

Education and training for European defence equipment programmes

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EXECUTIVE SUMMARY

Cooperative programmes do not have a very positive image in some EU Member States because they have often implied delays, unanticipated costs, and long rounds of negotiations between partnering nations. Most cooperative programmes are hampered by a lack of mutual understanding between different stakeholders (officials from Member States and EU institutions, industrialists, journalists, academics). The EU does not provide any common education or training to the stakeholders engaged in cooperative programmes, and as a result many of those who collaborate often behave as national representatives only. Participating in a multinational programme without a shared approach and common understanding is bound to lead to problems.

In July 2007, the European Defence Agency (EDA) commissioned a study from the European Union Institute for Security Studies (EUISS) on 'Enhancing the Mutual Understanding and Competence of Stakeholders Engaged in Cooperative Programmes.' The sole aim of the project was to identify basic options for training and education of stakeholders in cooperative programmes. The project did not aim or attempt to design a training or education course, including specific aspects such as a curriculum, financing, organisation etc.

The project included a mapping of existing education and training organisations that offer courses on ESDP and/or cooperative programmes. The mapping exercise was partly based on a questionnaire sent to stakeholders involved in cooperative programmes, such as defence ministry officials, academics in defence colleges and industrial executives. In April 2008, the EUISS organised a workshop in Paris which brought together selected representatives from the armaments community. Before identifying options for the enhancement of multi-disciplinary education, we wanted to present our initial results to a select group and solicit their recommendations. In May 2008 we presented the preliminary conclusions of the study at a seminar attended by representatives from the participating Member States (pMS) of the EDA in Brussels, to have their feedback and involve them in the final phase. Additionally, from the start of the mapping exercise in September 2007, governments had the possibility to contact us for questions or suggestions.

According to the respondents to our questionnaire, European industry executives, officials and programme managers seldom meet before they do business together. Enhancing mutual understanding and competences must start with offering more opportunities to interact and create a basic understanding of a European approach to armaments cooperation. However, it is necessary to build on the existing expertise scattered within the Member States. Overall, the problems surrounding armaments cooperation in Europe derive more from a lack of common understanding than of pure technical knowledge. The recommendations in this report, therefore,

are primarily oriented towards developing networks of programme managers and strategic decision-makers across Europe, to help develop mutual understanding in the European armaments community.

Main Recommendations

Member States should try to ensure that existing education and training courses on defence and security include courses on European armaments cooperation and cooperative programmes.

The EDA should:

- Develop a virtual learning centre using its past and future studies and other core texts on European cooperation. The website should also be used as a resource in designing a preparation course for the training of national programme managers.
- Create a database of national training providers and courses on its website.
- Organise an annual conference on best practice for cooperative programmes.

The European Security and Defence College (ESDC) should:

- Include sessions on armaments cooperation and cooperative programmes within the high-level course, and for programme managers within the orientation course.
- Create a specific armaments education network of national defence colleges.
- Investigate the possibility of organising a specialist course on European armaments cooperation, including best practice for managing cooperative programmes.

All initiatives, as much as possible, should be open to non-EU countries involved in cooperative programmes.

INTRODUCTION

European governments collaborate on cooperative programmes¹ for a number of reasons. Defence budgets across Europe are static, while operational demands and the cost of equipment are rising, so it makes sense for governments to share the cost of developing and procuring defence capabilities. Pooling some resources is the only way to maintain a European defence industrial and technology base and make sure European armed forces get the equipment they need. What is more, cooperative programmes allow greater economies of scale because of the larger order books. Developing shared equipment also helps armed forces to work together on the ground as it enhances their inter-operability. Plus, multinational procurement is a way to foster a convergence of strategic thinking between European governments.

