



Extract from the report to the
Public Accounts Committee on
major defence acquisitions

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I. Introduction and results

1. This report is about Defence Command Denmark's (the Defence) procurement of equipment. Defence equipment includes and ranges from large complex weapons systems like new frigates for the Navy to procurement of standard products like for instance passenger cars and field rations. The report is dealing only with major acquisitions of equipment purchased on the basis of applications for appropriations that have been considered by the Finance Committee.

2. Rigsrevisionen started the examination in the autumn of 2008. In a memorandum to the Public Accounts Committee of 14 May 2008, the Auditor General outlined how the examination could be organised. Procurement of equipment has been examined because it is a financially important area, and an area where Rigsrevisionen has previously examined problems relating to, for instance the EH-101 helicopters, the unmanned Kestrel air vehicle and the OceanEye radar system. The audit mainly covers the Defence Agreement period 2005-2009.

Rigsrevisionen has examined a total of 18 equipment projects, which are listed in appendix 1. At the request of Rigsrevisionen, the Defence provided information on ten of the projects, whereas Rigsrevisionen subjected the remaining eight projects to an extended review of project documentation, etc. The projects include army equipment (e.g. various types of vehicles like infantry combat vehicles and recovery systems), navy equipment (e.g. new ocean patrol vessels and frigates) and air force equipment (e.g. upgrading of the F-16 fighter aircraft, radar systems and a transport aircraft). Lastly, the projects also include joint-Service acquisition of, for instance support equipment like armoured ambulances. In total the value of the defence equipment included in the 18 projects is approximately DKK 13 billion.

3. The Danish Defence Acquisition and Logistics Organization is procuring and maintaining equipment for all authorities under the Defence. With effect from 1 January 2007, the Danish Defence Acquisition and Logistics Organization merged the three former units under respectively the Air Force, the Army and the Navy, and part of Defence Command Denmark's responsibilities.

The Defence has decided to improve and standardise the acquisition processes governing procurement of equipment; partly due to the experience gained after having merged acquisition of equipment under one roof and a study of the Danish Defence Acquisition and Logistics Organization. The study was performed by external consultants who concluded, among other things, that generally the performance of the Danish Defence did not meet best practice standard.

4. The Defence has to address three key risk factors when equipment is being acquired; that the project is delivered and deployed on time, at the cost approved and meets the standard set by the Defence. Therefore, the focus of the examination is time, cost and quality.

Time

The equipment has been delivered within the original time frame.

Cost

Project costs are kept within the appropriation initially approved by the Finance Committee.

Quality

The equipment meets the original requirements, which are typically set out by the operational commands.

5. The purpose of the examination is to assess the major defence acquisitions. The report answers the following two questions:

- Is the Defence procuring major equipment at the time and cost agreed, and of the quality agreed?
- Has the Ministry of Defence access to the information required to keep the grant-awarding authorities informed of the Defence's acquisition of equipment?

RESULTS AND MAJOR FINDINGS

Generally, the Defence has procured equipment within the budgets. Rigsrevisionen has only for a few projects identified significant problems relating to the quality of equipment, which have resulted in incapability to perform the planned tasks. On the other hand, many projects are delayed.

The projects under audit have all been initiated before 1 January 2007 when the new acquisition organisation was established, and they are all reflecting problems that have characterized major defence acquisitions in the past. The Ministry of Defence and the Defence are working on the establishment of prerequisites required to improve the procurement process. Thus the Defence has started a process to harmonise and develop the approach to procurement of equipment. First and foremost, the Defence has centralized procurement of equipment under one roof in the Defence and has introduced several new project tools. Many of these tools meet the best practice standards for investments, and they include project management, systemic risk assessment and one business case for each project.

It has been a significant challenge for the Defence to merge procurement of equipment into one organisation. Three years after the establishment of the Danish Defence Acquisition and Logistics Organization, the equipment area is still characterized by restructurings and new initiatives that have not yet been fully developed and implemented in the organisation. In the opinion of Rigsrevisionen, the lack of breathing room and time to manage the initiatives pose a risk that not all planned initiatives – including some of the important prerequisites for the improvement of procurement – will have been implemented when the Defence is ready to procure new equipment in accordance with the Defence Agreement 2010 – 2014.

Since 2008, the Ministry of Defence has gradually improved its supervision of defence procurement and is continuously working to improve it further in order to, among other things, strengthen the basis upon which the Ministry is keeping the grant-awarding authorities informed of defence acquisitions.

