

# An international comparison of railway organisational and planning frameworks

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## **Abstract**

The nature of railway organisation has been changing in many countries, primarily due to the continued drive for efficiency in operation which has led state owned railways to move towards part or full privatisation of their operations. In the European Union, change has also been driven by the European Directive 91/440/EEC, which requires an accounting separation between operations and infrastructure so that open access between railway systems can take place transparently and without prejudice.

In the UK, a phase of restructuring the already privatised National Rail network is underway, the industry increasingly looking abroad for much of the expertise in operations planning and management which was decentralised or lost completely when British Rail was privatised. Railways in other countries are deemed more successful in the UK, with more integrated planning, faster services and fewer delays.

This paper attempts to compare various aspects of railways in France, Germany, the Netherlands, Switzerland and Japan to those of the UK. These include the industry structures and objectives of various parties, and aspects of the train service offered and service planning, both at the strategic and timetabling levels.

The paper investigates the differences in the way various countries' railway systems are structured, and how timetable planning methodologies in each country differ.

## **Introduction**

Over recent years, there have been significant changes in the operation and planning of railways around the world. Monolithic state owned railways have been seen as inefficient and anti competitive, and in the EU there has been a move towards encouraging competition in the supply of rail services. This paper considers the structures of six railways, four within the EU, who have taken different approaches to the opening of their railways to competition and a more commercial outlook, Switzerland, which has adopted the EU sanctioned approach despite not being a member, and Japan, whose railways have undergone perhaps the most radical and commercially focused privatisation anywhere in the world.

## **The study**

The systems of the six countries under study (UK, France, Germany, the Netherlands, Switzerland and Japan) will be compared in terms of their industry structure and the roles and objectives of each party at each level of planning and delivery. This will be followed by an investigation of the operational differences between them by comparing the systems according to various measures. The study will then investigate the timetabling process in each country and its advantages and disadvantages, while also pointing out potential points of conflict between the parties involved.

One of the most important documents, which has affected railway policy beyond its intended area, has been EU directive 91/440/EEC (EEC, 1991) on the opening up of the EU's railways. This states that an accounting separation should be made between infrastructure and train operation, and that member states should seek a non discriminatory policy of allowing access to their networks. The newer directive 2001/14/EC (EU, 2001) on the allocation of capacity will also begin to have an effect in the next few years.

## Railways in the UK

The UK state railway (British Rail or BR) was privatised from 1993, and took 91/440 very much to heart. BR's infrastructure was spun off into a company, Railtrack, first publicly owned, then privatised. BR's operational units, being 25 territorial groupings of passenger services under the three original sectors of Network SouthEast, Regional Railways and InterCity, were franchised attempting to maximise their value to the Treasury (Harris & Godward, 1997). In 2000, the main regulatory body, OPRAF, became the Strategic Rail Authority, who were to additionally take a strategic overview previously non-existent in the privatised structure. This was now necessary as the railway privatised on the basis of declining passenger numbers was now growing rapidly.

BR's freight businesses were sold off, and this became an entirely commercial operation, in contrast to the passenger franchises, 21 of which remain subsidised in 2001/2002, with 3 of those remaining effectively paying the government for the right to run the service (the exception, Midland Mainline, has negotiated a zero subsidy, zero premium profile). In addition, there are three passenger businesses running trains on "open access" (non-franchised) terms, and one metro system (two from 2002) using parts of the Railtrack network (Rail, 2001). Some small parts of the infrastructure are owned by other companies who have to agree access rights with operators and timetabling over the boundary with Railtrack. A further unusual aspect of the UK system is that BR's rolling stock was transferred to leasing companies to ensure its transferability as franchises are reawarded.

Figure 1 shows the structure of the UK industry, comprising a number of commercial private companies, the Strategic Rail Authority (as the governmental sponsor and regulator) and the Passenger Transport Executives of major cities (who fund local services in their areas) as the major players.

## Railways in France

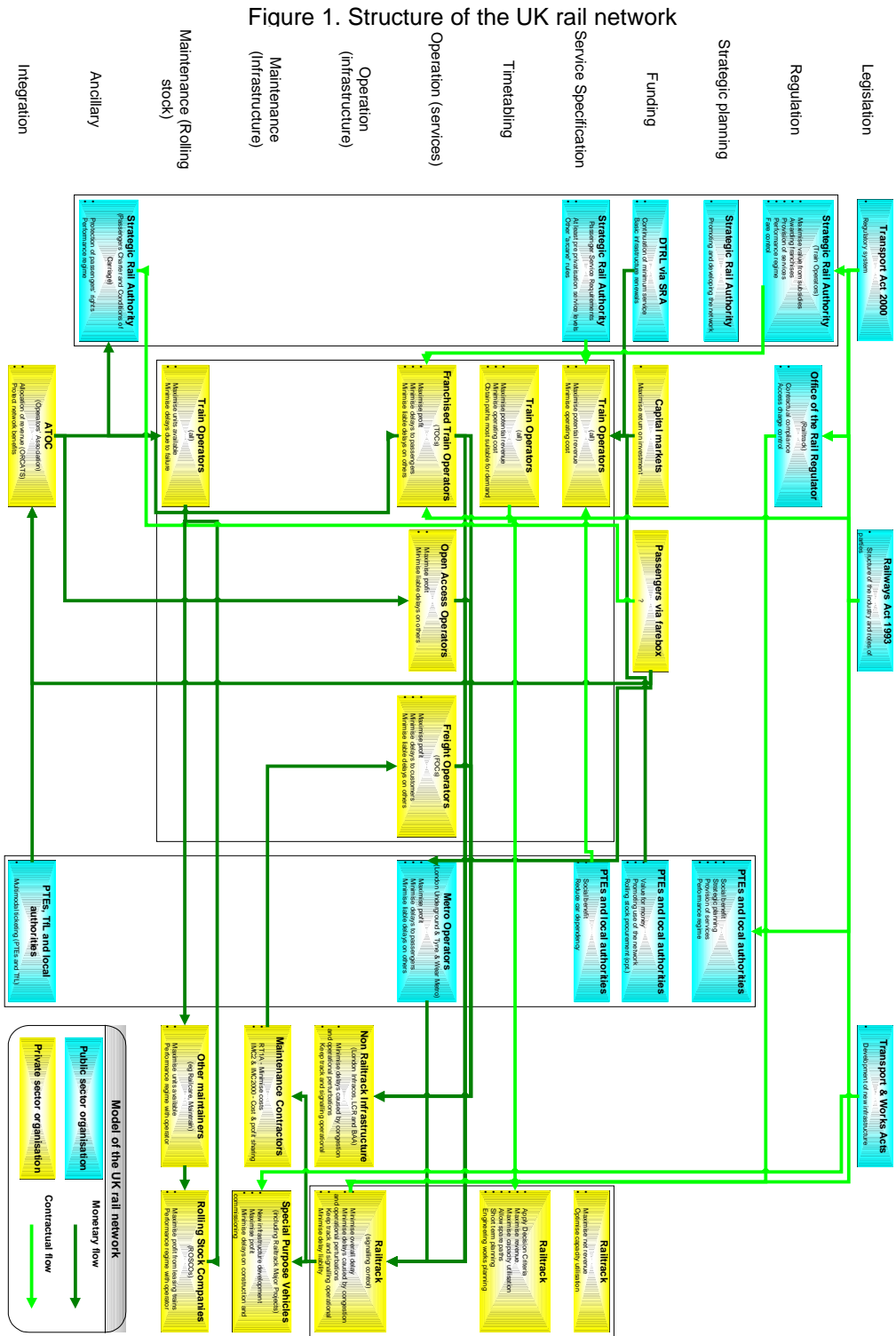
Railway reform has also taken place in France, albeit at a less of a structural level than the other countries under study. In order to comply with 91/440, the state railway SNCF was first restructured to give an accounting separation between infrastructure and operations, and reorganised again in 1997 into the train operator SNCF and the infrastructure operator RFF (Domenach & Teurnier, 1999). RFF owns the track and performs a strategic management role, but contracts the maintenance back to SNCF, giving them more control over their infrastructure. SNCF also remain, to all intents and purposes, the monopoly operator.