However there are many challenges for European armaments cooperation. These include strategy, budgets, coordination of demand, common requirements and scope of multinational programmes, differences in national procurement processes, R&T etc. Today, cooperative programmes do not have a very positive image within some EU Member States because they have often implied delays, unforeseen costs leading to budget over-runs, and long rounds of negotiations with partnering nations. The good news is that it is possible to improve the management of cooperative programmes without incurring much extra cost or time. A study on 'lessons-learned from cooperative programmes' commissioned by the EDA in 2006 identified the successes and failures of past European defence cooperative programmes and recommended how to improve future cooperation.² Based on more than one hundred interviews with programme managers from government and industry across Europe, the team of researchers came to the conclusion that there was still much room for improvement in the management and execution of cooperative programmes. One of the many solutions they proposed was to train both strategic decision-makers and national programme managers to work together on cooperative programmes.

Most cooperative programmes are partly hampered by a lack of mutual understanding between different stakeholders (officials from both Member States and EU institutions, industrialists, journalists, academics). This is mainly because the EU does not have a military doctrine, which is understandable since it is not a nation-state with its own army, and national governments retain the right to decide how and when they use their armed forces. Even so, EU Member States do have a security strategy, and

¹ A cooperative programme is when two or more Member States' governments (or industries) decide to work together in the development, production, off-the-shelf purchase, in-service support, operational logistics or disposal of defence/security materiel or services.

² *Cooperative lessons learned: how to launch a successful cooperative programme*, IRIS, CER, DGAP, IAI, December 2006. The EUIIS has published a version of the study, 'Lessons learned from European defence equipment programmes' by Jean-Pierre Darnis, Giovanni Gasparini, Christoph Grams, Daniel Keohane, Fabio Liberti, Jean-Pierre Maulny and May-Britt Stumbaum, *Occasional Paper* no. 69, October 2007.

are undertaking more operations together. The lack of a common military doctrine, or at least some shared elements of military doctrine, hinders the development of common requirements. The difficulty in defining common requirements in turn slows down cooperative programmes.

Despite a number of capability-generation processes adopted by EU governments to guide their defence procurement, there is still a lack of common understanding in national defence ministries. For nearly 10 years, governments have focused their action on capability improvement processes. The first European initiative to improve defence capabilities dates back to 1999 with the Helsinki Headline Goal (HHG). In 2001 European governments established the European Capabilities Action Plan; in 2002 governments agreed the Headline Goal 2010 to complement the HHG. In 2004, the EDA was established. Today, these initiatives have not delivered as much as was hoped or expected, partly because governments do not train their national representatives together.

The EU does not provide any common education or training to the stakeholders engaged in cooperative programmes. As a result those who collaborate often behave only as national representatives (think *juste-retour* practices or negotiations on shared requirements) with little regard for a common and more effective approach to managing a multinational programme. For instance, European industry executives, officials and programme managers seldom meet before they do business together. Any effort to enhance mutual understanding and competences should start with offering stakeholders more opportunities to interact, and create the basis for a European approach to armaments cooperation. However, it is not necessary to invent something entirely new, and any initiative should build on the existing expertise that is currently scattered throughout the Member States.

Methodology

In September 2007 we started with **a mapping exercise and a questionnaire** to identify the stakeholders and engage them in the study. The questionnaire was sent to officials in national defence ministries (including national defence colleges) and industry associations. (The results of the mapping exercise were included in the four annexes to the study for the EDA, on which this report is based). In April 2008, we organised **a workshop** in Paris that was attended by a select group of representatives from the European armaments community. Before identifying options for the enhancement of multi-disciplinary education, we presented our initial results to this select group and solicited their suggestions and recommendations.

In May 2008 during **a seminar convened by the EDA in Brussels and attended by representatives from the participating Member States**, we presented the preliminary conclusions of the study to have feedback from the Member States and engage

them in the final phase. Additionally, governments had the possibility to contact us for questions or suggestions. In June 2008, at a meeting of the ***Executive Academic Board of the European Security and Defence College*** in Brussels (which brings together representatives from national defence colleges among others), the head of the ESDP Task Force, Policy Planning & Early Warning Unit of the Council of the EU, together with the Deputy Chief Executive for Strategy of the European Defence Agency reaffirmed their commitment to explore options to enhance mutual understanding through education and training in the field of armaments and cooperative programmes.

I. MANY INITIATIVES BUT LITTLE COHERENCE

The European landscape for armaments education and training is not uniform, with many different types of curricula, and different approaches between countries which have significant defence industries and those which do not.