This overall assessment is based on the following factors:

One third of the equipment projects under audit had time delays of 12 months or more. The Defence has generally prioritized cost and quality over time. Most of the projects under audit are keeping within budget. In some instances, budgets are kept by deferring delivery of parts of the projects or abandoning acquisition of parts of the projects altogether. The Defence is expecting the quality of most of the projects that it has assessed so far to meet the quality standard.

Time

Delays in delivery of defence equipment

- One third of the projects that have been audited by Rigsrevisionen are delayed between 12 and 36 months. The projects that are delayed by 12 months or more include scout vehicles, communication and information systems, recovery systems, armoured patrol vehicles, material to counter atomic, biological and chemical hazards, and self protective equipment for aircraft. Generally, the Defence prioritizes cost and quality over time.
- From the outset, the Defence has not defined clear deadlines for delivery and deployment of the equipment projects. This makes it difficult for the Defence to manage the projects, and the absence of deadlines may per se cause delays.
- The delays are caused by many different factors. Generally the individual projects under audit have been delayed for several reasons. Some are largely caused by the Defence and are related to, for instance internal prioritizations of economy and personnel, and adjustment of own requirements in the process. Others are mainly outside the influence of the Defence and can be referred to, for instance the contractors or the fact that the surroundings are making new demands on the equipment.

Costs

Keeping costs within the appropriation

- The Defence is submitting applications for funding of major acquisitions of equipment to the Finance Committee. For the vast majority of the examined projects the Defence has kept or is expecting to keep the costs within the appropriated amounts.
- Only two projects deviate significantly from the original appropriation; the acquisition of infantry combat vehicles exceeded budget because insufficient funds had been allocated, among other things, to initial spare parts, that are typically ordered for the first two years' of service, and the frigate project could not keep within budget due to increasing costs of materials. The Finance Committee has approved supplementary appropriations for both projects.
- The Defence has made it a priority to keep the costs of the projects under review within the appropriations. A number of projects have delivered within their cost because the Defence has adjusted project content and abandoned some of the original requirements on the projects by deferring or dropping parts of the projects, for instance.
- The Defence has in some instances kept the costs within the appropriated amounts by re-allocating funds reserved for the purchase of initial spare parts to cover contingencies.

The basis for the financial information provided by the Defence

- The Ministry of Defence is stating the expected acquisition cost in the applications for appropriation funds. The Ministry has so far only in exceptional cases included information on operation in the applications. The Ministry is not formally required to do so, but Rigsrevisionen is satisfied that the Ministry of Defence as from commencement of the Defence Agreement 2010 – 2014 will inform the Finance Committee of the operational consequences of the acquisitions of equipment. Rigsrevisionen is of the opinion that this step will generally enhance the quality of the basis for decision.
- Life-cycle costs represent a total of all costs relating to the acquisition and use of the equipment over its expected lifetime. So far the Defence has not to the extent required estimated the life-cycle costs prior to the acquisition. For instance, estimates of operational costs have not been included in all the recommendations concerning specific acquisitions, which the Defence has submitted to the Ministry of Defence, and the units that were formerly responsible for procurement had very different approaches to analysing operational costs.
- In the future, the Defence will more extensively assess the financial implications of using the equipment. Rigsrevisionen finds it satisfactory that the Defence will in future estimate the costs of planned acquisitions over their expected lifetime. This will increase transparency and provide a better basis for prioritization. However, the Defence is in a transition phase and is as of yet only making limited use of the new project tools, which are designed to provide better insight into the financial implications.

Quality

The quality of the acquired equipment

- The Defence is expecting the quality of approximately half of the projects under audit to meet the quality standard set by the Defence. Only a few projects are not expected to meet all significant quality requirements. In regard to the remaining projects, the Defence has not assessed quality in relation to the tasks that the equipment is meant to perform, mainly because the projects have not yet been delivered, and the Defence makes its assessment of the equipment in relation to performance of the task when it is entered into service.
- The two projects that do not meet all quality requirements cannot perform all the planned tasks. Recovery systems for the army can only recover some of the Defence's vehicles and not, as planned, its combat vehicles without assistance from other vehicles. The acquisition of a communication and information system for the Army forced the Defence to discontinue its development of an IT system due to technical difficulties. Instead the system was replaced with a fully developed system with a more limited scope of application.

