Regional Rail: The European Dimension

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Summary

The experience of many of Europe's regional railways over the last twenty years has been that of dramatic change. Those countries which have retained the traditional approach of centralised state operation (e.g. Belgium) are the exception. Countries such as Sweden, Germany, The Netherlands, Denmark have made radical reforms to the ways in which regional rail passenger services are provided. In most cases, these changes are predicated on strong devolved government, to ,ainly regional bodies.

The driving force behind change was a recognition that local and regional rail services were under-performing. Being part of large state monopolies resulted in a lack of management attention and a steady decline in popularity (obviously caused by many other factors, e.g. car ownership, as well). However, the political push to 'regionalise', in countries like Sweden and Germany, was motivated by wider considerations than simply cost. There was a desire to make better use of regional rail and freeing up services to greater competition, with new operators entering the market, was seen as a way of not only reducing costs, but driving up quality and attractiveness of rail.

The 'typical' arrangement is for a regional council (which may be called 'region', 'province' or in the case of Sweden 'county') to create a transport authority which is accountable to the political body. This approach has ensured that rail has a high political profile and has led, in the vast majority of cases, to substantial investment in new rolling stock, improved station facilities and service improvements. At the same time, productivity has improved markedly as a result of de-staffing stations and making trains one person-operated. Most of the regional transport authorities have responsibilities for both rail and bus, and have ensured a very high level of integration between modes.

Most of the countries where reform has taken place have implemented, to varying degrees, European law on the separation of infrastructure and operations. That said, there are some examples of local operations which are vertically integrated, including long-established local railways in Germany and Denmark as well as more recent examples in the Basque Country (Euskotren) and five DB rural operations which include the Isle of Usedom railway.

Franchises, mostly (but not exclusively) let on a 'gross cost' basis are for the operation of the service only and does not include infrastructure which is the responsibility of the state-owned infrastructure authority. The gross contract approach gives the tendering body a high level of control, with the operator's role confined to that of a service delivery provider. In some cases franchises include operation of both rail and bus services, giving a very high level of integration, both in terms of the actual service and routes as well as ticketing and information.

The process of reform has not always gone smoothly. In Sweden, in the early years, there were major problems caused by accusations of the state operator, SJ, abusing its position to win contracts. Much more recently, the partnership between Danish State Railways and First Group has ended acrimoniously. Clearly, the investment which has gone into regional rail has come mainly from the public purse. In Germany, most of the funds come via the

federal government and are allocated to the regions. This is also the case in France where the provincial councils are playing an increasing role in regional rail. In Sweden, however, most funding for local and regional rail comes from local and regional taxation with the state providing very little.

The experience across Europe shows that where local and regional rail is managed separately from other services, either as a franchise or series of franchises, or as a business unit, the decentralised approach pays handsome dividends. It does, however, require a dynamic, accountable public body to drive the process forward and encourage innovation.

There are many lessons for Scotland, and the Highland rail network in particular, in the general European experience. The first is that having a clear focus on a distinct regional network can bring significant benefits. However, the corollary with most European examples is the existence of well-resourced regional government. In the case of Scotland, Transport Scotland has the expertise and resources. If the ScotRail franchise was to be split, based on European practice the most obvious segregation would be a) long distance b) central belt commuter and b) Highland.

However, whilst having a separate franchise for a particular network could certainly work with the Highlands, it does bring challenges. There would be a risk of fragmentation of what is currently a clear distinct network which works as an integrated whole. If, for example, HITRANS was to become the franchising body for the Highland rail network, it would require a considerable increase in resources and expertise. At the same time, the core long distance route south of Inverness is closely integrated with services north of Inverness and a rigid separation could easily lead to weakened links, poorer connections and fragmented marketing. A more sensible approach might be to recognise that the Highland network (including the West Highland) is distinctive but should remain as part of an overall ScotRail network with all the benefits of scale, shared resources, that this brings. However, there should be a strong devolved management unit for the Highland network ('Highland Rail') which includes HITRANS representation on an advisory board. It would be important to involve Network rail in this body, at both a strategic and operational level. 'Highland Rail' could be marketed as a sub-brand with stations and rolling stock suitably branded.

This model could, over time, be developed further and pursue innovative approaches to devolved management of a distinct network within ScotRail. A further point which European experience would highlight, is the issue of bus and coach services. Given the sparseness of the Highland population - and seasonality of transport demand - looking at much closer links between bus and rail, and ferries, makes obvious sense. This could initially include the key Fort William – Inverness corridor which connects the two rail networks, as well as connections to towns far distant from the rail network. Initially this could take the form of joint marketing, ticketing integration and scheduling to ensure trains and buses connect.

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REGIONAL RAIL: The European Dimension

1. Introduction

The management of regional railways in many European countries has changed dramatically over the last twenty years. The traditional model of a single, state-owned operator providing a mix of inter-city, regional and freight services has been transformed in all but a handful of countries. Whilst some of the traditional state-owned operators, like DB (German Rail), NS (Netherlands Railways), SNCF (French Railways), DSB (Danish State Railways) and SJ (Swedish State Railways) remain, their roles have changed dramatically.

This transformation takes several forms but a common factor is the separation of infrastructure from operations. The above companies are now responsible solely for operations, with infrastructure coming under a separate, state-owned, body broadly similar to our Network Rail. Alongside this, the large state operators in most countries (with the exception of France) have faced competition from other private operators, particularly for regional franchises.

