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**The European Technology Acquisition Programme (ETAP) –
reply to the annual report of the Council**

REPORT

submitted on behalf of the Technological and Aerospace Committee
by Edward O'Hara, Rapporteur (United Kingdom, Socialist Group)

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*The European Technology Acquisition Programme (ETAP) –
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¹ Adopted unanimously by the Committee on 12 May 2005.

RECOMMENDATION 761¹

***on the European Technology Acquisition Programme (ETAP) –
reply to the annual report of the Council***

The Assembly,

- (i) Considering the work done over many years by European nations in WEU, NATO and the EU towards building a European defence industrial and technological base (EDITB);
- (ii) Emphasising that such instances of variable geometry cooperation seek to rationalise European defence industrial and technology work by making it more coherent and defining priorities for research, technology and development (RT&D);
- (iii) Noting Europe's shortcomings in defence RT&D investment, and when it comes to certain leading-edge technologies and systems and systems integration, particularly in relation to the new information and communications technologies;
- (iv) Considering that weighty economic reasons such as maintaining a skilled workforce, preserving and developing national DITBs and the need to remain competitive, particularly in export markets, play a major part in the decisions that are taken on defence RT&D;
- (v) Noting that transatlantic cooperation/competition in R&T is also a major factor in the catching-up required to strike the long-sought "better balance" in transatlantic security and defence relations;
- (vi) Judging that ETAP is the result of the implementation of undertakings under the LoI/Framework Agreement concerning measures to facilitate the restructuring and functioning of the European defence industry;
- (vii) Recalling that the LoI/Framework Agreement covers only the major European producers/investors in defence R&T and equipment and that the rules defined within it necessarily govern any reform or reshaping of the EDITB, which is, moreover, also one of the tasks of the European Defence Agency;
- (viii) Considering that ETAP can play an important part in encouraging European cooperation in the field of defence R&T and that its effect is beneficial to both industry and government procurement agencies required to work in a more European environment;
- (ix) Emphasising that ETAP is made up of the six principal European nations in the fields of civil and defence aeronautics in the process of equipping themselves, in terms of piloted future air combat systems, with aircraft whose working life will extend beyond 2020 – Typhoon/Eurofighter, Rafale and Gripen – and that such platforms could benefit from the innovations designed and developed through ETAP, which would contribute to making them more interoperable;
- (x) Recalling that two vitally important factors in ETAP's success are transparency and joint development of technologies and systems, always a highly complicated matter in the European context;
- (xi) Noting that Europe's increasing number of external military commitments concerned with combating international terrorism and the proliferation of weapons of mass destruction and terror, and with dealing with crises falling within the remit of the Petersberg tasks, particularly in Africa, have not given rise to increases in defence spending of the same order as in the United States;
- (xii) Recalling that the European Defence Agency includes a Security and Defence R&T Directorate;
- (xiii) Noting that the European Defence Agency is not the only authority dealing with security and defence R&T and equipment but that the European Commission too has been involved in this area for almost a decade, particularly in regard to defence industry restructuring and reorganisation of the

¹ Adopted by the Assembly on 14 June 2005 at the 3rd sitting.

sector, notwithstanding the legal restrictions imposed by Article 296 of the Treaty establishing the European Community (TEC);

(xiv) Considering that in this area the European Commission's European Security Research Programme (ESRP), for which the Preparatory Action for the period 2004-2006 is currently under way, covers dual-use technologies and concept development which are also central to ETAP;

(xv) Taking the view furthermore that when it comes to defence equipment and R&T, there is no getting away from the transatlantic dimension and that European countries involved in this area want to be dealt with as genuine partners (and suppliers) and not merely, as previously, as potential subcontractors dependent on American products and technology;

(xvi) Stressing that the project for the future combat aircraft, the "F-35 Joint Strike Fighter" (JSF), is a good illustration of Europe's dilemma over transatlantic cooperation and also directly affects the future of ETAP and the EDITB;

(xvii) Considering that European countries which have committed themselves to that programme, are tied in for decades to come to a US project which makes no industrial or technological contribution to the EDITB;

(xviii) Regretting that the Neuron project (a demonstrator of the validity of the UCAV – Unmanned Combat Air Vehicle – concept) could not be developed as part of ETAP,

RECOMMENDS THAT THE COUNCIL INVITE THOSE WEU COUNTRIES TAKING PART IN ETAP TO:

1. Inject new life into the European Technology Acquisition Programme by identifying areas of cooperation for the years ahead and setting a realistic timetable for achieving the programme's objectives;
2. Ensure that the technological priorities identified under ETAP are translated into study and development programmes for firms in the participating states so as to maintain the public-private partnership that forms the core of the project;
3. Ensure that ETAP is used to identify, among future needs for air combat systems, those which the United States has already developed, including joint projects like the Joint Strike Fighter, so as to avoid costly and futile duplication;
4. Ensure that any impetus given to European defence R&T and to strengthening the EDITB does not become part of an attempt to build "Fortress Europe" in that sphere, without however ruling out recourse to European preference in equipment and technology choices, so as to maintain Europe's autonomy and strengthen the EDITB;
5. Ensure that European countries' efforts to retain national capabilities they regard as strategic acquire a European dimension embodied in the EU in the European Defence Agency;
6. Do their utmost to achieve balanced transatlantic cooperation, which could give a significant boost to European defence industry restructuring;
7. Ensure that ETAP is gradually extended to other countries which have expertise and "niche" specialisms in aerospace technology.

