



Civil Protection Concept

Report of the Federal Council to the Federal Assembly
concerning the new Civil Protection concept

17. October 2001

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Summary

The Civil protection system

The end of the Cold War brought significant changes to Switzerland's security policy. The Federal Council in its Security Policy Report for the year 2000 asked that the relevant instruments be adapted to meet current and potential hazards.

Reasons for a reform

At present there is no danger of an armed conflict in Europe that could threaten Switzerland. The advance-warning period is several years. Dealing with disasters and emergencies is now the greatest challenge for the civil protection system. Owing to the increased interdependence and density of modern society, they may generate much greater damage than in the past.

Evolution of hazards

The civil protection reform project is not a complete innovation. In some respects it simply develops and continues many of the reforms of the 1990s, above all in its focus on disasters and emergencies, and on closer cooperation among partner organisations.

Continuation of existing reforms

The mission of the civil protection system is to protect the population and its vital resources in case of a disaster or emergency, as well as in the event of an armed conflict. It provides management, protection, rescue and relief for dealing with such adverse events. It attempts to cope with them, and contributes to damage limitation.

Mission of the civil protection system

The civil protection system is in charge of coordinating these tasks. It must also ensure that the five partner organisations: the police, the fire, health care and technical services, as well as the protection & support service (P&S) cooperate effectively. Other institutions, private organisations and companies, alternative civilian service units, and the army may also be enrolled where necessary.

An integrated system

With the exception of areas of competence that come under Federal jurisdiction, the cantons are responsible for the civil protection system, particularly in the event of disasters and emergencies. The Federal authorities define its fundamental aspects and ensure coordination. They set up regulations on what to do in case of increased radioactivity, incidents involving dams, epidemics and zoonosis, and in case of armed conflict. In agreement with the cantons, the Federal authorities may coordinate and manage events involving several cantons, the whole country, or the bordering countries. The Confederation also defines the rights and duties of the P&S personnel, their training, equipment, alert and IT systems, protective structures and financing.

Task sharing between the Confederation and the cantons

Partner organisations

Particular domains of the partner organisations	Each of the five civil protection partner organisations is in charge of its particular domain. They support each other in the execution of these tasks.
Police	The police is responsible for maintaining public security and order. It is a primary intervention resource, regulated at cantonal level. The relevant tasks are carried out by cantonal and municipal police services.
Fire service	The fire services are in charge of rescue and general damage protection, including fire-fighting and coping with other natural hazards. They too are a primary intervention resource, and their interventions may last between several hours or days. Fire services are under cantonal jurisdiction.
Public health care service	The health care services, including first aid and medical rescue units, provide medical services to the population and to the intervention resources. These may include prevention and psychological assistance. First aid and rescue services are a primary intervention resource. The health care system in Switzerland is regulated at cantonal level.
Technical services	The technical services ensure that the electricity, water and gas supply, waste disposal, transport and IT function normally, or are made operational by emergency measures. They fulfil their tasks independently.
Protection & Support service (P&S)	<p>The protection & support service (P&S) provide the protective infrastructure (e.g. shelters) and the resources to alert the population (e.g. siren system), care for persons in need of protection or shelter, and are responsible for the protection of cultural property. Where necessary they support the partner organisations over longer periods of time (days to months). They are in charge of repair to avert consequential damage and provide services to reinforce management support and logistics. They may also be called upon to carry out various tasks for the benefit of the community. P&S service is part of the compulsory national service system. The cantons regulate P&S issues within the general legislative framework set up by the Confederation.</p> <p>The cantons organize the cooperation between the partner organisations of the civil protection system.</p>

Structure, command and management

Modular structure	The resources of the partner organisations have a modular structure, with everyday incidents forming its basis. According to the type and severity of an incident, resources are coordinated and reinforced. The primary intervention resources (police, fire service, first aid service) deal with everyday incidents on-site according to established procedures. In the case of disasters and emergencies the partner organisations provide additional resources.
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The operational command of the partner deployed (generally the fire service or the police) is in charge of everyday incidents. For large-scale incidents, a special staff unit with ad-hoc specialists from the partner organisations and from the administration assumes command. If several partner organisations are deployed over a longer period, this staff unit in which the partners are represented is put in charge of command, coordination and management, directed by a chief of staff who reports directly to the relevant authority.

Management

With rising hazard level (for example increased radioactivity or the threat of armed conflict), the Confederation, cantons and municipalities, each at their own level of competence, must increase the readiness of alert systems for the population, of the managing bodies, partner organisations and protective structures, in timely and adequate manner. If there appears to be a rising threat of armed conflict, the government (Federal Council) and Parliament may decide to 'build-up' civil protection resources, within the assumed advanced warning period of several years. This would primarily require measures relative to personnel (for example raising the age to which persons do compulsory service), training and material resources.

Increase of readiness and 'build up' principle

Back-up

According to the subsidiarity principle, the authorities in charge may request military back-up. In principle, civil authorities may request military aid only if and when joint cantonal and regional civil protection resources are exhausted, or non-existent (except for spontaneous assistance). The army may provide subsidiary protection services (security, for example), military disaster relief and general back-up services, such as road or airborne transport, or engineering tasks.

Subsidiary back-up by army resources

Personnel

Provisions for current compulsory service are upheld: this comprises national military, alternative civilian, and P&S duty, as well as the cantonal regulated fire services. Recruitment of P&S personnel takes place concurrently with army recruitment. Recruits do not have free choice. The army takes precedence.

Service duty

P&S personnel to be deployed in the event of a disaster or emergency is estimated at approximately 105'000 persons for all of Switzerland. In addition, there are about 15'000 persons who were released from P&S duty in order to serve in one of the other partner organisations, so that the overall number of P&S personnel would amount to about 120'000 people. P&S duty lasts from age 20 to 40.

Personnel of P&S service

Cantons regulate early dismissal from P&S duty. Members of Federal and cantonal executive bodies, of the Federal Parliament and the Federal Court, and full-time members of cantonal tribunals and municipal executive bodies are not subject to this duty.

Fire service personnel Fire service personnel for all of Switzerland are estimated at approximately 110'000 persons. According to cantonal directives, a part of these may be persons released from P&S duty.

'Build-up' principle Additional personnel required in the case of an armed conflict will be recruited only after the decision to 'build-up' has been taken. The first thing the Confederation can do in this respect is to extend the age to which one is liable to do P&S service. The fire services would cover their additional personnel requirements by reintegrating or integrating ex-members and volunteers. No particular measures to build up personnel in the other partner organisations have been planned.

Training

Principles Civil protection training focuses primarily on dealing with disasters and emergencies, and is a cantonal responsibility. All staff unit members are given basic and ongoing training to prepare them for their functions. Their qualifications are tested in exercises.

Training within partner organisations Each partner organisation organises its own specialised training. Specialists from other partner organisations or other institutions should be consulted on specific subjects where this is possible and useful. All persons liable to do P&S service receive general and function-specific basic training. They may be called upon to attend ongoing training and/or refresher courses.

Support by the Confederation The Confederation promotes cooperative training between the partner organisations and the army, and may contract out basic and ongoing training from the cantons. Periodically, it organises ongoing training courses for cantonal staff unit personnel. To ensure uniform training of the P&S service, the Confederation, after consultation with the cantons, establishes a joint training framework. The Confederation is in charge of training of P&S unit commanders and their deputies, other leading staff, and certain specialists in management support and cultural property protection. It operates a training infrastructure and invites the instructors of the other partner organisations to take part in these courses.

Equipment, alert and IT systems

Procuring equipment Equipment is acquired above all with a view to coping with everyday incidents and deployment in the event of disasters and emergencies. Cantons are entrusted with this task. In the event of large-scale disasters and emergencies that come under Federal competence, and in the case of armed conflict, the Confederation establishes the standards for requisite equipment and funds it. In addition it regulates the civilian alert systems and the IT systems of the P&S service, and funds them.

Protective structures, installations, shelters

Existing protective structures, installations and shelters should be maintained. To ensure equitable treatment, all inhabitants should be guaranteed a place in a shelter near their home in the case of armed conflict. Moreover, protective structures should be appropriate for use as emergency shelters in case of a disaster or emergency.

Shelters for everyone

The upkeep of protective structures is useful for several reasons. First, the time needed to construct them is distinctly longer than the assumed advance-warning period for armed conflict. Second, the worldwide presence and potential deployment of ballistic long-range missiles with or without weapons of mass destruction makes the upkeep of these structures indispensable.

Upkeep of protective structures

The obligation for homeowners to construct a private shelter, or to pay a compensation contribution is maintained. These contributions are used for the construction and upkeep of public shelters. The cantons regulate the implementation of this obligation and set the contributions according to Federal provisions. In order to save on operations and maintenance, the readiness of protective structures may be reduced to a level adequate to the present situation.

Obligation to construct shelters

Financing

Only the financing of the P&S service will change significantly under the new civil protection system. Federal contributions, graded according to the wealth of the canton, have been abolished. Costs will now be covered in full at the competent administrative level (Confederation, canton, municipality). Overall, this should cut relevant public expenditure by approximately 15% in the following years (as against 1998). This type of financing gives the cantons and municipalities greater leeway. Further possible cost cuts will depend on them.

New type of financing

Legislation and implementation

The reform requires a total revision of the previous Federal P&S legislation. Legal provisions for the partner organisations: police, the fire services, health care services and technical services, are defined by the cantons.

Total revision of P&S legislation

Competence for implementing the new civil protection legislation by the partner organisations lies with the cantons. The Confederation sets up provisions within the civil protection framework wherever its competence requires it do so. The readiness and aptitude of the partner organisations must be ensured without interruption during the implementation period of the new civil protection concept.

Implementation of the new civil protection legislation

1 Civil protection - Why the need for a reform ?

1.1 Changes in the security policy context

Since the end of the Cold War, the political and strategic evolution in Europe has profoundly modified the range of potential hazards. Ordinary international conflicts with power-political causes have become much less of a threat; internal conflict, organised crime and terrorism are now the greater hazard. Social, economic and ecological developments play an increasingly important role for the security of states and of their populations. The same can be said of natural and manmade disasters, with their enormous destructive power. Who can deny that these factors call for a fundamental redefinition of security policy and of its instruments?

Modified range of potential hazards

The Federal Council's 2000 Security Policy Report of June 7, 1999, called for a comprehensive analysis of Swiss security policy. It was to determine the tasks, the importance, and the reciprocal links between individual security policy instruments, enabling them to address present and potential hazards.

Comprehensive analysis

"Security through cooperation" is the theme that runs through the entire report; cooperation within Switzerland and with other countries and international organisations. Security policy will be better equipped to meet the challenges it faces if all resources available within the country are used in a coordinated, flexible and efficient way, and if Switzerland seizes the opportunity of international cooperation.

"Security through cooperation"

In line with the changed situation, security policy no longer focuses primarily on the defence and protection of the population in a case of armed conflict. It is now more attentive to hazards that do not have a power-political background, but may seriously threaten the security of the country and of its population. Such hazards may have regional, national or international impact.

Enlarged focus of Security policy

1.2 Determined system adjustment

Civil protection is a response to this reorientation of security policy, although it is by no means new. Many of its principal tenets go back to the reforms implemented in the 1990s. It was then that coping with disasters and emergencies began to be viewed as equally important by the P&S structure as the previous focus on armed conflict. Cooperation was embodied as a principle, and an attempt was made to establish a clear division of tasks between the partner organisations. In the subsequent period many cantons, regions and municipalities drove these reforms forward. These proved effective in different disaster rescue and relief operations of recent years. Thus, the civil protection process does not require a new doctrine. It must simply and systematically develop its previous efforts while keeping the new framework conditions in mind.