This paper aims to give an overview of current practice in the following countries: The Netherlands, Sweden, Denmark, France, Italy and Germany. I comment briefly on the situation in parts of central and Eastern Europe. The selection is based on providing relevant background information on those countries which have taken reform of regional rail further than most other European countries, though the models are, in every case, significantly different than the UK model. A particularly useful source for information on regional rail across Europe is *Regional Rail Passenger Transport in Europe*, edited by L. Sippel and T. Mayer and published with the assistance of the German association of passenger rail authorities (BAG-SPNV) and the Inter-Regio project.

The paper is intended to provide a European-wide context to HITRANS in its response to the current consultation on 'Rail 2014'by Transport Scotland.

2. From state ownership to liberalised market

The changes that have taken place across many of Europe's regional railways did not happen at a uniform rate. Sweden and Germany were the first to 'regionalise' some rail operations, though it should be pointed out that in several countries, notably Germany, Denmark and Italy, independent, usually publicly-owned, regional rail operations had existed for decades. An example is the Hohenzollern Regional Railway (HZL) which operates local passenger services in parts of southern Germany. This is a vertically-integrated railway, owned by the local communities which it serves. Similar operations, such as 'Lokalbanen' (Local Railway) exist in Denmark.

The traditional model for regional railway operations was highly centralised. Local and regional services were provided by the state operator (be it DB, SNCF, NS etc.). Regional rail

services were usually treated as just another part of the network, without any specific management attention other than as part of geographically-based management units, e.g. region, division, area, each of which would have responsibilities for other operations e.g. freight and express passenger. Traditionally, there was little contact between the railway company and local or regional governments, with relationships confined usually to a very senior level of railway and national government.

During the 1960s onwards, regional rail services began to suffer from competition from the private car and bus and service reductions were common across Europe. However, the realisation that local and regional rail could form part of an overall strategy to reduce car dependence began to find favour during the 1990s. It was also fuelled by concerns over rising costs of maintaining regional rail services and the political difficulties in closing any more of the networks. It was realised that managing regional rail as part of the overall network, whilst making for operational integration, meant that services had little or no marketing. Community involvement in regional rail was an unknown concept across Europe at this time other than on a very ad hoc basis.

On a more strategic level, the 'liberalisation' ethos within the European Union began to have an effect. The assumption that there should be only one state rail operator began to weaken as EU legislation provided for a degree of separation between operations and infrastructure, opening the way for further legislation to enable 'open access' operations on the state owned network.

Change came first in the Scandinavian countries, notably Sweden which was the first country to separate operations from infrastructure, as far back as the late 1980s. As Ingemar Lundin, former managing director of Jönköping Transport Authority (JLT) put it "those days when the wind shifted and regional rail become an attractive mode of transport again". (private email, January 26th 2012)

Germany, Denmark, The Netherlands and France followed. In some central and eastern European countries, particularly Czech Republic and Poland, experiments were made in devolving responsibility for local and regional rail to a more local level but these were initially fraught with problems and political controversy, reflecting the cost-driven agenda which lay behind the policy. It would seem that Poland and Czech Republic now have a degree of stability with considerable regional devolution.

The reforms in western European countries were partly driven by cost considerations, but equally by a concern to provide a more responsive and co-ordinated approach to public transport as a whole. The Swedish ambition, of using regional devolution, franchising and cost reductions coupled with investment in new stations, services and rolling stock, has led to a positive cycle of growth and reduced subsidy per passenger.

There are a number of elements which the successful regional rail projects have in common. All are promoted by strong, elected regional authorities through their passenger transport (or sometimes specifically 'rail' authorities). The transfer to regional control has usually come with what can only be described as a seismic shift in how rail is managed. Traditional working practices have been abandoned in favour of slimmed-down operations, with trains typically becoming driver-only, serving unstaffed stations. Investment has provided for re-signalling, taking out expensive and inefficient mechanical signalling systems.

Whilst the number of staff per train operated has drastically declined, by investing in new, modern rolling stock with improved integration between bus and rail, higher frequencies and attractive, localised, marketing, more staff are employed in directly productive roles, notably driving. The informal evidence suggests that staff like the new arrangements and enjoy being part of a much smaller and less hierarchical team.

Another feature of most regional railways – with significant exceptions – is that the separation of infrastructure from operations, in accordance with European law (see below), generally applies. Exceptions are long-standing independent railways such as those in Germany and Denmark, the more recent pilot scheme in Duren, and the Basque metre-gauge 'Euskotren' network. In each of these cases, results have been impressive but there has been a reluctance amongst many regional transport authorities to pursue vertical integration further, on largely legal grounds.

There has been an assumption in favour of franchising, again partly based on European law. Forms of franchising vary but the key difference is between 'net' and 'gross' cost contracts. An increasing number of transport authorities favour gross contracts, allowing them a greater degree of control, with the operator purely providing a service for an agreed price and all revenue going to the public body. This is, of course, quite different from the UK model which is based on net cost franchises with the operator having a greater degree of risk.

3. The European Dimension

It is important to have a basic grasp of EU policy on rail to understand the overall picture. The core legislation is in the EC's 'First Railway Package'. Chris Nash, in a recent, paper summarises the position:

"The legislation comprising the First Railway Package is contained within 3 directives – Directives 2001/12; 2001/13; and 2001/14. In brief, these required:

- separation of the management of infrastructure, freight and passenger services, at least into separate divisions with their own profit and loss accounts and balance sheets;
- non discriminatory setting of access charges and allocation of paths (as a safeguard if the infrastructure manager was also involved in train operation then these functions had to be undertaken by an independent body);

- the establishment of a rail regulator, independent of the infrastructure manager and any train operator, to whom appeal could be made in the case of dispute;
- a performance regime to incentivise the infrastructure manager; and
- financial equilibrium of the infrastructure manager to be ensured - either through the regulatory system or by means of a multi-annual contract lasting at least 3 years – whilst maintaining pressure for cost reductions.