EXPLANATORY MEMORANDUM

submitted by Edward O'Hara, Rapporteur (United Kingdom, Socialist Group)

I. Introduction

1. European countries belonging to WEU, NATO and the European Union have for the last ten years or more been involved in the ambitious task of building a European Defence Industrial and Technological Base (EDITB). Governments, institutions for intergovernmental cooperation and enterprises are working together and in parallel, although at times not in phase, towards maintaining, strengthening and developing Europe's defence industrial and technological capabilities in order to make Europe autonomous in those areas and ensure security of supply, and also to make it internationally competitive in the face of strong competition from the United States and other countries active in the sectors concerned.

2. There has been a lengthy sequence of European initiatives in this connection: the European Independent Programme Group (1976), the Western European Armaments Group – WEAG (1992), the Western European Armaments Organisation – WEAO (1996), the Organisation for Joint Armament Cooperation – OCCAR (1998), the Letter of Intent (LoI) and Framework Agreement concerning measures to facilitate the restructuring and functioning of the defence industry (2000) and latterly the European Defence Agency within the European Union framework (2003). These instances of variable geometry cooperation seek to rationalise the European industrial and technology endeavour, making it more coherent and defining priorities for research, technology and development (RT&D).

3. Of all these initiatives, OCCAR and the Framework Agreement have played a major part as they bring together the major Western European armaments producers (responsible for 90% of production) which also constitute the driving force in research and defence technology (responsible for over 95% of investments² made in this area out of the totality of the NATO and EU member states) in particular Germany, France, Spain, Italy, the United Kingdom and Sweden. These are the countries which have the wherewithal to strengthen Europe's defence research, technology and development (RT&D). And yet cooperation between them, essentially between governments, is curtailed by different, even divergent, perceptions and priorities (the development of the "Eurofighter", "Rafale" and "Gripen" fighter aircraft being a case in point). In spite of the growing "Europeanisation" of the defence industry as exemplified by such defence consortia as the EADS, and Thales groups, leading national companies such as BAe Systems (United Kingdom), Dassault (France), Saab (Sweden), Alenia (Italy), Casa (Spain) and Rheinmetall (Germany) all retain a significant influence in those countries.

4. Still, all of them are well aware of Europe's shortcomings in RT&D investment, which ultimately increases the dependency of European countries (large or small) on American systems. Europeans are well up to speed in all senses as regards platforms (the Airbus being a salient example in the aeronautics sector) but there are shortcomings when it comes to certain leading-edge technologies (including materials) and systems and systems integration (C2, operations command and control, ISTAR systems – intelligence, surveillance, target acquisition and reconnaissance, for example) particularly in relation to the new information and communications technologies (ICTs). That dependency, under circumstances where there are still major hurdles in regard to transatlantic technology transfer, is giving rise to difficulty in meeting the security and defence goals defined in the European Security Strategy adopted by the European Council in December 2003.

5. In regard to matters of autonomy and operational and strategic independence, European countries are all also concerned to maintain a national capability or, failing that, a European one in defence R&T. Communications, space, UAVs and robots, and avionics are some of the areas where countries intend to retain a degree of sovereignty and remain self-sufficient in terms of know-how and

² "Conditions for European defence RT&D collaboration" Stefan Törnqvist, FOI-Swedish Defence Research Agency; Six Countries Programme (6CP) workshop: "Linking Defence and Security R&D to Innovation: the challenge ahead", Brussels, 19 November 2004: <http://www.6cp.net>.

technological and industrial capabilities. Weighty economic reasons like maintaining a skilled workforce (researchers, engineers and technicians), retaining and developing national DITB and the need to remain competitive, particularly in export markets, play a major part in the decisions that are taken on defence RT&D. But it is clear that, in the early 21st century, a purely national effort by any one European country is inadequate to meet the new technological challenges born of the need to adapt defence instruments to the need for power and force projection and the requirement for increased interoperability that arises from the multinational character of operations.

6. Transatlantic cooperation/competition in R&T is also a major factor in the catching-up required for striking the long-sought “better balance” in security and defence relations across the Atlantic. Faced with a system and a programme of reform (transformation) which places technology at the centre of defence thinking, as is now the case in the United States, the European NATO and EU allies need to meet the challenge this presents if they want to be treated as credible partners in coalition operations. They can never be on a par with the American forces and this is not what they are aiming for, but they must maintain a degree of interoperability and synchronisation with them in order to ensure operational cohesion and coherence within NATO. Investment in defence R&T, of which ETAP (the European Technology Acquisition Programme) serves as an illustration, is one solution to one of today’s burning issues.

II. ETAP: origin and objectives

7. ETAP forms part of a logical sequence of initiatives taken by certain European nations with a view to strengthening and developing the EDITB. It involves the setting up of underlying cooperation frameworks, initially involving limited numbers of participants with shared objectives and of roughly the same level of industrial and technological development. The other very important aspect is the capacity to invest in defence or dual-use R&T. The three salient features in these types of partnership are objectives, means and capacities. However, for political and practical reasons, European cooperation is also characterised by an “inclusive” approach and an open and consensual character, the effect of which is to hold objectives and means at a level accessible to the greatest number. This leads in some cases to fragmentation and duplication of effort and has been a factor in slowing down or holding up progress.

8. Notwithstanding their undoubtedly modest but nevertheless real achievements, WEAG and WEAO suffered from the characteristic difficulties afflicting European cooperation over defence equipment and technology. The larger countries have therefore tended to detach themselves and engage in more limited projects with tighter entry requirements, such as OCCAR and the LoI. ETAP tends to reflect that position arising out of the unequal defence capabilities and assets of European states. It is also a sign of what is to come in a sector not yet fully restructured and rationalised, but where the trend is towards concentration of capabilities and assets on high added value technology projects like space, aeronautics and communications.

