



BONN INTERNATIONAL CENTER FOR CONVERSION

B · I · C · C

BONN INTERNATIONAL CENTER FOR CONVERSION • INTERNATIONALES KONVERSIONSZENTRUM BONN



paper 31

**The European  
Union and  
Defense  
Industrial Policy**

# The European Union and Defense Industrial Policy

*by Jocelyn Mawdsley*

Work financially supported through the European Community's Human Potential Programme  
under contract HPRN-CT-2000-0070

Published by  
©BICC, Bonn 2003  
Bonn International Center for Conversion  
Director: Peter J. Croll  
An der Elisabethkirche 25  
D-53113 Bonn  
Germany  
Phone: +49-228-911960  
Fax: +49-228-241215

**Table of Contents**

<b>1. Introduction</b>	<b>4</b>
<b>2. Constructing a Framework for Analysis</b>	<b>6</b>
<b>3. The Actors</b>	<b>8</b>
<i>3.1 The Firms</i>	<b>8</b>
<i>3.2 Nation States</i>	<b>14</b>
<i>3.3 The European Union as a Defense Industrial Policy-Maker</i>	<b>21</b>
<b>4. An Emerging European Defense Industrial Policy</b>	<b>25</b>
<b>References</b>	<b>30</b>

**About the Author**

Jocelyn Mawdsley studied at Bradford University before gaining an MA and PhD from Newcastle University in Britain. She is currently based at the Bonn International Center for Conversion (BICC) working as a post-doctoral research fellow on a European Union funded project 'Bridging the Accountability Gap in European Security and Defence Policy', which brings together a network of nine research institutions across Europe. Her most recent research has concentrated on the growing role of the European Union institutions in the formulation of armaments policy in Europe.

## 1. Introduction

The establishment of the European Security and Defense policy and particularly the founding of the Rapid Reaction Force have drawn policymakers' attention to the European armaments market<sup>1</sup>. Budget pressures coupled with increasing ambitions in the security field has led the European Union institutions and member states to consider how to maximize armaments co-operation but defense firms have also been actively calling for reforms to increase their competitiveness in the global arms market. Even the exemption of defense industry from the Single Market looks strange in 2003. Defense industrial policy is increasingly playing a role in this debate as the need to tackle armaments policy in a more European framework became clear. Is a European defense industrial policy emerging? Who or what are the factors driving it? Are the developments moving in the right direction? This paper will attempt to answer these questions by tracking the moves of the protagonists: the firms, the states and the European institutions: in an attempt to map the emerging consensus on European defense industrial policy. It will then critically assess the emerging policy agreement.

It is though first necessary to recall why defense industrial policy is in its current state. The end of the Cold War marked a profound break with the past. The European security architecture changed beyond recognition; not only did the bipolar system dissolve but a multitude of multilateral co-operative security arrangements emerged culminating in the European Security and many ways during the Cold War,

The End  
of the  
Cold War

“The permanent confrontation, the imaginary war atmosphere in which the threat of the 'other' constituted a continuing source of legitimacy, froze the institutional structures of the post-war period long after they had ceased to serve their purposes.” (Kaldor, 1997:1)

The evolving new security structures, concepts and threat perceptions of the 21<sup>st</sup> century have taken so long to develop in part because of this frozen institutional structure. The adjustments, changes and cutbacks alongside the new opportunities were difficult for establishments deeply unused to

---

1 The author is grateful to Michael Brzoska, Hartmut Kühle, Herbert Wulf and Andreas Heinemann-Grüder for their feedback on this paper. Any remaining errors, generalizations or omissions are the author's responsibility.

change. One such monolith was the defense industrial sector. After all by the 1980s,

“...the military sector was the last remaining bastion of the Fordist<sup>2</sup> era. The military-technological style, based on large platforms and the intensive use of energy, was drawn from the experience of mass warfare during World War II. Military resources were tightly controlled by the state and the defense industrial sector remained largely national.” (Albrecht, Kaldor and Schméder, 1998: 2)

Faced with spending cutbacks in their home markets and a slow down in the global arms market following the end of the Cold War, European firms were left stunned by the speed of American defense industrial restructuring. The European firms urgently needed to adapt as well and begin to think transnationally. Cost-cutting in defense procurement and the rise of neo-liberal thinking in the 1980s had already left the firms thinking much more like normal firms albeit very dependent on the will of their state. However, when the national governments failed to act quickly enough to enable the process of European consolidation, the larger firms took the initiative and started to push the process themselves. Their newly found independence was best shown by British Aerospace when, rather than merging with DASA and Aerospatiale as the British government had wanted, it chose to buy up GEC Marconi's defense arm. The new European champion defense firms were more flexible and efficient and able to adapt to survive in an increasingly competitive market. Their thinking was no longer purely national, which challenged their relationship with 'their' government. However the consolidation was patchy, while aerospace and defense electronics are now dominated by BAe Systems, Thales and EADS, land industry or shipbuilding are still characterized by large numbers of medium-sized nationally based firms. Meanwhile, the national governments of the big arms producing countries (Britain, France, Germany, Italy, Sweden and Spain) were keen to provide suitable market and regulatory conditions that would ensure that the government-industry link remained beneficial for both. They tried to reassert their role, in setting the regulatory environment at

Europeanisation

---

2 “Fordism was characterised by mass production, mass consumption and massive state intervention in the economy and society. In particular, the revolutionary methods of serial production, associated with the name of Henry Ford, became the pace-setter for affluence.” (Albrecht, Kaldor and Schméder, 1998: 2)

the European level, through the Letter of Intent process that led to the Framework Agreement on defense industrial restructuring. Smaller arms producing countries were left on the sidelines. At the same time the European Commission tried to carve out a role for itself too, calling for an EU regulated defense market, a claim that grew stronger with the development of ESDP.

## **2. Constructing a Framework for Analysis**

The last decade has seen major changes to the components of Europe's defense economy. It has been claimed by some that defense industry has become an industry like any other, that it has been secularized or civilianized (Walker and Gummert, 1989). De Vestel (1995) identified four arguments in favor of this hypothesis. Firstly the internationalization of defense industries has meant some firms have moved away from operating in a national framework, equally neo-liberal economic policies have impacted to a greater or less extent on national defense markets introducing competition and freer markets and constraining government ownership. It is also less clear where the boundary between civil and defense technology lies or which is benefiting from which. Finally he points out that post Cold War reductions in European procurement budgets has removed the safety net from the environment the firms work in. An additional factor might also be the defense firms' improved access to global capital as they moved away from government ownership.

'Normal'  
Firms?