Two further packages have introduced important measures regarding safety and inter-operability, but most crucially have completely opened up the market for both domestic and international freight traffic, and will commence opening the market for passenger traffic with international traffic in 2010. However, implementation of these Directives has been very variable." (C. Nash *European Rail Reform – The Next Steps*, 2011). Nash makes the point that EC proposals to make competitive tendering compulsory for unprofitable local services have been shelved following major political disagreements.

4. Sweden

Sweden was the first European country to institute radical reforms to its rail network, though it tended to be a slightly ad hoc process (highlighted in Gunnar Alexandersson's *The Accidental Deregulation*, 2010). Sweden was the first country to separate infrastructure from operations, as far back as 1992. Initially, the infrastructure company was called Banverket (now Trafikverket) whilst rail operations continued to be provided by SJ (Swedish State Railways) which remains state-owned.

One Swedish authority commented:

"The 1988 reform, part of a comprehensive Transport Policy Act of that year, was given three motives. One was to put railways on an equal footing with roads by organisationally separating infrastructure from service operations. This is one reason why *Banverket* was made a government agency, operated in the same way as the National Road Administration. Secondly, since railways were considered a uniquely safe and environmentally friendly means of transport, the Parliament also voted for continued financial support so that these special benefits could be fully realized. The third given reason for the reforms was to arrange for subsidies to secondary, low-density lines, by way of transferring the responsibility for commercially unviable traffic over these lines to regional transport authorities. This would then be a means of carrying on with operations for regional policy reasons." ". (J-E Nilsson, Re-shaping Sweden's Railways – The Unintentional Deregulation' in *Swedish Economic Policy Review*, no. 9, 2002)

The reform of the regional rail network began in earnest in the early 1990s with responsibility for local and regional rail services transferred to 21 regional transport authorities (RTAs), responsible to regional councils. The involvement of the RTAs developed over the following decade in a process which was far from being uniform. The picture today remains complex, with the RTAs having responsibilities for franchising local and regional services and also owning the rolling stock used. Some of the RTAs have joined together to

create a rolling stock provider, The RTAs are major investors in stations and in some cases own station buildings. The RTAs and transport operators (rail, bus, ferry) have created a not-for-profit company called Samtrafiken which co-ordinates ticketing and information services.

The RTAs have responsibilities for all modes of transport and are able to ensure a very high level of integration between bus and rail, with buses providing feeder services to rail station hubs. Regional rail is financed by the RTAs, whose parent regional councils are responsible for raising most of the finance through local and regional taxation. The state itself provides very little funding. (see Bertil Hylen *Public Transport in Sweden – Deregulation and Intermodal Integration*, VTI 2011).

The introduction of tendering for regional services was far from being a smooth process, as Jan-Eric Nilsson observes:

"… in 1989, the first competitive procurement of regional train services resulted in a four-year contract being awarded to a private company. *BK Tåg*, at that time an operator of coaches, submitted the lowest bid and could start its services in 1990, using previous SJ drivers that were now given higher salaries. Although the contractor in reality only has control over a few parameters—rolling stock is owned by the regional authority that also controls ticket prices and takes care of all revenue—*BK Tåg* acquired a reputation to deal with the operations in an un-orthodox and largely successful way. This is the first example of competition *for* the tracks, where an entrant is in charge of a certain service for a pre-determined period of time. When this particular contract was up for renewal in 1993, SJ won it back. *BK Tåg* filed a complaint with the Swedish Competition Authority, however, claiming abuse of dominant position. It asserted that SJ had submitted a bid below costs in order to get rid of the entrant. The complaint was approved, the case was brought to court and in 1998, SJ was fined SEK 8 million for its bid. In 2000, after SJ's complaint against this verdict had been overruled, *BK Tåg* also sued SJ for damages". (J-E Nilsson, Re-shaping Sweden's Railways – The Unintentional Deregulation' in *Swedish Economic Policy Review*, no. 9, 2002).

BK Tag brought a very distinct approach to local train operations. Under the aegis of the country transport authority, staffing was reduced and the driver became responsible for ticket sales (a practice that no longer applies). Station staff were removed from smaller locations and ticket machines installed, as well as smart-card readers on trains.

From modest beginnings, with small domestically-owned train companies like BK winning some RTA contracts, today's picture is one of Danish domination. Various DSB subsidiaries have won contracts to operate Swedish RTA services but these may not continue following DSB's recent experiences (see below, Denmark). The new regional operation in the north of the country - "Norrtåg" - is a mixture of gross and net cost contract and run by a joint venture owned by Arriva (60%) and SJ (40%).

Trafikverket, originally Banverket, covers both rail and road infrastructure. It has the overall responsibility for the planning, development and functioning of the rail sector and has a much stronger role than most other European infrastructure bodies, such as RFF (France) or DB Netz (Germany). Most rail traffic is controlled from Trafikverket's seven operation centres.

Swedish railways are now highly liberalised. Since October 2009 international services were open to competition and from summer 2010 all domestic services are open to licensed operators. The assumption is that long distance train services will operate without subsidy, though one route to Northern Sweden does require state support and services are tendered via national transport body, Rikstrafiken. Track access charges in Sweden are low, and reflect a policy which aims to encourage rail on account of its environmental benefits.

The overall result of Sweden's rail reforms is positive. Regional rail services have been transformed and costs have come down by about 25% compared with the pre-1988 SJ costs. Ridership has increased dramatically and investment has gone into station facilities, ticketing systems and new rolling stock.