1. European cooperation in defence R&T: the LoI/Framework Agreement and ETAP

9. ETAP is the result of the implementation of undertakings under the LoI/Framework Agreement concerning measures to facilitate the restructuring and functioning of the European defence industry. On 8 December 1997, the heads of state and government of France, Germany and the United Kingdom adopted a joint Declaration on the need to restructure the electronics and aerospace sectors of the defence industry. On 20 April 1998, Spain and Italy joined the project, which became, on 6 July 1998, the Letter of Intent (LoI), signed also by Sweden.

10. The LoI was converted into a Framework Agreement (an international treaty) on 27 July 2000 at the Farnborough International Air Show in the United Kingdom. Unlike OCCAR, which has expanded to take in new members since it was first set up, the Framework Agreement covers only the major European producers/investors in defence R&T and equipment. It has thus become a crucial factor and the rules defined within it necessarily govern any reform or reshaping of the EDITB. That is also one of the tasks of the European Union’s new European Defence Agency (EDA) which is to carry out its tasks by:

“3.3. Working to strengthen the DTIB and for the creation of an internationally competitive European Defence Equipment Market in particular by:

(...)

3.3.2. pursuing EU-wide development and harmonisation of relevant rules and regulations (particularly by an EU-wide application of relevant rules of the LoI Framework Agreement)³”.

11. The Framework Agreement entered into force for all of the states parties following ratification by all signatories, on 2 October 2003. While it represents a major and encouraging landmark in the consolidation and development of the EDITB, it nevertheless bears the hallmark of a profoundly intergovernmental approach, hedged about by safeguard clauses protecting national interests and with a purely voluntary opt-in to the seven areas of action identified: security of supply; transfer and export procedures; security of classified information; defence-related Research and Technology; treatment of technical information; harmonisation of military requirements; and the protection of commercially sensitive information⁴.

12. In terms of defence R&T, the objective of the Framework Agreement is to foster: “coordination of joint research activities (...) to increase the advance knowledge base and thus encourage technological development and innovations”. ETAP, which was unveiled in a declaration by the defence ministers of the Framework Agreement nations on 19 November 2001, can be considered as the practical implementation of that undertaking as applied to combat air systems of the future. Indeed, the ministers state that they are acting explicitly “in accordance with the spirit of the Framework Agreement concerning measures to facilitate the restructuring and operation of the European Defence Industry, signed on 27 July 2000, and in particular the chapters concerning Defence Research and Technology and Harmonisation of Military Requirements”.

13. This ambitious project, which the governments decided to implement as quickly as possible involved three phases, aiming to:

- “[deliver] an initial assessment of their respective capability requirements in a 2020 timeframe and identifying the types of systems and their related technology base that might appropriately be developed jointly;
- “(...) launch, in cooperation with industry, a focussed research and technology programme (the European Technology Acquisition Programme, ETAP) to lay the foundations of future combat air systems covering key fields within this sector,
- “(...) continue to give priority to technology programmes already underway in order to ensure the achievement of their objectives and ensure the rapid signature of the necessary intergovernmental [sic] arrangements for ETAP whose management could be assigned in whole or in part to OCCAR in due time⁵”.

14. The signatory states also undertook to guarantee “appropriate government funding⁶” to be matched by a “suitable financial contribution” from European industry which would also be expected to “propose innovative solutions and initiatives to support this activity, including suggestions for possible regroupings and/or cooperation to make the most of existing capabilities in the industries of each country”.

³ Council joint action 2004/551/CFSP of 12 July 2004 on the establishment of the European Defence Agency; Chapter I: Establishment Missions and tasks of the Agency; Article 5: Functions and Tasks. <http://europa.eu.int>.

⁴ Framework agreement concerning measures to facilitate the restructuring and operation of the European Defence Industry.

⁵ Ministerial Declaration by the Ministers for Defence of France, Germany, Italy, Spain, Sweden and the United Kingdom, Brussels, 19 November 2001.

⁶ Of one billion euros over 8-10 years: sources: “The European Air and Space Conference”, Brussels, 28-29 May 2002, Association Aéronautique et Astronautique de France (AAAF) www.aaaf.asso.fr and “Military Contractors: On the Defensive, Can European companies win back contracts from US rivals? *Business Week online*, 3 February 2003. www.businessweek.com.

15. The combat air systems of the future in question are mainly piloted aircraft, UAVs including combat UAVs and cruise missiles. Among the huge range of technologies involved here are radar, navigation and communications systems, computer systems, C4ISTAR (command, control, computers, communications, intelligence, surveillance, target acquisition) and network-centric capabilities, stealth and materials, motorisation, autonomous control and navigation/mission systems for UAVs. An initial report on capabilities that might be developed jointly by 2020 was submitted to the ETAP Steering Committee on 3 July 2002. Three main areas of activity were identified for the coming years: technology demonstration programmes (TDP), concept demonstrators and technology demonstrator vehicles in essential technology areas for combat air systems.

16. This speed of implementation is most encouraging and indicative of the will of governments to take advantage of the opportunity ETAP provides, but in practice the intergovernmental approach once again reveals its limitations when it comes to cooperation in fields with strategic economic, industrial and technological implications for individual participant nations. As a result, the importance of the programme does not lie solely in the possibility of reaching the development and production stage. The really crucial factor is what industry and government procurement agencies that are required to work in a European/multinational and consequently somewhat less national environment can gain by way of momentum and synergy in defence R&D through being underpinned by such a programme.

