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A European armaments policy

REPORT

submitted on behalf of the
Committee on Defence Questions and Armaments
by Mr. Dankert, Rapporteur

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Introductory note

In preparing this interim report your Rapporteur has drawn on the proceedings of the symposium on a European armaments policy which the Committee organised in Paris on 3rd and 4th March 1977. He gratefully acknowledges the assistance in the preparation of the report provided by Mr. John Wilkinson, Assistant to the Chairman of British Aircraft

Corporation, who was appointed by the Clerk as an outside expert, at the request of the Rapporteur.

The Committee intends to prepare a further report, incorporating the results of further enquiries, for submission to the second part of the twenty-third session of the Assembly on 28th November 1977.

1. Adopted in Committee by 19 votes to 1 with 0 abstentions.

2. *Members of the Committee*: Mr. Critchley (Chairman); MM. Klepsch, Dankert (Vice-Chairmen); MM. Ahrens, Beauguitte, Bizet, Boldrini, Bonnel, Boucheny, Fosson, Grant, Handlos, Hardy, Konen, de Koster (Alternate:

Piket), Lemmrich (Alternate: *Scheffler*), Maggioni, Ménard, Pawelczyk (Alternate: *Lemp*), Pecchioli (Alternate: *Calamandrei*), Rivière, Roberti (Alternate: *Pecoraro*), Roper, Scholten, Schugens, Schmidt, Tanghe, Whitehead.

N.B. *The names of those taking part in the vote are printed in italics.*

Draft Recommendation
on a European armaments policy

The Assembly,

- (i) While wishing for a mutual and balanced reduction of armaments in Europe, believing that the increasing cost of future generations of weapons systems makes it urgent and imperative for the European countries of the Alliance to secure the economic and military advantages of standardisation through joint production ;
- (ii) Noting
 - (a) that the proliferation of equipment types reduces the operational capacity and the cost effectiveness of the defence of Western Europe ;
 - (b) that the growing complexity of modern weapons systems causes a large increase in equipment costs ;
- (iii) Considering the inherent political dangers of any armaments industry which relies on exports to third world countries or areas of conflict ;
- (iv) Welcoming recent indications that the United States will increasingly seek standardisation of equipment in the Alliance ;
- (v) Stressing the need for satisfactory parliamentary control both at European as well as at a national level of the defence procurement process, and resolving itself to play a rôle until the European Parliament is invested by statute with defence functions,

RECOMMENDS THAT THE COUNCIL

Urge member governments, severally and jointly in all appropriate bodies, to pursue the following objectives :

1. Ensure the maintenance of a viable defence production industry in Europe taking account of the needs of national defence plans and of the Alliance :
 - (a) by giving first priority to the joint production of standardised equipment in Europe while ensuring the interoperability of existing equipment throughout the Alliance ;
 - (b) by pursuing secondly further standardisation in the Alliance as a whole ;
2. Streamline the institutional basis of joint production :
 - (a) by concentrating on the independent European programme group ;
 - (b) by ensuring that military characteristics of equipment are determined within NATO ;
3. Inform the Assembly accurately and fully of the nature and extent of the terms of reference given to the Standing Armaments Committee on 26th April 1977.

Explanatory Memorandum

(submitted by Mr. Dankert, Rapporteur)

Introduction

1. The Committee organised a symposium on a European armaments policy in Paris on 3rd and 4th March 1977¹. This report will analyse the guiding concepts and principles which emerged. During the two days of the symposium a number of eminent experts read papers and discussions took place between parliamentarians, representatives of the armaments industries, of military procurement and headquarters staffs and of government departments about European armaments manufacture and procurement and the consequences of modern weapon technology.

2. As many speakers reminded the symposium, the need for co-operation in weapon procurement has been widely understood and repeatedly emphasised for over twenty-five years. However, in spite of limited progress towards greater standardisation of equipment and interoperability of weapon systems within the Alliance, proliferation of equipment types and incompatibilities of ammunition and supplies persist and even increase, degrading the operational capability and the cost effectiveness of the defence of Western Europe. Joint production has been successful in a number of areas, but industrially this has tended to be an *ad hoc* process and for consequent collaborative arrangements, joint companies and consortia have not usually been maintained once the programme in question has been completed.

3. The need for co-operation in the weapon procurement field is based on three imperatives — financial, military and socio-economic.

4. Recession and, as Mr. Greenwood² reminded the symposium, the political unpopularity of high defence spending among the populations of Western Europe unused to war for over a generation, have squeezed defence budgets to the point where they are in many instances static in real terms. At the same time the increased complexity of modern weapons systems has caused a dramatic escalation in equipment costs.

5. For example, as Ingénieur Général Cauchie¹ explained, at constant prices and weight for weight, the cost of a tank has doubled and that of an aircraft has quadrupled over the past fifteen years. Inflationary pressures have augmented manpower costs also.

6. It is therefore in Général Cauchie's words "economically essential to contain the unit costs of these modern systems by amortisation over long runs of the overhead costs of research, development and tooling". This is only possible through collaboration and joint weapon production programmes. Fortunately in this respect military and financial considerations coincide.

7. Militarily the benefits of collaboration in the procurement field are considerable. The benefits were assessed by Général Major P. Dirix¹, in the following terms: "We believe that co-operation in the research, development and production of armaments by preventing the proliferation of separate national projects might avoid wasteful duplication, encourage standardisation, and at the same time increase operational efficiency and reduce production and maintenance costs".

8. The military significance of low production costs was emphasised by General de Maizière's² advice that "it would be very unwise to equip them (the armed forces) for only one type of conflict because this type seemed the most probable at a given time. In reality, types of warfare could change very quickly and far more quickly than the armies themselves. They must therefore be equipped to meet various types of attack". Such a spectrum of capability — inherent in the strategy of flexible response — is costly and enhances on military grounds the importance of collaborative weapon procurement.

9. The other clear military benefits of co-operation in this field are the twin operational advantages of standardisation and interoperability. The first predicates the second but this did not preclude a marked divergence of expert opinion on these subjects at the symposium.

10. On the one hand Ingénieur Général Cauchie explained in forthright terms his country's views that "whereas some of our partners swear by standardisation, we in France think that, if we have to operate together, our equipment has to be interoperable and we prefer to lay the main emphasis on interoperability. It is our belief", he continued, "that while standardisation may in one way offer the same advantages as interoperability... it has drawbacks at the operational, industrial, political and financial levels".

11. On the other hand General de Maizière argued the contrary case. He personally thought

1. See official record of the symposium.

2. Chairman of British Aircraft Corporation.

3. Directeur adjoint à la Direction des Affaires internationales, Délégation Générale pour l'Armement (France).

1. Assistant Chief of Staff, Belgian Land Forces, Chairman of the FINABEL Committee of Principal Military Experts.

2. Former General Inspektor der Bundeswehr.

interoperability of only passing use and that it was more expensive than standardisation. He, therefore, pleaded in favour of standardisation at least where new weapon systems were concerned.

12. Finally, the economic grounds for co-operation in the procurement field were reiterated by many speakers at the symposium. In the words of Mr. Edmond Nessler, President of the Assembly of Western European Union, "the maintenance of our armaments industries remains essential for the domestic and social balance of our countries and for upholding our position in the world and safeguarding our independence. The armaments industries of most of our countries employ a large number of workers and make a major contribution to our exports; they are also instrumental in keeping us in the civil and military industrial race at international level".

13. Most speakers saw co-operation in the military field as being the only way for Western European nations to avoid — in Julian Critchley's¹ graphic phrase — either "being disarmed by inflation" or being forced to become wholly reliant upon the United States of America, both for our defence and for our industrial well-being. As Mr. Greenwood warned the symposium, "that degree of domination would reduce our defence industries to the level of sub-contractors".

14. Dr. Ingénieur Gustavo Stefanini², explained that an armaments industry provides an appreciable contribution to national wealth, especially in terms of export revenue. In this connection Mr. Nessler's observation that the French armaments industry exports some 30 % of its production was noteworthy. Arms manufacture employs a highly skilled workforce, it acts as a motor for technological progress with "spin off" into valuable civil applications and extends the range of the national economy into a field of industrial activity less susceptible to cyclical economic recessions and reduces the vulnerability of the economy to sectoral market crises. At the same time the Committee stresses the political dangers inherent in any armaments industry which is dependent on exports to countries outside the Alliance in order to amortise research, development and "start-up" costs, or to reduce the unit cost of production for national use. Foreign policy can be distorted as arms sales considerations come into play; potential conflicts may be sparked off in unstable situations in the third world.

1. Chairman, Committee on Defence Questions and Armaments, and official Chairman of the symposium.

2. Chairman of Oto Melara (Italy).

15. The Committee believes that together the European countries of the Alliance provide an arms market large enough for economic production that would be independent of exports to the third world, thus enabling such exports to be terminated or limited to those deemed to be in the interest of Europe according to a commonly defined external policy¹. At the present time, however, budgetary constraints have tended throughout Western Europe to lead to reductions in the appropriations earmarked for equipment. In this instance Mr. Nessler quoted the example of France whose expenditure on equipment was 52.2 % of the defence budget in 1967 and has fallen to 41 % in 1977, while the portion of the defence budget earmarked for research has fallen from 8.9 % in 1971 to 6 % in 1976. Corresponding figures for other countries show marked fluctuations but no particular trend. Thus the United States expenditure on research and development as a percentage of its defence budget ranged from 9.6 % in 1968 to 9.9 % in financial year 1978; its expenditure on procurement ranged from 29.8 % in 1968 to 28.5 % in financial year 1978, with a low of 20.6 % in 1974. For Germany the total of research and development and procurement as a percentage of the defence budget ranged from 26.3 % in 1970 to 25.2 % in 1976 with a low of 22.4 % in 1971. In financial year 1977 the United Kingdom spent 12.4 % of its defence budget on research and development alone.