5. Denmark

Denmark, with a population of 5.5m, is perhaps the country with perhaps most in common with Scotland. As well as having a similar size of population, that population is also concentrated in one area (for the central belt, read Kobenhavn). Without drawing the comparison too far, Kobenhavn is a similar size in population to 'Greater Glasgow' and the approximate equivalent of Edinburgh (with a smaller of population of 280,000 compared with Edinburgh's 486,000) might be Malmo, in Sweden but connected by the Oresund Bridge which carries 14,000 commuters between the two cities each day. Denmark has its approximate equivalents of cities such as Perth, Dundee, Aberdeen and Inverness in Esbjerg (72,000), Odense (166,300), Arhus (243,000) and Aalberg (103,312).

DSB (Danish State Railways) has been the main operator for many years. It is structured as 'an independent public company owned by the Ministry of Transport'. It has come under considerable pressure by politicians to become more market oriented. It has responded to these challenges with some alacrity, forming partnerships with the private sector, stripping out inefficiencies, and bidding for work abroad – with stunning success in neighbouring Sweden. The main railway infrastructure is managed by Banedanmark, a state-owned body. It is interesting to note that Denmark has about twenty long-established independent railways which are owned by municipalities. These are usually vertically-integrated operations, largely separate though not entirely) from the main DSB network.

Competitive tendering is not universal and so far only about 22% of the regional network has been put out to tender by the Danish Transport Authority (Trafikstyrelsen). Some local services have been won by Arriva initially establishing a base in the Silkeborg area. Part of the package included complete fleet replacement, with Angel Trains acting as rolling stock supplier. Arriva's main area of operation is now in the Arhus area.

The Danish experience with competitive tendering and public-private partnerships has been difficult, to say the least. DSB teamed up with UK-based First Group to win some contracts, particularly the Oresund operation as 'DSBFirst' let on a 'net cost' basis. In mid-2011 the situation went dramatically wrong and was described by one expert as 'hell'. This led to a political crisis resulting in DSB deciding to withdraw from further foreign bids and concentrating on its home 'core' business.

The network of Danish 'local railways' is very well established and there are about 20 lines covered by these operations, which tend to be owned by the local authorities. 'Lokalbanen' in Zealand, for example, has a 138km network and a fleet of 29 modern trains (DMUs). It carries 6 million passengers a year and is a good example of a modern, community-owned railway.

6. Switzerland

Switzerland, with a population of just under 8 million, has long enjoyed both a highly reliable and attractive rail system with a high degree of decentralisation, involving nearly 60 different railway companies, mostly vertically-integrated. Most of these are, however, small operations serving particular cantons. By far the biggest operator is Swiss Federal Railways (SBB) with Bern-Lotschberg-Simplon (BLS) being the next largest. As Switzerland is not in the EU there is no requirement to separate infrastructure from operations, and SBB thus covers both spheres, as does BLS for its own network through the Alps.

There is a clear distinction made with Swiss railways between long distance services, and with regional and local passenger services. The local and regional services are typically provided by locally-owned arms-length railway companies with vertical integration between operations and infrastructure. A contract (service level agreement) between the canton and the local railway is normally negotiated very four years with 'net cost' contracts awarded. In other words, the operator is given a baseline of funding and any extra revenue goes to the company, whilst it has to bear any loss.

7. Germany

Germany has the largest national railway market in Europe and has to a large extent led the liberalisation process for regional passenger traffic over the past 15 years. Today, there are some 400 separate operators, including freight companies. Within the regional passenger sector there are some 70 different companies operating, a mix of public and privately-owned. DB (German Rail) remains the colossus bestriding both operations and infrastructure, although it has separated infrastructure management into a separate body, DB Netz. Most of its regional passenger services are provided by its subsidiary DB Regio, which owns Arriva and has several UK operations (Chiltern Railways, Tyne and Wear Metro, Cross Country, Grand Central).

Prior to liberalisation in 1994, Germany already had some experience of local, publicly-owned railways such as the successful 'Hohenzollern Regional Railway' in the south of the country, whose history stretches back to the 19th century. In the early 1990s, a pilot scheme

in northern Germany saw the re-organisation of two 'failing' branch lines into a local authority-managed railway called 'The Dürener Kreisbhan' (DKB - or 'Düren County Railway'). It was taken out of Deutsche Bahn (DB) control, whose only interest in the railway had been to shut it down as quickly as possible. Over the next few years a positive dynamic of improved frequencies, investment in new rolling stock, station modernisation and re-signalling took place. From a handful of trains a day hauled by over-powered diesel locomotives hauling a couple of carriages, modern 'Regiosprinter' trains operated a half-hourly service to rural communities in the area. Trains are operated by one person – the driver – with back-up from roving revenue control teams. Unlike many 'new generation' local railways the operation is vertically integrated with operations and infrastructure under single control. Ridership leapt from a couple of hundred a day to thousands, with growth of 500%. The railway is now owned jointly by the county council and a private company, operating as 'Rurtalbahn AG' (Rur Valley Railway).