System adjustment based on existing structures and experiences

Civil Protection as a compound system

These considerations led to the repositioning of civil protection as a civil system of five partner organisations: the police, the fire, health care, and technical services, and the P&S service, under a joint umbrella. Except for areas in which the Federal authorities are competent, civil protection is under cantonal jurisdiction.

Figure 1:

Coordination under a joint umbrella



Use of synergies through coordination

One of the main aims of civil protection is to ensure that preparation and implementation by the partner organisations is optimally coordinated. Increased cooperation between partner organisations allows for more coordinated use of resources, full use of synergies, and the concentration of specialised knowledge.

Restricted public finances

Restricted public finances imply that the partner organisations' resources will focus more on current hazards. Only resources required to cope with disasters and emergencies, or that cannot be built-up on time, will be maintained.

Acting with an entire view

Support by the population, by political decision-makers and the partner organisations is decisive for the success of civil protection. Its reform is based on the willingness to rethink past structures, do away with pre-conceived notions and fears, and to act within one system.

Civil Protection reforms in Europe

Over the past years, many European countries have reformed their civil protection systems, or are doing so. All now focus on natural and man-made disasters and emergencies, and on international cooperation. Most of them also organise civil protection as an associative system. The major partners are the police, and the fire and first aid services, although volunteer organisations play a central role in certain countries.

2 Range of hazards

2.1 The security policy situation

The Security Policy Report for 2000 lists a very volatile and complex range of hazards and insists upon the diminishing importance of geographical distances. Switzerland too is challenged by the world's interdependence and density.

Complex range of hazards

The report highlights the following hazards:

- Natural and manmade disasters
- Migration
- Manipulation or breakdown of the IT and communication infrastructure
- Curtailment of free economic exchange and economic pressure
- Technical developments that are relevant to security policy considerations
- Terrorism, violent political extremism, espionage, crime and organised crime
- Proliferation of weapons of mass destruction and long-range weapons systems
- International conflicts

Many of these hazards could take on a previously unknown dimension, since demographic and economic developments, and the growing interdependence and density of modern societies makes them highly vulnerable.

High vulnerability of a modern society

Currently Switzerland is not threatened by an armed conflict in Europe, and the advance-warning period for this type of hazard is now several years. One could still imagine that a regional conflict might spread and affect Switzerland, although this is rather unlikely. The proliferation of weapons of all types, however, represents a serious threat to the entire international security configuration, and affects Switzerland.

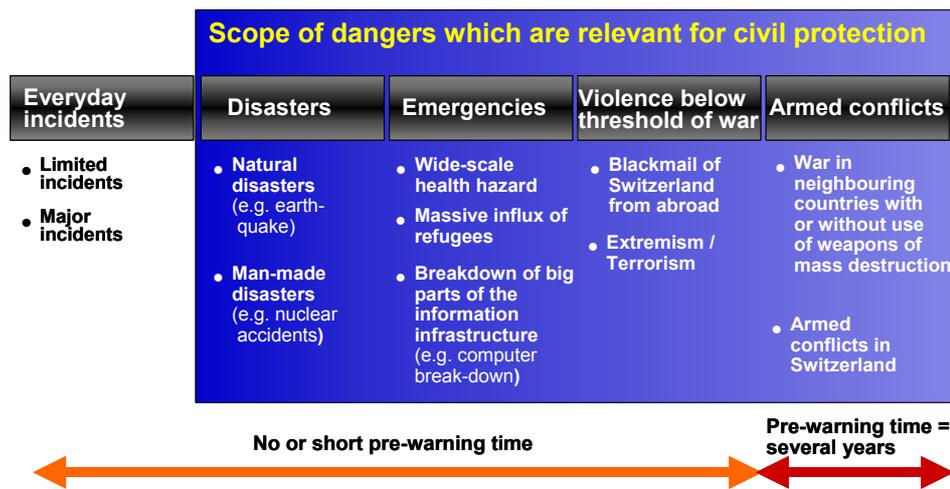
Increased advance-warning periods for armed conflict

2.2 Assumed hazards

Assumed hazards as basis for risk-oriented planning

Protecting the population and its vital resources requires precautionary measures, above all for events that appear unlikely, but may cause enormous damage. Such measures, meaning comprehensive risk-oriented planning and preparation, are a major hazard management instrument. Assumed hazards that may threaten Switzerland have therefore been defined, and their potential impact estimated.

Figure 2:
Overview of assumed hazards



Everyday incidents are not part of civil protection planning

When coping with everyday incidents, cooperation between the partner organisations, i.e. the police, and the fire, health and technical services, is well regulated and more or less routine. Civil protection planning does not have to deal with them.

Disasters and emergencies challenge civil protection

Disasters and emergencies are a different matter. Due to the concentration of people and property, above all in densely populated areas, and increasing dependence on various types of infrastructure, they could cause much greater damage than previously. In certain cases their probability is high; they may occur with a short advance-warning period or none at all, and may affect several cantons. At present they are the greatest challenge for civil protection.

Violence below threshold of war is not a primary focus

Although violence that falls below the threshold of war (blackmail, violent extremism, terrorism) exerts powerful psychological pressure, its destructive power is relatively limited. It is a challenge primarily for the authorities and the police, although in the case of terrorist attacks involving weapons of mass destruction, the available protection and support infrastructure would have to be used. Currently this type of violence is not a primary focus for civil protection as a whole.

Armed conflict affecting Switzerland is currently not a primary concern

Owing to the assumed advance-warning period of several years, an armed conflict close to Switzerland is not a primary concern either. Military operations affecting the entire country are unlikely. The advance-warning period may be used to adapt the resources of the civil protection partner organisations in timely and adequate fashion.

Changes in the range and probability of hazards must be recognised early enough to warn the authorities, increase the partner organisations' readiness, and alert the population to the situation.

Early recognition of changes

3 Mission of civil protection

3.1 Security policy mission

Switzerland's national interests determine the civil protection security policy mission. Article 2 of the Federal Constitution clearly states that the Swiss Confederation protects the freedom and the rights of the people, and the independence and security of the country. This includes fostering the common good, and the internal cohesion and cultural variety of the country, promoting equal opportunities for the citizens wherever possible, and ensuring the sustainable conservation of vital resources.

Switzerland's national interests

Switzerland's security policy objectives are derived from this constitutional mission, and defined in the 'Security Policy Report 2000'. They state in essence that Switzerland decides freely about its own affairs, that it protects its population and its vital resources against serious hazards, that it contributes to stability and peace beyond its borders, and to the establishment of an international democratic community based on shared values.

Security policy objectives

The mission of civil protection is to protect the population and its vital resources in the event of disasters, emergencies and armed conflict. Civil protection provides management, protection, rescue and relief, and contributes to limiting damage and coping with it.

Civil protection mission . . .

To fulfil its mission, civil protection assumes the following tasks:

. . . and tasks

- It ensures that the public is informed of hazards, protective possibilities and measures
- It warns and alerts the population, and issues instructions on how it should act
- It provides management
- It coordinates the preparations and deployment of the partner organisation

It ensures readiness appropriate to the time and situation, and 'build-up' when required.

3.2 Orientation and focus

Based on the findings of the assumed hazards study, civil protection will be guided by the following considerations:

Primarily focused on disasters and emergencies

- Disasters and emergencies will be the hazards that define current planning.

- Readiness to cope with an armed conflict can be reduced. Nonetheless, timely and adequate readiness and build up of the partner organisations, particularly of the P&S structure, must be ensured in line with how the situation may develop in the future.

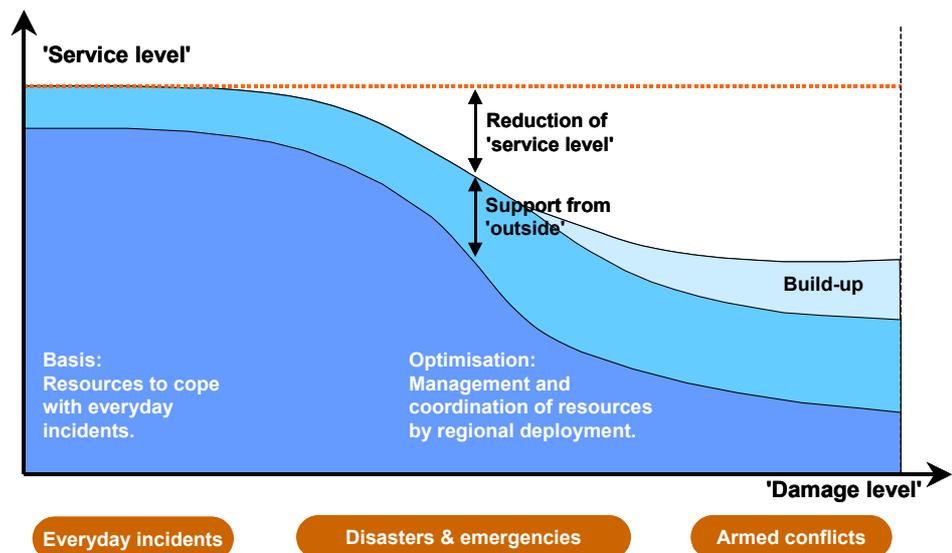
Planning and deployment in regional cooperation

In general, disasters and emergencies, as well as violence that falls below the threshold of war, do not threaten Switzerland as a whole. This allows for planning and deployment of civil protection resources in regional or cantonal cooperation, and for a quantitative reduction of personnel and equipment.

Dimensions of the civil protection system

The dimensions of civil protection, i.e. the targeted degree of protection for the population, can only be determined by political decisions at cantonal and Federal level. Assumed hazards analyses provide a basis for these decisions. Other relevant factors are how effective civil protection really is, its costs and accepted residual risk. It must be remembered that the "service level" falls as the hazard becomes more severe.

Figure 3:
Civil Protection's "service level"



High standard in coping with everyday incidents

Resources to cope with everyday incidents are the basis of civil protection. Their service level and efficiency are constantly being optimised, and their overall standard in Switzerland is high.

Reduced "service level" to cope with disasters, emergencies or armed conflict

However, in comparison to everyday incidents, a reduced service level must be assumed for disasters, emergencies or armed conflict, so that decision-makers and partner organisations have to establish priorities. Action is more effective if coordinated by a staff unit. It coordinates the activities of all involved, and resources are integrated at regional or cantonal level. Persons on alternative civilian duty and private companies may also be called upon, and army support may be requested. In the case of armed conflict the service level is increased by boosting readiness in timely and adequate fashion, and by the 'build-up' process.

4 Structure of civil protection

4.1 An integrated system

Civil protection is an integrated management, protection, rescue and relief system. The partner organisations are in charge of their specific tasks, and provide mutual support. Joint management ensures coordinated planning and preparation, and operational command in case of deployment.

