Planning and cost-effectiveness of large-scale defence procurement (report summary)

Have procurements been carried out in accordance with needs and in a transparent manner?

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Report of the National Audit Office to the Riigikogu, Tallinn, 11 November 2020

Planning and cost-effectiveness of large-scale defence procurement

Have procurements been carried out in accordance with needs and in a transparent manner?

Summary of audit results

What did we audit?

The audit analysed the planning and execution of defence procurements made in 2014–2019. The audit did not analyse the development of the total military needs of the Defence Forces. The audit did not focus on assessing the compliance of defence procurement with the requirements set out in the Public Procurement Act. The audit focused on assessing the transparency of the defence procurement process and the cost-effectiveness of procurement.

The objective of the audit was to assess whether the defence procurements selected in the audit are based on national defence development needs and priorities, and whether the work and procurement organization performed prior to procurements create preconditions for procuring Estonia's defence capabilities in the most appropriate way. The audit analysed 17 defence procurements in five areas (personal and combat equipment, armaments and ammunition, communications and information technology, vehicles, observation, and measurement equipment). A more detailed sample of the audit is provided in the overview of the field (see Appendix A).

The audited institutions were the Defence Forces, the Ministry of Defence, and the Centre for Defence Investment.

Why is this important for taxpayers?

In 2020, the military national defence budget (incl. Defence investment program and foreign funding) is 634.5 million euros. Of this, 201.8 million will be spent on various procurements, of which 181.8 million euros will be procured for defence equipment and services.

As the financial need for military defence is greater than 2% of GDP, it is essential that every euro planned in the defence budget is spent effectively.

Compared to other public procurements, the contracting authority's caution towards new technical solutions and providers makes it more difficult to conduct defence and ex-post evaluations for defence purposes; a more limited range of tenderers due to the secrecy of many procurements; the complexity of describing a military need in procurement documents; rapid price increase of the procured equipment; the need for the equipment procured to be compatible with existing equipment as well as with Allied equipment; in addition to the economically more favourable price, the need to take into account the interests of the Estonian defence industry and international defence co-operation. As defence procurement differs from conventional procurement and it is often necessary to follow exceptional rules, defence procurement must be kept under the constant attention of auditors.

What did we find and conclude from the audit?

The procurements assessed in the audit provided the Defence Forces with equipment that meets the strategic priorities of the National Defence and the needs of the Defence Forces. The National Audit Office found several shortcomings in the planning and organization of the audited procurements. The reform of the organization of defence procurement, which started with the establishment of the Centre for Defence Investment and will be completed in 2023, has acknowledged these shortcomings, and the solutions being implemented should eliminate these problems in the future.

The process of the audited 17 procurements performed in 2014-2019, which was, inter alia, incompletely documented, had the following shortcomings: little or no pre-procurement market reviews, poorly substantiated and restrictive technical specifications reduced the number of tenderers and, in many cases, no price competition.

- **The equipment procured for the Defence Forces has functionally met the needs of the units, in some cases there have been quality problems in the use of the equipment.**

  The functional conformity and quality of the equipment obtained as a result of the procurement is checked, and the organization and specifics of the control depend on the field of equipment. In most of the procurements of the audit sample, in which the procurement was delivered to the Defence Forces, most of what was desired was obtained (i.e. the equipment obtained as a result of the procurement has functionally met the technical specifications). In the case of procurements where the procurement is just arriving, the end user is sure that the obtained equipment will significantly increases the current capabilities of the Defence Forces.

  End-user - in the context of an audit, an end-user is a unit of the Defence Forces whose equipment includes the procured equipment element or which is a consumer of the procured service.

  There have also been single procurements that have resulted in equipment performing its functions, which has identified quality problems (e.g. fragile components, inferior ammunition), which have resulted in significant additional time and money (e.g. need for emergency maintenance, higher ammunition costs).

  According to the audited explanation, appropriate measures have been taken to prevent further quality problems.

Changes introduced by the defence procurement reform

- **Changes in the organization of the procurement of defence equipment solve the shortcomings observed in the audit and create a presumption that the shortcomings that have occurred in previous procurements will not occur in the future.**

  In 2018, a reform of defence procurement was launched under the leadership of the Ministry of Defence, which will complete the restructuring of the field of defence procurement started with the establishment of the Centre for Defence Investment. In the course of this reform, during the audit, i.e. on 23.04.2020, the procurement procedure of the area of government of the Ministry of Defence was changed, which stipulates, among other things, the division of roles between the Centre for Defence Investment, the Defence Forces and the Ministry of Defence. The reform is scheduled to be completed by 2023.