The success of the Düren project encouraged the German Federal Government to go ahead with a more general regionalisation of services, from 1994. Germany has a well-established system of regional government, based on 'länder' (or 'regions') which cover large areas. The länder were given powers to take over franchising of local services. This led to a flowering of innovation in local rail services and some outstanding successes. In many parts of the country neglected branch lines suddenly found they were getting much-needed investment, with new management , station refurbishment and new rolling stock. The German rolling stock manufacturers found themselves with orders for hundreds of new trains, mostly diesel railcars which have provided a huge leap in ride quality, passenger comfort – and reduced running costs. Many other small networks of lines have been franchised, with DB Regio and other larger groups tending to win most of the contracts. The 1994 legislation was aimed at:

- Attracting more traffic to the railways
- Limiting support to the sector from the public purse
- Promoting competition on the tracks
- Restoring the state railways' operation according to business principles

(Bertil Hylen *Germany and De-regulation of its railways* , 2011)

The reform also involved amalgamating the earlier railway administrations in East and West Germany (Deutsche Reichsbahn and Deutsche Bundesbahn, respectively) into Deutsche Bahn. Regional passenger services (Schienenpersonennahverkehr, SPNV) are broadly defined as traffic that is mainly city, suburban or regional. In dubious cases, the term refers to traffic with journeys predominantly of less than 50 km in distance or of less than 1 hour in duration.

Funding for regional rail was transferred to the regions (lander) in 1996. Today, the total provision is around 7 billion euros. The states regions procure services either through direct procurement or through competitive tendering. DB provides most of the contracts but

around 12% , measured in passenger-km, or 20% measured in train-km is delivered by other operators. Some 61 million train/km of services are tendered out.

Companies involved range from DB itself with the lion's share of contracts (see above) with Veolia the next largest. Abellio has a number of contracts. Arriva did have a number of regional rail contracts in Germany (as 'Arriva Deutschland') but when Arriva was bought by DB in 2010 it was forced to divest its contracts. These were purchased by Italian Railways (FS – Trenitalia) which now markets the services as 'Netinera'. Many of the smaller operators are owned by local authorities; one of the biggest of these is Karlsruhe's AVG which operates an extensive network using tram-train technology. The Regiobhan network, based on two connecting routes into Dusseldorf, is owned by a consortium of local authorities and has been immensely successful in revitalising the two decrepit routes.

There is considerable diversity in approach. Bayern, for example, with a sixth of Germany's total train-km in regional traffic has only one procurement body while others have divided responsibility over several smaller bodies. All in all, there are about 30 procurement bodies in the 16 regions, known as 'Rail Passenger Transport Authorities'. They are represented by their federal trade association BAG-SPNV.

DB has established five 'regionetze' – vertically integrated operations in more rural areas. One example is the Usedom Railway, which is almost a self-contained operation in the north of the country. BAG-SPNV commented (private email, January 30 2012) that "They are seen with some suspicion from our side as they are a good opportunity for the DB AG to keep competition away".

The Rail PTAs normally require bidders to provide rolling stock to precise specifications in the tender document. Exceptions are Niedersachsen and parts of Hessen that have 'rolling stock pools' owned by the Rail PTAs in a similar way to the Swedish PTAs. Rail PTAs have chosen different solutions regarding fare structures, timetable design, vehicle design, etc. Net agreements are the most common type but mixes of net and gross agreements also exist where the revenue risk is shared by the operator and the Rail PTA.

Germany still has a mix of both direct procurement and competitive tendering – policies vary between the federal states. According to a Swiss report by Lalive and Schmutzler (2007) 50% of the total train-km was tendered out in Schleswig-Holstein in 2007 but only 5% in Bayern.

Controversy continues over franchising versus direct procurement. In 2002 German courts decreed that Rail PTAs must procure services through competition and not through direct procurement with a single favoured provider. This was re-inforced by a ruling of the Federal Court of Justice in February 2011.

According to Bertil Hylen the courts based their 2002 decision on the competition legislation. "The decision led to intense discussions and lobbying by DB Regio who would really have liked to see that direct procurement continued. DB Regio appealed both to higher authorities in Germany and to the European Commission. A gradual phasing-in over 13 years was discussed and a compromise was eventually agreed where the federal states

are forced to show greater transparency in their procurements, while legal proceedings concerning the forms of procurement care still on-going". (Bertil Hylen, above). Hylen adds that "it should be noted that EU Regulation 1370/2007 permits direct procurement of train traffic (but not bus traffic)".

DB remains a firm supporter of vertical integration, arguing that there is no firm evidence that a separation will benefit the development of rail services, the customer, or the development of competition. Instead, it argues, an integrated railway under strict regulation may show positive results. Hylen adds that "Experience in other countries (UK, Slovenia, the Czech Republic) shows that despite (vertical) separation there is little development of competition and an increase in demand for public funding".

The independent German operators (including public as well as privately owned companies) in BAG-SPNV commented that their preferred model "would be to have a regional infrastructure manager for regional networks, an example is the Thüringer Eisenbahn GmbH, a private railway infrastructure undertaking managing 116km of tracks in Thuringia. In this model the Länder would define regional networks and tender the managing of this network. Länder and municipalities would have more influence on the local infrastructure and experience shows it is much more efficient than the centralized DB". (private email, January 30 2012)

The German example has been explored in some depth because it is by far the most comprehensive overhaul of regional rail services in Europe. The results are certainly impressive with lines transformed through major investment. New fleets of trains, both diesel and electric, have been ordered, stations upgraded and frequencies drastically improved. Some regional lines have experienced growth in four figures (e.g. Regiobahn in the Dusseldorf area, operated by Veolia).

This all comes at cost (Euros 7 billion) but clearly the federal government and the lander see this as good value for money.

8. The Netherlands

The Netherlands is a relatively small country with a population of 16.5m compared to the UK with 61 million. However, it has a more dense population making it good terrain for public transport, particularly in the most densely-populated area, the Randstad covering Rotterdam, Amsterdam and The Hague. Rail in The Netherlands is a popular means of transport, responsible nearly 10% of surface passenger transport (compared with 6.8% in the UK).