16. Logic therefore has long encouraged industrial co-operation in arms manufacture. Research and development costs can be shared and unit costs minimised through long production lines but the obstacles remain. A number of speakers alluded to them.

17. Ingénieur Général Cauchie warned against the alarmingly monopolistic results which a *de facto* specialisation of industries or countries in arms manufacture could have. He preferred the parallel development of several competitive systems within Europe with the attendant incentive to innovation and design capability. Likewise, Dr. Stefanini reminded the symposium that "the improved utilisation of military budgets should be conditioned by consideration of its collateral negative effects on the European industry as a whole".

18. He pointed out that "in most economic sectors European co-operation had been implemented in the context of specifically-created institutions and according to clearly-defined regulations which, in varying measure, take account of the possible socio-economic consequences of jointly-reached decisions and which

1. See speeches by Mr. Van Elsandé, Belgian Minister for Foreign Affairs, to the Assembly on 5th December 1974 and on 28th May 1975.

provide, where necessary, for corrective action or agreement on appropriate compromise".

19. He feared that the IEPG working explicitly outside the EEC and also outside NATO "could prove to be a body with an outlook concentrated on military budgetary interests and relatively disinterested in other aspects". These socio-economic difficulties of joint arms production and specialisation described by Dr. Stefanini as problems of "human ecology" emphasise the importance of the initiative taken by the WEU Council in May 1976 when it decided to assign a study to the Standing Armaments Committee¹.

I. Existing institutions

A. Independent European programme group

20. The independent European programme group (IEPG) originated from a decision taken by Eurogroup Ministers in special session in November 1975 to seek to establish a new forum, in which France could participate, for collaboration in defence procurement and the development of a common European position from which to begin a dialogue with the United States on defence equipment matters.

21. As a result of this decision, representatives of the Eurogroup nations (Belgium, Denmark, Germany, Greece, Italy, Luxembourg, Netherlands, Norway, Turkey and the United Kingdom) and France assembled in Rome for the first meeting of the IEPG on 2nd February 1976. They resolved to work, in the spirit of the Alliance and without jeopardising national responsibilities, towards the aims of more effective use of funds for research, development and procurement, increased standardisation and interoperability of equipment, the maintenance of a healthy European defence industrial and technological base and the strengthening of the European factor in the relationship with the United States and Canada.

22. Since its inception the IEPG has proceeded, under Italian chairmanship, in a flexible and pragmatic manner without setting up any permanent machinery. On 22nd and 23rd November 1976 the second plenary session of the IEPG took place once again in Rome. The Italian chairmanship of the group was renewed since; although it was felt that the system of annual rotation of chairmanship should be retained, it was preferable for Italy to continue its work of co-ordination and preparation for another year. There have been meetings at a number of levels, including two at "State Secretary" (Junior Minister/Permanent Secretary) level and two at national armaments director level. Meetings at

official "expert" level have been more frequent. Initial progress has been made simultaneously on the harmonisation of national equipment programmes, the examination of possible joint projects and the consideration of certain aspects of procedures and practices affecting collaborative projects. Three panels were established to co-ordinate work as follows and their work was confirmed and approved by the second plenary session:

- (a) Panel I, under United Kingdom chairmanship, has compiled and agreed a comprehensive schedule of equipment in service and replacement intentions. This is an essential base for the comparison of national needs and the formulation of joint plans, and goes beyond anything hitherto produced in other collaborative fora. The schedule will be updated at regular intervals.
- (b) Panel II, chaired by Belgium, co-ordinates the work of ten equipment sub-groups which have been set up to examine the opportunities for collaboration in specific areas. Six of these sub-groups were established as a result of comparison of national contributions to the replacement schedule prepared by Panel I.
- (c) Panel III, the Defence Economics and Procedures Panel (DEPP), under German chairmanship, has identified and set up sub-groups to study five general areas: project procedures, arms exports, multi-project compensation, competition and industrial co-operation. The panel has been authorised to use the results of the study assigned by the WEU Council to the Standing Armaments Committee.

When the IEPG's equipment sub-groups are further advanced in their deliberations, industry will of course need to be involved in the resulting pre-feasibility studies¹.

23. Until the formation of the IEPG, there had been no purely European forum for the discussion and production of equipment co-operation that was open to all the European members of the Alliance and in which France participated. France has been unwilling to join or be associated with Eurogroup; while the Standing Armaments Committee of Western European Union, which has not in any case been active as a forum for stimulating co-operation, excludes the European flank countries (Denmark, Greece, Norway, Portugal and Turkey).

1. See section C below.

1. See paragraphs 85-97.

24. With the accession of Portugal in November 1976, the IEPG now includes all the European members of NATO who maintain armed forces, and its members have explicitly reaffirmed their intention that it should continue to act as a principal European forum for collaboration in the defence equipment field.

25. Nevertheless, this European context does not disregard the Atlantic framework. The resolution which established the group linked both aspects in a single vision.

26. As Admiral Mainini¹ reminded the symposium, the IEPG has not failed to study the question of relations with the Alliance, and has seen the Conference of National Armaments Directors as the appropriate forum for exchanges of views and experience.

27. Admiral Mainini was insistent that although the members of the IEPG have been preoccupied with their urgent problems of industrial co-operation and of harmonising requirement time scales, they "have not neglected the wider consideration of relations with the countries on the other side of the Atlantic, particularly since the United States is increasingly and practically disposed to envisage standardisation as an aim to be achieved through a more balanced exchange between the two components of the Alliance".

28. In its work to date the IEPG has done much to reconcile what Julian Critchley described as "the twin aims of the Alliance, standardisation and the preservation of European defence industries". However, Admiral Mainini's speech did not make clear precisely how much progress IEPG is making. The Committee would wish to know what *new* joint production projects are to be embarked on, and what institutional arrangements are envisaged for joint production. It would like assurances that there is no deadlock in any area of the IEPG discussions.

B. Eurogroup

29. Eurogroup was established in 1968. Its members are Belgium, Denmark, Germany, Greece, Italy, Luxembourg, Netherlands, Norway, Turkey and the United Kingdom. Created in order to further a greater identity of interest in defence matters between the European members of the Alliance, it soon provided an impetus for European co-operation in equipment matters. It functions through the armaments experts on the national delegations to NATO in Brussels and has no secretariat of its own.

1. Deputy Chief of the Italian Defence Staff, Chairman of the independent European programme group at National Armaments Director level.

30. It has acted as an important ministerial forum for the Defence Ministers of the European NATO nations.

31. Its sub-groups have been engaged for a number of years in the field of tactical harmonisation, armaments, training and logistic co-operation¹. For example, in December 1972 the Defence Ministers of Eurogroup passed a "Declaration of principles" on equipment collaboration and in May 1975 the Eurogroup Defence Ministers recommended a much more vigorous approach to standardisation through military trade between the United States and Europe which was endorsed at the NATO Defence Ministers' meeting.

32. Nevertheless, in spite of the progress made and real achievements of Eurogroup to date, it has suffered from a fatal defect in that France did not participate. This has long been recognised by the Assembly and by the Committee¹. Attention was also drawn to this in Resolution 16 of the North Atlantic Assembly (October 1973) which noted that "France does not participate in the activities of the Eurogroup and that consequently insufficient use is made of the considerable technological potential of the French armaments industry and that furthermore this non-participation will not facilitate a standardisation of armaments so frequently recommended with regard to European defence".

33. The resolution urged Eurogroup and France to seek a solution to this problem.

C. Standing Armaments Committee

34. The Standing Armaments Committee was established by decision of the Council of Western European Union (7th May 1955) but is not actually referred to in the Treaty of Brussels itself.

35. "The Standing Armaments Committee shall, in close relation with the North Atlantic Treaty Organisation, seek to improve consultation and co-operation in the sphere of armaments with a view to finding joint solutions which would assist governments of member countries in meeting their equipment requirements. To that end it shall encourage, on a case by case basis, agreements or arrangements on such subjects as the development, standardisation, production and procurement of armaments."³

1. Eurotraining — (Training);
- Euronad — (Equipment co-operation);
- Eurocom — (Battlefield communications);
- Eurolog — (Logistics);
- Eurolongterm — (Agreement of basic tactics concepts);
- Euromed — (Medical services).

2. See e.g. Recommendation 269, 28th May 1975.

3. Paragraph 10 of the decision.

36. Staffed by an international secretariat, members of which also attend meetings of the NATO Conference of National Armaments Directors as observers, the Standing Armaments Committee of WEU meets four times a year in Paris. Representatives on the Standing Armaments Committee are drawn from members' NATO delegations, usually at colonel or civilian official level, except in the case of the French and Italian representatives who are generals.

37. The Standing Armaments Committee also maintains a close liaison with the NATO Military Agency for Standardisation (MAS) and the FINABEL Committee of Principal Military Experts.

38. Despite the hopes placed in it in its earlier years, the Standing Armaments Committee has not proved to be a framework within which joint production projects have been undertaken. But as Mr. Nessler rightly pointed out in his opening speech at the symposium, the Council of WEU, in May 1976, took an important decision in assigning to the Standing Armaments Committee a study of the armaments industries in member countries¹.