Integrated system

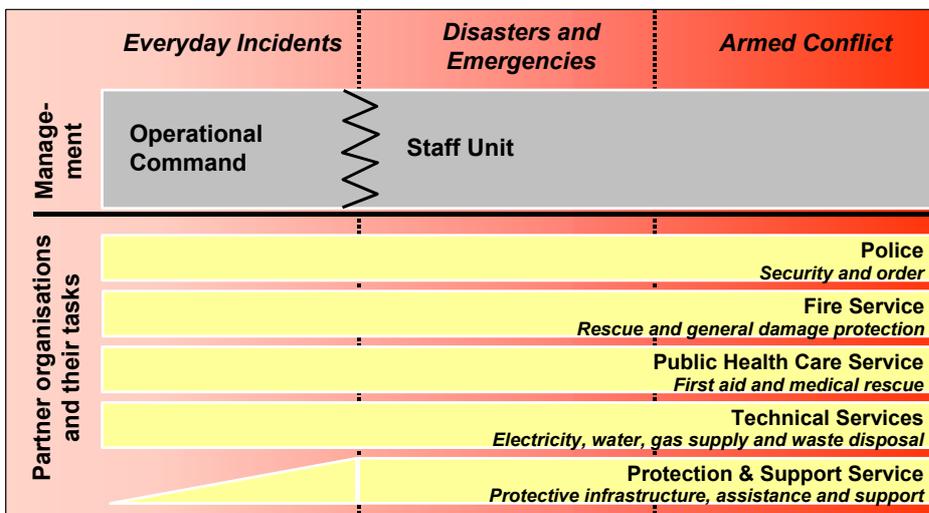


Figure 4:

Partner organisations and tasks

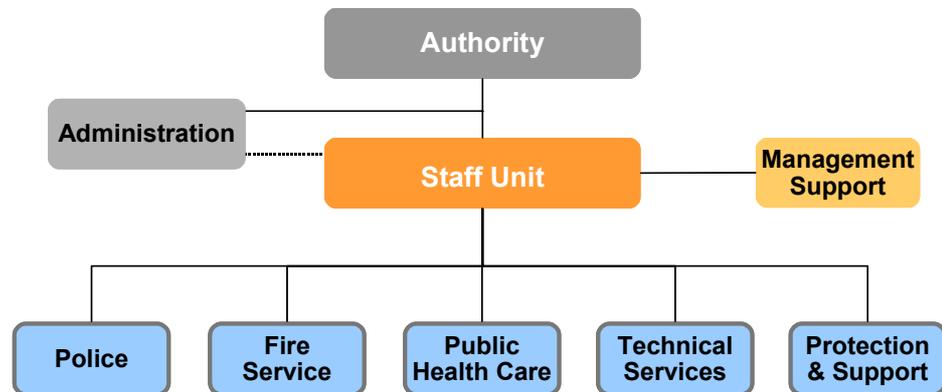
When necessary, service contracts may be issued to other institutions (e.g. social services), private organisations (e.g. Samaritans, Red Cross), private companies (e.g. forestry, construction and transport companies), alternative civilian service personnel, or the army.

Additional resources

Partner organisations cooperate at municipal or regional level. The cantons and municipalities determine the form of organisation according to their needs, and with a view to the specific hazards that threaten them most. Federal and cantonal planning assumes that the intervention organisations cover an area with a population of 6'000 to 10'000. These provisions are not binding, but meant to serve as a model. Figure 5 illustrates the structure of an intervention organisation.

How partner organisations cooperate

Figure 5:
Organisational structure at
municipal/regional level



4.2 Command and management

Overall responsibility lies with
the authorities

Overall responsibility for the security of the population and consequently for the integrated civil protection system lies with the competent executive authority at cantonal and municipal level (or integrated municipalities). It designates a properly authorised staff unit.

Staff unit tasks

Within its area of competence this staff unit is in charge of:

- Assessing risks and hazards
- Initiating planning and preparation
- Coordinated deployment of the partner organisations

Three command levels

There are three command and management levels:

- Operations for everyday incidents are managed by the operational command of the deployed partner organisations (usually the fire brigade or the police).
- For large-scale events, coordination has to be specially organised, which requires setting up a special staff unit. It is made up of specialists from the partner organisations and the administration with expertise on the event in question.
- If several partner organisations are deployed over a longer period of time, a staff unit, in which the partner organisations are represented, assumes coordination, management and command. Cantons should clearly define competencies between operational command on site and the staff units.

Partner organisation are
represented in the staff units

The staff units consists of members of the authorities, the chief of staff and a deputy chief of staff, representatives of the administration and of the partner organisations. They are appointed and trained for their task. In certain cases, the person in charge of operational command also sits in the staff unit. Specialists may be called upon when necessary.

Management support involves such areas as Information, Situation, IT, NBC-protection and Logistics coordination. The primary intervention services ensure this independently as long as possible. When necessary they are backed by personnel from the administration and the partner organisations, especially from P&S.

Management support by P&S and local administration

Public and media information is very important, and is the responsibility of the relevant authorities. They must see to it that competent and highly trained specialists, if possible from the administration, are made available and that they cooperate closely with the staff unit or with the corresponding operational commanders.

Information

The staff infrastructure must allow for efficient management procedures. The facilities and IT resources, which should be available immediately or with some preparation, are decisive factors. A protected management/command centre must be available, especially in the case of armed conflict.

Staff infrastructure must be available immediately

The partner organisations provide their own specialised logistics, and may be assisted by private companies. When several partner organisations are deployed or operations continue over a longer period of time, P&S may provide logistics services to the other partners. When several logistics elements are involved, they must be coordinated.

Logistics are provided by partner organisations and backed by P&S

When the population is threatened, the National Alert Centre and/or other responsible parties must see to it that the authorities and local alert centres are warned early enough to be able to inform the population. The Confederation designs emergency plans and issues regulations to ensure the uniformity of alert procedures, which are implemented by the cantons and municipalities.

Alert procedures

4.3 Modular structure, increasing readiness, build-up

The resources used by the partner organisations have a modular structure, which is based on everyday events. The resources deployed are reinforced according to the type and severity of the event. The coordination that already exists between the partner organisations, in particular the primary intervention resources police, fire and first aid services, is sufficient to cope with everyday events. They conduct on-site operations according to routine procedures. In the case of a disaster or emergency several or all partner organisations within a municipality or region are deployed to provide additional intervention resources. They may also call upon private organisations and companies, and the army, for reinforcements.

Modular structure to cope with hazards

With a rising threat (increased radioactivity, for example, or a growing power conflict), the Confederation, the cantons and municipalities, each at their level of competence, boost readiness of the alert systems, of staff units, of the partner organisations and shelters, in timely and adequate fashion. They are prepared to deploy their reserves.

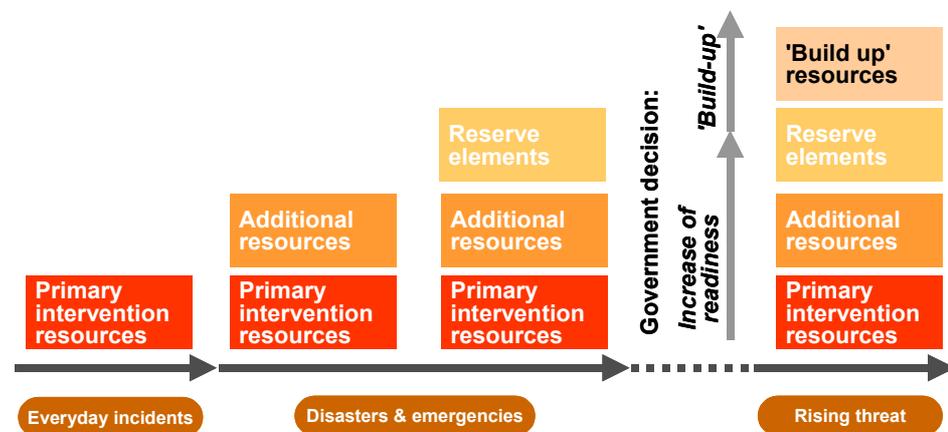
Increasing of readiness

'Build-up' principle

If the situation appears to be evolving towards an armed conflict, the government and Parliament may increase readiness by deciding to build up civil protection resources within the presently assumed advance-warning period of several years. This primarily requires measures relative to personnel (by increasing the age limit of persons subject to compulsory service), training and equipment. These must be planned as of now. Measures for which the assumed advance warning period is too short (especially the construction and maintenance of shelters and protective installations) have to be decided on an ongoing basis. The figure below features an overview of the modular structure, increase of readiness and the build-up of civil protection resources.

Figure 6:

Modular structure of resources



4.4 Task sharing between the cantons and the Confederation

Cantonal responsibility

Except for the areas under Federal competence, civil protection is in cantonal hands. The cantons are in charge of implementing operations for disaster and emergency relief; they regulate the organisation, training, readiness and deployment of all partner organisations except for technical services. They provide timely and adequate management and ensure the readiness of the protective infrastructure. They enforce the Confederation's P&S provisions, and regulate intercantonal cooperation.

Federal responsibility

Federal legislation embodies the fundamental aspects of civil protection. The Confederation is in charge of overall civil protection coordination.

The Confederation issues instructions in the event of:

- Increased radioactivity, incidents involving dams, epidemics and zoonosis, and
- Armed conflict.

In agreement with the cantons, the Confederation may assume the coordination and management of events that affect several cantons, the whole country or the bordering regions (earthquake, for example).

Other Federal tasks include strategic intelligence, early recognition of hazards and advanced warning thereof.

Relative to P&S, the Confederation regulates the rights and duties of personnel, training, equipment, alert and IT systems, protective structures, and financing.

Federal and cantonal authorities cooperate on joint tasks. These notably include the ongoing conceptual development of civil protection, information and international cooperation. The Confederation and the cantons together ensure research on civil protection matters.

Joint tasks

5 Partner organisations and their tasks

The following chapter outlines the partner organisations and the tasks they are entrusted with in civil protection, except for those arising from everyday events. Personnel, training and financing issues will be discussed in the following chapters.

All partner organisations are currently undergoing a reform. For the police this reform is linked among other things to a project to review Switzerland's internal security system "USIS". The fire services launched their reform with the "Feuerwehr 2000 plus" concept. The health services must adapt to current conditions, and the technical services are reacting to privatisation. Only the reform of P&S service will be discussed below, in which the Confederation – in close cooperation with the cantons – will have a significant say.

Reforms of CP partner organisations

5.1 Police (public order and security)

Within the civil protection system, the police is in charge of maintaining public order and security, one of the state's main tasks. The professional cantonal and municipal police forces are the resources that assume this task.

Maintaining public order and security

Issues relative to personnel, organisation, equipment, training and financing of the police are settled at cantonal level.

Cantonal responsibility

The police is a primary intervention resource. Its cooperation with the fire and first aid services is a routine matter. P&S service may be called upon to cope with temporary overloads and for long-term operations; they perform tasks that do not require them to bear arms, such as traffic control.

Cooperation with the other CP partner organisations

5.2 Fire services (rescue and general damage protection)

The fire services are in charge of rescue and general damage protection, including fire fighting and coping with basic damages. They fulfil other tasks, such as fuel, chemical and radiation protection. The cantons transfer certain tasks to special fire service units, which are specially trained and equipped to deal with them.

Rescue and general damage protection

Cantonal responsibility Issues relative to recruitment and personnel, organisation, equipment, training and financing are settled at cantonal level. The fire services see to it that they are adequately equipped to cope with their tasks. Cantonal property insurance and/or the cantons and municipalities cover the costs of requisite measures according to their competence.

Cooperation with the other CP partner organisations The fire services are a primary intervention resource, with modular units. They can be deployed within minutes, for operations that may last hours or days. Neighbouring fire brigades and special units ensure support and replacement. Cooperation with the police and the first aid services is routine. Private companies (construction or sewer cleaning companies, for example) are called upon to perform special tasks. Resources of other partner organisations may be used for back-up.

5.3 Health care services (health and first aid)

Medical care The professional health care services provide the population and the intervention services with medical care, including precautionary measures and psychological support.