The state operator is the long-established Nederlands Spoorwegen (NS) which, up until 1995, was a vertically integrated operator. The situation now is that NS operates 'main line' services with exclusive rights from the Dutch Government, whilst Pro-Rail has responsibilities for infrastructure. The situation on the more rural branch lines is, however, quite different as far as operations are concerned.

The reform of regional rail services began in 2000 with the passage of the Passenger Transport Act. The aim of the legislation was to drive forward improvements to local passenger transport and also to recoup a greater share of costs (from 35% to 50% of total costs)

It provided a framework for the regionalisation of local ('branch line') rail services, bus and metro systems. A total of 18 regional transport authorities were formed, based on the provinces (in more rural areas) and seven 'city-regions' in more urban parts of the country. The Dutch state was treated as the '19th transport authority' as it retained control of main line rail services – including local rail services operating over the main line routes.

It should be stressed that the regional transport authorities formed part of elected authorities, be they provincial councils or the city-region bodies. Funding of passenger transport was (and is) primarily based on a transfer of funds from the central government to the provincial councils and city regions, with very little coming from local municipalities, which tend to be very small and without access to large funds. Not all of the provincial councils have responsibilities for rail, reflecting the nature of the local rail network. However ion one case (Groningen/Drenthe) two provincial councils co-operate to manage local rail services in their areas.

A pioneer of the new approach, used as a pilot prior to the 2000 Act, was the 'Syntus' operation in the east of the Netherlands. A joint venture company comprising a local bus operator and NS was formed to promote a highly-integrated local transport network. Competing bus routes were re-organised to feed into local station hubs and the company had responsibility for both bus and rail services. Staff, including drivers, were multi-skilled in both bus and rail.

The experiment proved highly successful and the 2000 Act enabled the regional transport authorities to take over responsibility for local 'branch line' services in their areas. In some cases the transport authorities specified integrated franchises which included both rail and bus services, ensuring very high levels of integration.

Several companies entered the rail market including Arriva (now owned by DB) which already had extensive bus contracts in the Netherlands. Connexxion, a bus company now owned by Transdev, won some contracts as did Veolia (formerly Connex) which recently took over Transdev.

The Syntus operation is now owned jointly by NS and French-owned Keolis, although the company recently lost a number of its branch line contracts to Arriva.

The Dutch experience has been largely positive though there have been some problems with the size of the provincial councils resulting in some overlapping of services. The partnership between Groningen and Drenthe suggests that this need not be a major barrier if authorities are willing to co-operate. The relatively short franchise length (up to eight years) means that there is a degree of instability in the network. The loss of a large part of the Syntus network to rival operator Arriva has been seen by some commentators as risking a decline in the high quality service currently provided. Time will tell, but what is clear is that

the instability which is part of the franchising process does have a negative impact on both staff and passengers.

9. Italy

The pace of rail reform in Italy has been slow, to the frustration of the European Commission which has taken the Italian Government to the European Court of Justice for its failure to implement the first package of rail reforms (though Italy was not on its own, sharing the same fate as Germany, Spain and France). The bulk of train services, both long distance and regional, are operated by Trenitalia. Italy's 20 regions do have considerable autonomy and are responsible for regional public transport, including rail. Each region has a contract (normally net cost with the exception of Bolzano) with Trenitalia for the provision of regional rail services. Trenitalia itself has regional business units which correspond to the 20 regional councils, each having considerable commercial autonomy.

The only region to experiment with tendering has been Emilia-Romagna which put out some services to tender, which were won by Trenitalia.

Italy also has a number of independent, publicly-owned railways which operate in mostly rural areas. Typically these will be vertically-integrated with the regional council owning the rolling stock.

10. Spain

The picture in Spain is interesting for its lack of uniformity, reflecting the 'asymmetric' pattern of devolution within the country. Following the end of the highly-centralised Franco regime, a process of devolution began which created 'self-governing regions' in some parts of Spain, notably Catalonia and the Basque Country. However, the state operator, Renfe, continues to provide the overwhelming number of local and regional passenger services, as well as longer distance and AVE (high speed) services. In Catalonia it is the regional government which contracts with Renfe for the provision of regional services.

The situation in the Basque Country is different, partly on account of railway geography and politics. The Basque Government has progressively taken over responsibility for the extensive metre-gauge network which centres on Bilbao and San Sebastian – the 'Euskotren' network. This is different from the state-owned FEVE network which also serves Bilbao but extends well beyond the Basque border. Euskotren is a vertically-integrated operation wholly owned by the Basque Government. It has invested heavily in upgrading the decrepit network, with track doubling, new stations and new rolling stock (built by Basque manufacturer, CAF). Euskotren also owns a fleet of buses which provide connections into the rail network.

11. France

France has moved a considerable way from being a highly centralised state up to the early 2000s. The emergence of regional councils as powerful devolved governments has had a major impact on regional rail, though the process has a long way to run. A total of 20 metropolitan regions (excluding Ile de France and Corsica, where separately arrangements apply) have responsibilities for regional passenger services (the 'TER' network). They are

federated into the association of regional transport authorities, GART. Currently, SNCF is the sole supplier of train services, contracted to each of the regional councils. The minimum length of contract is five years. The regions funding for rail – some 2 billion euros, mostly comes via central government sources devolved to the regional councils. Infrastructure is managed by a separate state-owned body, RFF. A feature of the French regional scene has been the significant investment in new rolling stock for regional services (built by Alstom, *naturellement*).

During the Autumn of 2011 a 'rail summit' (or 'Assises Ferroviares') took place, involving regional and local authorities, user groups, unions and operators. The objective was to look at the various problems facing the railway network, including future financing, freight, deregulation and the future of loss-making long distance services.