Others however would argue that defense firms are far from 'normal' firms. Defense markets have both supply and demand sides. The demand side is heavily dominated (where major weapons systems are concerned) by national governments in their role as purchaser of all goods required by their armed forces. Governments though are not just buyers; they regulate the market. By using their power as primary customer, they determine all the major features of national defense industries such as size, structure, ownership, location, conduct and performance (Sandler and Hartley, 1999). Equally, by restricting export opportunities (to avoid the dangers of arms proliferation) governments can maintain their primary customer role. The size and structure of the European defense market historically has not been therefore decided by market forces: the ability of governments to subsidize or restrain the market counteracted or even ran counter to market forces. Sen argues that there are various modes of state intervention. Firstly, the state can intervene with direct subsidies and tariffs. In this way unprofitable firms can be maintained if this is in the national interest. Secondly, the tactic of state

ownership can be used. The era of the state-owned defense firm in Europe was only ending at the end of the twentieth century<sup>3</sup>, despite the privatization pressures of the neo-liberal economic consensus. Equally, the French DGA is still much more than a procurement agency and continues to have a major influence on French defense industry. Thirdly, preferential procurement clearly plays a role. Most countries have traditionally, for reasons of security of supply, procured military equipment primarily from national manufacturers. Fourthly, there is a possibility of discriminatory taxation to favor strategic industry. Fifthly, export subsidies can be used. In this way a country can help make national programs more viable through economies of scale. Finally, state support of education and research to underpin technological development is important (Sen, 1984: 87-9). All of these modes have been used by Western European states, at various times, to support and maintain their defense industrial sectors, although the degree of interventionism has altered over time and between countries. It is important to realize that, even in a protected sector, wider beliefs about state-industry relationships have a visible impact. By the beginning of the 1990s, for example, as Walker and Gummett wrote,

“France and Britain provide the two poles, the one with its interweaving of industry and state, the other trying, if not always succeeding, to maintain a distance between them.” (Walker and Gummett, 1993: 24)

For a variety of political and economic reasons, European governments traditionally followed varying paths in their relationship with ‘their’ defense firms, (resulting in an incoherent European market) but they still had the same role in determining the regulatory framework as legislators and in acting as primary customers for their firms. De Vestel defines the defense economy as all of the economic dimensions of defense: “industrial, technological, budgetary and employment aspects, and the transactions between buyers and producers” (1995: 1). He favors though analyzing the political economy of defense, thus bringing analysis of the state and its directorial or regulatory role into the equation<sup>4</sup>.

---

3 Although it should be remembered that historically state control of defence technology is relatively new, dating from the middle of the nineteenth century.

4 Some scholars have defined the study of political economy as simply the application of economic concepts and tools to politics notably through rational choice analysis (Frey, 1984). However this approach

“Public policy, whether it be industrial and technological or concerning security and defense, contributes in profoundly affecting the technological, industrial and social dimensions of armaments production.” (de Vestel, 1998: 197)

It would therefore seem necessary to understand the aims and constraints informing the policy decisions of both states and firms. For the European case though the institutions of the European Union and the role they play must also be analyzed.

### **3. The Actors**

#### *3.1 The Firms*

European defense firms remained throughout the 1950s, 1960s and 1970s substantially apart from the process of European integration. Exempted from Single Market legislation, the firms and their regulatory environment were both servants of and nourished by the Cold War. The experience of two world wars had made national security of supply of weapons a matter of great importance to European states and defense firms were regarded as national assets. Moreover, the industry's purpose and standing in the international economy of this time mirrored the unusually progressive role played by military technological innovation in that era. Entire new industries had been founded upon the developments generated by the Cold War and the earlier two world wars (Walker and Gummert, 1993). Defense firms were frequently state-owned and controlled and protected from competition by generous subsidies.

While most of the changes that produced today's defense industrial map happened during the 1990s, things were changing before then. The rising costs of defense equipment had already pushed both governments and firms to begin a national rationalization track. Hébert (2002) argues that the events of the 1980s are key to understanding today's European defense industrial map. In Britain at the start of the 1980s, Sir Paul Levene launched a privatization program for British defense industry: this meant major changes to the likes of Ferranti, British

Changes in  
the 1980s

---

does not seem to capture the power dynamics at work in the political economy of defence. Aben, on the other hand, advocates the use of the tools of political science such as institutional analysis and theories of international relations as a fruitful methodological approach to the political economy of defence (Aben, 1992: 15), thus moving away from an emphasis on economic tools which would seem a more fruitful approach.



Aerospace, Rolls Royce, Royal Dockyards and the Royal Ordnance Factories to name just the more important firms. Meanwhile in Germany throughout the 1980s Dasa was acquiring such firms as Messerschmidt-Bölkow-Blohm (MBB), Dornier and Fokker, ending by controlling about 60% of German defense industry. Hébert argues that these new entities followed increasingly industrial or finance-led strategies thus abandoning the concept of protected territory that had characterized the European armaments sector thus far. Equally, the growing use of civilian technology changed the nature of defense industry. However, it is not clear how much this would have advanced, particularly in countries like France, where state ownership of defense industries remained popular, had the late 1980s and early 1990s brought further pressure to bear on European countries and their defense firms.

Between 1987 and 1997 world defense spending fell from US\$1030 billion to US\$675 billion (measured in 1993 US\$), and the highest reductions occurred between 1990 and 1993 (BICC figures cited in Brömmelhörster, 2000:9). The end of the common threat rewrote the environment in which companies and procurement agencies must work, and there was no longer a predictable setting. The special protected position given to defense industries by their national governments during the Cold War became untenable. The peace dividend expected by the general public meant that defense budgets were slashed by most major military powers. As this happened at the same time as there was a belief (subsequently changed) that the Revolution in Military Affairs meant that traditional equipment like tanks would no longer be needed, procurement budgets were especially affected. In the United States, for instance, the military procurement budget for the fiscal year 1996 hit its lowest point in real terms since 1950 (Dowdy, 1997:89). In the past defense cuts had been addressed by greater arms exports but that market shrank too, so existing firms had to fight ever more aggressively for contracts. The removal of the rigidities in the international arms trade caused by the Cold War meant that American firms were suddenly competing for contracts in markets that had previously been left to European bidders. As well as this the Western powers had to cope with and contain new types of conflict, for example in Bosnia, which required new skills and different equipment for the armed forces. This meant that while defense electronics, for example, expanded, traditional areas like shipbuilding suffered disproportionately from the downturn in the market.

## Post Cold War Defence Spending

American  
Restructuring

Much of the pressure on European firms came from the way in which American firms reacted so quickly to the declining markets by restructuring and rationalizing. The trend in the early 1990s in the American defense industry was for firms to get either totally 'in' or totally 'out' of defense; there were a large number of both horizontal and vertical mergers, which led to greater economies of scale and lower unit costs. Contractors also tried to buy into firms dealing in defense electronics, the only defense sector that was still growing. They did not do this entirely on their own. Help was given by the Clinton administration, which employed a 'stick and carrot' approach. The Defense Secretary in 1993, Les Aspin, argued that there was over-capacity in the defense sector, and that the American government was prepared to watch some firms go out of business. In order to help push mergers even more, they offered subsidies to cover merger costs and started a vigorous export drive, which was supported at all levels. They also relaxed the anti-trust laws to allow mergers that may damage competition (Grant, 1997: 9-12). All this meant that America at least temporarily obtained a larger share of the shrinking cake in defense markets, as their firms were more competitive.

