

Audit of the key ICT project Armed Forces telecommunications

Defence – Command Operations

Key facts

The aim of the key ICT project "Armed Forces telecommunications" (TC A) is to create a technically standardised combined solution for the Armed Forces' (partially) mobile data transport and voice communications. The project is divided into seven procurement phases (PPs), and covers a procurement volume of around CHF 1.8 billion over 17 years.

The audit by the Swiss Federal Audit Office (SFAO) focused on PP 2: replacement of mobile communications. This revealed that many aspects are running to plan but that certain fundamental questions need to be answered by the Federal Department of Defence, Civil Protection and Sport. The SFAO also checked the state of implementation of open recommendations from 2016 and 2017. Out of four recommendations, two have been implemented and two are still outstanding.

Formal procurement maturity achieved but reservations regarding troop suitability

The choice of procedure and the procurement procedure itself were formally correct. The multi-stage invitation to tender covered the international market. Higher system performance, a better price/performance ratio and the future potential resulted in the selection of Elbit Systems Ltd from Israel. In the SFAO's view, all the formal prerequisites are present for procurement maturity to be requested, which is in turn a condition for inclusion in the 2020 Armed Forces dispatch.

Owing to some deficiencies, both TC A systems were granted troop suitability subject to reservations in 2019. Whereas in 2017 there were still around 300 deficiencies, in 2019 there were only 70, of which 15 are categorised as critical. It is now expected that the supplier will have remedied all deficiencies and shortcomings by the time the serial type is introduced. Because of the associated risks, the SFAO recommends that the remaining process up to introduction be monitored closely.

According to the process, the logistics clarifications are at the required state of progress. However, some content is still very rudimentary, especially in the system management concept. Details will only be added once the model has been selected. The SFAO sees this as risky, because operation and maintenance are well-known cost drivers.

Technology advice provided by armasuisse Science and Technology is not independent

In armament projects, armasuisse's Science and Technology (S+T) division performs technical evaluations on products and systems by means of field and laboratory testing. At the same time, it advises the project sponsor and the team on technology questions (similar to a technical committee) between users, procurers and manufacturers. S+T checks the technical requirements. During testing, a system's actual performance capabilities in the Swiss context are measured. There is no independent second opinion on technology decisions available to armasuisse and the users.

In technology matters, S+T plays an important role in the evaluation process for new Armed Forces defence equipment. S+T indicates which technologies offer potential for technical solutions. armasuisse Procurement searches the market for systems with the corresponding technology and performs an evaluation process. S+T monitors the process and identifies technical deficiencies compared to the requirements. The manufacturer then attempts to develop remedies for these deficiencies. Based on the example of TC A, the SFAO has come to the clear conclusion that S+T has engaged in a technology transfer from which both tenderers have benefited. This is quite evident from the process, which is aimed at taking a prototype and ending up with an end product suitable for use by the Armed Forces.

The architecture and timetable of the system as a whole should be monitored

So far, compared to the original timetable dating from 2012, the project's completion date has been extended by nearly one year on an annual basis. This highlights the difficulty, or impossibility, of drafting reliable timetables over very long time horizons. The question should therefore be asked: which architectural and procurement-related premises/assumptions can usefully be applied over such a long planning period?

The architecture development was not requested until 2016, although work on this continued within the project and in the defence group. The SFAO's 2017 recommendation in this regard has not yet been implemented, however some aspects have already reached a good level of maturity. Open points are the solution architecture (which is now being developed together with the supplier), the finalisation and handover of the Architecture V concept, and the business architecture.

The overall TC A concept remains valid even after several years, and provides a holistic view of systems and priorities. The basic documentation shows that the TC A construct, with all its subsystems, must be able to function as a whole. As a technically standardised combined solution, TC A is intended to replace systems that were procured separately from each other and operated in isolation. In order to treat this complex system landscape as such, the SFAO is of the opinion that the project supervision should function as an overall complete architectural, technological management organisation. Moreover, one possible approach would be to set up a TC A environment as a "receiving tank" for new systems from the subsequent procurement stages.

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