Cantonal responsibility Issues relative to personnel, organisation, equipment, training and financing of the health services, including rescue and first aid, are settled at cantonal level. The cantons must establish the necessary structures and provide the resources. They decide what additional resources (personnel, medication, equipment, protected facilities for patients, and others) – also those of the P&S units – are to be put on stand-by for the event of a disaster or emergency.

Cooperation with the other CP partner organisations The first aid services are primary intervention resources. Cooperation with the police and with the fire services is routine. Specially trained P&S units may be called up when necessary.

Federal support To cope with disasters and emergencies with a high number of patients (epidemics, earthquakes, radioactive contamination) and in the case of armed conflict, the Confederation sets up a first aid coordination and management team (staff unit) and additional resources. It prescribes precautionary measures for the event of armed conflict, above all the maintenance of a protected first aid infrastructure, and a certain level of material readiness.

5.4 Technical services (ensuring the technical infrastructure)

Ensuring the operation of technical infrastructure Regardless of whether they are public or private, technical services are legally bound to ensure their installations are operational. They must see to it that the electrical, water, and gas supply, waste disposal, transport and IT systems function adequately or are gradually restored according to the statutory emergency measures.

Fulfilling Tasks independently The professional technical services fulfil their tasks independently. They undertake the requisite measures on the grounds of legal bases or the regulations established by the competent specialised authorities, provide

the personnel, equipment and materials, and cover the costs in the area they are responsible for.

To cope with overload they turn primarily to private companies, and may call up resources from the other partner organisations if necessary.

Cooperation with the other CP partner organisations

5.5 Protection and support service (P&S)

The P&S service must fulfil the following tasks:

Spectrum of tasks

- Providing the protective infrastructure (shelters, etc) and the resources needed to alert the population
- Caring for persons in need of protection and those made homeless
- Protecting the country's cultural property
- Backing up the other partner organisations, particularly in the event of disasters and emergencies
- Reinforcing management support and logistics
- Repair
- Other operations for the benefit of the community

Operational command or the staff unit may call for protective measures depending on the situation and the time available. In the case of disasters, emergencies and armed conflict, the authorities may order the population to go to the shelters and stay there as long as necessary. Such an order is followed by corresponding instructions to the population.

Protective measures according to circumstances

P&S service is also in charge of sheltering and caring for persons in need of protection and those made homeless. Public and private buildings and premises, shelters and protected premises and/or parts of the army infrastructure are available to this end.

Caring for persons in need of help

The Confederation establishes the legislative framework for the protection of national and regional cultural property. In the case of armed conflict, it orders protective measures pursuant to the Hague Convention. The cantons implement the necessary measures according to Federal provisions in cooperation with cultural institutions and the private sector.

Protection of cultural property according to the Hague convention

Where necessary, P&S units back the other partner organisations, and may be deployed for long term operations (days up to months), alone or jointly with other partner organisations.

Backing other CP partner organisations

P&S personnel may be called upon to reinforce management support. When necessary, P&S units provide logistics services for the other partner organisations, and are in charge of logistics coordination for management support.

Backing management support and logistics

To avert consequential damage, particularly for natural events such as floods, storms or avalanches, repair must be executed promptly, includ-

Repair

ing protective and clearing measures. These works may take days or weeks up to months.

Work for the benefit of the community

The authorities may decide to deploy P&S units for the benefit of the community (big events, for example).

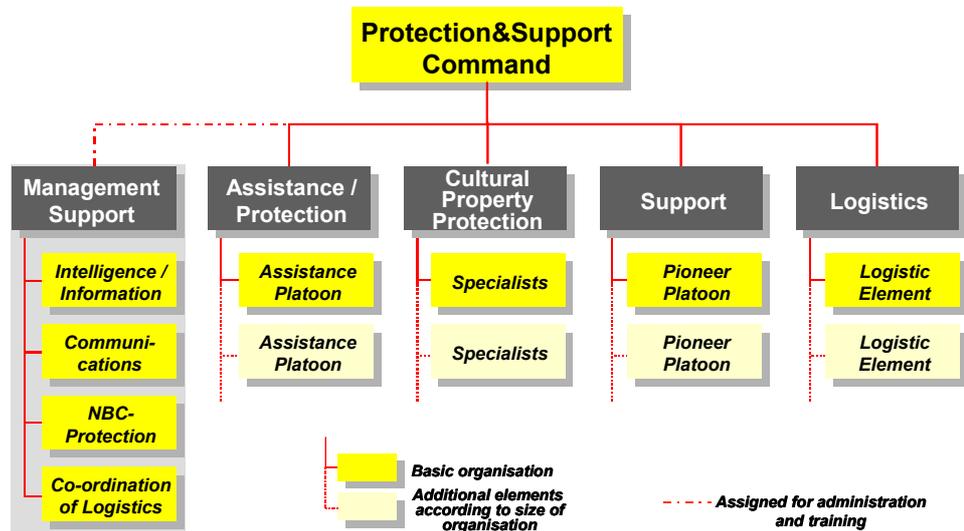
P&S is jointly regulated by Federal and cantonal provisions

The Confederation establishes the legal framework for P&S service and sets up provisions relative to its areas of competence, particularly as concerns recruitment and personnel. Cantons are in charge of implementing the Federal provisions and of P&S organisation.

Organisation of P&S

The organisation of P&S is defined by hazards analyses, the topographical conditions and structures of a canton, municipality or region. Consequently it may vary from case to case. The following organisational model serves as a basis, especially as concerns training:

Figure 7:
Organisational model



6 Coordination and cooperation

6.1 Research and development (applied research)

Purpose

Targeted research and development (R&D) fosters better civil protection. The primary concern here is to make scientific findings available and elucidate complex issues and interactions.

R&D focus

In principle, the R&D focus is on all areas relevant for civil protection, notably on:

- Specifying, periodic overhaul and updating of assumed hazards and potential risks
- Extended and in-depth assessment of findings on society's risk-related reactions to disasters
- Improved methods of planning measures

- Laying the foundations for improved coping with tasks
- Evaluating past events in view of readiness and coping
- Exchanging information and cooperating in international research projects.

R&D should be coordinated between the cantonal representatives of the partner organisations and carried out in interdisciplinary fashion. Research is a long-term undertaking and requires planning over several years to ensure continuity and sustainability.

Structure and organisation

R&D is managed and funded by the Confederation, which sets up a special research organisation to this end, with cantonal representation. Research contracts may be signed with academic institutions or private companies.

Federal responsibility

6.2 Institutions that deal primarily with prevention

The civil protection umbrella system focuses first and foremost on preparations, deployment in case of an event, and repair. Institutions dedicated above all to prevention are not part of this system. These are, for example, the Federal Forest, Snow and Landscape Research Centre (Eidgenössische Forschungsanstalt Wald, Schnee und Landschaft WSL), the Institute for Snow and Avalanche Research, various institutions of the Federal Department of the Environment, Transport, Energy and Communications, the Federal Office for Public Health and the Federal Veterinary Office.

'Preventive' institutions are not part of the civil protection

These institutions should cooperate closely, particularly at national and cantonal level. With reference to alerting or instructing the population, this close linkup is to be achieved by the promulgation of only one Ordinance, e.g. on alerting, which should cover all incidents of national, cantonal and regional scope.

Coordination at national and cantonal level

6.3 Coordinated areas

Planning and preparation are the main concern in these coordinated areas, so as to ensure the optimal execution of civil and military tasks by the cantons and the Confederation.

Planning and preparation of joint task fulfilling

Certain coordinating bodies have now been made redundant. On the one hand because their tasks are sufficiently covered by the relevant administrative units, on the other hand because both the army and civil protection require less intervention resources than previously.

Certain coordinating bodies are no longer necessary

The following coordinated services are being abolished: Training, Fundamental studies, Information, Protecting buildings against weapons impact, Pastoral care, Supply, Veterinary services.

Abolished coordinated services

From now on the competent administrative units on Federal and cantonal level will ensure the coordination of these areas.

Areas with continued or restructured coordination

The following areas will continue to be coordinated or will be restructured: NBC protection, Situation assessment (new), Avalanche protection, Requisitioning, First aid services, IT (communications), Traffic and transport, Meteorological services.

6.4 Strategic Supplies

Ensuring adequate supply in emergencies

In times when supply to the country is normal, the main task is to ensure adequate emergency supplies, vital services, and to plan possible emergency measures. When supply is disrupted, the Federal Office for Strategic Supplies has recourse to various measures, the use of obligatory stocks, for example, promoting imports, or cutting down on consumption as a last resort. To implement these measures it cooperates with civil protection and the army.

6.5 Subsidiary support from the army

Consistent application of the subsidiarity principle

The army helps prevent and cope with existential hazards. In principle, the civil authorities request military assistance only if civil protection resources at regional or cantonal level are exhausted or unavailable (this principle does not apply to spontaneous assistance). Consequently, the principle of subsidiarity should be applied consistently when asking for military resources, or deciding to deploy them.

Overall responsibility of civil authorities

Overall responsibility lies with the civil authorities, whereas the military command is in charge of military operations. The principles of deployment are established jointly by the civil and military leadership.

Areas of subsidiary military support

The civil authorities expect subsidiary military support in three areas. The relevant qualitative and quantitative possibilities are defined by the army's mission statement.

Subsidiary security operations

Subsidiary security operations (armed) consist of guarding and policing tasks, primarily as concerns:

- The national boundaries
- Protecting public figures
- Policing international conferences and events
- Protecting important objects
- Deployment in the case of a severe threat to internal security.

Disaster relief from the army

The army supports the civil authorities in coping with natural and man-made disasters in Switzerland by:

- Permanently putting military rescue and relief resources for non-military use at the disposal of its civil partners (preventive support).
- Making available other disaster rescue and relief resources in decentralised stores "on request" (administrative spontaneous assistance).

- Providing spontaneous rescue and relief after an incident by troops in the vicinity; these operations are limited in both time and space.
- Providing military rescue and relief on request from the civil authorities by deploying special military rescue and relief units (deployed progressively).

When necessary, the army provides general back-up interventions, such as road and air transport, and engineering works. The army itself decides which resources it should deploy. It no longer supports the civil authorities and private organisations in care operations, and no longer has special units for this purpose. The exception here might be a massive influx of asylum seekers. It provides subsidiary support with its resources in other areas such as health care, N and C protection, and IT.

General back up interventions
by military resources

6.6 International cooperation

Switzerland is subject to a similar range of hazards as its neighbours. Civil protection must make use of international cooperation relative to research and the evaluation of incidents and operations. It should also contribute to international solidarity and the ongoing consolidation of security in Europe. Cultural property protection offers an outstanding opportunity for international cooperation, as explicitly stated in the second protocol to the Hague Convention, signed by Switzerland in 1999.

Use of international
cooperation

On the basis of the existing bilateral agreements, cantons and municipalities with their civil protection resources may provide rescue and relief to the border regions of the neighbouring countries. Members of the partner organisations may voluntarily take part in international rescue and relief operations under the auspices of the Swiss Disaster Relief Unit. Civil protection personnel also participate in activities relative to Partnership for Peace, to cultural property protection, and international disaster prevention.

Concrete possibilities

7 Personnel

7.1 Principles

The implementation of the new civil protection project will start in 2004. It will be based on the current system of compulsory service pursuant to the Federal Constitution, and existing service duties will be upheld. National service must be done either in the army (military service), in the P&S service, or - in exceptional cases - in the alternative civilian service system. Fire service duty and other compulsory services are regulated by the cantons. Persons who have done their military or alternative civilian service will no longer be held to serve in P&S. The pending redefinition of a comprehensive compulsory service system will have to be tackled as soon as cooperation within the civil protection system becomes effective.

