
9. Hardware politics, ‘hard politics’ or ‘where, politics?’: Nordic defence equipment cooperation in the EU context

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I. Introduction

This chapter addresses two questions:

1. What has been the situation with regard to Nordic—Danish, Finnish, Norwegian and Swedish¹—defence equipment cooperation during the past 10 years?

2. Can sub-regional Nordic cooperation in this sphere survive and, if so, can it contribute to Europe-wide cooperation in the framework of the European Union?

The chapter examines the Nordic development, production and procurement of defence equipment. Transfers of such equipment and defence industrial relations, including offset policies, are reviewed in section II. Of special interest is the role of the USA, as both a competitor to and a partner with European countries; this is illustrated by Nordic participation in the US Joint Strike Fighter (JSF) combat aircraft project (see section III). In section IV broader aspects of Nordic and EU defence equipment cooperation are discussed.²

II. Nordic defence equipment cooperation

Arms deliveries

As shown by SIPRI data on arms transfers, in the 11-year period 1993–2003 there was a relatively low volume of direct deliveries of major weapons from one Nordic country to another, including manufacture under licence.³ Of all possible transfer relations between the four countries, SIPRI data suggest that the most significant transfers of major weapons have taken place from Sweden to Norway (20 per cent of all Swedish deliveries), from Finland to Sweden (29 per cent of Finland’s deliveries) and from Finland to Norway (15 per cent

¹ Its lack of an indigenous defence industry means that Iceland is not included.

² Nordic defence operational issues—e.g., cooperation between armed forces in areas such as training and tactics or in actual operations—are not discussed in this chapter; see chapters 6–8 in this volume.

³ For the SIPRI definition of major weapons and SIPRI methodology for arms transfers see URL <<http://www.sipri.org/contents/armstrad/atmethods.html>>.

of Finland's deliveries). Swedish deliveries to Norway during this period included CV-9030 (TA-2000) combat vehicles, 9LV-200 Mk-2 and Ceros-200 fire control radars, Giraffe surveillance radars, ATHUR artillery locating ('hunting') radars and Rbs-70 portable air defence missile systems. In the same period Finland delivered XA-180, XA-185 and XA-200 personnel carriers to Norway and Sweden.

From the importer's perspective, Sweden has been a relatively important supplier for Norway (Sweden supplied 24 per cent of Norway's imports of major arms during this period). Denmark delivered no major weapons to another Nordic country, although over 80 per cent of the sales by Terma Industries, Denmark's largest aerospace producer, were to foreign recipients.⁴ However, Norway and Sweden have delivered limited volumes of major weapons to Denmark.

The data thus suggest that the Norway–Sweden relationship may be defined as the 'core axis' of Nordic major arms transfers. Other bilateral intra-Nordic major arms transfers accounted for less than 10 per cent of bilateral deliveries for the countries concerned. Sweden's relatively strong position as a supplier corresponds to the size of its defence industry and is reflected in official national export statistics. According to SIPRI data, of Sweden's major arms deliveries in the period 1993–2003, 3 per cent went to Denmark, 5 per cent to Finland and 20 per cent to Norway. According to official Swedish data—which cover more than just major weapons—these countries' respective shares were 4, 3 and 14 per cent.⁵ Similar Norwegian data for the eight-year period 1996–2003 show a clear dominance of exports to Sweden at about 20 per cent, which accounted for most of Norway's exports to the Nordic region.

Sweden's position is a result of its historically broad and advanced defence industrial base, high defence technological ambition and competitive successes. The Nordic region has traditionally been among the most important for Swedish defence exports. During the cold war, official policy sanctioned the idea that Sweden should cooperate mainly with the other European neutral countries and the Nordic countries: similarities among the histories and foreign policies of the latter were regarded as more important than differences in their formal defence alignments.

Today the situation is different. Finland and Sweden are members of the EU and have formal relations with European political and military institutions as well as partnership relations with the North Atlantic Treaty Organization. Sweden's defence industrial base has been reduced and restructured, and

⁴ Campbell, A. and Wastnage, J., 'Out of the cold', *Flight International*, 10 Feb. 2004, p. 31. Official Danish data, which cover only arms export licence agreements in the 3-year period 2001–2003 (not deliveries), suggest that the Nordic market accounted for around or below 10% of total export licence agreements.

⁵ These data are from the Swedish Government's annual report on its export control policy and exports of military equipment. See, e.g., Swedish Ministry of Foreign Affairs, 'Strategic export controls in 2003: military equipment and dual-use goods', Government Communication 2003/04:114, Stockholm, 11 Mar. 2004. Reports since 1995/96 are available (in English) from the website of the Swedish National Inspectorate of Strategic Products, URL <<http://www.isp.se/sa/node.asp?node=528>>.

Sweden's security and defence policy is cast increasingly in international rather than national terms. Of Sweden's three official cold war 'policy pillars'—independence, neutrality in wartime and military non-alignment—only military non-alignment remains. Independence has become interdependence, and neutrality is no longer the only, or even the most likely, option should there be a war in Europe. It may therefore come as no surprise that the importance of the Norway–Sweden axis in Nordic defence supply stagnated during the 1990s. Apart from a peak in 2000 owing to major arms exports to Finland, the share of Norway's defence sales that went to other Nordic countries fell from around 30 per cent in 1999 to below 10 per cent in 2003, the result of reduced deliveries to Sweden. The same is true for the Nordic region's share of Sweden's major arms exports, which decreased continuously from 30 per cent in 1999 to below 10 per cent in 2003.⁶

This reduction in the intra-Nordic market for major arms took place despite political support for increased Nordic cooperation in the production of equipment. An updated NORDAC (Nordic armaments cooperation) Agreement was reached in November 2000 and entered into force in February 2001.⁷ Its purpose was to reduce national expenditure on defence purchases and associated support activities by sharing costs and to support a Nordic defence industrial base. A variety of activities were envisaged, starting from joint development and manufacture of new equipment and the common or coordinated procurement of equipment—from a Nordic country or elsewhere—and going on to post-delivery cooperation such as sharing operational experiences or cooperation in maintenance and support of common equipment.⁸ Examples include the joint development of the Viking submarine by Denmark, Norway and Sweden and the coordinated procurement of the NH90 helicopter by Finland, Norway and Sweden.