SNCF's passenger services are structured into three main operating units – Grandes Lignes, who operate TGV and other InterCity services, Ile de France, operating services in the region around Paris, and TER, the operator of local and regional trains in the rest of the country. These broadly align with the InterCity, Network SouthEast and Regional Railways groups of the former BR. Each regional council has a contract with TER to deliver a specified level of train services, and these are funded accordingly by the state government. Freight is operated on commercial lines, and there is a limited amount of competition from small operators.

Figure 2 shows the French railway structure, dominated by public sector organisations, with the commercially focused SNCF Grandes Lignes having no subsidy, and the regionally contracted and subsidised services coming under TER and Ile de France. All are shown together as the sectoral split is the only major division within the SNCF structure. As can be seen, the only major private sector involvement is in maintenance, undertaken by major civil engineering firms, as is generally the pattern elsewhere.

## Railways in Germany

Change on German railways was driven by the desire to see profitable services pay their way and help to reduce Deutsche Bahn (DB)'s debt (Lehmann, 1999). In 1994, DB was reorganised as a commercial organisation owned by the federal government. Subsidiary companies deal with the track (DB Netz), stations and ticket sales (DB Station&Service), long distance passenger services (DB Reise&Touristik), regional passenger services (DB Regio) and freight (DB Cargo). All are commercially led.



DB Reise&Touristik runs the profitable InterCity and InterRegio services across Germany, but local services are specified and subsidised by the Land (region) and put out to competitive tender. DB does not have the monopoly, and a variety of different operators now run local services. Like the private operators, DB is expected to make a profit on these franchises, therefore it bids on a level playing field. A published schedule of track access charges is produced by DB Netz (DB, 2001), and DB Station&Service also charge operators for access to their stations, as well as operating the ticket offices and allocating sales revenue. An organisational peculiarity is that to preserve their civil service status and the jobs of those working on franchised regional services, DB staff at reorganisation have had their employment transferred to the Bundeseisenbahnvermögen (BEV), a government owned organisation who hire them back to the operators.

