



DIMINISHING THE DIGITAL DIVIDE IN SWITZERLAND

ICT-POLICIES, PRACTICES AND LESSONS LEARNT

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The digital divide does not only exist at the global level between North and South. It is also present within the economically advanced countries. Let us take Switzerland as an example. Although formal access is generally not a problem, the differences in effective use of the facilities are considerable. While 48% of men regularly use the internet, only 28% of women do. Only 35% of people with a low level of education use the internet, compared to 70% of the highly educated. The internet knowledge gap between the old and the young generations has also widened. Unfortunately, there are few figures available on the divide between economically strong – mainly urban - and economically weak regions, mainly mountainous rural areas.

"How does Switzerland deal with its internal digital divide? Do you have laws and policies in place to bridge the social and regional disparities? Are there lessons learnt out of Swiss experiences that might also be relevant for developing countries?" Many of our partners have been asking such questions, not only in relation to the internet but also concerning other information and communication technologies (ICTs). We, therefore, warmly welcome the initiative of Gerster Consulting in portraying the regulatory and policy environment for ICTs in Switzerland and in drawing a number of lessons from it. It is a pleasure for the Swiss Development Cooperation to publish this study as an information paper. We need information about the most appropriate conditions for making ICTs a promising instrument for the poor to stimulate their own empowerment, to create new opportunities, to improve their livelihoods, and to increase their security. To take the Millennium Development Goals 2015 seriously, the contribution of ICTs to poverty reduction must become a major issue in the international debate. The World Summit on the Information Society (WSIS) in Geneva 2003, and in Tunis 2005 are best placed to take up this challenge. We hope to contribute to that process by feeding in the Swiss practices. These may serve to shape the regulatory and policy environment in a more targeted way, in order to make our inclusive vision - where all persons, without distinction, are empowered freely to create, receive, share and utilise information and knowledge for their economic, social, cultural and political development - come true.

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Richterswil, October 2003 Richard Gerster and Andrea Haag

Front cover

People at the centre of the world wide web.

Back cover

Connectivity is key – also in Swiss mountain regions.

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CONTENTS

Executive summary		
1	Introduction	8
	 Characteristics of Switzerland Strategy to Transform Switzerland into an Information Society Switzerland as an Information Society: Facts on the Digital Divide 	8 9 10
2	Regulatory Environment to Reduce Regional and Social Disparities	12
	2.1 Political Governance: Democracy and Federalism2.2 Public Services	12 13
3	Regional Policy	23
	 3.1 Current Regional Policy 3.2 Liberalisation – Supportive Regional Policy Measures 3.3 New Concept of the Regional Policy 3.4 Financial Equalisation 	23 24 25 26
4 The Swiss Position in International Bodies		28
	 4.1 Introduction 4.2 World Summit on the Information Society (WSIS) 4.3 World Trade Organisation (WTO) 4.4 Convention of the Alps 	28 28 28 30
5	What Lessons Learnt?	31
Bib	liography	34
Endnotes		
List of Abbreviations		

The main question of this study is how an economically advanced country like Switzerland deals with its own internal, regional and social disparities regarding policies for, and use of, information and communication technologies (ICTs) – its own "digital divide".¹ What lessons are to be learnt from the Swiss experience for economically weaker and poverty stricken developing countries on their way to information societies? Is the way forward a matter of liberalisation, as is often argued in international fora? Is it an interventionist culture that dominates? Do international rhetoric and internal practice coincide? If not, why not and in what way do they differ?

In a small area, *Switzerland is characterised by high diversity* in several respects. It deals with four national languages, decentralised settlement and a multi-faceted physical environment. These characteristics are central to Swiss identity, which Swiss politics aims to preserve. The instruments presently used to fulfil this task are the area-wide delivery of public services, the regional policy, and the financial equalisation tool.

Since 1998, the Swiss Government has pursued a deliberate *ICT strategy* to shape an information society in Switzerland. Guiding principles are (1) Access for all inhabitants, regardless of place and time, at all levels and at affordable prices; (2) Empowerment of all in view of ICTs becoming a basic skill of everyday life; (3) Freedom of development through private initiative, free competition, and the state ensuring compliance with social principles; (4) Acceptance and trust in the new ICTs as a prerequisite for self-regulation and state regulation. The efforts have since resulted in visible progress in sectors like education.

Although there is a high coverage of infrastructure, a *digital divide* does also exist in Switzerland. Effective use of ICTs differs from infrastructure provision. Around half of the population has access to the internet. While 48% of men regularly use the internet, only 28% of women do. 35% of people with a low level of education, compared to 70% of the highly educated, use the internet. The internet knowledge gap between the old and the young generations has widened. Unfortunately, there is little data available concerning this infrastructure and services for individual regions.

Switzerland's policy is based on a strong democratic and federalist system of governance.

Minorities have a strong voice that cannot easily be overruled. As a result, there is a lively communication and exchange base between the government and civil society. Despite being among the rich countries in the world, there is a constant struggle to mobilise adequate resources to cover public concerns, including preventing or bridging the digital divide.

The information and communication regulations and policies are embedded in this overall balancing environment. The provision of *country-wide public service coverage ("universal access")* is the result of many articles in different, specialised laws. An area-wide, reliable, reasonably priced and qualitatively satisfying basic supply of teleservices, radio, TV, print media and electricity is of great importance for the population and the economic backbone of remote areas. The public service includes not only access to infrastructure and to appropriate prices but also, to a certain extent, considers content-oriented criteria.

Radio and television, for example, are important instruments for supplying remote areas with information and preserving linguistic and cultural diversity. The SRG SSR, the Swiss broadcasting corporation, is obliged to provide radio and TV programmes in all official languages and to consider visually and hearing impaired people. Private local radios play a complementary role in providing public services and are compensated to a certain extent. To secure the implementation of these regulations, there are independent supervisory institutions. There are also mechanisms for civil society to feed back complaints, views and requests in relation to the supplied services.

Providing "universal access" via public service coverage all over the country is not sufficient to ensure effective use of ICTs and to reduce regional and social disparities. In Switzerland two other instruments are used. The regional policy supports economic development and promotes innovative processes in deprived regions, while the financial equalisation tool enables the poorer cantons to fulfil their tasks independently. The division of competencies and tasks of implementation often goes beyond the federal level. The cantons and regions have a role to play in the provision of services, in particular in education, energy and health. Communal authorities are to define the need for services in the community and to take the initiative in securing them, often in cooperation with neighbouring communities, or by mobilising private support.

In recent years there has been a good number of *reform processes*, such as the liberalisation process in the public service sector, the reorganisation of the regional policy, and an ambitious restructuring of the financial equalisation tool. Since Switzerland is committed to democratic political processes that aim at balanced solutions for everybody, these adjustments have needed time. As a result of political bargaining, the new laws are accompanied by many supportive measures that favour and protect the interests of remote areas.

Among the *lessons learnt* the following insights stand out and may be useful as a source of reflection and inspiration for shaping policies in other countries:

- Balancing political institutions characterise Switzerland's efforts to promote cohesion, and to respond to regional and social disparities, by giving minorities a strong voice and involving them in the political decision making process;
- Inclusive political processes with representatives of the economy and civil society are in place to facilitate consensus, or at least workable majorities, at the level of parliament and the people, as well as to contribute to effective implementation;
- Financial equalisation between economically weak and strong regions is an important tool to diminish regional divides, also in relation to ICTs, in order to avoid social friction;
- Generous time budgets are needed to give democratic political processes sufficient space instead of pushing through blueprints that are neither adapted to the local situation nor accepted by the population;

- Supportive ICT-policies are based on an explicit government strategy to bridge the digital divide. They are anchored in many laws and play an important role in giving the disadvantaged regions a better chance to meet the competitive challenges;
- A comprehensive public service is assured by government intervention to limit price disparities in the country, by allowing for the delivery of an equal country-wide infrastructure, and for an information system that takes the particularities of the regions and people into account;
- Flexible financing options beyond the market mechanism (monopoly rent, fees from competitors, tax revenue, cross-subsidisation) are practised in Switzerland to provide the public goods required by the population;

Switzerland should more prominently include its national experiences and principles in international debates and negotiations, such as the World Summit for the Information Society (WSIS) and the World Trade Organisation (WTO). It is committed to supporting deprived regions; it promotes the strengthening of the political voice of minorities; and it emphasises the importance of a transparent, and reliable regulatory framework in the international context. Concerning the liberalisation drive in developing countries, Switzerland should keep in mind its own history and diversity, its experience that adjustments need a lot of time and that, in the end, a step-by-step and tailormade liberalisation process may be preferable to blueprint solutions.

1

1.1 Characteristics of Switzerland

Diversity is a fundamental characteristic of Switzerland. There is an abundance of particularities in a small but highly populated area.

Geographically, there are three major landscapes: the Alps (60%), the Midland (30%), and the Jura region (10%). The total surface of the ethnic and linguistic diversity of today. There are four national languages: German (2000: 63.7%), French (20.4%), Italian (6.5%) and Romansch (0.4%)⁴. Although the Italian speaking part (mainly the Canton Tessin) also worries about the status of Italian in Switzerland⁵, the Romansch-speaking minority (which lives in the mountain area) is particularly exposed to strong pressure from the surrounding languages, mainly German. A further contribution to the

Maintaining mountain culture – alphorns in the Bernese Alps

the Swiss mountain area covers 54 mountain regions, which consist of 1200 communities, where a quarter of the total population lives². The population density of the different regions varies enormously and there are big differences between small and medium-sized centres and communities dominated by agriculture. Most of the economic life takes place in the Midland. Therefore, the gross domestic product (GDP) per capita of the cantons differs considerably. In 2002, the lowest GDP per capita (canton Obwalden) was only 40% of the highest one (canton Basel-City)³.

Switzerland is not only divided geographically, but also linguistically. Thanks to Germanic tribes, which entered Switzerland from the north-west after the Roman phase, the country inherited linguistic diversity is made by the foreigners living in Switzerland. 9% of Swiss inhabitants have a language other than one of the four national ones as their mother tongue (e.g. Spanish, Portuguese, Greek). In total there are 40 languages represented in this group, all of them spoken by more than 1000 people.⁶

The national languages and customs, the decentralised settlement and the diversity of the regions are important to Switzerland and will be preserved. It is often said that the desire of forming a nation is what holds Switzerland together and this desire of holding together but preserving local differences ("unity but not uniformity"7) is reflected in political processes. The demands on the policy instruments are consequently high. The instruments presently used are the area-wide delivery of public services, the regional

policy, and the financial equalisation tool⁸.

Switzerland⁹ is a high income country with an average per capita income of USD 37'930 (2002) in nominal terms, or USD 31'250 calculated in purchasing power parity terms. With no raw materials and with, difficult traffic routes, how could, and can, Switzerland successfully compete with other advanced countries? A number of reasons can be found in economic history¹⁰. Political stability, cooperation between business and labour, and highly skilled human resources are key internal factors. However, wealth is unequally distributed: the lowest 10% of the population receive 2.6% of the income, while the highest 10% dispose of 25.2%. Private wealth does not automatically translate into a welfare state - the levels and priorities of govern-

ment spending are subject to permanent political battles. This has to be borne in mind when discussing measures to prevent and diminish the digital divide.

1.2 Strategy to Transform Switzerland into an Information Society

In 1998, the Council of Ministers ("Federal Council") decided on a strategy for an information society in Switzerland¹¹. It defines the principles to be followed and designates the areas with the most urgent requirements for action. The competent government departments are responsible for implementation. What follows is not an overall summary but an excerpt describing the guiding concept and principles of the governmental information and communication technologies (ICT) strategy.

The basic concept: "The Federal Council considers the application of the new ICTs as a great opportunity. ... The interlinking and furthering of international, multi-cultural contacts and the positive development of open and democratic society in cultural independence and diversity will be enhanced. In this context, it must be ensured that the information society takes sufficient account of the specific interests of the countries of the South. The information society has the potential to improve the employment situation, the quality of life, and the integration of handicapped persons, old people and minorities. It can contribute to increasing the attractiveness of Switzerland as a place to live and as an economic location. The Federal Council therefore declares implementation of its strategy for promoting the information society as a priority."

Guiding principles are:

- Access for all: All inhabitants of Switzerland must enjoy equal access to the new ICTs, in order to be able to use them according to their needs. Access is equal if it is guaranteed, regardless of place and time, at all levels and at affordable prices.
- Empowerment of all: A familiarity with the technology and substance of the new ICTs must become a basic skill of everyday life. Constant education and further training at all

levels of education is a keystone of the information society.