39. This decision, if followed up positively by the WEU Council on 26th April 1977, could

1. Text of the mandate approved by the Council of Ministers at its meeting in Brussels on 31st May 1976

1. The Standing Armaments Committee is instructed to submit to the Permanent Council, before the end of 1976, a detailed outline programme for a study as set out in the Annex, and a description of its proposed method of work;

2. The Permanent Council will study carefully the outline programme and the proposed method of work submitted to them by the SAC, taking account of the determination of governments to avoid all duplication and any encroachment on work in progress elsewhere. The aim of the Council's consideration of the SAC's outline programme will be to specify the terms and define the scope of the study to be assigned to it. They will take account, in particular, of the tasks undertaken by the European programme group at their meeting in the autumn of 1976;

3. The Permanent Council are authorised to take decisions on the proposals thus submitted;

4. The Permanent Council will follow the development of the work and will report to Ministers at their next meeting;

5. The Permanent Council have also been authorised to consider at a later stage the possibility of including the following points in the study:

Inventory of capacities

Here, the aim would be to identify, by main categories, the weak and strong points of the European industry, together with the sectors where it can compete on favourable terms.

Inventory of relations between industries in different European countries

At industrial level, there is already a network of contacts and various forms of occasional or systematic co-operation. These experiments should be analysed with a view to possible rationalisation on a European scale.

restore a useful rôle to the Standing Armaments Committee of WEU which in the past has been overshadowed by other organisations.

D. FINABEL

40. The FINABEL Co-ordinating Committee was set up in 1953 (i.e. before any other similar European body) by agreement of the chiefs of staff of the land forces of member countries approved by their Ministers of Defence. Its permanent secretariat is located in the Belgian Ministry of Defence with a French colonel as secretary and a Belgian lieutenant-colonel as assistant secretary.

41. It was at first composed of the representatives of France, Italy, Belgium, the Netherlands and Luxembourg, but was joined by representatives of the Federal Republic of Germany in 1956 and the United Kingdom in 1972 after Great Britain's accession to the EEC.

42. FINABEL is an international association whose members are appointed by their respective governments. Its proposals are transmitted through them, i.e. through the chiefs of staff (army) to governments. FINABEL cannot negotiate as an entity with a government.

43. The aim of FINABEL is to encourage military co-operation among the NATO member States whose defence concerns and requirements are comparable particularly in the following fields in respect of land armaments:

- definition of qualitative requirements of military equipment and joint definition of the military characteristics of such equipment;
- joint testing of equipment and procedure;

Annex

The Standing Armaments Committee, acting under the authority of the Council, is instructed to make a descriptive analysis of the situation of the armaments industry in member countries. The purpose of this analysis is to gain a clearer insight into the industrial and economic implications of the standardisation of armaments. It shall be directed to formulating a diagnosis.

(a) Definition of the armaments sector

The concept of armaments should be defined by distinguishing between armaments as such and the production of goods and services for national defence.

(b) Collection of economic data

One purpose of the study will be to assemble figures showing the relative scale of armaments production in each of the countries and between them, and covering such points as amount of investment, research, sources of funds (public and private), manpower and exports (divided into the European, Atlantic and other areas).

(c) Legal status of firms and domestic legislation

The study should also identify the various legal statuses of arms firms.

- tactical and logistic studies ;
- exchange of information.

44. FINABEL's mandate does not cover the joint production of equipment since this is outside the responsibilities of chiefs of staff. Nevertheless, the joint positions set out in the agreements on the military characteristics of land army equipment have a direct influence on its development.

45. NATO recognises FINABEL as a regional group and the NATO Army Armaments Group (NAAG) of CNAD frequently uses FINABEL's work as a basis for its own studies.

46. The WEU Standing Armaments Committee and FINABEL exchange documents and their respective secretariats are in constant contact.

47. Official liaison procedure has just been introduced with Eurolongterm, a Eurogroup committee responsible for tactical concepts. Eurocom is informed of studies conducted by FINABEL and the members of the independent European programme group, although having no official link with FINABEL, are aware of its existence and work.

E. NATO

48. As Dr. Walter LaBerge¹ made clear in his address, "the established administrative machinery of the Alliance offers general major assets which may be of an especial use to the European Community in its programme for co-ordinated armaments development".

49. Dr. LaBerge cited three parts of the organisational machinery of the Alliance which can be useful for the formulation of a European armaments policy. First, there are the staff specialists of the allied military commanders. Secondly, there are the civilian organisation and supporting staff. In this area the best known body is the Conference of National Armaments Directors which facilitates co-operation by an elaborate network of groups for the interchange of technical information or formation of projects. Thirdly, there exist under the Military Committee an international staff and certain agencies, such as the Military Agency for Standardisation (MAS).

50. The Conference of National Armaments Directors (CNAD) is the senior civil body under the North Atlantic Council concerned with defence equipment, and all NATO countries, including France, participate in its work. The CNAD has under it five groups of governmental representatives. These are the NATO Naval Armaments Group, the NATO Army Armaments

Group, the NATO Air Force Armaments Group, the Defence Research Group and the Tri-Service Group on Air Defence. A sixth group, the Tri-Service Group on Communications and Electronic Equipment, has been approved in principle by CNAD, but its exact scope and responsibilities have not yet been fully agreed.

51. Under each of the CNAD main groups there are numerous specialist panels and sub-groups. These working groups and panels have access to information from the United States and Canada. It is primarily through the mechanism of the CNAD bodies that this information becomes available to the European members. The CNAD working groups provide an effective two-way street in information between the European and American NATO countries.

52. Likewise on the military side a body which facilitates the exchange of technical information among Alliance nations is the Advisory Group for Aerospace Research and Development (AGARD). Also under the aegis of the Military Committee is the Military Agency for Standardisation (MAS) which issues Standardisation Agreements (STANAGs) on procedures, doctrines and equipment characteristics to provide interoperability or compatibility. Most STANAGs are established through MAS bodies although some of the work on equipment STANAGs originates in bodies under the CNAD.

53. These STANAGs can in some cases provide a point of departure for the development of future armaments to be produced by European nations.

54. As Dr. LaBerge pointed out "any policy for European armaments must undoubtedly recognise the value of the work of the MAS, and any multinational grouping of nations for co-operative equipment projects must take results of its work into account".

55. Lastly, there is one temporary activity which it is important to mention. The ad hoc Committee on Equipment Interoperability was established by the NATO Ministers in December of 1975 and has now finished one year of operation. This body of political representatives of nations has brought strong pressure to bear for the solution of problems of interoperability in communications, fuels, tank gun ammunition, cross-servicing of aircraft and of the implementation of standardisation agreements. Furthermore, it has by its actions generated a general commitment to interoperability which must surely form one of the bases for any European armaments policy. Dr. LaBerge's paper cited the following weapons projects under NATO CNAD aegis :

- Azores fixed acoustic range (AFAR)
- Mobile acoustic communications study (MACS)
- AN/USD-501 surveillance system
- FH-70 155 mm towed howitzer

¹ NATO Assistant Secretary-General for Defence Support.

Puma, Gazelle and Lynx helicopters
 Jaguar tactical and training aircraft
 NATO maritime patrol aircraft
 Seasparrow point defence ship missile system
 Armoured reconnaissance vehicle (tracked)
 (VRT)
 MK-20 RH-202 rapid-fire gun and anti-aircraft
 field mount HS-669N
 Mark 44
 Underwater acoustic communication system
 FORACS (fleet operational readiness accuracy
 check site)
 SP-70 (155 mm self-propelled howitzer)
 Milan PHM (NATO hydrofoil fast patrol ship,
 guided missile)
 NATO frigate for the 1970s
 NATO conventionally-powered submarine for
 employment in European waters
 Tornado multi-rôle combat aircraft
 F-16 air combat fighter
 Sea Gnat

II. Industrial arrangements

Industrial aspects of European co-operation in weapons production

56. The most striking feature of European industrial co-operation in armaments manufacture is in Mr. Greenwood's¹ words to the symposium "the quite remarkable variety of forms which international co-operation has taken".

57. The position was well summarised in the action programme for the European aeronautical sector of the EEC: "the immense size of development expenditure and the need for economies of scale in production have prompted the development of a series of collaborative European projects...".

58. "... The structures of this collaboration", the EEC Commission report continues, "have evolved and been most varied: from the agreement between separate companies on the Transall, to the 'light' company (SEPECAT) set up to develop the Anglo/French Jaguar, to the common development company to develop and produce the MRCA".

59. The advantages and disadvantages of industrial co-operation were set out by Mr. Kuhlo² in his report to the symposium. He listed the advantages as:

- (a) sharing of development cost;
- (b) sharing of development risk;
- (c) broadening of background: experience, capacity;
- (d) reduction of procurement cost: larger quantity and cadence;
- (e) advantage in logistics and readiness to act,

and the disadvantages as:

- (i) co-ordination of different national regulations, standards and procedures;
- (ii) only partial activation of industrial potential.

60. Mr. Kuhlo cites the cost and complexity of modern precision-guided munitions such as missiles, rockets, projectiles and bombs together with the importance of maximum standardisation in their development among inventories of the armed forces of the Alliance as arguments for co-operation in their development, production and use.

61. Collaboration in this field, once very much *ad hoc* as between Engins Matra and Hawker Siddeley Dynamics over the Martel Missile, is now more institutionalised.

62. The Euromissile organisation and administrative structure between the German MBB and French SNIAS companies created on the foundation of the BPF A and DFPPB (respective sponsoring ministries) for the development and production of the Milan, HOT and Roland missile systems was given by Mr. Kuhlo as an example of the kind of joint industrial/ministerial organisation required in this high technology area. (See Diagram 1)

63. It is noteworthy that in the space field not only is there a supranational European Space Agency (ESA) but also that the satisfactory work of the three international consortia MESH, COSMOS and STAR has shown, as the General Rapporteur Mr. Cristofini explained in his summing-up of the symposium, that "the extension of bilateral experience to multinational co-operation in consortia is not a figment of the imagination". Indeed, the General Rapporteur considered that "it is relatively easy to pass from the Euromissile-type of bilateral organisation to a COSMOS-type consortium".