Figure 2. Structure of the French rail network

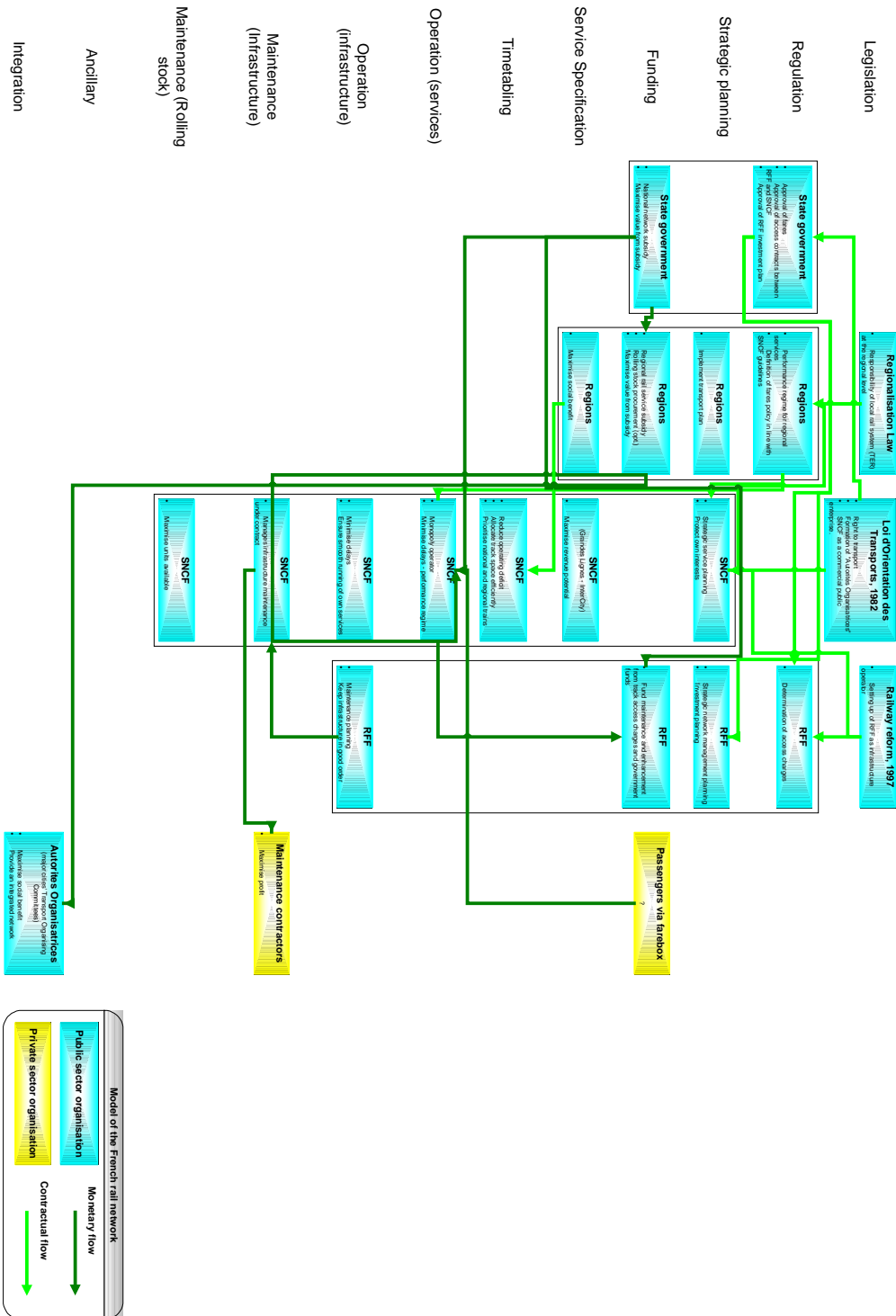
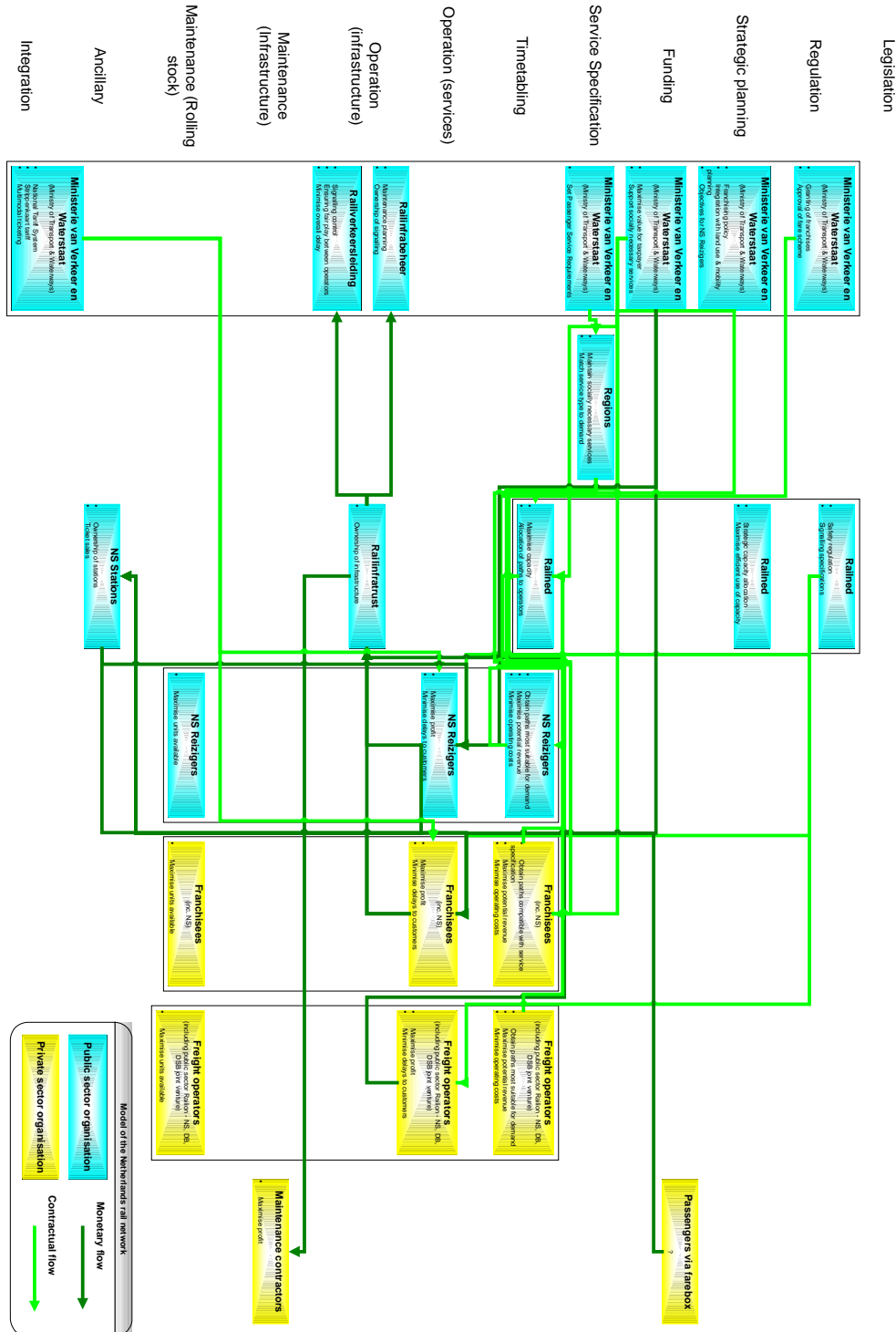


Figure 3 shows the structure of the German railway network. DB Regio is shown as a private sector organisation under “Local Train Operators”, as there is only one local operator on a given line or group of lines, and DB Regio has to bid for the franchise alongside a number of private companies. Similarly, all freight operators are shown together as private sector companies, including the publicly owned DB Cargo. As in the UK, Verkehrsverbunde (similar to Passenger Transport Executives) specify and fund local rail services in their area. However, there is more of a top down approach to planning, as in France, with the national timetable determined by the needs of Reise&Touristik’s InterCity and InterRegio services, and local trains (and freight) getting whatever paths are left over. The commercial nature of DB Reise&Touristik has caused problems, however, with their proposed abandonment of the InterRegio network in 2004, which, controversially, Connex has offered to take over and improve (Connex, 2001).