NORDAC: an experiment in Nordic arms cooperation

There may be many commonalities between the Nordic countries, but it does not follow that individual military ambitions and requirements are identical. The countries' different security political choices in 1949 had consequences for developments in their defence procurement and defence industries. Finland was prohibited from developing or even acquiring certain types of equipment under post-war treaties and had special security relations with the Soviet Union. Denmark and Norway chose to rely on the USA for much of their defence equip-

⁶ It has also been noted that the Nordic market for ammunition and similar systems has stagnated. Nammo, 'Improved performance continuous in Nammo AS', Press release, 5 May 2004, URL <<http://www.nammo.com/thenews/default.asp?id=84>>.

⁷ The Agreement between the Kingdom of Denmark, the Republic of Finland, the Kingdom of Norway and the Kingdom of Sweden Concerning Support for Industrial Cooperation in the Defence Materiel Area (NORDAC Agreement) was signed on 9 Nov. 2000. For more information see the NORDAC Internet site, URL <<http://www.nordac.org/>>.

⁸ NORDAC, *Historical Overview: Result of Co-operation in NORDAC during 1995–2002/03*, version 2.1, Dnr Fö2004/1551/MIL (NORDAC: Stockholm, 21 Apr. 2004).

ment, while Sweden established a broad and advanced domestic defence industrial base.⁹

The practical realization of a four-nation Nordic market has therefore been problematic. The Standard Nordic Helicopter Programme (SNHP) failed in its all-Nordic ambition when in September 2001 Denmark, because of its particular requirement for a standard troop-transport, support and rescue helicopter, selected the AgustaWestland EH101 helicopter, while the SNHP Committee selected the NH90 helicopter for service in the other three Nordic countries. Offsetting—that is, compensating for—the expenditure was important for all four countries (see below) and may have influenced Denmark's choice since AgustaWestland had previously supplied the country.¹⁰

The Viking submarine project has been an even bigger Nordic failure—Finland was never a member; Norway became an observer in 2003, having been a member; and in 2004 Denmark decided not to acquire more submarines. Nonetheless, the joint venture in which companies from Denmark, Norway and Sweden participate will try to find other partners so that the Viking can enter into production.¹¹ To further illustrate the underlying difficulties, the NORDAC methodology for cooperation has been revised several times since 1995, and the 1998 multilateral guidelines were revised in November 2000 to permit bilateral cooperation.

The conclusion by NORDAC's members in 2004 that it has been a success¹² may be true if success is measured broadly and is based on relatively few large—and many small—completed undertakings. The conclusion may be different if these successes are measured against the time, cost and other resources lost on unsuccessful undertakings. This does not imply that there have not been important benefits: savings have been achieved and NORDAC members point out that technology, test results and other information have been exchanged even when agreements concerning common procurement or maintenance were not realized.¹³ Even so, it is also acknowledged that benefits have not been divided equally among the participants. This might be an effect of the different defence structures in the Nordic countries, but it may also reflect a historical circumstance embedded in Nordic cooperation since the 1940s, namely, the strong position of Sweden. NORDAC could, indeed, be regarded as a modern and more modest version in the equipment sphere of the failed Nordic defence union proposed by Sweden in the late 1940s. Although

⁹ Hagelin, B., *Neutrality and Foreign Military Sales: Military Production and Sales Restrictions in Austria, Finland, Sweden and Switzerland* (Westview Press: Boulder, Colo., 1990).

¹⁰ One of the main tasks of the NH90 helicopter will be anti-submarine warfare. NHIndustries, 'NSHP committee selects the NH90 helicopter for Finland, Norway, and Sweden', Press release, 13 Sep. 2001, URL <<http://www.nhindustries.com/>>. See also Westland Helicopters Ltd, 'Danish contract signing confirms EH101 as world's most capable multi-rol helicopter', Press release, 10 Dec. 2001, URL <<http://www.whl.co.uk/>>.

¹¹ The Viking Submarine Corporation is a joint venture of Kockums (Sweden), Kongsberg Defence & Aerospace (Norway) and Odense Staalskibsvaerft (Denmark).

¹² NORDAC (note 8), p. 18.

¹³ NORDAC (note 8).

the exploitation of Sweden's strong defence industrial position is a necessary condition for a sub-regional Nordic arms market with any real substance, it brings with it a Nordic imbalance in Sweden's favour. Many of the major weapons procured or considered by NORDAC have been of Swedish origin. However, the successful undertakings have generally not involved all four countries, and there are several examples of the inability of the NORDAC members to establish consensus on the procurement of Swedish equipment.

Defence industrial relations

There exists no complete information about intra-Nordic defence industrial relations (i.e., transactions between companies rather than governments) comparable to the data available on interstate arms transfers. It is therefore not possible to make a detailed comparison of the Nordic countries' experiences in this regard, either with each other or with other countries. However, based on Sweden's strong position, what is said here about Sweden's defence industrial relations may also reflect important aspects of more general Nordic defence industrial relations.

According to official Swedish information, the total number of new permissions granted by Sweden for defence industrial co-development or co-production with Nordic countries in the 11-year period 1993–2003 was highest with Finland (10 permissions) followed by Norway (7 permissions) and Denmark (1 permission).¹⁴ These 18 Nordic permissions accounted for nearly 16 per cent of the total number of new bilateral permissions granted by Sweden during this period (table 9.1, row 4), only slightly lower than the Nordic region's share (21 per cent) of Sweden's total defence equipment exports during the same period.

These figures suggest that there is a different Nordic 'core axis' in the field of defence industrial relations, namely, that between Finland and Sweden. This may partly be explained by the similar requirements of and parallel indigenous industrial capabilities in Finland and Sweden, but also by different company structures and government attitudes to cooperation and foreign ownership in the Nordic countries.

In contrast to Sweden in particular, but also to Finland, in Norway the government retains a large share in the ownership of major arms companies such as Kongsberg Defence & Aerospace and Nammo. With the exception of Nammo, major Norwegian arms companies, such as Kongsberg and Raufoss, have only limited shareholdings by companies registered elsewhere in the region. Saab (Sweden) and Patria (Finland) each own 27.5 per cent of Nammo, with the Norwegian Government holding the remaining 45 per cent, while the Swedish companies Ericsson and Volvo Aero have Norwegian subsidiaries.

The Finnish Government has supported foreign ownership of defence companies operating in Finland and the creation of transnational structures. It is a

¹⁴ Swedish Government (note 5).