64. Likewise in the military aerospace sector we have had a number of relatively straightforward industrial partnerships and collaborative arrangements to produce specific projects such as the Atlantic, Alpha-Jet, Transall, Puma, Lynx and Gazelle helicopters and Jaguar. The SEPECAT organisation to manufacture the Jaguar (see Diagram 2) is typical of such *ad hoc* arrangements.

1. Chairman, British Aircraft Corporation.

2. Head of Dynamics Division, Messerschmitt-Bölkow-Blohm GmbH.

65. The Panavia joint industrial company between Aeritalia, BAC and MBB produce the multi-rôle Tornado aircraft with its corresponding joint engine company Turbo Union and attendant management agencies NAMMA/NAMMO represents the kind of industrial and official administrative collaborative evolution which could set the pattern for future joint weapon development and production in Europe. (See Diagram 3)

66. It is just the type of successful military collaborative consortium which Mr. Greenwood warned the symposium should not be broken up when its own particular programme is completed. He advised the addition of further partners to such consortia and the assignment to them of additional programmes as they occur.

67. It is difficult to quantify the cost effects of collaboration. However, it seems that by doubling the market due to collaboration, a saving on the mean unit cost in the order of 20 % is achieved on a major military aircraft programme. On smaller projects, the saving might be about 10 % per unit. These figures are based on estimates for national bilateral programmes in which although the total development bill in collaboration is one and a half times that of the unilateral bill, each sponsoring government has to find only two-thirds of the money required to do the job on its own. At the same time, a 5 % increase in manufacturing costs arises from the difficulties of geographical distance, language difference and so on¹. In its next report the Committee will seek to include more recent figures.

68. Yet as the EEC action programme for aerospace pointed out "this healthy evolution (towards collaboration) has been marred by weakness ; by lack of systematic collaboration on procurement at European level ; by lack of pooling of the basic research infrastructure ; by the fact that industrial production structures and development capabilities have not yet been fully rationalised to render them capable of exploiting the European dimension ; above all perhaps by a failure of basic political strategy in the 1960s."²

69. The result has been that following the withdrawal of France from the Anglo-French variable geometry aircraft, Germany, Italy and the United Kingdom combined to build the Tornado multi-rôle combat aircraft, leaving France a non-participant in Europe's important military project. In the strike/trainer field, the Alpha-Jet

and Hawk¹ are in direct competition in export markets as are the Anglo-French Jaguar and the purely French Mirage F-1 although the French Dassault-Bréguet company is engaged in the manufacture of both F-1 and Jaguar.

70. It is scarcely surprising that such divisions of interest and the consequent lack of any genuinely European alternative to the United States F-16 allowed the replacement order for the F-104s of Belgian, Danish, Dutch and Norwegian air forces to go to the General Dynamics F-16 fighter rather than to a European aeroplane.

71. Nevertheless, there is no reason, given the necessary political determination on the part of the European members of the Alliance, for them not to be able to fulfil most of their requirements for defence equipment.

72. While American military research and development expenditure dwarfs that of its European NATO partners, the gap, as Richard Burt points out², is narrowing. Whereas between 1955 and 1965 the combined military research and development spending of Britain, France and Germany was 10 % of the American total, by 1970-74 this proportion had reached 27 %.

73. Moreover, Richard Burt argues that "the research and development gap should not obscure the fact in several areas such as anti-tank guided weapons (ATGW), low-level surface-to-air guided missiles (SAMs), anti-shiping missiles and target-acquisition aids — advanced systems are undergoing development and deployment by Europeans".

74. In listing all the joint European programmes in which France alone was involved Ingénieur Général Cauchie demonstrated the range and capability of Europe's armaments industries. If to these are added the weapons systems listed in Appendix II to WEU Document 689 (Report of the Committee on European and Atlantic co-operation in the field of armaments of 1st December 1975), it will be seen how exceptionally technologically advanced the European industries are and how wide-ranging are their capabilities.

75. It is not surprising that in a number of areas (V/Stol aircraft, low-level SAMs and shipborne guided weapons in particular) European weapons outperform those of the United States, and in a global context today European equipment accounts according to Ingénieur Général Cauchie for some 12 % of the market.

1. See Sir George Edwards, OM, CBE, FRS, "Partnership in major technological projects", 7th Maurice Lubbock Memorial Lecture — 14th May 1970, Oxford University Press, pages 23-24.

2. EEC Commission — Action programme for the aeronautical sector, Com. 75 (475), page 9.

1. A British basic and advanced jet trainer with close support capability.

2. New weapons technologies — debate and directions by Richard Burt, IISS Adelphi Paper No. 126, London, 1976, pages 20-21.

A. FINANCIAL EFFORT

| Country | National currency unit | Defence expenditure (national currency) current prices | | | | | Defence expenditure (US \$ million) ^a | | | | | GDP in purchasers' values (US \$ million) ^a | | | | | Population (thousand) | | | | | Defence expenditure as % of GDP in purchasers' values ^a | | | | | Defence expenditure per head ^a (US \$) | | | | | Defence expenditure as % of total WEU | | | | |
|-----------------------------------|------------------------|--|--------|--------|--------|-------------------|--|---------|---------|---------|-------------------|--|-----------|-----------|-----------|-------------------|-----------------------|---------|---------|---------|-------------------|--|------|------|------|--------------------|---|------|------|------|--------------------|---------------------------------------|--------|--------|--------|-------------------|
| | | 1972 | 1973 | 1974 | 1975 | 1976 ^f | 1972 | 1973 | 1974 | 1975 | 1976 ^f | 1972 | 1973 | 1974 | 1975 | 1976 ^e | 1972 | 1973 | 1974 | 1975 | 1976 ^e | 1972 | 1973 | 1974 | 1975 | 1976 ^{ef} | 1972 | 1973 | 1974 | 1975 | 1976 ^{ef} | 1972 | 1973 | 1974 | 1975 | 1976 ^f |
| | | (-5) | (-4) | (-3) | (-2) | (-1) | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) | (15) | (16) | (17) | (18) | (19) | (20) | (21) | (22) | (23) | (24) | (25) | (26) | (27) | (28) | (29) | (30) |
| Belgium | Million Frs. | 44,140 | 48,941 | 57,395 | 69,936 | 79,445 | 1,003 | 1,258 | 1,474 | 1,902 | 2,058 | 35,462 | 45,604 | 53,409 | 62,250 | 67,193 | 9,711 | 9,742 | 9,772 | 9,801 | 9,830 | 2.8 | 2.8 | 2.8 | 3.1 | 3.1 | 103 | 129 | 151 | 194 | 209 | 3.26 | 3.37 | 3.54 | 3.86 | 4.18 |
| France | Million Frs. | 37,992 | 42,284 | 47,705 | 55,955 | 64,100 | 7,435 | 9,466 | 9,908 | 13,055 | 13,411 | 101,998 | 249,293 | 265,353 | 335,721 | 340,948 | 51,703 | 52,130 | 52,490 | 52,743 | 53,218 | 3.9 | 3.8 | 3.7 | 3.9 | 3.9 | 144 | 182 | 189 | 248 | 252 | 24.18 | 25.35 | 23.80 | 26.46 | 27.24 |
| Federal Republic of Germany | Million DM | 28,720 | 31,908 | 35,644 | 37,589 | 38,823 | 8,912 | 11,928 | 13,775 | 15,267 | 15,418 | 258,984 | 346,983 | 386,342 | 424,653 | 453,377 | 59,599 | 59,923 | 60,021 | 59,822 | 59,330 | 3.4 | 3.4 | 3.6 | 3.6 | 3.4 | 150 | 199 | 230 | 255 | 260 | 28.99 | 31.95 | 33.10 | 30.95 | 31.31 |
| Italy | Million Lire | 2,162 | 2,392 | 2,852 | 3,104 | 3,526 | 3,705 | 4,106 | 4,391 | 4,756 | 4,237 | 118,367 | 140,998 | 152,780 | 172,113 | 164,862 | 54,411 | 54,913 | 55,413 | 55,812 | 56,258 | 3.1 | 2.9 | 2.9 | 2.8 | 2.6 | 68 | 75 | 79 | 85 | 75 | 12.05 | 11.00 | 10.55 | 9.64 | 8.60 |
| Luxembourg | Million Frs. | 517 | 601 | 710 | 836 | 900 | 12 | 15 | 18 | 23 | 23 | 1,359 | 1,869 | 2,184 | 2,197 | 2,289 | 348 | 353 | 357 | 359 | 363 | 0.9 | 0.8 | 0.8 | 1.0 | 1.0 | 34 | 42 | 51 | 64 | 63 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 |
| Netherlands | Million Guilders | 4,974 | 5,465 | 6,254 | 7,246 | 7,713 | 1,535 | 1,954 | 2,324 | 2,865 | 2,917 | 45,287 | 60,093 | 69,536 | 81,197 | 88,289 | 13,329 | 13,439 | 13,545 | 13,654 | 13,791 | 3.4 | 3.3 | 3.3 | 3.5 | 3.3 | 115 | 145 | 172 | 210 | 212 | 4.99 | 5.23 | 5.58 | 5.81 | 5.92 |
| United Kingdom | Million £ | 3,258 | 3,512 | 4,160 | 5,165 | 6,188 | 8,146 | 8,611 | 9,736 | 11,476 | 11,177 | 156,923 | 175,955 | 190,989 | 228,785 | 215,090 | 55,882 | 56,021 | 56,053 | 56,042 | 56,154 | 5.2 | 4.9 | 5.1 | 5.0 | 5.2 | 146 | 154 | 174 | 205 | 199 | 26.49 | 23.06 | 23.39 | 23.26 | 22.70 |
| TOTAL WEU | | | | | | | 30,748 | 37,338 | 41,626 | 49,344 | 49,241 | 808,380 | 1,020,795 | 1,120,593 | 1,306,916 | 1,338,048 | 244,983 | 246,521 | 247,651 | 248,233 | 248,944 | 3.8 | 3.7 | 3.7 | 3.8 | 3.7 | 126 | 151 | 168 | 199 | 198 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| Canada | Million \$ | 2,238 | 2,405 | 2,862 | 3,127 | 3,595 | 2,259 | 2,403 | 2,926 | 3,075 | 3,646 | 106,434 | 123,447 | 149,185 | 159,681 | 189,363 | 21,848 | 22,125 | 22,479 | 22,831 | 23,128 | 2.1 | 1.9 | 2.0 | 1.9 | 1.9 | 103 | 109 | 130 | 135 | 158 | 7.35 | 6.44 | 7.03 | 6.23 | 7.40 |
| Denmark | Million Kr. | 3,386 | 3,520 | 4,439 | 5,281 | 5,974 | 487 | 582 | 728 | 918 | 988 | 20,934 | 27,289 | 30,220 | 35,428 | 38,206 | 4,992 | 5,022 | 5,045 | 5,060 | 5,090 | 2.3 | 2.1 | 2.4 | 2.6 | 2.6 | 98 | 116 | 144 | 181 | 194 | 1.58 | 1.56 | 1.75 | 1.86 | 2.01 |
| Greece | Million Drachmas | 17,211 | 19,866 | 24,126 | 43,917 | .. | 574 | 670 | 804 | 1,363 | .. | 12,488 | 16,159 | 19,173 | 21,015 | 24,626 | 8,889 | 8,929 | 8,962 | 9,048 | 9,082 | 4.6 | 4.1 | 4.2 | 6.5 | .. | 65 | 75 | 90 | 151 | .. | 1.87 | 1.79 | 1.93 | 2.76 | .. |
| Norway | Million Kr. | 3,239 | 3,505 | 3,938 | 4,771 | 5,220 | 491 | 602 | 713 | 910 | 957 | 14,897 | 19,129 | 23,344 | 28,216 | 30,625 | 3,933 | 3,961 | 3,985 | 4,007 | 4,035 | 3.3 | 3.1 | 3.1 | 3.2 | 3.1 | 125 | 152 | 179 | 227 | 237 | 1.60 | 1.61 | 1.71 | 1.84 | 1.94 |
| Portugal | Million Escudos | 16,046 | 16,736 | 25,108 | 19,898 | 18,500 | 589 | 651 | 985 | 780 | 612 | 8,469 | 10,907 | 13,268 | 14,647 | 14,575 | 8,590 | 8,557 | 8,890 | 9,449 | 10,044 | 7.0 | 6.0 | 7.4 | 5.3 | 4.2 | 69 | 76 | 112 | 83 | 61 | 1.92 | 1.74 | 2.37 | 1.58 | 1.24 |
| Turkey | Million L. | 9,961 | 12,192 | 15,831 | .. | .. | 718 | 870 | 1,140 | .. | .. | 16,509 | 20,931 | 29,047 | 35,511 | 39,616 | 37,146 | 38,094 | 39,066 | 40,063 | 41,105 | 4.3 | 4.2 | 3.9 | .. | .. | 19 | 23 | 29 | .. | .. | 2.34 | 2.33 | 2.74 | .. | .. |
| United States | Million \$ | 77,639 | 78,358 | 85,906 | 90,948 | 99,083 | 77,639 | 78,358 | 85,906 | 90,948 | 99,083 | 1,168,180 | 1,301,490 | 1,407,210 | 1,517,660 | 1,692,950 | 208,846 | 210,410 | 211,901 | 213,540 | 215,462 | 6.6 | 6.0 | 6.1 | 6.0 | 5.9 | 372 | 372 | 405 | 426 | 460 | 252.50 | 209.86 | 206.38 | 184.31 | 201.22 |
| TOTAL NON-WEU ^b | | | | | | | 81,465 | 82,596 | 91,258 | 96,631 | 105,286 | 1,318,914 | 1,482,262 | 1,623,227 | 1,755,632 | 1,965,719 | 248,209 | 250,075 | 252,300 | 254,887 | 257,759 | 6.2 | 5.6 | 5.6 | 5.5 | 5.4 | 328 | 330 | 362 | 379 | 408 | .. | .. | .. | .. | .. |
| TOTAL NATO ^b | | | | | | | 112,213 | 119,934 | 132,884 | 145,975 | 154,527 | 2,127,294 | 2,503,057 | 2,743,820 | 3,062,548 | 3,363,767 | 493,192 | 496,596 | 499,951 | 503,120 | 506,703 | 5.3 | 4.8 | 4.8 | 4.8 | 4.7 | 228 | 242 | 266 | 290 | 305 | .. | .. | .. | .. | .. |

