CROSS-BORDER PUBLIC TRANSPORT IN EUROPE: OVERCOMING THE BARRIERS

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1. INTRODUCTION

Significant improvements have been made to European cross-border transport in recent years in terms of the development of the Trans-European road and rail networks. However, cross-border public transport on a local and regional level has received less attention and, as a result, the use of public transport for such journeys is often much more difficult than for a public transport journey of similar length within a single country.

Increases in local cross-border trips for work, education and leisure have come about due to socio-economic factors (e.g. lower cost of living in one country, higher salaries in the other), the reduction in administrative barriers (e.g. mutual recognition of qualifications, relaxation of border controls) and increased mobility, particularly in terms of higher car ownership and better roads. However, the convenience of the car and the frequent lack of comprehensive cross-border public transport provision has led to most of this increase in cross-border movements being by car.

This paper presents the work and some key results so far of the **CON***PASS* project (*"Better Connections in European Passenger Transport"*), identifying the principal barriers to passengers, planners and operators in terms of local and regional public transport.

2. OBJECTIVES OF THE CONPASS PROJECT

CON*PASS* is a three year project (January 2000 to December 2002), part funded by the European Commission (DG-TREN), aimed at developing strategies and concepts for improvements in cross-border public transport on a local and regional level. Its results will assist actors in border areas (public authorities, public transport operators, etc) in developing new cross-border services and improving existing ones by helping them identify barriers and choose appropriate solutions.

The project is co-ordinated by IVV consulting engineers in Aachen and comprises 22 partners in nine European countries, including Isis as the project's French partner.

The project contributes to innovation in the field of local/regional cross-border public transport by three main results:

- *State-of-the-art overview:* a comprehensive knowledge base on the current extent of cross-border passenger transport in urbanised areas in the EU, including existing barriers and initiatives implemented or planned.
- *Methodology for case study analysis:* a universally valid tool for the analysis of cross-border transport connections for future applications.
- *Toolbox:* transferable examples and strategies as well as technical, organisational and policy recommendations to assist local actors.

CONPASS has so far involved a series of case studies, as follows:

- An initial desk study of 67 cross-border regions in Europe.
- A second stage study of 42 sites which met the criteria for an "urbanised cross-border region", i.e. a crow-fly distance of less than 70km between the two major centres on either side of the border and a total population of at least 100 000 in the cross-border region (lowered in regions with low population densities, i.e. Scandinavia, Ireland and Portugal). These studies involved telephone interviews with key actors in the region.
- An in-depth case study involving 21 sites, selected as the most interesting in terms of level of cross-border demand, level of existing services, willingness to co-operate, mix of "good" and "bad" examples and geographical spread throughout Europe. These studies involved extensive data collection (infrastructure, demand, supply, etc), site visits and semi-directive interviews with key actors (in general three on each side of the border).

These case studies have revealed current operational practices in border regions, different types of obstacles for passengers, difficulties faced by transport operators, public authorities and other actors and also a range of innovations and solutions which have been implemented or are planned.

Results from these sites are currently being analysed to determine the level of transferability of possible solutions to other sites and a "toolbox of best practice" will be created to assist actors in improving cross-border connections. This toolbox will be a handbook, to be published in summer 2002, which will provide practical steps to overcoming barriers to public transport caused by borders. It will be aimed at public transport operators, local and regional authorities, public transport associations, cross-border institutions and consulting firms.

In addition to this, current work in the project concerns a series of six demonstration sites where practical concepts and innovative measures will be implemented and monitored.

3. STATE-OF-THE-ART IN EUROPE

Local and regional public transport across national borders is inherently weak (i.e. in need of political, administrative and financial support) for a number of reasons:

- Cross-border contacts as such are relatively weak, particularly where there is a physical barrier (mountains, major river) an administrative barrier (rigorous border controls) or a cultural barrier (different language).
- Typical public transport journey purposes such as education and work are normally lacking, which in most cases results in public transport not being commercially viable.
- The lack of provision for captive users, i.e. those dependent on public transport because they do not have access to a car, can make the border a significant barrier.
- Information concerning schedules, the ticketing system, etc. is often difficult to obtain (particularly for onward connections on the other side of the border).
- The whole complex of government regulations regarding public transport is developed for application in the national territory only.
- In most countries, regional or municipal councils support local public transport, so problems arise concerning organisation and funding of cross-border transport.

However, in a small number of cases, the relative strength of cross-border public transport is intriguing. These include the regions around such cities as Basle, Geneva, Aachen and Luxembourg, where cross-border transport is far better than the European cross-border average. Consequently, public transport may be present in some volume and quality especially where factors such as the following apply:

- Major conurbations extend across the border.
- The area across the border has an attractive labour market.
- The area across the border offers cheaper products and services.
- The area across the border has an attractive housing market.
- There is a common language (or national/linguistic minorities from across the border).
- The national border is of relatively recent date.
- Geography/infrastructure is making private transport difficult.
- Car ownership is modest or policies are aimed at restricting car use.