As a result of the above, the system of persons responsible for areas in the Defence Forces will also change, the aim of which is to leave the tasks of determining the minimum military need and planning and ensuring the later life cycle of equipment to the Defence Forces.

All stages of procurement are optimized and harmonized. Existing IT solutions are being improved and new ones are being created. The roles of the Defence Forces and the Centre for Defence Investment in controlling the quality of procured equipment and services are also specified.

In connection with the above changes, the National Audit Office highlights three issues that should be addressed in order for the ongoing reform of defence procurement to succeed:

a) The transfer of the task of conducting market research from the Defence Forces to the Centre for Defence Investment must not lead to the Defence Forces being less informed about the solutions and procurement opportunities available on the market.

b) In the course of the changes, it should be ensured that the Centre for Defence Investment has a better knowledge of the needs of the Defence Forces.

c) The procurement procedure must ensure that the Centre for Defence Investment systematically receives feedback from the Defence Forces on whether the procured products and services meet the needs and expectations of end users.

Problems hampering the cost-effectiveness of defence procurement

- **It was not possible to ascertain the quality of the market research, as only a few procurements were preserved in writing.**

In order to use the defence budget economically and efficiently, the preparation of defence procurement requires a good overview of from whom and with what characteristics the equipment or service can be obtained from the market. To this end, it is expedient to conduct market researches. The results of the market research were not documented for most of the procurements in the audit sample, and it was possible to proceed mainly from the explanations of the Defence Forces or the employees of the Ministry of Defence and the Centre for Defence Investment. The results of the written market research had been preserved for only two procurements (there were a total of 17 procurements in the audit sample).

Market research - in the context of an audit, means the activity of the end-user or contracting authority in the preparatory phase of the procurement to obtain a more accurate picture of market solutions, identify suitable providers and possible price levels and gather the necessary information to prepare a timely and relevant technical specification.

Despite the fact that the obligation to conduct a market review arose in defence procurement for the first time when the Ministry of Defence's procurement activity and development indicators were approved on 26.06.2018, the National Audit Office assumed that preparing market reviews was and is an elementary and important step in and obtaining quality equipment and services. This applies to defence procurement as well as to public procurement in other areas.

- **The technical specifications of several procurements imposed unjustifiably restrictive conditions.**

  Market reviews are an important input in the preparation of technical specifications for procurement. Several technical specifications for defence procurement assessed during the audit contained significant restrictions that restricted competition in the submission of tenders. In some cases, the restrictive conditions were justified from the point of view of the Centre for Defence Investment and the Defence Forces, but there were also procurements where competition was unreasonably restricted. This meant, above all, sourcing equipment from a specific manufacturer, although there were also suitable alternatives on the market that could provide financial savings. There was also one tender in the sample, the technical conditions of which excluded all tenderers, and the tender failed.

- **The application of specifications instead of the procedure prescribed in the Public Procurement Act was not always clearly justified when deciding in favour of a procurement procedure or an exceptional procurement without a notice.**

  The implementation of the exceptions provided for in the Public Procurement Act also presupposes the existence of a thorough market overview, on the basis of which it is possible to assess and justify the expediency of using the exceptions in the preparation of procurements.

Exceptional procurement - in an audit, exceptional procurements are procurements where exceptions to the Public Procurement Act are applied, according to which the contracting authority is not obliged to apply the procedure prescribed in the Public Procurement Act. For example, if the application of public procurement law would oblige the contracting authority to provide information that it considers to be contrary to the essential security interests of the state, or if the contracting authority concludes a contract with another state from which defence equipment is purchased or ordered.

  In the case of procurement in the field of defence and security, the contracting authority may in certain cases apply the specifications prescribed in the Public Procurement Act. In some cases, the contracting authority has the right not to apply the procedure prescribed by the Public Procurement Act at all and to organize so-called exceptional procurement. The contracting authority is obliged to justify the non-application of a procurement procedure without a notice or the procedure prescribed by the Public Procurement Act. The audit showed that the requirement for justification has been approached differently and that there is often no substantive justification for using an exception or distinction.

  It also showed that the reasons given in the tender dossier were not always correct. For example, in some cases, a tendering procedure without a call for tenders and a request for a tender from only one company were justified by the fact that things with similar technical characteristics were not available on the market or that a change of company would lead to technical problems. In practice, there were either alternatives or a change of equipment would have necessitated some retraining.

- **The audit sample included procurements where the Defence Forces either procured an insufficient amount of equipment or purchased more equipment than planned as a result of the procurement.**

Cost model - a tool used in the military part of the national defence development plan, which is used to estimate the costs of setting up and maintaining units. The model describes the needs of the unit's staff, equipment and infrastructure and finds the costs on the basis of the prices previously entered.