Note a: GDP and defence expenditures are calculated in national currency and converted to United States \$ at the rates shown below. Figures in columns (1) to (10) and (21) to (30) are affected by change in exchange rates and are not therefore always comparable between countries, whereas figures of defence expenditures as % of GDP in columns (16) to (20) do not involve currency conversion.

Previous tables of defence statistics published in reports of the Committee have used gross national product (GNP) as a measure of national wealth. In line with the practice of other international organisations, the tables are now given in terms of GDP which is somewhat higher than GNP. Consequently, the figures for defence expenditure as a percentage of GDP are slightly lower than the percentages of GNP previously published.

For the period 1972-76, the following rates of exchange have been applied:

| Country | Unit | US \$ per unit | Units per US \$ | Country | Unit | US \$ per unit | Units per US \$ |
|---------------------------------|-----------------|----------------|-----------------|-----------------------|------------|----------------|-----------------|
| <i>Belgium & Luxembourg</i> | Franc | | | <i>Italy</i> | 1,000 Lire | | |
| — 1972 | | 0.02272 | 44.01 | — 1972 | | 1.71347 | 0.58361 |
| — 1973 | | 0.02571 | 38.90 | — 1973 | | 1.71649 | 0.58258 |
| — 1974 | | 0.02567 | 38.95 | — 1974 | | 1.53952 | 0.64955 |
| — 1975 | | 0.02719 | 36.78 | — 1975 | | 1.53183 | 0.65282 |
| — 1976 | | 0.02590 | 38.60 | — 1976 | | 1.20151 | 0.83229 |
| <i>Canada</i> | Canadian Dollar | | | <i>Netherlands</i> | Guilder | | |
| — 1972 | | 1.00943 | 0.99066 | — 1972 | | 0.30864 | 3.24 |
| — 1973 | | 0.99945 | 1.00055 | — 1973 | | 0.36746 | 2.80 |
| — 1974 | | 1.02248 | 0.97802 | — 1974 | | 0.37163 | 2.69 |
| — 1975 | | 0.98313 | 1.01716 | — 1975 | | 0.39539 | 2.53 |
| — 1976 | | 1.01416 | 0.98604 | — 1976 | | 0.37822 | 2.64 |
| <i>Denmark</i> | D. Kroner | | | <i>Norway</i> | N. Kroner | | |
| — 1972 | | 0.14390 | 6.9495 | — 1972 | | 0.15168 | 6.59 |
| — 1973 | | 0.16523 | 6.0522 | — 1973 | | 0.17169 | 5.82 |
| — 1974 | | 0.16408 | 6.0947 | — 1974 | | 0.18106 | 5.52 |
| — 1975 | | 0.17392 | 5.7499 | — 1975 | | 0.19073 | 5.24 |
| — 1976 | | 0.16543 | 6.0450 | — 1976 | | 0.18327 | 5.46 |
| <i>France</i> | Franc | | | <i>Portugal</i> | Escudo | | |
| — 1972 | | 0.19570 | 5.110 | — 1972 | | 0.03670 | 27.25 |
| — 1973 | | 0.22387 | 4.467 | — 1973 | | 0.03889 | 25.71 |
| — 1974 | | 0.20770 | 4.815 | — 1974, 1975 | | 0.03922 | 25.50 |
| — 1975 | | 0.23331 | 4.286 | — 1976 | | 0.03309 | 30.22 |
| — 1976 | | 0.20922 | 4.780 | | | | |
| <i>Fed. Rep. of Germany</i> | Deutschmark | | | <i>Turkey</i> | T. Lira | | |
| — 1972 | | 0.31030 | 3.22 | — 1972 | | 0.07207 | 13.88 |
| — 1973 | | 0.37383 | 2.68 | — 1973 | | 0.07133 | 14.02 |
| — 1974 | | 0.38647 | 2.59 | — 1974 | | 0.07199 | 13.89 |
| — 1975 | | 0.40616 | 2.46 | — 1975 | | 0.06936 | 14.42 |
| — 1976 | | 0.39714 | 2.52 | — 1976 | | 0.06249 | 16.00 |
| <i>Greece</i> | Drachma | | | <i>United Kingdom</i> | £ | | |
| — 1972 | | 0.03333 | 30.00 | — 1972 | | 2.5000 | 0.400 |
| — 1973 | | 0.03373 | 29.65 | — 1973 | | 2.4620 | 0.408 |
| — 1974 | | 0.03333 | 30.00 | — 1974 | | 2.3401 | 0.427 |
| — 1975 | | 0.03103 | 32.23 | — 1975 | | 2.2219 | 0.450 |
| — 1976 | | 0.03017 | 33.15 | — 1976 | | 1.8062 | 0.554 |

Note b: Defence expenditure figures for Greece and Turkey are not available for the most recent years; for purposes of comparison all data relating to these two countries have been therefore excluded throughout from Total non-WEU and Total NATO.

^e = Preliminary estimate.