- Freedom of development: The information society develops through the initiative of all and through free competition. Private industry performs a key function in this respect; the state, however, must ensure that the information society is organised in compliance with social principles.
- Acceptance: The development of the information society presupposes trust in the new ICTs. The prerequisites for this confidence-building are a responsible relationship with the new technologies by all users, the guarantee of basic and human rights, and enforcement of the law. The regulatory framework must take into consideration the particular features of the new ICTs and this must be agreed internationally. Self-regulation takes precedence over state regulation.

A number of specific targets¹² have been set to monitor the implementation of this basic orientation and principles, among them are:

- Every local community has at least one internet connection that is publicly accessible by 2007;
- (2) User quota of the internet by women, elderly people and those with a low educational background is doubled by 2008;
- (3) Compulsory internet standards for the benefit of all, including handicapped people, are defined;
- (4) All primary and secondary schools have access to the internet by 2008;
- (5) All teachers are trained to use ICTs in education by 2008.

A good number of measures¹³ have been taken to achieve these specific targets as well as to bridge the digital divide in general and to raise awareness in Switzerland¹⁴. This study does not review all of these efforts but concentrates on the regulatory and policy environment, with an emphasis on how to prevent a growing digital divide.

Marc Furrer, Director of the Federal Office of Communications (OFCOM), summarises the progress made in the 2002 implementation report: "To be mentioned are in particular the achievements in the areas of education, e-government and e-democracy. An emphasis has to be put on the targeted measures to enhance the digital inclusion of all segments of society. Switzerland cannot accept that the elderly generation, handicapped people or women and men with low formal education are excluded from these developments."¹⁵

1.3 Switzerland as an Information Society: Facts on the Digital Divide

The information and communication infrastructure and services play a special role in this diverse, decentralised context. An area-wide, reliable, reasonably priced, and qualitatively satisfying basic supply of teleservices, radio, TV and print media are of great importance for the population and the economy of remote areas. It allows communication with centres or other remote areas and can help to off-set the disadvantages of the poor transport system in many regions and also to revitalise the cultural diversity. But access to these and other services (electricity, water etc.) is not sufficient to keep a remote area alive. Therefore, the regional policy and the financial equalisation tool enable deprived regions to improve their economic base and to promote innovative projects.

So what about the current situation of the Swiss information and communication society? In international terms¹⁶, Switzerland ranks No. 6 in the Informatisation Index, No. 7 in the Information Society Index, No. 7 in the World Competitiveness ranking, and No. 11 in the EIU e-readiness comparison. This respectable ranking, however, should be treated with caution. A prominent voice from the International Telecommunication Union (ITU) compares the Republic of Korea and Switzerland and calls the statistics "lies, damned lies". He points to the fact that "alobal rankings appear to be biased in favour of western theoretical perceptions of competitiveness rather than actual achievement"17. Per capita income, as an example, is highly weighted whereas broadband subscribers do not count much. An ITU report on broadband internet access shows Korea as number one, followed by Hong Kong, Canada and Taiwan, with Switzerland ranking 13¹⁸.

In terms of *ICT infrastructure* in Switzerland, in 2002¹⁹ the population coverage of the Public Switched Telephone Network (PSTN) amounted

to almost 100%; that of the Integrated Services Digital Network (ISDN) is more than 95%. The population coverage of the Global System for Mobile Communication (GSM) amounted to 99.5% and the Digital Subscriber Lines (DSL) covered about 95% of the geographic area.

But, although there is a high coverage of networks, internet *use* by the Swiss population does not yet exploit the facilities to their full potential. Two-thirds²⁰ of private households have a personal computer; about half of the population has access to the internet; more than 90% of all households own a television and about 88% a hi-fi system; 70 out of 100 persons are subscribers to mobile telephones. Yet only about 22% of all active telephone connections are ISDN connections and only about 7% of the internet users use a broadband connection (either xDSL or cable).

Well over 90% of Swiss *companies* use computers, e-mail and the internet; over 70% have a homepage; 34% use broadband access²¹. Large enterprises use ICTs, in particular broadband technologies, more frequently than small and medium firms.

In 2001, 82% of elementary *schools* owned computers for their pupils and about two out of three had an internet connection. To support the technological development of Swiss schools, Swisscom started a public-private partnership to connect all schools to the internet by a broadband connection free of charge. All schools will be connected by 2006; at the end of August 2003, 2312 schools already were connected²².

The burning question in the context of these statistics is, however, about the digital divides within the country. Are all regions and people supplied with sufficient information and communication opportunities in respect of both technology and language? Unfortunately, there is little data available concerning this infrastructure and services for individual regions. If we look at the current coverage of the whole of Switzerland concerning information and communication we get the following picture:

 Language²³: Looking at radio programmes, the Swiss Broadcasting Corporation (or SRG SSR idée suisse), as the largest provider of electronic media, offers 18 radio programmes. Grouped according to language and content there are five German, four French, three Italian and one Romansch radio



Youngster finds easily access to the internet

programmes, plus three music channels and two multiple language programmes²⁴. These radio stations can be picked up by conventional aerial, satellite, internet, or digitally. Furthermore, there are about 50 local and regional radio stations, more than ten of which broadcast in mountain regions. Two are in Italian, 12 in French and about 30 in German. There are also multilingual stations, some broadcasting in 17 languages²⁵.

In the TV sector, the Swiss Broadcasting Corporation offers three German two French and two Italian channels all of which can be picked up by cable or satellite. (Romansch has a programming window in the German language channel.) Terrestrially, they are only available for the individual language region. Beside those channels there are a further 11 German, six French and one Italian regional channels that broadcast with a high intensity. The internet pages of the Swiss Government are in German, French and Italian; some of them are also in English. Romansch pages exist only with local content²⁶.

 Users²⁷: According to a survey, the differences between the language regions concerning the use of the internet are modest. The use in the Italian-speaking part is about 25% lower than in the French- and German-speaking regions. There is also only a small difference between the use of the internet in urban and rural areas. A thorough analysis of internet use according to regions has unfortunately not yet been made²⁸. However, the socio-demographic gaps in internet use are more pronounced and have widened during the last 5 years. While 48% of men regularly use the internet, only 28% of women make use of it. Only 35% of people with a low level of education, compared to 70% of the highly educated, use the internet. Persons with a low income²⁹ use the internet significantly less. Since the use of the internet is more integrated in the education of the young generation, the internet knowledge gap between the old and the young generations has also widened. To support the education of teachers, the government provides funds to the cantons. Measures for reducing the digital divide in Switzerland are one subject of the aims 2003 of the Federal Council³⁰.

To summarise: The coverage of teleservice infrastructure, the supply of specific content, and the small regional difference in internet use show that the Swiss policy instruments have reached some of their targets. New challenges, such as broadband access in mountain regions as part of the provision of basic public services are, however, emerging. Furthermore, the widening gap between young and old, men and women, and poorly and highly educated persons concerning internet use and the consequent unequal increase of knowledge will remain a major concern for Switzerland. "In industrialised countries and especially developing countries, there is a pressing need to address the persistent exclusion of people, in some geographical areas and social groups, who are marginalized with regard to access to ICTs and the knowledge and skills to use them (i.e. the 'digital divide')."31

2.1 Political Governance: Democracy and Federalism

The strong commitment of Switzerland to involving all regions in the political process, and to support and preserve their particular characteristics, is based on a democratic and federalist system and understanding³². In different parts of the Federal Constitution (Cst.)³³, Switzerland commits the Federation or the cantons to supporting and considering all regions and to preserving cultural diversity in policy-making (e.g. Cst. §2.2, §4, §50.2, §70, §89.1/5, §92.2, §93.2, §100.2, §103).

Democracy consists of the two concepts – "demos" (Greek: "people") and "kratein" (Greek: "to rule") – and signifies a popular government: governance that emanates from the people and is executed by the people.

Apart from the fact that there is a parliament that elects the government and enacts laws, Switzerland has a direct democracy, i.e. the citizens can directly influence the national policy. 100'000 voters or more may demand, in a nationwide referendum, a general overhaul or specific changes of the Federal Constitution (popular initiatives, Cst. §138, 139). A number of parliamentary decisions, in particular constitutional amendments, (Cst. §140) have to be approved by a majority of voters to enter into force. Other parliamentary decisions – in particular federal laws – are subject to a voluntary referendum: They can be challenged by at least 50'000 signatures of voters (Cst. §141) demanding a nationwide referendum. Without the approval by a people's majority, the parliament largely remains ineffective. These main instruments allow political parties and citizens, as well as organised and financially strong interest groups, to assert their particular interests.

Besides these powerful instruments, there is a consultation tool that gives the nation another chance to express its opinion. In the pre-parliamentary phase – i.e. before the draft law goes to parliament. Diverse interest groups, such as political parties, cantons and other interested groups have the chance to comment on the drafts. If the draft law is of major importance, the government is obliged to invite diverse interest groups to comment (Cst. § 147).

The rights of referendum and initiative, as well as the consultation process, exist not only at the federal level, but also at the cantonal and community level. Nevertheless, the cantons are free to decide their internal organisation.



A meeting of the Swiss national parliament

The democratic system alone does not guarantee that demands from social or regional minorities are considered. Generally, the majority wins elections and votes. To protect the minorities, Switzerland has a triple mechanism:

- federalism,
- (2) concordance,
- (3) elections based on proportional representation.
- (1) Federalism: Given the linguistic, confessional, economic and demographic diversity of Switzerland, the only conceivable political system has, from the beginning, been one that was based on federal principles. While in the traditional theory of federalism the integration of heterogeneous societies through a federal system has been the primary object, the newer theory, which assumes the existence of a democratic state, highlights the vertical power separation by federal institution and the protection of minorities by a wide territorial autonomy³⁴. Two key instruments of the Swiss federalist political system are the constitution of the council of states and the requirement of a majority of the cantons in certain popular votes. The parliament consists of two chambers: the National Council and the Council of States. While in the former, the number of seats of a canton depends on its population, in the latter, all cantons have the right of two seats (except the half-cantons, which have only one seat). For certain popular votes (e.g. always for changes in the Federal Constitution) a majority of the voters and a majority of the cantons are necessary (Cst. §142.2). This gives the small cantons a powerful tool to influence the voting result. Because of the uneven demographic development of the individual cantons, the blocking minority has
- of this majority principle have emerged³⁵.
 (2) Concordance: The concordance is not written into the Federal Constitution but results from long-standing socio-cultural processes. It describes the fact that Swiss executives at all levels are based on a broad party political coalition that approximately reflects the political party picture in the country. The concordance and the willingness to compromise have their seeds in the direct democracy. The fact that citizens can challenge any political decision, and therefore prolong or even terminate any major political parties in the decision-making process.

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(3) Representation: Elections based on proportional representation make the concordance possible. The mandates are allocated proportionally, i.e. in proportion to the votes of the political parties. This ensures that minorities too can be part of the political authorities.

All these constitutive elements strengthen the will to reinforce the cohesion of the country and the endeavours to reduce the existing disparities. The implementation of this commitment is done through different regulatory tools and policy instruments, such as the support of the public service, the regional policy and the financing equalisation tool. The following remarks are focused on measures taken for the information and communication media.

2.2 Public Services

2.2.1 Introduction

There is no common definition for the term "public service". The Swiss Ministry ("Department") for Environment, Transport, Energy and Communication defines it as: "Basic supply of infrastructural goods and services that should be provided in good quality, at reasonable prices, and in similar conditions to all people and all regions of the country."³⁶

What infrastructure or services are included in the public service has to be politically defined and anchored in special laws and decrees. The extent of infrastructure provision and service delivery differs from subject to subject and has to be adjusted in line with technological advances. It is evident that the provision of public services involves the federal, cantonal and communal levels. Public services are seen as the foundation of the social and economic life that the government is politically responsible for. This does not mean that it has to perform all services itself. It only has to make sure that they are supplied in the demanded quality. The policy defines the general conditions.

Since the 90s, the competition for private companies has been exacerbated by the development of globalisation. This also had consequences for the state and the supply market for infrastructure in Switzerland. The inefficiencies that almost always occur with a lack of market pressure and the opportunity to externalise costs seemed to be unbearable. To improve the attractiveness of the country, several liberalisation measures in the public services sector have been taken. Switzerland is now in the middle of this liberalisation process and the definition of an appropriate regulatory environment to ensure that the liberalised markets will produce outcomes in the public interest³⁷. Minorities, especially those in the mountain regions, are worried about the negative effects of the liberalisation on the public service and the loss of jobs in less developed regions. The politicians have reacted by building a general framework to guarantee public services and by taking particular regional-political measures to off-set the negative consequences in those regions.