Table 9.1. Swedish foreign defence industrial cooperation agreements, 1993–2003

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Active licence agreements	89	92	90	85	84	85	76	82	95	104	115
New licence agreements	5	5	0	2	5	5	6	5	5	3	5
Active co-development and co-production agreements	62	70	76	76	81	111	69	77	80	79	86
New bilateral co-development and co-production agreements	17	5	6	8	11	14	9	12	16	9	9
New multinational co-development and co-production agreements	–	–	–	–	–	–	–	–	–	1	1

Source: These data are from the Swedish Government's annual report on its export control policy and exports of military equipment. E.g., Swedish Ministry of Foreign Affairs, 'Strategic export controls in 2003: military equipment and dual-use goods', Government Communication 2003/04:114, Stockholm, 11 Mar. 2004. Reports since 1995/96 are available (in English) from the website of the Swedish National Inspectorate of Strategic Products, URL <<http://www.isp.se/sa/node.asp?node=528>>.

majority owner of Patria; the remaining 26.8 per cent of the shares were acquired in 2001 by EADS, a European transnational aerospace company. In January 2004 EURENCO (the European Energetics Corporation) was formed by merging subsidiaries of Patria, the Swedish company Saab and the French company SME. The French company holds 60.2 per cent of the new company and the Nordic companies hold 19.9 per cent each.¹⁵

Aside from ammunition, the other major field of Nordic defence industrial cooperation is army vehicles. Patria Hägglunds is a joint venture established in 1999 by Patria and Sweden-based Alvis Hägglunds. The company exploits the combined capacities of the two partners in order to distribute the BvS10 and CV9030 vehicles and to carry out the further development and marketing of the AMOS mortar system—the main product of Patria Hägglunds—on the world market.¹⁶

Official figures for Finland's defence exports reflect the major impact in a short period of time of these defence industrial relations with Sweden. The

¹⁵ For details of the merger decision see Commission of the European Communities, 'Case no COMP/M.3205—SNPE/SAAB/PATRIA/JV (EURENCO): Regulation (EEC) no 4064/89, merger procedure, article 6(1)(b) non-opposition', Office for Official Publications of the European Communities, Luxembourg, 2 Oct. 2003, URL <<http://europa.eu.int/comm/competition/mergers/cases/>>. The Nordic countries are actively trying to achieve common procurement of hand grenades, environmentally safe ammunition and small arms ammunition. NORDAC (note 8).

¹⁶ 'Finland to get more CV9030s', *Jane's Defence Industry*, vol. 21, no. 8 (Aug. 2004), p. 8. In 1999 the Finnish Defence Forces placed the first order for AMOS. 'Patria: Patria's operations develop favourably', *NATO's Nations and Partners for Peace*, vol. 49, no. 1 (2004), p. 77.

share of Finland's defence exports that went elsewhere in the Nordic region increased from less than 10 per cent in 1997–99 to about 70 per cent in 2000–2002; all of the increase in 2001–2002 was accounted for by exports to Sweden.¹⁷

Offsetting Nordic imbalances?¹⁸

The idea behind defence equipment offset is to obtain a return, over time, on the money invested in expensive imported weapon systems. The formal offset policies of the Nordic countries evolved during the 1990s, and they had all publicized such policies by 1999. These individual policies converge in their attempts to make more use of, and increase the national benefit from, offsetting, notably as a tool for promoting defence industrial collaboration and the acquisition of technology.¹⁹ They also reflect a trend of change from civilian to military offsets.

It is generally acknowledged that offsets disrupt competition as well as increase the supplier's costs and risks. Under the NORDAC Agreement the parties must refrain from demanding industrial offset for the procurement of products from another Nordic country, unless required to do so by other rules and regulations.²⁰ It is too early to judge the extent to which this rule has been implemented and how successful it has been. Although the NORDAC Agreement requires that information about the Nordic defence trade should be compiled in annual offset accounts and an evaluation report on the offset balance be drawn up every fifth year, the first report is not due until 2008.

However, claiming an ambition to refrain from obtaining potential industrial and technological benefits is easier than taking the political and practical measures to do so. The imbalances noted by NORDAC may be assumed to work mainly to Denmark's disadvantage. In June 2002 there were Danish military offset obligations with over 30 foreign suppliers to be completed before 2010. The value of such obligations was expected to increase as a result of additional

¹⁷ No data were available for 2003.

¹⁸ This section is based on Hagelin, B., 'Nordic offset policies: changes and challenges', eds J. Brauer and J. P. Dunne, *Arms Trade and Economic Development: Theory, Policy and Cases in Arms Trade Offsets* (Routledge: New York, 2004), pp. 132–43.

¹⁹ In parallel with increasing clarity, offset arrangements have come to include not only military transfers and other forms of benefits *to* the buyer but also military transfers *from* the offset beneficiary. 'Market intelligence', *Jane's Defence Industry*, vol. 18, no. 11 (Nov. 2001), p. 13; and *Countertrade & Offsets*, 22 Oct. 2001, pp. 5–6. These arrangements are not the same as an export offset policy. No Nordic country has formulated such a policy, although the Association of Swedish Defence Industries (ASDI) attempted to do so in 2002. The ASDI included in its draft defence industrial collaboration policy a requirement that Swedish defence companies should also apply their own collaboration policy to export recipients. This requirement did not remain in the final policy. ASDI, *Policy för Offset och Industrisamverkan för försvarsindustrin i Sverige* [Policy for offsets and industrial collaboration for the defence industry in Sweden], Stockholm, 29 Jan. 2003, URL <<http://www.defind.se/offset.htm>>.

²⁰ NORDAC Agreement (note 7), section 4. This requirement is similar to that formulated by the European Defence Industries Group (EDIG) in a 2001 policy paper. The EDIG arguments reflect the basic criticism of offsets as a market-distorting mechanism. EDIG, 'EDIG policy paper on offsets', Policy paper no. EPP/00/18, Brussels, 26 June 2001.

acquisitions, and there was an obvious risk that the military obligations contracted with Danish industry would become impossible to fulfil.²¹ The idea of a defence-related venture fund with foreign supplier capital that could be used as a catalyst to expand Denmark's production of defence equipment was put forward by the Danish National Agency for Enterprise and Housing as a response to these concerns in August 2002.

A special task force was established in December 2002 to study the proposed fund. On the basis of the task force's report,²² a decision was taken in May 2003 not to go ahead with the fund as proposed. A revised offset policy was presented in 2004 to take effect from 1 June.²³ The major features of the offset policy are that only defence-related offsets will be accepted and a bank guarantee is to be provided by the larger foreign suppliers within one year of the contract. This requirement seems to serve part of the purpose of the failed venture fund. If a bank guarantee is paid out, the money goes to the Danish Government for spending on administering international cooperation and on initiatives to foster research and development (R&D) activities for future military requirements. Companies that fail to provide the required bank guarantee will be blacklisted and excluded from further Danish contracts.

