiale and Matra Haute. Italy and Spain soon followed France with part privatisation of their defence industries.<sup>39</sup> However, as many European companies are part-government-owned, there remain ownership-related impediments to further industry consolidation.

### RESEARCH AND DEVELOPMENT

European defence research and development (R&D) has usually been regarded as a 'public good' requiring either direct public provision or government assistance to the private sector. Defence-specific R&D has often been concentrated in specialist agencies such as the former British Defence Evaluation and Research Agency (DERA), Swedish FOI or the Dutch TNO Defence Research. (The USA has traditionally funded private industry-based research, development and technology demonstrators.)

The UK has again pioneered a sharper division of labour between private and public research and development by breaking up the DERA. At its peak, DERA was Europe's largest R&D agency, employing 11,000 people, covering a wide range of scientific and technological capabilities, from chemical and biological defence to radiological protection and nanotechnology.<sup>40</sup> In 2001, the agency was broken up into the government controlled Defence Science and Technology Laboratory (DSTL) and a new company QinetiQ. DSTL conducts R&D considered to be of special military sensitivity. QinetiQ absorbed all non-sensitive and industry related activities and, to pursue commercial opportunities, entered into a strategic partnership with the Carlyle Group, the US venture capital company.

While other countries have been more reluctant to follow the British lead, Europe's government owned R&D agencies have intensified their interaction with domestic industry (to foster technological innovation and diffuse new technological knowledge) and with procurement agencies, to identify technology trends.

Overall, however, Europe's defence R&D effort lags significantly behind that of the US. The knowledge-intensity gap (technological gap) between the US and the EU is also widening as the US spends on defence R&D over five times as much as the EU and over six times as much on research and technology (R&T). Thus, the EU defence effort is not only fragmented but increasingly lagging behind the leading edge technologies and equipment

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<sup>39</sup> J.-P. Maulny, T. Taylor, B. Schmitt, and F.-E. Caillaud, *Industrial and Strategic Co-operation Models for Armaments Companies in Europe*, Europa series, Brussels, European Union, 2000, <[http://europa.eu.int/comm/enterprise/defence/defence\\_does/rapp\\_iris\\_en.pdf](http://europa.eu.int/comm/enterprise/defence/defence_does/rapp_iris_en.pdf)> [Accessed 10 February 2004].

<sup>40</sup> A. D. James, D. Cox and J. Rigby, *Testing Boundaries of Public Private Partnership: The Privatisation of the UK Defence Evaluation & Research Agency*, Manchester, Institute of Innovation Research, PREST, University of Manchester, mimeo, 2003.

developed by the US industry and procured by the US military. Since 2000, the US has increased its spending on defence-related R&D by 9% annually while Europe has increased its by a mere 1.5% annually.<sup>41</sup>

## European Defence Procurement

In 2005, the 24 members of the EDA (EU-at-25 less Denmark) spent on defence €193 billion, while the US spent €406 billion.<sup>42</sup> The burden of defence for the EDA member states was 1.8% of their combined GDP and in the US it was 4% (€425 and €1,363 per capita respectively). Even allowing for the downward bias of the European averages due to highly labour-intensive and technologically backward defence forces of poorer EU members, the US defence investment outstrips that of the EU member states, with the US defence spending per soldier nearly three times that of the EDA-EU nations' average.<sup>43</sup> The relative capital intensity of the US military is increasing faster than that of the EDA-EU.

In 2005, EU members spent about 14% of their combined defence budgets on weapons procurement. To maintain their domestic defence-related industries, smaller EU arms producers have to spend a proportionately larger share of their defence budget on the procurement of equipment—Sweden 27%, Spain 21%, the Netherlands 16%, the UK 15%, France 13%, Germany 11% and Italy 8%.<sup>44</sup> The two largest arms producers, France and the UK, were closer to the EU average share but spent more in absolute terms: France procured equipment to the value of €5.63 billion, or 21% of the EU total procurement spending, and the UK spent €6.7 billion (25%).<sup>45</sup> Thus, nearly a half of the EU spending on the procurement of defence equipment was accounted for by the UK and France.<sup>46</sup>

## COLLABORATIVE PRODUCTION AND WORKSHARE

To increase the scale of production and reduce costs, European governments have traditionally responded by consolidating their demands for new equipment through bi- or multi-lateral collaborative projects, where workshare (*juste retour*) is arranged on a government-to-government basis, with costs and workload distributed pro rata between project participants. Examples of such projects include Tornado combat aircraft (UK, Germany,

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<sup>41</sup> Witney, *op. cit.*

<sup>42</sup> At current prices and at exchange rates.