Thanks to these efforts and despite undisputed difficulties, the political "voice" of the mountain regions – the NGO Swiss Coalition for Mountain Regions – considers the provision of public services to be, to a large extent, intact today, but warns of forthcoming deterioration and new challenges³⁸. On this basis, they propose to amend the federal constitution to explicitly oblige the government to provide basic public services all over the country. As a practical step, "Citizen Centres" in remote villages, which assemble the basic services under one roof, are proposed. This idea is close to the multifunctional telecentres propagated in developing countries.

2.2.2 Telecommunication and Internet

Before 1998, PTT (which stood for Post Telegraf Telefon) was the federal monopoly and was responsible for providing basic telecommunication services to all regions of the country. Since the liberalisation of the telecommunication market (1.1.1998), about 320 fixnet and 40 mobile suppliers have been developed³⁹, prices have fallen (consumer price index of teleservices from February 1998 to 2003: -31%40) and innovations have taken place. Since 1998, the federal treasury has received over CHF 10bn⁴¹ from Swisscom related transactions in selling shares, payment of dividends etc. In order to prevent the market liberalisation benefiting highly-populated areas only and widening the disparities between rural and urban regions, the public service definition has to be adjusted and extended.

To secure the public service in the teleservice sector, the following regulatory framework has been set up: "The federal authorities ensure a sufficient and affordable basic supply of post and teleservices in all regions of the country. The tariffs will be laid down according to uniform principles" (Federal Constitution §92.2). In the law on telecommunication ("Fernmeldegesetz") of April 1997⁴² this statement is reinforced. There should be a reliable and affordable basic supply of teleservice for the whole population in all parts of the country, allowing an effective competition by doing so (§1.2). Sections 14 to 21 of this law and §16 to §35 of the ordinance on telecommunication services ("Verordnung über Fernmeldedienste"43) define the public service supply more precisely. The public service suppliers have to guarantee, among others things, the following services:

- access to a network that facilitates national and international real time phone calls, as well as telefax and data connections with an adequate transfer rate for internet access;
- maintenance of a defined number of public phones per community;
- exchange services for visually impaired people and those who are hard of hearing;
- services for emergency calls and
- directories.

The most important factor is universal access to an efficient network. These services have to be provided, in a predefined quality and below a given price ceiling, to all regions (§25 and §26 of the decree). Although the politicians determine the target rates of the price and quality criteria, civil society can influence the adjustment process of the public service coverage, as the following examples show:

- Before the liberalisation of the telecommunication market Switzerland had four tariff zones for phone calls. As a result of a demand from civil society, this was changed to two zones as of 1.1.1998. This led to less distance-dependent connection prices and especially favoured the remote areas.
- The enlargement of the public service by a digital interface (i.e. ISDN) below a given price ceiling, as of 1.1.2003, was also initiated by civil society.

Basic supply concessions are assigned on the basis of criteria competitions. The concessions will be assigned to the applicant who fulfils the criteria best and who does not ask for financial help. If there is no applicant that can finance the basic public services itself, a finance mechanism is foreseen: All suppliers have to pay a tax proportional to their turnovers to fund the investment cost of the public service supply (§38.2 of the telecommunication law). In 2002, the communications commission (ComCom) awarded Swisscom Fixnet AG the new basic supply concession as of 2003⁴⁴. The basic supply of public service is therefore guaranteed until 2007. So far, Swissexisted until 1998, facilitate high returns and investments in less profitable mountain regions? Alternative scenarios should be treated with caution, of course. Experts⁴⁵ note that investments could also have been made in a competitive market. Lower prices would, however, have led to a slower accumulation of reserves and refinancing of investments in the economically weaker regions of Switzerland.



The village school in Isenthal – access to the internet ?

com has not requested a concession tax from the other suppliers to cover the additional costs for the public service. As Swisscom enjoys a market share of 70%, it would have to cover a large percentage of the costs anyway, according to the tax formula stipulated in the law. The cost-effectiveness of the measure would have been doubtful.

The present achievements in securing the telecom public services all over Switzerland are a result of the telecom history in Switzerland. A question of interest is whether today's high level of infrastructure and public service provision could also have been developed in a competitive environment. In other words, did the federal monopoly, which Switzerland now stands in the middle of a further liberalisation step, as the adjustment of the telecommunication law to a new European regulation framework continues. This includes easier market entry for competitors, through the abolition of the concession obligation for teleservices, and an improvement of consumer protection. The liberalisation of the last mile, i.e. the unbundling of the wire that runs from the distribution centre to the buildings, has already been implemented by a revision of the decree as of April 2003⁴⁶. Since many of those consulted wished this liberalisation step to be discussed in parliament, the Federal Council agreed to include this change in the current revision of the teleservice law⁴⁷ that is pending in parliament. In the consultation on the revised telecommunication law and its decrees, which ended in October 2002, 106 participants expressed their opinions. Institutions and cantons, particularly those that represent remote regions, have some reservations about the foreseen revisions. They are worried that investments that are introduced in the final phase of liberalisation will only be done in the profitable centres and that remote areas will not profit from new services like broadband lines. Furthermore, they are afraid that if the owner of the fixnet (predominantly Swisscom) is not fairly compensated, the public service will be neglected. They plead for measures, such as uniform interconnection prices or extension of the public service by mandatory broadband supply, that take account of those risks⁴⁸. In particular, the Swiss Coalition for Mountain Regions ("Schweizerische Arbeitsgemeinschaft für die Berggebiete", SAB) has asked for the inclusion of the provision of broadband access in the public service requirements, because they consider it a prerequisite for attracting new jobs in remote regions and entrepreneurial development in the future49.

One example of what happens if a service is not included in the public service portfolio was given during the auctions of 2001 for wireless local loop (WLL) concessions. The auction showed that no demand existed for sparsely populated mountain regions like Grisons or Wallis. Implementation of the WLL did not even start in the urban areas.

2.2.3 Radio and Television

Radio and television are important instruments for supplying remote areas with information and preserving linguistic and cultural diversity. The proportion of people whose first language is Romansch, for example, fell below 0.5% in 2000. But the total Romansch-speaking population increased and amounts to 1%, a sign that radio and TV may contribute to revitalising a language.

Looking at radio and TV services, it has to be kept in mind that they can only broadcast if the technological conditions, i.e. the basic supply of transmission instruments (see in the former chapter the law on telecommunication), allow them to reach the remote areas. We are evolving from a wired world to a wire-less one, where information is exchanged seamlessly through the air we breathe. On this technological background, spectrum policy is undergoing a fundamental reorientation⁵⁰. In this chapter we concentrate on the supply of programmes supporting the public service, while respecting the regions' particularities.

In the Federal Constitution there is no explicit commitment to a nationwide radio and television service. Cst. §93.1 and §93.2 state only that the Federation ("Bund") is responsible for the legislation for radio, TV, and other forms of information distribution, and that radio and television have to consider the particularities of the country and the needs of the cantons.

Only in the law for radio and television is there an obligation to supply the different parts of the country with sufficient radio and TV-programmes $(\S 3.3)^{51}$.

The actual law is now in the final stage of being revised. Since 1991 (the last enactment of the law) the environment for radio and TV has changed a great deal. Not only developments in technology (like digitalisation and the increasing merging of radio and telecommunication) but also developments in the international media environment led to a draft of a new radio and TV law⁵². The focus is on the compliance of a strong public service and a favourable regulatory environment for private radio and TV stations.

From December 2000 to April 2001, about 200 interested parties took part in consultations on the draft law⁵³. At the end of 2002, the Federal Council passed on the recommendations ("Botschaft") for the attention of the Federal Parliament. Many demands of the interest groups were considered in the revised draft law⁵⁴. The following paragraphs refer to the public service supply and to the support of individual Swiss regions and their culture:

SRG SSR remains the public service supplier. It has a binding mandate to provide equivalent radio and TV programmes in the three official languages to the whole population. (rev. §26.1a). While under the old law, radio programmes had to be broadcast in the four national languages, with the revised law it is up to the Federal Council to decide how the needs of the Romansch speakers are considered (rev. §26.2).

- The radio and TV programmes have to be broadcast area-wide, at least in the respective language areas. The Federal Council has to ensure that an adequate supply of programmes in all official languages can be received in all parts of the country (rev. §34).
- A new inclusion in the concession text is the explicit provision for Swiss music and film production. The Federal Council can determine a mandatory minimum quota for Swiss productions (rev. §27.2c).
- The obligation of SRG SSR to produce the programmes predominantly in that part of the country that they are made for is now defined in the concession; soon it will be written into the law (rev. §30).
- Currently SRG SSR receives the total amount of the fees paid by the customers (less administrative costs) for its public service supply. Local and regional programme providers

may receive some of the revenue if there is not sufficient finance available in their region and if there is a particular public interest in their programme (§17.2). In exchange, SRG SSR is not allowed to finance its radio programmes by advertising (concession §1155). In the first draft of the new law, the SRG SSR would have been the only provider of the public service and would, therefore, have received almost the total amount of the fees paid by the customers (abolition of the fee splitting). In exchange there would have been constraints on sponsorship and advertising. The private sector would have been deregulated. Private radio and TV stations would have been released from service requests and would only have needed a concession for preferred access to frequencies. The majority of the consultation participants were against the abolition of the fee splitting. Private stations, with their regionally oriented programmes,

Satellite antennas - windows to the (TV-)world



also contribute to the public service supply, which should be recognised by the public. Local radio and TV stations in remote areas, which often have little advertising income, would otherwise not survive. They also have much higher distribution costs⁵⁶. The legislator considered the requests in the revised draft law.

- The revised draft law now includes the fee splitting formula in favour of the provision of public services by private radio or TV stations. A concession with service request and fee financing can now be issued to organisers with local or regional programmes. Regarding radios, this concept corresponds to public interest "community radios" known in developing countries. In Switzerland, a few noncommercial radios are established in urban areas⁵⁷. The concessions not only include the right to receive a part of the fee income but also the right to distribute the programme in a defined service area (rev. §48). To create better conditions for private suppliers, the advertising restrictions are eased for them (rev. §9 - 16), while for the SRG SSR advertising will be more restricted.
- An integral part of the revised law addresses the technology of broadcasting radio and TV programmes. Radio and TV programmes that have a concession take priority in being distributed. Since the broadcasting of radio programmes in mountain area is expensive, the commission can support a supplier of regional public service in those areas by subsidising these costs (§67.1).
- Due to the merging of radio and telecommunication, a new authority will be created that regulates both domains. The convergence of the technology of broadcasting and telecommunication makes the securing of the basic supply of teleservices even more essential for remote areas. The SRG SSR plans to broadcast its programmes via terrestrial digital networks (DVB-T), starting in 2009⁵⁸. Therefore, the mountain regions, especially, have a legitimate interest in an increase of investment in new technological equipment all over the country.
- Regarding minorities among customers, the revised §76.5 allows the Federal Council to excuse specific categories of people from the obligation to register and to pay fees. The current decree provides that, among others, social insurance beneficiaries with complementary benefits ("Ergänzungsleistun-

gen"), as well as inhabitants of foster homes ("Pflegeheime") do not have to pay fees (§45.1 and .2 in conjunction with §43).

 The new §7.4 obliges TV programme organisers responsible for national or languageregional programme supply to prepare an adequate part of the programme for visuallyimpaired people and those who are hard of hearing.

The revision of the radio and TV law will be discussed in parliament in the near future. The revised law will be enacted in 2005 or later. Meanwhile, the discussion about the revision of the decree is going on. The federal authority wants to cancel some of the subsidy for the foreign service "swissinfo/Schweizer Radio International" of the SRG SSR and to increase the reception fees⁵⁹. These plans caused a public outcry. They are not seen as public tasks for which customers have to pay. Also the enlargement of the fee splitting (to support regional and local private station) is planned to be financed by an increase in reception fees.

2.2.4 Swiss Post

Before 1998, Swiss Post, as it is called in English, was part of the PTT. With the split-up of the PTT into Telecom PTT (now: Swisscom) and Swiss Post in 1998, the latter could no longer subsidise the postal services by income generated from telephone services. It is now an independent institution under public law that remains in the hands of the Federation, but enjoys more entrepreneurial freedom and is obliged to be cost effective. The Swiss Post's core services are: letter, parcel and express mail, payments and road-based passenger transport. We will focus on the mail and payment services.