Of the 42 case studies analysed in the second stage of the survey, 40 of them have a direct cross-border public transport service. However, only 28 of them have a frequency of over ten services per day.

The table below summarises the frequency of cross-border public transport services on an average weekday in the 42 sites studied.

Service frequency per direction	0	1 – 20	21 – 100	101 – 200	Over 200
Number of sites	2	13	21	4	2

The sites with over 100 public transport runs per day are:

- Helsingør (DK) – Helsingborg (S), which is a ferry connection;
- Zürich and Schaffhausen (CH) – Waldshut (D);
- Bregenz (A) – Lindau (D) and St Gallen (CH);
- Bayonne (F) – Irún and Donostia-San Sebastián (E);
- Aachen (D) – Maastricht (NL) and Eupen (B) *(this area has over 200 daily services)*;
- Basle (CH) – St Louis and Mulhouse (F) and Lörrach (D) *(over 300 daily services)*.

The public transport mode share averaged 9% (excluding Helsingør – Helsingborg, which has a 100% mode share as it is a ferry crossing).

4. EXAMPLES OF CASE STUDIES

4.1 Lille (France - Belgium)

Lille is the centre of a major metropolitan area in northern France with a population of 1.1 million. The French/Belgian border forms an arc around the north of the conurbation, which effectively continues into Belgium to merge with the town of Mouscron (population 50 000) and a number of smaller Belgian towns lying right on the border. Close by is the Flemish city of Kortrijk (Courtrai in French and English), population 150 000, which is only 10 km from the French border and 30 km from the centre of Lille.

This part of Belgium is also where the Flemish and Walloon regions meet, which are not only culturally distinct in terms of language (Dutch and French respectively) but also have autonomous governments with a wide range of powers, including responsibility for the planning and operation of transport.

Figure 1 shows the layout of the region including the motorway and rail infrastructure.