Figure 4. Structure of the Netherlands' rail network



The operation and ownership of infrastructure is rather more complicated in the Netherlands than in most other countries, as Figure 4 reveals. Ownership rests with Railinfratrust, capacity allocation and safety regulation are handled by Railned, maintenance planning and the ownership of signalling are with Railinfrabeheer, and the signalling is run by yet another body, Railverkeersleiding. The latter two are directly under the control of the Transport and Waterways Ministry (MVW), but potentially, all four could be privatised in whole or part. As in Germany, fares are collected by the separate stations organisation, who also charge operators for use of their facilities. These are then allocated to the operators concerned. Fares are set, along with conditions for accepting multimodal tickets such as the Stippenkaart, by MVW.

Lossmaking local services are franchised by the region, but funded by MVW, who also fund NS Reizigers' lossmaking services. The minimum service level is specified by the Ministry, while the

franchisees' contracts to provide the services are with the regions. Regions can also replace lightly used rail services with buses where it is thought necessary. Against this specification, capacity allocation is carried out by Railed, with each operator trying to obtain the paths most suitable for them and Railed attempting to provide the most efficient allocation of capacity. This system has not been without its problems, and the separation of traffic control from both operations and a worsening infrastructure have led to a sharp rise in delays (Railway Gazette, 2001).

## Railways in Switzerland

Swiss railways have always included a large "private sector" element, around 40% of the network length in the country is owned by vertically integrated private railways. However, though these are commercially led organisations, their ownership is not usually in the private sector, most are independent publicly owned organisations under the control of municipal or cantonal bodies. This long tradition of separate railway companies has always included a significant element of cooperation between companies, and in fact there has been virtually no competition between them and the state railway SBB CFF FFS (van de Velde, 1999), largely due to the regulatory system in place which effectively gives the private railways local monopolies.

Faced with worries over cost efficiency, the government reorganised all public transport subsidisation from 1996, placing responsibility for granting concessions with the Cantons. In addition, as Switzerland is a non EU country completely surrounded by EU member states, it was decided to adopt an accounting separation between operations and infrastructure compatible with 91/440. Essentially, SBB now has a structure similar to that of DB, with separate organisations for track and train services. Like Germany, local services are tendered out to a concessionaire, who can be either SBB or another organisation such as a private railway, and SBB has been restructured into a commercial company with the Confederation (National government) taking up some of its debt. The Confederation also sets the strategic plan every 4 years together with the funding required to deliver it.

Figure 5 shows the structure of the railways in Switzerland, which as mentioned above shares many similarities with Germany. On the main SBB network, concessionaires have a very different status to private operators on their own infrastructure, as they pay SBB for track access, and are more closely regulated, having service levels specified by the cantons. The private railways are much freer to develop their timetables and other aspects of their businesses.

## Railways in Japan

Japan has taken a different approach to the other, European countries in this study. The geography, with large mountainous areas and much of the population concentrated on the south coast of the main island, Honshu, creates high density passenger flows along a main coastal corridor. Together with the highly urbanised nature of Japanese cities, this creates an incredibly dense demand pattern meaning Japan's railways carry more people than any European system. There has also been, as in Switzerland, a strong tradition of rail service provision by other companies, and again these private railways contain a number owned by the public sector, though many more are under 100% private ownership. These have generally been seen as more efficient than the state owned monopoly of JNR (Mizutani, 1999).

In response to JNR's growing debt (the same precursor to reform as in Germany), and in order to inject some of the innovation and efficiency perceived as characteristics of the private railways, it was privatised from 1987 (Railtrack, 2001). Six regional companies (known as JR's) were created operating all types of train within the region (which allows cross subsidisation between profitable InterCity services and lossmaking rural lines). In contrast to what is now the general pattern in Europe, the JR's are vertically integrated, owning and operating their track, but still require an accounting separation so that access for through running is granted fairly. The JR's run some through trains into each other's regions, and there are also freight operators (particularly JR Freight), who run on other operators' tracks, and some private railways may also use JR facilities. The Shinkansen high speed rail network was split between the JR regions, with each service allocated to an operator who pays the other JR's along the route access charges.

