

Railways: Competition and Basic Mobility

(Wettbewerb und Grundversorgung auf der Schiene)

Project D2 of the
National Research Programme (NRP) 41
'Transport and Environment'

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Publisher:

National Research Programm NRP 41:

Transport and Environment

Bern, 2000

0 Summary

0.1. Current Approaches to Rail Reform

0.1.1. Rail Reform in Switzerland

The objectives and instruments for **Switzerland's Overall Transport Policy** are interconnected. The Federal Council has formulated **overall objectives** requiring the rail reforms to achieve the following - to maintain the mobility of all social groups in all regions; to manage transport as efficiently and as environmentally friendly as possible, saving energy and space; to enable co-operation of carriers for mutual benefit; to strengthen location advantages and competitiveness; to utilise public funds economically and to increase the financial self-sufficiency of public transport; and finally, to integrate Switzerland into European transport planning.

Treaties reached through bilateral negotiations with the European Union, performance-related heavy goods road charges, implementation of the legislation on Alpine protection as part of the Federal Constitution, and the funding of substantial projects for rail transport, are important **corner-stones** of an overall transport policy.

The rail reform 1996-99 was based on **preparations** carried out by the Federal Administration, rail operators, and panels of experts, such as the "Groupe de réflexion über die Zukunft der Schweizerischen Bundesbahn – SBB" (Think-tank for the future of Swiss Federal Railway" of 1992/93). Legislation launched at the end of 1996 came into force on 1st January 1999 with a major impact on such areas as competition, transparency, relations between the Federal Administration and SBB, as well as on the new orientation of SBB. It complements the review of the Railway Act 1995/96, which introduced important innovations, especially for regional transport networks. SBB and various other franchised transport providers had implemented internal reforms during the mid-nineties and promoted, in particular, a more transparent and efficiency-orientated relationship between the fields of transport and infrastructure planning.

The regulations, in force since 1996, concerning the use and funding of regional public transport provision, have been used widely since the rail reform of 1999. These regulations transferred greater responsibilities to the Cantons, together with more transparent funding, more incentives for efficient handling, and the first approaches to development of competition through invitation to tender for service providers.

0.1.2. Experience from abroad, and Cross Comparisons with Switzerland

The Swiss Rail Reform of 1996-99 was strongly influenced by EU principles. In the mid-eighties the European Commission started to implement a very active policy of promoting the railways. The main instruments were decisions relating to Trans-European Networks (TEN), and Regulation 440 of 1991, introducing preconditions for the independence of railway management from national politics, for the separation of accounting for infrastructure management and transport services, the financial restructuring of the national railways, and rights of access to third-party tracks for certain transport providers. During the time these concepts have been implemented in different ways by various EU member states the railways generally have been losing market share and jobs. Any positive developments can only be seen as tentative.

The report presents the rail reforms of Germany, France, the UK, and Sweden, and compares them with changes taking place in Switzerland¹, illustrating for each country the general features of the reforms, influences from politics, and the regulations for competition and corporate structures. Solutions vary greatly with regard to their political foundations and also their entrepreneurial viewpoints. Switzerland has chosen a combined solution comprising elements from various models.

¹ Tabular Cross Comparison in Chapter 1.3.1.

An extended survey of the criteria for Network Access and Separation of Transport / Infrastructure provides the following results².

Table S-1: Survey of criteria for Network Access and Separation of Transport/Infrastructure

Type	Countries	Organisational Infrastructure Traffic	Network Access
Overseas Model	USA, Japan, New Zealand	Integrated Companies	No Network Access (private monopoly)
British Model	United Kingdom	Separation (far-reaching disintegration)	No Network Access (long-term franchise)
Scandinavian/Iberian Model	Sweden, Denmark, Norway, Finland, Portugal, Spain	Separation (infrastructure as state authority, public transport as state-run Plc)	Network Access
"Alemannic" Model	Germany, Austria, Switzerland, Ireland	Integrated Companies	Network Access

0.2. Basic Reform Models

0.2.1. The Dis-integration Approach of Regulation

This new regulatory approach distinguishes between **three levels of the railway system**: level I as the provision of rail transportation; level II as system control; and level III as the development and operation of rail infrastructure. This regulatory approach demands vertical dis-integration and a partial reversal of horizontal integration of rail corporations. Technical, as well economic surveys are required to establish to what extent this would be feasible and sensible. Today, nobody continues to doubt the feasibility of an organisational separation of level I from levels II and III, whereas generally the feasibility of a separation of levels II and III is still being disputed. This research study points out that such a separation is feasible – technically as well as economically. Comparisons with air traffic provide valuable information for rail transport. During dis-integration the benefits from today's vertical structure of railway companies need to be more than compensated for by new competitive benefits and lower costs from horizontal co-ordination.

Competition will lead to increased efficiency and lower costs particularly with highly frequented tracks and railway infrastructure. Competition will also support demand-orientated concepts and timetables, as well as additional provision for peak-times or special offers for particular demand. If and when active competition is not feasible, virtual competition, in particular through regular invitations to tender for publicly subsidised services, could generate similar results. In a situation of open competition regulations for structuring railway companies will become more or less redundant, because in a market environment new corporations making a valuable contribution will emerge without administrative incentives. The introduction of increased competition will generate transaction costs through one-off co-ordination tasks and later through continuing co-ordination. Such co-ordination tasks play a major role in rail traffic as they can be designed more efficiently by agreements between equal partners than by government regulations. In part, the problem of significantly limited access because of high initial investment costs could be alleviated by new ways of generating resources, (e.g. through independent companies holding pools of rolling-stock for lease).