2. Preserving, strengthening and developing the EDITB

17. ETAP is made up of the six principal European nations in the fields of civil and defence aeronautics and defence R&T (all sectors taken together). The European aerospace sector is also the best organised and where companies like EADS, BAe Systems, Alenia, Dassault and SAAB are to be found. Such companies have their own “captive” national and export markets, cooperate over some programmes and compete with one another in regard to exports. The governments for their part, even if, ideally, they aim to harmonise their requirements for air combat systems of the future, are not always able to coordinate and synchronise their equipment planning, because they have different strategic analyses, doctrines and organisation of their armed forces and because of specific national needs (military missions, for example), because they adhere to different production, planning and systems procurement cycles and because of differences in their defence spending.

18. When it comes to piloted air combat systems of the future the six countries are in the process of equipping themselves with aircraft whose working life will extend beyond 2020: Typhoon/Eurofighter (in the case of Germany, Italy and the United Kingdom), Rafale (France) and Gripen (Sweden). Such platforms could benefit from the innovations designed and developed through ETAP, which would contribute to making them more interoperable. However, one must bear in mind that such aircraft do not have the same characteristics or capabilities and that some technologies and systems are subject to restrictions on information exchange, transfers and export sales. The LoI/Framework Agreement addresses this issue but there still are a large number of national exclusions. Transparency and joint development of technologies and systems, so vitally important for ETAP’s success, are always a highly complicated matter in the European context.

19. Interpretation of the final objectives of ETAP also depends on national perceptions and priorities. In the Declaration of 19 November, there is explicit reference to the fact that management of technology programmes developed in the ETAP framework could “be assigned in whole or in part to OCCAR in due time”. This would be logical inasmuch as OCCAR is the only European manager of defence programmes and takes an approach that seeks to underpin and integrate. However, OCCAR’s membership (Sweden is not a member) is different to ETAP’s (where Belgium and the Netherlands are not members). Besides, OCCAR’s specificity is connected with its non-application of the “juste retour” principle that is still common in many bilateral and multilateral cooperation arrangements in the defence equipment area.

20. The complex nature of the relationship between national research programmes, ETAP and OCCAR is exemplified in the United Kingdom Defence Minister’s reply to questions in Parliament (House of Commons) on 23 July 2002:

“European Technology Acquisition Programme

Mr Keetch: To ask the Secretary of State for Defence which elements of (...) (b) the Future Offensive Air Strategy the Government intends to procure through the European Technology Acquisition Programme.

Dr Moonie [holding answer 17 July 2002]: The European Technology Acquisition Programme (ETAP) is a collaborative technology development programme related to combat air systems. Its aim is to sustain and develop generic European capabilities over the next two decades. Although United Kingdom decisions on which technologies to pursue under ETAP will take account of our Future Offensive Air System project, it is not aimed at a specific equipment, nor is it intended as a means of procuring equipment.

(...)

Mr Keetch: To ask the Secretary of State for Defence if he will make a statement on the criteria to be used in deciding which British procurement decisions to pursue through the European Technology Acquisition Programme.

Dr Moonie [holding answer 17 July 2002]: The European Technology Acquisition Programme (ETAP) is about collaborative technology development related to combat air systems rather than procurement of specific equipments. United Kingdom decisions on technology development within ETAP will reflect the key capabilities required of the UK’s future offensive air system. If one or more of our ETAP partners identify the same technology area as a priority, we will jointly decide whether a collaborative ETAP technology demonstration programme with European industry represents best value for money⁷.”

21. The pragmatic nature of the reply is an illustration of ETAP’s limits when it comes to the ability to draw together national efforts. Although it could not be otherwise in view of the advanced state (already in production) of current programmes, which at the time were “future offensive air systems”, it might be hoped that in new areas, like UAVs, ETAP would play a central part. Here too, fragmentation and duplication exist, while interoperability needs, not to mention common systems, are acknowledged to be a central condition of building a European operational capability in this sphere – one not only of a military but also a technological and industrial order, with significant implications for defence R&T. Observation, communications and combat UAVs will be called on to play an increasingly extensive part in security and defence and should be regarded as a strategic technology for Europe⁸.

22. ETAP’s success also depends on how important the programme appears to the industry. However, European players in the defence RT&D sector are not in a position themselves, for various, mainly financial reasons, to invest in projects whose outcome is uncertain (possible US Government procurement). This practice often occurs in the US where companies such as Lockheed Martin, Boeing and Northrop Grumman each year spend millions of dollars on in-house projects in anticipation of what future Pentagon demand might prove to be. Through their connections in the Administration and Congress, such firms are also able to “generate” needs that can lead to equipment programmes, helped along by a political situation in the US which is favourable to them and where the war on international terrorism and a forceful approach to spreading freedom and democracy is leading to increased spending on defence and homeland security⁹.

23. In Europe, the fall-out from the 11 September terrorist attacks in the United States, the campaign in Afghanistan (October-December 2001), the war on Iraq (March-April 2003), the 11 March 2004 terrorist attacks in Madrid, and their follow-up with a plethora of different external

⁷ House of Commons, Daily Debates, Written answers; 23 juillet 2002, c904W; www.parliament.uk.

⁸ On this whole question see Assembly Document 1884 adopted on 30 November 2004: “Unmanned combat air vehicles and military aeronautics of the future” submitted on behalf of the Technological and Aerospace Committee by Antonio Braga, Rapporteur (Portugal, Socialist Group); http://www.assembly-weu.org/en/documents/sessions_ordinaires/rpt/2004/1884.pdf.

⁹ On Lockheed Martin’s supposed influence in this area see “Lockheed and the future of warfare”, *The New York Times*, 28 November 2004. www.nytimes.com.

operations and engagements have not given rise to increases in defence spending of the same order as in the United States. And while on the American side post-11 September 2001 commitments accelerated the process of “transformation” of the armed forces, especially in the realm of high technology, European nations are still discussing the difficult choices between future priorities and the programmes already being developed but which were designed for a different strategic and operational context. These differences in attitude are likely to herald future problems of interoperability and compatibility between US and European countries’ systems and forces.