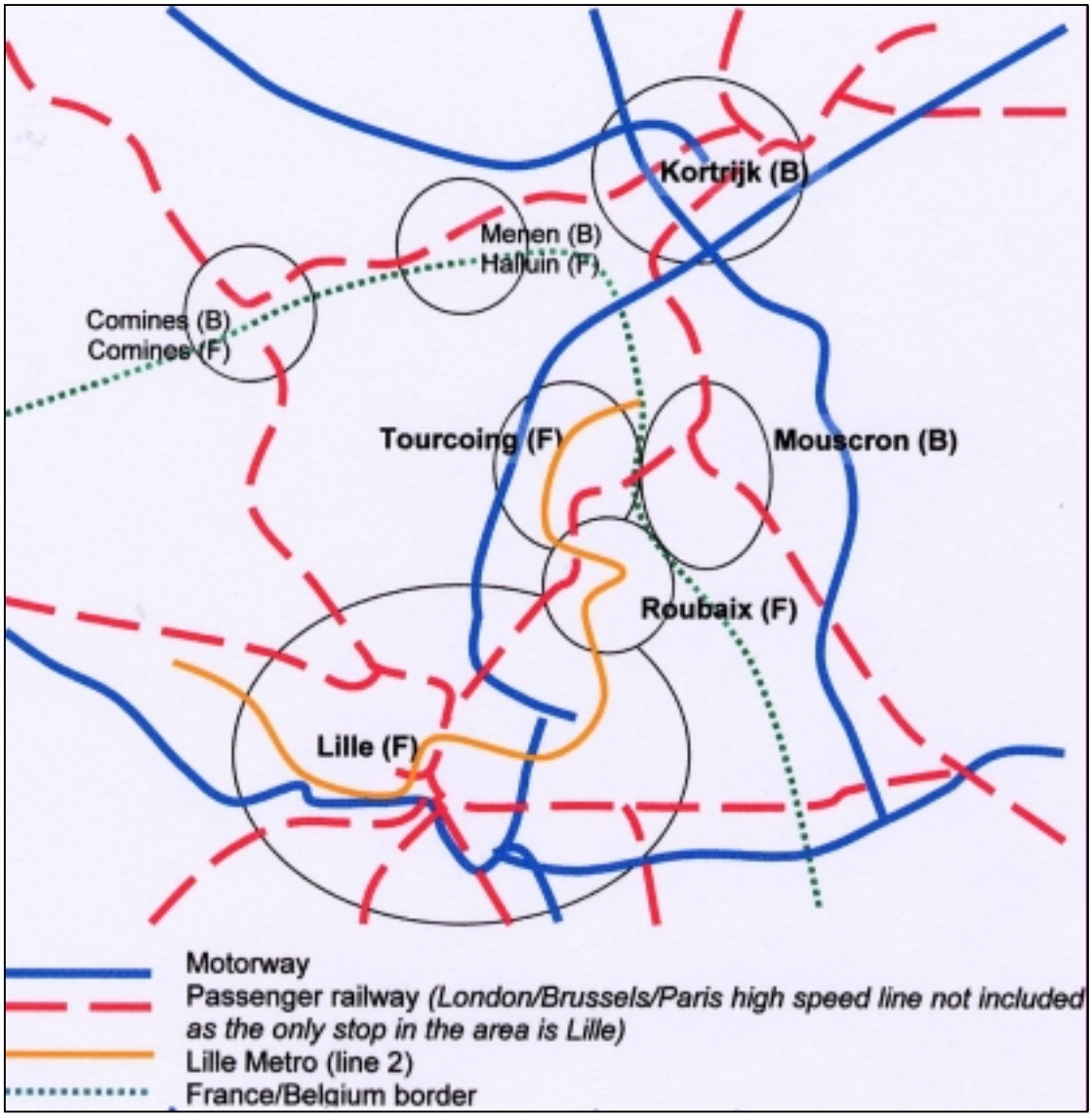

Figure 1: *Structure of the Lille/Mouscron/Kortrijk region*

Whilst Lille now enjoys excellent high speed rail links to Paris, Brussels and London, links to nearby centres in Belgium have received less attention and obtaining information is certainly more difficult. For example, although Lille - Kortrijk enjoys a regular hourly rail service using modern trains, the journey time is 30 minutes, compared with only ten minutes more on a TGV or Eurostar train to Brussels, over three times the distance. Nevertheless, the good long distance rail links in Lille, in addition to its role as a major regional centre, attract people from the Belgian border towns.

Rail services in the region are operated by SNCB/NMBS (Belgian Railways) and SNCF (French Railways). While SNCF operate services up to the border at Tourcoing and on a branch line to Comines, only the Belgian Railways operate a cross-border service. This hourly service links Lille with Mouscron and Kortrijk and continues on to either Antwerp or Ostend. Modern dual voltage electric trains are used for this service, which forms part of the regular interval Belgian Inter-City network. Another Belgian Inter-City service (Brussels – Poperinge, hourly) follows the border between Kortrijk and

Comines, serving cross-border communities such as Comines/Komen, Wervik/Wervicq Sud and Menen/Halluin.

SNCB/NMBS receives funding from the Belgian federal government and is largely free to specify its own service patters provided certain minimum services levels are adhered to. On the other hand, regional rail services in France are specified and funded by the region (in this case Région Nord Pas-de-Calais) and SNCF is simply the operator.

These organisational and institutional differences can cause certain complications. For example, there are four stations in France between Lille and the Belgian border, including the large towns of Roubaix and Tourcoing. The cross-border service operated by the Belgian Railways only calls at these intermediate stations (thereby carrying some internal passengers within France) if agreed by the Région Nord Pas-de-Calais, in which case the service is partially subsidised by the French region. The region supports ten of the 15 daily services in each direction (i.e. to fill gaps in the local Lille – Tourcoing service), but does not support the other five, which therefore travel non-stop between Mouscron in Belgium and Lille. Therefore the major towns of Roubaix and Tourcoing do not receive a regular interval service.

A similar situation exists to the east of Lille where the SNCB/NMBS hourly cross-border Inter-City service from Lille to Liège via Tournai, Mons and Charleroi co-exists with local SNCF services links Lille with the last station in France (Baisieux) with an irregular stopping pattern on the French side.

Cross-border rail season tickets are available between Kortrijk, Mouscron and Lille Métropole, but combined bus/rail cross-border tickets do not exist (even though they do within the French region of Nord-Pas de Calais and for the main towns in Belgium.

Different organisational structures also apply to other local and regional public transport. In Belgium, there are three publicly owned operators, each one supported by the federal region concerned (TEC in Wallonia, De Lijn in Flanders and STIB/MIVB in Brussels). TEC and De Lijn are divided into provincial operating units, so the bus operators in the study region are De Lijn West Vlaanderen (based in Ostend) and TEC-Hainaut (based in Mons).

In France, bus operators are privately owned and often part of large national groups (VIA-GTI, Transdev, etc). Services are specified and funded by either the region, département or metropolitan council (communauté urbaine), with a single operator being chosen to operate the network in metropolitan areas. In Lille, the transport authority is Lille Métropole Communauté Urbaine and the operator in Transpole. Transpole operates an extensive bus network, two tram lines and two automatic (driverless) metro lines. Some of its outer suburban bus services are sub-contracted to other private operators, but run as part of the Transpole network (same livery, same ticketing, etc).

