

Ministry of Defence
Maximising the benefits of
defence equipment co-operation



REPORT BY THE COMPTROLLER AND AUDITOR GENERAL
HC 300 Session 2000-2001: 16 March 2001

executive summary

"International collaboration is of increasing importance to our forward equipment programme. It offers tangible military, economic and industrial benefits and it is essential that the United Kingdom remains at the forefront of developments in this area of joint endeavour."

1998 Strategic Defence Review
(Cm3999)

- 1 In 1998/99 the Ministry of Defence (the Department) spent 13 per cent of the defence equipment budget (£1.3 billion) on 64 co-operative equipment programmes involving 19 partner nations. The number of co-operative programmes, and the proportion of the defence budget committed to co-operation, is likely to rise in future as a number of programmes currently in their early stages come on stream. Our study examines what the benefits of co-operation are, what is being done to deliver the full range of benefits and how the Department decides to commit to co-operative programmes.



The benefits of defence equipment co-operation

- 2 Co-operation in defence research offers economic and technology benefits, generating a 5:1 return on the Department's £40 million annual investment on joint research programmes and providing knowledge with an annual value of approximately £280 million at minimal cost through information exchange programmes.
- 3 Co-operating in the procurement of defence equipment brings economic benefits by sharing development costs and through economies of scale in the production and, further through the lifecycle, by sharing in-service support and upgrade costs. The Department has been successful in taking into account the cost implications (both positive and negative) of co-operation, although the timescale implications have been more difficult to manage because these are not under Her Majesty's Government's control.
- 4 In military terms, co-operative procurement can enhance inter-operability with allies. Post Cold War changes in the global security environment have seen an increasing emphasis on the need to harmonise mission capabilities with allies for joint and coalition operations. From an industrial perspective, defence equipment co-operation holds the prospect of preserving existing, and developing new, market influences and technological competence as well as influencing industrial restructuring. International political benefits, such as the strengthening of security relationships and the enhancement of European security and defence identity can also flow from defence equipment co-operation.

How the Department is addressing the challenges of co-operation

- 5 Equipment co-operation does not take place in a void. We therefore welcome the Department's document the *Future Strategic Context for Defence* which was published earlier this year and sets out likely future international developments. The processes adopted for planning and managing co-operative activity operate within this framework and affect the potential for realising co-operative benefits. The United Kingdom is involved in a number of specific initiatives and has put in place an over-arching arrangement with some of its partners in Europe (the Letter of Intent) and with the United States (the Declaration of Principles) which should help to provide a more solid baseline against which to plan and undertake co-operative programmes as well as facilitating the restructuring and efficient operation of the defence industry.
- 6 In harmonising national partners' equipment needs, the various high level international forums established specifically for the task have historically been less successful in generating fully-fledged co-operative programmes than working level contacts. The ability of nations to identify potential opportunities for co-operation under both approaches has been constrained by difficulties in aligning national requirements and differences in national legal systems planning timescales and funding and approvals processes. If more widely adopted, the "Capability Management" approach – which is already being introduced in the United Kingdom – should facilitate cost, schedule and capability trade-offs and hence overcome some of the difficulties which have previously constrained the scope for co-operation.
- We commend the Department's actions in taking forward the Capability Management initiative and endorse its intention to encourage partners to discuss opportunities for co-operation on the basis of future capability needs rather than specific requirements.
- 7 In the defence research area, developments enshrined in the Declaration of Principles, the Letter of Intent and the proposed "EUROPA" Memorandum of Understanding, hold the prospect of addressing some of the longstanding factors which have tended to constrain defence research co-operation. Nationally, the Department has also embarked on initiatives, such as the "Towers of Excellence" model, which, although still in their formative stages, could enhance decisions on which co-operative research opportunities to take up. In taking forward these actions, we recommend that the Department:
- analyses the factors which have contributed to the technological and financial success, or otherwise, of co-operative research programmes and learns the lessons so that future arrangements are identified, established and undertaken efficiently;
 - completes its planned review of the methodology used to assess the benefits of co-operative defence research programmes as quickly as possible and explores the potential to augment the database with information on the Department's expectations when it commits to co-operative research and the benefits of other forms of defence research co-operation;
 - in line with the intentions underpinning the agreements reached with European and United States partners;
 - enhances decision-making on where to concentrate international defence research effort and where to rely on mutual interdependence with partner nations by ensuring that plans to include a more clearly defined international dimension to the "Towers of Excellence" model are taken forward;