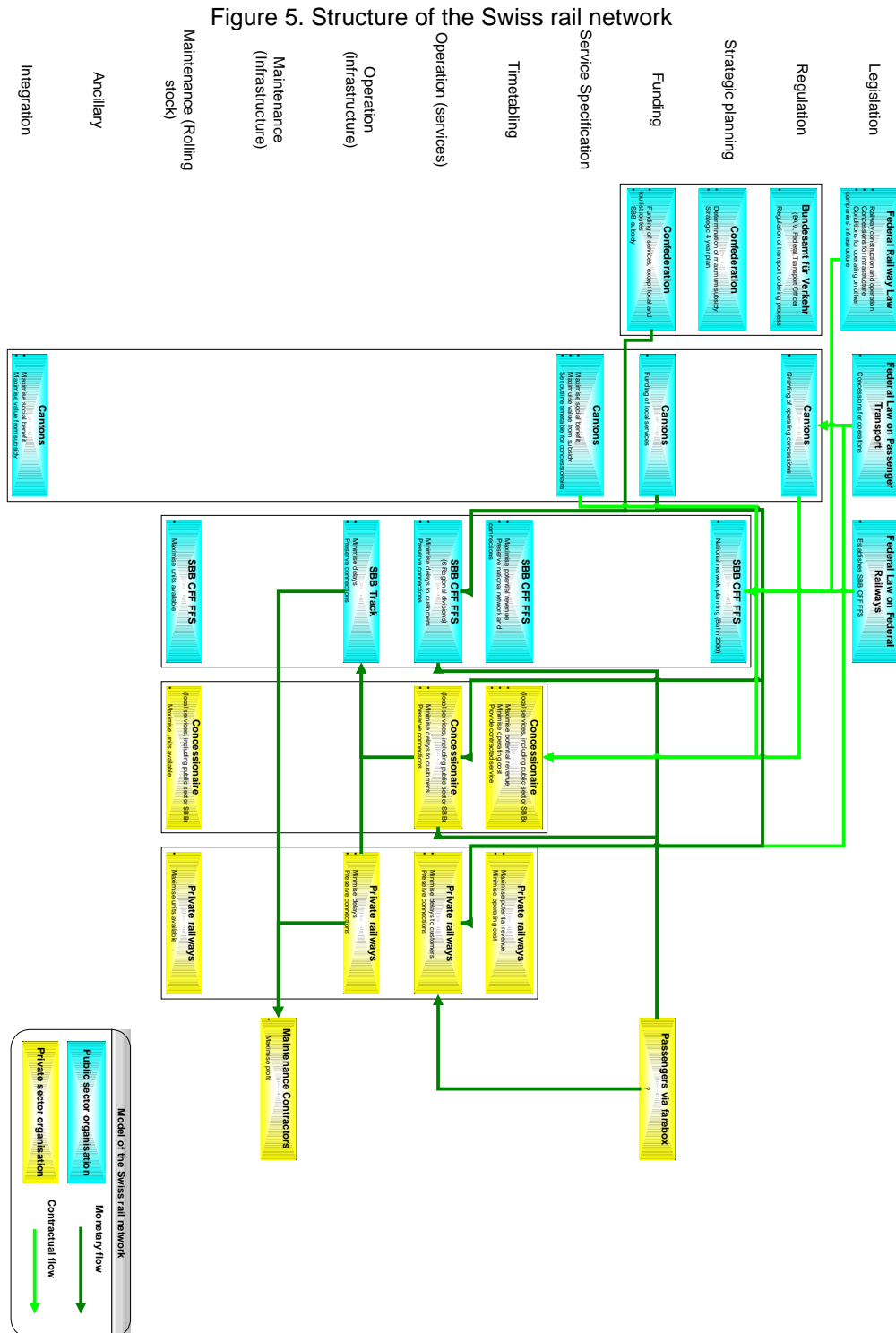
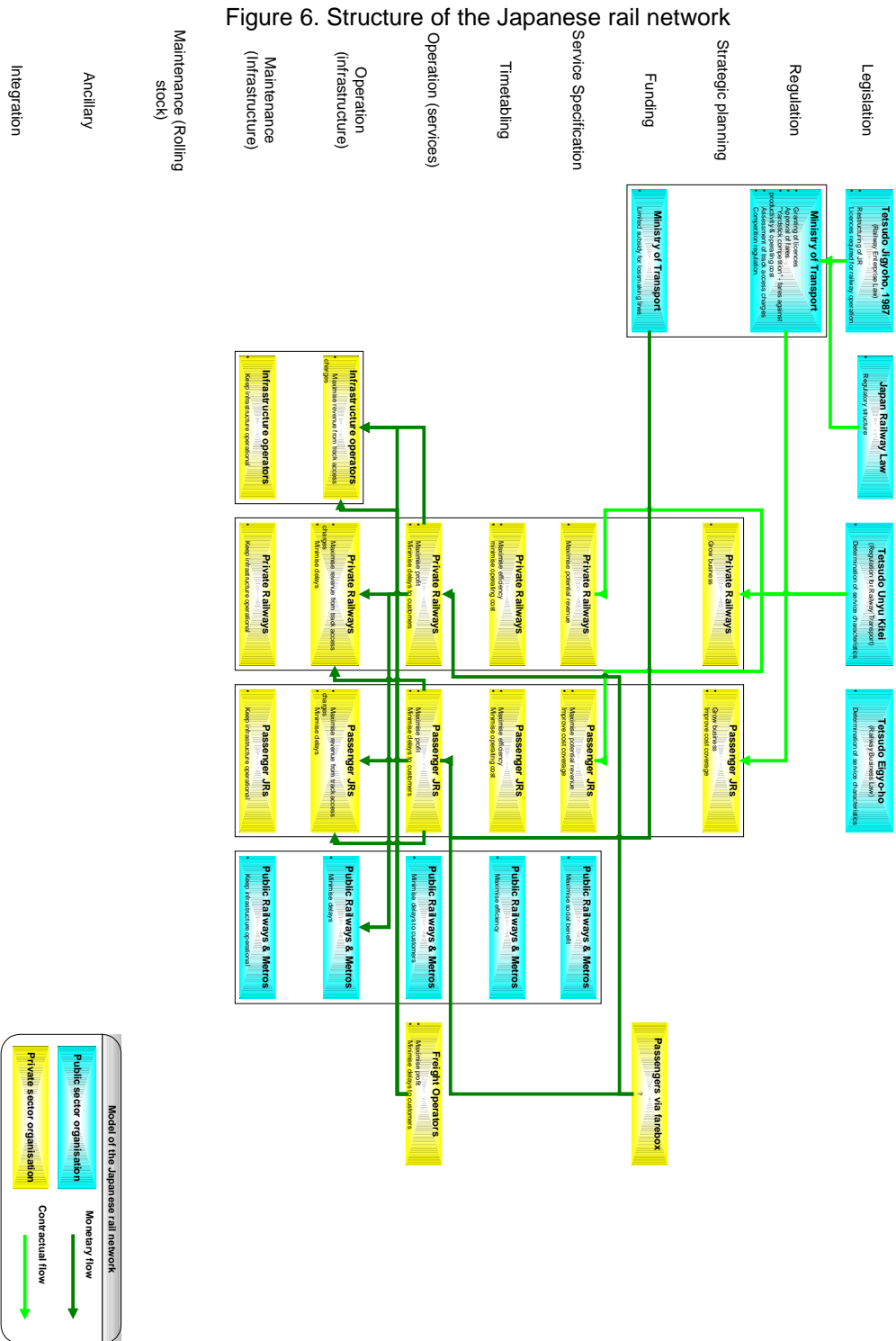


Figure 6, showing the structure of the railways in Japan, is deceptively simple, as there are 146 rail operators in Japan (Tedara, 2001). The JRs run inter regional services on each others' tracks, and there is also through running both of private railways' trains on JR tracks, and of JR trains on other tracks (such as those owned by an airport or a municipal body, for example). This creates a complex web of interrelationships between the railway companies, which, remarkably, is largely free of regulation, with track access fees agreed on a commercial basis.