Failure to meet the needs may mean that a quantity of equipment has been procured that does not enable the performance of the tasks of the Defence Forces as specified in the functional description of the respective unit of the Defence Forces. An example of this is the procurement of self-propelled howitzers, where the amount of mobile cannons had already been taken into account when compiling the cost model of the national defence development plan, which corresponded to the possibilities of the defence budget, but not to the needs of the Defence Forces. A smaller number of self-propelled howitzers does not allow to perform the tasks approved by the Commander of the Defence Forces, which are specified in the description of the functions of the artillery.

The difference between the quantities procured and the needs may also mean that a certain quantity has been procured, but contracts have subsequently been awarded for a much larger quantity. The framework agreements have made this possible, and the Defence Forces have thus received more equipment than initially planned. Initially, they asked for tenders for a smaller quantity and did not specify the maximum quantity, but the procurement is not transparent and also carries the risk that the procurement was not obtained at the best possible price, i.e. the money has not been used sparingly.

There were two procurements in the audit sample, where the quantity on which the tender procedure and the call for tenders were based did not correspond to the quantity procured later. During the framework contract, additional money was received for the procurement of 120 mm minesweeper fragmentation mines (decision of the Government of the Republic to allocate money to the defence investment program) and it was decided to significantly increase the ordered quantities. In addition to the quantity on which the tenders were based, bulletproof vests were purchased several times more in several contracts. The auditees provided explanations to the National Audit Office but did not provide an exhaustive justification as to why it was not possible to request tenders for larger quantities from the very beginning.

- **The life-cycle costs of the equipment procured can be a significant part of the cost of the procurement, but it is difficult to verify whether the tenderer's information on these costs is correct during the procurement and it is difficult to resolve later if the agreed life-cycle costs turn out to be higher than expected.**

In several of the procurements analysed, one of the criteria for making procurement decisions was the so-called life-cycle costs of the procured entity. This means that when asking for tenders, companies also had to provide information on how much money is needed to maintain the equipment (including spare parts, repairs, maintenance) during the specified period of use or in case of a certain intensity of use. In the case of certain procurements, the assurance of this life cycle was procured together with the equipment / service, i.e. the price of the tender had to include all additional costs and the cost of ensuring the life cycle was not a separate evaluation criterion (inclusion in the total cost).

In the area of government of the Ministry of Defence, every year more and more attempts have been made to clarify the life-cycle costs of the procured equipment in order to forecast the budget cost. Additional user experience has gradually improved this skill as well.

In the case of procurements analysed in the audit, where one of the decision-making criteria was the price of ensuring the life cycle of the procured equipment, no explanations were provided to the National Audit Office on how to ensure the life cycle costs in the tender are realistic and how to ensure that costs do not increase. Although it was explained to the National Audit Office that the procurement sought to clarify adequate life-cycle costs and thereby determine the realism of the tender, the audit did not show that the amount of life-cycle costs had been decisive in making procurement decisions. Nor was the life-cycle cost aspect addressed in specific procurement contracts.

- **The management of the Ministry of Defence and the Defence Forces will receive a regular overview of the performance of procurement contracts and the achievement of combat readiness, but better use of information technology solutions would enable it to be done much more efficiently.**

Combat readiness - the ability of units of the Defence Forces to start performing tasks. It consists of four components: 1) staffing, 2) equipment, 3) training and 4) reaction speed. Combat readiness is achieved when personnel are assembled, properly equipped, and moved to the concentration area, and weapons are ready for use.

A reporting procedure has been established in the area of government of the Ministry of Defence, according to which the Centre for Defence Investment regularly provides an overview of the implementation of the procurement plan (including the progress of the performance of procurement contracts) and the current state of equipment of the Defence Forces units and the combat readiness achieved. In addition, all government agencies regularly report on the use of the budget. The following budgets and development plans are drawn up on the basis of these reports. However, producing such reports is time consuming.

The audit showed that it is difficult and time-consuming to obtain a systematic overview of the progress of all procurements, from procurement planning, contract execution to the advancement of the equipment of the units and ensuring the life cycle. It is difficult to obtain a consistent and systematic overview of the progress and effectiveness of procurement contracts, including whether the equipment has been received by the end user, whether it meets procurement requirements, whether the planned life cycle costs have been met and whether the procurement has increased the unit's combat readiness.

Gaining an overview could be made more efficient by using existing IT tools more systematically.

Partial causes of the problems identified

- **Based on the procurements assessed in the audit, it can be pointed out that the reasons for the problems are partly related to the fact that the tasks and responsibilities in the procurement organization were not clearly divided between the Ministry of Defence, the Defence Forces and the Centre for Defence Investment.[1]**

[1] Before the establishment of the Centre for Defence Investment in 2017, the Ministry of Defense also made procurements on the basis of input from the Defense Forces. As the

The rights, obligations, and responsibilities of the participants in the Defence procurement process in the Defence Forces as a whole have not been clear.