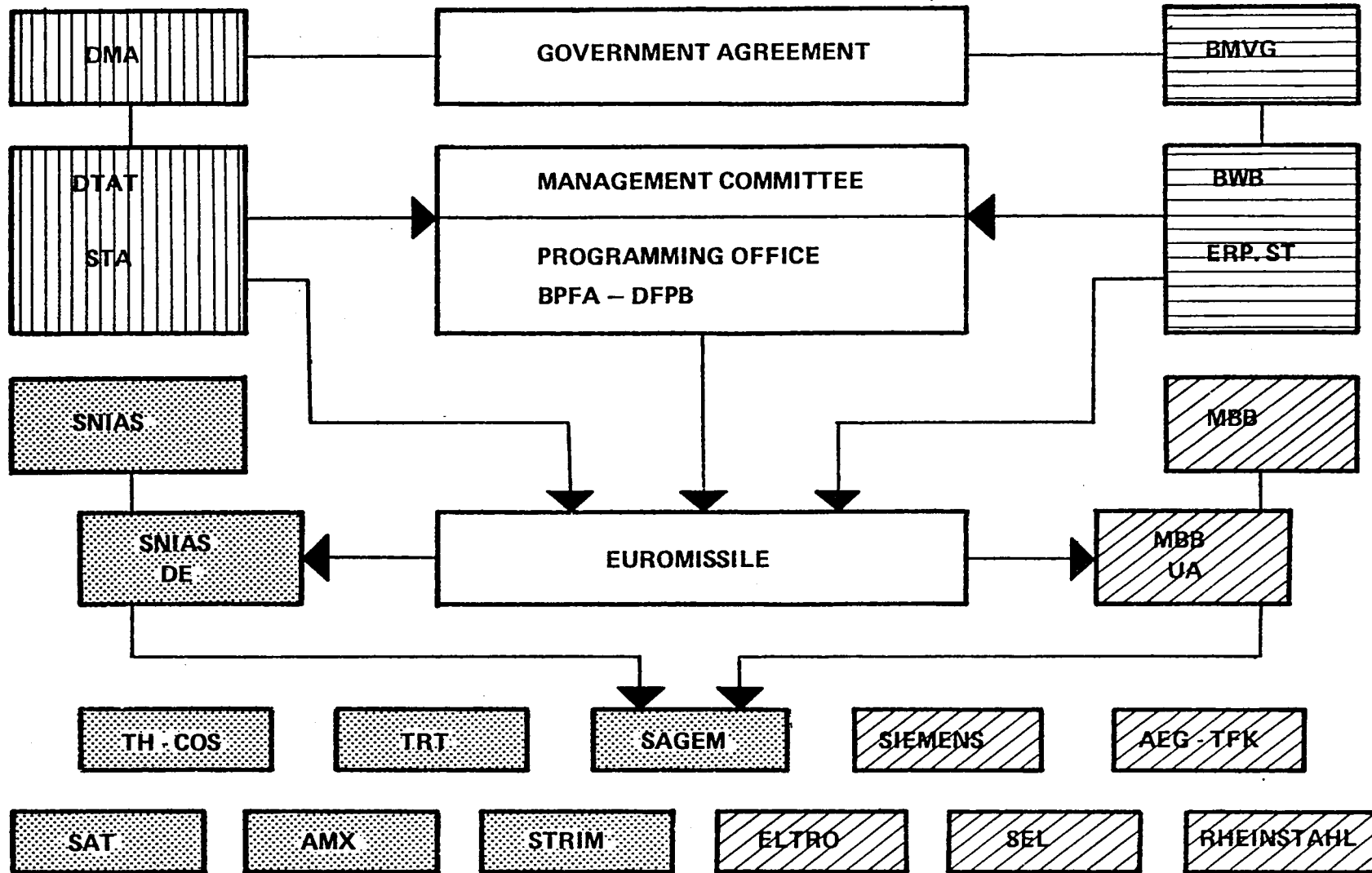
^f = Forecast.

GDP (p.v.) = Gross domestic product in purchasers' values, current prices.

Source: Defence expenditures (NATO definition), from NATO press release M/DPC/2(76)18.