The key difficulty is that each operator is oriented towards its own municipality or region, with few cross-border services. On the one hand, operating a

service in the neighbouring country poses a difficulty as cabotage rights do not exist (internal passengers cannot be carried within the other country) and on the other hand the operator only receives public funding for services within its own area of remit and therefore has no incentive to operate services outside this area as costs cannot be covered without a subsidy.

Another barrier to cross-border services is the existence of incompatible fare structures. In the Lille Métropole area a flat fare system exists, where a single ticket is valid for a journey of any distance within the metropolitan area (including transfers between buses or between bus/metro/tram as necessary). However in Belgium, since De Lijn and TEC cover large regions and not simply one metropolitan area, fares are distance based, with the whole country being divided into zones and the fare depending on how many zones are crossed.

Despite these barriers, some solutions have been found to improve the cross-border transport supply.

The principal achievement has been the establishment of the half-hourly MWR (Mouscron-Wattrelos-Roubaix) cross-border bus route, which is jointly operated by Transpole (France) and TEC-Hainaut (Belgium) with a specific fare structure. A convention was signed between Lille Métropole Communauté Urbaine and the Walloon Region to allow joint funding for this service, which is operated on a 50/50 basis with the revenue split also being 50/50. The MWR bus service generates over 50% of the cross-border public transport traffic, i.e. 400 passengers per day. In addition it carries about 400 daily passengers wholly within France and 150 wholly within Belgium (i.e. a total of 950 passengers per average weekday).

The fare structure agreed involves single tickets or weekly tickets either *"sans correspondance"* (valid only on the MWR route) or *"avec correspondance"* (allowing a change to or from other services in France or Belgium). The inconsistency with the latter ticket is that on the French side (e.g. at Roubaix), passengers may continue to any destination within the Lille metropolitan area on the same ticket, whereas on the Belgian side a transfer is only allowed within the urban zone of Mouscron (which is much smaller) due to the zonal fare system in Belgium. Payment can be made in either French and Belgian francs, regardless of the company operating the bus, and a common TEC/Transpole timetable and fare leaflet exists.

Other cross-border bus services have been created in recent years by extending existing services terminating near to the border to the first stop after the border. Because a number of Belgian towns lie right on the border, this extension of services by one stop can allow the French operator Transpole to serve a neighbouring Belgian town centre at marginal cost. This solution also avoids the cabotage problem, as serving only one stop in Belgium means that internal passengers within Belgium are not carried and the Lille fare structure continues to be valid.

However, as this is done on a marginal basis, the frequency of such services is not high. Furthermore, publicity on the Belgian side is often limited, especially in the Flemish towns of Menen and Wervik, as any information displayed at bus stops, etc has to be in Dutch whereas Transpole publicity is in French. Some bilingual leaflets have been produced, but from a French perspective this is not considered worthwhile in many cases for a very small number of cross-border services (in any case, Flemish people living in border communities who regularly cross over to France would normally understand timetable information in French, so in many respects language is more of a political/ cultural issue than a practical one).

On these cross-border services, Belgian francs are accepted from passengers boarding in Belgium but change is given in French francs. Transpole season tickets are also for sale in the Flemish town of Menen, prices being in Belgian francs. Evidently, the introduction of euro notes and coins in both countries in January 2002 will make the payment system easier for passengers and operators alike.

The Flemish operator De Lijn also extends a limited number of services into France: the Ieper (Ypres) to Comines bus service (2-hourly) and the Ieper – Mouscron service which diverts at Menen into Halluin (France) twice a day for school traffic. One of these services is shown in Figure 2, which also illustrates the built-up nature of the border area – in fact in some areas it is easy to cross the border without noticing immediately, as signs are discrete (or non-existent) and there are no border posts.

Figure 2: *De Lijn (Flemish) bus arriving in Comines (France) on a service which has been extended one stop over the border. The bridge in the background is the border and beyond that is Comines/Komen (Belgium)*

A new opportunity arose in October 2000 when the Lille Metro Line 2 was extended beyond Tourcoing to a new terminus at Centre Hospitalier Dron. In addition to serving a major hospital and a new park-and-ride facility, this station is only 1km from the Belgian border. CH Dron Metro station is now liked to Mouscron in Belgium by two bus services (both hourly): one operated by Transpole (which only goes to the first stop in Mouscron, so a change to a Belgian TEC bus is needed for the town centre) and the other operated by TEC-Hainaut, which goes to Mouscron town centre.

In summary, much has been achieved in this region in the last decade, particularly through regular contact and co-operation between Transpole in France and TEC-Hainaut in Wallonia. Franco-Flemish co-operation also exists but is less close due to the smaller size of the towns involved, the language difference and the fact that De Lijn West Vlaanderen is run from Ostend, 55km from the border area.

