



Study on providing public transport in cross-border regions – mapping of existing services and legal obstacles

Case Study report

Train connection Domodossola (Italy) – Spiez (Switzerland)

Contract: 2019CE160AT093



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Table of Contents

1. Introduction.....	6
2. Features and benefits of the service.....	6
2.1. Geographic context and scope of the service	7
2.2. Demand for and benefits of the service	8
2.3. Governance	9
2.4. Operational provisions	10
3. Obstacles and solutions	11
3.1. Absence of common rules and regulations.....	11
3.1.1. Impact of the obstacle.....	11
3.1.2. Possible solutions	12
3.2. Inadequate infrastructure	12
3.2.1. Impact of the obstacle.....	12
3.2.2. Possible solutions	12
3.3. Different financial systems.....	12
3.3.1. Impact of the obstacle.....	12
3.3.2. Possible solutions	13
4. Conclusions and lessons learnt.....	13
References.....	13
Websites	13
Interviews.....	13

List of tables

Table 2.1	Characteristics of the business model	6
Table 2.2	Service fares.....	10
Table 3.1	Overview of obstacles	11

List of figures

Figure 2.1	Map of the Domodossola-Spiez cross-border rail service	7
Figure 2.2	Lötschberg mountain line	8

1. Introduction

This report is part of a series of 31 case studies developed in the framework of the study 'Providing public transport in cross-border regions – Mapping of existing services and legal obstacles'. Spatial Foresight in cooperation with TCP international, TRT Trasporti e territorio and EureConsult completed this study for the European Commission's DG REGIO.

The case studies highlight a variety of business models for cross-border public transport services. This includes governance arrangements and operational provisions to develop the service and address demand in border regions. These aspects will be introduced in section 2, as well as the territorial scope of the service. Section 3 presents key obstacles related to the business model as well as solutions. Section 4 is about lessons learnt from this case.

This case study presents the business model for the cross-border public rail service Domodossola-Spiez. It highlights how the service has originated by extending one line and at the same time replacing another one by making a better demand-oriented service and evolved through the years and its impact on jobs and tourism for both regions. The case study also highlights challenges linked to cultural differences, legal and financial frameworks and infrastructure capacity.

Sources for this case study are mainly desk research from Italian websites and interviews with the Swiss company BLS, the Domodossola-Spiez service operator.

2. Features and benefits of the service

Table 2.1 Characteristics of the business model

Transport service	Regional-express 'Loetschberger'
Mode of transport	Train
Service provider(s)(operator)	BLS AG (Switzerland; private operator)
Location	Domodossola (Verbano-Cusio-Ossola, Piedmont) Italy to Brig (connected to the existing line Bern-Spiez-Brig) Switzerland
Date when the service started	2016

Figure 2.1 Map of the Domodossola-Spiez cross-border rail service



Source: www.bahn.com

2.1. Geographic context and scope of the service

The 'Loetschberger' cross-border regional rail service connects the Alpine regions of Domodossola in the Italian Verbano-Cusio-Ossola province (Piedmont) with Spiez-Bern in the Swiss Bernese Oberland region (Canton Bern). There are strong economic relations between the two countries. Italy is Switzerland's second biggest trading partner after Germany, with trade of nearly EUR 30 billion. More than 70,000 people from Italy (mainly Lombardy and Piedmont) go to work daily in Switzerland.

Domodossola is a town of nearly 18,000 inhabitants at the foot of the Italian Alps and it is the core of the Ossola Valley. Throughout the 20th century its economy developed mainly through mechanical and steel industries. The proximity to Switzerland and the opening of the Simplon tunnel gave also significant impetus to the development of trade. Nowadays the role of industrial plants in the local economy is significantly reduced and the economy is mostly based on services. Domodossola is an important railway hub for both freight and passenger transport. Domodossola international station was inaugurated in 1906 following the opening of the Simplon Tunnel and currently manages approximately 1.4 million travellers per year.

Spiez is a Swiss municipality of nearly 13,000 inhabitants in the Canton of Bern in the Oberland region (Frutigen-Niedersimmental district). It is a public transport hub and a major junction on the Simplon line, one of two major north-south railway axes in Switzerland through the Alps. From Bern, the line goes through two major tunnels, the Lötschberg Base Tunnel in Brig (35 km open since 2007) and the Simplon Tunnel in Italy and on to Milan (20 km, open since 1906).