<sup>43</sup> EDA, *European Defence Expenditure in 2005 and European - United States Defence Expenditure in 2005*, Brussels, European Defence Agency, 20 November 2006, <<http://www.eda.europa.eu/facts.aspx>> [Accessed 5 May 2007]. Also, the US average capital/soldier ratio (spending on equipment procurement and R&D per soldier) was five times that of the EU nations' average, and the US spending on the procurement of equipment was three times the EU total.

<sup>44</sup> *Ibid.*

<sup>45</sup> At current prices and exchange rates.

<sup>46</sup> EDA, *European Defence Expenditure in 2005 and European - United States Defence Expenditure in 2005*.

and Italy) and Eurofighter Typhoon (UK, Germany, Italy, and Spain). Collaborative acquisition has been particularly attractive for governments that could secure a leading role in a project for their national champion. But many of these programs have been notoriously inefficient, with countries protecting their national economic interests and compromises resulting in high cost solutions. While collaboration offers savings through scale and scope economies, workshare programs are usually more expensive and slower than uni-national programs of comparable scale and complexity.<sup>47</sup>

Although individual European nations have much smaller resources to commit to defence projects, they have generally been more willing to stay the course once committed. This has been particularly the case for countries such as France and Italy, with their high degree of government ownership of industry and close links between the public and private sectors. Also, international collaborative arrangements have added a degree of stability as the cost of terminating such projects is high.<sup>48</sup>

Overall, *juste retour* arrangements have perpetuated the fragmentation of European defence industries by creating legacy structures requiring support after collaborative projects ended. This outcome was often the very opposite of what the sponsoring governments intended to achieve.

### **PRESSURES FOR CHANGE**

Not surprisingly, the emergent European defence identity and associated European defence institutional developments are increasingly recognised as prerequisites for the development of an effective European approach to procurement (armaments policy) and, by extension, any EU-sponsored consolidation and rationalisation of defence industry.<sup>49</sup>

### **Enabling Change: Towards a European Armaments Policy**

Attempts to enhance the efficiency of the European armaments industry and procurement programs outside the EU framework began 40 years ago. In 1976, NATO created the *Independent European Programme Group* (IEPG) to encourage armaments cooperation. In 1992, the IEPG was subsumed by the WEU and called the *Western European Armaments Group* (WEAG) comprising 19 European nations and intended to:

- promote cooperative procurement;
- strengthen defence research, development and technology;

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<sup>47</sup> National Audit Office, *Maximising the Benefits of Defence Equipment Co-operation*, London, The Stationery Office, 2001.

<sup>48</sup> However, the joint development of an air-warfare destroyer as a part of Project Horizon (France, UK and Italy) was initiated in the early 1990s and terminated in 2000.

<sup>49</sup> Witney, *op. cit.*

- synchronise defence economic policies and procurement procedures to create the European Defence Equipment Market; and
- consider the formation of an European Armaments Agency.

However, both the WEAG and its successor, the *Western European Armaments Organisation* (WEAO) lacked sufficient political support to meet their founders' expectations and were largely eclipsed when the EU took over the main WEU security functions.