Our approach to regulation pays particular attention to a **symmetrical and undiscriminating access** to infrastructure. Access must be equally open for potential new applicants and for existing holders of legal rights ("grandfather rights"). A particularly high potential for discrimination would exist in a situation where transport services and infrastructure management remains linked within the same organisation. Discrimination-free access should be governed by demand on the one hand, and controlled by government authorities independent from such companies on the other. Both approaches seem to support a situation where the utilisation of infrastructure is regulated through tight price structures, and the management of infrastructure capacity is separated, legally as well as individually, from public ownership of infrastructure, and from governmental competition regulators. Additionally, discrimination-free handling should be combined with economic, efficiency-promoting incentives for capacity management.

² See Number 4.1.1.

For the operation of the track network, elements of competition could be combined with elements of co-operation. For future railways, electronic traffic control and safety systems will place particular demands on technology and the economy, and should be standardised as much as possible. This situation could create market forces to the benefit of infrastructure providers, which should be limited through incentives for competition, e.g. through periodical invitation to tender and supervision of access fees applied.

0.2.2. Description of the Three Reform Models

The research study distinguishes between three reform models (A, B and C) which are characterised by different links between levels I, II and III. Model A separates the service providers of levels I, II and III and at the same time excludes the provision of infrastructure and transport services by the same company. Model B uses the same pattern of “incompatibility” but integrates levels II and III. Model C separates level I from integrated levels II and III and permits one company to serve on both these levels. We believe that Model A would allow for the most intensive competition in combination with a minimum of government regulation and, at the same time, would optimise the promotion of public transport.

Reform Model A would create comprehensive competition between service providers as well as full freedom to co-operate and collaborate. Companies would enjoy complete freedom in their pricing policy despite common technical price structures. We assume a meaningful co-existence between large transport providers with a broad range of services on the one hand and smaller, specialised market-niche providers on the other hand. Model A liberates system controls as an independent function and also makes infrastructure providers independent. This model also enables the abolition of administrative priority regulations for network access (e.g. priority for scheduled passenger transport). Access fees should be continuously optimised through tight price limits, and should reflect the market value of the infrastructure. Within this framework a two-tier price structure (following, for example, the system introduced in Germany in 1998) would make sense as long as it remains optional. In order to enforce freedom from discrimination, government control of such tight price limits is required.

Due to the prevention of transport and infrastructure services being combined in one hand, **Reform Model B** is less likely than Model A to jeopardise competition. A major disadvantage, however, would result from the integration of levels II and III, because the benefits of nation-wide system integration and independence of level II, with simultaneous optimisation of infrastructure management in a business environment, would be lost.

Reform Model C would continue to permit traditional, vertically integrated companies, and conforms to most of today’s regulatory models. As with Model B, it eliminates the advantages of differently structured levels II and III. In addition, it provides a significant risk of “displacement competition” in complementary transport markets through asymmetrical conditions for network access. This model is wide open to abuse through market forces and the dependence on competition and forced co-operation in mixed systems. This model requires “clever” mechanisms and regulations to inhibit discrimination; a vital premise, in our opinion, would be the “essential facilities doctrine” of American anti-trust legislation (see detailed description in paragraph 2.3.3.2). Any enforcement of these anti-monopoly regulations should be combined with the provision that all transport providers are permitted equal rights of network access, regardless of traditional privileges of existing providers. In addition this model requires a relatively closely-knit supervision of network access pricing. Furthermore, Model C cannot be improved significantly through the company separation of levels II and III because it would remain open for (clandestine) agreements between a market leader operating on levels I and III and the management of level II. Therefore this separation of the three levels needs to be linked with the exclusion of simultaneous services on levels I and III, which would be in keeping with Reform Model A. In view of all these issues, our research study consequently favours Reform Model A for further comparison and evaluation.

0.2.3. Public Services and Solutions for Transition Problems

Public services could be generated by all three Reform Models A, B and C, and funded. Again, the need for funding could be reduced by intense competition. Provided that the system of long-term franchising is preserved for passenger transport, the granting of franchises could be linked to the minimisation of funding for desirable **public services** as defined by policy (“auctioning” and/or competition for the lowest possible subsidies). Rigorous avoidance of the protection of traditional rights of previous providers is required, particularly during the transition period, as well as the need for open invitations to tender for the supply of basic services.

One of the frequently occurring **transition problems** would be the question as to whether reforms towards market deregulation and competition – in the (alleged) interest of procedural justice – should be in stages. Although our research study concludes that – from an economic viewpoint – staging would be unnecessary, or could even cause insufficient exploitation of benefits, however, for political reasons (as discussed in detail in chapter 6) step-by-step execution will be unavoidable. In addition we asked ourselves to what extent the reforms in Switzerland depend on a **Europe-wide harmonisation** of framework conditions. Of course, the objectives postulated by this study are applicable to Europe in its entirety, and will be implemented much more successfully if consolidated by all European countries. A politically important objective, to preserve mutual rights, could hinder reforms significantly as it would tend to favour the worst (i.e. most restrictive) solution. A further problem is presented by **intermodal competition**. The reforms postulated by this research study could be implemented independently from basic changes of the competition scenario between rail, road and air traffic. At least the impact of such reforms would be increased if the basic objectives could be implemented for road traffic, especially through tight price mechanisms for the usage of road infrastructures, and by integrating all infrastructure costs and external costs into the price structure. A final, and delicate question is always the consolidation of inherited debts, or the disencumbrance of railway companies, as often requested in connection with reforms. This can lead to politically delicate decisions with distorting effects on competition, unless all (potential) applicants are treated equally. For this reason, harmonised regulations for investment funding, or reimbursement of public funding for all companies, need to be considered.

0.3 The Swiss Rail Reform in Comparison with the Reform Models

0.3.1. Transport Safety

Safety is undoubtedly one of the strong points of rail transport and an objective common to all reform models. Under the previous railway legislation of Switzerland (prior to the Rail Reform 1996-99) the railways were responsible for many safety factors. With increased competition, and the separation of accounting for organisation of traffic and infrastructure, the regulating authority will have to assume more monitoring tasks. Safety standards must not have a discriminatory effect. The Rail Reform 1996-99 introduced the instrument of risk management, the proof of which forms part of the basis for grants and approvals (in individual cases for franchises and network access). Further reforms drafted in our research study do not alter these procedures fundamentally, but the potential for discrimination through safety requirements needs to be addressed, particularly in an overall competition scenario. At the same time, safety standards could be further improved through consistent systems integration (level II).