The main impediment to further success is low demand, as existing patterns of public transport demand are oriented to destinations within the same country. The good road and motorway network also makes the car a more attractive choice for cross-border journeys, particularly given the growth of out-of-town hypermarkets and business parks in the Lille area, which attract trips from Belgium but are difficult to serve by public transport. Most cross-border bus use therefore comprises occasional trips by people without access to a car (for shopping, etc) and, more importantly, cross-border school trips.

4.2 Geneva (Switzerland - France)

The Swiss canton of Geneva (Genève) has a population of 399 000, of which 176 000 live in the city itself. Geneva is surrounded on its northern, western and southern sides by France and only a narrow strip of land on the northern shore of Lake Geneva (Lac Léman) links the canton to the rest of Switzerland.

To the south-west of Geneva lies the French town of Annemasse, the centre of an urban area of 60 000 people. The centre-to-centre distance from Geneva to Annemasse is 7 km, although this corridor is continuously urbanised. Two other smaller French towns, St Julien-en-Genevois (south of Geneva) and Ferney Voltaire (to the north), also form a continuous urban area with Geneva and its suburbs.

Figure 3 shows the layout of the region and the motorway and rail infrastructure.

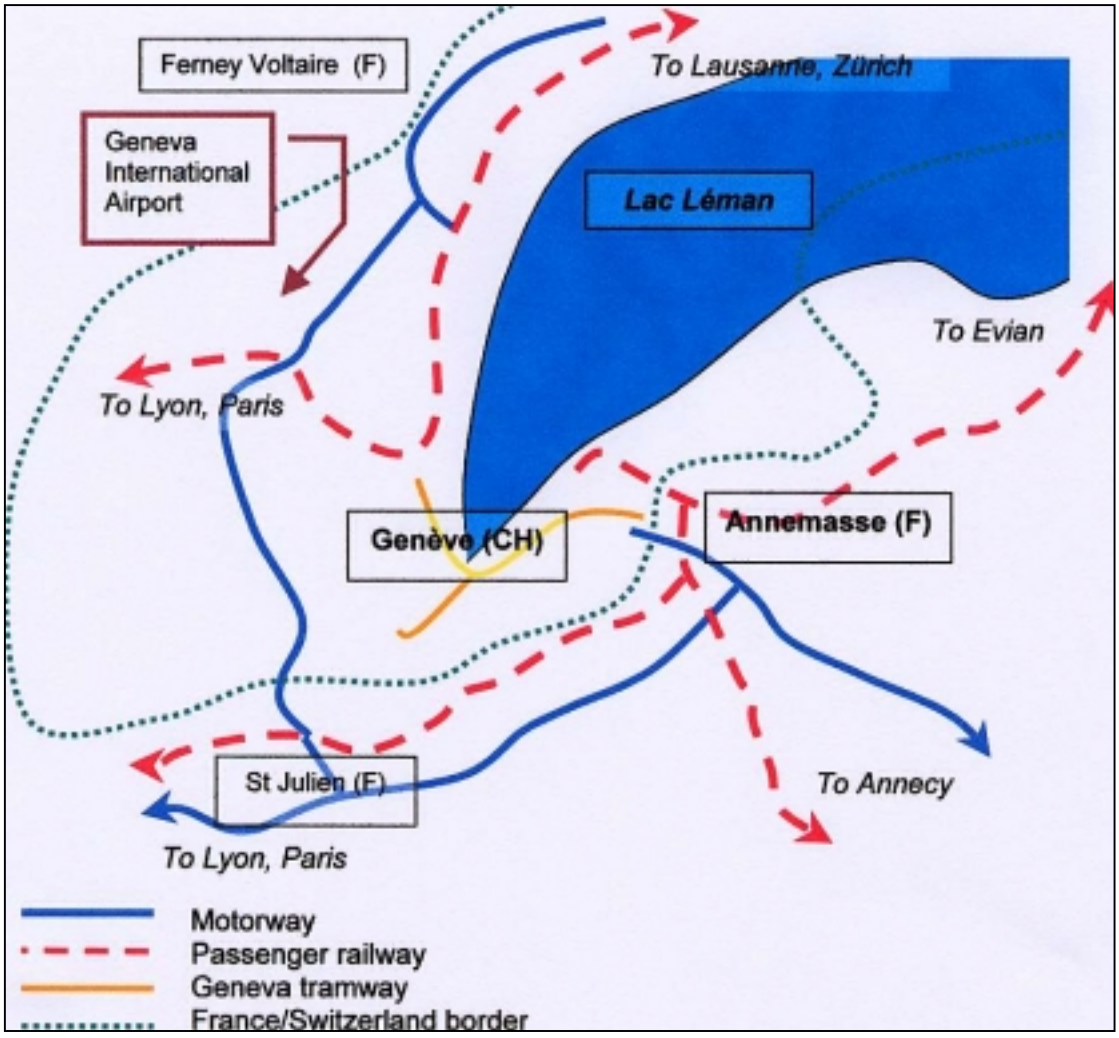

Figure 3: *Structure of the Geneva/Annemasse region*

Switzerland is not part of the European Union or the Schengen customs area, so additional administrative barriers exist, e.g. customs posts on all borders (over 20 road crossing points between Geneva and France – although checks are normally brief or non-existent), lack of an automatic right to work in the other country, non-adoption of the euro in Switzerland, etc. Nevertheless, the level of interaction between Geneva and surrounding areas in France is high due to the following factors:

- The size of Geneva makes it a natural centre for the region, not only for shopping and work, but also for long distance connections by rail or air (e.g. a French person in Ferney Voltaire travelling to Paris by train would need to cross into Switzerland and take the Geneva – Paris TGV).
- The existence of several international institutions in Geneva (United Nations, World Health Organisation, Red Cross, etc) further increases the demand for workers.
- The language is the same on both sides of the border.
- Salaries, property prices and costs of goods in shops are higher in Switzerland than in France, meaning that firstly, there is a Swiss demand for French labour (as it is cheaper), secondly there is financial

interest for both French and Swiss people to live in France and work in Switzerland and thirdly, residents of Geneva often cross the border to shop in France due to lower prices. In fact, there are two major out of town shopping centres on the French side of the border (including Swiss supermarket chains) which attract large number of shoppers from Geneva.

The principal railway station in Geneva (Genève Cornavin) is operated by Swiss Federal Railways (SBB/CFF/FFS) and as well as local and regional Swiss services, it handles a considerable number of international trains including regional services to Lyon and high speed TGVs to Paris. The city's other station, Eaux-Vives, is a small terminus operated by the French Railways (SNCF) and is served solely by an hourly SNCF local service to Annemasse (more frequent in peak periods), with some trains being extended to other destinations in the surrounding Haute-Savoie département. The two railway stations in Geneva are not connected by rail, which reduces the attractiveness of the Annemasse – Geneva service.

Buses and trams in Geneva are operated by TPG (Transports Publics Genevois). The tram network extends to the French border near Annemasse, where it terminates and passengers must then walk about 200 metres across the border and interchange with the local bus services in Annemasse (see Figure 4). Although this interchange is relatively easy, there is of course a time penalty and also the bus service on the French side finishes earlier in the evening than the trams on the Swiss side.

Figure 4: *Geneva tram terminus at the border with Annemasse. Passengers must walk through the customs post (background, right hand side) to connect with buses on the French side*

Although no cross-border local services exist between Geneva and Annemasse (only rail and regional coach services), co-operation between the two local transport operators is good. For example, maps and timetables produced by both operators contain information on connecting services across the border and through ticketing is available.

Because the other two French towns in the area, St Julien and Ferney Voltaire, are not large enough to have their own urban public transport networks, they are served by direct bus services from Geneva. These services, running at a half hourly frequency, are part of the TPG (Geneva) network, but their operation is sub-contracted to private French operators.

The introduction of common ticketing (e.g. cross-border single tickets and monthly season tickets) between Geneva and Annemasse is a recent measure and further plans include an electronic payment system which will further integrate fares between France and Switzerland (and reduce the difficulties caused by handling two currencies).

In addition, a “Tram-Train” project has been proposed and discussed for many years, in which the Geneva – Annemasse rail service would be converted to light rapid transit and integrated with the Geneva tram system, to improve cross-city links. However, the size and high cost of this scheme has caused political difficulties and an agreement is yet to be found. The concentration of efforts on this project, which may yet not be implemented, has meant that less effort has been spent on smaller scale initiatives which could have brought benefits sooner.

Although cross-border public transport links are good (despite the bus/tram change needed at the border at Annemasse), the difficulty lies in making it attractive to car owners. This is not so much a problem within Geneva because, despite the high standard of living and car ownership, parking in the city is difficult and expensive while public transport is frequent, efficient and reasonably priced. Because of this, cross-border travellers from France often find it more attractive to drive across the border and, once in Switzerland, take a tram or bus into the city centre, as the frequency is higher and the fare lower. This practice is compounded by the provision of park-and-ride facilities in the Geneva area: although these help to increase public transport use in the city, they also attract car owners who might otherwise have used public transport for their entire journey.

5. PRINCIPAL BARRIERS TO PASSENGERS, PLANNERS AND OPERATORS

5.1 Barriers to Passengers

Generally, problems which discourage potential users of cross-border public transport can be summarised as lack of supply, high fares, timetables which are badly co-ordinated or difficult to obtain and access to the public transport system.

The CONPASS partners in the case studies, who not only interviewed key actors in the regions concerned, but also investigated the situation on the ground and made use of the public transport, found particular problems with the provision of information. In many cases, the supply of public transport was found to be much better than the information on it.