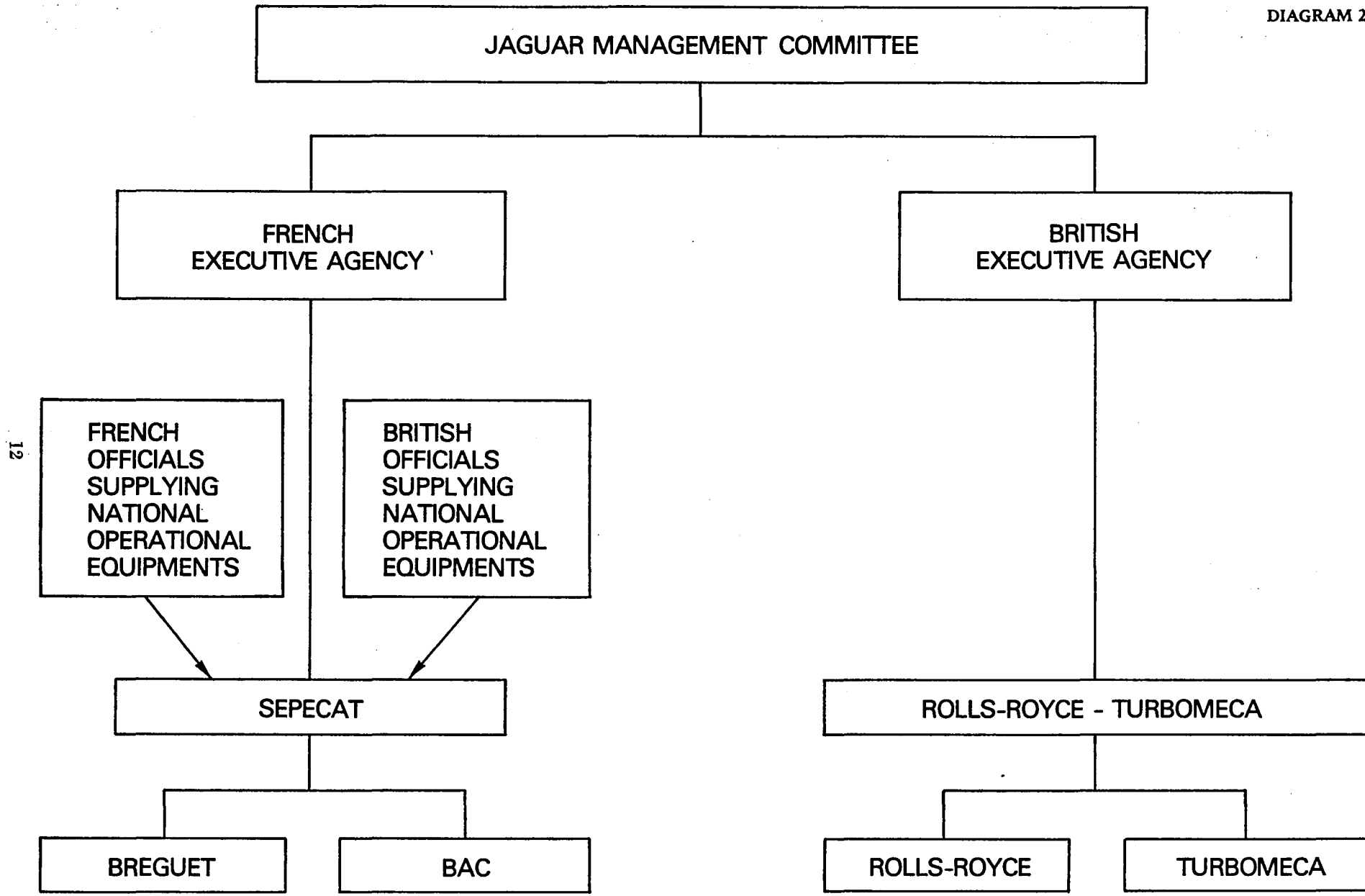
Bilateral Organization MILAN HOT ROLAND

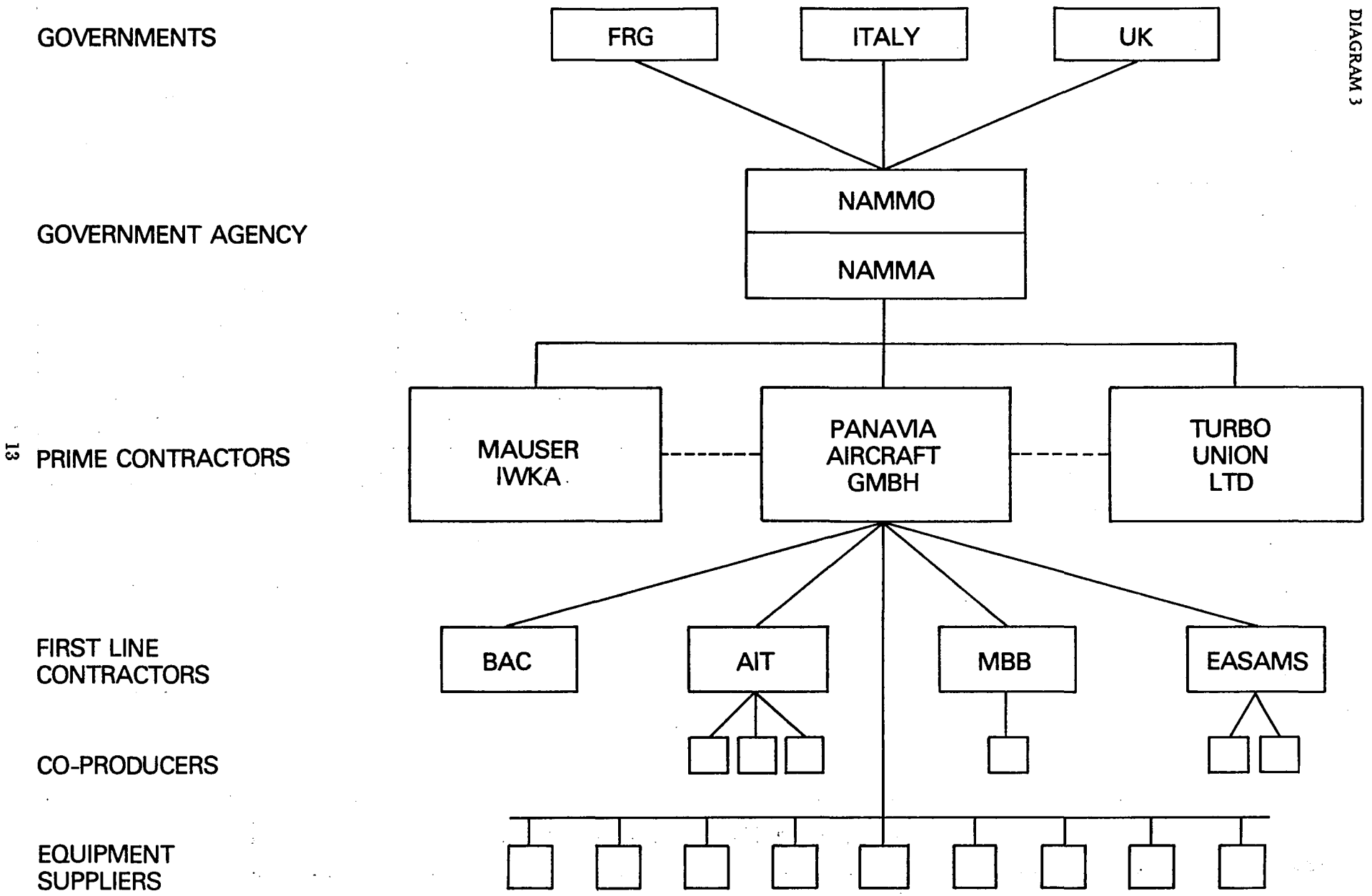
DIAGRAM 1



11

DIAGRAM 2





13

III. Institutional aspects of European co-operation

A. Political problems of rationalisation

76. The principal difficulty in arranging European armaments co-operation has always been the reconciliation of the institutional machinery for European armaments co-operation with the overall strategic necessity to preserve the Atlantic partnership.

77. However, two and a half years after the publication for the United States State Department of Thomas Callaghan's report on United States/European economic co-operation in military and civil technology, the "two-way street" it advocated is as far away from realisation as ever. As Ingénieur Général Cauchie demonstrated, there is an imbalance in the United States' favour of approximately 10:1 between the United States' exports to and imports from Western Europe of defence equipment and in the case of France the ratio is as high as 40:1.

78. This imbalance in armament purchases is not for a lack of transatlantic dialogue. France, for example, although not now involved in the integrated military structure of NATO, participates in the consultations of the North Atlantic Council and the Conference of National Armaments Directors and at a working level there are numerous exchange agreements on research and development between France and the United States and Canada.

79. So far the United States has persisted, both for strategic reasons and as a result of political and industrial pressure, in a policy of near autarchy in weapons procurement. The Buy American Act in the case of defence equipment protects the United States market to the level of 50 % of domestic costs. In the rare instances in which the United States does purchase European equipment as in the case of the Roland guided weapon and AV8B Advanced Harrier V/Stol aircraft, agreements for manufacture under licence in the United States are demanded.

80. Nevertheless, recent trends in the United States towards a policy of standardisation and joint production in NATO should be noted :

(a) Legislation introduced in particular by Senators Culver and Nunn in 1975 and 1976 has led to legislation declaring it to be "the policy of the United States that equipment procured for the use of personnel of the armed forces of the United States stationed in Europe under the terms of the North Atlantic Treaty should be standardised or at least interoperable with equipment of other members of NATO". The Defence Secretary is authorised, for the purpose of the Buy American Act, to certify that procurement from a domestic source is inconsistent with the public interest. Weapon systems developed primarily for the NATO theatre shall conform to

a common NATO requirement ; the sense of Congress is stated to be that expanded inter-allied procurement would be facilitated by more licensing and co-production agreements if economies of scale are preserved ; finally, it is recognised that a two-way street in defence procurement can work only if Europe operates collectively, "accordingly the Congress encourages the governments of Europe to accelerate their present efforts to achieve European armaments collaboration among all European members of the Alliance."¹

(b) The United States Department of Defence Directive No. 2010.6 of 11th March 1977 on standardisation and interoperability of weapon systems and equipment within NATO lays down responsibilities for implementing the policy expressed in the legislation quoted above.

(c) The compensation arrangements made under the F-16 programme are more satisfactory than those of previous joint production agreements. They will bring new technologies into the European factories concerned, and provide the four purchasing countries with approximately full compensation for the dollar value of the F-16 contract. Limited production capability in some countries has sometimes made it difficult to arrange suitable participation in the shared production scheme.

81. However, the problems encountered with the proposed new German-United States battle tank show still enormous obstacles to be overcome before a two-way street can be effective. The two-way street concept can be criticised, as Ingénieur Général Cauchie did, but it has to be recognised that there is as yet no European basis for it, and political and industrial efforts to create one have met with little success. The F-16 deal will perhaps speed up the political efforts.

82. But transatlantic projects should not be held up until the European structures have been built and begun to operate satisfactorily. Certain areas where two-way co-operation is possible can already be defined, and could work, given the political will on each side of the Atlantic. But a two-way street that satisfies European aspirations is still far off and depends on other factors besides the European capacity to build European structures that will work.

83. In an ideal world the best institutional machinery in which to concert European efforts in the armaments field would be NATO or Euro-group, since the benefits of interoperability, standardisation, collaborative or joint production could be achieved on the basis of agreed tactical doctrines, but French participation is essential.

1. United States military procurement authorisation bill 1977. Public Law 94-361, sections 802, 803.

84. In the view of French spokesmen, progress towards co-operation in the field of armaments and hence towards a more effective European defence effort depends upon an institutional basis which, as Mr. Cristofini observed, respects "relevant national interests" and whose proceedings can, as Ingénieur Général Cauchie remarked, be "conducted on pragmatic and flexible lines, with no hard and fast structure and no cumbersome and sterilising mechanisms".

85. It was against this background that the independent European programme group (IEPG) was established. To quote Ingénieur Général Cauchie again: "it means that in the group we find ourselves among fellow Europeans untrammelled by the familiar official structures, whether of NATO or WEU".

86. Hitherto the plethora of institutions have, in the field of European armaments procurement and co-operation, done scant justice in their achievements to the good intentions of their founders. In the instance of the IEPG, the proliferation of agencies and institutions must be no obstacle to real progress as the IEPG must work eclectically taking care to avoid duplicating the efforts of other bodies but utilising the results of their work where appropriate.

87. For example, liaison with NATO is automatically assured through the co-membership of NATO of the participants in the IEPG. In this way a close relationship between armaments projects and military operational needs should be even more surely achieved.

88. Also the lack of industrial participation in the IEPG to date can be offset to some extent if, as Ingénieur Général Cauchie suggests, the IEPG follows up the interest of France in ensuring that the IEPG utilises the current study of the Standing Armaments Committee of WEU into the present state of the European armaments industries.

89. In this connection, and in view of French support for WEU which is after all the only all-Western European political forum purely devoted to defence questions, the Standing Armaments Committee could be given an enhanced rôle as an expert study centre. At present the Standing Armaments Committee is responsible to the Council of WEU only. Its studies should be systematically utilised by the IEPG. To extend a degree of parliamentary scrutiny to the IEPG, consideration could be given to having the latter submit an annual report to the WEU Assembly.

90. Furthermore, if the Standing Armaments Committee had this wider rôle, it could undertake studies on behalf of the Assembly in the field of weapon procurement and collaboration which could not only satisfy current political demands but also be of benefit perhaps to the IEPG.

91. In conclusion, it should also be noted that industry is showing increasing interest in the IEPG. Your Rapporteur nevertheless agrees with the conclusion of the IEPG that a European Defence Industry Group or any similar industrial body should not participate fully in the work of the IEPG. But industrial observers at selected sub-group meetings should not be ruled out.

92. The multiplicity of existing agencies and institutions has been a subject of frequent adverse comment and long held to be a brake upon real progress to European armaments co-operation. Furthermore, as eventual European union edges very gradually nearer to reality, it seems in the words of Mr. van der Stoep, Netherlands Minister for Foreign Affairs, to the WEU Assembly of June 1976 "... to be a logical sequel ... that ultimately defence too should be a matter for the union".¹

93. "Although", as Mr. Destremau, French Secretary of State for Foreign Affairs, also rightly observed on the same occasion, "in sound logic there cannot be a unified European operational defence without there being a unified European political power, there is no reason why, to save time, we should not conceptualise here and now the conditions for establishing such a defence. In this area and until such time as the strategic concept takes shape, the setting up of a programme group for the standardisation of armaments designed and manufactured by Europeans might prove the desired trigger for developing a European armaments industry. In the same prospect may be viewed the Council of Ministers' remit to the Standing Armaments Committee of WEU to conduct an in-depth survey of our countries' armaments industries. This is being done at Belgium's instigation firmly backed by ourselves. Moreover it was your Assembly which, on a report I had the honour to submit to it on 8th November 1972, advocated reactivating the Standing Armaments Committee".²

94. In developing a truly European armaments industry, there is a marked dichotomy between those agencies concerned with the industrial aspects and those concerned with the purely military.