0.3.2. Different Treatment of Passenger Transport, Freight Traffic and Long Distance and Regional Transport

In various important regulation areas, the Rail Reform 1996-99 provides for different solutions. For passenger and goods transport, for example, clearly differentiated regulations apply. The major part of passenger transport is excluded from competition (through franchise systems and performance agreements between government and SBB); scheduled passenger transport enjoys priority for network access; and price structures for the use of infrastructure differ in franchised (passenger)

transport. From the viewpoint of our Reform Models such differences will be hardly justifiable in the future, and the few remaining “liberal” regulations, particularly for passenger transport, should be consolidated with the more open solutions for goods traffic.

0.3.3. System Priorities and System Integration

The priority of system access for scheduled passenger transport, as provided for by the Rail Reform 1996-99, was based on the concern that this type of transport, with its impact on markets and politics, would otherwise be jeopardised. We, however, believe that such system transport can be secured even under competitive conditions, and with open priorities, provided that this type of transport would also support the necessary pricing implications of insufficient infrastructure (which could mean higher compensation in particular for public orderers in regional transport). Special developments in level II (operational systems integration) aim particularly to optimise system traffic across several infrastructure networks, and for the most varied transport providers. We demonstrate that such a system integration of the three sub-functions, pricing system, capacity management, and operational systems control, will lead to a significant optimisation of the system, and reduced risks of discrimination on the one hand, while on the other hand will increase providers’ freedom of utilisation. A more detailed design will have to pay special attention to suitable incentive systems that ensure the realisation of commercial optimising potential, and a generally efficient utilisation of the entire system.

0.3.4. Price Structure of the Use of Infrastructure, and Competition in Public Transport Offers

The Rail Reform 1996-99 has set a strongly regulated system of price structures for the use of infrastructure, and leaves capacity and infrastructure managers little scope for action. In addition, with the criteria of revenue potential (for scheduled passenger transport), network costs, and environmental pollution (for the remaining modes of transport), it introduces control factors which we consider less suitable than an orientation towards demand and lack of capacity in the infrastructure. The price structure presently introduced in Switzerland will also favour the status quo to a large extent. The franchise system for passenger transport, which is continued beyond 1999, and the authority transferred from the Federal Government to SBB as “system leader”, may be liable to promote the design of timetables in the interest of existing mechanisms. According to our conclusions, the introduction of competition in passenger transport, in combination with upgraded functions of systems integration, would promote marketable timetables.

0.3.5. Conflicts of Interest from Multiple Functions of Public Sector Institutions

Several responsibilities of the public sector (in particular federal and cantonal government authorities) indicate the existence of a great potential for conflicts of interest:

Table S-2: Conflicts of interest

Responsibility Areas	Federal Level	Cantonal Level
Legislation	Railway Act Passenger Transport Act Transport Act SBB Act	Legislation for public transport
Competition responsibilities	Arbitration committee railway act Federal competition committee	Selection decisions through invitations for tender
Planning of infrastructure	Build decisions (e.g. NEAT) planning permission procedures	
Financing of infrastructure	Loans, contributions or compensation for SBB & FTC infrastructures	Loans/contributions for FTC investments
Provision for public transport	Basic regime minimal provision concepts (e.g. Rail 2000) Joint funding of RPV (global) Compensation for freight traffic Joint funding skeleton loan	Provision decisions RPV Ordering RPV Joint funding RPV Joint funding skeleton loans
Ownership of companies	Full ownership SBB-Ltd. Joint ownership FTC-Ltd.'s Indirect ownership Post Office road fleet	Joint ownership FTC-Ltd.'s

In our opinion, the most sensitive link would be that between the ownership function on the one hand, and regulatory and monitoring tasks on the other, because the functions of arbitrator and player should be separated here as rigorously as in other areas of community and economy. The Rail Reform 1996-99 does indeed provide for a certain decrease of conflict situations, although our reform approaches could provide for further increased transparency and the necessary reduction in concentration of responsibilities.

0.3.6. Additional Issues: Rolling Stock Leasing, Invitations to Tender, and Response to Resistance

Further reforms also require new solutions for the utilisation of important resources. In particular, the utilisation of **rolling stock**, including locomotives, through independent specialised companies could increase the flexibility of providers within the competitive environment, without the risk of quality loss for customers. New ways of employing specialised personnel with expert operational and safety training to work for different transport providers should also be considered.

With regard to the tender of public services, the Rail Reform 1996-99 did not generate any conceptual innovations, but extended the application of the new regulations of 1995/96. These prove to be also generally reasonable in our expanded Reform Models, provided the openness of invitations to tender, and the inclusion of criteria for price differentiation, is promoted.

During the preparation and introduction of the Rail Reform 1996-99, existing railway companies and their staff were relatively well prepared to support changes and to implement them at work. However, those involved objected to further reforms suggested, such as the legal and entrepreneurial separation of transport and infrastructure services, or the abolition of the franchise system. More often than not, they were sceptical of reform steps which they considered to be too rapid and too radical³.

³ We refer to various statements made to us in interviews.