Another obstacle to offsetting imbalances in Nordic defence transfers may be that protectionism still exists in parallel with attempts to increase Nordic cooperation. Countries and agencies remain unwilling to harmonize or to give up traditional elements of their technological base and their leading roles, just as individual companies are unwilling to lose a competitive edge. The common ambition of Sweden's 1999 offset policy, the official offset guidelines published in 2002 and the policy declared in 2003 by the Association of Swedish Defence Industries is to support defence industrial activities in Sweden.²⁴ Other Nordic governments, agencies and companies may not be willing to subscribe to a policy intended to sustain Sweden's defence industrial position in general and its superiority among the Nordic countries in particular. They may instead seek long-term cooperative relations outside the Nordic framework, and foreign interests may further complicate opportunities for sub-regional Nordic cooperation by their influence on company strategies.

Although most observers seem to agree that defence equipment offsets will remain a necessary evil for suppliers, one factor undermining the use of offsets is the implementation of best practice based on competition in the production

²¹ See Hagelin (note 18).

²² Danish National Agency for Enterprise and Housing, 'Etablering af et ventureselskab på industrisamarbejdsområdet: en undersøgelse af muligheder og begrænsninger' [Establishing a venture fund for industrial cooperation: a study of possibilities and limitations], Copenhagen, Mar. 2003.

²³ 'Danish Business Minister to force earlier counter-purchases on foreign arms producers', *Nordic Business Report*, 28 May 2004; and *Countertrade & Offsets*, 9 Feb. 2004.

²⁴ Swedish Ministry of Defence, 'Kompensationsåtaganden i samband med upphandling av försvarsmateriel från utlandet' [Compensation measures in connection with acquisition of defence equipment from abroad], Stockholm, 22 Jan. 1999; Swedish Defence Materiel Administration, 'Guidelines for establishing and implementing industrial participation in connection with procurement of weapon systems and defence-related items from foreign suppliers', Stockholm, 10 June 2002; and ADSI (note 19).

and procurement of major defence projects. One such model is the US JSF project. It is also an example of out-of-region cooperation by the Nordic countries.

III. Non-Nordic arms cooperation

Arms transfers and defence industrial cooperation

The finding that Nordic defence cooperation is limited and unbalanced is strengthened when compared with the level and pattern of non-Nordic defence cooperation. Non-Nordic suppliers of major weapons to individual Nordic countries have always been more important than Nordic suppliers. Based on SIPRI data, in the period 1993–2003 the USA was the main supplier to Denmark (43 per cent of all Danish major arms imports), Finland (74 per cent) and Norway (46 per cent). Sweden was an exception in that Germany was its major supplier, accounting for 72 per cent of Sweden's imports. However, this was mainly the result of Sweden's purchase and manufacture under licence of German battle tanks. Without these orders, Sweden's major foreign supplier would also have been the USA.

When looking at the Nordic countries as arms suppliers, however, differences rather than similarities stand out. According to SIPRI data, of the four Nordic countries, Sweden is the largest supplier of major weapons, followed by Norway, with roughly half of Sweden's volume. Both are among the world's 15 largest suppliers in the five-year period 1999–2003. Denmark and Finland exported far less than Norway in that period.²⁵

The reduced intra-Nordic arms market has been paralleled by a growth in markets outside the region. For Sweden this is illustrated by the increasing number of recipient nations and the importance of non-Nordic recipients.²⁶ For all four of these Nordic countries, three or fewer recipients account for a majority of deliveries (see table 9.2). Some deliveries have been of second-hand equipment, for example, as defence or 'security' aid to new EU members. The very high share of the deliveries from Denmark accounted for by the USA was the result of deliveries of second-hand ships and four second-hand Draken combat aircraft that Denmark had previously imported from Sweden. Deliveries of new Nordic equipment to European countries include Danish licences for the manufacture of patrol ships by Greece; Finnish export of armoured personnel carriers to the Netherlands and Poland in addition to Nordic countries; Norwegian export of Penguin ship-to-ship missiles to Greece, Spain and Turkey and Swedish-designed radars from Ericsson's Norwegian subsidiary; and, in

²⁵ Hagelin, B., Bromley, M. and Wezeman, S., 'International arms transfers', *SIPRI Yearbook 2004: Armaments, Disarmament and International Security* (Oxford University Press: Oxford, 2004), table 12A.2, p. 479.

²⁶ According to official Swedish data, while the average annual number of nations importing 'war equipment' from Sweden between 1993 and 1999 was 47, that average was 54 in the 4 years 2000–2003. Swedish Government (note 5).

Table 9.2. Major weapon deliveries from the Nordic countries in the period 1993–2003

The percentage of total major arms exports accounted for by each category are calculated from the SIPRI trend-indicator value and rounded. Recipients accounting for more than 10% of the value of total arms supplied are shown.

Supplier	Major arms categories (%)						Main recipients (% of exports)
	Aircraft	Armoured vehicles	Artillery	Missiles	Radars	Ships	
Denmark	4	–	1	–	–	95	USA (88)
Finland	21	62	10	–	–	7	Sweden (29) Netherlands (18) Norway (15) Mexico (11)
Norway	<1	1	–	81	5	12	Australia (31) USA (28) Greece (11) Poland (11)
Sweden	5	14	<1	22	27	32	Singapore (23) Norway (20) Australia (13)

Source: SIPRI Arms Transfers Database.

addition to the Nordic deliveries mentioned above, Swedish export of anti-aircraft, anti-ship and anti-tank missile systems to Austria, Germany and Poland, as well as vehicles to France, Italy, Spain, Switzerland and the UK, plus radar systems to France, Germany, Greece, Poland and the UK.

Sweden is the only Nordic country with an advanced combat aircraft industry. Orders from the Czech Republic and Hungary for the JAS-39 Gripen aircraft, a joint venture between Saab and BAE Systems, are not reflected in table 9.2 since deliveries have only just begun.²⁷ Aircraft deliveries from other Nordic countries include second-hand US helicopters from Norway and indigenous light trainer aircraft from Finland.

