

ICA 2005 Country Report Switzerland

1 Brief description of the Government Structure

Switzerland is a multi-ethnic, multi-lingual and multi-confessional nation. It has been a federal State since 1848 – one of 23 in the world and the second oldest after the United States of America. Switzerland has a federal structure with three different political levels. Comprehensive information about the political system can be found at the official website of the federal authorities of the Swiss Confederation, www.admin.ch.

1.1 The Confederation

This is the term used in Switzerland to describe the State. The Confederation has authority in all areas in which it is empowered by the Federal Constitution, such as in foreign and security policy, customs and monetary affairs, nationally applicable legislation and certain other areas. Tasks which do not expressly fall within the domain of the Confederation are matters for the cantons.

1.1.1 The Parliament

Switzerland has a bicameral Parliament at federal level: these are the Federal Chambers, which together constitute the United Federal Assembly. The National Council represents the whole population and the Council of States, the member States of the Confederation, i.e. the cantons. This system reflects the two principles on which the structure of the State is founded: the democratic principle according to which every vote carries the same weight and the federalist principle by which all cantons are treated equally.

The large Chamber (the National Council) has 200 seats. The number of deputies from a canton (each of which is a constituency) depends on its population size. Zurich with its large population has 34 seats, while Uri and Glarus, the half-cantons of Obwalden and Nidwalden and Appenzell Innerrhoden are entitled to just one representative each in the National Council. Proportional representation is used for elections in cantons with more than one seat.

The small Chamber (the Council of States) has 46 seats: 20 of the cantons elect two representatives and six half-cantons each elect one representative.

1.1.2 The Federal Council

The Swiss Government consists of the seven members of the Federal Council who are elected by the United Federal Assembly for a four-year term. The President of the Confederation is elected for just one year and is regarded as *Primus inter pares*, or first among equals during that time. He chairs the sessions of the Federal Council and undertakes special ceremonial duties. The Federal Council takes its decisions as a collegial body. Each member of the Federal Council has one vote. The Federal Chancellor is entitled to propose motions and speak, but has no vote. As a general rule, the Federal Council avoids taking votes as such; a majority position often already emerges from the opinions expressed during the discussions. The main parties of the parliament are represented on a largely proportional basis in the Federal Council. As a result, the collegial principle also serves the function today of enabling compromise solutions to be found on which majority agreement is possible

1.1.3 The Federal Administration

The Federal Administration consists of the Federal Chancellery and of 7 Departments. Each Department is headed by one of the member of the Federal Council and is composed of a certain number of agencies. The Federal Chancellery is the central staff office of the Federal Council. The Chancellor attends the weekly Council sessions in an advisory capacity.

1.2 The Cantons

Switzerland consists of 26 cantons. The cantons are the original States which joined together in 1848 to form the Confederation to which they ceded part of their sovereignty. Each canton has its own constitution, parliament, government and courts. Direct democracy in the form of the "Landsgemeinde" or open-air people's assemblies is now confined to 2 cantons. In all other cantons the people express their decisions at the ballot box.

1.3 The Communes

All the cantons are divided into communes, of which there are currently 2842. Around one-fifth of these communes have their own parliament; in the other four-fifths, decisions are taken by a process of direct democracy in the local assembly. In addition to the tasks entrusted to them by the Confederation and the canton – such as the population register and civil protection – the communes also have their own competencies in the areas of education and social affairs, energy supply, road building, local planning, taxation, etc. To a large extent, these powers are self-regulated. The degree of autonomy granted to the communes is determined by the individual cantons and therefore varies considerably.

2 Strategic approach towards eGovernment

2.1 Strategic guidelines for eGovernment

There are two strategy papers of the Federal Council: the *Strategy for an Information Society in Switzerland (1998)*, available at www.infosociety.ch, and the *eGovernment-Strategy of the Swiss Confederation (2002)*, available at www.isb.admin.ch/egov.

An revised version of the *Strategy for an Information Society in Switzerland* is due to be submitted to the Federal Council later this year. It will address new areas which were missing from the 1998 version, such as Health or Education.

An updated version of the *eGovernment-Strategy* is currently being prepared and is expected to be submitted to the Federal Council in the first quarter of 2006.

2.2 Organisation of eGovernment

The approach towards implementation of eGovernment in Switzerland is largely decentralised, reflecting the federal political organisation with broad competencies in the cantons and communes.

The main benefits of the decentralised structure is that "fast movers" can develop local eGovernment at their own pace, and that there are many possibilities for individual, creative solutions. The disadvantages, however, are obvious: "reinventing the wheel" for similar services and applications in 26 cantons and almost 3000 municipalities slows the overall pace of eGovernment implementation, and is very costly.