Compulsory service system

Health care service	A legal framework at cantonal level or agreements based on labour law should be set up to ensure health care services in the event of disasters, emergencies or armed conflict.
Professional personnel	The deployment of professional personnel from all partner organisations is based on labour law provisions.
Women in Civil Protection	In principle, women and men have equal opportunities in civil protection. Women are eligible for all functions. Most cantons have introduced compulsory fire service duty for women also. P&S service for women is voluntary.

7.2 Protection and support service (P&S)

120'000 persons under P&S duty	Planned P&S personnel for the event of disasters and emergencies amounts to about 105'000, plus 15'000 persons dismissed early from P&S to do service in a partner organisation. This brings the total number to around 120 000.
6'000 persons are yearly recruited	Approximately 6'000 persons are recruited for compulsory P&S service each year.
Service obligation	The service obligation lasts for Swiss male citizens from the age of 20 till 40.
Joint recruitment for military and P&S service	Military and P&S services are recruited jointly. The procedure involves information of those concerned, an orientation day, and recruitment itself. Recruits do not have a free choice. The army takes precedence, although recruits' aptitudes and wishes should be accounted for if possible. There are three basic functions in P&S: staff assistant, carer and pioneer. Requirement profiles are being redefined to ensure optimal placing. The army is in charge of recruitment, and a coordinating body ensures cooperation between the Confederation and the cantons.
Voluntary P&S service	P&S duty may be done on a voluntary basis, by women, foreigners with permanent residence status in Switzerland (aged at least 20) and former military, P&S or alternative civilian service personnel. Volunteers have the same rights and duties as persons subject to the service obligation.
Management of personnel	Persons subject to P&S duty are at the disposal of their canton of residence; cantons are in charge of personnel management and control. They too may assign personnel to the reserves.
Early dismissal from P&S duty	Early dismissal from P&S duty is decided by the cantons. Its purpose is to avoid shortages among the professional personnel of the partner organisations and among part-time staff unit members and fire service personnel. Specific P&S needs must of course be accounted for.
Automatically freed from P&S duty	Members of the executive branch of the Federal and cantonal governments, of the Federal Parliament and of the Federal Court, as well as

full-time members of cantonal courts and municipal executive bodies are automatically freed of P&S duty.

Additional P&S personnel required in the event of an armed conflict is recruited only after the decision to 'build-up' has been taken. The Confederation and the cantons decide jointly on the numbers; the maximum may be put at around 200'000. The first measure taken by the Confederation to ensure additional personnel would be to raise the age limit for P&S service.

Personnel 'build-up'

7.3 Fire services

Recruitment for the fire services takes place at cantonal level, and the fire services do not benefit from the pool of recruits for the army and P&S service. In general recruits for the fire services must be at least 25 years old.

Cantonal recruitment

For all of Switzerland, the planned number of fire service personnel is approximately 110'000 persons, of which a part may be covered by persons dismissed prematurely from P&S duty by order of the canton.

110'000 persons under cantonal fire service duty

In case of armed conflict additional personnel requirements are covered primarily by the reinsertion of ex-firemen and by volunteers.

Personnel 'build-up'

8 Training

8.1 Principles

Civil protection training focuses primarily on coping with disasters and emergencies. It should concentrate on practical interventions and make use of the synergies between partner organisations and the army.

Focused on coping with disasters and emergencies

To avoid overlapping, training should be dispensed by the organisation or institution that has the greatest specialised knowledge in the area, the largest practical experience in the field, and the most adequate training infrastructure.

Mutual training offers from CP partner organisations

In principle, cantons are in charge of training for Civil Protection matters.

Cantonal responsibility

8.2 Training of staff unit personnel

Adequate basic and ongoing training is required to ensure that staff unit personnel are able to carry out their demanding tasks promptly, regardless of whether these involve planning, preparation or deployment.

Purpose

During basic training they should be prepared to fulfil functions at their respective level. They should be acquainted with possible hazards and risks, management tasks and possible interventions by various partner organisations. They should be taught to work at staff level, and introduced to the necessary management infrastructure.

Basic training

Ongoing training Ongoing refresher courses complete and deepen the knowledge acquired in basic training and periodically overhaul readiness. Members may be prepared to cope with possible incidents during exercises.

8.3 Training of partner organisations

General principle Each partner organisation sets up its own specialised training. Specialists from other partner organisations may be called upon when this is useful and feasible. Partner organisations should exchange training and interventions experiences.

Police Police are trained in cantonal and municipal centres and at the Swiss police institute.

Fire service The cantons are in charge of fire services training, coordinated by the Government Conference for Fire Service Coordination (Regierungskonferenz für die Koordination des Feuerwesens RKKF) in agreement with the cantonal fire service authorities.

Health care service Training in the health care system is regulated by the cantons. The bodies in charge define standards for professional and non-professional personnel administering a first aid function. Training of persons who lack professional qualifications is designed to prepare them for varied interventions. Close cooperation with the Swiss Red Cross and the Swiss Samaritans is an objective.

Technical services Training of the technical services is guided by their own professional requirements.

8.4 P&S training

Focused on coping with disasters and emergencies The reorientation of P&S implies that training has to be adapted or even redesigned. It now focuses on coping with disasters and emergencies, and no longer on armed conflict. Special training for the event of armed conflict would be dispensed after the decision to 'build-up'.

Three basic functions In line with the future tasks of P&S service, and to ensure that personnel are as versatile as possible, the new training concept provides for the following three basic functions:

- Staff assistant (for staff unit support);
- Carer (for protection and care);
- Pioneer (for support).

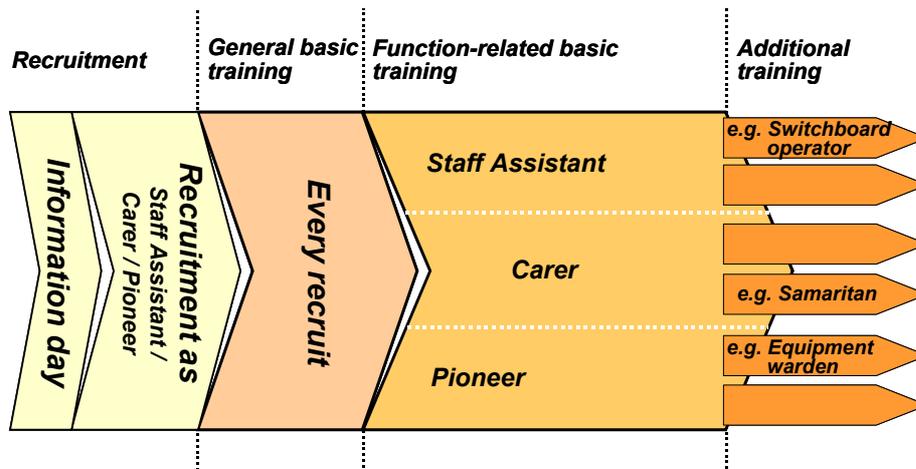


Figure 8: Overview of P&S recruitment and training

After recruitment, which will be guided by the profiles of the three basic functions, the personnel must go through basic training, which consists of two parts:

Basic training

- General basic training provides everyone with the knowledge they require beyond their specific function.
- Function-related basic training focuses on intervention-based specialised knowledge, in line with the three above-mentioned functions.

Individuals will have a much wider range of tasks to deal with than previously, and basic training will be prolonged accordingly.

Additional training prepares selected persons for special tasks such as switchboard operation, installation and equipment maintenance. Additional training may follow immediately upon the general basic training or the function-related training courses, or take place later.

Additional training

All persons who are part of the P&S cadre must absolve the requisite training, as group leader, head of a management support section, or P&S commander. These persons are in charge of managing, training and ensuring that their unit can be deployed at all times. Training focuses on these demands and is designed to increase the corresponding skills.

Cadre training

All persons who are part of the P&S cadre must periodically absolve ongoing training courses to ensure that innovations are implemented rapidly.

Ongoing training

Annual refresher courses for P&S personnel ensure that they are ready at all times. Cadre members must provide additional and demanding management and training tasks. Refresher courses primarily serve to check, complete and consolidate the level of preparedness of both the regular and the cadre units. They provide the opportunity for cadre members to obtain management experience. Refresher courses may be organised jointly with partner organisations.

Refresher courses

8.5 Support from the Confederation

Agreements with the cantons	The Confederation may agree to conduct basic and ongoing training courses jointly with the cantons, who are in charge of organising them. This applies particularly to courses that require professional instruction with specialised know how, a complicated infrastructure, or that could be run at lesser cost by the Confederation.
Staff unit training	To ensure cooperation between the various management levels in case of an incident, the Confederation supports the cantons in their training of staff units and provides them with periodic ongoing training courses.
Special training courses	The Confederation may also organise special basic and ongoing training courses.
Training of P&S	In agreement with the cantons, the Confederation sets up a common training framework and the bases of uniform training. For cost-effectiveness reasons, the Confederation trains P&S commanders and their deputies, cadre and certain specialists in management support and the protection of cultural property. On request by the cantons it may also conduct basic and ongoing training courses.
Training of instructors	The Confederation provides basic and ongoing training for staff unit instructors, and P&S personnel. Rapidly changing circumstances require comprehensive basic and periodic ongoing training, to ensure that the instructors are able to cope with their demanding tasks. To make best possible use of synergies, the Confederation allows instructors from other partner organisations to take part in the courses.
Training infrastructure	The complexity of present-day hazards and risks makes effective training without modern teaching, information and communication technology impossible. It is funded by the Confederation, since the cantons lack the necessary resources to acquire and maintain this infrastructure.

9 Equipment, alert and IT systems

Cantonal responsibility	In principle, the cantons are in charge of acquiring equipment required to cope with everyday incidents and intervention in the case of disasters and emergencies. Synergies between partner organisations should be put to the best possible use.
Federal responsibility	The Confederation is in charge of additional equipment to cope with more severe disasters and emergencies. It both manages and finances equipment required for an armed conflict. This particularly applies to alert systems, IT systems, equipment for the protected premises, and standard N and C protective equipment of the P&S units. Compatibility with equipment provided by the partner organisations must be ensured.
Standards for alert systems	The Confederation defines the standards for the alert systems. Existing sirens (including those for nuclear power plants and water alerts) and their remote controls throughout Switzerland must be maintained at the

cutting edge, in a constant state of readiness, and must be centrally activated. The Confederation pays for the installation and renewal of these systems, while the cantons are in charge of planning and execution. The operators or municipalities are in charge of their operation and maintenance.

Most civil protection equipment is available from partner organisation units and may be supplemented by third parties. The partner organisations are responsible for maintenance. Subsidiary material support may be provided by the army, which has certain types of equipment that civil protection does not possess, or in insufficient quantities.

Most CP equipment is already available

The Confederation may agree with the cantons on the provision of services or the acquisition of equipment, which are actually the responsibility of the latter. An optimal use of the synergies between partner organisations and with the army should be sought for at all times.

Provision of services by the Confederation

10 Protective structures

10.1 Principle

At present, an armed conflict with direct repercussions in Switzerland would most probably be preceded by an advance-warning period of several years. This implies that in the short term there is no real use for existing protective structures. On the other hand, there are still a great number of ballistic missiles, with or without weapons of mass destruction, to be found worldwide. Although the deployment of such weapons against Switzerland seems highly unlikely at present, it cannot be completely ruled out in the future. Moreover, in the case of an armed conflict, a massive and extended deployment of bombs and fire is more than likely. In the long term, and since no alternative safety measures are planned, protective structures should therefore not be made obsolete. The time it would require to build new ones if an armed conflict seemed imminent, would definitely overstep the advance-warning period we assume today. Protective structures have a lifespan of several decades and are inexpensive to maintain. Their upkeep is therefore reasonable.