Despite all of this, the European defense industrial scene remained remarkably constant until the end of 1997. Some companies like Siemens left the defense market and the practice of buying up smaller firms to create national champions continued (Brzoska, 2001). In December 1997, the British, French and German leaders issued a joint statement, calling on European defense industry to formulate plans for restructuring the industry so that it would be able to compete with American firms. The emphasis was placed on the aerospace sector. This was followed in July 1998 by a Letter of Intent which provided a framework for further work on security of supply, export procedures, research and technology and security of information which was signed by the three along with Spain, Italy and Sweden. At this stage it was clear that the preferred restructuring option was a merger between BAe, Aérospatiale and DASA to form a European Aerospace and Defense Company. Despite the European leaders' call for the creation of a European Aerospace and Defense Company, the private shareholders in British Aerospace and DASA were unimpressed by state involvement in the French firms. They did not feel that commercial viability would be allowed to take priority over the French government's industrial policy. Worried by BAe and DASA's 1998 merger

discussions<sup>5</sup>, the French government launched a three-pronged response. They announced that they would reduce their stake in Aérospatiale to a minority holding, attempted to bargain by holding up the conversion of Airbus into a company and got Matra to merge with Aérospatiale (rather more comprehensively than the original planned missile business merger had intended). Thomson-CSF was also finally privatized in June 1998 with Dassault and Alcatel becoming shareholders and CSF acquiring Aérospatiale's satellite business. Despite this effort, the DASA-BAe talks continued. However rather than a merger between BAe and DASA as had been confidently expected, in January 1999 a surprise buy-out of the defense arm of GEC Marconi was agreed by British Aerospace. A furious DASA was left with little option other than to merge with Aérospatiale-Matra and CASA of Spain to form EADS.

Consolidation in the European defense industry has produced therefore three dominant firms who are active in most parts of the defense market: BAe Systems, European Aeronautic Defense and Space Company (EADS) and Thales (formerly Thomson-CSF). The development and shape of these companies though varies. BAe Systems can be regarded as a massive 'national<sup>6</sup> champion', resulting from the merger of British Aerospace and GEC Marconi. The British government in this case rather reluctantly acquiesced to the companies' wish to merge. EADS was consolidation at the European level as it resulted from the merger of Germany's DASA, the French Aérospatiale Matra and Spain's CASA following major government pressure for this merger. Finally, Thales has emerged from a more normal growth period as it acquired smaller businesses and integrated them into its core functions (Vlachos-Dengler, 2002). The ownership structure of European defense industry is extremely complicated, with numerous examples of cross-shareholding and program- or segment-specific joint ventures and consortia. The defense firms have internationalized, not only through international trade in armaments but also

European  
Restructuring

---

5 Given the surprise 1998 Anglo-German announcement about Stock Market co-operation and joint ventures it is understandable that the French were worried that something similar would happen in the defence industrial sector.

6 Although the extent of both non-British shareholders and activity in United States caused Geoff Hoon (then Minister of Defence) to question controversially in 2002 whether BAe Systems was really a British firm any more. Confirmation in April 2003 that Bae Systems was discussing a merger with Boeing would confirm this suspicion (Mesure, 2003).

Differences  
Remain

through a proliferation of joint ventures in development and production, internationalized supply chains (especially due to offset requirements) as well as the development of multinational corporations. It should however be noted that, while the aerospace sector as shown above is concentrated in the hands of relatively few players, this is not the case in all sectors, most notably the land systems industry or in naval shipbuilding. The British land industry for example is still split between Alvis (part of Rolls Royce) and Royal Ordnance (part of BAe Systems), while despite efforts by the German government to increase co-operation Krauss Maffei Wegmann and Rheinmetall still compete in Germany (Guay and Callum, 2002). Domestic concerns about jobs, a desire to maintain national capacities (particularly in shipbuilding) and some security concerns have prevented further consolidation in these areas. There are though some signs that the big three are acquiring firms in these sectors. Both Thales and BAe Systems own shipyards for instance. Equally, many of the European arms producing countries continue to maintain uncompetitive national companies through offset and other protectionist strategies. There is a tendency to assume, particularly after the creation of EADS, that European defense industrial consolidation had been successfully completed but this is in fact not the case.

Access to the  
American  
Market

Another area of divergence has been in contacts with the United States. While US firms enjoy far superior access to the European market than is given in return there is a transatlantic dimension in the thinking of European firms. The extent to which this exists though varies quite dramatically between the European countries and is closely related to government procurement policy and US government decisions on the degree of access it will allow any given state (Schmitt, 2001). British firms in particular have enjoyed relatively privileged access to the US market as the position of BAe Systems as the sixth biggest US defense firm shows. There are also areas of components, HUDs and ejector seats, where UK has an independent capability in supplying the US. However, throughout Europe use of offset when buying American defense goods 'off-the-shelf' or under licensed production (and less frequently through collaborative projects) has enabled European firms to enter the supply chain of large US producers and to gain access to US technology. The French government has traditionally chose autonomous or European collaborative procurement and enjoys a more distant security relationship with the US than many of its European partners, consequently French firms have considerably less access to the US market. All of the big three firms want access to the US

market, given the size of the US defense procurement budget, and have developed strategies to gain access. However, the privileged position that BAe Systems holds compared to EADS or Thales, especially following the Iraq crisis, and particularly if a merger with Boeing takes place as suggested by the media (Mersure, 2003) does cause friction. The problem of dealing with the transatlantic armaments relationship is therefore a key issue for firms in the context of any European defense industrial policy.

European defense firms continue to lobby actively for improved conditions in the European defense market as they feel there is much that needs changing. Increasingly, they are concentrating their efforts on the EU level. The European Commission is often viewed as more sympathetic to defense industrial concerns than many member states. While the big firms lobby individually as well, the EU level defense industrial lobby is formally represented by two umbrella organizations EDIG (European Defense Industries Group) and AECMA (European Association of Aerospace Companies)<sup>7</sup>. EDIG was first formed in 1976 as a body responsive to the National Armaments Directors (NADs) of the Independent European Program Group (IEPG) nations. The aim was that it should be a central focus of European defense industrial opinion. EDIG's members are the national defense industry associations of the member states of the Western European Armaments Group (WEAG). During 1997, the defense industry associations of Austria, Finland and Sweden became involved in the work of EDIG as "observers" and since February 1999 are full members of EDIG, Hungary and Switzerland have also expressed interest in joining. The governmental concentration on aerospace has though left EDIG rather sidelined in recent debates. AECMA founded in 1950, on the other hand, which has the national aerospace associations as well as large firms as its members, has been more fortunate. Its recipe for success may well be allowing the big firms a role in addition to the representation given by national bodies. In 2003 the two organizations had begun to explore co-operation strategies leading to a potential merger and intend to set up a joint secretariat<sup>8</sup>. The ease of access that EADS, Thales and BAe Systems especially, but also other defense firms, have to the decision-making levels of the EU should also not be underestimated. It has become increasingly clear that these three

## Lobbying

---

7 There is also a small group representing marine industry; the European Marine Equipment Council.

8 See consecutive editions of the EDIG newsletter for details at <http://www.czech-aop.cz/bulletin.html>.

firms are substantially setting the agenda of defense industrial policy-making in Europe. Acting either individually or as a group of three<sup>9</sup> the companies have become ever more open in their attempts to mould any emerging European defense industrial policy in a manner favorable to their interests. The stress laid by the states on the creation of large prime contractors has meant that the results enjoy better access to national and European decision-making structures than their peers, thus forming an important lobby group that is largely unopposed, and this imbalance has impacted on policy.