1. National education and training

Some national defence colleges and defence ministries provide overviews of the EU institutional framework and ESDP in their courses, but there is very little that is specifically focused on training people for cooperative programmes. Cooperative programmes *per se* form only a small part, if at all, of national curricula. At best, delegates receive a brief lecture about the EDA, the Organisation for Joint Armament Cooperation (OCCAR) and/or NATO in the courses provided by either national colleges or the ESDP Orientation Course of the ESDC – although they do receive excellent training in more general security policy and crisis management.

Senior government officials and industrial executives can receive some training in cooperative programmes from the Session européenne des Responsables d'Armement (SERA) in the Centre des Hautes Etudes de l'Armement (CHEAr) in France. For programme managers there are two Franco-German initiatives known as STAMP (an annual forum) and EDAMIC (a course). OCCAR, for its part, has developed a one and a half day course for its employees but it consists in a brief overview of OCCAR and its role in multinational project management. On a purely national level, Germany for example offers a course 'working with the US in acquisition programmes' for project managers and members of project teams. (The four annexes to the study for the EDA included many more examples of multi-national and national initiatives).

European Security and Defence College

At the European level, the main place dedicated to education in the field of European security and defence policy is the European Security and Defence College (ESDC). It has a very specific structure. The ESDC is the hub of a network of national defence colleges and functions on a voluntary basis. Member States offer to take charge of courses, including hosting them. Doing so, they share the financial burden of education and training. If courses are outsourced, the ESDC remains the institution that certifies the curriculum. Participants in these training courses receive a European certificate of participation.

2. Private initiatives

During our mapping exercise, we also looked at some private initiatives. ETH Zurich for example is interesting for at least three reasons. First it has an online course about ESDP used by the NATO Defence College among others. Second, it has brought together many universities and defence colleges to create a virtual-distance learning portal (ISN network). Last but not least, ETH Zurich also offers a civilian certification to those attending its Master courses. Another example is the European Institute of Public Administration (EIPA), which already organises seminars and conferences on European armaments issues including defence procurement.

3. Conclusions

The mapping exercise highlighted positive points as well as negative ones. On the one hand, some multinational initiatives already exist. It would be relatively easy to build on existing experience and expertise to create an armaments curriculum at the European level. There is no need to create anything from scratch, which is good news, both for Member States and EU institutions, if only for budgetary reasons. On the other hand, there is no truly European education for cooperative programmes and the expertise available is not coordinated at the EU level. It is not surprising, therefore, that no European armaments community has emerged so far. In addition it became very apparent during this project that many smaller Member States were particularly in favour of European education and training in the armaments field, because they have neither the money nor the expertise to finance armaments education at the national level.

A number of current and former EU officials have specifically mentioned the need for more education and training, both for ESDP generally and armaments cooperation specifically. General Bentegeat, chairman of the EU military committee, recently told *Janes Defence Weekly*: ‘Our main problem is the development of tactical and strategic concepts, training, architecture.’³ Hilmar Linnenkamp, former Deputy Chief Executive of the European Defence Agency and current Chief of Armaments at the Permanent Representation of Germany to the EU, also reaffirmed the importance of training at a Security and Defence Agenda conference in Brussels in April. Mr. Linnenkamp talked about the problem of getting Member States to work together on a European fighter jet training programme due to the obstacles posed by other traditional loyalties. ‘It is the vested interests of existing traditions and economic factors that keep us from working together. Training is an important area for future cooperation,’ he said. For him, there is too much focus on new weapons systems while the peripheral areas (such as training) are ignored more than they deserve to be.⁴

³ *Janes Defence Weekly*, vol. 45, issue no. 26, 25 June 2008, p. 21.

⁴ ‘EU-US Defence Cooperation’, Security and Defence Agenda (SDA) Conference, Bibliothèque Solvay,

The answers from the questionnaire highlighted that the main education provider in Europe at the moment in the field of ESDP is the ESDC, and on armaments cooperation it is the French CHEAr. Many respondents stressed that the ESDC and CHEAr courses are very complementary. The ESDC provides a general strategic overview of ESDP while CHEAr focus on armaments issues in Europe.