0.4 Perspectives of a New, Fundamental Reform

The fundamental Reform developed by the research study aims at:

1. Increased incentives from inter-modal competition
2. Strengthened market forces, including for passenger transport
3. Reduced risk of conflicts of interest through various functions of the public sector
4. Decreased potential for conflict between railway companies through integration of traffic and infrastructure
5. Improving competitiveness, and securing the future operation of Swiss railway companies in European markets, as well as within Switzerland
6. Improvements to public service issues in future public transport, with optimal conditions in an environment of increased competition

The basic model provides for the vertical dis-integration of existing companies, partial horizontal re-integration, and with particular attention to the three functions of central importance for the overall system⁴:

Table S-3: Basic model

Frame	Policy tender	Orders/compensations Federal/Cantonal Level		Regulations for public tenders (service agreements, tender agreements)		Overall concepts (Rail 2000, EU planning, etc.)
		<i>Contracts</i>		<i>Agreements</i>		
Level I	Traffic	TC (SBB/FTC) in the regions	Co/Lo ⁵	TU long distance traffic Switzerland	Co/Lo	Freight (various branches)
		<i>Contracts and/or Joint Ventures</i>				
Level II	Integration	Basic functions for entrepreneurial price and tariff structures, compound tariff systems, technology and systems for electronic pricing; possibly distribution channels, as well as selected funding services: development as independent service provider(s)				
		<i>link</i>				
Level II	Integration	Capacity management of infrastructures with open network access, incl. utilisation concepts and timetable design (all of CH, European network): independent service provider				
		<i>link</i>				
Level II	Integration	Central function of operational systems control (train running, information, safety), all of Switzerland (possible regional sub-units) plus European network; independent operating company/companies				
		<i>Contracts</i>		<i>Contracts</i>		<i>Contracts</i>
Level III	Infrastructure	Management companies Type I: regional networks + equipment	co-operation	Management companies Type II: main tracks (e.g. AlpTransit)	Co-operation	Management companies Type III: special facilities, e.g. stations
		<i>Contracts/Orders</i>				
Level III	Infrastructure	Owners' duties (decisions on new and redevelopments, funding); public sector or (public) Ltd of Swiss confederation: One unit for top network hierarchy			Owners' duties (decisions on new and redevelopment, funding); public sector or (public) Ltd.'s Cantons: 1-3 units for regional network hierarchy	
Frame	Political	Legislation/Law Federation and Cantons, competition regulations, safety and other regulations franchises and licences (operating and infrastructure approval) arbitration/appeal courts (specific conflict decisions as "arbitrators")				

This model should be interpreted firstly in relation to the basic reform considerations in Chapter 2, and secondly in relation to the in-depth statements in Chapter 4. This research study did not aim to apply this concept of a reform approach to the actual "entrepreneurial scenario" of Swiss rail companies. Chapter 6 describes the suggested process of applying the most important stages of implementation.

⁴ The main text contains several explanatory footnotes which, with one exception, have been omitted from the Summary.

⁵ Competition and co-operation depending on situation / policy decisions or company

0.5 The Rail Reform of 1996–99 and Additional Stages – Evaluation and Perspectives from an Overall Viewpoint

0.5.1. The Rail Reform as Part of an Overall Public Transport Policy

General objectives of the Federal Government (see Chapter 1) will lead to the following tangible results for rail transport:

Table S-4: Expectations from Public (Rail) Transport

Overall Objectives of General Transport Policy	Special Expectations from Public (Rail) Transport
1. Safeguarding mobility as a social achievement	<ul style="list-style-type: none"> • Safeguarding public provision for all groups of society and all regions with regard to access to public transport, attainability of destinations, and costs • Attractive and competitive alternatives to road traffic for passenger and freight transport • Contribution to the development of a new transport culture with special support for innovative forces
2. Management of transport as environmentally-friendly, energy-saving and space-saving as is possible	<ul style="list-style-type: none"> • Restructuring of transport means, and improvement of the modal splits, through increased competitiveness with road traffic • Unburdening densely populated areas of road traffic during peak times through attractive and competitive services • Enforcement of actions for better exploitation of rationalisation potential
3. Co-operation of transport providers with special regard to their comparative advantages	<ul style="list-style-type: none"> • Development of transport chains, and exploitation of all forms of co-operation with other transport providers, especially for road traffic • Removal of unprofitable rail transport services with clearly comparative benefits of (more flexible) road traffic • Development of new forms of services adapted to public demand (approaches to benefits of individual transport)
4. Strengthening of location advantages and competitiveness in Switzerland	<ul style="list-style-type: none"> • Attractive and powerful networking of Swiss cities • Links with European fast tracks and industrial centres • Rational and cost-effective traffic system through exploitation of competitive advantages.
5. Economical utilisation of public funds and more economic self-sufficiency in public transport	<ul style="list-style-type: none"> • Decrease of unnecessary and counterproductive subsidies • Exploitation of competitive advantages for service areas with public co-funding (basic services, transit freight traffic, etc.) • Application of the originator principle as a political maxim in harmonisation with appropriate measures in road traffic
6. Integration of Switzerland into European developments	<ul style="list-style-type: none"> • Compliance with the relevant EU regulations • Development of co-operation with European railways • Development of integrated, cross-border services and service providers

0.5.2. Market and Companies

Considerations regarding the **market power of railway companies** are influenced by the franchise system in passenger transport. This system safeguards, to a large extent, today's legal positions against market changes. Since **rail freight traffic** does not depend on franchise systems, greater changes can be achieved in a short period of time. At the beginning of 1999, SBB AG is dominant in rail freight traffic. The Rail Reform has permitted changes by granting access to the network for third-party border-crossing service providers. BLS in particular (and in co-operation with its future partner DB Cargo AG), or a consortium of other FTC rail freight carriers (e.g. MThB, SOB and RM), as well as foreign service providers, could aim for larger market shares. The Federal Government has labelled SBB AG as a "system provider for individual wagon load traffic" (performance agreement) in Switzerland, which could mean dependence for other rail companies. Although open (or less restricted) network access to international **passenger transport** would also be possible, cabotage prohibition for inland customers prevents attractive competition. The Federal Government has guaranteed SBB its position as national long-distance transport provider for a period of eight years. BLS and other FTCs are permitted to keep their business, but for the time being nobody can touch SBB against its will. The franchise system for regional passenger transport is overlaid by the order and reimbursement mechanism for public services; if a public customer takes a decision necessitating the re-assignment of franchises, then the Federal Government may order such changes (with mandatory compensation in case of damages). For this reason regional passenger transport could experience at least some gradual shift over the coming years.