24. ETAP could also have been used to identify, among future needs for air combat systems those which the United States has already developed, including joint projects like the Joint Strike Fighter, so as to avoid costly and futile duplication – but only on condition that both parties involved were able to transcend the present obstacles to greater cooperation over R&T and defence. The purpose of ETAP is to provide impetus to European defence R&T in the aeronautics field and thus contribute to strengthening the EDITB, but it has also to be recognised that, even if only for political reasons, these types of programme cannot become part of an attempt to build “Fortress Europe” in that sphere. Transatlantic cooperation, or at least a measure of openness and transparency, is a factor that must consistently be taken into account.

III. ETAP and the prospects for defence R&T in Europe

25. The debate in Europe on transatlantic cooperation, on the supposed technology gap and on interoperability between Europeans and Americans has the advantage of drawing attention to the fragmented state and random nature of European efforts over the last ten years or more. More or less wide-ranging partnerships are formed, declarations and statements are made regularly but to little practical effect when one considers the real potential. Different political perceptions, operational priorities that are neither harmonised nor synchronised and competing industrial interests are some of the factors contributing to this state of affairs. In actual fact, start-up programmes are losing momentum or being side-tracked, thus adding to the cost of the final product and recourse to variable geometry structures with countries joining and leaving at will, making it almost impossible to build a long-term vision. The European fighter aircraft of the future, envisaged in the 1980s-90s, led to the production of the Typhoon-Eurofighter and Rafale at the same time as Sweden was developing its own “Gripen” aircraft. Frigates and armoured land vehicles, anti-aircraft and missile defence systems suffered the same fate, with projects being constantly duplicated and modified.

26. At the same time, defence spending stagnated and failed to keep up with the requirements born of the US-led technology developments of the final years of the 20th century, essential for strengthening Europe’s strategic autonomy in security and defence. European governments must retain a capability that is theirs alone and ensure that they are in a position, if necessary, to guarantee their independence, technologically speaking, from the US. This holds good for the defence and civilian sectors. Some governments aspire to do so and are drawing upon a wide range of instruments both legal (intellectual property and patent protection) and economic (funding for national research) to support national capabilities they regard as strategic. However, such efforts cannot be genuinely successful in the longer term unless they acquire a European dimension embodied in the EU. Otherwise, in a situation of an unequal balance of forces, the transatlantic dimension will tend to win through.

1. The expanding role of the EDA and the European Commission

27. WEAG, WEAO and OCCAR, the LoI Framework Agreement and ETAP, regardless of their respective merits and achievements, can be thought of as intermediary stages in building a European armaments system and European defence RT&D. This is not to neglect the work done in NATO and its panels and bodies specialising in those areas. However, since the Maastricht (1991) and Amsterdam (1996) treaties, the European Union has emerged as the prime mover, finally bringing together all those European initiatives with a view to building an integrated EDITB. This was confirmed in the European Council’s Cologne (1999) and Helsinki (1999) Declarations which heralded the foundation of “a European Agency in the field of defence capabilities development, research, acquisition and armaments”.

28. The European Defence Agency, which was set up by a Joint Action of the Council of the European Council of 12 July 2004, logically includes a Security and Defence R&T Directorate¹⁰ responsible for:

“3.4. Enhancement of the effectiveness of European Defence Research and Technology (R&T), in particular by:

3.4.1. promoting, in liaison with the Community’s research activities where appropriate, research aimed at fulfilling future defence and security capability requirements and thereby strengthening Europe’s industrial and technological potential in this domain;

3.4.2. promoting more effectively targeted joint defence R&T, drawing on the experience of relevant elements of the WEAG and the WEAO;

3.4.3. coordinating and planning joint research activities;

3.4.4. catalysing defence R&T through studies and projects;

3.4.5. managing defence R&T contracts;

3.4.6. working in liaison with the Commission to maximise complementarity and synergy between defence and civil or security related research programmes¹¹”.

29. With the exception of the last point (Community research) the aims of the EDA are the same as those of ETAP for all defence spheres (land, air, sea and space). The Agency also has as its goal to:

“(…) develop close working relations with existing arrangements, groupings and organisations such as Letter of Intent (LoI), Organisation de coopération conjointe en matière d’armement (OCCAR) and Western European Armaments Group (WEAG)/Western European Armaments Organisation (WEAO), with a view to assimilation or incorporation of relevant principles and practices as appropriate (…)”.

It might therefore be assumed that ETAP, for reasons of efficiency and rationality, should be among the projects that could take advantage of EDA expertise – on condition always that the legitimate interests of the parties to the programme, who are also the most significant contributors in terms of industrial and aerospace R&T capability, are protected.

30. At the present stage of EDA’s development – the agency is currently in the process of being set up, physically, in its new premises and being provided with equipment and staff – it would be unrealistic to expect it to have a direct influence on cooperation programmes of the kind envisaged under ETAP. However, it can be expected to play an increasingly important part in defence R&T, provided that financial resources are commensurate with stated ambitions. If this proves not to be the case, the outcome will be another WEAO – strengthened and enlarged – but with no real impact on the future of European capabilities and what happens to the EDITB. This is a sensitive and complicated subject owing to the discrepancy (already discussed) between European countries’ assets and capabilities, not to mention a variable geometry approach dependent on national interests at a given moment in time. The EDA, conceived of as an open and integrative model, needs to take account of such factors in order to avoid being swept aside by the larger countries, the only ones in a position to commit the hundreds of millions or billions of euros necessary for financing high tech defence projects in the longer term¹².