Even if information on the cross-border service is good, it is rare to find information concerning onward connecting services on the other side of the border before departing. This is particularly important where a change is required at the border or at the first town after the border. Information on the fares structure on the other side of the border is also important, but normally difficult to obtain.

Aspects such as language can also be a barrier, although it is relatively simple to overcome through the provision of bilingual information (this is already the norm in many bilingual regions of Europe). Furthermore, regular cross-border travellers for work, education, etc are likely to understand both languages in any case.

A major barrier to public transport use is the existence in most cases of a more attractive alternative, i.e. the car. Any interoperability problems with public transport between two countries (either technical or organisational) are not present for the private car and only a major physical barrier or difference in cost can make public transport more attractive. An example of this is the Öresund crossing between Malmö and Copenhagen, where the new rail service is not only fast and frequent but is also significantly cheaper than the toll for cars crossing the new bridge. For people making cross-border trips to a city where it is more attractive to use public transport than to drive (due to congestion, difficulty or high cost of parking, good quality public transport, etc), it is often faster, cheaper and more convenient to drive across the border and use domestic public transport on the other side to reach the city centre.

5.2 Barriers to Operators and Organisers of Public Transport

From the operators' and organisers' points of view, the interviewees in the 21 case studies generally believe that the most serious barriers are the legal and financial ones. Current legal frameworks, which exist on a national basis, make planning and establishing of cross-border public transport complicated. The legal aspects are expected to be solved, at least in part, through European integration. The lack of subsidies is a serious problem, which

needs to be addressed through external intervention. Other barriers which are considered as serious by the respondents concern the institutional aspects, for example different responsibilities within the administrations.

The main types of barriers and problems identified were remarkably similar across the 21 case studies. However, at the case study sites involving the eastern border of the EU (Germany – Poland, Germany – Czech Republic, Austria – Slovakia, Austria – Slovenia and Italy – Slovenia), the severity of the barriers was noticeably greater. At these sites, language problems are clearly more prominent, cross-border procedures are a serious and time-consuming obstacle for the passengers, the legal differences are greater, the labour conditions in public transport operation differ and the economic disparities between both sides of the border are relatively high.

In addition, lack of demand is a key obstacle. The growth in cross-border travel has been relatively recent, particularly between eastern European countries since the lifting of the iron curtain, and has been largely car-based due to the lack of attractive alternatives. As a result, there is little established demand for cross-border public transport and even less captive demand (i.e. with no alternative to public transport). Even if subsidies are available for cross-border transport (which is usually not the case), these subsidies need to be justified in terms of acceptable numbers of passengers.

For rail, technical interoperability is often a barrier (signalling and electrification standards, safety regulations and sometimes track gauge). Whilst these can be overcome by dual voltage trains, etc, there is clearly a cost involved. For lucrative high speed routes such as Eurostar, this investment is worthwhile but in the case of regional services which require public subsidy, this investment can sometimes be difficult to justify.

Whilst language may be a barrier for passengers, it could possibly be more so for operators and organisers of public transport, as the level of language knowledge required is not simply enough to be able to read a timetable. Rather, there is a need for a number of different actors on both sides of the border to be able to communicate effectively in order to negotiate, plan, operate, market and evaluate cross-border services.

Different salary levels and employment conditions for public transport staff is also a real barrier to establishing a jointly operated cross-border service – even if the operator in the poorer country can match the salaries of the richer country for drivers on a pooled bus route, for example, this could well cause industrial relations problems regarding drivers on other non-cross-border routes in the poorer country.

6. EXAMPLES OF SOLUTIONS

The most frequently mentioned solutions by the case study interviewees are summarised in the following two tables:

Specific solutions aimed at passengers	Percentage of respondents who mentioned this solution	Ranking
Making information mutually available on both sides	55%	1
Improvement of the supply of public transport	52%	2
Harmonisation of the different tariff systems	51%	3
Better dissemination of information	48%	4
Multilingual information	38%	5

Specific solutions aimed at operators or transport authorities	Percentage of respondents who mentioned this solution	Ranking
Regular contact between both sides	58%	1
Financial aid	44%	2
EU promotion	41%	3
Harmonisation of the legal frameworks	40%	4
Regionalisation of responsibilities and funds	40%	
Creating a cross-border operators' union	29%	5

The main conclusions of the analysis of the case studies are as follows:

- *Information is a key prerequisite.* The need for good and understandable information is one of the key elements in creating good cross-border public transport. It is important of course for domestic transport, but in a cross-border situation it is doubly so, as passengers are less aware of the transport geography, payment systems, language, etc. in a foreign country and therefore need the assurance of information in order to make the journey in confidence. Whilst the Internet can be useful for cross-border journey planning, more traditional media such as timetables and maps need to be more complete (e.g. showing connections on both sides of the border), bilingual (where necessary) and better disseminated (i.e. on both sides of the border and on-board the buses or trains themselves). They should also indicate how to obtain further information on the other side ot

the border, e.g. by including details of the telephone information line, Web site, etc on both sides.