### *3.2 Nation States*

The EU member states share a concern about the globalizing trends evident in the defense industrial system. For the larger arms producers, the chief concerns were that

“It is already evident that a ‘national’ defense industry identity has been irrevocably diluted by the flow of outward and inward investment and by the operation of an international supply chain. National governments must now respond to the challenges posed by a globalizing defense industrial system where the demands of industrial efficiency and international trading are likely to conflict with issues such as security of supply, security clearances and controls over technology transfer.” (Hayward, 1999: 1-2)

For smaller arms producers the concern was more that their firms were not involved in this process sufficiently, and they were worried about losing all influence in the construction of new defense industrial strategies.

At the beginning of the 1990s there were substantial differences between the major European arms producers on defense industrial policy. The French and British models could be seen as two ends of a continuum. The British government claimed not to have a defense industrial policy at all, concentrating instead on obtaining maximum value for money in defense procurement. By this time they had also privatized their major defense firms. The French on the other hand, had achieved an almost seamless interweaving of defense industry and state and much defense industry was still nationalized. There was therefore

---

9 See for example the ‘Joint Declaration of BAE Systems, EADS and Thales: Time to Act’ of 28 April 2003:  
[www.eads.net/xml/en/press/eads/20030428\\_joint.xml](http://www.eads.net/xml/en/press/eads/20030428_joint.xml).

little agreement of how defense industry should be managed. The realization in the mid 1990s that the defense firms were setting the agenda particularly regarding a response to American restructuring and that this could have difficult consequences for states forced a policy reconsideration. As Markusen (1999) warns, the possibility of global defense firms is very real. She envisages a situation where governments, in this case the American government, are forced to select weapons from what the firms are producing rather than directing production. As Beecham, writing from a customer's perspective, asks

“In an era in which Western democracies are under great pressure from their electorates, how can we have a voice in shaping the globalization of the defense industry, which is happening more under industrial and commercial drivers than through any government policy?”  
(Beecham, 2001: 1)

The governments of the major arms producing European Union countries have therefore been keen to retain control of the regulatory environment in its new transnational format. In essence, what this reconsideration has produced, is a shrinking of the scale of difference between the countries. They have always had a common objective,

“...to maintain efficient, technologically dynamic, defense industries which are able to produce equipment that defense ministries wish to buy.”  
(Walker and Gummett, 1993: 29)

but agreement on the means to this end was lacking. As a move away from purely national firms seemed inevitable the governments though were no longer only considering how to achieve this objective nationally, but in order to avoid complete dependence on the United States, at the European level. The French government recognized that, if its firms were to participate in European mergers, they would have to be privatized, as state control was unacceptable for British and German firms. As a result, the level of state involvement in defense industrial matters was decreased, and some state holdings in defense firms sold off. The British government realized that continuing to alienate their defense firms was counterproductive, if they were to retain any element of control over the internationalization of the defense equipment business. They decided to increase state-defense industry links, and to take account of defense industrial issues in procurement decisions. At the same time, both Britain and France moved away from the

Responding to  
the Changing  
Firms

objective of autonomy in defense production, towards an acceptance of multinational projects for major weapons systems. On the surface therefore, there has been considerable policy convergence during the late 1990s. Differences remain, but they are more frequently questions of emphasis rather than deep ideological differences. The British government, for example, likes to emphasize its willingness to collaborate with the United States; if that offers ‘smarter procurement’, but in practice decisions have been increasingly in favor of European projects<sup>10</sup>. By the end of the 1990s there had been a rapprochement between the major arms producers, which made progress on co-operation possible particularly after successful co-operation on defense procurement had established OCCAR.

The Framework Agreement concerning Measures to Facilitate the Restructuring and Operation of the European Defense Industry signed in July 2000 by Britain, France, Germany, Italy, Sweden and Spain is often seen as an example of the rapprochement between key European arms producing states on defense industrial policy. The agreement creates a framework for the six nations to co-operate on defense industrial issues. The agreement was not just about creating an organizational framework for discussion but included important agreements on principles and policy in six key areas:

#### Framework Agreement

- *Security of Supply:* The nations are committed not to hinder unnecessarily the supply of defense materials to the other participants and to consult on any merger or acquisition of defense companies that may threaten security of supply. They are also committed to working together on providing supplies from national stocks, priority and allocation of supplies, and reconstitution of supply facilities.
- *Exports Procedures:* The Agreement commits the nations to apply simplified export licensing arrangements to transfers made between themselves whether as part of joint projects or national purchases; and to develop lists of permitted export destinations for jointly produced military goods on a project-by-project consensual basis. This will not abrogate national export controls or the EU Code of Conduct on Arms Exports.
- *Security of Classified Information:* New simplified procedures will be introduced for exchanges of classified information

---

<sup>10</sup> See for example the 2000 decisions to purchase Meteor and the A400M aircraft instead of American bids.



between the countries and their defense industries that do not undermine the security of that information.

- *Treatment of Technical Information:* The Agreement commits the nations to harmonizing their contracting procedures for the disclosure, transfer, use and ownership of technical information to facilitate the restructuring and operation of European defense industry.
- *Research and Technology:* Co-ordination of joint activities will be fostered.
- *Harmonization of Military Requirements:* Parties are committed to improving their co-operation in this area probably by starting the process much earlier in the planning process (MoD, 2001).

Subsequently, negotiations have been carried out in all of these areas to agree the administrative and technical details necessary and in some cases have broadened to consider questions like the abolition of offset in transfers between the Framework Agreement countries<sup>11</sup>.

However, the agreement masks continuing areas of divergence between the key armaments producing countries. Firstly, the United States has successfully played 'divide and rule' tactics over bilateral negotiations on 'Declaration of Principles on defense equipment and industrial co-operation' with the Framework Agreement countries. The 2000 Declaration of Principles signed by Britain and America for example aims to improve co-operation on security of supply, market access, exports, handling of classified information, research and technology and military requirements. The declaration is also valued by British industry, which under the agreement should be treated in the US no less favorably than US companies are treated in the UK. Similar agreements have been signed with Spain, Norway and the Netherlands, while talks are well advanced with Italy (Schmitt, 2002). In contrast, particularly in the post-Iraq war climate, such agreements are far from being concluded with France and Germany. This means that the Framework Agreement countries and 'their' firms are not in the same position vis-à-vis the US. Given the importance of the American defense market, this has caused resentment as has the participation of the UK, the Netherlands, Denmark, Italy and Norway in the US-led Joint Strike Fighter program. Similarly, past patterns of procurement mean that the embeddedness or otherwise of national firms in US

Relations with  
the US

---

11 Interviews with defence procurement officials in Britain and Germany in summer 2002.

Residual  
Problems

supply chains and production deals means that some countries see their defense industry as far more bound up with that of the USA than others. This makes them more resistant to efforts to legally protect European firms from American takeovers or involvement. Enlargement seems likely to increase the numbers of countries feeling this way given their procurement patterns, which in the 1990s were aimed at securing NATO membership.