Upkeeping of protective structures is reasonable

Existing protective structures operated by P&S units are to be maintained in principle. To respect the principle of equality, every inhabitant should be guaranteed a shelter in the vicinity of her/his place of residence in the case of armed conflict. These should also be available in the case of disasters and emergencies, for example increased radioactivity, an earthquake or an acute risk of an avalanche.

Shelter space for every inhabitant

Protective structures were designed primarily to protect the population, and to ensure the readiness of civil protection resources during an armed conflict, especially one involving weapons of mass destruction. They provide a basic form of protection against a wide range of direct and indirect arms impact. The standards and scope of protection required previously have not been modified. However, in view of the evolution of hazards and their advance warning times, readiness could be

Standards and scope of protective structures should not be modified

reduced to an adequate level in differentiated manner to save on costs of operation and maintenance.

10.2 Shelters

Shelter construction to fill local gaps	Although a large number of shelters are available throughout Switzerland, there may be local shortages. To ensure equality and fill gaps caused by population growth, new shelters will have to be built.
Obligation to construct shelters is not changed	The obligation to construct shelters will be maintained. When building a house, homeowners must build, equip and maintain a shelter. In areas in which there is an insufficient number of shelters, municipalities are obliged to build and equip public shelters.
Cantons regulate shelter construction	Cantons regulate shelter construction according to Federal provisions. They see to it that the obligation to build is obeyed and determine the height of compensation contributions according to Federal legislation. House owners who do not build a shelter, or who live in an area in which the demand is already well covered, must pay compensation to cover the costs of shelter construction and maintenance.
Shelter equipment	New shelters have to be equipped from scratch; existing ones are stocked up during the 'build-up' period.
Shelters for cultural property	The cantons may obligate owners of cultural property to take or comply with the measures needed for their protection.

10.3 Protected premises

Types of premises	Protected premises include command posts, facilities for rescue units, and protected first aid posts and hospitals.
To ensure management capacities and readiness of CP resources	Protected premises serve to ensure the management capacities and the readiness of civil protection resources. Command posts serve management and management support functions. Facilities for rescue units are available to the personnel and a part of the equipment of the partner organisation units.
Requirements for protected first aid premises	The Confederation defines framework requirements for protected first aid premises. The cantons are obliged to guarantee facilities and treatment in protected hospitals for at least 0.6 percent of the population (combined with an acute care hospital) and in protected first aid posts (not directly linked to an acute care hospital). If the cantons and the organisations in charge of first aid facilities conclude that requirements are greater, Federal contributions to building and equipment costs may be extended to cover at most 0.8 percent of the population.
New use of certain protected premises	Former small first aid facilities will from now on also be used as shelters for persons in need of care. If regionalisation and the cutbacks in P&S structures render certain premises obsolete, they should be assigned a different use, for example as shelters for people or cultural property.

Only a limited number of protected premises ready for immediate use will be maintained for training purposes and for the event of a disaster or emergency. The others are to retain their function, with a reduced level of readiness. Regulations on readiness are issued by the Confederation.

Varied level of readiness

10.4 Areas of responsibility and financing

The Confederation edicts provisions to ensure that the entire protective structure system is operative. The cantons implement these.

General responsibilities

Houseowners have to pay the costs of building, equipping and maintaining private shelters, whereas municipalities must cover analogous costs for their shelters. Cantons are in charge of financing periodic shelter controls and inspections.

Shelters

The Confederation regulates the construction, equipment, maintenance, renovation and conversion of protected premises. The cantons determine the demand for protected premises according to Federal regulations. Municipalities follow Federal or cantonal provisions to build, renew and convert command posts, facilities for rescue units and protected first aid facilities. Hospital organisations are in charge of building, equipping, maintaining, renovating and converting protected hospitals, in accordance with Federal regulations.

Protected premises

Dam owners must build and maintain the structures required by the water alert system.

Protective structures at dams

		Concept and provisions	Planning	Realisation	Financing				
					Construction	Maintenance	Renovation	Control	
Shelters	Private shelters	Confederation	Canton	House owner	House owner	House owner	Municipality (Canton)	Municipality	
	Public shelters			Municipality (by cantonal order)	Municipality (Canton)	Municipality	Municipality (Canton)		
	First aid posts (used as patient shelters)		Confederation and canton	Owner	Owner and Confederation ¹⁾	Owner	Owner and Confederation ¹⁾		Municipality (Canton)
	Cultural property shelters			Canton (by federal commission)	Confederation ¹⁾	Confederation ¹⁾ , canton and municipality	Confederation ¹⁾		
Protected Premises	Command posts	Confederation	Confederation and canton	Canton (by federal commission)	Confederation ¹⁾	Confederation ¹⁾ , canton and municipality	Confederation ¹⁾	Municipality (Canton)	
	Rescue units' facilities								
	First aid posts								
	Protected hospitals								

Table 1: Responsibility and financing of protective structures

1) The Confederation does not contribute to the costs of buying land, of compensation for confiscated public or private land, or of cantonal and municipal fees. The cantons and municipalities cover regular operational costs. The Confederation makes an annual flat rate contribution to maintain the readiness of protected premises for the event of an armed conflict (extra operational costs)

11 Financing

11.1 Financing civil protection

Different scope of tasks causes different costs

Expenses borne by partner organisations for the execution of their tasks are weighted differently. Costs for the police, the fire services, the health care system and technical services are determined to a large extent by coping with everyday and large-scale incidents. Their expenditure for coping with disasters, emergencies, violence that falls below the threshold of war, and armed conflict is minimal. P&S units, however, are primarily geared to coping with the latter incidents, so that their size and costs are determined by these hazards.

Table 2:

Main aspects determining the size of CP costs

Daily tasks	Hazards / Incidents		
	Daily and large scale incidents	Disasters and emergencies	Violence below threshold of war and armed conflicts
Health care, energy supply, traffic safety, etc.	Fires, traffic accidents, natural disasters, chemical accidents, crime, power supply cuts, etc.	Epidemics, zoonosis, earthquakes, increased levels of radioactivity, etc.	Blackmail against Switzerland, armed conflict, etc.
Determine the size, and consequently the tasks of the police, the fire services, the health care services and the technical services		Determine the size and consequently the costs of the P&S structure	

Unchanged financing of police, the fire, health care and technical services

Fundamentally, civil protection will not change the type of financing nor the costs borne by the police, the fire services, health care and technical services.

Considerable changes in the financing of P&S service

The financing of the P&S service, on the other hand, will change considerably, especially as concerns cost distribution between the Confederation, the cantons and the municipalities. The following statements apply only to P&S financing.

Until now, the Confederation contributed a part of P&S costs. In 1998 the Confederation, cantons, municipalities and private parties spent approximately CHF 0.4 billion, with the Confederation contributing 20%, the cantons and municipalities 55%, and private parties 25% (shelters).

11.2 Financing the P&S service

Principles

Costs are fully borne by the party in charge

Until now, Federal contributions to the P&S service depended on the financial potential of the individual canton. The new civil protection system does away with this type of financing. In the future the costs will be borne fully by the organisation in charge. In principle, the cantons are responsible for financing the costs generated by disasters and emergencies, the Confederation will pay for the costs of armed conflict, violence that falls below the threshold of war, excessive levels of radioactivity, dam breaks or other incidents involving dams, epidemics and zoonosis.

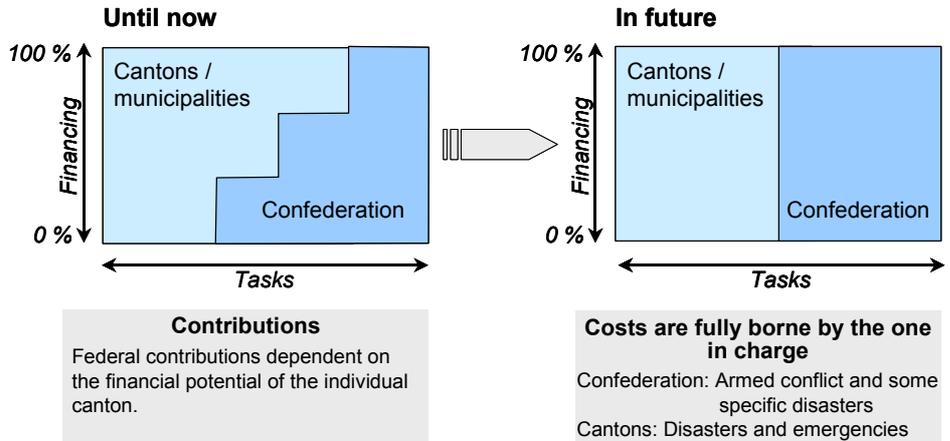


Figure 9:
Reorientation of financing

Cost evolution for the P&S service in the 1990s

Changes in the security policy situation, the extensive number of protective structures, the implementation of the "P&S Concept 95" with its cut-backs, redefined tasks, and the regionalisation of the P&S structure, led to a considerable fall in expenses, i.e. by about 50% for the Confederation, and to a lesser degree for cantons and municipalities.

Considerable reduction of expenses

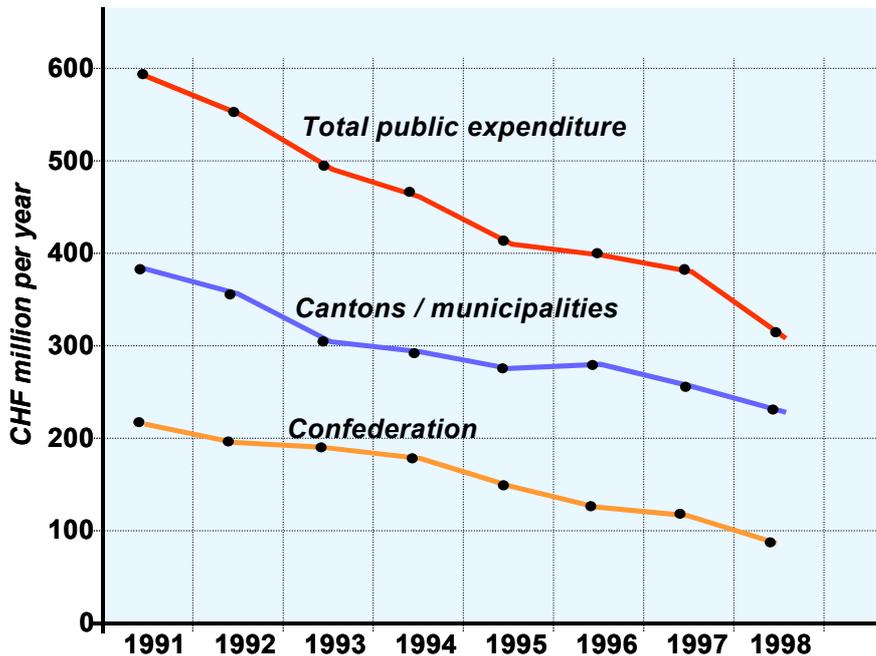


Figure 10:
Budget positions for P&S 1991-1998

Overall P&S prospects

Realigning the P&S structure with the new civil protection legislation (in force as of 2004) frees it of certain burdens while imposing new ones. Material costs will fall by 15% as against 1998. Other expenses (personnel and other) will depend on the degree of implementation by the cantons, and on how cantons and municipalities make use of synergies within their canton, between several cantons, and with the Confederation.