One result of the summit, announced by the transport minister in December 2011, was that the loss-making longer distance services, currently operated by SNCF, would be opened up to competition. From 2014 the Government intends to give the regions tendering powers for local and regional services which they currently have to buy from SNCF. The summit also suggested that there was a need for greater co-ordination between RFF and SNCF, as well as with open access operators. It is most likely that RFF will take over some of SNCF's existing responsibilities, for example station management. (see *Today's Railways Europe*, February 2012, p. 8).

12. Central and eastern Europe

The picture further east is if anything more complex, with some states retaining a traditional highly centralised approach with one operator, whilst other countries have experimented with other models.

In Poland, responsibility for local and regional passenger services now lies with sixteen regional councils (voivodships). Whilst the state operator PKP remains dominant in longer distance traffic, the regions jointly own their own railway company – PR ('Regional Railway') which provides many of the local and regional services using the 'REGIO' brand. It also provides some longer distance services as InterREGIO and short distance international services as REGIOEkspress, with DB Regio. Funding for regional services comes partly via the state-run National Rail Fund as well as local and regional taxation. In addition to PR, some foreign operators including Arriva have won some concessions, notably in the Kujarska-Pomorskie region. It is likely that more regional services will be opened up to external competition.

In Czech Republic the reform of local and regional rail began in 2005 with 14 regions given extensive powers to support regional rail services. CD remains the predominant operator, providing services on a contract basis to the regional authorities. However in the Liberec region some services were put out to tender, with CD winning one and German independent Vogtlandbahn winning the other.

Hungary is likely to open up its regional rail services to competitive tender during 2012, following the closure of some lines operated by state railway MAV.

13. Other countries

The process of reform has not been uniform across Europe and some countries, notably Belgium, have continued with the traditional model of a state operator providing all passenger services without any significant separation into market segments or business units.

Other, smaller countries or regions, have developed as self-contained entities, including several islands, e.g. Mallorca. Martin Bairstow, historian of railways in Mallorca, commented that "The Mallorca Railway (not the Soller Railway which is a totally different story) passed from central to regional Government control in 1994. Since then it has trebled in size, with more to come. But there have been some fiascos on the way. Devolved government may be quite good at lobbying central government for funds but no good at project management. If they don`t employ anyone with industry experience, they are just putty in the hands of manufacturers and contractors". (private email, January 29th 2012).

14. Conclusion: relevance to Scotland

The experience of reforming regional rail across Europe is enormously varied and it is clear there is no single model that could be applied to Scotland without careful consideration of the specific context of the nation's rail network.

Clearly, separation of infrastructure from operations is common to nearly all the examples outlined above, though this has happened to varying degrees. Whilst the policy of the EU continues to be strongly in favour of separating infrastructure from operations, many observers (and not necessarily those with a vested commercial interest) in Germany, France and The Netherlands (as well as the UK) are opposed to the process and argue that it has introduced additional costs and inefficiencies to the rail network.

Chris Nash has argued that overall the results have been largely positive, but adds a note of caution:

"Further liberalisation of passenger services remains a controversial issue. As we have seen, the experience to date of both competition in the market and competition for the market is not entirely positive. Competitive tendering seems generally to have worked well as a way of delivering services tightly prescribed by franchising bodies on gross cost contracts, but has had more difficulties where – as in Britain and Australia – operators are expected to bear revenue risk and to take at least some of the initiatives in developing services. On the other hand, simple open access for commercial services is also found to have disadvantages. A cautious approach is therefore justified, but further research to identify the best way of opening up the rail passenger market to competitive pressure is urgently needed". (*European Rail Reform – the next steps*, 2011)

The experience in the UK would suggest that if there is to be separation, it is of vital importance that train operators and infrastructure management work together closely, with shared control centres and other integrated networks. To an extent this already happens in the UK and the devolved arrangements for Network Rail in Scotland provide a degree of synergy with the main operator, ScotRail. However, there may be scope for further integration and this is discussed below.

A very clear feature of most of the railways studied is the separation of regional from longer distance services. This is a quite rigid separation in countries such as Sweden, France, Denmark and Germany and has brought considerable benefits by having a strong management focus on regional rail services, with a capability of working closely with regional and local authorities.

The alternative, where all rail operations come under a single command (e.g. Belgium, and earlier Germany, France, Sweden) suggest that regional rail suffers from a lack of management attention.

Some European countries – notably Sweden, Netherlands and Germany – have tendered quite small networks with some positive results, particularly in the field of transport integration. However, some commentators have suggested that this can lead to inefficiencies and duplication, particularly where essentially regional passenger services cross regional boundaries. Starting from scratch, the aim should be to identify sensible boundaries which have a political, economic and even cultural meaning.

Europe's obsession with franchising has not been universal. Several German authorities, as well as DB itself, prefer the system of direct procurement with a favoured operator. Providing the procurement authority understands the market, and costs of providing rail services, this approach can work. However, it begs the question that if, say, a regional authority is to have a preferred operator why not set up your own arms-length operating company where you will enjoy complete control and accountability? This is the model used in the Basque Country, where the Government owns its operator, Euskotren.

A further problem with franchising is the inherent instability of the system. Railways – at every level, including customers and employees – need long-term stability. Investment horizons are long, with the life of a typical train being up to 30 years. Franchising, whilst it may offer some degree of accountability, does not deliver stability and can lead to serious problems in the hand-over from one operator to another (as in the experience with DSB First in Denmark). In the UK this has tended not to happen, at least up to now.