Secondly, industry has been fairly critical of the Framework Agreement process, claiming that there are no real results and that they are not being sufficiently consulted. This is particularly true of German firms, who complain that the process is institutionalizing their perceived disadvantages in comparison to other firms, because of lack of German government support for defense industry. Moreover, the biggest arms producers Britain, France and Germany have all discovered flaws in their national armaments strategies that have distracted them from pushing the Framework Agreement agenda forwards. Britain has been faced with the difficulty of trying to operate a competitive procurement policy in an environment where there is essentially no longer any domestic competition. In allowing THALES to take over Racal it has recreated some level of competition but at the cost of public disagreements between the government and BAe Systems, who argue that they should be given advantages as the remaining British firm in the market (Gow, 2003). France has found it difficult to call for mergers in land and naval industries as its two main firms in the sectors GIAT and DCN are doing so badly, that they are unlikely to be attractive partners (Schmitt, 2002). Meanwhile, the German government has begun to worry about the loss of its influence along with key technologies in the fallout surrounding the (short-lived) purchase of the HDW submarine firm by an American investment fund, Equity One Partners.

The four OCCAR countries represent about 75% of the EU's defense expenditure, and 80% of its procurement (RDT&E included) spending. The six Framework Agreement countries represent 90% of EU defense industrial capacity. It might therefore be supposed that the views of small member states are of little account. In fact after trying unsuccessfully to make OCCAR a WEU institution<sup>12</sup>, the bigger producers simply ignored smaller ones<sup>13</sup>. However, the keenness of smaller defense

---

12 Smaller producers especially Greece and Belgium refused to accept the end of *juste retour*.

13 Although it should be noted that some co-operation is taking place on armaments between smaller producers. Denmark, Finland, Norway and Sweden signed an agreement on Nordic armaments co-

industries (particularly those like Greece with what could be termed a nascent defense industry) to protect their national capacity from European rationalization, means that the continuation of *juste retour*, intra-European offset and other protectionist policies are still on the European arms co-operation agenda. This lack of consensus is still influencing the discussion at the EU-15 level and has effectively prevented greater progress within the Western European Armaments Group (see Box 1).

*Box 1: Western European Armaments Group (WEAG)*

In 1976, the Defense Ministers of the European countries (except Iceland) belonging to the North Atlantic Treaty Organization (NATO) established the Independent European Program Group (IEPG) as a forum for armaments co-operation. The IEPG though managed little concrete achievement on co-operation. When WEU ministers met in Maastricht in December 1991 they agreed that further examination of the possibilities of enhanced co-operation in the armaments sector, with the aim of creating a European Armaments Agency, should take place. Subsequently, in December 1992 the IEPG members agreed to transfer the functions of the IEPG to the WEU. There were six basic principles for the transfer, of which the most important were:

- All thirteen nations should be entitled to participate fully and with the same rights and responsibilities in any European armaments co-operation forum.
- There should be a single European armaments co-operation forum.
- The National Armaments Directors of all thirteen nations, who are accountable to their respective Ministers of Defense, should manage armaments co-operation in Europe.
- The existing links with NATO and the European Defense Industries Group (EDIG) should be maintained.

Since 1993 the WEU armaments co-operation group has been known as WEAG. In 2000 it was agreed that Austria, the Czech Republic, Finland, Hungary, Poland and Sweden should join WEAG as full members bringing the number of full members to nineteen. WEU Associate Partners (Bulgaria, Estonia, Latvia,

---

operation in November 2000 aiming to reduce procurement and life support costs for the participating nations and to optimise Nordic defence industry. This agreement led to the acquisition of a common Nordic Standard Helicopter, which is now in production. Equally, co-operation on a common submarine project continues. See [www.defind.se/europaeng.htm](http://www.defind.se/europaeng.htm).

Lithuania, Romania, Slovakia and Slovenia) may if agreed participate in specific WEAG projects. WEAG states its objectives to be:

- More efficient use of resources, through inter alia, increased harmonization of requirements.
- The opening up of national defense markets to cross-border competition.
- To strengthen the European defense technological and industrial base.
- Co-operation in research and development.

WEAG carries out its work through three panels. Panel I 'Co-operative Equipment Programs' tries to identify opportunities for co-operative projects by comparing national equipment replacement schedules and following development in European security policy such as the European Capability Action Plan (ECAP) process. Panel II 'Research and Technology Co-operation' currently spends approximately 100 million euros annually on research and technology projects until recently through the EUCLID program. In 2001 a new umbrella Memorandum of Understanding 'European Understandings for Research Organization, Programs and Activities' (EUROPA) was signed. Panel III 'Procedures and Economic Matters' deals with defense economics policy and arms co-operation procedures. It conducts a dialogue with the European Commission and EDIG on these questions. The Western European Armaments Organization (WEAO) was created by WEAG in 1997. Intended to become the European Armaments Agency (EEA), it is a subsidiary body of the WEU and shares its legal personality, thus enabling it to issue contracts on behalf of its members. Unlike many WEU functions it remains independent of the EU. Although an evolutionary process towards creating an EEA is underway, lack of political consensus has slowed progress and the WEAO is currently acting only as a research cell.

To some extent the bigger states though have succeeded in changing the agenda to focussing on a competitive market but a residual strong role for the state. However, the lack of clear results from the Framework Agreement working parties, a distinct lack of enthusiasm from industry who felt they are not sufficiently consulted, the failure to get smaller producing EU countries to share their views and the initially rapid development of ESDP encouraged another regulatory player, the European Commission, to resume its efforts to gain competence in defense industrial policy. The emergence of ESDP has also led the other European

Union institutions to consider their defense industrial policy roles. While technically it is for the national governments to establish a new European regulatory environment for defense industry, to reflect the changed realities, there is nothing to prevent the involvement of other players such as the Commission or even non-regulatory players like the defense firms themselves.

### *3.3 The European Union as a Defense Industrial Policy-Maker*

The European Commission has long aspired to a role in defense industrial policy regulation. Despite Article 296<sup>14</sup> it has tried to gain influence via Single Market legislation, competition policy and regional policy. It has some control of the specific field of armaments policy in four key ways:

- The Commission administers the framework scheme of research and development and some of these projects are dual-use<sup>15</sup>,
- Even if there is a defense dimension, it must give approval for major corporate mergers
- It gave funds to alleviate unemployment in areas affected by closing defense bases or failing firms<sup>16</sup> and
- It managed to set up in 1995 a largely license free regime for the trade of dual-use goods within the EU (Taylor, 1997: 132).

Equally, its industrial policy decisions have affected aerospace and naval industry. It has though also (from the Delors Commission onwards) tried to develop overall policies on defense industry. Briefly, in the early 1990s the European Commission looked wedded to the idea of defense as a strategic trade<sup>17</sup>. However,

---

14 Defence industry is not covered by Single Market legislation and its regulation remains the province of member states (Article 296 Treaty of Amsterdam previously Article 223).