Reduction of expenses will differ from canton to canton

Federal cost cuts as against 1998

Besides saving on public shelter construction, which is no longer funded by the Confederation, the greatest Federal cost cuts as against 1998 are on training, since there will practically be no more training for the event of armed conflict. Further cost reduction involves equipment, as the present level is more than satisfactory. In spite of this, maintenance and adjustment to new technical developments must be ensured. The costs of renovation and part of the maintenance costs for shelters, the costs of alert systems for the population, and IT systems for P&S units, will represent a significant financial burden for the Confederation. The Confederation will also save by downsizing its own personnel.

Prospective expenditure for cantons and municipalities

In view of the new civil protection system cantons and municipalities who postponed certain tasks, will now face additional expenditure. They will be able to save on shelter construction, but will have to spend more on local equipment for disasters and emergencies, and on training.

Further costs of the P&S structure

Private expenditure

Private investments in shelters fell by half in the 1990s, and in 1998 amounted only to approximately CHF 100 million. One may assume that fewer shelters will be built in the future, so that private expenditure in this area will fall yet again, also as a result of lower compensation contributions. In certain regions, these contributions may be allocated to the construction, maintenance or renovation of public shelters, if necessary.

Loss of income compensation

In Switzerland loss of income of persons on military or P&S service is compensated under the relevant Federal Ordinance (Erwerbssersatzordnung EO). This provides for a basic compensation of 65% of the average income from gainful employment, up to a ceiling of CHF 140 per day. Other additional allowances are paid to self-employed persons and persons with dependants. Overall compensation is limited to CHF 215 per day of service. Between 1996 and 1998 the EO paid approximately CHF 70 million for approximately 600'000 days of service annually (amounting to an approximate average of CHF 120 per day). In the future, P&S units should generate about 100'000 days of service less per year.

Insurance during service

Persons on military or P&S service are covered by military insurance during this time. In recent years this generated average annual costs of CHF 6 to 8 million (for insured cases, disability and surviving dependants' pensions). These costs are more or less proportional to the number of days of service, and are likely to fall in the future.

12 Legislation and implementation

12.1 Legislation

Federal constitution is the basis

Federal civil protection legislation is based on Article 61 of the Federal Constitution of 18 April 1999.

The scope and importance of changes arising from the new tasks and cost allocation required a total revision of legal provisions at Federal level. They replace the previous P&S legislation (Zivilschutzgesetz) and law on protective structures (Schutzbautengesetz).

Total revision of legal provisions

The Federal Council's Message and the proposal of the new were presented to the Parliament in Spring 2002. Passing the normal procedure the new law was adopted on 4 October 2002 and is planned to enter into force by 2004.

Adoption by Parliament

The cantons will have to assess the degree to which the Federal civil protection law will require them to modify their legislation. They legislate on the partner organisations: the police, and fire, health and technical services.

Cantons will have to adapt their CP legislation

12.2 Implementation

The new integrated Civil Protection system will have to be implemented along lines ensuring the partner organisations' uninterrupted readiness and operativeness.

Continuous implementation

The cantons implement legislation relative to the partner organisations, while the Confederation sets up civil protection provisions in areas, which are under its jurisdiction.

Shared responsibilities between Confederation and cantons

The major implementation bases are:

Bases for implementation

- the new Federal legislative framework on civil protection
- the Civil Protection concept
- the "Fire Services 2000 plus" concept
- detailed regulations under Federal jurisdiction
- the results of various conceptual activities in the areas in which the new Civil Protection system is being implemented.

The cantons are able to start implementing the new legislation after its adoption by the Federal parliament. Implementation planning and other useful preparatory measures may be launched individually. The latter is particularly necessary for recruitment and training. The length of time needed for implementation will depend primarily on the degree of regionalisation and the need for cantonal reforms.

Length of time for implementation

Once the new Civil Protection system has been implemented, it will be updated continuously on the basis of current findings. This continuous development process will require transparency and a regular exchange of information and experience between all Civil Protection partner organisations.

Continuous development

A1 Financing of Protection & Support service (P&S)

A1.1 Introduction

The data on the financing and costs of P&S are based on statistics gathered by the Federal Office for Civil Protection. Public financial statistics and an analysis of six selected cantons with resulting projections provide data on the cantons and municipalities.

Bases of data

Average annual expected expenditure over the coming years was estimated as part of work on the civil protection concept. The estimates for the Confederation within the next five to ten years involve a margin of +/- 10 to 20%. Provisions for the cantons and municipalities are more approximate, and may vary between cantons. The figures quoted below should be seen as a stray range.

Estimated expenditure may vary

A1.2 Task-oriented financing and budget expenditure

Equipment, alert and IT systems

Federal responsibility

Until now the Confederation bought standardised equipment according to a detailed list. In future the Federal acquisitions will be defined by areas of responsibility.

Table 1:
Overview of areas of
responsibility and expenses

Equipment, alert and IT systems	Responsibility				Expenses (CHF million/per year)			
	Now		Future		1998		Future	
	C	Ct/M	C	Ct/M	C	Ct/M	C	Ct/M
Standardised equipment (N and C protection)	X		X		-		2	
Specific equipment per installation, training and transmission equipment	X	FC	X		-	-	5	
IT systems for protection and support	X	FC	X		-	-	8	
Equipment for personnel	X	X		X	-	-		4
Supplies	X	FC		X	-	-		0,5
Transport and traffic equipment	X	X		X	-	-		0,5
Other equipment adapted to the site		X		X		-		3
Maintenance		X		X		-		3
Total					23	7	15	11

Legend:

- C : Confederation
 Ct/M : Canton, municipality
 FC : Federal contribution
 X : Responsibility
 - : Expenditures are not noted in detail, or not generated

Redefined sharing of expenditures

Federal expenses for equipment will be much lower as against 1998, since the P&S structure in Switzerland is already very well equipped. Thus, besides replacing equipment, the Confederation will primarily have to invest in targeted acquisitions to keep up with technical progress. It is difficult to estimate these future expenses, so that they are more approximate than other prognoses. In view of their new responsibilities, it is even more difficult to evaluate the future expenses of cantons and municipalities, which will largely depend on cantonal and municipal requirements, and the type of procurement (central or decentralised). Since equipment is generally very good, and personnel is being significantly reduced, additional burdens borne by the cantons and municipalities should be relatively small.

Alerting the population

From now on the Confederation will be in charge of alerting the population (siren systems).

Federal responsibility

Alert systems	Responsibilities				Expenses (CHF million/per y.)			
	Now		Future		1998		Future	
	C	Ct/M	C	Ct/M	C	Ct/M	C	Ct/M
Sirens and other equipment	X	FC	X		0.5	-	5	
Installing sirens remote control systems	X	FC	X		0.5	-	2	
Maintenance/operation, (without personnel costs)		FC		X		1		1
Total					1	1	7	1

Table 2:

Overview of areas of responsibility and expenses

Legend:

C : Confederation
 Ct/M: Canton, municipality
 FC : Federal contribution
 X : Responsibility
 - : Expenditure is not noted in detail, or not generated

The Confederation will have to bear the expenses of renewing alert systems; here too, technical developments may influence financial prognoses. The cantons and municipalities are freed of a part of their financial burden, since they are now only responsible for maintenance and operation.

Additional expenses for the Confederation

Public shelters

One may assume that in the future less shelters will have to be built, and that expenditure in comparison to 1998 will fall again. Cantons and municipalities may use compensation contributions to cover these costs.

Less shelter construction

Public shelters	1998 (CHF million)				Future (CHF million per y.)			
	C	Ct/M	CC	Total	C	Ct/M	CC	Total
Construction	6	6	4	16	-	1	4	5
Renovation					-		1	1
Maintenance/operation, (without personnel costs)	-	6	-	6	-		5	5
Total	6	12	4	22		1	10	11

Table 3:

Overview of expenses for public shelters

Legend:

C : Confederation
 Ct/M: Canton, municipality
 CC : Compensation contributions
 - : No expenses

Total cost cuts of approximately 50% for shelters are expected. The Confederation no longer contributes, and cantons and municipalities will be able to make use of compensation contributions. This should enable the cantons and municipalities to reduce their burdens almost completely as against 1998.

Considerable reduction of expenses due to use of compensation contributions

Protected premises

Federal responsibility

Until now, the Confederation, the cantons and municipalities financed protected premises jointly. In the future this will become primarily a Federal responsibility.

Table 4:
Overview of expenses for protected premises

Protected premises (incl. for cultural property)	1998 (CHF million)				Future (CHF million/per y.)			
	C	Ct/M	CC	Total	C	Ct/M	CC	Total
Construction	7	7	2	16	2,5	-		2,5
Renovation	2	2	1	5	11,5	-		11,5
Ensuring operative-ness (without personnel)	-	16	4	20	10	4	3	17
Cultural property shelters	1	2	0	3	1			1
Total	10	27	7	44	25	4	3	32

Legend:

- C : Confederation
- Ct/M : Canton, municipality
- CC : Compensation contributions
- : No expenses

Increased expenses for the Confederation and lower costs for cantons and municipalities

Savings on protected premises are expected as a result of regionalisation and of reduced readiness. The Confederation assumes a large part of the costs and will have to expect larger expenses as against 1998. The cantons and the municipalities will cover regular operational and maintenance costs. The Confederation makes an annual flat rate contribution to ensure the readiness of protected premises in the event of armed conflict (special operational costs). This, and the use of compensation contributions, will take a significant burden off cantons and municipalities.

Training

Joint responsibility of Confederation and cantons

The Confederation and the cantons are in charge of training, according to their areas of competence. A distinction has to be made between training in civil protection, and P&S training.

Table 5:
Overview of responsibilities and expenses for training

Civil protection training (Staff units)	Responsibilities				Expenses (CHF million per y.)			
	Now		Future		1998		Future	
	C	Ct/M	C	Ct/M	C	Ct/M	C	Ct/M
Basic training			X	X			0	0,5
Ongoing training / Exercises			X	X			0,5	2
Training of instructors			X	X			0	0
Total							0,5	2,5

Legend:

- C : Confederation
- Ct/M : Canton, municipality
- X : Responsibility
- 0 : Less than CHF 0.5 million per year

Costs of training are calculated without compensation for loss of income.

P&S training	Responsibilities				Expenses (CHF million per y.)			
	Now		Future		1998		Future	
	C	Ct/M	C	Ct/M	C	Ct/M	C	Ct/M
Basic training		FC		X	2		-	11,5
Additional training			X	X	-	-	0	0.5
Cadre training	X	FC	X	X	3		0.5	1
Ongoing training	X	FC		X	4		0,5	2
Refresher courses		FC		X	5		-	14.5
Training of instructors	X		X		0	0	0.5	-
Total					14	~25	1,5	29,5

Table 6:

Overview of responsibilities and expenses for P&S training

Legend:

C : Confederation
Ct/M : Canton, municipality
X : Responsibility
FC : Federal contribution
0 : Less than CHF 0.5 million per year
- : No expenses
blank: No details available

According to the redefinition of areas of competence, the cantons will now have to fund training to a large extent. Personnel will be reduced by about two thirds, but training is to be intensified. The Confederation will support the cantons according to its responsibilities.

Redefinition of training responsibilities generates greater expenses for cantons

Personnel and other material costs

Expenditure on personnel and other material costs includes the costs of P&S personnel (recruitment, call-up, transfers, early dismissal) and of third party services, commissions, research and information. It also includes the costs of the civil protection administrative staff.

Expenditure for personnel and other material costs

Recruitment takes place jointly with the army in regional centres, and is a Federal responsibility. Federal coordination tasks will require additional personnel – approximately 5 persons – as against 1998. Medical examinations at municipal and cantonal level will be abolished. Former enlistment by municipalities will now take place during orientation days conducted by the canton. This will transfer costs from the municipalities to the cantons.