There is no central funding for eGovernment activities, and there is no "Mr or Mrs eGovernment".

2.3 Coordination of eGovernment

There are two agencies primarily involved in the coordination of eGovernment at the federal level (Confederation):

- The Swiss Federal Strategy Unit for Information Technology (FSUIT, www.isb.admin.ch), the agency within the finance ministry responsible for preparing the ICT strategies, architectures and standards for the federal government.
- The Swiss Federal Chancellery which manages the central website of the Federal Authorities www.admin.ch as well as the central e-government portal www.ch.ch.

Apart from the portal [ch.ch](http://www.ch.ch), the principal initiatives promoting the coordination and implementation of eGovernment in Switzerland are:

www.eCH.ch, an organisation developing and promoting eGovernment-Standards.

www.eVanti.ch, an initiative promoting exchange and cooperation between the different federal levels, horizontally and vertically.

Furthermore, the chancellors of the cantons, who in most cases responsible for eGovernment, regularly hold coordination meetings.

2.4 Assessment of the current state of eGovernment in Switzerland

In matter of eGovernment *readiness*, where, along with actual eGovernment services, the IT infrastructure and basic social requirements are taken into account, Switzerland fares rather well in international comparison and is generally ranked amongst the top countries. However, if one looks solely at the online services of the public authorities, then Switzerland clearly falls below the international average. According to the latest eEurope Study on the online availability of government services, Switzerland is ranked 27th of the 28 countries analysed. These considerations indicate that Switzerland has a high potential for eGovernment, but is not taking advantage of this potential. Based on various national and international studies and benchmarks, one can identify a number of causes for this state of affairs, the most important being:

- *Decentralised structures*: most contacts of the citizen with the state occur at the level of the 26 cantons and of the 2880 communes (for a total population of 7.4 million). Cantons and communes have a high level of autonomy from the federal level in many areas, such as for instance education and health. Thus, many similar eGovernment solutions for identical services are being developed in the various cantons and communes, each of them having only a limited number of potential “clients”. This results into a high level of investment for eGovernment solutions but not necessarily into a broad availability of eGovernment services for all citizens across the country. There is a dilemma between the competition among the cantons, which is an integral part of the federal system and contributes to a dynamic environment, and the efforts towards cooperation in eGovernment on the other hand. Competition is not meaningful in all and every areas, particularly when unnecessary amounts of tax money are spent on duplicating basically identical technical developments at various places. Therefore, the focus is now being put into developing various cooperation models, basically leading to win-win situations for all parties involved.

- *Lack of political awareness and leadership*: eGovernment projects are all too often “up to the technologists”. The value of the projects (for the citizens, the economy and the public administration itself) is too often insufficiently established and communicated. This is leading in many occasions to a low priority level when it comes to assign scarce staff or money to such projects. In addition, the potential of reengineering administrative processes and structures, as an important step preparing for more meaningful ways of ICT usage – in other words: implementing eGovernment – has until now not been given enough importance by politicians and senior management in the administration. Since the end of 2004, however, a certain “change of mind” seems to be emerging, and the awareness for eGovernment to be increasing. Several members of the parliament have questioned the government on the subject of the slow progress of eGovernment in Switzerland and are calling for corrective actions.
- A further reason for slow implementation of eGovernment services in Switzerland is that until now no satisfactory solution has been found to the issue of *digital identity* and unambiguous *personal identification*, an important prerequisite for many eGovernment services. There are still unresolved differences of opinion on this issue, mainly due to conflicting demands of federal and cantonal privacy officers on one side and the concerns of those responsible for eGovernment services on the other. The socio-political discussion here will have to be intensified. A *Federal Act on the Personal Identifier (Population)*, and a *Federal Act on Harmonising the Residents’ Register and other Official Registers of Persons* are in preparation but have not yet been approved by the parliament.

The eGovernment-Strategy of 2002 is now in the process of being updated. The revised version will in particular address the issues described above.

3 Organisational Issues

3.1 On the question of the emerging role of the CIO

The IT-organisation of the Swiss Federal Administration has been completely renewed during the reorganisation programme NOVE-IT (see last year’s report). It is documented under www.informatik.admin.ch.

The highest strategic decision-making body is the Federal IT Council, composed of one representative of each of the 7 departments (=ministries) and the Federal Chancellery. It is responsible for the ICT strategies, architectures and standards at the federal level. The decisions of the IT Council are prepared by the Federal Strategy Unit for Information Technology, which is headed by the Delegate for the Federal IT-Strategy.