31. In the European Union, the Agency is not the only authority dealing with defence equipment and R&T matters. The European Commission has also been involved in this area for almost a decade,

¹⁰ The other three directorates are: Capabilities, Armaments and [Defence] Industry and Market. Council joint action 2004/551/CFSP of 12 July 2004 on the establishment of the European Defence Agency

¹¹ *Idem*: Chapter I: Establishment missions and tasks of the Agency; Article 5: Functions and Tasks. <http://europa.eu.int>

¹² Government investment in ETAP amounts to one billion euros over 8-10 years. By way of comparison, the governments involved in the Typhoon-Eurofighter programme have committed 16 billion to launching the second phase of its development (236 upgraded aircraft for delivery in 2008, to Germany, Spain, Italy and the United Kingdom); “Multibillion euro boost for Eurofighter project”; 21 March 2005; www.defensenews.com.

notwithstanding the legal restrictions imposed by Article 296 of the Treaty establishing the European Community (TEC). That article, which exempts matters concerning armaments production from European Union industrial and market regulations, is coming under increasing criticism and some degree of flexibility in its application will be necessary, if only to allow the Agency to carry out its remit for:

“3.3. Working to strengthen the DTIB and for the creation of an internationally competitive European Defence Equipment Market in particular by:

3.3.1. developing relevant policies and strategies, in consultation with the Commission and industry as appropriate;

3.3.2. pursuing EU-wide development and harmonisation of relevant rules and regulations (particularly by an EU-wide application of relevant rules of the LoI Framework Agreement)”.

32. The qualities of pragmatism and compromise that are fundamental to the workings of the Union have nevertheless made it possible for the Commission to put forward proposals for restructuring the defence industry and reorganising the entire sector. These are contained in a body of documents which have been regularly updated since 1996¹³ and include the:

- Communication from the Commission: The challenges facing the European defence-related industry, a contribution for action at European level; 24 January 1996;
- Communication from the Commission: Implementing European Union strategy on defence-related industries; 4 December 1997;
- Communication from the Commission: European Defence – Industrial and market issues. Towards an EU defence equipment policy;
- Commission Green Paper of 23 September 2004 on defence procurement.

33. The Commission also sponsored the STAR 21 report¹⁴, drafted by a Group of Personalities from the political sphere and the aeronautics industry. Although the “Strategic Aerospace Review for the 21st Century” deals essentially with the civilian sector of the industry, some of its conclusions and recommendations are in line with ETAP objectives.

“The wellbeing of the industry depends on twin pillars, namely, civil and defence. They are both complementary and mutually dependent (...)” and;

“Europe must remain at the forefront of key technologies if it is to have an innovative and competitive aerospace industry”.

Those two concerns overlap with those of ETAP governments for strengthening and developing the EDITB and guaranteeing Europe’s autonomy in the sphere of strategic space and aeronautics technologies. Industry’s contribution to ETAP is absolutely crucial in achieving the objectives set out in the 19 November 2001 Declaration and the Commission has shown itself to be particularly receptive to requests from that source to work towards the creation of a European defence market in the face of the governments’ slowness in reaching agreement on the subject and the financial constraints under which they are working, particularly in regard to R&T.

34. The Commission has persuasive arguments on that score in the guise of investments in the security field, possibly to the tune of billions of euros in the coming years¹⁵. The European Security Research Programme (ERSP), for which the Preparatory Action for the period 2004-06 (40 million euros over two years) is currently under way, covers dual-use technologies and the concept

¹³ All of them are published in the Official Journal of the European Communities; <http://europa.eu.int/eur-lex>.

¹⁴ “Strategic Aerospace Review for the 21st Century – Creating a coherent market and policy framework for a vital European industry”, European Commission, July 2002; <http://europa.eu.int>. The industries involved were BAe Systems (United Kingdom) EADs, Finmeccanica (Italy) Rolls-Royce (United Kingdom), SNECMA (France) and Thales.

¹⁵ The report of the Group of Personalities in the field of Security Research, “Research for a Secure Europe” (15 March 2003), calls for a minimum investment of one billion euros per annum; <http://europa.eu.int>.

development which is also central to ETAP. They include: information technology (encryption and secure broad-band wireless networks), navigation and space-based observation systems (Global Positioning System: Galileo, optical and radar observation satellites), sensors (e.g. radar), telecommunications (space, air-land-sea, over the horizon) essential to the development and implementation of network-centric capabilities, the latter being the environment in which any future offensive air system, piloted or autonomous must integrate and develop. ETAP and the ESRP thus have shared objectives and it would be logical from the outset to build synergy between the two projects in order to be rid of the duplication that invariably bedevils European (intergovernmental) cooperation in defence R&T and equipment.

35. It is certainly true that some specific military aerospace features need to be safeguarded: research on stealth, payload capacity and arms and munitions, and a balance struck between security and defence research. For the industries involved and whose R&T capacities are the key to ETAP's future, the fact of having a foreseeable plan of action supported by generous, regular funding is an irresistible incentive as well as a necessity for their survival. If ETAP does not offer realistic medium-term industrial prospects, the risk is that European aerospace firms will not make the investments their governments call for in their declaration on the programme. The ESRP can bolster ETAP provided some of the very sensible recommendations made by the Group of Personalities that drafted the report on which the current Preparatory Action is based are followed:

“(a) A European Security Research Programme should take advantage of the multi-functionality¹⁶ of capabilities and technologies;

(b) A flexible approach to security research has the potential to bridge the gap between civil and traditional defence research.

(...)