Joint recruitment for P&S service and army

The Confederation and the cantons work jointly on the ongoing conceptual development of civil protection, Research&Development, hazards and intervention assessment, information, and international cooperation. These tasks may increase Federal expenditure somewhat.

Joint tasks

Table 7:
Overview of personnel and other material costs

Legend:

- C : Confederation
- Ct/M: Canton, municipality
- n.c. : not calculated in detail
- blank: No details available

Personnel and other material costs	1998		Future	
	C	Ct/M	C	Ct/M
Estimated staff positions	223	Approx. 1100	160-180	600-1'200
Staff costs (CHF million per year)	24	n.c.	20-22	n.c.
Administrative costs, subcontracted services, research, public information, various contributions	5	n.c.	6-7	n.c.
Total (CHF million per year)	29	~175	26-29	~100-200
Estimated average (CHF million/year)			27	150 (+/- 50!)

Reduced expenses for personnel and other material costs

The Confederation may expect its expenses to diminish by around 10%, However, this reduction is compensated by the inclusion of employers' contributions in personnel expenditure (as of 2001).

Cantons and municipalities may reduce their expenses as a result of regionalisation and personnel reductions in P&S units. Only time will show the extent to which they will make use of these savings possibilities. In comparison to the present situation, they will have more leeway. In consequence, the figures quoted for cantons and municipalities have a considerable stray range and correspond to rough estimates. How cantons implement the measures provided for in the new Civil Protection system will lastly determine the level of savings or higher expenditure by individual cantons.

A1.3 Summary overview

Material costs	1998 (CHF million/y.)				Future (CHF million/y.)			
	C	Ct/M	CC	Total	C	Ct/M	CC	Total
Equipment, alert and IT systems	23	7		30	15	11		26
Alerting the population	1	1		2	7	1		8
Public shelters	6	12	4	22		1	10	11
Protected premises	10	27	7	44	25	4	3	32
Civil protection training					0,5	2,5		3
P&S training	14	25		39	1,5	29,5		31
Total material costs	54	72	11	137	49	49	13	111

Table 8:

Overview of budgeted material costs

Legend:

C : Confederation
 Ct/M: Canton, municipality
 CC : Compensation contributions
 blank: not calculated in detail

Personnel and other material costs	1998 (CHF million/y.)				Future (CHF million/y.)			
	C	Ct/M	CC	Total	C	Ct/M	CC	Total
	29	175		204	27	150 (+/-50)		177 (+/- 50)
Total	83	247	11	341	76	199 (+/- 50)	13	288 (+/- 50)

Table 9:

Overview of budgeted personnel expenditures and other material costs

The new orientation pursuant to the civil protection legislation is likely to decrease Federal, cantonal and municipal financial burdens as against 1998. On the other hand the extent of these savings will largely depend on how cantons and municipalities implement the project, i.e. how they use the leeway they have now gained.

Reduction of expenditure depends on the implementation

A2 Glossary

Advance warning period	The time between the first observable signs of an impending incident and its occurrence.
Armed conflict	An event in which the population, its vital infrastructure and cultural resources are endangered by a deployment of weapons and violence during an armed conflict, which threatens the existence or the identity of Switzerland.
Assumed hazards	Exemplary representation of hazards, i.e. conceivable incidents and developments, according to when they occur and their expected impact on Switzerland, its population and its vital resources.
Build-up	Timely and adequate build-up of readiness, availability and resistance of civil protection partner organisations in view of an armed conflict.
Civil Protection system	A modular civil structure for management, protection and aid. It protects the population, its vital infrastructure and cultural resources when these are threatened by natural or man-made disasters or emergencies, or by armed conflict. Civil Protection is primarily a cantonal responsibility, and includes the following areas: law and order, rescue and general damage protection, medical and first aid services, the technical infrastructure, and protection, care and support.
Compensation	Financial contribution to be paid by parties who do not fulfil their obligation to construct a shelter.
Disaster	Event (natural or man-made incident or accident), which generates damages and breakdowns that are massive enough to overtax the human and material resources of the affected community.
Emergency	A situation generated by a societal development or technical incident that the affected community cannot cope with using ordinary procedures, since it overstretches the human and material resources available to the community.
Everyday incident	An incident that can be dealt with independently by primary local or regional intervention resources.

Exceptional situation	Situation, in which regular procedures are no longer sufficient to cope with requisite tasks in a number of areas and/or sectors; for example in the event of disasters or emergencies that affect the entire country, or in the event of an armed conflict.
Hazard	A potential incident or development with natural, technical or political causes, which threatens the population and its vital resources, or impinges upon Swiss security interests.
Instructions	Official instructions to the population in the event of an impending hazard.
Logistics	Measures to ensure the functioning of staff unit centres, the availability of goods, transport and construction resources, and food.
Logistics coordination	The coordination of logistics measures and elements in the event of deployment of several partner organisations.
Logistics elements	Elements of civil protection that ensure logistic measures when the specialised logistics of the partner organisations no longer suffice.
Major incident	An incident that requires cooperation between several partner organisations and external support, but remains manageable.
Normal situation	Situation in which regular procedures suffice to cope with requisite tasks.

Partner organisations of Civil Protection	<p>According to the Civil Protection Act of 2002 (Bevölkerungsschutzgesetz 2002), the partner organisations for civil protection in Switzerland are:</p> <ol style="list-style-type: none">The police to ensure law and order;The fire service for rescue and general damage protection;The health services, including first aid services, to provide the population with medical care;Technical services to safeguard the technical infrastructure, particularly the power, water and gas supply, waste disposal, transport and telecommunications;P&S service to protect the population, ensure that people in need of assistance are taken care of, protect cultural property, support the authorities and partner organisations, and undertake repairs and other operations for the benefit of the community.
Primary intervention resources	<p>An organisation that can be put on alert around the clock via an emergency telephone number and deployed at all times (police, fire service, first aid and medical rescue service).</p>
Protective structures	<p>Standardised structures (shelters and protected premises) to protect the population and ensure the readiness of civil protection resources in the event of an armed conflict.</p>
Range of hazards	<p>All potential hazards</p>
Region	<p>An area that encompasses several municipalities or a part of a canton.</p>
Repair	<p>Repairing damages in order to restore conditions required for normal life and the operational infrastructure.</p>
Research and development	<p>Applied research needed by the state to cope with its civil protection tasks.</p>
Resistance	<p>The capacity of a partner organisation to deploy its resources – staff unit (direction and management), personnel, material and logistics – over a longer period of time.</p>

Resources	Personnel, material, equipment and vehicles available to a partner organisation.
Security policy	All measures taken by the state to avert or cope with direct or indirect hazards – including natural or man-made disasters and emergencies – or the use of strategic violence against Switzerland, its population and its vital resources.
Specialised logistics	Logistics of the individual partner organisations.
Special situation	Situation, in which certain tasks can no longer be dealt with by means of regular procedures. Unlike in an exceptional situation, only certain sectors of administrative activity are affected. What best characterises this type of situation is the need for a rapid concentration of resources and a streamlining of procedures.
Staff unit	Unit that directs and manages activities in the event of deployment, and supports the authorities in decision making.
Staff unit centre	Protected, permanent, temporary or mobile premises that enable a staff unit to fulfil its tasks under safe and optimal conditions.
Violence below the threshold of war	Violent conflict between individuals, groups or organisations that is not part of traditional armed conflict.
Vital resources	All elements necessary for human life, in particular an adequate supply of foodstuffs, energy and raw materials, a functioning economy, non-disadvantaged access to international markets, and a national and trans-border infrastructure and environment that are as intact as possible.

Summary

Point of departure and objectives

At the beginning of the 1990s, the Federal Office for Civil Protection produced a comparative Swiss overview of disasters and societal emergencies in cooperation with numerous bodies inside and outside of the federal administration [KATANOS 1995]. It showed which disasters and emergencies could befall Switzerland and their significance in terms of disaster and emergency relief. Events due to violence which falls short of outright war (e.g. terrorism) and armed conflicts were not considered in the study. This comparative overview of disasters and emergencies in Switzerland was revised, updated and supplemented in line with the new joint civil protection system.

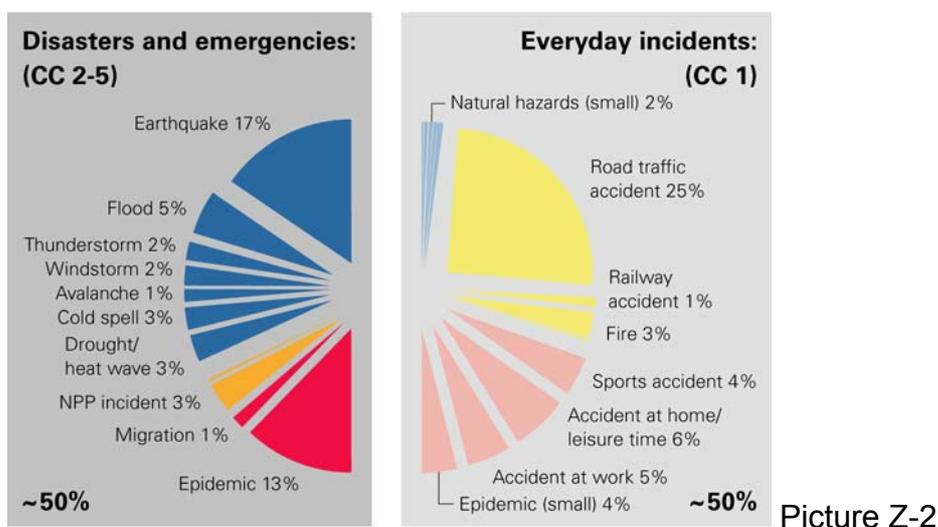
Approach

There was a systematic and comparative investigation of all selected hazards according to a uniform two-stage procedure: **risk analysis** and **risk valuation** (Picture Z-1). Risk analysis, based on damage indicators, describes and quantifies the hazards in relation to their frequency and the expected extent of damage. National agencies provided us with their data and expertise in this area. Risk valuation as investigates both society's readiness to pay to prevent damage (marginal costs), and risk aversion relative to large-scale incidents. Finally, the assessed risks within the range of hazards were **compared**.



Significance of risks from a civil protection perspective

From a civil protection perspective, risks due to **disasters and emergencies** currently account for approximately **50 %** of overall risk. Risks due to violence which falls short of outright war (e.g. terrorism) and armed conflicts are not taken into consideration here. The largest share of disaster-and-emergency related risk goes to strong earthquakes, widespread epidemics and large-scale flooding. The other **50 %** are made up of **everyday incidents**, such as traffic and sports-related accidents, accidents at work, in the home and during leisure time (Picture Z-2).



The significance of each risk varies according to the planning level (local, regional, cantonal, intercantonal and national). KATARISK shows the relevant risks from the perspective of the different planning levels as follows:

At **local level** the risks arise mainly from everyday incidents. Correspondingly, the partner organisations are suitably equipped to deal with them.

At **regional/cantonal level** the risks arise mainly from local or regional disasters and emergencies. All available local and regional resources are pooled to deal with these events, and based on regional risk assessments, supplemented where necessary.

At **intercantonal/national level** the risks arise mainly from supra-regional disasters, such as strong earthquakes, large-scale epidemics, widespread flooding or radiation. To manage these, all regional resources are pooled with supra regional and national resources. These can be in targeted fashion, including international relief services, supplemented and optimised.