Operated by the Swiss company BSL, the Regional-express service 'Loetschberger' in about 106 minutes connects (12) locations; Domodossola, Varzo, Iselle di Trasquera (IT-CH border), Brig, Eggerberg, Ausserberg, Goppenstein, Kandersteg, Frutigen, Reichenbach Im Kandertal, Muelenen, and Spiez. The train splits in Spiez but does not go further than the border region.

Out of the 12 served locations, only 6 of them (i.e. Domodossola, Varzo, Iselle di Trasquera, Brig, Eggerberg and Ausserberg) are located within the border region. The service is operated with several daily services on every day in the week and an

average of 10 runs per day in all seasons. The first train from Domodossola is at 04:37 AM and the last train is at 19:58 PM.

An intercity train between Domodossola and Spiez (Eurocity 50 Milano Basel) also operates along the same line once a day.

Figure 2.2 Lötschberg mountain line



Source: Wikipedia

2.2. Demand for and benefits of the service

The target of the Domodossola-Spiez service is 50% commuters, and 50% tourists. The target group changes depending on the stops. Between Domodossola and Brig (the first stop after the tunnel in Switzerland), the target group is mainly Italian commuters (60%), the rest being tourists. Between Brig and Spiez, it is mainly leisure travellers and tourists.

The service was initiated by BLS in December 2016 and originated from the extension of the domestic railway service connecting the Bernese Oberland region and the upper Valais region (Swiss leg) to Domodossola in Italy (Italian leg). In December 2016, BLS won the contract for the service. The Italian government allocated management of the line to BLS for 6 years, including an option to extend for 1 more year.

In summer 2017, the service went through a major change when BLS introduced the 2-hour frequency service. Beforehand, there were up to only five trains per day. Since the line was mainly used by commuters, in 2017 the service during peak times increased, with a train every hour.

Despite the impact of the COVID-19 pandemic, BLS still notes growth in demand for the service. While there was a 40% drop in passengers in 2020 due to the pandemic, the line remained active. The drop mainly related to leisure travellers, while commuters continued to travel to Switzerland where teleworking is not the rule. During the pandemic, the offer on the line has improved and adjusted to the specific needs of passengers in times of pandemic.

Due to the geographical constraints (mountains), the train between Domodossola and Brig is by far the best travel option for that journey. The duration of the same journey by car is multiplied by 2 or even 3. Commuters therefore massively use this service.

The service was preceded by a study conducted by BFH University of Applied Sciences in Bern on behalf of BLS under the Interreg Italy-Switzerland 'Trenino verde delle Alpi' project. According to the study, overall the service should produce a total quantified impact of up EUR 65 million per year for the areas involved in the service. With public transport departing from Domodossola the impact for the Verbano-Cusio-Ossola (VCO) province should be EUR 12 million. Positive direct or indirect effects on employment on both sides of the Alps were also expected due to the improved service with some 960 full-time positions in tourism, mobility and related industries. As mentioned before originally the 'Loetschberger' train was a domestic train between Bern - Spiez and Brig. Its extension to Domodossola occurred after the closure of the existing service operated by SBB and RegionAlps, between Domodossola, Iselle and Brig (see also below). By replacing an existing service with lower frequency and few locations served, the 'Loetschberger' train has improved the connectivity within the border region.

At the moment, the service is sufficient to meet the demand of the local population, although occasionally some trains are full with commuters during peak times.

2.3. Governance

BLS AG is the largest independent private railway company in Switzerland created by the 2006 merger of BLS Lötschbergbahn and Regionalverkehr Mittelland AG. It is 55.8% owned by the canton of Berne, and 21.7% by the Swiss Confederation. It has two main business fields: passenger traffic and infrastructure.

Since the merger, BLS has been the exclusive operator of the standard gauge part of the S-Bahn Bern. It operates as well the Lucerne West expressway network, three long-distance lines and various regional traffic lines in seven cantons. Since December 2007 BLS offers a RegioExpress service over the old Lötschberg route while most SBB and Cisalpino, InterCity, and EuroCity trains use the new Lötschberg tunnel.

BLS activities include car transport on the Lötschberg, shipping in Bernese Oberland and Busland SA bus lines in Emmental. With its subsidiary BLS Cargo SA, the company has a strong presence also in freight traffic. BLS Netz AG operates the Lötschberg NRLA Base Tunnel and a 420 km long railway network.