This has led to problems in conducting market reviews, compiling technical specifications, and documenting all activities. Since the establishment of the Centre for Defence Investment (at the beginning of 2017), the preparation of technical specifications has moved under the management of the centre, but the input of the Defence Forces has continued to be important.

Due to the lack of market research in the Defence Forces and the lack of uniform and systematic documentation of technical work, it was not possible to hand over the preliminary work for procurement prior to the establishment of the Centre for Defence Investment.

What did we recommend as a result of the audit?

The National Audit Office recommended to the Minister of Defence in co-operation with the Commander of the Defence Forces and the Director General of the Centre for Defence Investment

- to establish the conditions for conducting market research and specify the roles of the parties. Also, to specify the organization of meetings with potential tenderers during market research and other phases;
- to make it possible to monitor procurement on the basis of existing IT tools, from planning to improving the combat readiness of the units.

The National Audit Office recommended the Director General of the Centre for Defence Investment

- to determine, in addition to the acquisition cost, the average life cycle cost of the equipment to be procured in the course of the market research and the costs associated with the equipment (training, maintenance, etc.);
- to specify the arrangements for meetings with potential tenderers prior to the procurement and during market research. To ensure that a procurement information day takes place for all new defence procurement and that the information day takes place for all interested parties;
- to establish a common practice on the justification of specifications and exceptions provided for in the Public Procurement Act;
- to ensure that the defence Forces receive feedback from the end user of the procured equipment / service and that it is added to the procurement information system so that it is available during the preparation of future procurements.

The National Audit Office recommended to the Commander of the Defence Forces

audit sample also includes procurements organized by the Ministry of Defense, the observations of the National Audit Office also apply to them.

- to specify the order of transfer of information accompanying the duties of the persons responsible for the field upon rotation of employees;
- to provide for the clear tasks and responsibilities of the persons responsible for the field of materials in compiling and forwarding to the Centre for Defence Investment the technical input of the Defence Forces and the experience of using the acquired equipment / services.

Ministry of Defence reply[2]: Changes are being made in the area of government of the Ministry of Defence aimed at improving procurement planning and cost-effectiveness. The observations and recommendations of the National Audit Office have already been reflected in the updated normative documents and will be taken into account in future procurement.

Market research is the task of the Centre for Defence Investment (CFI). The content of the market research is verified by the Standing Investment Committee, which has been operating since 20 December 2019, and which also substantiates the specifications and exceptions to the procurement procedure. The usual practice of market research is that in addition to the acquisition cost, the average life cycle cost and other associated costs are also determined.

In the years 2019–2020, the procurement process has been significantly changed and this has already been used for new procurements. The development of IT systems to support procurement is in its final stages, and in the future, it should be possible to monitor the progress of procurement projects and improve the overall exchange of information and documentation.

Since 23.04.2020, the procurement procedure of the Ministry of Defence has regulated the organization of market research and information days, based on the principle of equal information of all tenderers. The widest possible range of tenderers will be informed about the information days, and the Centre for Defence Investment intends to regulate the documentation and storage of the information collected during the information days.

As part of the procurement reform, the system of persons responsible for the field in the Defence Forces will be abolished, and the storage and transfer of information collected so far will be regulated in more detail.

The capability planners in each field are responsible for the exchange of information in the procurement area of the Defence Forces units and the Centre for Defence Investment, who were merged in 2019 into the Analysis and Planning Department of the Headquarters of the Estonian Defence Forces. They are also responsible for compiling and transmitting the input of the Defence Forces.

It is the task of the Defence Forces' equipment program teams to gather experience in the use of equipment already acquired. This team includes,

[2] The response of the Ministry of Defense (letter no. 1.3-1/20/2817 of 2 October 2020) summarizes the positions of the Ministry of Defense, the Centre for Defence Investment, and the Defense Forces regarding the recommendations of the National Audit Office.

among others, the Defence Forces' capability planner and person in charge of materials, and since 2020 also the category manager of the Centre for Defence Investment. This should ensure that the experience and input of the Defence Forces units reaches the technical specifications of the procurement and that the end user is sufficiently involved in the procurement process.

From the point of view of the Ministry of Defence, the problem is the communication of tenderers with persons outside the procurement process, through whom they want to influence the results of the procurement. It is therefore necessary to establish lobbying rules.

Comment of the National Audit Office: The changes made in procedures and work organization create preconditions for solving the problems that have emerged in the audit. To solve the problems, innovations must also be rooted in the day-to-day practice of procurement.