### **A MULTILATERAL DEFENCE PROCUREMENT AGENCY**

In 1996, France and Germany and later Italy and the United Kingdom formed the multinational defence procurement agency *Organisation Conjointe de Coopération en Matière d'Armement* (OCCAR). The OCCAR Convention was ratified in 2000 and provides for membership of all European countries and for non-member participation in OCCAR-managed programs. Belgium joined in 2003 and Spain in 2005. The Netherlands, Luxemburg and Turkey participate as non-members.<sup>50</sup>

OCCAR bypassed the WEAG-WEAO framework in an attempt to progress beyond cumbersome workshare arrangements. To this end, OCCAR aimed to improve the harmonisation of requirements and encourage multinational collaboration in defence acquisitions by balancing workshare-cost-share arrangements over time rather than on a project-by-project basis. OCCAR's activities involve:

- management (by transnational teams) of cooperative projects/ programs;
- in-service support;
- management of national programs at member request;
- development of specifications for joint acquisitions;
- capability scoping studies and associated research;
- coordination of national defence industry and technology policies; and
- coordination of new capital formation.

OCCAR has never become a European procurement agency and has remained a multinational program-project management office. To date,

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<sup>50</sup> OCCAR, *OCCAR: The multinational defence acquisition organisation*, Bonn, Organisation Conjointe de Coopération en Matière d'Armement, 2005.

projects handled by OCCAR are those transferred to it by sponsoring nations on an *ad hoc* basis with pre-defined workshare arrangements and pre-engaged prime contractors. Thus, there has been limited scope for achieving cross-project efficiency dividends. Key projects managed by OCCAR include, *inter alia*: A400M transport aircraft (sponsored by France, Germany, UK, Belgium, Spain and Turkey); the Tiger attack helicopter (France, Germany and Spain); and the Boxer armoured vehicle (Germany and the Netherlands).

#### **LETTER OF INTENT AND FRAMEWORK AGREEMENT**

In 1998, the *Letter of Intent* (LoI) was signed by six leading arms manufacturing nations in Europe (UK, France, Germany, Italy, Spain and Sweden). In 2000, the LoI Six signed the *Framework Agreement*—a de facto international treaty (ratified in 2003) aimed at coordinating/harmonising:<sup>51</sup>

- security of supply chains within the group (implying acceptance by signatories of reduced defence industrial self-sufficiency and local content requirements);
- export controls (*Global Project Licence* developed to streamline export procedures for cooperative programs, use of offset waivers);
- security and transfers of information;
- RD&T strategies, policies and programs, including exchange of information on national R&T strategies and policies;
- handling of technical information (e.g., to facilitate IP transfers and harmonise standards); and
- military requirements and new capability formation (the formation of a common database covering future capability requirements as a basis for the development of a defence industry policy).

#### **ARMAMENTS COOPERATION WITHIN THE EU FRAMEWORK:**

##### **EARLY INITIATIVES**

By the late 1990s, it was apparent that various defence industry- and procurement-related initiatives that have evolved outside the EU and NATO frameworks were doomed to disappoint as their supporting organisational structures were too small and lacked serious commitment from governments of major European arms producing nations. Since 1996, the European Commission (EC) has therefore sought to bring armaments production and

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<sup>51</sup> Schmitt, *op. cit.*

trade into step with the formation of common EU markets in other sectors. Its key long-term objectives were outlined in several EC Communications.<sup>52</sup>

### **ARMAMENTS COOPERATION WITHIN THE EU FRAMEWORK: EDA INITIATIVES**

In order to realize its Long Term Vision, the EDA aims to:

- establish a framework for an ESDP *Capability Development Plan* that will be based on more precise analysis of future capability needs and aligned with mid-to-long term national capability plans;
- develop a *European Defence Research & Technology Strategy*;
- work towards a *Strategy for European Defence and Technological Industrial Base*; and
- identify practical opportunities for collaboration by exploiting the “cooperative armaments process”.<sup>53</sup>

The EDA’s capability development program is embedded in a wider capability development process by which European strategic political and defence objectives and requirements are progressively ‘funneled’ via the ESDP into specific military capabilities. This funneling exercise is called the *Comprehensive Capability Development Process* (CCDP). It entails aligning EU capability planning with Member States’ defence plans, budgets and new capability formation. Thus, the CCDP

will not be a supranational military equipment or capability plan which has an aspiration to replace national defence plans and programmes. It should support, not replace national decision-making.<sup>54</sup>

To improve collaborative procurement of military materiel, the EDA is to focus on the early requirements phase through the CCDP with collaborative workshare-based initiatives redirected upstream to R&T, rather than to