Look at the “crossroads” between civil and defence applications;

Foster the transformation of technologies across the civil, security and defence fields;

Define multi-functionality as positive criteria for the selection of research proposals”

2. ETAP and transatlantic cooperation: the “JSF” effect

36. When it comes to defence equipment and R&T, there is no getting away from the transatlantic dimension. However, since the end of the cold war, US dominance here has been increasingly open to challenge. The major European countries involved in this area want to be dealt with as genuine partners (and suppliers) and not merely, as previously, as potential subcontractors dependent on American products and technology. This is a complex and antagonistic relationship, into which cooperation, complementarity and competition all enter. In the high-tech, high-value strategically important aerospace field, relations between the US and Europe have at times been under considerable strain in recent years, over civilian programmes like Airbus (owing to public and private financing arrangements) and Boeing, and military ones or programmes with defence applications. The restrictions the United States imposes on technology transfers to Europe (including for special allies) and the difficulties European firms are experiencing in getting a toehold in the American defence market and competing for Pentagon contracts are two of very many areas of discussion and contention between the two sides of the Atlantic.

37. ETAP, given its objectives and sphere of action is directly involved in all of these problems. Ensuring that Europe retains its skills and technologies in relation to fighter aircraft, piloted or unmanned (UAVs), cruise missiles and other weapon systems that might be envisaged is a defence priority that is acknowledged by the programme's signatory states. Also involved is the need to safeguard industrial capacity and know-how by allowing European firms to keep their assembly lines moving and to invest in defence R&T. The social and economic spin-offs from the defence industries, independent or partly state-controlled, have a strong pull on the electorates of Europe and the United

¹⁶ “Multi-functionality” refers to the fact that “many capabilities serve internal and external as well as military and non-military security purposes”; Report of the Group of Personalities: “7. Defining the Focus – A capability-related approach”, page 18; <http://europa.eu.int>.

States. Exports are another key aspect to be taken into account: exports of exclusive “home-produced” defence equipment and technology are also a means of influence and a source of international prestige, particularly when accompanied by various kinds of off-set such as investments, technology transfers, economic assistance and the like. In this area, the United States has a wide range of diplomatic, military and economic resources at its disposal.

38. The “American dream” is not lost on the US’s European allies. Cooperating with the United States brings with it significant technological and industrial advances and access to the US home defence market, ideally under the wing of a major local partner like Boeing, Lockheed Martin or Northrop Grumman. The reality is unfortunately a lot less glamorous, and misunderstanding and disappointment is rife. However, the “pull” is a very real one as there is no comparison between the budgets available for equipment and R&T there and those on offer from the EU and NATO member states, even when taken together. American companies also benefit from a highly advantageous financial and legal framework enabling them to invest in projects even before a specific request has been made by the Department of Defense. This was the case, for example, for investment in the combat UAVs developed by Boeing and Northrop Grumman¹⁷. Evenly balanced transatlantic cooperation can have a beneficial effect on European defence capabilities and give a significant boost to European defence industry restructuring so as to make it more competitive in the American and international market (against US companies).

39. But it can also have a disruptive and predatory effect with deleterious consequences in the medium- and longer term. The project for the future combat aircraft, the “F-35 Joint Strike Fighter” (JSF), is a good illustration of Europe’s dilemma over transatlantic cooperation and also directly affects the future of ETAP. This particular US project differs from its predecessors (the F-16, F-18, F-15, and F-22 for example) on account of its international character. It is a cooperation programme open to specially canvassed allies. There are six European NATO member states involved: the United Kingdom, Italy, the Netherlands, Turkey, Denmark and Norway (listed in descending order of magnitude of their financial and technological share)¹⁸. The partnership is managed according to rules similar to those of OCCAR, in other words: no juste retour, no-offsets, but with the prospect of penetrating the US defence market, having access to new technologies and in short of procuring “the most affordable, lethal, supportable and survivable aircraft ever to be used by so many war fighters across the globe¹⁹”. The initial estimates were for production of more than 3 000 aircraft, in three versions: standard (air) naval (traditional aircraft carrier model) and vertical take-off (smaller aircraft carrier, Marine Corps model).

40. Since 1996, the year the programme was launched, and 2001, the year the contract was awarded to Lockheed Martin as lead contractor, the number has been steadily whittled down, in the light of spending priorities and in favour of other American programme options. Now, in 2005, the programme’s future is the subject of discussions between the various branches of the American armed forces involved, the civilian authorities in the Pentagon and Congress, as the publication date for the Quadrennial Defense Review, the major US military programming document covering the next four years, approaches²⁰. The dispute concerns especially the order of priority given to the JSF and its “big brother” the F-22 Raptor, which the US Air Force prefers. Given also that there are technical and

¹⁷ In 2004, the Defense Advanced Research Project Agency (DARPA) which manages UAV programmes assigned two billion dollars for six aircraft to 2009-2010. Total UAV spending over the same period is estimated at 4 billion dollars. See Assembly Document [1884](#) adopted on 30 November 2004: “Unmanned combat air vehicles and military aeronautics of the future” submitted on behalf of the Technological and Aerospace Committee by Antonio Braga, Rapporteur (Portugal Socialist Group); http://www.assembly-weu.org/en/documents/sessions_ordinaires/rpt/2004/1884.pdf.

¹⁸ Australia and Canada are the other two partners in the programme and Israel and Singapore are also associated with security cooperation aspects.

¹⁹ F-35 Joint Strike Fighter Program <http://www.jsf.mil> (United States).