The Defence's requirements with respect to the quality of the equipment

- Before the Defence applies for funding and enters a contract with a contractor, it determines the level of quality required from the equipment based on the nature of the tasks that the equipment is meant to perform. The initial quality requirements are not available for all the examined projects. Rigsrevisionen recommends that the Defence should set clear goals for the quality of all projects from the outset, as this would allow the Defence to monitor the quality throughout the project life.
- For most of the projects where quality requirements have been formulated, the Defence has been very thorough in its establishment of equipment requirements to ensure that the Defence can perform its tasks. Generally, the requirements are very detailed and extensive. However, setting too detailed and extensive requirements may be to the disadvantage of the Defence as a buyer and user. The field of potential contractors may be narrowed down and thereby reduce the possibilities of achieving a good price from the contractors, and limit the number of other users with whom the Defence could share future development costs.
- Previously the Defence has not been sufficiently focused on buying standard products that are fully developed, introduced into the market and have been operationally tested. As a result, the Defence's quality requirements have in some instances been excessive and therefore the equipment has become too expensive.
- Rigsrevisionen is satisfied that in the future the Defence will increase its efforts to minimize the scope of requirements in order to promote competition and reduce the complexity of the projects. Lastly, the Defence will also endeavour to buy standard products.
- Rigsrevisionen recommends that the Defence's future planning of the individual projects should include a prioritized list of requirements that may be dispensed with to ensure that the projects deliver within their budgets – a catalogue of cost cuttings. So far the Defence has prioritized the requirements, but failed to indicate the cost of the requirements that could be dispensed with, if required for financial reasons.

The Defence's follow-up on the quality of the equipment

- When and how the Defence has assessed the quality of the equipment varies considerably. In particular, the Defence needs to perform formal assessments of whether the acquired equipment can perform the intended tasks. The Defence should continuously monitor and document the capabilities of the equipment in respect to performance of planned tasks.
- The Defence is working on the implementation of internal quality assessments to be performed between the individual stages of the projects, and the Ministry of Defence is considering how external quality assurance of selected projects can be implemented.

The Ministry of Defence is currently strengthening the basis upon which it is informing the grant-awarding authorities of the Defence's procurement of equipment. The Ministry wants to ensure that future fund applications include more specific information on time, cost and quality. Furthermore, the grant-awarding authorities should also be informed in due course of significant project changes. Until 2008 the Ministry's supervision of the Defence's procurement was limited. Supervision has since been increased and the Ministry of Defence is working on improving it further.

The basis for the information included in the applications for major equipment

- The information provided by the Ministry of Finance on time, cost and quality in the applications submitted to the Finance Committee has generally been of a very overall nature.
- According to its current practice, the Defence has established the financial framework for the projects long before actual negotiations are held with the contractors. The basis upon which the financial framework has been presented to the Finance Committee has therefore been subject to uncertainties, which have impacted the Defence's ability to deliver the projects within budget. The Defence has typically been forced to adjust the content of projects.
- As an example, the Ministry of Defence is considering postponing submission of applications until information on time, cost and quality of the equipment projects is less uncertain. The Ministry of Finance and the Ministry of Defence should agree on a process that would allow submission of grant applications to the Finance Committee at a later time. The new process should preferably be in place before any new major equipment projects are submitted to the Finance Committee.
- Rigsrevisionen's review of the fund applications concerning major equipment projects revealed examples of projects that were not adequately defined and did not specify the objectives, which the Defence expected to achieve with the grants. For instance, it is problematic when the Defence fails to define clearly the sub-projects that are encompassed by an appropriation. In one instance, the same project is financed by several applications for funding, and project funds and project content have been transferred between applications.
- The Ministry of Defence is submitting major equipment projects to the Finance Committee, but according to current practice, the Ministry only rarely involves the Finance Committee when the prerequisites of the fund applications are changing significantly. Since 2004 the Ministry has, for instance only informed the Finance Committee of changes on three occasions, despite the fact that there are other examples of projects where quality or content has changed significantly since the funds were granted. The Ministry has in particular been focused on keeping the parties behind the Defence Agreement informed on a current basis. The Ministry of Defence should ensure that the grant-awarding authorities are informed in due course of significant changes.
- In future, the Ministry of Defence will involve the Finance Committee in the event of significant changes relating to the time, cost and quality of equipment projects.

The Ministry of Defence's follow-up on major equipment

- The Ministry of Defence has since 2008 gradually strengthened its supervision of the Defence's equipment projects and equipment operation and continues its efforts to improve it further. For instance, the status reports prepared by the Defence and used by the Ministry for its supervision, do not meet the requirements of the Ministry. Early in 2010, the Ministry is planning to evaluate the supervision and, among other things, assess the possibilities of specifying and harmonizing the reporting requirements to ensure that all projects are being assessed on an equal basis.