During the Paris workshop in April and the seminar with Member States in May, the main message was that it was high time to move upstream. Participants in both meetings agreed that training and education are indispensable for developing a European approach to armaments cooperation, leading to better managed and more efficient multi-national equipment programmes. However, all the stakeholders recognised that it was necessary to draw on existing Member State and European experience and expertise. Additionally, it was also pointed out that all such training should be made voluntary, open to those who wish to have it and pay for it.

II. DEVELOPING A EUROPEAN APPROACH TO ARMAMENTS COOPERATION

There are few courses at the European level about ESDP in general; the landscape is even starker when it comes to armament issues, let alone joint-training for managing cooperative programmes.

Enhancing mutual understanding and competences starts with offering more opportunities to interact and create the basis for a European approach to armaments cooperation. As one national official wrote in response to our questionnaire: ‘it is necessary to focus the training on concrete things, to understand how the other thinks on concrete issues. Networking is also crucial to enhance common understanding.’

To tackle this lack of understanding, it is necessary to distinguish between two levels of stakeholders, depending on whether they work at the strategic or tactical level. The strategic level encompasses high-level executives from defence industries together with officials from both Member States and European institutions involved in strategic decision-making (those who decide to participate or not in a cooperative programme). Conversely, the tactical level is composed of programme managers, people conducting the day-to-day management of a programme from R&D to maintenance.

Additional training and education of both levels should be institutionalised at the European level. As one of the responses to our questionnaire highlighted ‘the involvement of national and international institutions in this training concept will be the best mix in order to increase the benefit of the courses and to create and promote a common approach and understanding.’

Both levels of training should encompass the whole spectrum of stakeholders from national representatives to officials from European institutions, plus industrialists from the private sector. Events (conferences, seminars and training courses) which bring together members of the armaments acquisition community in Europe are far too compartmentalised between different types of stakeholders. One of the respondents to the questionnaire stressed that ‘as defence becomes a multi-agency undertaking, it is crucial for cross-government and wider industrial involvement.’ Similarly, according to a participant at the Paris workshop, ‘numerous different people interfere in the definition of cooperative programmes: politicians (members of defence parliamentary commissions), foreign affairs officials, specialists in budgetary and economic affairs, users of equipment, industrialists ... It is through discussions with people coming from different fields that everybody becomes aware of the problems that international cooperation encounters.’

Overall, the problems surrounding armaments cooperation in Europe derive more from a lack of common understanding than from issues relating to purely technical knowledge.

These initial findings oriented the recommendations in this report towards training and education that would create networks across the European armaments community.

To be successful, training courses and events generally require:

- A mix of people from governments, EU institutions and industry.
- The support of a European institution.
- An incentive to attend (for example, a certificate). A participant in the Paris workshop said ‘what is important is the recognition people attending courses can get nationally and internationally. A certificate would be an incentive and a quality driver.’
- Follow-up (continuing education and networking opportunities).

1. Strategic education and training

Course methods

At the strategic level, training and education is less of a priority for two reasons. First, senior industry executives and officials will probably not welcome additional time-consuming initiatives. Simply organising more short conferences and seminars bringing together strategic officials and industrialists would already be of significant help. Second, some Member States have developed national strategic training on armament issues, and it should be possible to develop links between national courses across Europe, for instance by exchanging students and professors (similar to the Erasmus scheme enjoyed by many third-level students across the EU). Additionally, the EDA could provide a ‘Who’s Who’ of national strategic training providers and courses on its website (especially national courses open to participants from other EU Member States).

Organisation

European institutions such as the EDA and ESDC already organise seminars and conferences convening representatives from Member States and high-level executives from defence companies. Options to consider could include:

- Enlarging the themes of those conferences to include cooperative programmes.
- Organising a course on cooperative programmes within the existing high-level course conducted by the ESDC.
- Specifically targeting more high-level executives from defence companies and representatives from the arms acquisition community.

The EDA could organise at least one conference a year on cooperative programmes. Those conferences could include an informal lunch or dinner to foster networking between stakeholders.