However, the much-vaunted advantages of franchising in bringing costs down have yet to be demonstrated in Britain, in contrast to Germany and Sweden. Why is this? Possibly the strongest argument would be that BR radically pruned its operations in the 1990s, driving out many of the inefficiencies which continued in the continental railways well into the 2000s. When privatisation came to the UK in 1994, there were very few inefficiencies to be addressed as BR had largely successfully eliminated them.

Bertil Hylen, to whom I am considerably indebted for much of the information in this paper, has made a detailed study of different approaches to regional rail management across Europe. In a paper written for Swiss Government he made the following suggestions (in summary) for the reform of its railway system:

1. Implement separation of infrastructure and operations, as in Sweden, Denmark and The Netherlands. Avoid the German or UK models.

2. Establish PTAs nation-wide. Give them power/responsibility over all regional public transport regardless of mode.
3. Introduce competitive tendering for regional public transport.
4. Do not implement open access for long distance rail, Switzerland is too small. [X)]
5. Establish a performance contract for long distance rail services SBB/BAV.
6. In general, look at German developments, not at France

(*Questions for international contacts for interviews by the Expert Group Organisation of Rail Infrastructure, Swiss Transport Ministry* 2011)

These are interesting suggestions, again to a country not hugely different in size to Scotland (and sharing some of Scotland's more challenging terrain, compared with Denmark's!). I remain unconvinced that franchising invariably offers best value for money, but Bertil can certainly point to the successes of franchising in Sweden and Germany. His comments on the need for passenger transport authorities across the country are well made, as is the points on open access in a relatively small country. He makes a clear distinction between long distance and regional rail services, with the state being responsible for the former and PTAs for the latter. I think he would probably say that similar structures would be appropriate for a country like Scotland.

In considering the relevance of other European models to Scotland, a range of factors need to be taken into account, including 'railway geography', political structures, overall Government policy (Holyrood and, for now Westminster).

To state the obvious, Scotland has a heavily-populated, economically strong, central belt. It has a dense commuter railway network, with strong long distance arteries feeding into Glasgow and Edinburgh, mainly from the south though not neglecting important long distance routes from Inverness and Aberdeen. In addition, there are secondary routes south of Ayr to Stranraer and the former G&SW route to Carlisle, increasingly busy with freight.

Looking at Scotland from a 'European' perspective the obvious perception would be that Scotland's rail network breaks down into four main sectors:

- InterCity rail from England (London via ECML and WCML, plus CrossCountry) continuing to Aberdeen and Inverness on an infrequent basis
- Long distance services from Glasgow and Edinburgh to Dundee, Aberdeen, Perth and Inverness (plus Stranraer and G&SW) (ScotRail Express)
- The Glasgow and Edinburgh commuter network (ScotRail Commuter)
- The rural network, primarily focussed on Inverness but including West Highland (Highland Rail)

For the purpose of this paper, it makes sense to take the three 'domestic' sectors: long distance, commuter and rural and apply best European practice to these, with a particular focus on the 'rural' network. It is not about what is 'profitable' and what isn't – it is about understanding what the different markets are and what management approach is most appropriate for each, within, I would argue, a strongly co-ordinated overall approach. Trying to separate 'profitable' from 'unprofitable' risks becoming like a quest for the Holy Grail and is a poor tool in determining policy.

So a good European rail manager would say that there should be a degree of segmentation between these three sectors, with a stronger management focus on each. This does not necessarily imply three separate franchises but it does strongly suggest clarity of focus and a

greater degree of involvement of 'regional' bodies in the rural network – which is fortunately largely coterminous with the HITRANS area.

Would a 'Highland' franchise work? The answer is probably yes, as we've found in the UK most structures can be made to work if enough money is thrown at them. It might not, however, be the ideal solution. Although Inverness is the obvious operating centre, it would hardly make sense to have duplicating facilities between 'Highland' and 'ScotRail Express'. Whilst there is plenty of experience of different rail franchises working together amicably, there's also a lot of experience of them not doing. Having two different companies in Inverness which were at odds with each other would be sheer madness. The same applies to the central belt cities.

What could work, in political, management and operational terms, is a strongly devolved 'Highland Rail' business unit, based at Inverness, working closely with HITRANS and Highland Council. It should be part of a 'ScotRail' franchise (assuming that a franchising arrangement is regarded as the optimum long term solution, which I'd dissent on).

The Highland rail network, including Aberdeen –Inverness, Inverness – Kyle/Thurso/Wick and Glasgow – Mallaig would be large enough to justify discrete management and dedicated resources where needed (and sharing where not, e.g. Glasgow Eastfield depot).

Based on European practice, it would be essential to have the public body for the network – Highland and neighbouring councils which form HITRANS – much more directly involved in the franchising process. Whilst, I would stress, I am not advocating a separate franchise, there should be discrete elements within the franchise which meet the needs of the Highland communities. So whilst Transport Scotland would lead on the overall ScotRail franchise, Highland interests should be involved in negotiations on the networks relevant to its interests, and have the ability to buy additional services and facilities if it deems it necessary.

Having distinct business units for 'ScotRail Express' and 'Highland Rail' should not lead to fragmentation. Anyone with any understanding of how services north of Inverness work will understand the primacy of connections into and out of Glasgow/Edinburgh/Aberdeen services.

There is a further issue which certainly a German railway specialist might stress. North of Inverness the infrastructure becomes modest, with one control centre responsible for signalling and little in the way of heavy or complex infrastructure. A more radical step than a simple 'business unit' might be to have a body which includes Network Rail alongside the operator – and HITRANS – with its own devolved budget. Within this scenario, 'Highland Rail' becomes a 'shadow' vertically integrated operation to all intents and purposes, with a very clear identity.