15 Although defence research is not currently officially funded by the Commission, there are many dual-use projects funded. The Commission estimated in 1996 that a third of funded research was dual-use.

16 This scheme was known as KONVER and ran from 1993 - 2000. Measures eligible for support included; advisory and business support services to improve know-how and encourage diversification, job creation and vocational training schemes, redevelopment of military sites for civilian use, environmental and community facility improvements and the promotion of tourism.

17 A strategic industry tends to be characterised by decreasing per-unit costs reflecting economies of scale and learning, high technology reflected in major and expensive R&D programmes, and providing

Commission  
Communiqués

following great resistance by the member states to the idea of allowing the Commission a role in defense industrial matters, the plan disappeared. The Commission's next set of plans presented in two communiqués in 1996/7 were considerably more free market orientated (Lovering, 1999: 353-5). Member states though still showed little enthusiasm for the suggestions. Even the DG-Enterprise itself admits that progress on its 1999 Action Plan, which was a follow-up to the 1997 communiqué, was disappointing, amounting to little more than the commissioning of research projects (Liikanen, 2000). More recently, the spur of the development of ESDP has encouraged to Commission to again try for an enhanced role in defense-industrial policy-making. In particular, the Commission has become a champion of the key European aerospace and defense companies, thus echoing its earlier strategic industry approach. For Commissioner Liikanen especially the primary goal is the establishment of a unified European defense market, which will support the European defense industrial base, which he regards as of crucial economic importance. It is thought that he has been particularly sympathetic to industry's agenda on this matter.

One example of this may suffice. When the European Advisory Group on Aerospace, consisting of five European Commissioners<sup>18</sup>, the High Representative Javier Solana, two MEPs and top-level representatives of the main European aerospace firms, presented its review of aerospace policy in July 2002, it met with some skepticism in national capitals. The main recommendations of the Report were nothing new to those following developments in European defense industrial and aerospace policy, but the way in which the report was developed was. The report had two particular priorities: (1) Rapid progress in developing a more coherent European market in defense equipment; and (2) Major improvement to the structure of European research and technology in civil aeronautics, defense and space (STAR 21 European Advisory Group on Aerospace,

---

technological spillover into the wider economy. Examples might include electronics or the nuclear industry. Competition is imperfect due to the frequent presence of monopolies. They attract government subsidy because of the assumed benefit of technological spillover and the desire that the country should have a share of the monopoly profits.

18 The involvement of so many Commissioners reflects the need for the Commission to agree a common position on these matters. Mörth (2000) suggests those earlier attempts to gain competence failed because of territorial battles on whether armaments policy should be framed as a Single Market or a defence issue.

2002 – See Box 2). It was keen to underline that Europe may not be able to fulfil its own policy ambitions under the Common Foreign and Security Policy if political commitments cannot be backed up by European security and defense capabilities. The report emphasized the view that European civil and defense aerospace were both complementary and interdependent and that it needed considerable investment to match the American competition. Such statements have commonly been found in the declarations of the European defense industrial lobbies and more importantly in those of the key defense firms. The decision though of the European Commissioners to identify themselves so openly with the concerns of the major aerospace firms led to speculation about the levels of access of such firms to the decision-making table (de Defensa, 2002).

*Box 2: STAR 21 Report*

The STAR 21 Report's main recommendations were:

- **Global markets:** The report called for a level playing field which allowed fair competition in world markets, the relaxation of "Buy American" rules, convergence in export control procedures on products with US components, reciprocal market access and international co-operation programs to help build new trading relationships.
- **Operating environment:** Major increases in investment in aerospace research and development possibly backed by tax incentives. Measures should be taken to secure the availability of a highly skilled and mobile workforce.
- **Governance of civil aviation:** The EU should become the policy-maker and regulator in all areas of civil aviation. A master plan for air traffic management should be developed under the Single Sky initiative.
- **Defense:** The report called for the greatest efforts to build a coherent structure for defense and security equipment in Europe. Military requirements should be harmonized and procurement budgets planned jointly. There should be more coherent spending on defense research. Capability gaps identified in the European Headline Goal should be bridged. Additional resources should be provided.
- **Space:** A consolidated European space policy with adequate funding is needed to guarantee Europe's independence and competitiveness in space. A fully Europe-based capability for surveillance, reconnaissance and command/control should also be developed.

2003  
Communiqué

Subsequently, on 11 March 2003, the European Commission released a communiqué about the industrial and market issues of European defense, which picks up on issues raised in their earlier reports. This missive was also in response to the European Parliament's April 2002 request for such a communiqué. The Commission proposes action in seven areas; standardization, monitoring of defense-related industries, intra-community transfers, competition, procurement rules, export control of dual-use goods and research. The communiqué's proposals are a mixture of well-prepared definite proposals based on existing work and vaguer, more political assertions sometimes based on less impressive evidence. Concretely, it plans to produce a handbook cataloguing standards commonly used for defense procurement by the end of 2004 and launch a monitoring activity of defense-related industries. It will also assess the impact of a simplified European license system for intra-community transfers and controversially initiate a pilot project of defense research related to aspects of the Petersberg tasks. Less concretely, the Commission intends to continue its reflections on the application of competition rules to the defense sector and work on optimizing European defense procurement, with the aim of creating a single set of procurement rules. Interestingly it does not mention the years of substantial work already carried out by OCCAR on precisely this. It will also ask Member States to allow it to participate in the international dual-use export regimes to ensure that firms are not damaged by more restrictive national regimes. Finally, the Commission wishes to pursue an EU Defense Equipment Framework, overseen by one or more agencies, to pull together intergovernmental initiatives like OCCAR and the Framework Agreement. Such a framework could also use Community instruments to tackle issues like off-the-shelf procurement, security of supply and facilitating European defense trade. The European Commission does cite cost efficiency of defense spending, ethics and fairness in the arms trade, security of supply and the need to respect Member States' prerogatives as important considerations in its policy formulation. Its view however of an EU armaments policy appears to be principally based on maintaining a competitive defense industrial base and obtaining better access for EU armaments to third markets. Throughout the paper the primacy of defense industrial interests is clear, and the Commission appears to underestimate the levels of difference there are between member states on these issues. There is also a tendency to neglect the interests of sub-contractors in favor of prime contractors. The paper also takes questionable statements as



given, for example that defense technology is a driver of civilian technological development. There is also an assumption that European and American defense industrial assets and contracts can be unbundled, which is not really the case. It is therefore a far from perfect contribution but one that is likely to form a focus of debate.

The other European institutions have been less active or productive on questions of defense industrial policy. As outlined earlier the lack of agreement at the EU-15 level has prevented action in the Council of Ministers, although the POLARM working group has discussed the issues. It had substantially ignored previous Commission initiatives so at the time of writing it remains to be seen what the reaction to the Commission's latest communication will be. However, as there now seems to be general agreement on the need for a procurement agency this may prove a favorable moment for debate. Some of the Commission's suggestions though are likely to prove controversial as they move beyond generalities into sensitive areas. Thus far Council agreement has rested on generalities in this area. Similarly neither the European Parliament Committee on Foreign Affairs, Human Rights, Common Security and Defense Policy nor the Committee on Industry, External Trade, Research and Energy have reported specifically on defense industrial policy in the last five years, although vague homage has been paid to the importance of the defense industrial base for ESDP in reports on European security. It also should be pointed out that it was the European Parliament who requested the most recent communication from the Commission. Additionally, the lobbying effort of the defense firms is thought to have also had an effect on wider ESDP debate. At least one MEP thought though that the lobbying activities of the defense firms were responsible in part for the lack of critical debate on ESDP<sup>19</sup>.