²⁰ On the subject of strategic defence programming in the United States, see Assembly Document [1824](#) adopted on 4 June 2003: “The United States national security strategy and its consequences for European defence” submitted on behalf of the Defence Committee by Renzo Gubert, Rapporteur (Italy, Federated Group); http://www.assembly-weu.org/en/documents/sessions_ordinaires/rpt/2003/1824.pdf.

programme management difficulties, delivery schedules and commissioning dates have been put back to 2009-2013 and development costs have soared by over 80% (from 24.8 billion dollars in 1996 to 44.8 billion in 2004)²¹.

41. From the European point of view, what is striking about this programme is the high levels of investment agreed by two of the main ETAP signatories: the United Kingdom and Italy, accounting for three billion euros (from 2001 up to the first aircraft deliveries). Those sums may be revised according to the way the programme and its total cost evolve. What is certain is that both countries, having entered into a commitment of the sort, are tied in for over a decade to a US project which makes no industrial or technological contribution to EDITB. Obviously both will contribute know-how and their own characteristic technologies: vertical propulsion as developed and enhanced by the United Kingdom (BAe Systems and Rolls-Royce) or communications (Finmeccanica-Marconi Selenia Communications). However, whether in terms of contracts or technology transfer, the returns are far from satisfactory and have led to misunderstandings that have also involved Canada, Norway and Turkey²². In R&T terms, the issues thus raised are important ones as the sums invested in the JSF inevitably represent a loss to any other possible European project for an offensive air system of the future as envisaged in the ETAP agreement.

42. This even more to the point as the JSF will probably enter into service between 2012 and 2015 to supplement the Typhoon-Eurofighter now being acquired by the United Kingdom and Italy, or possibly, because of its superior capability, to supplant the latter as their first choice aircraft. The JSF contributes new, significant capabilities to both the British and Italian army and navy. However, it is also designed to form part of an integrated network-centric system in line with the concepts developed in the framework of what is known as the “transformation” process²³ in the United States. Here the JSF is a sub-system subordinated to the F-22 Raptor, which is itself the core of a network-centric air capability consisting of piloted aircraft and autonomous UAVs. The JSF will improve interoperability with the United States but at the expense of Europe’s autonomy of action and decision-making, at least in those countries that procure that aircraft. Autonomy is central to European initiatives such as ETAP, directed towards preserving and building up the EDITB precisely in order to reduce dependency on the United States and achieve a better balance in transatlantic relations with regard to the defence industry and defence technology.

43. As the JSF is also intended to replace the F-16s it is beginning to look like the “European” fighter aircraft of the future given the large number of European states that have now acquired US aeronautical equipment. ETAP’s primary ambition is therefore compromised from the outset. There remains the matter of UAV technology, on which European countries are working in partnership but outside the programme and without the involvement of Germany and the United Kingdom²⁴. The Neuron project, with Dassault as lead contractor, involves France, Sweden, Italy, Greece, Spain, Belgium and Switzerland, all with different shares. However, unlike the American projects, this is primarily a technology demonstrator that may or may not lead to a programme for industrial production of combatUCAVs. This is comes nowhere near the US goal of “robotisation” of its armed

²¹ Tactical Aircraft: opportunity to reduce risks in the Joint Strike Fighter Program with different acquisition strategy; United States Government Accountability Office Report to Congressional Committees; March 2005GAO 05-271, www.gao.gov.

²² “Turkey concerned about role of foreign firms in JSF”; *Aviation Now*, 3 March 2005, www.aviationnow.com; “Unsatisfied Italy may cut JSF participation” *Defense News*, 10 May 2004; www.defensenews.com. The situation has since been corrected in part in the Italian companies’ favour.

²³ For more on network-centric capabilities, transformation and the implications of both for European defence see Assembly Document 1899 adopted on 12 May 2005: “Network-centric operations: European capabilities” submitted on behalf of the Defence Committee by Klaus Werner Jonas, Rapporteur (Germany, Socialist Group); http://www.assembly-weu.org/en/documents/sessions_ordinaires/rpt/2005/1899.pdf.

²⁴ The UK Defence Minister and DARPA in the US signed a cooperation agreement in March 2005 on combat UAVs for (US-UK) coalition operations: “Joint UK-US Collaborative Programme announced for Unmanned Combat Air Systems”. UK Ministry of Defence, 16 March 2005, www.mod.uk.

forces, which are to have both air and sea capabilities in this area covering 30% of their operational and strike force capability by 2015²⁵.

44. The Neuron project represents an important milestone in the development of European capabilities in combat UAVs but not a sufficient one to refocus the European approach, so great is the attraction of US technology for Europe's armed forces. The *leitmotiv* of interoperability between European and American forces, which is constant in official statements made in Europe, circumscribes the debate on transatlantic cooperation and is ultimately damaging to the development of autonomous interoperable European capabilities. ETAP could have made possible effective defence aeronautics R&T cooperation between the main players and perhaps gradually extended it to other countries like the Netherlands, Turkey, Norway, the Czech Republic and Poland, which also have expertise and "niche" specialisms in aerospace technology.

45. The results of such cooperation could have provided the starting point for joint programmes with the United States in the framework of effective multilateral cooperation, a key concept of the European Security Strategy. But instead, European cooperation continues to be plagued by fragmentation, piecemeal development and duplication of effort and ETAP's limitations are plain for all to see, in the absence of a unifying project, providing overall direction, that is both practicable and has adequate funding support. This is the challenge the European Defence Agency has to take up, the outcome of which will determine whether, as far as armaments programmes and defence R&T are concerned, Europe becomes an active and responsible player or a sub-contractor for the Pentagon and the US majors in a supposedly integrated transatlantic defence market.

²⁵ "A new model army soldier rolls closer to battle"; Tim Weiner, *The New York Times* (United States), 16 February 2005; www.nytimes.com.