So far the "system void of competition" has been dominated by the **co-operation** of railway companies in particular in relation to transit points between systems, international systems integration, price structuring and tariff agreements, as well as capacity management. Future combinations of new elements of competition with guaranteed positions would create complex scenarios with nothing more than dependence for smaller railway companies. The Reform Model presented by this research study would counteract the abuse of power through the principle of a consistently open network access, a vertical dis-integration of today's companies, and the new Swiss integrating functions. It would ensure that increased competition in important areas would not distort the market through dependence.

Systems integration and competition as design elements can be combined. The Rail Reform 1996-99, however, was still based on the hypothesis that competition would jeopardise systems integration (see performance agreement between Federal Government and SBB). We assume that the Reform Model will segregate and allocate the various functions in such a way that widely implemented competition will not jeopardise the valuable systems integration.

The relationships between **competition and integrated price and tariff systems** are also demanding. The Rail Reform 1996-99 is characterised by the principle that the public sector will provide for far-reaching pricing regulations within the infrastructure, and also within the transport scenario, via an order and reimbursement system. The leading role of SBB within the system is also apparent through its dominant role in pricing. The Reform Model provides for an independent company to generate and maintain a technically standardised basis for the entire system of public transport, whereas the players in public transport markets shall have as much freedom for their price structures as possible⁶.

In Switzerland, **capacity management and system operation control** are at the centre of public transport and, according to the Reform Model, would not only continue to be so, but would be developed further through vertical dis-integration of today's companies on the one hand, and horizontal re-integration of these two functions. Both areas also form important foundations for the productivity of public transport. According to the strong belief of all parties involved (company management, authorities, and customers) this **productivity** needs to be improved significantly if the railways are to satisfy future requirements. The Reform Model is supposed to contribute to real productivity improvements, in particular through aligning the various companies according to core competencies, specialities, size advantages in enterprise systems (economies of scale), and stronger entrepreneurial incentives for management.

⁶ The project "EasyRide" developed by the Swiss Rail & Coach Services could create a substantial base in this context

0.5.3. Politics and the Law

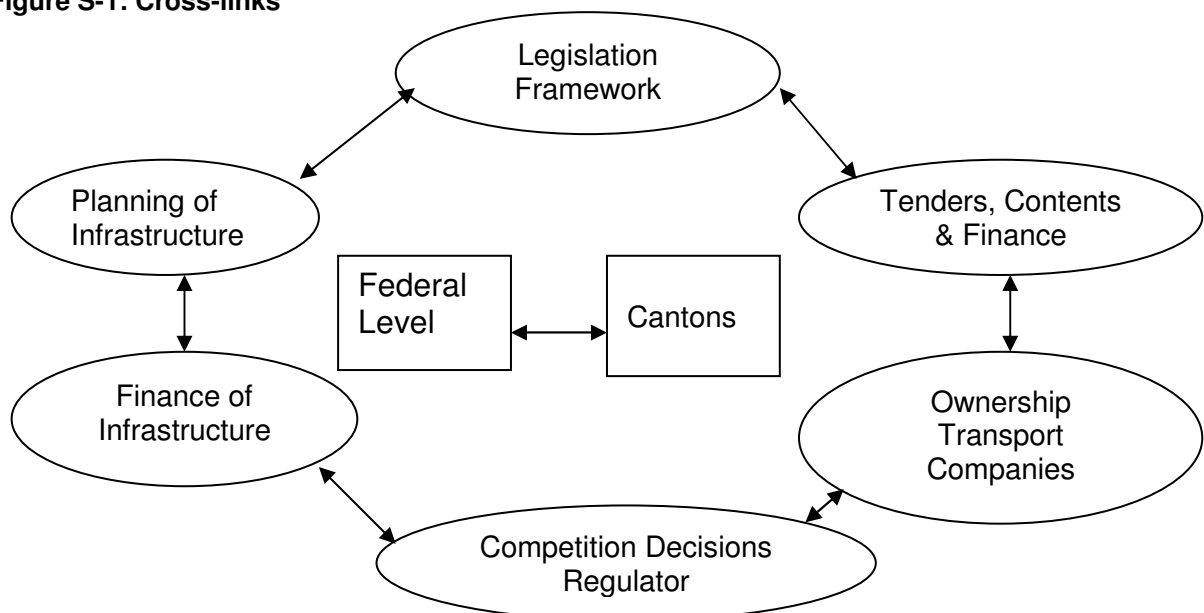
Public services are a major objective of traffic planning politics for maintaining the mobility potential for the entire population. This is because of the ecological importance of a high-quality public transport system and of efficient regional planning (industrial centres, residential and work areas, and leisure facilities). It is also because of the social function of public mobility as a “basic right” and, finally, because of the importance of transport planning activities for controlling the development of relationships between different transport providers (modal split). To date, **competition** and public services have generally been considered incompatible in political discussions. Our Reform Model demonstrates that both objectives are of equal importance, and that they are indeed compatible with each other. One can even assume that the provision of public services could be improved without increased funding through increased competition, focused orders and reimbursement. In this way increased intramodal competition could defuse the foreseeable fight for scarce public funding in favour of the various objectives of public services.

In their Rail Reform 1996-99, the Federal Government and Parliament defined **systems and access priorities** mainly from a political viewpoint. This was because of the necessary control in opening up the network, and the intended influence from politically defined circles on the handling of open network access (in particular network costs, environmental compliance and differences in revenue from various types of transport). Our Reform Model demonstrates the benefits of a price structure orientated towards shortages, i.e. controlled by supply and demand, and of open network access for all types of transport. At present, however, the research study cannot evaluate the practical effects of Rail Reform 1996-99 to date, but it could be assumed that, even with this system, market-orientated criteria will take effect in their respective areas.