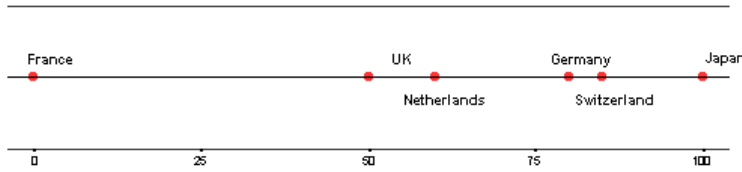
## Comparison of systems

Because of the way in which rail systems are tied into their host countries' geography, history and political structure, comparisons are difficult. However, this study has chosen some measures which can be used to show how the railways compare in their size, intensity of usage, and planning



structure. State railways are too large to operate as monolithic organisations even if they have a single owner, operator and management structure. Figure 7 shows how the various countries' systems are organised, from a sector model (by traffic type e.g. InterCity, local) to a regional model (as in Japan, where all passenger traffic in a region comes under one JR operator).

Figure 8 shows an estimate of the level of privatisation in each of the countries under study. Typically, privatisation has involved formally splitting the different aspects of the railway's business, creating different companies with contractual interfaces. Figure 9 shows the relative complexity of the relationships this has created, and Figure 10 the number of rail operators in each country. Another factor that tends to differ between systems is the status of staff, which is shown in Figure 11, ranging between completely market driven (which has caused problems in the UK (Sully, 2001)) and as civil servants.



Comparison charts showing the relative positions of the railway systems under study

Figure 7. Operating models (sector – region)

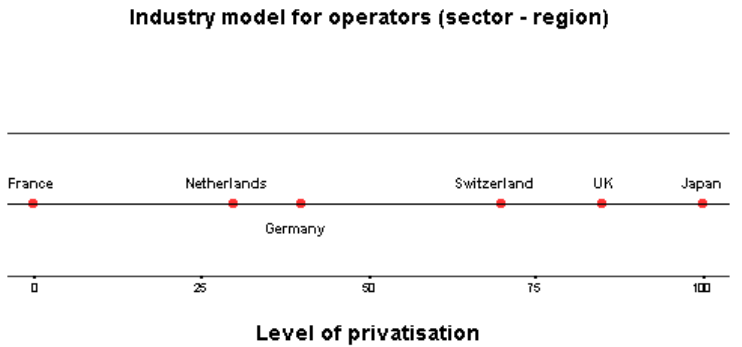


Figure 8. Levels of privatisation

Figure 9. Complexities of interrelationships

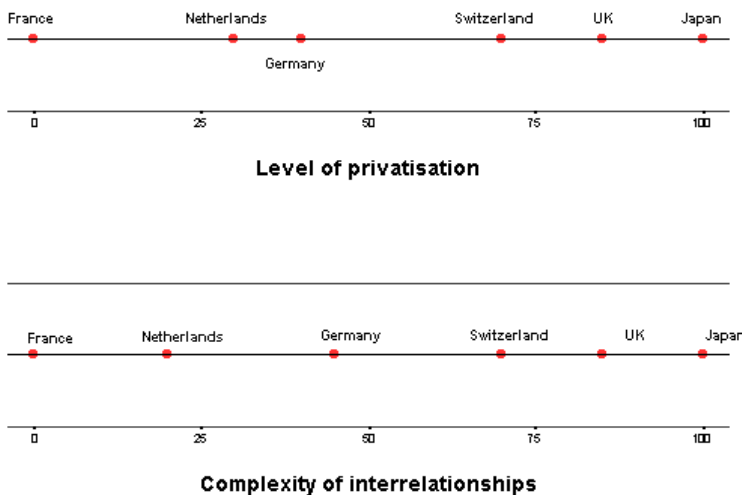


Figure 10. Numbers of operators

Figure 11. Status of staff (market driven – civil service)

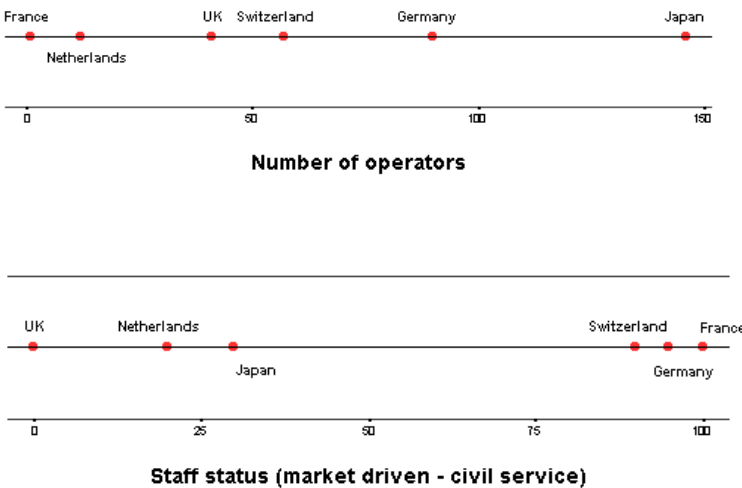


Figure 12 shows the maximum speeds on conventional lines. France and Japan both have high speed  $300\text{kmh}^{-1}$  systems, and these are ignored, though the  $230\text{kmh}^{-1}$  services in France are TGVs running on conventional tracks. The recently curtailed West Coast Route Modernisation in the UK would have placed it just behind France, at  $225\text{kmh}^{-1}$ . Because conventional tracks are generally mixed traffic, this illustrates the mix of speeds that can be expected on these lines and the relative complexity of the timetabling operation in having to deal with these fast express passenger trains, local services and freight.