The IT-organisation in the departments and agencies is based on the process model of NOVE-IT, which does not foresee a formal CIO role. However, in the last two years, most departments and several large agencies have identified the need for such a position, and have introduced it. Several representatives in the Federal IT Council now carry this title.

3.2 New Security Guidelines

On November 1, 2004, the Federal IT Council enacted the revised security guidelines for the Federal Administration. These guidelines are clearly structured (according to ISO/IEC

17799:2000) and are to enable an efficient implementation by the various stakeholders. They refer to the new IT processes and the revised project management method HERMES.

The most important changes refer to the implementation of projects. A security requirements analysis must be performed very early in the project cycle (i.e., at the project initialisation phase). If the security requirements are advanced or the project is complex and/or critical, the security requirements must be analysed more deeply using a tool (ProtAn). On the other hand, there is no longer an administration-specific catalogue of security measures. Instead, there are defined security requirements that can be satisfied with measures adopted from international standards, such as the German baseline requirements.

The new guidelines are available in German, French and Italian at www.isb.admin.ch.

3.3 Implementing ICT cost accounting and cost-performance calculation in the federal administration: principles and tools

The cost accounting/cost-performance calculation principles and tools for ICT have, in the meantime, achieved a high standard and have, to all intents and purposes, been completed. What still remains to be dealt with are individual questions concerning asset “restatement” and the inclusion of ICT goods as assets. However, these issues must be brought into line with the planned introduction of the cost-performance calculation by 2007 in the federal administration within the scope of the new accounting model (new accounting model, IPSAS, full accrual accounting, etc.). Organising the basic requirements for the ICT cost-performance calculation took far longer than scheduled. The complexity of the consensus-building process and its fine-tuning was enormous because the ICT-sector was one of the first to undergo a corresponding cultural change towards cost transparency and comparability.

The technical instruments for cost-performance calculation have to a large extent been drawn up and are ready for use. The unfinished work should be completed by May/June 2005. The modifications and supplements necessary for the credit-effective cost-performance calculations now also have to be carried out within the scope of the new accounting model higher level project. For cost accounting today, SAP is used most extensively, for cost-performance calculation it is used to some extent only. The economic efficiency of deploying SAP for cost performance calculation is still a topic of discussion, above all in relation to smaller departments.

There are further problems, mainly in the area of service level agreements. In many cases, initial invoices were sent to customers without arranging service level agreements. In several cases service level agreements exist but without specified prices or prices which are only based on cost estimates. Only in 2006 at the earliest will it be possible to anticipate having an integrated budget cost-based invoicing system. A significant reason for the service level agreement problems is also the question of principle on whether or to what extent service and product structures can or must be standardised and what sort of contribution this sort of standardisation can make in terms of comparability and uniformity of the implemented systems. It is hoped that customers (service procurers) above all will increasingly bring their interests to bear in this discussion. This is scarcely happening at the moment, probably because the cost-performance calculations will be carried out up until 2007 primarily “proforma”, i.e. not credit-effective.

By mid-2005 all “proforma” invoices should have reached customers for the first time. However, these initial invoices will not be of the expected quality for the reasons mentioned above. The

time left for initial credit-effective budgeting for 2007, which must occur in the first half of 2006, is thus very limited. But on a positive note, within the scope of these processes, a greater awareness of costs in the ICT-sector is to be detected and with further cost-performance calculations this is expected to increase still further.

4 Operational Issues

4.1 Reporting and Analysis Centre for Information Assurance (MELANI)

MELANI is headed by the Federal Strategy Unit for IT (FSUIT) and is jointly operated by the Federal Office of Police (fedpol) and the Computer Emergency Response Team of the Swiss Education and Research Network (SWITCH-CERT) and became operational in October 2004. Moreover, it has become present on the Internet as of December 1st of the same year (cf. www.melani.admin.ch).

MELANI serves two constituencies: (i) the *closed* constituency comprises selected operators of Switzerland's national critical infrastructures (i.e. telecommunication companies, energy suppliers, banks, etc.) whereas (ii) the *open* constituency addresses small and medium-size enterprises (SMEs) as well as private users of home computers (i.e. citizens). The services offered for the closed and open constituency differ significantly and are tailored to their respective needs. For (i) the focus is on analyses pertaining to early recognition of attacks as well as coordination of measures in the event of incidents. For (ii) MELANI offers a web site (see above) with

- Information on threats and risks when using modern information and computer technology (such as computers, Internet, mobile phones).
- "News" making available information on *current* threats as well as suggestions and tips for protecting the data.
- Checklists and instructions with practical help and step-by-step explanations on, e.g., configuring a given operating system, doing e-banking safely, and so forth.
- Reporting forms offering the opportunity to report incidents that have personally affected an SME or a citizen. When possible, appropriate support in solving the problem is given.