The same Federal Constitution paragraph as the one for the teleservice obliges the Federation to secure the public service for the post sector: "The federal authorities ensure a sufficient and affordable basic supply of post and teleservices in all regions of the country. The tariffs will be laid down by uniform principles" (Cst. §92.2).

The first two paragraphs of §2 of the post law⁶⁰ define the obligation more precisely. The public service covers a sufficient universal service (services of post and payment transactions), at least five days a week. Swiss Post provides free access to these services and has to supply them in all parts of the country, with good quality and appropriate prices, using the same principles.

The mail and payment services that Swiss Post has to offer (pursuant to the post law) and which cover the public service (or universal service) are divided into two categories⁶¹:

- reserved services: Swiss Post has to offer the services and it has a monopoly on them;
- non-reserved services: Swiss Post has to offer the services, but they are open to competition.

The reserved services comprise letter mail (except express mail) and parcel mail up to two kilograms within the national border and from foreign countries. The non-reserved services include the payment services and the conveyance of letter mail to foreign countries, of parcels from 2 to 20 kilograms and of newspapers and magazines.

All other postal and payment services are open to competition; Swiss Post may, but is not obliged to, offer them.

In spring 2003, a third paragraph was added to §2 of the post law, due to the plans of Swiss Post to restructure the postal network ("Poststellennetz") and the ensuing discussions about the securing of the public service. It imposes an obligation to provide a country-wide postal network that secures the availability of all universal services, within a fair distance, for the population of all regions. Thus the revised law⁶² not only obliges the post to secure the public service but also to provide a defined infrastructure (§2.3).

In 2002, parliament determined the political direction of the future of Swiss Post. This dealt mainly with the liberalisation process and the restructuring of the postal network. On the basis of this decision, the post decree was revised by the Federal Council and the post law was extended by a third paragraph in §2 (mentioned above).

Liberalisation process: The Federal Council chose a slower pace in the liberalisation process than the of European Union, in order to give Swiss Post enough time to make the necessary adjustments. It decided to open the market for parcels completely by 2004 and to lower the barrier for the letter monopoly to 100g by 2006⁶³. Consequently, these services will then switch from reserved to non-reserved services.

With the opening of the parcel market in 2004, a concession system for non-reserved post services will be definitively implemented. The concession system for non-reserved services allows a gradual market liberalisation, controlled by parliament. The old law already gave the Federal Council the right to introduce such a system (§5). The Federal Council could also demand concession fees for financing the non-reserved services of the Post (§6.1). Those providers who offer their services all over the country, irrespective of distance, are exempted from the fees (§6.4). Compared to the old decree, the revised one precisely defines the concession system (§20 to §36). The department can only raise a concession fee, if Swiss Post is not able to cover the cost of universal services (reserved and non-reserved services), despite cost-effective management, otherwise the Post has to finance the public service itself (§29 of the decree).

Swiss Post is obliged to set the prices for reserved services in order to cover costs, irrespective of distances, and according to the same principles. The prices have to be fixed by the responsible ministry (§14.2 of the law).

Restructuring of postal network: The discussion about the postal service network was launched at the end of 2000 when Swiss Post released its plan for the reorganisation of the postal network and started to implement it. Switzerland has one of the lowest number of people per subsidiary ("Poststelle")⁶⁴, about 2100 persons per subsidiary in 1999; in comparison with Great Britain: 3200, France: 3500, Austria: 3350, Germany: 5850, Spain: 9870)⁶⁵. After the reorganisation it will remain one of the best covered countries (2700 persons per subsidiary). More than 90% of the population will be able to reach a post subsidiary within 20 minutes on foot, or by public transport. The plan of Swiss Post envisages a reduction of the 3400 subsidiaries by between 700 and 900 by 2005. The subsidiaries will be classified into three categories (P-, PP- and PPPsubsidiaries), which differ in the services offered. The P-subsidiaries will eventually be replaced either by home service (about 620-720), by merging them with a larger subsidiary or with another agency, such as a shop or the community administration (about 670-870),⁶⁶ or by replacing them with a stop for the PostMobile (about 60) .



Swiss Post transports letters, parcels and people in mountain regions

In Summer 2002, the popular initiative "Post services for all" was launched. The initiative demanded a country-wide postal network and a right of hearing for communities. Additionally, the initiators wanted to oblige the Federation to bear the costs of the basic services that could not be covered by other sources. In the revised decree, most of their demands are considered. But the Federal Council and the parliament have so far declined to provide federal compensation.

The postal network has an annual deficit of CHF 500m, which is estimated to increase to CHF 600m in 2008. Although the proposal of Swiss Post to reduce their unprofitable sections was accepted, the high number of interventions made to parliament reflect worries, especially concerning the consequences in remote areas.

Swiss Post stressed that the public service would be secure, even with fewer subsidiaries. But, as a result of the many interventions, it was willing to rethink its position. At the end of 2001, Swiss Post organised a poll about the satisfaction of customers regarding the various forms of service points⁶⁷. The results were evaluated by an expert panel that was made up of diverse representatives of civil society. The results show that the customers are amazingly content with the alternative forms of service points. Only the home service did not fulfil their expectations. The expert panel recommended that, among other things, Swiss Post, should extend their business hours, consider the possibility of business partnerships, offer a home service only in regions where there was already a post office, and base the restructuring of the postal network on a regional perspective, while considering the demands of the communities. Swiss Post promptly acted upon the recommendations and was willing to accept some of them.

The obligation to provide the infrastructure is now in the law and has some effects on the restructuring plan of Swiss Post. The revised post decree⁶⁸, whose consultation process ended in August, defines the obligation more precisely (§6-8). Swiss Post now has some freedom in defining "regions" and "adequate distance" and in adjusting the postal network within the limits of its economic possibilities and overall social developments. The regulating authority will supervise the securing and quality of the universal service and publish its evaluation in an activity report (§41 in connection with §15 of the decree and §12 of the law). §16 allows every person to make representations to the regulatory authorities, without any formalities, about the quality and accessibility of the universal service.69

If Swiss Post wants to close a postal subsidiary, it has to consult with the communities; if no satisfactory solution is found, a commission will make a recommendation. It is for Swiss Post to take the final decision. But if it closes a postal subsidiary, it has the obligation to offer an adequate substitute that provides access to the universal services. One possible solution would be the home service, but only if there is a subsidiary in the region that offers the universal services. In the consultation process on the revised decree, the social-democratic party criticised the consultative status of the commission.⁷⁰ They rather wanted to have a commission composed of representatives of different interest groups and having decision making power. Otherwise, they argued, there would be no improvement in the current situation where the Post often only pursues its own interests.

Generally, there is not much in the law about measures that can be taken if Swiss Post does not fulfil its obligations. In the past, Swiss Post always provided the universal services if post offices were shut down. In §17 of the post law there is the provision that conflicts between the Post and the customers are to be judged by the civil courts. Further, there are some institutions, like the price adjudicator ("Preisüberwacher"), that may have some influence on the decisions of the Federal Council. The most recent example is the effect the recommendation of the "Preisüberwacher" has had concerning the planned price increases for letter mail from January 2004. Because of that recommendation, the Federal Council, in July 2003, did not allow all increases planned by Swiss Post⁷¹.

2.2.5 Print Media

Reduced fees apply for the distribution of newspapers and periodicals, especially those from the regional and local press. The Federation covers the yearly deficit of Swiss Post that is caused by the delivery of these journals (§15 of the law). The criteria these newspapers and periodicals have to fulfil in order to take advantage of reduced delivery prices, and therefore to get indirect subsidies, are defined in §38 (old §11) of the decree⁷². The aims of the legislator are to support newspapers and journals with relevant and broad content and to support other regional and local press. Today the total subsidies amount to CHF 100m, CHF 34.7m of which is channelled to regions with a low population density. In these regions, the subsidies per household are more than twice as high as in regions with a high population density⁷³.

In spring 2002, the Federal Council wanted to cut some of the financial support and to raise the quality criteria in the decree. But, because the majority of the consultation participants were against isolated changes in the decree, these adjustments were not made. Instead of a change in the decree, parliament accepted a change in the post law. According to this change, the subsidies for newspapers will be cut to CHF 80 m from 2004 and cancelled at the end of 2007⁷⁴. During this time, a new system for the support of different media will be developed.

The reduced delivery cost is only one tool for securing variety in the press and providing for diversity of opinion. The discussion about a new media policy also considers a switch to direct support of the local and regional press, which would require a revision of the Federal Constitution. The necessary changes in the Federal Constitution have already passed the consultation stage and are before parliament.

2.2.6 Electricity

So far, the main function of electricity in the information and communication sector has been to provide a source of power. However, it seems that technological development will soon be able to offer telephone and internet access through an electricity line. Furthermore, the electricity market is another example of a market that provides a public service and that is in the middle of a liberalisation process; this justifies including a short chapter on it.

§89 of the Federal Constitution clearly describes the responsibilities of the Federation and the cantons concerning energy policy. They are in charge of a sufficient, broadly diversified, secure, economic and ecological energy supply and of economical and efficient energy consumption.

In 1999, the European Union decided to open the electricity market step by step until 2005. Since the European electricity market is interlocked, this liberalisation plan led to political discussion in Switzerland and to activism by the electricity monopolists. To avoid an uncontrolled opening of the electricity market, the Federal Council drafted

a new electricity law⁷⁵ that would have regulated the modalities of this opening, in the light of the experiences of other countries. Parliament accepted the draft law in December 2000. During 2001 and 2002, the Federal Council started to work out the electricity decree⁷⁶. Since this decree was criticised in the consultation process, many further discussions took place with cantons, the electricity sector, employees, consumers, and environmental organisations, as well as representatives of the big political parties. In spring 2001, a referendum was held concerning the law, which was rejected by the popular vote in September 2002.

In spite of this setback, we will look at the proposed measures for securing the public service. Many of these measures were included because of insistent pressure by the advocates for the mountain and remote areas. §1.2a states that the law will define the general conditions for a reliable and affordable supply of electricity all over the country. §11.2 obliges the electricity suppliers to connect all end users and all electricity producers in their net area. The cantons are responsible for connections outside of housing areas (§11.3). If there are problems in effecting the distribution, the Federal Council can take further measures (§13.3). In general, the prices for supplying electricity should be the same for all customers in the same network (§6.4). The cantons can take measures if the price differences are disproportionate. If these measures prove to be insufficient, the Federation can take further steps, including the creation of an equalisation fund (§6.5). (A study by Ecoplan, an

independent consulting company, about the transmission cost in mountain areas showed that within the 239 communities the current prices range from 2.7 Rp./kWh to 35.9 Rp./kWh⁷⁷) The electricity suppliers are obliged to use a consistent and transparent scheme for the calculation of the costs (§6.6). Further, an independent arbitration committee (§15 and §16) and the price adjudicator (§17) guarantee that the suppliers cannot generate unjustified earnings at the expense of the consumers.

In addition to the measures for providing the public service, the new law would have included some instruments to support the mountain regions and ecologically produced electricity. §28, in conjunction with §30 and §31 of the decree, regulates the loan possibilities for those hydroelectric power plants that are not able to cover the necessary amortisations after the liberalisation. §29, in conjunction with §28 of the decree defines the favoured supply and storing of renewable energy.

The Swiss nation rejected this new law with all its additional conditions. One reason was the fear that a liberalisation would result in a wave of privatisation; another reason was the uncertainty about securing the energy supply. Now the Federal Council will set the electricity supply on a new legal basis until 2007. An expert group is working out the main features of a new electricity policy. Meanwhile, there is a lack of federal measures for guaranteeing the public service. The public service is regulated by 26 cantonal laws. The guarantee of supply at affordable prices is regulated by the cantons, if at all.

A dammed lake for electricity production at the Lukmanier pass



3.1 Current Regional Policy

Guaranteeing the public service is only one measure for reducing regional and social inequality, to support a decentralised settlement policy, and to maintain national cohesion. Moreover, the current liberalisation process in public service sectors has caused many negative effects for the remote regions, although the public service remained secure. "It is estimated that in the mountain regions about 20'000 jobs of the federal government ('Bundesstellen') were lost as a result of the liberalisation of the Post, SBB [Swiss Federal Railways] and Swisscom and the restructuring of the army⁷⁸." Additionally, the availability of traineeships decreased⁷⁹. The private sector did not make up for the whole loss.

Regional imbalances cause social and political problems. The lack of jobs, uneven income, the absence of cheap shopping facilities, schools and other services can cause a migration out of deprived regions and a corresponding growth of conurbations. Therefore, regional development and the support of deprived regions are important.