- ensures that the potential opportunities to rationalise and integrate the various multilateral research forums are taken full advantage of;
 - encourages the co-operative use of research and testing facilities and ensures that in commissioning new facilities or modernising existing ones, full consideration is given to the scope for co-operation.
- 8 Turning to equipment procurement, in the past there has been considerable variety in both governmental and industrial management arrangements for co-operative procurement. Complex management and decision-making structures and restrictive worksharing and other requirements have often been necessary to achieving international agreements. But this complexity has raised transaction costs and reduced potential economic benefits. Indeed, such complexity may have torpedoed promising collaboration ventures before they could come to fruition. Similarly, and recognising that sharing non-recurring costs is much less of an incentive to co-operate during the support phase, differences in nations' operating and maintenance philosophies and national "customisation" of designs has meant that co-operative in-service support activity has been limited.
- 9 To address these challenges Germany, France, Italy and the United Kingdom have jointly developed the Organisation Conjointe de Cooperation en matière d'Armement (OCCAR) which has the potential to bring a significant improvement in the efficiency and effectiveness of European armaments co-operation. As OCCAR evolves and takes a more significant role in managing new equipment programmes it will be important that the Department ensures that the principles underpinning the establishment of OCCAR are robustly implemented. In particular, we recommend that the Department works with its partners and OCCAR:
- to identify common success factors in previous defence equipment co-operation;
 - to develop performance measures to ensure that OCCAR is able to demonstrate it is providing cost, timescale and operational benefits compared with past, or alternative, co-operative arrangements. Five possible performance measures are at Appendix D to our report;
 - to monitor implementation of the principle of global balancing to ensure that worksharing arrangements do not impose cost and timescale penalties on individual equipment programmes;
 - to assist in developing an equivalent of the Department's Acquisition Management System to underpin the programme management procedures which OCCAR have already produced. Such a system supported with suitable training will help to ensure that the principles already agreed are successfully implemented;
 - ensure the responsibilities of the OCCAR Executive Administration, Programme Offices and nations are clearly delineated to allow the agency to function as proposed.

- 10** More generally, the Department has put a great deal of effort into responding to requests from its co-operative partners to explain the potential benefits of "Smart Acquisition". Whilst the scope for change on well-established programmes may be limited, there are signs that some existing programmes are being managed more effectively. We recommend that on programmes which fall outside the OCCAR umbrella, the Department works with partners to:
- learn from past experience to identify common success factors in defence equipment co-operation;
 - build on the discussions which have already taken place to translate the Smart Acquisition principles into working practices which will bring about continuous improvement in the arrangements for executing both existing and new international co-operative programmes; and
 - consider opportunities for co-operative support at an early point in the equipment lifecycle.

Deciding to co-operate

- 11** The Department has implemented a structured system of cost and operational effectiveness analysis to inform decisions on which acquisition solutions can meet most cost-effectively a given capability. The Department's consideration is informed by analyses, undertaken in consultation with other interested government departments and of varying degrees of sophistication, of the industrial and wider political factors involved. Reflecting the importance attached to many major defence acquisition decisions, over half of seventeen recent decisions on whether or not to commit to co-operative programmes were made collectively by Ministers including non-Defence Ministers. Decisions on whether to commit to co-operative programmes are already made in a way which takes into account many of the aims of the Modernising Government agenda. Revisions to the Memorandum setting out the responsibilities of Accounting Officers may also facilitate the consideration of anticipated outcomes which go beyond those specific to defence purposes.
- 12** We recommend that the Department:
- ensures that the objectives set for the Defence Procurement Agency and Integrated Project Team Leaders responsible for delivering programmes against defined cost, timescale and performance parameters fully reflect the extra complexity and challenges which co-operative programmes often pose;
 - from the outset of the decision-making process, continues to work closely with other government departments and industry to ensure that all factors affecting decisions on whether or not to co-operate are analysed rigorously with the risks to the defence vote and full range of anticipated beneficial outcomes quantified to the greatest extent possible;
 - continues to work closely with other government departments to establish mechanisms to assess the achievement of all the beneficial outcomes for the United Kingdom as a whole, anticipated at the time decisions to commit to co-operative programmes are made.

Overall conclusions

- 13 The acquisition and management of defence equipment is an inherently complex and often expensive task. Co-operation adds another layer of complexity to the challenge of procuring equipments within time, cost and performance parameters and subsequently supporting them in-service. The track record of defence equipment co-operation to date has been mixed. Whilst there have been economic, political, military and industrial benefits, on significant numbers of co-operative procurement programmes not all of the potential benefits have been secured. Defence equipment co-operation is likely to become more important in the future and we welcome the recent initiatives taken by the Department and its partners, notably the creation of OCCAR and signing of the Letter of Intent and Declaration of Principles, which hold the prospect of addressing many of the challenges of co-operation. It will be important that the Department is able to demonstrate that the expected benefits of these initiatives are being secured.
- 14 The restructuring of the defence industry following the end of the Cold War has produced a smaller number of companies, certainly at the prime contractor level, but most of them have a wider range of capabilities, operate in more countries than their predecessors and some of them have the financial resources to assist in Private Finance Initiative and Public Private Partnership schemes. This industrial restructuring is itself a source of potential defence equipment co-operation, encompassing research, development, production and through life maintenance and support. Indeed, co-operation may be easier to start at the industrial than the government level, and we recommend that the Department should pay particular attention to the scope offered by cross-border industrial capabilities and partnerships in fostering its equipment procurement programme.
- 15 The majority of decisions on whether or not to commit to major co-operative procurement programmes are taken collectively by Ministers. In these cases, Ministers may choose to emphasise the importance of securing outcomes in addition to those which pre-dominate in the Department's own assessment, such as technical capability, costs of the project and in-service costs. This approach accords closely with Modernising Government principles. In making future decisions it will be important for the Department to continue to fully involve other government departments and industry from the outset in evaluating the full range of potential outcomes. In assessing the success of co-operative programmes it will be important to ensure that the full range of beneficial outcomes anticipated when the decision to commit was made are clearly recorded and their achievement measured.