4.2 IT disaster prevention at the federal level

During a project conducted in 2003, various weaknesses in the IT disaster prevention had been identified and the set-up of corresponding countermeasures was subsequently initiated. The most important countermeasure consisted in devising a concept for multiple sites.

During a revision in 2005, various improvements have been made: The new concept was to make significant improvements by using synergies of the IT infrastructure already distributed on multiple sites. In addition a new site is currently being planned.

Further improvements were made by reducing weaknesses in specific departments, e.g. by implementing faster application recovery processes with the introduction of storage area network (SAN) technologies and improved backup procedures.

However, there are still shortcomings and gaps in various areas such as the discrepancy between the application-specific requirements and the existing availability of systems and infrastructures as well as shortcomings of the backup sites for office automation, and the communications in the case of an emergency.

5 Other issues of interest

5.1 HERMES method – the Swiss solution for managing ICT projects

HERMES is the mandatory project management method for all IT projects in the Federal Administration, and is used also various cantons and municipalities, as well as in formerly state-owned enterprises, such as Swiss Post, Swisscom and Swiss Federal Railways. Also universities and engineering schools are among the proponents of HERMES, using it for classroom instruction of ICT students. The method has undergone several updates since its introduction in 1975 (see last year's country report).

Some of the strengths of HERMES are:

- Multilingualism: it is available in Switzerland's national languages German, French and Italian. Some of the documents are also available in English.
- Availability: all documents and utility programmes can be downloaded free of charge from the public internet website www.hermes.admin.ch in PDF and Excel formats. Furthermore, paper versions can be ordered for a minimal fee. Approximately 20,000 manuals and pocket guides have been distributed since the launch of the revised version in the spring of 2004.
- Tailoring tools: the method can be adapted to a number of special project situations.
- Ability to evolve: A new handbook covering the project type "systems adaptation" has been published this year. This new product is intended for project managers who want to acquire a packaged software solution and to customise it to meet -specific requirements. Along with the "systems development" project type, HERMES thus covers user's needs in the two most common scenarios in the IT world.

Use of HERMES 2003 has met with great success in public administrations, companies and training institutions in Switzerland. It is also starting to attract attention from other public institutions:

- At the start of 2005 as part of the QUAPITAL Project, Luxembourg was assessing various project management tools in the ICT-sector. It chose HERMES and its introduction is planned for the end of 2006.
- The Universal Postal Union (UPU) also decided to use HERMES for all of its ICT projects due to the flexibility of its "tailoring" functionalities.

5.2 The Balanced Scorecard for ICT in the Swiss Federal Administration

As reported in last year's Country Report, the Federal IT Council has adopted the Balanced Scorecard (BSC) model to monitor strategy implementation and help on decision making. The «Balanced Scorecard for Swiss Federal ICT» (ICT-BSC) is now being implemented. It is planned to introduce an instrumentation next year (i.e. a software solution to facilitate data collection and exploitation). The implementation effort for the ICT-BSC consists of the following activities:

- «Measurement Reporting» covering the (in our case: quarterly) task of collecting specific indicators and editing them to a resulting form that is suitable for the purpose of presenting them to the IT Council;
- «Initiative Monitoring» including on-going information gathering on strategic initiatives, as laid out in the action

plan for each objective of the ICT-BSC. Mostly based on project reporting cycles, the process aims to establish a periodic appraisal (or an «early warning system») as to the degree of progress in implementing the overall strategy

- «Objective and Target Reviews»
comprising the yearly check whether or not the targets have been achieved and, ultimately, objectives have been reached; special circumstances may require re-definition, substitution or postponing of objectives at the end of every calendar year

Of these steps, the first iteration of «Measurement Reporting» has been delivered by the end of June 2005. In-depth implementation guidelines describing «Measurement Reporting» had been previously developed and approved by the Federal IT Council to be used in all departments. Strict emphasis was put on the actual «fact items» required for the measurement task, in order to assure consistent information and data delivery. Special consideration was given to the fact that this was a «first-of-a-kind» undertaking. Improvements on some aspects of data structures, collecting procedure and aggregation formula are already being worked out, as all players are still in the “learning phase” of the implementation of a BSC.

The other two steps, as well as the next reporting cycles, are scheduled for the third and fourth quarter of this year.

6 Three topics of importance to the IT strategy

The following top priorities have been identified, and have to a large extent guided the development of the ICT-BSC:

- Cost of IT: transparency and efficiency
- Partnership between (internal) IT service providers and agencies (users of IT)
- Benefit of IT for the users