Sweden's experiences of international defence industrial cooperation may, again, serve to illustrate more general developments. Sweden is the only Nordic signatory of the 2000 Framework Agreement on the restructuring of the European defence industry.²⁸ The other signatories are the main European arms producers: France, Germany, Italy, Spain and the UK. Sweden's policy in support

²⁷ Hagelin, B., 'Saab, British Aerospace and the JAS 39 Gripen aircraft joint venture', *European Security*, vol. 7, no. 4 (winter 1998), pp. 91–117.

²⁸ The Framework Agreement between the French Republic, the Federal Republic of Germany, the Italian Republic, the Kingdom of Spain, the Kingdom of Sweden and the United Kingdom of Great Britain and Northern Ireland Concerning Measures to Facilitate the Restructuring and Operation of the European Defence Industry was signed on 27 July 2000, URL <http://news.mod.uk/news/press/news_press_notice.asp?newsItem_id=391>.

of international defence industrial cooperation is evidenced by 38 bilateral permissions with the UK, Germany and France (UK 15, Germany 12 and France 11) and 20 bilateral permissions with the USA in the 11-year period 1993–2003. These four countries accounted for 50 per cent of all new Swedish bilateral permissions for defence cooperation over this period, compared with 18 Swedish permissions (or 15 per cent) for defence cooperation with Nordic countries (see table 9.1 above).

Sweden has also moved from bilateral to multilateral defence industrial cooperation, including R&D. While such cooperation has been common for Denmark and Norway as a result of their NATO membership, it was formally accepted as a Swedish policy as recently as 1992.²⁹ The first officially registered Swedish permission for multilateral cooperation was with France and Germany in 2002, involving the manufacture of front fuselages for the NH90 helicopter. It was followed by a permission in 2003 to establish the Finnish–French–Swedish company EURENCO. NORDAC has studied several non-Nordic major weapon systems as potential subjects for common or joint procurement and maintenance or support arrangements, such as the German Leopard 2A4 battle tank, the US C-130 transport aircraft and the US AGM-114 Hellfire anti-tank missile. US equipment stands out among the foreign major systems that were considered. As a consequence, non-Nordic alternatives for joint maintenance and support were ultimately preferred for some of these weapons and it seems to have been easier to reach full Nordic agreement in these cases; for instance, on using the existing ‘user club’ for the AIM-120 AMRAAM air-to-air missile and on joining the NATO TOW anti-tank missile partnership group rather than attempting purely Nordic support of these missiles.

Looking at foreign company shareholdings, the USA as a full or part owner is not as visible in Nordic companies as it is in other European arms producers.³⁰ Sweden again stands out as the Nordic country where the internationalization of the defence industrial base has been most rapid and extensive. The five largest Swedish defence companies are partly or wholly foreign owned (see table 9.3). In 2004 BAE Systems acquired Alvis, meaning that BAE Systems became not only a shareholder in Saab but also the owner of Hägglunds.³¹ Bofors Defence was wholly owned by the US company United Defense, which itself was acquired by BAE Systems in 2005.³²

²⁹ Lag 1992:1300 om krigsmateriel [Law 1992:1300 on war equipment], Swedish Ministry for Foreign Affairs, Stockholm, 1992. An English translation is available at URL <<http://projects.sipri.org/expcon/natexpcon/Sweden/sweden.htm>>.

³⁰ See Sköns, E., Bauer, S. and Surry, E., ‘Arms production’, *SIPRI Yearbook 2004* (note 25), pp. 389–409.

³¹ ‘Alvis: BAE Systems’ counter-bid accepted’, *Defence News Analysis*, issue 04/22 (7 June 2004), p. 1; and ‘BAE Systems surprises Alvis—and GD—to add AFVs to the portfolio’, *Jane’s Defence Industry*, vol. 21, no. 7 (July 2004), p. 1.

³² See also Hagelin, B., ‘Swedish for how long? The nation’s defence industry in an international context’, eds A. Erikson and J. Hallenberg, *The Changing European Defence Industry Sector: Consequences for Sweden?*, SI Acta B no. 12 (Försvarshögskolan: Stockholm, 2000).

Table 9.3. Foreign shareholders in Swedish defence companies^a

Company	Foreign shareholder (country), proportion owned	Equipment field of Swedish company
Alvis Hägglunds AB	BAE Systems (UK), 100%	Land vehicles
Bofors Defence AB	BAE Systems (UK), 100%	Artillery and ammunition
Kockums AB	ThyssenKrupp (Germany), 100%	Surface ships and submarines
Saab AB	BAE Systems (UK), 20% plus a mix of Swedish and foreign owners	Aircraft and a variety of other aerospace and advanced systems

^a For more details see 'The defence industry in Sweden', *NATO's Nations and Partners for Peace*, vol. 49, no. 1 (2004), pp. 174–76.

The apparently low US interest in acquiring defence companies in the Nordic countries is counterbalanced by the USA's role as the main arms supplier to countries in the region. A major US combat aircraft project for the future is the JSF. It has been suggested that the US Department of Defense aims to crush all combat aircraft competition in Europe with that project³³ and that it is a 'Trojan horse' in 'fortress Europe'.³⁴

Nordic participation in the Joint Strike Fighter project

Transatlantic cooperation in the development of major defence equipment to be acquired by the US Armed Forces is rare.³⁵ The JSF combat aircraft project is an exception in that it attempts to meet, from a common platform, the needs of three US military services as well as foreign customers. It has been described as the 'Pentagon's first cutting-edge procurement programme to be co-developed and co-produced by the United States in cooperation with foreign governments and industries'.³⁶ In October 2001, when the JSF was known as the F-35, the US Government chose the Lockheed Martin version of the aircraft, and the programme moved from the competitive development phase to the engineering and manufacturing development phase.

The foreign industrial participation in this project is not guaranteed to be in proportion to investment (there is no *juste retour*). Instead, all participating foreign companies receive contracts on a commercial and competitive basis. This is expected to result in the most efficient production and lowest price. Although the benefits of participating are acknowledged by governments, they have been

³³ Angleys, E., 'Turbulence ahead for European combat aircraft industry', Agence France-Presse, Paris, 23 Jan. 2002.

³⁴ Kapstein, E. B., 'Capturing fortress Europe: international collaboration and the Joint Strike Fighter', *Survival*, vol. 46, no. 3 (2004), p. 137.

³⁵ Hagelin, B. et al., 'International arms transfers', *SIPRI Yearbook 2002: Armaments, Disarmament and International Security* (Oxford University Press: Oxford, 2002), pp. 373–402.