Other EU  
Institutions

#### **4. An Emerging European Defense Industrial Policy?**

Analyzing the moves of the major protagonists shows that some statements can be made about an emerging European defense industrial policy. Firstly, the restructuring of European national Cold War-based defense industry has not resulted in a European

---

19 Elisabeth Schroedter MEP 'Zivilmacht Europa? Konzepte und Realitäten', Speech at annual conference of the Arbeitsgemeinschaft für Friedens- und Konfliktforschung in Iserlohn on 22 February 2002.

military-industrial complex<sup>20</sup> or 'Fortress Europe', as the Americans like to call it. Instead a complex web of economic governance hovering between the national, intergovernmental and supranational authorities trying to regulate a diverging industrial sector can be observed. Moreover, the driving or directorial role of the large firms in policy formulation can be noted at various points. The European political economy of defense can currently be characterized by relationships between the key protagonists that are often conflictual and contradictory, and based on an uneasy compromise between preferences for a neo-liberal free market systems and a mercantilist 'strategic trade' perspective. Moreover, the transatlantic issue has yet to be really addressed in a meaningful way.

A compromise?

Notwithstanding the continuing disagreements, a compromise does seem to be emerging on the part of the key actors that smaller players can probably be induced to accept in the long run if not the short term. What then are the parameters of this compromise? In short, the consensus appears to rest on the belief that maintaining European defense industrial capacity in the shape of large prime contractors is key and that consolidation of the defense industrial sectors through mergers is the way to achieve this. There is an assumption that removing the barriers to intra-community trade will create a viable and competitive European defense market to allow such companies to thrive in a way that will suit those procuring defense equipment, which will be done collaboratively. There is also an assumption that European interests are definable and separable from American ones. Agreement with all of these elements is far from universal but any emerging policy is almost certain to keep these parameters. Equally, even when rhetorical differences exist, often on matters of substance they disappear. France for example has consistently espoused a protected European defense industry whereas Britain and Germany have emphasized value for money. However, when a much cheaper Canadian bid for the A400M engine contract looked likely to succeed in May 2003, it was the British Trade and Industry Secretary, Patricia Hewitt, who promised research funding to Rolls Royce thus allowing the

---

20 The use of the term military-industrial complex (MIC) is intended as descriptive shorthand rather than agreement with C. Wright Mills MIC theory, which fails to produce a clear conceptual account of the interrelationships and motives involved. See Slater and Nardin (1973), Lovering (1986) or Mawdsley (2002) for fuller explanations of this point. Dunne (1995: 411) agrees arguing that, "There is no clear conceptualization of the MIC. Indeed the concept appears to be most of value as a descriptive rather than an analytical concept."

European bid to sink its price and win the contract (Done, 2003). In many ways, the political actors, be it member states or the Commission are trying to recreate the relationship that existed nationally between defense firms and governments at a European level. It is reasonable to ask particularly in the light of the A400M engine contract decision of May 2003, whether this is actually affordable. The three big defense firms are naturally supportive of this effort to establish a European market, even though they are all simultaneously trying to present themselves as global firms. However, there are problems with this consensus and that is that it fails to take into account sufficiently the globalization of technology and the impact this has on defense and security.

Firstly, leaving aside the policy difficulties of a potential BAe Systems/Boeing merger, when we move beyond the prime contractor level of analysis it is clear that globalization is more advanced than many realize. This is however a contradictory and confusing process. At the upper level of sub-systems supply, a confusing array of joint ventures, cross-shareholding and management companies masks an increasing concentration of ownership in the hands of relatively few companies<sup>21</sup> as horizontal mergers increasingly give the impression of quasi-monopoly provision. However, Hayward (2000) argues that the need to insert leading-edge civilian technology into defense systems is also hastening the globalization process, as is the need to cut development time for new systems and the growing tendency for cheaper off-the-shelf procurement further down the supply chain. The Revolution in Military Affairs has vastly increased the importance of the civilian technology to defense platforms (Axelson and James, 2000). The firms that supply these key components (such as embedded software) are frequently global suppliers, thus leaving prime contractors and governments reliant on global firms with little incentive to abide by restrictive defense contracting arrangements. Thus while governments or the European Commission may worry about losing control over key industrial assets (prime contractors and upper level sub-systems suppliers) and thus core technology, they have de facto already chosen to lose control over the flow of defense technology because of these supply chain developments. This has important implications as it alters the security environment in which the EU operates as it would mean that the military superiority of the EU / NATO cannot be taken for granted. Ironically, it is precisely the transnational research environment thought necessary to develop cutting-edge technologies (such as

The Realities of  
Globalisation

---

21 See <http://defence-data.com/ripley/pagerip1.htm> for details.

for example nanotechnology) that makes the subsequent control of any military spin-offs so difficult. It should however be stressed that possession of the technology does not equate to the ability to integrate it into a weapons system.

This is precisely where choices made about defense affect security and similarly about how choices made on the political economy of defense in Europe have a wider impact on its political economy of security. If the EU accepts that the Revolution in Military Affairs technology is crucial to ESDP<sup>22</sup>, then this would impact on defense industrial policy. It would suggest that arms export control regimes would need to be increasingly nuanced to prevent the transfer of systems integration capabilities. Similarly, it would be more important for governments or the EU (depending on the scale and speed of policy integration) to concentrate their limited budgetary resources on protecting systems integration capabilities rather than platform (e.g. planes, ships) building capacities in any defense industrial policy. This would though mean that prestige large platform projects might not be so important in the future – the systems inside the ship or plane would be more important, and so the platform itself could be procured wherever it is most cost-effectively produced (not necessarily in the EU). This would be politically very sensitive but needs at least to be considered.

Equally, the current ‘big is best’ consolidation frenzy may prove to be misplaced. There is little evidence that even in the high spending American defense market that the mega-defence firms are proving particularly profitable. Hayward (2002: 121) speculates that unbundling of these firms into smaller specialist entities may well take place as has taken place in comparable industrial sectors like automobiles. This would also have wide-reaching industrial consequences as such an unbundling could (particularly for EADS) have the potential to renationalize some capacities. Within EADS the reluctance to allow key technological capacities to cross national borders can still be seen. In conclusion, a consensus is emerging on European defense industrial policy. Whether it is affordable, too heavily influenced by the interests of three firms, or likely to provide the EU with the military capacity it desires are all debatable questions. Crucially, though just as the creation of the Rapid Reaction Force

---

<sup>22</sup> This is far from clear. Britain, France and to a lesser extent Germany have begun to acquire these capacities. Other countries still see it as largely irrelevant to their security plans.

was criticized for being based on a plan for intervening in the last rather than the next crisis, a defense industrial policy must be careful to deal with the realities of today rather than those of earlier years.