The Bern – Domodossola service by BLS started in December 2016 and was originated from an extension of the domestic railway service connecting the Bernese Oberland region and the upper Valais region to Domodossola in Italy.

Until December 2016, a service operated by SBB and its Valais subsidiary RegionAlps, provided eight regional trains per day between Domodossola, Iselle and Brig. The SBB service operated under the concession of the Piedmont Region Mobility Agency for the Iselle-Domodossola regional service. However, SBB and RegionAlps did not respond to the tender launched by the Piedmont Region for renewal of the Italian Iselle-Domodossola concession as they found the compensation of EUR 366,000 per year insufficient to improve the regional offer through the Simplon tunnel. Therefore, the Piedmont Mobility Agency awarded the concession of the Domodossola - Iselle railway service for 2017-2022 to BLS AG for EUR 1.77 million plus 10% VAT.

Before the introduction of the new service by BLS, a practical experiment was carried out in August 2015, with cooperation between BLS green trains 'trenino verde delle Alpi / Lötschberger' and the operators of bus connections Comazzi and VCO Trasporti. The excellent train / bus connections were very much appreciated by both Swiss and Italian customers.

The line from Bern to Iselle (first stop in Italy) is financed by Switzerland under a 10-year concession. It is subject to Swiss rules and follows the Swiss railway system – except for taxes, which change in the middle of the tunnel. This complicates management and financing of the service. Every two years, a new offer has to be presented to the local Canton and the federal government. BLS receives funding from the Swiss government, based on BLS's estimates of costs and earnings. The system is very elaborate and complex.

The line between Iselle and Domodossola, is financed by Piedmont Region (Agenzia per la Mobilità). Italy follows European free market rules. As mentioned above, this led to a competition during the bid for the contract, which BLS won. The Italian Region sets fixed prices for the service.

2.4. Operational provisions

This service is BLS's first experience with a six-year contract in Italy and a fixed price. BLS's knowledge of the line has improved since 2016, which will make it more interesting if it wins the next contract in 2023.

BLS takes care of rolling stock maintenance and is not in charge of the infrastructure. The Swiss infrastructure manager informs BLS a few months in advance of interruptions for maintenance or other reasons.

There are many safety standards to apply, mainly for tracks and signalling systems. Standards are different in Switzerland and Italy, but this is not a major challenge for BLS due to its knowledge of both railway systems.

BLS follows the Swiss fare ticket system until Domodossola. It is integrated into the Swiss ticketing system. In Domodossola, BLS does not have points of sale for tickets, but Trenitalia sells BLS's normal tickets, which are also available online and via the app. The fare system is integrated with the timetable.

An overview of fares is provided in **Table .**

Table 2.2 Service fares

Class	Cost	Ticket type	Description
RE 2nd class	EUR 37.20	Supersaver Ticket	Supersaver tickets are available for 1st and 2nd class. Offer is subject to availability for the requested trip.
RE 1st class	EUR 65.60		Only valid for the selected travel dates and selected public transport services (booked trains)*. Reduced prices for Half-Fare Travelcard holders, children between 6 and 15, dogs (always 2nd class). Supersaver tickets are not available for bicycles. No refund or exchange. *: It is not possible to upgrade class, change routes or change trains using a supersaver ticket.
RE 2nd class	EUR 46.60	Point-To-Point Ticket	One-way, return or round-trip ticket (ticket machines/ticket counter) in Switzerland in 1st or 2nd class. Period of validity: 1 calendar day until 05:00 a.m. the following day. Reduced fare with Half-Fare Travelcard, children from their 6th to 16th birthday.

BLS is not free to decide on the times to run a train. In Switzerland, train timetables are part of a long-term vision and are fixed by the infrastructure manager with no flexibility. Current timetables are designed until 2035 and can be hardly amended. This approach generates some advantages, including a clear view of how public transport will evolve over time, but it also entails drawbacks, as fixed timetables prevent suggestions for development and improvement.

The fixed timetables in Switzerland also prevent BSL from changing the timetable in the Italian section without risking losing its slot to Bern.

Italy has no fixed timetables planned for such a long-time horizon. Although this generates uncertainties for how public transport will evolve, it allows the service operator to make suggestions for improvement that can be taken onboard.

This is to be seen in the context of the different approaches to public transport planning in the two countries. In Switzerland the public transport strategy is defined and approved at high level. Italy has a different approach and does not propose a predefined strategy for public transport connections with rail services. This can work for the best. Two years ago, BLS offered to improve connections in Domodossola by changing train connections by a few minutes. This led to a better connection with local public transport, especially with buses.