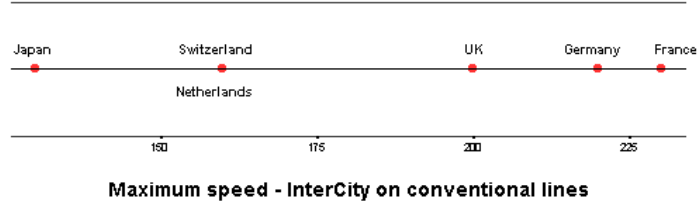
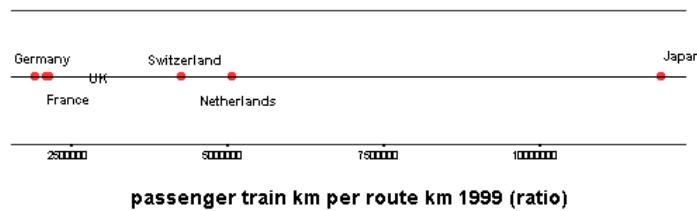


Figure 12. Maximum speeds of InterCity trains on conventional lines

There are various ways of measuring intensity of use, most accurately by trains per track kilometre, but in the absence of a reliable set of figures, that for route kilometres will have to suffice. Figure 13 shows the number of passenger train km per annum over each route kilometre on average. Of course this is a very crude measure of capacity utilisation, but Japan stands out as having by far the largest density of passengers moved. For freight, Figure 14 shows freight tonne kilometres per route kilometre, and this shows Switzerland as the country with by far the greatest freight tonnage moved, though this might be more to do with its status as a transit country and the number of physical barriers more easily overcome by rail. Overall, Figure 15 shows the number of train kilometres per route kilometre, an approximate number of trains per year on the average piece of route. Switzerland and the Netherlands have the greatest usages of physical rail capacity overall, which may be down to their more even spread of population along the route network rather than having the most intensive services. The measures are far too crude to allow comparison on all but the most basic level, and there is a large amount of difficulty in obtaining enough data to build a clearer picture of capacity usage.



Measures of intensity of use of the railways under study

Figure 13. Passenger train km per route km

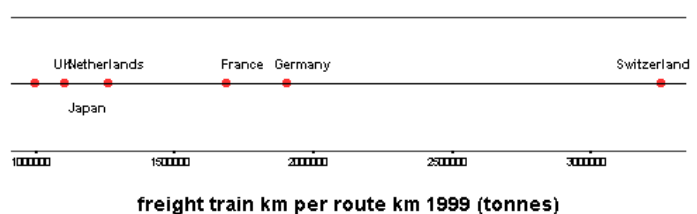
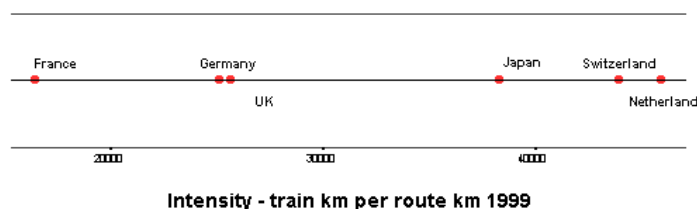


Figure 14. Freight tonne km per route km

Figure 15. Total train km per route km

Data source UIC (2000)



## Timetabling process

The timetable is the final planning product of the railway, and influences many aspects of its operation. Timetables are constrained by the physical characteristics of the rail network and the performance characteristics of rolling stock, and the process is constrained by the organisational setup of the railway. All the railways in this study, aside from the UK, plan at a hierarchical level,

with international and key InterCity services “first on the graph”, local and freight trains taking the paths left over. In the UK, all bidders in theory have equal priority, which is meant to give a more level playing field for operators and freight and local trains, but judging by the number of train km run per route km (Figure 15), it appears this process may produce somewhat less than optimal usage of capacity. EU directive 2001/14 (EU, 2001) stipulates that all international train paths be agreed before domestic services are timetabled, which may influence UK practice.

Figure 16 shows an estimate of the aggregate level on which timetables are planned. Timetabling is more centralised in countries with less rail mileage such as the Netherlands and Switzerland. Whereas Germany follows the same model of a nationally planned InterCity / InterRegio network, local services are planned at the Land (state) level (and at the Verkehrsverbund (Transport Authority) level in major conurbations), as in France, where TGV services are also planned line by line. The UK plans at the franchise level, with input from PTEs (Passenger Transport Executives) in major conurbations. In Japan, planning is essentially centralised in each railway company, but in addition to there being a large number of operators, most lines are quite self contained (Railtrack, 2001). The key difference between the UK and Japan however, is that in Japan, the operators tend to be vertically integrated, running not only the track, but all passenger operations from slow to SuperExpress trains. In the UK, generally only secondary main lines carry fast and slow services run by only one operator. The separation of services as far as possible also reduces the potential for knock on delays, whereby an operating problem in one part of the country can have repercussions several hundred kilometres away. Another key element of the Japanese approach (made easier by the  $140\text{kmh}^{-1}$  speed limit on virtually all lines) is to make the speed of all services as close as possible in order to make even more intensive use of capacity.

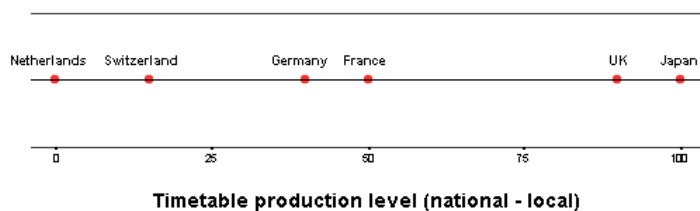


Figure 16. Level of timetable production (national – local) in terms of operators

## Contentions

In a system with separate infrastructure and operating companies, there are various forms of potential conflict. Usually, track access is sold as a package comprising a fixed fee, a variable component based on usage (which will include premiums for using certain types of track), and power supply to electric trains. In Germany and the Netherlands, there is also an explicit charge for station access to a separate station operator. In Japan, the system is much more complicated, with contracts for track access seemingly negotiated individually, as there is very little regulation in the Japanese railway sector.