³⁶ Kapstein (note 34).

reluctant to allocate large funds from hard-pressed defence budgets to a project with no guaranteed national industrial involvement and for which they may not have a military requirement when the aircraft becomes available. Only the British Government has agreed to pay the price for full partnership in both the competitive development phase and the engineering and manufacturing development phases, while the other nine non-US participants have accepted less than full participation in order to balance costs and expected gains.³⁷ For Denmark and Norway the JSF is one option for the replacement of their F-16 combat aircraft, and each paid \$10 million to become associate partners in 1997. For participation in the engineering and manufacturing development phases each paid \$125 million.³⁸

However, both Denmark and Norway have echoed other participants' complaints that they have not received a good return from their investments in terms of technology and industrial contracts.³⁹ While they are free to buy other aircraft—such as the British–Swedish Gripen aircraft mentioned as a possible alternative for Norway⁴⁰—Norway is also keeping its options open by participating in the multinational Eurofighter Typhoon project.⁴¹ Thus, rather than being a 'Trojan horse' in a non-existent European 'fortress', the JSF may stumble at the Nordic gate. However, should Denmark or Norway decide to acquire the JSF, it will be acting in line with a tradition of acquiring US combat aircraft. Should either select the Gripen aircraft, this would be the first time that a Nordic country flies the latest version of a Swedish-designed combat aircraft. It would also be likely to be the last time, since indigenous design and development of the most advanced defence platforms is not a feasible future option for Sweden.

IV. Conclusions

There is not really an intra-Nordic arms market in the sense of regular and balanced transfers of relatively large volumes of major weapons between the

³⁷ These 9 participants are Australia, Canada, Denmark, Israel, Italy, the Netherlands, Norway, Singapore and Turkey.

³⁸ See Birkler, J. et al., *Assessing Competitive Strategies for the Joint Strike Fighter: Opportunities and Options*, RAND report MR-1362.0 (RAND: Washington, DC, 2001), URL <<http://www.rand.org/publications/MR/MR1362/>>, p. 14; and US General Accounting Office (GAO), 'Joint Strike Fighter acquisition: cooperative program needs greater oversight to ensure goals are met', Report to the Chairman of the Subcommittee on National Security, Emerging Threats and International Relations of the Committee on Government Reform, US House of Representatives, GAO Report GAO-03-775, Washington, DC, July 2003, URL <<http://www.gao.gov/>>.

³⁹ 'Danish subcontractors may have to leave US JSF project', *Nordic Business Report*, 7 Jan. 2004. See also Sköns, Bauer and Surry (note 30), pp. 409–18.

⁴⁰ Kihlström, S., 'Norskt intresse för Gripen' [Norwegian interest in Gripen], *Dagens Nyheter*, 29 Apr. 2004, *Ekonomi* p. 4, URL <<http://www.dn.se/DNet/jsp/polopoly.jsp?d=1042&a=259990>>; Lindahl, B., 'Norge kan köpa Jas Gripen' [Norway may buy JAS Gripen], *Svenska Dagbladet*, 29 Apr. 2004, *Näringsliv* p. 12, URL <http://www.svd.se/dynamiskt/naringsliv/did_7371796.asp>; and Merle, R., 'Norway threatens to revoke support for strike fighter', *Washington Post*, 16 Apr. 2004.

⁴¹ Bonsignore, L., 'Norway's industrial participation in the Eurofighter programme', *NATO's Nations and Partners for Peace*, vol. 49, no. 1 (2004), pp. 183–84.

Nordic countries. Nordic cooperation seldom involves all four countries with an indigenous defence industry and quite often only two of them: the relationship between Norway and Sweden may be defined as the core axis for arms export, while the defence industrial relationship between Finland and Sweden in the areas of military vehicles and ammunition is the most significant in the region. These two relationships also partially reflect more general imbalances in Nordic arms cooperation. The major imbalance is Sweden's strong position as a 'hub' in Nordic cooperation, derived from its relatively broad and advanced defence industrial base and R&D. However, under future Swedish policies the scope of its R&D ambitions will be reduced to niche competences to be maintained mainly through international cooperation and civil–military synergies. One result will be more arms imports than were previously acceptable under Sweden's national procurement policy. Cooperation with the other Framework Agreement partners and with the USA, along with politically and militarily supported arms exports and customer support, has also become more important for sustaining limited defence industrial competences.

A second imbalance is the smallness of Denmark. Its limited defence industrial base is reflected in its insignificant role in intra-Nordic defence trade and cooperation, its relatively low volume of arms exports and its concern with fulfilling offset requirements. Denmark's decision not to acquire more submarines put an end to the Viking submarine project as a Nordic procurement endeavour.

There is a trend, most clearly reflected in the case of Sweden, away from national autarky—varying levels of which had been achieved—towards international interdependence in the form of broader R&D and manufacturing cooperation and towards more extensive and varied imports and exports. This conclusion is also supported by the stagnation in the core intra-Nordic arms market. These findings, plus the difficulties experienced in NORDAC, call into question the term 'Nordic arms market' on the basis of both its structure and its volume. NORDAC's ambition is not to establish Nordic defence technological leadership by way of a common procurement organization or policy. Instead, it tries to make the most of national Nordic plans and decisions. The possibilities for sharing operational and technical experiences and test results, as well as establishing joint or common maintenance and support arrangements for identical equipment in the national inventories, seem to offer a more practical route to intra-Nordic cooperation than reaching agreement on common or joint procurement of major weapons.

This chapter addresses two questions. While answers exist for the first question—what is the situation with regard to Nordic defence equipment cooperation?—and for part of the second—can sub-regional Nordic defence equipment cooperation survive?—the remainder of the latter question is harder to answer—if Nordic defence equipment cooperation can survive, can it be important in the EU context? The answer depends on information about not only sub-regional Nordic cooperation but also developments within the EU and

EU ambitions and objectives. In general, sub-regional defence cooperation will have a greater chance of survival in an EU ‘muddling through’ scenario, where the greatest cost-effectiveness is not the ambition, than in a scenario where the major, if not all, EU defence producers work in joint or coordinated projects aiming for cost-effectiveness by reducing excess capacity. The EU is at least trying to move in the latter direction, and every Nordic country, including Norway, seems prepared to support that ambition. In that case, intra-Nordic defence cooperation can survive only if it involves equipment or capabilities that contribute to the overall EU ambition. If not, sub-regional interests in keeping structures, companies and projects alive may hinder the development of effective EU-wide defence R&D, manufacture and procurement.

