

Audit of the business case for the system architecture Switzerland project

Federal Roads Office

Key facts

With the entry into force of the new system of fiscal equalization and the division of tasks between the Confederation and the cantons (NFE), the Confederation assumed sole responsibility for the construction, maintenance and operation of the motorway network as of 1 January 2008.

The cantons had had a very heterogeneous influence on the construction and operation of motorway operating and safety equipment. As a result, the system architecture Switzerland (SA-CH) project was launched in 2009 in a bid to standardise operating and safety equipment throughout Switzerland.

The Swiss Federal Audit Office (SFAO) examined the status of the SA-CH project. The scope, business case, prioritisation and implementation planning were assessed during the audit.

More resources for accelerated implementation of SA-CH

In 2012, the Federal Roads Office (FEDRO) announced the realignment of operating and safety equipment with annual savings of around CHF 48 million, corresponding to around 15% of the total annual expenditure for operating and safety equipment at that time.

The additional personnel expenses for the implementation of the SA-CH vision, strategy and target architecture developed in 2010 to 2012 were indicated as nine to ten positions. An overall plan concerning the SA-CH project's costs and deadlines was incomplete. FEDRO did not release the resources due to the Confederation's cap on staffing and more urgent projects.

In view of the savings identified, it is difficult for the SFAO to understand why the necessary resources were not discussed.

SA-CH follows what is feasible and meets the operating requirements of maintenance planning

Implementation is planned, financed, implemented and monitored on a project-by-project basis as part of the operating and safety equipment maintenance planning of the branches. Guidelines are used to call for standardisation. The specialist application traffic and construction site management (FA VM/BM) was successfully put into operation in spring 2014. The option decision on the operating and safety equipment communication network was made. With this option, potential savings of CHF 36 million are expected over ten years for the federal backbone.

FEDRO considerably reduced the speed of implementation due to the resource situation. Consequently, the preparation of the guidelines took longer, the development of the specialist applications at management level was suspended and the implementation of the Swiss data network was delayed. In order to increase the acceptance of SA-CH, an interim

solution is being implemented to replace the cantonal operation control centres. A superordinate control system is being built for each of the eleven territorial units.

Due to the urgent need to replace the systems in the territorial units and the resource situation, the procedure and intermediate step are understandable for the SFAO. Initial standardisation measures have thus been implemented, particularly in the route systems. However, there is a higher risk of delayed implementation of the SA-CH objectives and later realisation of the benefits.

Validation of the business architecture should strengthen process standardisation

The SA-CH 2011/2012 result documents were comprehensively compiled and, from a technical viewpoint, still form a good basis for meeting the requirements of that time.

It is necessary for the result documents to be updated because of project-by-project implementation, the interim superordinate control system solutions per territorial unit under development, the initial status of the operating and safety equipment management level, and also the time that has elapsed. They are to be supplemented with an architecture transition with measurable milestones.

The standardisation of operating and safety equipment processes and organisation is a key success factor in the standardisation of the operating and safety equipment system landscape. The SFAO recommends that FEDRO validate and flesh out the 2012 process model and business architecture in order to accelerate implementation.

The strategic relevance of the project and also the findings require a programme organisation with overall planning. However, the approval of the total costs and human resources is a basic requirement. At the operating and safety equipment management level, implementation is to be accelerated with cross-organisational projects. Moreover, possible synergies are to be exploited with an optimised portfolio.

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