Concerning regional business development, §103 of the Federal Constitution states: "The Federation can support economically endangered regions, sectors of the economy and professions, if reasonable self-help measures for the maintenance of their existence are not sufficient. It can depart from the maxims of a liberal economy, if necessary." A special paragraph is reserved for the agricultural sector (Cst. §104).

The basic concept of the Swiss regional policy originates in the 1970s and consists of several, rather uncoordinated, instruments. Rapid and broad globalisation and European integration have led to more intense competition and to new challenges for regional policy. As a result, Switzerland is now in the middle of revising its policy.

Although the regional policy also deals with urbanisation policy and transnational cooperation, most instruments concern the mountain region policy. The present regional policy consists of the following instruments:

 In 1974, the law on investment assistance for mountain regions⁸⁰ became effective. It was the first direct regional political instrument. The focus was on the reduction of disparities in basic and development infrastructure. Before that law, there were only instruments for supporting agriculture and tourism. In 1997, the law was revised and the promotion of the indigenous potential of the regions became more important. From this investment help, that consists of low interest, or interest-free, loans, 54 mountain regions can profit. The conditions for obtaining financial help are stated in §5 and §6. The federal loans are only granted if the cantons contribute at least 25% and if they do not exceed 50% of the investment costs. Fund limits are guaranteed for every

canton⁸¹. To finance projects there is a fund that amounts to CHF 1.6 bn and is funded by federal money, pay backs, interest payments and payments of third parties. From 1974 till 2002, 8077 projects were supported with investment help of about CHF 2.1 bn⁸². Most projects were in the supply and disposal sector.

- In addition to the investment support, the law on debt guarantee and the contribution of interest payments in mountain areas⁸³, facilitate the receiving of long and medium term credits for small and medium-sized enterprises in mountain areas.
- Another measure that supports less developed regions is the federal decision on the support of regions in economic transition ("wirtschaftliche Erneuerungsgebiete")⁸⁴. The Federation can support private sector projects that create or maintain jobs in economically weak regions, by guarantees, contributions to interest payments or tax relief. Economically deprived regions are regions where a special structural adjustment is needed, where the unemployment rate is substantially above the average of the country, and where a substantial loss of jobs already exists or is expected. About 17 cantons - including mountain regions - can profit. Parliament decides about the credit limits.
- A more recent instrument to support structural change in rural areas (covering about 80% of the surface of Switzerland and about 40% of the population) is the RegioPlus programme⁸⁵ that runs from 1997 till 2007. This will give impetus to, and provide start-up

Milk and meat are key in Swiss mountain livestock production help for, inter-sector local and regional networks, in order to release their development potentials and increase their ability to compete. The aim is to support organisational, conceptual, and institutional cooperation projects. CHF 70m is reserved for RegioPlus. The Federation finances a maximum of 50% of the project costs and only if all cantonal and other federal funding possibilities have been exhausted. Only the declared costs will be compensated. The longest time frame of the financial support is five years. Up to April 2002 about 80 projects in 19 cantons had been supported⁸⁶.

A similar instrument that promotes integration among Europe's regions is INTERREG⁸⁷. It supports and finances international crossborder projects in order to achieve balanced regional development. INTERREG III promotes cross-border, transnational, and interregional co-operation. Parliament decided to participate in this programme, which runs from 2000 until 2006, and supports it with a global credit of CHF 39m. There are also project ideas that concern the information and communication sector like an "alpes TV" or a laboratory for developing and disseminating transnational ICT applications and services aimed at improving living and working conditions in the alpine space.

All those measures are implemented with help of the cantons and the communities. Besides those regionally oriented measures, there are some sectorally oriented instruments that support sectors that are important for the mountain regions, namely, tourism and agriculture:

There are two main permanent instruments to support the tourism sector: the federal law on the National Office of Tourism⁸⁸ and the one on the promotion of credits for hotels and health resorts⁸⁹. While the former will promote Switzerland as a travel and holiday country, the latter – now known as Switzerland Tourism - supports the Swiss company for hotel credits, which grants debt guarantees or credits to tourism regions, mountain regions and health resorts. Parliament decides every five years about the budget of the federal financial aid. In addition, there are temporary measures like the federal decision about the promotion of innovation and cooperation (InnoTour)⁹⁰ - which was created in order to support the competitiveness of the Swiss tourism sector - on the supply side, and the federal decision

about the special rate of the added value tax (VAT) for accommodation services $^{\rm 91},$ on the demand side.

The agricultural sector not only produces agricultural goods but also contributes to the preservation of nature, to the culturally important landscape and to decentralised settlement. Due to this "multifunctionality", the support to this sector is provided for in the Federal Constitution §104, as well as in many federal and cantonal laws⁹². The special support for mountain farmers covers family allowances, education, and investment support. Since the 70s, a reform process, which is supposed to take into account the multifunctional role of agriculture and improve its capacity to compete, has been going on; this is now in its third stage. Parliament passed a few revisions of laws in June 2003. In the revised law on agriculture93 some of the demands of the mountain regions⁹⁴ were considered. The planned liberalisation⁹⁵ of the milk market by 2009, for example, is accompanied by the possibility of allowing a head start to mountain farmers, in order to give them time to make the necessary adjustments.

3.2 Liberalisation – Supportive Regional Policy Measures

A temporary measure to soften the negative effects of the liberalisation on Swiss Post, Swiss Federal Railway (SBB) and Swisscom, is the package of supportive regional policy measures that was adopted by the Federal Council in 2000%. From 2001 until 2004, CHF 80m are used for projects in the most affected regions that directly or indirectly create new jobs or strengthen the economic power of the region: projects that promote innovation and co-operation in the tourism sector, projects of co-operation of enterprises, projects of co-operation of regions and projects for economy related infrastructure. The management of the realisation of this Federal Council decision is vested in a special group named "Gruppe 80" that consists of members of cantonal and federal authorities and of contact persons of the Post, SBB and Swisscom. The interim results for 2001 showed that the majority of the projects dealt with inter-regional co-operation, economic

development and tourism co-operation. The few infrastructure projects could be financed by the investment help for mountain regions. Therefore, the funds were rearranged. Everybody can submit project ideas. So far many have been presented by regional organisations. But the former state-run companies have also worked out their own projects. Some of them deal with measures to support those employees who are affected by the structural changes, others deal with the creation of new jobs in the concerned regions⁹⁷.

Swisscom: The liberalisation brought lower prices and, stimulated by competition, new service products, also to the remote areas. Further, the alternative suppliers invested about CHF 15 bn, partly in mountain regions. On the other hand, Swisscom cut numerous jobs in the mountain regions, while the new jobs of the alternative suppliers were almost all created in the big centres. To soften the negative effects, Swisscom is active in several projects: Swisscom Venture Fund, schools and the internet, co-partnership in the project "Moving Alps" and others. A voluntary, non-regulated Swisscom initiative⁹⁸ offers broadband internet access to all schools in Switzerland by no later than 2006.

Swiss Post: To remain able to compete, and because of the forecast decline of 10% in the letter post by 2010, the Post decided not only to restructure the postal network, but also to reduce the number of letter distribution centres. After many discussions with the labour unions, the final plan is to close the current 18 distribution centres and to create three new centres and six subcentres⁹⁹. This solution takes into account business criteria, as well as concerns of social and regional policy. Nevertheless, about 2400 full time jobs will be cut and the losers are once more the mountain regions. One measure of the Post to create new jobs in the remote areas was the creation of a direct sales centre in Delémont and, since they did not find enough German speaking employees, of another one in Biel.

SBB: To mitigate the social hardships of adjustment, the SBB also initiated projects to provide supportive measures. They support their employees with diverse educational projects, they built a Customer Service Centre for SBB Cargo in Fribourg, a Customer Contact Centre in Brig (about 250 employees) and created regional education networks in Yverdon and Erstfeld.



Power play in politics (Houses of Parliament) and in chess

3.3 New Concept of the Regional Policy

The older instruments of the present regional policy had important equalisation effects on the infrastructure and helped to build regional structures. The reorientation, in 1996, towards the promotion of indigenous potential and the implementation of the newer instruments resulted in a strong mobilisation for network building and intra- and inter-regional co-operation¹⁰⁰. But, although the regional policy was renewed in principle, it remained bound to the old kind of instruments. Many measures were implemented with regard to specific needs, but they could not really react to new challenges. Furthermore, some projects were only initiated because there was an instrument.

During the 1990s, globalisation, European integration, liberalisation etc. have intensified local competition and increased economic pressure for structural change. The regional policy has to be able to react to all these new challenges. The promotion of innovations and the more effec-



Beyond agriculture, tourism and construction, jobs in the mountains are rare

tive mobilisation of regional potential become more important. Because of various parliamentary demands, the reorganisation of the Swiss regional policy is now the subject of intensive discussions. The legislative process begins in 2004/2005.

In February 2003, an experts' report was published. According to that, the following features of the new regional policy stand out¹⁰¹:

- The new financial equalisation, now being debated in the legislature, can and will (if not too much diluted) deal with the reduction of economic disparities. Since the disposable funds amount to CHF 3 bn¹⁰², compared to the CHF 80–100m of the regional policy, it can execute this reallocation much better. The public service supply will be more precisely defined in a general framework and strengthened in specific laws. As a result, the regional policy could focus on efficiency and growth targets.
- The new regional policy will promote the competitiveness of regions by supporting the innovation processes, by intense networking, and by better co-ordination of sectoral policies. Sustainable development should thereby be achieved.
- There are no fixed defined regions anymore. The geographical delimitation of regions will vary.
- The Federation will promote clusters and networks, set the rules of the game, monitor and evaluate projects. The cantons will be the primary contact for projects. The resources will be combined by the Federation, cantons

and project initiators and supplied as global budget funds.

- A general law will be the base for the new regional policy. This implies four-year legislation programmes with concrete targets.
- Concerning the financial mechanisms, the expert team proposed transforming the investment fund for mountain regions into a foundation that finances small regional projects. The funds of the other instruments will be centralised in an "innovation fund" that finances large area projects. This fund will only amount to about CHF 13 to 14 m, compared to the mountain foundation fund of CHF 36m per year. That shows that the mountain areas will also play an important role in the new regional policy.

The new regional policy will not use individual instruments anymore; it aims at being more flexible and, given the global budget policy, becoming more efficient and effective.

3.4 Financial Equalisation

The financial equalisation is the third instrument that considers the diversity and economic differences in Switzerland. Since federalist structures automatically lead to wealth differences, the state needs to equalise them to a certain extent in order to avoid social friction. The financial equalisation tool enables weaker cantons to fulfil their tasks independently. This is explicitly mentioned in §135 of the Federal Constitution. Further, many paragraphs determine the assignment of tasks between the Federation and cantons.

The present financial equalisation is a jungle of 36 redistribution pots. Over the decades, more and more competencies have been assigned to the Federation and the increasing transfers of earmarked funds to the cantons (seven out of ten Swiss francs are earmarked) have slightly eroded the federalist system¹⁰³. Furthermore, the blending of the incentive and redistribution functions of the federal subsidies resulted in inefficiencies and abuse of funds. For ten years, experts and politicians have worked on a new financial equalisation tool. The findings of several expert reports are staggering. The system failed to reduce the wealth gap between the cantons. In 1999, the financially weaker cantons were subsidised with CHF 2.1 bn by the horizontal and vertical financial equalisation. This is only a humble 15.5% of the total transfers of CHF 13.5 bn¹⁰⁴ between the Federation and cantons.

The implementation of the new financial equalisation takes place in two steps. Firstly, the basis in the Federal Constitution¹⁰⁵ and the new federal law on the financial equalisation¹⁰⁶ were worked out. In November 2001, the Federal Council adopted the recommendations on the reorganisation of the financial equalisation and the new assignment of the tasks of the Federation and cantons. The Council of States discussed it in the Fall of 2002 and the National Council is debating it now, in the summer session 2003. The mandatory popular vote could take place in the first half of 2004. The second step, the composition of the regulatory statutes, has already started and will enter the parliamentary process in 2005.

The new financial equalisation process is based on four new instruments¹⁰⁷:

Deconcentration of tasks and a new kind of cooperation (diverse § of Cst.): Each level will be responsible for those tasks that it can perform best (subsidiarity principle). Thirteen tasks will be assigned to the cantons seven to the Federation and nine to both Federation (strategy) and cantons (operation). Instead of cost-oriented subsidies, the Federation pays global contributions to the cantons, the amount of which is defined by the demanded results.