However, the risk that intra-Nordic cooperation will cause major problems in either of these two scenarios seems small. The explanations lie in both intra-Nordic and EU developments. It remains to be seen whether the EU will be able to establish efficient, cost-effective defence R&D, manufacturing and procurement. The benefits of such a maximalist ambition will be balanced by those of having a degree of competition and overcapacity.⁴² Many of the systems that are currently produced in and exported by the Nordic countries, individually or in cooperation, are being or may be acquired by other European armed forces for use in EU or NATO rapid, transportable and interoperable forces and battle groups.⁴³ Cooperation between the EU and NATO permits all the Nordic countries to participate: in November 2004 Finland, Norway and Sweden declared their intent to establish an EU battle group,⁴⁴ and Norway is the lead nation for NATO’s high-level group in a NATO–EU Strategic Sea Lift cooperation programme.⁴⁵ However, how much of this industrial capacity will survive and be relevant 15 years from now, and whether close EU–NATO cooperation will continue, remains to be seen.⁴⁶

The establishment of the European Defence Agency (EDA) may limit the room for sub-regional cooperation on defence equipment in favour of coordinated solutions among more EU members. There is no lack of organizations in Europe with overlapping tasks and ambitions. A body like the EDA—under the name of the European Armaments Agency—was first envisaged in 1976 when the Independent European Programme Group (IEPG) was established within

⁴² The author wishes to thank Michael Brzoska, Bonn International Center for Conversion, for valuable comments about future scenarios.

⁴³ The largest order in Hägglunds’ history was an order from the Netherlands in late 2004 for combat vehicles. ‘Rekordorder till Hägglunds’ [Record order for Hägglunds], *Svenska Dagbladet*, 11 Dec. 2004, Näringsliv p. 4, URL <http://www.svd.se/dynamiskt/naringsliv/did_8718681.asp>.

⁴⁴ Swedish Ministry of Defence, ‘All set for Swedish led EU battle group’, Press release, Stockholm, 22 Nov. 2004, URL <<http://forsvar.regeringen.se/sb/d/658/a/34054/>>. The battle group has since been joined by Estonia.

⁴⁵ Norwegian Ministry of Defence, ‘Strategic Sealift—co-operation between EU and NATO is strengthened’, Press release, Oslo, 16 Sep. 2004, URL <<http://odin.dep.no/fd/engelsk/aktuelt/news/010081-210002/>>.

⁴⁶ This uncertainty is also related to decisions by company shareholders. E.g., all activities at Alvis Moelv, a Norwegian subsidiary of the Swedish company Hägglunds, owned by the British company Alvis, ceased in 2004.

NATO. The IEPG's functions were transferred to the Western European Union (WEU) in December 1992. Among the basic principles for that move was that there should be a single European armaments cooperation forum. Since May 1993 the WEU armaments cooperation forum has been known as the Western European Armaments Group (WEAG). Its policy aims are basically the same as those of the EDA and those formulated in the 2000 Framework Agreement: more efficient use of resources through *inter alia* increased harmonization of requirements; the opening up of national defence markets to cross-border competition; the strengthening of the European defence technological and defence industrial base; and cooperation in R&D.⁴⁷

While Denmark and Norway, as NATO members, were full members of the IEPG from the start in 1976, Finland and Sweden became full members of the WEAG only in November 2000. Representatives from all the Nordic countries take part in the work to strengthen the European position in defence research and technology and to promote cost-effective cooperative equipment programmes. In early 2005 it was formally agreed that the EDA would gradually take over the activities of the WEAG.⁴⁸ It seems reasonable to expect that the Framework Agreement will also be incorporated into the EDA and that the Organisation Conjointe de Coopération en matière d'Armement (OCCAR, the joint armaments cooperation organization),⁴⁹ and possibly EU members' involvement in the NATO Research and Technology Agency, will establish some kind of link with the EDA's work. In other words, increasing 'Europeanization' of defence R&D, manufacture and procurement should be expected.⁵⁰ Nordic countries may be able to influence some of these developments: in 2004 Finland and Sweden secured important but temporary positions for their nationals as EDA assistant director for armaments and EDA director for industry and markets, respectively.⁵¹ Sub-regional activities, however, must fit broader EU goals and capabilities that are likely to be defined mainly by more important members states and producers.

In this process, NORDAC may have to adapt, change its ambitions or perhaps even dissolve. The unequal distribution of NORDAC's benefits is said to be the price that the Nordic countries must pay in order to reap the benefits from

⁴⁷ On the IEPG and the WEAG see URL <<http://www.weu.int/weag/>>. Cooperation between government research establishments through joint programmes has been aided by memoranda of understanding, the first (THALES: Technology Arrangements for Laboratories for Defence European) signed on 18 Nov. 1996 and the most recent (EUROPA: European Understanding on Research Organisation, Programmes and Activities) on 15 May 2001.

⁴⁸ 'EU/Defence: EDA formally endorses transfer of WEAG/WEAO activities to EDA', *Atlantic News*, 26 Apr. 2005, p. 3.

⁴⁹ The OCCAR was established by France, Germany, Italy and the UK on 12 Nov. 1996. For more information see URL <<http://www.occar-ea.org/>>.

⁵⁰ Swedish National Audit Office, *Materiel för miljarder: en granskning av försvarets materiel-försörjning* [Equipment worth billions: a review of defence procurement], RiR 2004:6 (Riksrevisionen: Stockholm, 2004), URL <<http://www.riksrevisionen.se/templates/Page.aspx?id=2620>>, pp. 79–110.

⁵¹ It was reported that Sweden achieved its position through unfair competition with the Finnish candidate. Lundberg, S., 'Finsk vrede över EU:s direktörsval' [Finnish anger over EU's director choice], *Dagens Nyheter*, 21 Oct. 2004, p. 15.