Participants

Representatives of the acquisition community of both Member States and European institutions should be targeted and invited to those conferences. It would also be important to make sure industrial executives from defence companies are engaged. As a participant at the Paris workshop noted: 'there is a gap between national administration initiatives and industries, simply because industries are already trans-national. Today, the problem is that the gap is growing so the exercise consists in bridging the gap, building a common language.' Strategic conferences should also be open to relevant journalists and academics who study these issues.

2. Programme manager education and training

Organisation

As the main coordinator of general European defence training the ESDC, with an armament pillar, could be in charge of coordinating courses for programme managers.

The ESDC could work to create an armaments education network that might include the following options:

- The ESDC could organise a specific course on armaments cooperation within the Orientation Course.
- Existing national initiatives, such as that organised by CHEAr (France), could be registered with the ESDC.
- Some retired programme managers could intervene during the committees' work to give them an overview of their experiences.

Also, the ESDC could invite the EDA to sit in on its Executive Academic Board whenever this might be required or considered helpful. In this way, the EDA would play an 'enabling role' and orchestrate armaments training in close cooperation with Member States before the ESDC put it into motion. This is not to overburden the EDA but it is important that the EDA is involved in developing this training. What is more, as it convenes the National Armaments Directors on a regular basis, it is the best place to organise Member States' discussions on armaments training.

As an adviser, the EDA could create a database of existing national courses on armaments. It could also develop a common knowledge portal on its website. This would not require a huge amount of work given that some past EDA studies and other documents such as the European Handbook for Defence Procurement⁵ could be used for the content. The website could also be used as a resource for preparatory training courses for national programme managers. During the course of this project, this

⁵ The European Handbook for Defence Procurement is available online: <http://www.defense-handbook.org/>.

type of preparation was identified by many stakeholders as crucial, because of the diversity in terms of backgrounds and training of programme managers in Europe.

One participant at the Paris workshop summed it up: ‘the *chef d’orchestre* could be the ESDC for we want a general overview on armaments with a strategic perspective. The EDA should bring actors together.’ In other words:

- The ESDC would be the main coordinator.
- The EDA would be the main adviser.
- National colleges such as CHEAr would be the main providers.
- All initiatives should be open to non-EU countries involved in cooperative programmes.

Course methods

- **A preparation course**

The first challenge for programme managers at the moment in Europe is to overcome their lack of knowledge of other countries’ acquisition processes. What is more, depending on which country they come from, programme managers often have very different backgrounds (legal, budgetary, engineering etc). One respondent to the questionnaire suggested: ‘a baseline could be on-line learning objectives for candidates. This would ease the pressure on the actual courses and make the group more coherent. A case study would certainly add value to the education and so would visits to OCCAR and the EDA.’ An e-learning course could focus on basic notions and best practices in multinational programme management to help develop common approaches.

- **Training**

It would be ideal if programme managers could also attend strategic conferences on European armaments cooperation but this is not enough. What they really need is a basic curriculum on best practice. It is clear that programme managers are technically trained to manage any kind of programme. But pure technical knowledge is not enough, programme managers need to develop common understanding with their counterparts from other countries. In other words, multinational programme management needs a European touch. A participant at the Paris workshop noted the need to Europeanise training and gave suggestions on content: ‘how to run multinational meetings and negotiations and the awareness of the importance of networking is a prerequisite. It could be addressed by on-line prep-courses, but physically suffering in a room of 26 nations trying to understand each others creates a bond that helps solve things.’

A joint training course would also give a selected team of programme managers the opportunity to work together for a few days before actually embarking on managing a programme. For example, one of the respondents to the questionnaire thinks: ‘the way CHEAr is dealing with this seems the best way: fostering permanent discussion in small syndicates (8 people maximum) by inviting high-level speakers with experience in their speciality speaking about controversial topics linked to a central theme.’

It is unnecessary to design an entirely new training course because some Member-States have already developed interesting concepts within their curricula that the EDA, the ESDC and national colleges could build on. For example, two Franco-German initiatives, STAMP (an annual forum)⁶ and EDAMIC (a course)⁷ are interesting models to consider. The purpose of a training course would be that it would deliver a common policy paper/project on best practice for programme management within a short time span (six months maximum) to the EDA. If a number of project manager groups worked on best practice proposals, as an incentive the EDA could pick the most promising proposal and recommend it to the National Armaments Directors. When it comes to the content of training courses, it is important to include as many best-practice cases as possible.