The social democrats on the National Council were, predominantly, sceptical about whether the cantons would fulfil their tasks in the social sector. Finally, the National Council decided to include a supportive measure in the Federal Constitution that obliges the cantons, for at least three years, to spend a certain amount on the disabled.

- Resource equalisation (§3 to §6 of the federal law): Each canton will have sufficient funds to fulfil its tasks. Further, the disparities in the financial capacity will be reduced. Contrary to the wish of the social democrats to set a range for taxes, the National Council supported tax competition.¹⁰⁸ The cantons will be classified as "resource-strong" and "resourceweak" cantons. The resource-strong cantons and the Federation will provide funds for the weaker cantons (horizontal and vertical component). The discussion about how much the cantons have to provide, compared to the Federation, has not yet been closed. According to the calculations of the Federal Council, about CHF 2.5 bn will flow to the financially weak cantons. The largest net payers are Zurich, Geneva and Zug. Berne and Valais will profit most. The fund distribution will be progressive, i.e. the weakest cantons will get most. The target is that all cantons reach at least 85% of the average per capita income. Parliament will set the contributions every four years.
- Burden compensation (§7 to §9 of the federal law): The Federation grants funds to cantons that are excessively encumbered by geotopographical conditions (mountain areas) or by socio-demographical conditions (urban areas). Parliament will set the contributions every four years. In fact, funds of CHF 275 m are reserved for each year¹⁰⁹.
- Intercantonal cooperation with fund compensation (Cst. §48.4–6 and §10–§16 federal law): Cantons have always been able to conclude contracts with other cantons. What is new is that the Federal Council can now oblige cantons to co-operate with other cantons and to co-finance intercantonal projects in defined fields of activities. This leads to a fiscal equivalence also in intracantonal activities.

With the reorientation of the financial equalisation process, some cantons that are now fund receivers, will become net payers. To support these cantons during the transition time, a hardship compensation instrument is provided. A canton loses its claim when its resource potential exceeds the Swiss average.

4.1 Introduction

It is well known that the pattern of development followed by industrialised countries in economic history differed in many respects from what they advise the developing world to follow today. Particularly well documented are the cases of trade¹¹⁰ policies in general and of intellectual property rights for Switzerland¹¹¹.

In the light of that experience and remarkable difference, it may be interesting to have a look at the stand Switzerland takes in selected international fora and negotiations. We will take a summary look at Swiss positions at the World Summit on the Information Society (WSIS), the General Agreement on Trade in Services (GATS) of the World Trade Organisation (WTO) and the Convention of the Alps.

4.2 World Summit on the Information Society (WSIS)

At the national level, the media competence of the people, the regulatory environment for e-commerce, and the security of electronic information will be the focus of the ICT policies in Switzerland for the next few years¹¹². In relation to the WSIS¹¹³, there are four priority topics for Switzerland which, in one way or another, are also considered in Switzerland's national ICT policy:

- Cultural diversity, intercultural communication and local content: Linguistic and cultural diversity should be preserved in the information and communication sector. The production and distribution of local and regional content is crucial for broad participation of the population and for intercultural understanding. Some of this content should be provided as part of public services.
- Regulatory and institutional frameworks: Switzerland supports the liberalisation of the telecommunication market in the developing countries. But to use the new technologies for the benefit of all people, reliable, transparent, and non-discriminatory frameworks are necessary. These conditions will be worked out by all stakeholders and may be internationally harmonised. The WSIS will serve as a platform for identifying the most urgent and

most important themes. In this context, Switzerland provides a proposal about financing options. A further focus point for Switzerland is the security of infrastructure and data, as well as property rights and copyrights.

- E-commerce and e-business: ICTs can promote sustainable economic development. The WSIS will contain concrete projects for the promotion of e-commerce and will mobilise funds for project investments in developing countries. Small and medium-sized companies, particularly, will be supported. Switzerland has established a pilot e-commerce link between Jordan and Switzerland¹¹⁴.
- ICT and poverty: The absence of the voice of poor in decision-making processes and the lack of access to relevant information for such processes have proved to be one of the causes for poverty. In order to reduce poverty, the voices of the poor need to be strengthened, explicit pro-poor strategies should be pursued, traditional and new technologies must be integrated. The creation, dissemination and exchange of local, relevant content will be promoted, and an enabling environment for the use of ICTs in the productive sector to create employment is to be guaranteed. The Swiss Agency for Development and Cooperation (SDC) and Global Knowledge Partnership (GKP) will jointly organise an ICT for Development (ICT4D) platform as a parallel event to the WSIS¹¹⁵.

4.3 World Trade Organisation (WTO)

Whether, and how far, the General Agreement on Trade in Services (GATS) affects the provision of public services by its signatories is a matter of debate. The Swiss position maintains that GATS explicitly accepts the right of the states to have their own legislation and ways of implementing existing and new laws for national political aims, like the scope and purpose of the public service¹¹⁶. This right is also mentioned in the annex on telecommunications¹¹⁷. Switzerland has made use of it until now.

This right is also valid for the Agreement about Basic Telecommunications of 1997. 70 countries (including Switzerland) agreed to add basic telecommunications commitments to GATS schedules, with effect from January 1998. They undertook to open the market for foreign firms, including allowing them to own and operate an independent telecommunications network infrastructure. Regulations about supervision, interconnection rules, and independent regulators were also included.

In 2000, negotiations about the trade of services were officially resumed. By March 2003, every country had to submit an offer on how far it was prepared to liberalise its trade in services. The Swiss offer is the result of consultation with leges only if they are located in economically marginalised regions of Switzerland. Apart from that precautionary notification, the basic WTO/ GATS principle of non-discrimination will oblige Switzerland, to offer foreign competitors the same privileges as local entities and will make it more difficult to implement a targeted regional policy. Radio and TV broadcasting have been excluded from the Swiss liberalisation offer.

Switzerland's economy depends to great extent on the service sector and, as a rule, Switzerland is very interested in a level playing field in devel-



A TV crew filming trash people near Matterhorn

the direct stakeholders involved, but excluding NGOs. Switzerland campaigns for further liberalisation steps¹¹⁸. There are two objectives: On the one hand, the already incurred liabilities will be deepened and extended in order to raise the level of legally binding liberalisation, on the other hand, an effective market access will be ensured by adequate rules. The regulation systems of the different members of GATS have to be transparent, predictable and reliable.

Switzerland notified in GATS that foreign service providers are entitled to subsidies or tax privi-

oping countries. In telecommunications and audiovisuals, however, Switzerland did not demand further market access to other countries, as Swiss firms would not be interested¹¹⁹. In the context of the demands and offers of other GATS relevant services, Switzerland formulated its demands towards predominantly industrial countries (EU, USA, Japan). The least developed countries are not involved so far. The content of the demands considers the development status of the members. The relevant sectors are diverse services for companies, communication (express post services), construction, education (language schools), tourism, transport, transfer of expertise and financial services. From the point of view of the leading agency in Switzerland, the State Secretariat for Economic Affairs (seco), public services are not affected at all.

Swiss NGOs, like the Berne Declaration,¹²⁰ campaign for a moratorium on GATS negotiations until independent studies describe the repercussions of further liberalisation. Social and environmental standards - they fear - will increasingly come under pressure when they are seen just as trade barriers rather than a contribution to a fair economy and to nature preservation. Despite the fact that public services are explicitly excluded from GATS, the impact of the wording is said to be unclear, particularly in relation to partial privatisation, and the European Union, for example, does not rely on it. The Berne Declaration is convinced that GATS will affect public services as (1) industrialised countries will put pressure in favour of liberalisation and against tailor-made concepts to protect public services, (2) following privatisation, it will become more difficult to monitor and enforce the public services. In its World Development Report 2004 the World Bank raises the concern that for countries without a regulatory framework for social policy objectives trade negotiations alone could result in making the poor worse off¹²¹. It may be interesting to note that, in view of the upcoming negotiations on GATS, the International Development Committee of the House of Commons, United Kingdom, found it necessary to ask the government, "to guarantee that the right to regulate will include the right to regulate for pro-poor development and poverty reduction".122

4.4 Convention of the Alps

A short paragraph on the Convention of the Alps is included because this Convention takes up certain Swiss principles, such as the one on subsidiarity. This could serve as a model also for other agreements. In 1989, the Convention of the Alps was signed by seven countries (Austria, France, Germany, Italy, Liechtenstein, Switzerland, the former Yugoslavia and by the European Community) to jointly solve the ecological and economical problems of the Alps regions. In 1999, Switzerland ratified the framework convention. The negotiations about the protocols were completed in 2000. According to the Federal Council, the implementation does not involve any law amendments in Switzerland and the subsidiarity principle is included in each protocol. In December 2001, the recommendation of the Federal Council was sent to parliament. In the Fall of 2002, the commission of the Council of States declined to ratify the protocols as one package. The Council of States referred the paper to the commission in order to get a new assessment about the ratification of single protocols.

The protocols have always been contested in Switzerland. The main criticisms are that the nature conservation measures do not leave enough room for the economic development of the mountain regions and that the international convention affects the national law.

The following features (among others) of the convention cover the contents of the regional and sectoral policy and the financial equalisation of Switzerland:

- Protocol on urban and regional planning and sustainable development: promotion of a sustainable development; compensation for difficult production conditions and utilisation constraints; principle of financing equalisation and promotion of the economy.
- Protocol on mountain agriculture: promotion of mountain agriculture.
- Protocol on tourism: crossborder co-operation and promotion of innovation.
- Protocol on energy: compensation for the use of hydraulic power energy is possible.

The supporters of the convention highlight its following, positive aspects¹²³: The fact that certain Swiss principles are written into an international convention, is of great importance. With the ratification of the convention, the EU accepts, for the first time, that the Alp regions have particular potential and problems that require special policies. As mentioned, all convention partners accepted the principle of subsidiarity for the implementation of the protocols. This could serve as a model for other international conventions. It can be said that Switzerland's efforts to prevent or reduce social and regional disparities and to promote the cohesion of the country are considerable and are highly appreciated by the benefiting regions and people. Despite this positive experience, however, there is no reason to stop the effort to further develop the instruments and adapt them to new challenges in a changing political, economic and social life. What features of the current measures stand out? What lessons have been learnt? What knowledge may become a source of reflection and inspiration for other countries?

Balancing political institutions

Switzerland clearly commits itself to supporting all regions and to promoting the coherence and cultural diversity of the country. This is written into the Federal Constitution and the federal laws. In some cases, like the language article (Cst. §70), the cantons are responsible for its implementation. Further, due to the democratic and federalist system, minorities have a strong voice that cannot easily be overruled. The political will to promote cohesion and to involve minorities in the political decision making process is crucial for any amelioration of the situation of deprived regions and their population.

Inclusive processes in politics

The changes in Swiss law in the information and communication sectors, the draft of the new regional policy, and the new financial equalisation process were brought about only through comprehensive effort of inclusive politics in cooperation with many interest groups. The government not only profits from expert knowledge but the new laws also have a better chance of being passed by parliament and being accepted by a majority of the population in a referendum, since they are based on a broad consensus.

Communication in the Swiss political environment is marked by a federalist understanding. But, beyond federalism, communication and dialogue between the government, representatives of the economy and the civil society is also of great importance. In order to generate input from the economic sector and civil society, strong interest groups must exist. Information and communication technology not only plays an important role in building and educating such groups, it also supports their efficiency. Switzerland also promotes the co-operation of regions in their regional policy¹²⁴.

Keeping close contact with the economic sector and civil society is important not only in the design phase of constitutional amendments or law building but also for their effective implementation. Many laws are implemented by cantons, by parastatal companies, or by the private sector. The government, or a qualified institution, will supervise these implementations. Additionally, there must be some mechanisms for civil society to voice complaints, views and requests in relation to the supplied services.

Such bottom up mechanisms may be particularly interesting for countries with high levels of corruption. Studies of Transparency International revealed that in many countries, like Kenya, Nigeria, or Pakistan, bribes are widespread in dealings with middle and lower level civil servants¹²⁵; such corruption mainly affects the poor and vulnerable.

Financial equalisation

As a result of balanced political institutions and inclusive political processes, financial equalisation between economically weak and strong regions is an important tool to diminish regional divides. Since federalist structures automatically lead to wealth differences, the state needs to equalise them to a certain extent in order to avoid social friction. The financial equalisation tool enables weaker cantons to fulfil their tasks independently. In international relations, such an equalisation system is lacking. Official development assistance (ODA) is a voluntary, and very limited, step in that direction. It may be noted, however, that in international telecommunications a system is in place that channels funds from developing to developed countries. Until 1998 telephone fees were distributed among the sending and the receiving country at equal terms (50%/50%)¹²⁶. At the request of the USA, this balancing system was abolished for the internet, leading to additional annual costs for Africa of more than USD 1 bn. This is being called a "reverse subsidy" ultimately paid by African internet users to international internet backbone providers.