Nordic armament cooperation. However, it is questionable whether Nordic countries and their armed forces will accept such imbalances if EU solutions offer greater benefits. It is therefore understandable that Finland is studying the conditions for European equipment maintenance and support cooperation.⁵² Although cost savings have been achieved through intra-Nordic cooperation, the small, unbalanced and stagnant intra-Nordic arms market suggests that little can be achieved through common major acquisitions, especially if some nations do not participate and if military expenditure is stable or has to be reduced. For instance, a NORDAC study group on the procurement of the next generation of unmanned air vehicles (UAVs)—an important type of future equipment⁵³—failed because the Nordic countries were not clear about what they wanted or when. Saab is studying UAVs and participates in a multinational undertaking to define armed UAVs together with Dassault Aviation (France), EADS (trans-Europe), Hellenic Aircraft Industry (Greece) and Thales (France).⁵⁴ In addition, in 2004 three industrial associations in which Nordic defence industries participate merged to form the AeroSpace and Defence Industries Association of Europe, strengthening their common base for influencing as well as implementing EU policy.⁵⁵

Sweden's strong position among the Nordic countries plus the fact that it is a party to the Framework Agreement may suggest that the country is in the best position to establish itself as an EU supplier and project partner. However, this could be a misperception. Since 1992 Sweden has been involved in the most traumatic defence transformation process of all the Nordic countries. It has allocated insufficient financial resources to cope at the same time with the winding down of old structures, inventories and an oversized defence industrial base and with the parallel creation of a smaller defence structure and a slim but competitive (but basically undefined) industrial base suited for the capabilities needed to support Swedish participation in future international operations alongside foreign forces. The Swedish Government's defence bill, tabled in September 2004, was withdrawn and amended in October after parliamentary criticism,⁵⁶ and the public debate on how to spend the money and implement the

⁵² Finnish Prime Minister's Office, *Finnish Security and Defence Policy 2004*, Government Report no. 6/2004 (Prime Minister's Office: Helsinki, 2004), URL <<http://www.vnk.fi/vn/liston/vnk.lsp?r=88862&k=en>>, p. 127.

⁵³ Gormley, D. M., 'New developments in unmanned air vehicles and land-attack cruise missiles', *SIPRI Yearbook 2003: Armaments, Disarmament and International Security* (Oxford University Press: Oxford, 2003), pp. 409–32.

⁵⁴ 'Saab signs MoU with Dassault Aviation for UCAV demonstrator', *Nordic Business Report*, 22 Dec. 2003; and 'Sweden pursues integrated approach to UAV/UCAV development', *Jane's International Defence Review*, Sep. 2004, p. 8.

⁵⁵ The 3 associations were the European Association of Aerospace Industries, the European Defence Industries Group and the Association of the European Space Industry. Aerospace and Defence Industries Association of Europe, 'European aeronautics, space and defence industries join forces in ASD', Press release, 22 Apr. 2004, URL <<http://www.asd-europe.org/>>.

⁵⁶ Regeringens proposition 2004/05:5: vårt framtida försvar [Government bill 2004/05:5: our future defence], 23 Sep. 2004, URL <<http://www.riksdagen.se/debatt/propositioner/>>. Summary in English: Government Offices of Sweden, 'Our future defence: the focus of Swedish defence policy 2005–2007', Swedish Ministry of Defence, Stockholm, Oct. 2004, URL <<http://www.sweden.gov.se/sb/d/574/a/>>

necessary reductions became increasingly critical in late 2004.⁵⁷ The outcome of the impending parliamentary vote became so uncertain that the Social Democratic and Green parties had to accommodate specific demands from the more extreme Left Party in order to save the bill in December. After a further delay, the bill was passed on 16 December.⁵⁸ However, uncertainty remained as it became known in early December that the government had directed the Supreme Commander of the Swedish Armed Forces to report by February 2005 on the consequences of further financial reductions that had not been specified in the defence bill.⁵⁹

It seems inevitable that, despite the problems and slow process, the equipment inventory in all the EU nations will become more similar and inter-operable, although it is unclear how much of the equipment will be of Nordic origin. In September 2004 the European Commission launched a debate on possible instruments for awarding defence contracts in Europe to overcome fragmentation and inefficiencies.⁶⁰ The outcome may have consequences for the use of *juste retour* and Article 296 of the Treaty of Rome.⁶¹ The role of a specific intra-Nordic arms market is likely to be reduced as the region's governments and industries become more involved in 'European' defence political and defence industrial structures, ambitions and projects. While Finland keeps the option of NATO membership open,⁶² the Swedish Government's rhetoric of military non-alignment is becoming less and less convincing. The political and military ambition to sustain close defence technological relations with the USA will remain strong in Sweden, especially if the EDA and 'European' undertakings show limited success. This could influence Sweden's choices between European and transatlantic equipment solutions in favour of the latter, with both alternatives reducing Sweden's interest in Nordic solutions, thereby also limiting the *raison d'être* of Nordic alternatives for the other Nordic countries.⁶³

32119/>. The parliament rejected the government's suggestion that parliament should not decide the basic defence organization. See chapter 7 in this volume.

⁵⁷ The differences in Finnish and Swedish defence political analyses were also noted. Holmström, M., 'Skilda världar i svenskt och finländskt försvar' [Different worlds in Swedish and Finnish defence], *Svenska Dagbladet*, 27 Sep. 2004, p. 12.

⁵⁸ See chapter 7 in this volume for further details.

⁵⁹ 'Nytt dräpslag mot försvaret' [New blow against defence], *Svenska Dagbladet*, 11 Dec. 2004, p. 7.

⁶⁰ In this debate the Commission has stated 2 objectives: during a transition period the *juste retour* principle should be applied; and there should be support for countries with developing defence industries. Commission of the European Communities, 'Defence procurement', Green Paper, 23 Sep. 2004, URL <http://europa.eu.int/comm/internal_market/publicprocurement/dpp_en.htm>.

⁶¹ The Treaty Establishing the European Community (Treaty of Rome) was signed on 25 Mar. 1957. The consolidated text of the amended treaty is available at URL <<http://europa.eu.int/eur-lex/lex/en/treaties/index.htm>>. See also Sköns, Bauer and Surry (note 30), pp. 405–409.

⁶² Finnish Prime Minister's Office (note 52), p. 6. The political decision to keep the option of NATO membership open was based on Finnish Ministry of Defence, 'Effects of a possible membership in a military alliance to the development of the Finnish defence system and to the defence administration, executive summary', Helsinki, 27 Feb. 2004, URL <<http://www.defmin.fi/>>.

⁶³ In Oct. 2004 Sweden agreed to lease 1 submarine with crew to the US Navy to participate in joint exercises in the USA. Swedish Ministry of Defence, 'Sverige samövar med USA på ubåtsområdet' [Sweden in joint submarine exercises with the USA], Press release, Stockholm, 28 Oct. 2004, URL <<http://www.regeringen.se/sb/d/119/a/32530/>>.