3. Obstacles and solutions

Table 3.1 Overview of obstacles

Obstacle	Impact on service delivery	Impact on the cross-border region	Solution introduced / proposed	Level of success of the solution
Absence of common rules and regulations	Weak demand growth increases production costs	Economic growth is inhibited	Harmonised rules	Government / EU
Inadequate infrastructure	Quality of offer is poor: limited service (wheelchair, pram not possible etc.)	Greater hurdle for use of public transport	Governments must allocate sufficient funds for infrastructure development and maintenance	Infrastructure provider / Government
Different financial systems	Different financial resources make a cross-border offer difficult	Offer does not meet all needs	As few bureaucratic hurdles as possible	Government / EU

3.1. Absence of common rules and regulations

3.1.1. Impact of the obstacle

The main challenge noted by BLS since 2016 is the difference between Italian / European and Swiss regulations and related approaches. The impact of these absence of common rules is a cross-border service that cannot be optimised as it is hampered by different rules and constraints. This lack of harmonised regulations has a negative impact on accessibility of the population in the border region as the latter cannot be offered an optimal service. In addition, weak demand growth increases provision costs and poses at risk the profitability of the line for the operator.

3.1.2. Possible solutions

A simplification and harmonisation of rules could help to better address user needs and connections to domestic public transport service. An improvement of the service could then more positively affect socioeconomic development in the cross-border region. Cooperation between all levels of governance (European, national, regional and local) are required in that effort.

3.2. Inadequate infrastructure

3.2.1. Impact of the obstacle

One of the problems faced by BLS in the provision of the service is the limited availability of the tracks. It can only use the tracks currently available and this prevents increasing the frequency to one train per hour.

Infrastructure problems are also related to accessibility issues at stations, such as access for persons with reduced mobility is difficult, etc.

3.2.2. Possible solutions

More tracks could also lead to a higher frequency of trains, including the higher possibility to choose between different runs of the service - which would lead to better accessibility and connectivity for the users. This would also logically lead to socio-economic benefits.

Within the current contract, infrastructure improvement seems uncertain. However, now that BSL has gained knowledge and experience with the line, it hopes to win the next contract and to further develop the service in Italy. This would imply running more trains on enhanced infrastructure. Closer cooperation with infrastructure providers will be required. In that context, governments should allocate sufficient funds for infrastructure development and maintenance.

3.3. Different financial systems

3.3.1. Impact of the obstacle

Differences in financing systems and financial power between Switzerland and Italy have a major impact on the cross-border service. In Switzerland, the financial power of public transport is much higher than in Italy. Decision-making processes in both countries also varies a lot.

The mobility culture is also another obstacle connected with these financial systems' difference. In Italy, financing a service that provides a train every two hours is acceptable, in Switzerland it is considered a poor-quality service.

In addition, BLS has to deal with two different authorities, which can lead to unbalanced situations. The Italian authority for instance requests a lot of data, including financial data.

Reporting mechanisms are also different. Italy requires monthly reporting, even if trains do not run. Financial transparency is extremely important. Operational and financial reporting is less strict in Switzerland. Another financial obstacle are the different tax regimes. The legal and fiscal border is in the tunnel which complicates calculation of taxes on the line.

3.3.2. Possible solutions

The situation is unlikely to change in the short-term due to the national contexts previously mentioned. According to BSL, the goal would be for Italy/EU and Switzerland to work toward as few bureaucratic hurdles as possible.

4. Conclusions and lessons learnt

Better access to public transport is key for development of border regions. The Domodossola-Spiez line is an essential service for both commuters and tourists, providing benefits from both a job attractiveness and tourism perspective. It has economic, social and human impacts for inhabitants of both regions.

Despite the improvement of the frequency achieved since 2016 when the new operator BLS undertook the operation of the line, the service provision is still suboptimal due to some technical, legal and financial constraints. These might pose at risk the profitability of the line for the operator and – potentially – its continuation in the future.

As the three main obstacles of the case study point out, legal and financial constraints tend to heavily restrict cross-border public transport services. These could be improved with better cooperation and harmonised rules between the two involved countries.

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Interviews

Interviewee	Organisation	Interview date
Daniel Brunner	BSL	17/05/2021
Ilona Ott	BSL	17/05/2021

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