A medical doctor uses his mobile phone in the Grison mountains

Generous time budgets

A democratic political process that aims at balanced solutions for everybody needs time. Rushed liberalisation efforts that negatively affected public service obligations in the electricity sector in the USA and in public transport in the United Kingdom did not go unnoticed in Switzerland. In the liberalisation process of Switzerland, as well as in the reorganisation of the regional policy and the financial equalisation, time has been very important. Time to evaluate negative effects, time to get the people accustomed to the new ideas, time to arrive at majority decisions, and time to allow the public companies and authorities to make the necessary adjustments.

As a result, the liberalisation process proceeds rather slowly in Switzerland and is implemented step by step¹²⁷. The new laws are accompanied by many safeguards – some long term, some temporary – in order to maintain and improve public services all over the country and to provide adequate support to weaker Swiss regions that are faced with adverse economic conditions. Instead of a blanket liberalisation, for every sector another tailor-made solution has to be found. What proved effective for the telecommunication sector – a fast and far-reaching liberalisation would have caused serious problems for the post, with its 3500 post offices.

Supportive ICT-policies

The regulations for ICT-policies are embedded in this overall balancing environment. Information and communication technologies play an important role in supporting disadvantaged regions. There is an explicit, high priority government strategy, to prevent and bridge the digital divide. Many articles, either in the Federal Constitution or in the laws, oblige the government to provide basic public services concerning the information and communication sector at affordable prices and in equal quality all over the country. The delivery of the public service is complemented by the regional policy, which also promotes innovations in the ICT sector.

Comprehensive public service

Concerning public services, Switzerland not only allows for the delivery of an equal infrastructure all over the country, but also for an information system that considers the particularities of the regions and people. In the new radio and TV law, for example, in addition to the SRG SSR, regional stations are also accepted as public service providers under certain conditions.¹²⁸ Further, Switzerland provides special services for people who are visually challenged and those who are hard of hearing. The public service has to be affordable for all people. An independent regulatory authority is essential. In the laws, price disparities in the country are limited by:

- setting a price limit (telecommunication),
- setting fixed prices (radio and TV), or
- stipulating *an obligation* to provide the services at appropriate prices (post).

Financing options for public goods

In Switzerland, the market primarily determines the prices; the major part of public services are financed by tariffs and fees. Since providing public services is not always profitable in all regions, due to regulatory requirements, (e.g. the desire for low price disparities), the following solutions are applied¹²⁹:

- Monopoly-financing: The income from a costeffective monopoly serves to finance the nonpaying services (letter post today: the profitable urban mail covers the deficit of the rural regions, similarly private post and company mail).
- Fees from the competitors: To finance the uncovered cost of the public service, the competitors have to pay a fee (in the law for telecommunication and post, so far not used in practice)¹³⁰.
- Compensations: The state can make tax money available to the service supplier (public transport).
- Financing by earnings: The public service is financed by earnings that are generated by market competition (post: parcel service supported by the profitable provision of financial services).

For the delivery of the public service, as well as in the regional policy and the financial equalisation, there has been a change in the compensating measures. Until now the compensations have been cost-oriented, and therefore sometimes also cost generating, according to the new policies they will be in the form of global budget subsidies.

Coherence between internal policies and international representation

For Switzerland, the reduction of social and regional disparities has been one of the key objectives of its internal policies. In line with its tradition of involving minorities in the decision making process, Switzerland favours such efforts also in the international context. It promotes the strengthening of the political voice of the weaker regions by supporting delegations of developing countries and by, to a certain extent, including the topic of representation in international discussions.

In international negotiations, Switzerland usually supports the opening of the markets, including the ones of developing countries. Switzerland rightly emphasises the importance of an independent, transparent, predictable and reliable regulatory framework. Switzerland supports the idea of universal access and services in line with Swiss experiences. In this context, however, Switzerland should strongly keep in mind that social and political change needs time and that a tailor-made and step by step liberalisation may be a more sustainable and inclusive way to shape the regulatory ICT environment for the 21st century than a pure market-based liberalisation blueprint.

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Federal Constitution, federal laws and decrees

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An English translation of the Federal Constitution can be found under: http://www.admin.ch/ch/itl/rs/1/c101ENG.pdf.

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- Bundesgesetz über Investitionshilfe für Berggebiete (IHG) 901.1 vom 21.3. 1997 (Stand am 4.2.2003)
- Verordnung über die Festlegung der kantonalen Zusicherungslimiten für die Jahre 2003–2006 für Investitionshilfe im Berggebiet 901.111 vom 19.2.2003 (Stand am 1.3.2003)
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- Bundesbeschluss über die Unterstützung des Strukturwandels im ländlichen Raum 901.3 vom 21.3. 1997 (Stand 11.8. 1998)
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- Bundesgesetz über die Schweizerische Verkehrszentrale 935.21 vom 21. 12. 1955 (Stand 1. 7. 1995)

- Bundesbeschluss über die Förderung von Innovation und Zusammenarbeit im Tourismus (InnoTour) 935.22 vom 10. 10. 1997 (Stand 1. 2. 2000)
- Bundesbeschluss über einen Sondersatz der MWST für Beherbergungsleistungen AS 1996 2379 vom 22.3.1996
- Bundesgesetz über die Landwirtschaft (LwG), Änderung vom 20.6.2003
- Bundesbeschluss zur Neugestaltung des Finanzausgleichs und der Aufgaben zwischen Bund und Kantonen (NFA), Entwurf
- Bundesgesetz über den Finanzausgleich (FAG), Entwurf

Internet pages

- Federal Department of Environment, Transport, Energy and Communication: www.uvek.admin.ch
- Federal Department of Finance: www.efd.admin.ch
- Federal Office of Communications: www.bakom.ch

Regionet: www.regioplus.ch

- State Secretariat for Economic Affairs: www.seco-admin.ch
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- Swiss Federal Office for Agriculture: www.blw.admin.ch

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- Swisscom: www.swisscom.ch
- The Federal Authorities of the Swiss Cconfederation: www.admin.ch
- The Swiss Advertising Market: www.go4media.ch
- Trans-European cooperation between Switzerland and the European Union: www.interreg.ch
- World Trade Organization: www.wto.org

- ¹ A similar but broader analysis on the creation of an information society in a welfare state has been made by Castells/Himanen 2002 for Finland.
- ² The law about investment help for mountain regions of 1997 divides the mountain area in 54 regions.
- ³ See UBS: Die Schweiz in Zahlen, 2003.
- ⁴ Romansch is a national language but not an official language, which means that not all documents are translated into Romasch, but that people have a right to communicate in it, also when dealing with federal institutions.
- ⁵ See NZZ, 4.6.2003, p. 15: Wie steht es um unsere "Italianità"?
- ⁶ See www.statistik.admin.ch/news/pm/0350-0213-10.pdf.
- ⁷ See Switzerland in sight, Internet.
- ⁸ For more information on policy see chapter 2.
- ⁹ The following figures are taken from World Bank, World Development Report 2003, Washington 2002, pp. 235– 237, and World Bank, World Development Report 2004, pp. 252–253.
- ¹⁰ Among many others, see Gerster 1998.
- ¹¹ Federal Council 1998.
- ¹² See Koordinationsgruppe Informationsgesellschaft 2003, pp. 66–73.
- ¹³ For an overview and implementation progress see Koordinationsgruppe Informationsgesellschaft 2003.
- ¹⁴ E.g. a network to bridge the digital divide was created, see www.uvek.admin.ch/dokumentation/medienmitteilungen/ artikel/20030804/01505/index.html?lang=de.
- ¹⁵ Koordinationsgruppe Informationsgesellschaft 2003, p. 3.
- ¹⁶ See Minges 2003, p. 67.
- ¹⁷ See Minges 2003, p. 67.
- ¹⁸ ITU 2003, Executive Summary p. 5.
- ¹⁹ See OFCOM: Fernmeldestatistik, Entwicklung bis zum 31. 12. 2002 für bestimmte Indikatoren, 2003, OFCOM: Informationsgesellschaft Schweiz, 2002 and direct information from Swisscom.
- ²⁰ Figures from Bundesamt für Statistik/Gruppe für Wissenschaft und Forschung/Bundesamt für Kommunikation (OFCOM) 2002, p. 119.
- ²¹ Hollenstein/Woerter 2003, p. 42.

- ²² www.swisscom.com/pr/content/schulenansinternet2/ weitereinfos/faktenundzahlen/index_DE.html. The total number of schools is more difficult to establish, but the basis for the project was 5245 schools, as extrapolated in 1996/1997, see www.lch.ch/Medien/Aktuell/internet_ schulen.htm.
- ²³ See www.srg-ssr-idee-suisse.ch, www.bakom.ch and www.go4media.ch.
- ²⁴ See www.srg.ch/en/radio/en_radio.html. Multilingual programs on Swiss Radio International are in the three official languages of Switzerland and in English and Arabic.
- ²⁵ Multilingual Radio Stations include Radio RaBe in Bern, Radio LoRa in Zurich (which broadcasts in 17 languages), Kanal K in Aarau and others. They are members of the association of non-commercial community radios, UNIKOM, see www.unikomradios.ch. Furthermore many other Radio Stations such as Argovia, Radio 24 and Radio Z have/used to have programme windows for Italian, French, English, sometimes already for more than 10 years.
- ²⁶ Print media for comparison: 2722 newspapers and magazines existed in Switzerland in 2002. Most of them are in German, but there are also many in French or Italian and few in Romansch.
- ²⁷ See Bundesamt für Statistik: Informationsgesellschaft Schweiz, 2002.
- ²⁸ On the urban/rural divide in general in industrialised countries, Hudson summarises: "At every income level, house-holds in rural areas are significantly less likely sometimes half as likely to have home internet access than those in urban or central city areas. Those who are connected typically pay more than their urban counterparts for internet access." Hudson 2003, p. 2.
- ²⁹ Less than CHF 4000 a month. See media release of Bakom, 4 August 2003.
- ³⁰ See Bundeskanzlei: Die Ziele des Bundesrats 2003, p. 16.
- ³¹ ITU 2003, p. 15.
- ³² See Linder 1998.
- ³³ Bundesverfassung vom 18.4.1999 (Stand 15. 10. 2002).
- ³⁴ See Klöti/Knöpfel u.a. 1999, p. 78.
- ³⁵ See Klöti/Knöpfel u.a. 1999, p. 90.
- ³⁶ See www.uvek.admin.ch.
- ³⁷ Recent research results support a mixture of liberalisation and regulation in telecommunication, electricity, post, public transport, water and gas. See Neue Zürcher Zeitung 27/28 September 2003, p. 29.
- ³⁸ See SAB 2003; Neue Zürcher Zeitung 9 September 2003, p. 13.
- 37

- ³⁹ See www.bakom.ch.
- ⁴⁰ See OFCOM: Fernmeldestatistik, Entwicklung bis zum 31.12.2002 f
 ür bestimmte Indikatoren, 2003, p. 3.
- ⁴¹ One billion equals 1000 millions.
- ⁴² Fernmeldegesetz (FMG) 784.10 vom 30.4. 1997 (Stand am 18. 12. 2001).
- ⁴³ Verordnung über Fernmeldedienste (FDV) 784.101.1 vom 31. 10. 2001 (Stand am 25. 3. 2003).
- ⁴⁴ See ComCom: Grundversorgungskonzession Nr. 25530 2003 für Swisscom fixnet AG.
- ⁴⁵ Michael Frank, Swisscom.
- ⁴⁶ Verordnung über Fernmeldedienste (FDV), Änderung vom 7.3.2003, provisorische Fassung.
- ⁴⁷ UVEK: Änderung des Fernmeldegesetzes und seiner Ausführungsverordnungen, Vernehmlassung, Zusammenfassung der Ergebnisse, Jan. 2003; Fernmeldegesetz (FMG) 784.10 vom 30.4. 1997, Änderungsentwurf vom 3.7.2002.
- ⁴⁸ See SAB: Stellungnahme zur Änderung des Fernmeldegesetzes und Ausführungsbestimmungen, 30.9.2002.
- ⁴⁹ SAB 2003; Neue Zürcher Zeitung, 9 September 2003, p. 13.
- ⁵⁰ An emerging consensus holds that the traditional system of governmentally allocated spectrum rights inhibits innovation and competition. The central question now facing policy makers is what form of spectrum management should replace the existing system. See the conference "Spectrum Policy: Property or Commons?", at http://cyberlaw.stanford.edu/spectrum/.
- ⁵¹ Bundesgesetz über Radio und Fernsehen (RTVG) 784.40 vom 21.6. 1991 (Stand am 23.7.2002).
- ⁵² Bundesgesetz über Radio und Fernsehen (RTVG), vor Vernehmlassung.
- ⁵³ UVEK: Bundesgesetz über Radio und Fernsehen (RTVG), Vernehmlassung, Zusammenstellung der Ergebnisse, 11/2001.
- ⁵⁴ Bundesgesetz über Radio und Fernsehen (RTVG), nach Vernehmlassung.
- ⁵⁵ UVEK: Konzession für die Schweizerische Radio- und Fernsehgesellschaft SRG SSR idée suisse vom 18. 11. 1992 (Stand 1. 1. 2003).
- ⁵⁶ Radio Emme, for example, needs 10 broadcast stations to reach 80'000 customers, while Radio 24 in the conurbation of Zurich reaches ten times more listeners with only one station. See UVEK: Erläuterung zum Entwurf für ein neues Radio- und Fernsehgesetz (RTVG), Vernehmlassung 2000, p. 74.