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<sup>52</sup> These included: progressive integration of defence materiel into the mainstream European goods and services markets (e.g., EC, ‘Implementing European strategy on defence-related industries’, *European Commission Communication* (97) 583, November 1997, Brussels, European Commission, <[http://europa.eu/comm/enterprise/defence/defence\\_docs/def\\_comm.htm](http://europa.eu/comm/enterprise/defence/defence_docs/def_comm.htm)> [Accessed 5 May 2007]); regulation and coordination of European armaments production to form an integrated European defence market (e.g., EC, ‘Towards an EU defence equipment policy’, *Bulletin of the European Union*, 5-2003, Common foreign and security policy (4/20), Brussels, European Commission, 13 May 2003, <<http://europa.eu.bulletin/en/200305/p106004.htm>> [Accessed 5 May 2007]); standardisation of procurement contracts and procedures, e.g., the adoption of the Defence Standardisation Handbook (Schmitt, *op. cit.*); support for R&D in dual technologies under Research Framework Programs; the development of joint European strategic and defence capabilities (interoperability of equipment, supply chain security); and export controls (e.g., the 1998 EU Code of Conduct on Arms Exports).

<sup>53</sup> EDA, *EDA Work Programme 2007*, Brussels, European Defence Agency, 2007.

<sup>54</sup> *Ibid.*

downstream production. The EDA is to help align national requirements, budgets, timeframes, industrial capacities and technologies required to deliver collaborative programs. It also aims to improve the sharing of R&T and capability development information and rationalise the European Defence Test & Evaluation (T&E) base. To improve the efficiency of procurement processes, defence buyers are supposed to be given access to common T&E capabilities, which at present are very fragmented even though they collectively employ over 40,000 people.

Under the EDA Charter, new collaborative armaments procurement projects can be run by coalitions of participants on whatever basis they choose to collaborate.<sup>55</sup> Alternatively, the Agency can act as a collective procurement agency serving consortia of project sponsoring and funding national defence organisations. This would require the EDA to manage budgets, schedules and monitor contractor performance as well as develop and implement procurement strategies on behalf of its 'customers'. The project management services could be provided by OCCAR.

In looking for practical ways to strengthen the European defence technology and industrial base, the EDA has to date focused on aligning members' defence business practices through, for example, promulgating the *European Handbook for Defence Procurement* and developing the *European Defence Standardisation Information System*. The Agency has also secured Ministerial approval of a *Voluntary Code of Conduct on Defence Procurement*<sup>56</sup> which could begin curbing members' use of Article 296 (see above). The Code of Conduct became operational in July 2006 and requires participating nations to publish their procurement requirements on the Agency's website (*Electronic Bulletin Board*).<sup>57</sup>

Under the Voluntary Code, signatories undertake to open up to suppliers from subscribing member nations,

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<sup>55</sup> As of early 2007, the Agency managed a portfolio of over 40 R&T collaborative projects. To increase the collaborative R&T effort, a €55 million Joint R&T Investment Programme was approved in 2006 to support the development of new technologies for the European armed forces. 20 national governments have sponsored and funded the initiative. (Ibid.)

<sup>56</sup> "No legal commitment is involved or implied. The regime will operate on the basis of sovereign Member States voluntarily choosing to align their policies and practices, on a reciprocal basis, in this area. Those who elect to join the regime, and follow this Code, will be free to cancel their participation in the regime at any time. No sanction is envisaged for any non-observance of this Code by any MS, beyond the requirement to account to the other members of the regime. In all cases, the final authority for contract award remains with MS national authorities" (Ibid.)

<sup>57</sup> The Voluntary Code of Conduct provides for: *fair and equal treatment of suppliers* involved in the procurement process with regard to market access, selection criteria, product specifications and statements of requirements, evaluation criteria and debriefing; *transparency and accountability* in procurement processes; *reciprocity*, i.e., an opportunity to sell into other members' defence markets implies a reciprocal obligation to provide access to the seller' home market. This applies to governments as well as suppliers; and *mutual benefit*, i.e., all participants should find it beneficial to subscribe to the Code arrangements. (Ibid.)

all defence procurement opportunities of €1 million or more where the conditions for application of Art. 296 are met, except for procurement of research and technology; collaborative procurements; and procurements of nuclear weapons and nuclear propulsion systems, chemical, bacteriological and radiological goods and services, and cryptographic equipment.<sup>58</sup>

In exceptional circumstances, participants may proceed with specific procurements without competition (e.g., pressing operational urgency, follow-on work, or for compelling reasons of national security) but must justify their action to the EDA in its capacity as monitor of the voluntary regime. The Agency also collects data on collaborative procurements.