- *The reasons for subsidising public transport do not end at borders.* internalising external costs is a main issue in EU transport policy. This means that there are good reasons to finance and promote local and regional public transport of environmental and socio-economic reasons.
- *Co-operation is essential.* Working together across borders is an essential prerequisite for increasing the public transport share over the borders. In Western Europe this co-operation in most cases has been ongoing for some years. At the borders with Eastern Europe this is not the case.
- *Break down legal barriers.* Legal and administrative differences between neighbouring countries makes it difficult for the operators and the local and regional transport authorities to create effective public transport connections between the countries even if there is a clear demand for it. The convergence of national legal and administrative systems towards a common European model would be highly beneficial in terms of promoting cross-border public transport.

In some areas, considerable infrastructure investment has brought radical improvements to cross-border transport. An example is the modern light rail link between Saarbrücken (D) and Sarreguemines (F). Similar tram-train projects are proposed in Strasbourg (linking the city's network across the Rhine to Kehl in Germany using existing rail infrastructure) and in Geneva (using the rail link to Annemasse in France, as described above). However, the CONPASS project is primarily concerned with relatively low cost solutions which can be implemented within a relatively short timescale. Specific examples of such solutions include the following:

- *Harmonised information provision*, e.g. a joint timetable. However, major investment in dedicated cross-border information systems (border region timetable booklet, cross-border information database etc) has often not been successful as cross-border passengers represent a small minority of total passengers and the high costs of a common system often cannot be justified by the limited utility it will bring. A more pragmatic solution is to link the information sources that already exist and increase their dissemination on both sides of the border.
- *Common ticketing or special cross-border fares*. This can be difficult if there is a major difference in fare levels (e.g. between Eastern and Western Europe), if fare structures are different (e.g. zonal, flat fare, price per km, etc) or if the criteria for concessionary fares are different. Nevertheless, solutions have been successfully implemented in some areas. In particular, day tickets covering a cross-border region have been successful in several areas, e.g. Ticket Tri Regio in the Basle/ Lörrach/St Louis area (CH/D/F), Europass for Strasbourg and Kehl (F/D) and the Euregio ticket for the Aachen/Eupen/Maastricht region (D/B/NL).
- *Pooled services*, whereby operation, funding and revenue for a cross-border service is split, e.g. 50/50, with public subsidies being split on the same basis.
- *Extension of existing domestic services* which currently terminate near the border to a point on the other side of the border. This can often be

achieved at a low cost and if the service does not carry passengers wholly within the other country, administration, tariff and subsidy issues pose much less of a problem.

7. CONCLUSIONS

Cross-border travel is an ever increasing phenomenon in Europe, due to increased mobility of employment, education, etc. and increased political integration (including the fall of the Iron Curtain, the Schengen customs agreement and the impending enlargement of the EU). Whilst considerable improvements have been made to long distance cross-border links by air, road and rail, much less has been done to benefit local and regional travellers.

The main reason is that while long distance transport tends to be the responsibility of national governments and transport operators who can easily co-operate with their counterparts in neighbouring countries, regional public transport is normally organised and funded by regional, local or city authorities, who do not have competence outside their own boundaries. The fact that they are answerable to local politicians and local people means that their priorities are understandably oriented towards domestic public transport service provision. Furthermore, the different responsibilities and legal structures in neighbouring countries, not to mention lack of established public transport demand, make the organisation and operation of cross-border services more difficult than that of services crossing local or regional boundaries within the same country. As a result, the great majority of local and regional cross-border trips are made by car.

Although close co-operation and innovative solutions to improve cross-border public transport exist in some areas, they are based on local initiatives and the CONPASS project is therefore the first attempt to share experience between regions and develop and disseminate best practice, in order to improve public transport in border regions.

Whilst CONPASS is aimed at international border situations in Europe, many of the experiences found and solutions developed could be equally beneficial in cases where local or regional boundaries pose a barrier to the implementation of an attractive local public transport service. It is interesting to note that in more than one case study, an interviewee has stated that they find it easier to co-operate and implement common measures with the authorities in the neighbouring country than with a neighbouring province or region of their own country.

It is hoped that the results of this project will contribute to increasing interoperability and levels of service in local cross-border public transport. This can then in turn lead to sustainable growth in these regions and further cross-border integration at a grass-roots level by bringing local transport actors and citizens together.

8. BIBLIOGRPHY

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9. FURTHER INFORMATION

Further information on the CONPASS project is available at www.conpass.org