The **internalisation of external costs and effects** is an important aspect for the political evaluation of rail reforms. This includes, in our opinion, the treatment of costs for public transport infrastructures not covered by transport providers. Whereas motorised road traffic causes high environmental and social costs which are not funded (e.g. road traffic accidents), rail traffic incurs high infrastructure costs which are not funded, as well as (by political decision) publicly funded expenses for basic services. Our Reform Model proposes to implement consolidated schedules and issues on the originator principle, in both areas, as far as possible.

Conflicts of interest between different functions of the public sector represent a special problem for the political framework of rail reforms, and they become even more sensitive with the present control system which is undergoing transition, and is therefore relatively unstable. This concerns the following cross-links:

Figure S-1: Cross-links



The responsibilities of the public sector for legislation, and for the monitoring of safety and competition, cannot reasonably be delegated. The same would apply to the (co-) funding of infrastructure and the making of basic decisions. Defusing conflicts, however, could be achieved through altering ownership positions. Accordingly, our Reform Model suggests several actions.

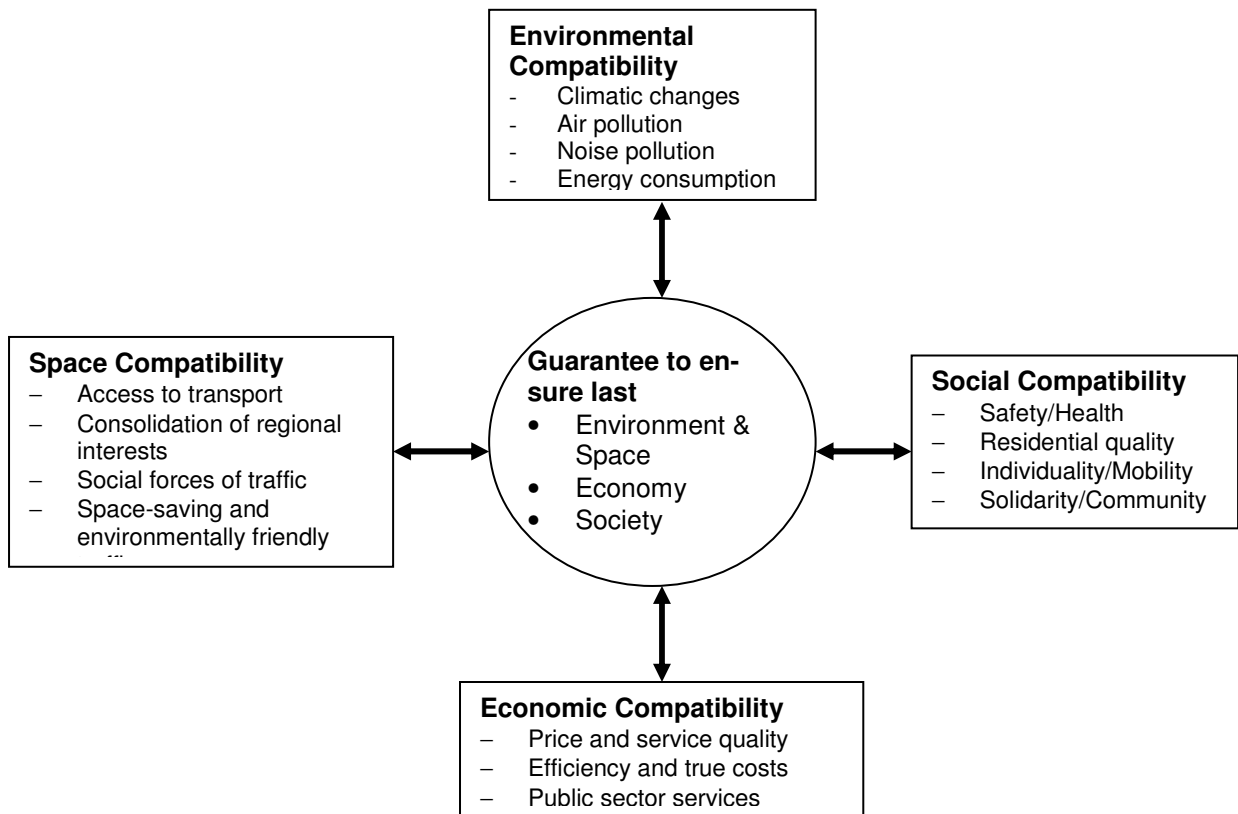
0.5.4. Environmental, Social and Regional Compatibility as well as Sustainability of Public Transport

Sustainability – defined as “development capable of meeting today’s needs without diminishing opportunities for future generations to satisfy their needs” – is of major importance in traffic planning. The objective of sustainability is to dominate strategic decisions in transport planning, e.g. through influencing the consumption of non-sustainable resources, by public sector funding of infrastructure capacity, and the achievement of further increases in traffic volumes. For this purpose, actions are required to improve the system’s efficiency and to influence mobility behaviour.

The research study examines the railway reforms more closely in relation to their **compatibility with environmental, geographical, economic and social issues**. With regard to **environmental compatibility**, the railways have a significantly better record than road traffic as far as climatic impact, air pollution, and energy consumption are concerned, although with regard to noise pollution they are equally as bad if, and when, old rolling stock is used. Energy consumption for railway operations should be monitored for optimum capacity usage and high productivity. Rail traffic has a similar impact on **geographical developments** as motorways, as it promotes long-term geographic concentration nodes. With regard to area usage, rail freight is clearly superior to goods transport by road (significantly lower energy consumption per ton and kilometre). For passenger transport, motorcars are, depending on the number of passengers, at least as efficient as railways, or even partially superior. The Rail Reform will be capable of improving the railways’ geographical compatibility if it leads to higher utilisation of services offered, and to a shifting of freight transport from road to rail. **Economic compatibility** of rail transport should be increased by rail reforms as these should create closer contact with customers, and secure public services at the same time. However, the changes that have taken place since the beginning of 1999 are inadequate. The effect of rail reforms on **social compatibility** has been subject to very little research. The satisfaction of reasonable mobility demands of many people at reasonable prices is a social mandate, which should be supported by the rail reforms.