- **Follow-up and networking.**

Such training courses would have even more value if programme managers from different projects stayed in contact afterwards. Updating dinners could be organised, mixing past and present participants. Such a model would gradually create a European pool of programme managers.

Participants

Programme managers from all Member States should participate in such training courses along with defence industry managers. As is the case with strategic education, it may be useful to invite expert journalists and academics to attend the training courses.

⁶ STAMP: Seminar for Top Armament Management Programme.

⁷ EDAMIC: European Defence Acquisition Manager Intercultural Course.

CONCLUSION

In the coming years, European Member States will have little option but to coordinate their acquisition processes and participate in joint equipment programmes. On the one hand, their increasing involvement in crisis management operations requires them to acquire a wide range of equipment like strategic transport, communications technology and space-based assets. On the other hand, defence ministries are already under enormous strain and public opinion shows little support for increases in national defence budgets. One solution is to develop more equipment programmes together. To avoid multinational equipment programmes getting delayed or running over budget, developing some common training and education is a win-win (and relatively cheap) solution. Fostering common understanding would help defence ministry officials to manage programmes more efficiently, and as a consequence would encourage more Member States to participate in more equipment programmes, thereby improving the military capabilities available to European armed forces.

Mutual understanding is clearly not something that grows overnight. To ensure that education and training courses would have an added value it would be necessary to take a step-by-step approach. One of the stakeholders consulted for this project was involved in the development of an e-learning course for NATO. According to him, 'it is precisely the lack of clear requirements that undermined NATO's will to launch an e-learning course. The key issue is that requirements are well defined from the start and to take benefit from the Bologna process.'⁸

Two key principles should guide efforts to improve this type of education. First, it should be voluntary. Only willing Member States – meaning those able to finance and play an active role in training courses – should participate. Second, those Member States and EU institutions organising an initiative should ensure taxpayers get value for money. One option for monitoring the quality of European training courses would be to create a training unit within the EDA. It could bring together a mix of industrialists and selected national officials, on a non-permanent basis, together with a small group of permanent experts on cooperative programmes within the EDA.

The content of training courses should also be carefully considered. According to many participants in this project, lectures alone cannot generate common understanding. The added-value of European training would be the creation of a European armaments community. With this in mind, training should mix interactive workshops and conferences with informal dinners, follow-up meetings and visits to EU institutions. And training courses should encourage small groups to carry out projects, with the aim of agreeing on lessons-learned (or at least identified) from past programmes

⁸ The Bologna Process is the process of creating the European Higher Education Area (EHEA) by 2010 and is based on cooperation between ministries, higher education institutions, students and staff from 46 countries, with the participation of international organisations.

or developing recommendations for best practice for managing future multinational equipment programmes. Last but not least, it is important that the EDA create a virtual database on European armaments cooperation to support training.

If industrialists, national and EU officials, academics and journalists from as many Member States as possible are engaged in this process, over time it will surely help ensure that cooperative programmes are delivered with fewer delays and budget over-runs. As mentioned earlier in this report, what hampers these cooperative programmes most are the execution and management aspects. Again it is less a lack of technical knowledge, and much more an issue of developing multinational skills. In sum, European education and training should develop a more effective multinational approach to armaments cooperation.

Abbreviations

CHEAr	Centre des Hautes Etudes de l'Armement (<i>French Centre for Higher Armament Studies</i>)
EDA	European Defence Agency
ESDC	European Security and Defence College
ESDP	European Security and Defence Policy
ETH	Eidgenössische Technische Hochschule (<i>Swiss Federal Institute of Technology</i>)
HHG	Helsinki Headline Goal
NATO	North Atlantic Treaty Organisation
OCCAR	Organisation for Joint Armament Cooperation
R&D	Research and Development
R&T	Research and Technology
SERA	Session européenne des Responsables d'Armement (<i>European Session of Armament Directors</i>)

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