## References

- Aben, J. 1992. *Économie Politique de la Défense*. Paris. Editions Cujas
- Albrecht, U., Kaldor, M. and G. Schmèder. 1998. 'Introduction'. in Kaldor, M., Albrecht, U. and G. Schmèder (Eds.). *Restructuring the Global Military Sector: The End of Military Fordism*. London. Pinter: pp.1-10
- Axelson, M. and A. James. 2000. *The Defense Industry and Globalisation: Challenging Traditional Structures*. The FIND Programme User Report. FOA. Stockholm
- Beecham, J. 2001. "European Armaments: The Customer's Perspective". *RUSI Journal*. Volume 146 Number 4: pp.1-5
- Brömmelhörster, J. 2000. 'Military Expenditures and the Search for Peace Dividends: An Introduction'. In Brömmelhörster, J. (Ed.) *Demystifying the Peace Dividend*. Nomos Verlagsgesellschaft. Baden-Baden: pp.9-24
- Brzoska, M. 2001. 'The Future of Defense Production – Europe's Chances, Choices and Conduct'. in *The Restructuring of the European Defense Industry: Dynamics of Change*. COST Action A10 European Commission. Brussels: pp.9-32
- De defensa. 2002. *Le rapport Star 21, un bon exemple et un exemple convaincant des ambiguïtés et des perversités de l'action européenne*. Fléron. 18 July 2002
- Done, K. 2003. 'Europeans Beat P&W to Airbus Engine Deal', *Financial Times*. 7 May 2003
- Dowdy, J. 1997. 'Winners and Losers in the Arms Industry Downturn'. *Foreign Policy*. Number 107: pp.88-101
- Dunne, J. 1995. 'The Defense Industrial Base', in Hartley, K., and T., Sandler, (Eds.). *Handbook of Defense Economics*. Oxford. Elsevier: pp.399-430
- European Commission. 2003. *European Defense – Industrial and Market Issues: Towards an EU Defense Equipment Policy*. COM (2003) 113 final. Brussels.
- Frey, B. 1984. *International Political Economics*. Oxford. Blackwell
- Gow, D. 2003. 'Outcry over Thales Contract Rings Hollow'. *Guardian*. 3 February 2003

- Grant, C. 1997. 'Global Defense Industry'. *The Economist*. 14<sup>th</sup> June 1997. London: pp.1-22
- Guay, T. and R. Callum. 2002. 'The Transformation and Future Prospects of Europe's Defense Industry'. *International Affairs*. Volume 78 Number 4: pp.757-76
- Gummett, P. and W. Walker. 1989. 'Britain and the European Armament Market'. *International Affairs*. Volume 65 Issue 3: pp. 419-42
- Hayward, K. 2000. 'The Globalisation of Defense Industries'. *Survival*. Volume 42 Issue 2: pp. 115-32
- Hayward, K. 1999. 'Defense Industrial Globalisation – the 'Hidden Hand of Government'', Paper given at 'NATO: the First Fifty Years', *International Academic Congress*. Brussels/Bonn. 19-22 May 1999
- Hébert, J-P. 2002. 'L'Européanisation de l'Industrie d'Armement et l'Autonomie Stratégique de l'Europe'. *Arès*. Volume 19 Issue 2: pp.45-59
- Kaldor, M. 1997. 'Introduction'. in Kaldor, M., and G. Schmèder (Eds.). *The European Rupture: The Defense Sector in Transition*. Cheltenham. United Nations University Press: pp.1-6
- Liikanen, E. 2000. *The role of the EU and European Commission initiatives to promote a competitive European defense technological and industrial base*. Forum Europe 5<sup>th</sup> European Defense Industries Conference: "Europe's New Defense Era". Brussels, 23 May 2000
- Lovering, J. 1999. 'Which Way to Turn? The European Defense Industry After the Cold War'. in Markusen, A., and S. Costigan (Eds.) *Arming the Future: A Defense Industry for the 21<sup>st</sup> Century*. New York. Council on Foreign Relations: pp.334-370
- Lovering, J. 1986. 'The Restructuring of the Defense Firm and the Role of the State'. *School for Advanced Urban Studies Working Paper 59*. Bristol. Bristol University
- Markusen, A. 1999. "Globalization at Work: The Rise of World Weapons" *Foreign Policy*. Number 114: pp.40-52
- Mawdsley, J. 2002. *The Gap between Rhetoric and Reality: Weapons Acquisition and ESDP*. BICC Paper 26. Bonn
- Mesure, S. 2003. 'BAe Confirms Boeing Talks as US Investors Stage Protest over Pay'. *The Independent*. 30 April 2003

- Ministry of Defense (UK). 2001. *Explanatory Memorandum for an Agreement to Facilitate the Restructuring and Operation of the European Defense Industry*. London
- Mörth, U. 2000. 'Competing Frames in the European Commission – the Case of the Defense Industry and Equipment Issue'. *Journal of European Public Policy*. Volume 7 Issue 2: pp.173-89
- Sandler, T., and K. Hartley. 1999. *The Political Economy of NATO: Past, Present and into the 21<sup>st</sup> Century*. Cambridge. Cambridge University Press
- Schmitt, B. 2002. *European and Transatlantic Defense-Industrial Strategies*. Paper for IISS/CEPS European Security Forum. Brussels. 25 November 2002: [www.eusec.org/schmitt.htm](http://www.eusec.org/schmitt.htm)
- Schmitt, B. (Ed.) 2001. 'Between Cooperation and Competition: the Transatlantic Defense Market'. *European Union Institute of Security Studies Chaillot Paper 44*. Paris
- Sen. G. 1984. *The Military Origins of Industrialisation and International Trade Rivalry*. London: Pinter
- Slater, J. and T. Nardin. 1973. 'The Concept of a Military-Industrial Complex', in, Rosen, S. (Ed.), *Testing the Theory of the Military-Industrial Complex*. Lexington MA, Lexington Books: pp.27-60
- STAR 21 European Advisory Group on Aerospace. 2002. *Strategic Aerospace Review for the 21<sup>st</sup> Century*. Brussels. European Commission.
- Taylor, T. 1997. 'Arms Procurement' in Howorth, J. and A. Menon (Eds.) *The European Union and National Defense Policy*. London. Routledge: pp.121-40
- de Vestel, P. 1998. 'The Future of Armaments Cooperation in NATO and the WEU'. in Eliassen, K., (Ed.), *Foreign and Security Policy in the European Union*. London. Sage: pp.197-215
- de Vestel, P. 1995. *Defense Markets and Industries in Europe: Time for Political Decisions?*. Chaillot Papers 21. Paris: Western European Union Institute for Security Studies
- Vlachos-Dengler, K. 2002. *From National Champions to European Heavyweights: The Development of European Defense Industrial Capabilities Across Market Segments*. Santa Monica CA. RAND



Walker, W. and P. Gummert. 1993. *Nationalism, Internationalism and the European Defense Market*. Chaillot Paper 9. Paris. Western European Union Institute for Security Studies