- ⁵⁷ In Geneva, Berne, Basel, Aarau, Lucerne, Schaffhausen and Zurich.
- ⁵⁸ See www.uvek.admin.ch.
- ⁵⁹ See Tages-Anzeiger, 10.5.2003: Bund spart mit höheren Gebühren.
- ⁶⁰ Postgesetz (PG) 783.0 vom 30.4. 1997 (Stand 3. 10. 2000).
- ⁶¹ Postgesetz (PG) 783.0 vom 30.4. 1997 (Stand 3. 10. 2000).
- ⁶² Postgesetz (PG), Änderung vom 21.3.2003.
- ⁶³ Bundesbeschluss betreffend die Gesamtschau zur weiteren Entwicklung des Postwesens in der Schweiz, Entwurf.
- ⁶⁴ A subsidiary is defined as a building with signboard, opening times for counters and a basic offer of services. For this and the following information see Fact Sheet – Umbau des Poststellennetzes, www.post.ch/Poste/Pdf/11_07_2001_ 15_10_51.pdf.
- ⁶⁵ See Schweizerische Post: Poststellennetz, Fragen-Antworten-Hintergründe-Fakten, Aug. 2001.
- ⁶⁶ For example in the village of Obergestlen. The community built one civil-service-centre that centralises the telecommunication and the post offices and services.
- ⁶⁷ See www.post.ch, news 4/2002.
- ⁶⁸ Postverordnung (VPG), Entwurf.
- ⁶⁹ The planned reconstruction of the letter distribution centres is not about the public service but about maintenance and creation of jobs. We will consider this subject in the regional policy chapter.
- ⁷⁰ Vernehmlassung zur Revision der Postverordnung, Sozialdemokratische Partei, 13. Aug. 2003.
- ⁷¹ See www.uvek.admin.ch/dokumentation/ medienmitteilungen/artikel/20030701/01481/ index.html?lang=de.
- ⁷² Postverordnung 783.01 (VPG) vom 29.1.1997 (Stand am 4.7.2000) and Postverordnung (VPG), Entwurf.
- ⁷³ See Ecoplan: Revision der Presseförderung, Zusammenfassung, 31.7.2001, p. 4.
- ⁷⁴ See www.uvek.admin.ch.
- ⁷⁵ Elektrizitätsmarktgesetz (EMG) vom 15. 12. 2000 (declined 9/2002).
- ⁷⁶ Elektrizitätsmarktverordnung (EMV) vom 27.3.2002 (declined in connection with the new law 9/2002).

- ⁷⁷ They attribute the differences to various factors such as density of customers and average consumption. See Ecoplan: Service Public im liberalisierten Strommarkt, 1999 in NZZ: 15. 1. 2001, p. 11: Ja der Gebirgskantone zum Elektrizitätsmarktgesetz.
- ⁷⁸ SAB: Stellungnahme der SAB zum Paket Post/Swisscom, 4/2001, p. 1.
- ⁷⁹ This needs to be understood in the educational context of Switzerland. About two thirds of all young people do apprenticeships after the compulsory nine years of school. See www.statistik.admin.ch/stat_ch/ber15/dber15.htm for details.
- ⁸⁰ Bundesgesetz über Investitionshilfe für Berggebiete (IHG) 901.1 vom 21.3. 1997 (Stand am 4.2.2003).
- ⁸¹ To see the actual limits: Verordnung über die Festlegung der kantonalen Zusicherungslimiten vom 19.2.2003.
- ⁸² www2i.seco-admin.ch/seco/seco2.nsf/Atts/ST_ RegRaumPStatistik/\$file/D_IHG_JAHRE.XLS.
- ⁸³ Bundesgesetz über die Gewährung von Bürgschaften und Zinskostenbeiträgen in Berggebieten (BGB) 901.2 vom 25. Juni 1976 (Stand am 1.2.2000).
- ⁸⁴ Bundesbeschluss zugunsten wirtschaftlicher Erneuerungsgebiete 951.93 vom 6. 10. 1995 (Stand 14. 8. 2001).
- ⁸⁵ Bundesbeschluss über die Unterstützung des Strukturwandels im ländlichen Raum 901.3 vom 21.3. 1997 (Stand 11.8. 1998); www.regioplus.ch.
- ⁸⁶ Project examples are the biosphere reserve in the Entlebuch region, the information and guest-service centre in Brig and hiking trails in different regions.
- ⁸⁷ See www.interreg.ch.
- ⁸⁸ Bundesgesetz über die Schweizerische Verkehrszentrale 935.21 vom 21. 12. 1955 (Stand 1.7. 1995).
- ⁸⁹ Bundesgesetz über die Förderung des Hotel- und Kurortkredites 935.12 vom 1.7. 1966 (Stand 1.2. 2000).
- ⁹⁰ Bundesbeschluss über die Förderung von Innovation und Zusammenarbeit im Tourismus (InnoTour) 935.22 vom 10. 10. 1997 (Stand 1. 2. 2000).
- ⁹¹ Bundesverfassung §196 14.n.3 and Bundesbeschluss über einen Sondersatz der MWST für Beherbergungsleistungen AS 1996 2379 vom 22.3. 1996, extended until 2006 by the parliament in 2003.
- ⁹² See www.blw.admin.ch.
- ⁹³ Bundesgesetz über die Landwirtschaft (LwG), Änderung vom 20.6.2003.
- ⁹⁴ See SAB: Engagiert f
 ür die Berglandwirtschaft, Heft Nr. 174, Jan. 2003, p. 12.

- ⁹⁵ In this context, liberalisation means abolition of the milk contingents.
- ⁹⁶ See SAB: Flankierende regionalpolitische Massnahmen, Montagna 11/2001, www.seco-admin.ch and www.uvek.ch.
- ⁹⁷ See Bundesbehörden der Schweizerischen Eidgenossenschaft: Pressemitteilungen; Regionale Liberalisierungswirkungen: Positive Zwischenbilanz, 11.9.2001 and SAB: Flankierende regionalpolitische Massnahmen, Montagna 11/2001.
- ⁹⁸ See www.swisscom.com/pr/content/schulenansinternet2/ index_DE.html
- ⁹⁹ See www.post.ch, news 5/2003 and NZZ, 28.5.2003, p. 13: Drei Zentren und sechs Subzentren.
- ¹⁰⁰ See SAB: Positionspapier Regionalpolitik, 8.5.2003.
- ¹⁰¹ See Brugger und Partner AG: Expertenkommission "Überprüfung und Neukonzeption der Regionalpolitik", Neue Regionalpolitik (NRP), Zusammenfassung Schlussbericht, 6.2.2003.
- ¹⁰² Calculation based on the assumption of a Fund capital endowment of CHF 1.2 billion and an annual average interest of 3%. Communication by Thomas Egger. See also NZZ 12./13.4.2003, p. 29: Die Schweizer Regionalpolitik im Umbruch, with earlier figures.
- ¹⁰³ See Federal Dept. of Finance (FDF): Botschaft zur Neugestaltung des Finanzausgleichs und der Aufgaben zwischen Bund und Kantonen (NFA), 14. 11. 2001.
- ¹⁰⁴ See SAB: Positionspapier: Die Neugestaltung des Finanzausgleichs und der Aufgaben (NFA), 19.4.2002.
- ¹⁰⁵ Bundesbeschluss zur Neugestaltung des Finanzausgleichs und der Aufgaben zwischen Bund und Kantonen (NFA), Entwurf.
- ¹⁰⁶ Bundesgesetz über den Finanzausgleich (FAG), Entwurf.
- ¹⁰⁷ See www.efd.admin.ch.
- ¹⁰⁸ See NZZ, 20.6.2003, p. 11: Ode an den Steuerwettbewerb.
- ¹⁰⁹ Based on model assumptions; figures will be recalculated at a later date. Source: Message of the Federal Council to Parliament.
- ¹¹⁰ Chang Ha-Joon 2002.
- ¹¹¹ Gerster 2002.
- ¹¹² See www.bakom.ch.
- ¹¹³ See SDC/OFCOM: internal paper.
- ¹¹⁴ See www.trado.org.
- ¹¹⁵ See www.ict-4d.org.

- ¹¹⁶ See Federal Department of Economic Affairs (EVD): WTO-Verhandlungen über die Dienstleistungen (GATS), April 2003.
- ¹¹⁷ GATS: Annex on telecommunications, §5.e(i), 1994.
- ¹¹⁸ See www.seco-admin.ch/GATS.
- ¹¹⁹ Koordinationsgruppe Informationsgesellschaft 2003, p. 18.
- ¹²⁰ Jäggi/Hochuli 2003.
- ¹²¹ World Bank 2003, p. 105.
- ¹²² International Development Committee 2003, p. 3.
- ¹²³ See SAB: Positionspapier Alpenkonvention, 19.4.2002.
- ¹²⁴ The creation of the 54 mountain regions led to a stronger identification of the people with their region. The newer instruments support also interregional or even cross-border projects which leads to new forms of collaboration.

- ¹²⁵ See Shadrach/Ekeanyanwu: Improving the transparency, quality and effectiveness of pro-poor public service using ICTs: an attempt by Transparency International, 2003.
- ¹²⁶ See AfrISPA, The Halfway Proposition. Background Paper on reverse subsity of G8 countries by African ISPs, www.afrispa.org; Fullsack J.-L., L'UIT la vieille dame des telecommunications dans la tourmente libérale, p. 13, www.globenet.org/csdptt/.
- ¹²⁷ Refer to the chapter on electricity for a practical illustration.
- ¹²⁸ Drawing from experiences with community radio it supports the insight that a sound legal framework is needed which underlines the functions of such providers.
- ¹²⁹ See www.uvek.admin.ch.
- ¹³⁰ In the international context this discussion is led under the heading "Universal Access Fund". Various models have been drafted, but only a few implemented.

LIST OF ABBREVIATIONS

BAKOM	Federal Office of Communications (= OFCOM)
CHF	Swiss Franc
ComCom	Federal Communications Commission
Cst.	Federal Constitution
DSL	Digital Subscriber Lines
EIU	Economist Intelligence Unit
GATS	General Agreement on Trade in Services
GDP	Gross Domestic Product
GKP	Global Knowledge Partnership
GSM	Global System for Mobile Communication
ICT	Information and Communication Technology
ICT4D	Information and Communication Technologies for Development
ISDN	Integrated Services Digital Network
ITU	International Telecommunication Union
NGO	Non-governmental Organisation
NZZ	Neue Zürcher Zeitung
ODA	Official Development Assistance
OFCOM	Federal Office of Communications (= Bakom)
PSTN	Public Switched Telephone Network
PTT	Post Telefon Telegraf
SAB	Schweizerische Arbeitsgemeinschaft für Berggebiete / Swiss Coalition for Mountain Regions
SBB	Swiss Federal Railways
SDC	Swiss Agency for Development and Cooperation
SECO	State Secretariat for Economic Affairs
SRG SSR	Swiss Broadcasting Corporation
USD	US Dollar
UVEK	Federal Department of Environment, Transport, Energy and Communications
VAT	Value Added Tax
WLL	Wireless Local Loop
WSIS	World Summit on the Information Society
WTO	World Trade Organisation

41