To provide opportunities for member states, the Code also seeks to ensure that “fair competition and the benefits of the regime are driven down the supply-chain”. Accordingly, a voluntary *Code of Best Practice in the Supply Chain* is to be agreed with industry as an integral part of the Voluntary Code of Conduct. This is to promote transparency and fair competition at the sub-contractor level.<sup>59</sup>

The EDA has also piloted the coordination of members’ requirements through such initiatives as 21st Century Warrior, Armoured Fighting Vehicles Road Map 2005 and feasibility studies of the ‘Network-Enabled Armoured Fighting Vehicle’ and ‘Unmanned Ground Tactical Vehicle’. It has encouraged members to rationalise duplicated infrastructure, in particular Europe’s Defence Test and Evaluation Base. The EDA has also sought to harvest the lessons of past collaborative projects by sponsoring the Cooperative Mechanism Process.<sup>60</sup>

In 2006, the EDA brokered an agreement by adherents to the voluntary Intergovernmental Regime to endeavour to meet requests from fellow adherents for goods and services during an emergency, crisis or armed conflict, including from their own stocks if necessary. The requesting party will meet any additional cost incurred by the assisting party or by the company supplying the goods or services. The EDA also agreed rules governing the security of classified and commercially sensitive information relating to defence procurement.<sup>61</sup>

## Conclusion

The European defence industry policy is one aspect of the EU armaments policy. To date, most defence industry policy initiatives have focused on the demand side to standardise defence procurement practices, enhance information flows, forge the common EU market for defence materiel, and encourage member states to coordinate their investments policies and

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<sup>58</sup> Ibid.

<sup>59</sup> Ibid.

<sup>60</sup> Ibid.

<sup>61</sup> Ibid.

bundle together national demands to achieve scale- and scope-related economies. In essence, these changes are intended to persuade EU member states, and in particular those members who participate in the EDA initiatives, to make less use of Art. 296 as a means of protecting home defence industries. The adoption of the Code of Conduct on Defence Procurement has followed the earlier EU and the World Trade Organisation initiatives on public procurement.<sup>62</sup> This demand-side action is the least controversial of EDA initiatives as it strives to bring defence procurement in line with other areas of public procurement.

However, as long EU member states are committed to protect their home industry base, they will interpret Art. 296 broadly, cloaking political expediency in the imperative of national security. This will lead to local content requirements that favour home firms and impede intra-EU competition. Reinforcing this tendency is the extent to which public ownership of defence industry firms impedes the long-term restructuring of production capabilities. If mergers and acquisitions across national borders are deterred or frustrated, the European industry will continue to be fragmented and driven into market niches. The gap between the American and European international competitiveness will continue to widen. The R&T gap will also continue to widen unless European firms are able to efficiently diffuse the R&T funding provided by the EU and national governments, i.e., acquire the *capacity to absorb* these additional resources and turn them into product and process innovation.

European governments took 50 years to forge the integrated European market for goods, services and factors of production and 10 years to introduce a single European currency. Recent EU initiatives like the *Voluntary Code of Conduct on Defence Procurement* show how EU members can take advantage of strategic and political developments to move more rapidly in building the institutions required to move European defence industry onto a more sustainable basis.

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<sup>62</sup> To facilitate cross-border market in goods and services purchased by public agencies, the EC announced a number of measures in its 1998 *Communication on Public Procurement* (EC, 'Public Procurement', *European Commission Communication* (98) 143, Brussels, European Commission, March 1998, <<http://europa.eu.int/generalreport/en/2000/pt0185.htm>> [Accessed 5 May 2007].