

# Follow-up audit on the implementation of key recommendations

## Skyguide

### Key facts

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The Swiss Federal Audit Office (SFAO) conducted a follow-up audit on the implementation of key recommendations at Skyguide. Three of the five recommendations made in the 2019 audit of the Virtual Centre project<sup>1</sup> were implemented, while the other two have already been closed.

In its previous audit, the SFAO recommended that Skyguide implement a package of measures to enhance the effectiveness of the programme's communication and to facilitate change management (recommendation 2). This package should include, for example, regular measurement of human factor developments and the effectiveness of the programme's communication. The analysis of the programme's internal stakeholders should also be deepened and documented. Finally, the feedback channels should be adapted to facilitate two-way communication dedicated to the programme.

The SFAO also recommended that Skyguide analyse the processes between its internal operations and the external service provider responsible for operating the virtual platform (recommendation 4). This analysis was to be conducted in conjunction with the second phase of the Virtual Centre Programme (VCT2). The aim was to identify bottlenecks and inefficiencies, and to implement measures for improvement.

Finally, the SFAO recommended that Skyguide introduce a tool to automatically log changes made directly in the production systems by users with privileged rights (administrators). These logs were to be periodically reviewed by the people responsible for Skyguide's IT operations (recommendation 5).

This follow-up audit concluded that the first two recommendations have been closed, while the last one is still pending.

### **Communication initiatives have been undertaken but need to be extended**

Skyguide's communication initiatives are appropriate and have identified concrete opportunities for improvement. A stakeholder analysis has been carried out to identify and use the right channels for communicating with stakeholders. Skyguide has made significant progress in enhancing communication within the company and in the Virtual Centre Programme.

However, the SFAO considers it important to continue this work and to delegate some of the initiatives to an external firm in order to obtain an opinion that is as neutral as possible.

Recommendation 2 is closed.

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<sup>1</sup> The report for audit mandate 19120 is available on the SFAO website ([www.sfao.ch](http://www.sfao.ch)).

### **Friction and inefficiencies have been addressed, but further efforts are needed**

The friction and inefficiency problems have been addressed within the programme. Significant efforts have been made, and a series of measures has been taken. Weekly and monthly meetings allow regular contact with the external service provider, and potential problems can be addressed in time. The external service provider is confident that the relationship with Skyguide is gaining in maturity.

Although Skyguide has made great progress in this area, it remains important to maintain these efforts. It is important to continue to monitor the interactions between Skyguide and the external service provider in order to prevent new problems from arising, particularly when the entire virtual environment (regulated and unregulated) is delegated to the external service provider.

Recommendation 4 is closed.

### **Important measures have been taken, but are not yet fully implemented**

Skyguide successfully addressed this recommendation with the three pillars (the cyberdefence centre, the response quality review and testing). A great deal of effort went into establishing these pillars. The integration of all the components into the cyberdefence centre and the monitoring of the changes are well under way, but the work is not yet complete. It is important for changes to the systems to be linked to the responses and reviewed by Skyguide's IT operations managers. The response quality review should be integrated into the WAC process (work on ATM, AIM, CNS and infrastructure equipment) to avoid oversights. Further work is required to integrate the recurring responses into the IT Service Continuity Management (ITSCM) tool. The tests are already integrated into the WAC process.

Skyguide has made progress in the automatic logging of changes made directly in the production systems by users with privileged rights (administrators), and in the review of these by Skyguide's IT operations managers. Nevertheless, the SFAO cannot conclude from this progress that the corresponding recommendation has been fully implemented.

Recommendation 5 remains open.

**Original text in French**