In summary, the following criteria appear to be of importance for an evaluation of the Rail Reform's sustainability:

Figure S-2: Criteria for an evaluation of sustainability



Despite the above statements, it must be emphasised that this research study has not been able to carry out in-depth analyses of the relationship between Rail Reform and sustainability. At present, the Rail Reform's impact on the various compatibility criteria cannot be evaluated with sufficient precision. For this reason, initial crude estimates in qualitative and highly hypothetical form, by means of so-called comparison value analyses, will have to suffice.

0.6 Suggestions for Reengineering Public Transport in Switzerland

0.6.1. Modules of Future Reform Stages

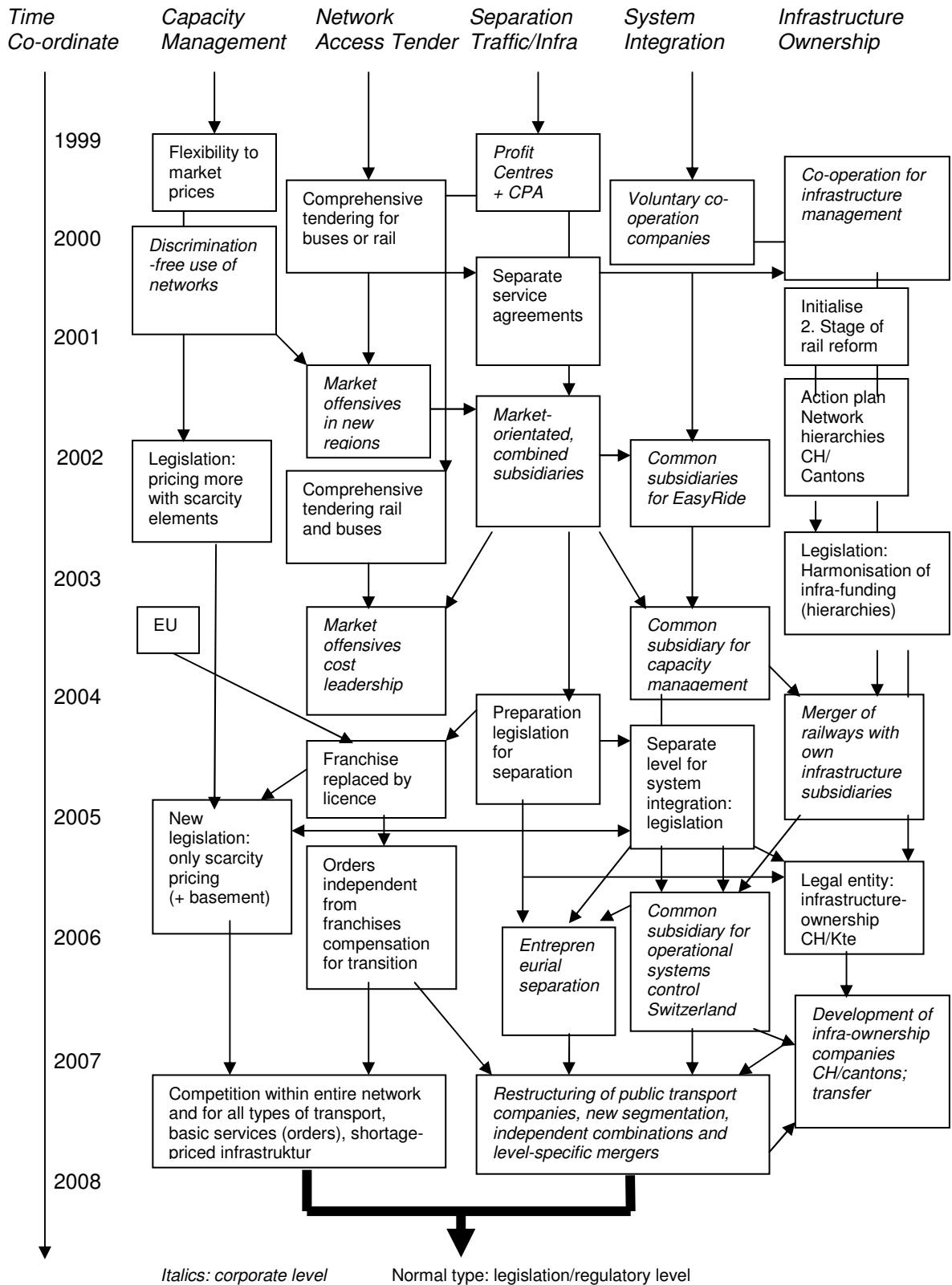
We consider the following reform areas as important elements for future programmes:

Table S-5: Reform elements for future programmes

Reform Area (issue)	Legislation/Regulation	Corporate Management
Infrastructure – Capacity Management	Increased market price structuring (legislation)	Discrimination-free opening of networks to third parties
	Re-organisation of price structure towards shortage principle	Market-orientated price structures within legal/regulatory framework
	Consistent legislation plus regulation with market orientation	Shortage-orientated utilisation of infrastructure and associated price structure for transport customers
Competition, Network Access and Service Ordering	True and open invitations to tender for regional transport (cantons/communities) for railways and buses	Active marketing with service offers in third-party regions
	Deregulation of franchise system for passenger transport (in particular long-distance traffic)	Active marketing with emphasis on leadership in costs
Separation of Traffic – Infrastructures	Service agreements with SBB/FTC/Post based on own profit centres	Company-internal profit centres and performance calculations/transparency
	Legal/Regulatory preparation /enabling for complete separation	Entrepreneurial/legal separation of traffic and infrastructure (subsidiaries)
	Separation of ownership strategies and regulatory duties	Re-engineering of companies to proceed according to model
Development of Systems Integration	Promotion of new companies for cross-section functions	Voluntary joint operations for systems control (operational integration)
	Legal basis for independent companies with three partial functions and new process and funding conditions	Establishment of common subsidiaries for capacity management, pricing (EasyCard) and operational systems control
		Independent functions for systems integration and European networking
Infrastructure Ownership	Harmonisation of investment funding and infrastructure	Co-operation for infrastructure management
	Plans for network hierarchy and structural concept Ownership CH/cantons	Mergers of railway companies plus simultaneous reduction in concentration of traffic/infrastructure
	Establish legal entities for swiss and cantonal networks, transfer of ownership	Transfer of infrastructure ownership

Cross-links of content and time exist between these modules for further rail reforms. In view of the mechanisms for decision-making in Switzerland, the following procedures for the various partial reforms could be envisaged, which would lead to the implementation of our Reform Models within a period of just under ten years⁷:

Figure S-3: Procedure of implementation of Reform Models



⁷ For the development of feasible reforms, preliminary pilot projects of railways and/or regulators could be beneficial.

0.6.2. Implementation of a Fundamental Reform of Public Transport in Switzerland

The further basic reforms of rail transport as suggested by us would require federal and cantonal government authorities to take action as **legislators and fund providers**. Of importance are - implementation of the Rail Reform 1996-99 (in particular network access, deregulation of freight transport, and relationship between Federal Government and SBB); the implementation of the regional transport reform (review of Railway Act 1995/96), and funding priorities. As a further step in a staged Rail Reform, technical issues (e.g. railway liability insurance) and the consolidation of investment funding (a motion passed by the Federal Parliament demands relevant legislation by the Federal Council within three years) will follow. Then our suggested reforms could be initiated.

Owners and management of **railway companies** are also required to take action. For several years company management exerted demanding internal reforms, programmes for increased efficiency, and reorganisation. The reform of regional transport and the Rail Reform 1996-99 triggered further changes. In comparison with our reform approach, these changes took place “bottom to top” within an essentially stable environment. For the future we would suggest an additional “top to bottom” strategy for federal and cantonal owners, in order to initiate nation-wide re-engineering with a common direction of impact.

It will be left mainly to the owners of railway companies as to how, from 1999 onwards, they should combine opportunities and new leadership approaches with far-reaching changes of the railway system of Switzerland, and its networking within Europe. Individual railway companies are not capable of designing the fundamental re-engineering, and altering the framework conditions (comprehensive open access, scarcity pricing for infrastructures). Hence, **impulses** for further reforms must come from federal and cantonal government authorities as owners and legislators with different responsibilities, which require harmonised procedures, and agreements with railway company management. These procedures need to pay special attention to the consideration and constructive integration of the requirements of customers and railway employees.

Opportunities and threats resulting from the reforms postulated by us can be categorised as follows:

Table S-6: Opportunities and Threats

	Opportunities / Benefits	Threats / (potential) Disadvantages
PUBLIC SECTOR (VARIOUS FUNCTIONS)	<ul style="list-style-type: none"> - improved efficiency - potential savings in public services - synergies + harmonisation - focused ownership tasks for infrastructures - decreased demand for subsidies through market mechanisms and cost reality 	<ul style="list-style-type: none"> - destabilising through too rapid implementation - unexpected side-effects - foreseeable reduction of public influence on companies
Rail Companies	<ul style="list-style-type: none"> - development of new markets - strengthened market position through widening - increased efficiency - deregulation and focusing on core competencies - orientation of structures to markets and processes - scope for flexible co-operation 	<ul style="list-style-type: none"> - loss of influence for top management through company splitting - less than optimal development of new transit points in system - loss of market shares for weaker companies
Customers	<ul style="list-style-type: none"> - innovative offers / added value - more value for money - increased focusing on customers 	<ul style="list-style-type: none"> - possible disadvantages in every-day operation during transition phase - increased prices caused by generator principle/cost reality, etc.

The reforms for Switzerland as suggested by this Research Study are “euro-compatible.” Many of their effects could be reinforced by similar reforms on a **European level** or in the EU member states (particularly in Switzerland’s neighbouring countries). This applies especially to the rules for capacity utilisation (scope and pricing for open network access) and to the strategic organisation and allocation of systems-integrating functions. Even if such changes cannot be implemented (as rapidly) on an EU level, these reforms would make sense for Switzerland and are legally and operationally feasible.

This research study **concludes** that railway transport competition and public services are not incompatible. Active promotion of competition and efficient development of public services should lead to new dynamics and larger market shares in public transport, with the accompanying benefits for customers, employees and the environment.

0.7 List of Abbreviations

BLS	Lötschbergbahn AG (Bern)
CH	Swiss Confederation
CPA	Cost-Performance-Account
DB	Deutsche Bahn: German Railways
EU	European Union
FTC	Franchised Transport Companies (konzessionierte Transportunternehmen KTU)
infra	infrastructure
Kte	Kantone: swiss states (cantons)
MThB	Mittel-Thurgau-Bahn (Weinfelden)
NEAT	Neue Eisenbahn-Alpentransversale, New Alpine Railways Transit (Tunnels)
Plc	Public limited company
RM	Regionalverkehr Mittelland (Burgdorf)
RPV	Regionaler Personenverkehr: Regional Passenger Transport
SBB	Schweizerische Bundesbahnen, Swiss Federal Railways
SOB	Südostbahn (Wädenswil)
TC	Transport Companies
TEN	Trans-European Networks
UK	United Kingdom
USA	United States of America