95. In view of the success of the IEPG to date, the time has surely come for overdue rationalisation of their functions. In particular, as the IEPG is now successfully established and concerns itself primarily with the harmonisation of operational requirements, FINABEL's functions as regards army equipment and logistics might

1. Official Report, Sixth Sitting, 17th June 1976, page 193.

2. Official Report, Second Sitting, 15th June 1976, page 86.

come to be assumed by the IEPG which could form any extra sub-committees as required.

96. Both the IEPG and FINABEL are specifically European bodies without any of the political disadvantages in French eyes of the NATO agencies or even Eurogroup and its sub-committees¹. Indeed France is an active participant in both the IEPG and FINABEL.

97. A drawing together of FINABEL and the IEPG would have the further advantage that FINABEL, unlike the IEPG, maintains close liaison with the Standing Armaments Committee of WEU.

B. Interoperability and standardisation

98. The Eurogroup communiqué issued at The Hague on 5th November 1975 stressed that "in order to make better use of the limited defence resources available within the North Atlantic Alliance, it is of the greatest importance to increase the interoperability and standardisation of military equipment within the Alliance while maintaining an effective and viable European defence industry".

99. There is no doubt of the military need for both interoperability and standardisation. In a lecture to the Royal United Services Institute for Defence Studies in London on 22nd October 1975, Dr. Gardiner C. Tucker, the Assistant Secretary-General of NATO for Defence Support, cited the example of the ACE Mobile Force². "There are seven nations who contribute units to that force ... it has seven types of combat aircraft. It has six different types of recoilless rifles ... four different types of wire-guided anti-tank missiles, three different types of mortars, three different rifles and three different machine-guns ... seven logistic trains must be established."

100. Even more horrifyingly, Dr. Tucker related how, in a recent naval exercise, of over fifty NATO aircraft shot down over 50 % were credited to NATO armaments owing to the impossibility of intercommunication with ground or shipborne air interception control systems³. The current lack of harmonisation of equipments is indeed fratricidal in not only the economic sense.

101. The United States on the one hand tends to emphasise standardisation. The French on the other stress the paramount importance of interoperability. Ingénieur Général Cauchie in his paper went so far as to suggest that the ultimate logic of standardisation is monopoly and special-

isation, probably on a national basis, with all the economic and even social disadvantages which could ensue.

102. Certainly Thomas Callaghan is right to point out that the military and logistic inefficiencies of the present situation seriously degrade the operational capabilities of the Alliance. "In varying degrees", he writes, "neither the land, nor the sea nor the air forces of NATO can operate effectively together for any significant period of time"¹ and he goes on to cite the multiplicity of logistic support systems.

103. "The weakest link", Callaghan continues, "in the entire allied defence chain is thus this NATO vulnerability to sustained conventional attack by Warsaw Pact forces. There should be no such vulnerability. There is no lack of resources. Over \$90 billion per year is spent on general purpose forces: over 70 % of the American defence budget; over 80 % of our European allies' defence budget".

104. In the short term, interoperability is the first essential as far as existing weapon systems are concerned. For example, at least the Jaguars of the Armée de l'Air and RAF should be made as genuinely as possible interoperable as should the Phantoms of the Luftwaffe, RAF and USAF and the Tornados in British, German and Italian air force service. These initiatives should be extended across the spectrum of army and naval armaments as well.

105. In the longer term Callaghan's European defence procurement agency (in fact the IEPG) should be tasked with a functional assessment of Europe's defence equipment requirements. Rationalisation of procurement, and, wherever possible, of production to assure standardisation would have major industrial and economic repercussions, but:

- (a) we have to contain the explosion of defence cost — interoperability can be very expensive;
- (b) from the military operational point of view the advantages are great.

IV. Industrial aspects of European defence procurement

106. The General Rapporteur, Mr. Cristofini, laid down four guidelines for success in European industrial armaments policy. First, the institutional framework had to be sound to ensure that relevant national interests were preserved (to which the Italian contributors to the symposium so eloquently referred) while working out

1. Cf. WEU Document 689, European and Atlantic co-operation in the field of armaments — minority opinion presented by Mr. Rivière, paragraphs 8.3(ii) and 8.3(vi) (a).

2. See R.U.S.I. Journal — March 1976, page 8.

3. *Op. cit.* page 9.

1. See Survival — IISS London — May/June 1975, page 130.

joint industrial programmes. Secondly, profitability had to be ensured in co-operative projects. Mr. Greenwood suggested in this regard that "common commercial identity of purpose" was necessary. Thirdly, a degree of protection had to be introduced at least in the early stages and fourthly, resources had to be adequate to bring Europe nearer to the level of the major powers in this field.

107. Flexibility would be essential in applying these policies. For example, there would have to be "weighting" in favour of the smaller nations in the allocation of armament work packages. The forms of industrial co-operation might vary from simple subcontracting in some instances to the formation of transnational companies like Panavia in others.

108. Europe should aim to establish itself in a position of approximate parity with the United States, even in the most modern weapons. A degree of pooling of resources for research would help in this respect as is occurring through the EEC for civil aerospace but overall an element of "competition" in research is healthy.

109. There is no reason why a determined effort on the part of the Europeans to build up their continent's indigenous capability to provide for its own defence equipment should preclude the purchase of American armaments. However, the establishment of Thomas Callaghan's "Common market for Atlantic defence" or former Defence Secretary Schlesinger's "two-way street" is a longer-term project.

Conclusions

110. The Committee's principal conclusions are set forth in the draft recommendation.

111. The Committee sees no economic or industrial reason why Western Europe should not provide for the greater part of its defence equipment within its own resources, provided the political willpower exists and adequate finance is made available. Technologically Europe is capable of manufacturing the latest conventional weapons such as precision-guided anti-tank and short- and medium-range anti-aircraft missiles. In areas of specific weakness the existing facilities for the exchange of technical information with the United States will continue to be of value.

112. But to keep abreast of the growing and technologically more sophisticated Soviet defence production effort, and to compensate for the increasing cost of future generations of weapons systems, it will be essential for the European countries to reap the economic advantages which ensue from the longer production runs of jointly-produced standardised equipment. While the Committee is aware that some at least of the

military advantages of standardisation may be achieved by ensuring that different weapons systems are interoperable, it does not believe that interoperability alone is a sufficient objective for European armaments co-operation.

113. While stressing the need for standardisation, the Committee does not overlook the innovative advantages of some competitive research and development. Within Europe, however, a concerted effort must be made to reduce competing research and development to a maximum of two concepts for any weapons system, and to ensure that one only is selected for advanced development and production before vested industrial interest in conflicting systems can arise.

114. The Committee welcomes recent indications of an increasing desire on the part of the United States to seek standardisation of equipment in the Alliance. It believes however that first priority must be given to ensuring the maintenance of a viable European production basis.

115. The Committee stresses the need for more parliamentary control over the whole defence procurement process. It is itself fitted by the terms of the Brussels Treaty to play such a rôle at the European level until such time as the inclusion of statutory defence functions in the powers of the European Community makes it appropriate for the European Parliament to assume that rôle.

116. The Committee further recommends that the institutional basis of European defence production co-operation be streamlined, firstly by concentrating on the independent European programme group. At the same time, it is essential that the military characteristics of equipment continue to be discussed and determined within NATO, as it is within the framework of the military command structure of the Alliance that weapons would have to be used if a conflict broke out.

117. Lastly, the Committee seeks precise information from the Council concerning the terms of reference for the study of the European defence industry entrusted to the Standing Armaments Committee. In a future report the Committee hopes to pursue the suggestion that the Standing Armaments Committee should be further developed as an expert study centre for the whole defence procurement process. Such an important new function for the Standing Armaments Committee would avoid the problems of duplication which, in the past, have inhibited member governments from making proper use of it. Thus the Standing Armaments Committee could be available to produce studies at the request of the IEPG, and, for this purpose, its staff could be enlarged through the recruitment of experts, including nationals of those IEPG countries which are not members of WEU. The Standing

Armaments Committee could also be available to prepare specific studies at the request of the Assembly or its bodies — it is pointed out in this connection that, unlike the staff of the European Parliament, or of the Parliamentary Assembly of the Council of Europe, the Office of the Clerk of the WEU Assembly has no study and research staff, apart from its very limited committee services.

Opinion of the minority

118. The report as a whole was adopted in Committee by 19 votes to 1 with 0 abstentions. In the first paragraph of the preamble to the draft recommendation a minority of the Committee would have replaced the words "... makes it urgent ... joint production;" with the words "makes it necessary for the European countries of the Alliance to secure the advantages of standardisation through joint production in the fields where it is justified from the operational, economic and political standpoint" on the grounds that standardisation is a difficult, long-term objective, its advantage being established in certain specific sectors only. For the same reason paragraph 1 of the operative text would have been reworded by deleting "first priority" for standardisation in sub-paragraph (a) and deleting the whole of sub-paragraph (b).

119. In the third paragraph of the preamble the minority would have deleted the words "until the European Parliament is invested by statute with defence functions", claiming that defence was a purely national responsibility, not to be delegated to supranational authority, and that a European defence policy could arise solely from concertation between States.

120. In the fourth paragraph of the preamble, the minority would have added at the end the words "but stressing the need for balanced and mutually-advantageous concessions" with a view to stressing the need for Europe not to be reduced to a rôle of supplier of low-technology armaments.

121. Lastly the minority would have replaced paragraph 2 of the operative text with the words: "Ensure good co-ordination of the work of the Standing Armaments Committee with that of the independent European programme group", because it held that common European weapons characteristics should be determined *outside* NATO, and that the Council had assigned an important rôle to the Standing Armaments Committee in approving on 26th April the terms of reference of a study of the European armaments industry which it is to carry out.