Each party will attempt to maximise its revenue - infrastructure operators want to sell as much capacity as possible, while operators want to get the most from a given amount of track access. Most systems attempt full cost recovery for track access, though the Netherlands in practice has minimal access charges and together with France has a track authority supported directly by state subsidy (although the UK has recently joined them in this respect). Contention is most likely where an infrastructure operator would prefer to sell access to a long distance passenger operator who can pay the highest fees, and operators of local trains require subsidy in order to pay the access charges demanded. As the bodies ultimately responsible for the use of capacity (following directive 2001/14), infrastructure operators will have an increasingly large role in shaping the timetable. Naturally, the system in Japan is different, and contention will only occur where trains are running onto another operator’s track – JR freight, for example, is effectively not allowed paths at peak times (Railtrack, 2001). Contentions are generally worked out between the two companies, and referred to the regulatory body if there is they cannot be resolved. In Japan, if they are not resolved then it is decided to not make any changes to the existing timetable. In France, international services are all joint ventures with SNCF, and aside from Grandes Lignes having priority, it is unclear how trackspace is allocated otherwise.

## Final timetable

Because of the differences in culture, travel patterns and geography, it is naturally difficult to make a comparison between different railways on the basis of the final timetable. However, despite this, there are cases which can be compared effectively on a like for like basis, such as the service between the capital and second city. A railway with more of a social service function can be expected to have later trains to cater for the small number of late travellers who wish to travel, while a more commercially led railway may have a high frequency of daytime trains for business travellers. While France and Japan have high speed lines over these routes, the other countries do not, and therefore the journey speed is not taken into account.

As Table 1 shows, there is typically a regular interval service on this key route (fastest trains only), although in the UK, France and some Japanese lines, this is not necessarily the case for other services (Thomas Cook, 2001a, 2001b), where an approximate interval of 1 or 2 hours masks often large variations in the actual timings. This is either to maximise unit and crew utilisation where there would otherwise be long turnarounds (as in some UK cases), or to attempt to tailor the service more closely to the forecasted demand (as in France). There is a certain similarity between many countries' services between their two main centres, with high speed lines typically having a shorter service day and most other railways ending the service from around 2200 to 2300. Germany has the lowest frequency, but also tends to plan InterCity services on a 2 hourly pattern, and Japan has standard "slots" for trains, not all of which are used every hour – a system akin to France's for the Paris – Lyon service. The Netherlands is almost a special case, because of the short distances between major cities in the Randstad, the Amsterdam – Den Haag service is comprised of two express train routes rather than resembling the InterCity services of other countries with long distances between stops.

Country	City pair	Daytime frequency	Mon-Fri first train	Mon-Fri last train	Frequency rank	Service day rank
UK	London Birmingham	Regular, every 30 minutes	0640 0526	2345 2310	3=	2=
France	Paris Lyon	Regular, every 60 minutes daytime, every 30 minutes morning and evening	0610 0530	2200 2130	5	5
Germany	Berlin Hamburg	Regular, every 60 minutes, alternate IC and ICE trains every 2 hours	0535 0600	2216 2200	6	4
Netherlands	Amsterdam Den Haag	5 per hour, 2 at 30 minute intervals and 3 at 20 minute intervals (both services have different stopping patterns)	0529 0549	2341 2347 hourly all night	2	1
Switzerland	Bern Zürich	Regular, every 30 minutes	0547 0526	2216 2220	3=	2=
Japan	Tokyo Osaka	3-4 trains per hour, on standard hourly cycle but not regular interval	0600 0600	2118 2118	1	6

Table 1. Comparison of capital to second city services on the rail systems under study

The table shows a rank of the frequency and the length of the service day, the frequency rank almost matching that of the general passenger service intensity (Figure 13), which perhaps shows that there is a high degree of comparison between these routes, and also that the level of service is tailored in a similar way to demand (though in Japan the service uses 16 coach trains as opposed to 8-9 coaches in the UK, and longer, less frequent trains in Germany, for example). As a key commercial service in each country, it probably does not represent a typical pattern for the organisation of timetables nationally – despite nominally using a standard hour pattern, the regional service between Nagoya and Nagano is only approximately hourly with variations in departure time between hours, in the same way many UK regional timetables work (Railtrack, 2001; Thomas Cook 2001a, 2001b).

## Conclusion

This paper has shown that there are large variations in the way different railways are structured, though there are some key similarities between the ones under study that can be picked out. The

four EU countries have been forced to facilitate international services, and the model of a track authority and separate operators allowed access on a level playing field has emerged in most countries despite only an accounting separation being required by law (although in France, only a minimum is done in practice, and all operators have an SNCF shareholding).

In Japan a combination of vertically integrated operators, operators of trains only, and track authorities who could even be non railway companies such as airports. This, however, functions in a similar way, with access rights negotiated between operators. Because of the sheer density of traffic, rail operators carry volumes of passengers way in excess of any European railway. The number of operators and the complexity of the interrelationships between them dwarfs that in any of the European systems (which are all increasing in complexity thanks to the adoption of a track authority model and rail service franchising). Thanks to the traffic density and the number of competing railways, as well as the cooperative nature of Japanese culture, the system is not only largely free of regulation, but also of strong contentions between operators.

Within Europe, a standard model seems to be emerging, where the state operator runs the profitable InterCity and inter regional services, and less profitable lines are franchised with an input from regional government. Only the UK differs significantly (though in France all the regional franchises are with SNCF) in having its primary national network split and franchised. This produces a less structurally integrated network, though there is no objective evidence to suggest that is fundamentally detrimental in itself.

In terms of the timetable, and the rail service offered, the countries again differ. The standard European model creates a top-down planning approach with the primary national services planned first, and everything else fitted around them. In the UK, all parties are in theory equal and bid for paths from the track authority, while in Japan parties bid for track rights on a system where if there is no agreement there is no change. Both are more of a bottom-up approach.

However, in terms of the capital to second city service at least, the service frequency offered is consistent with the average density of passenger traffic and probably owes more to a demand led approach for this key flow. Other flows are generally on standard hour patterns on all lines except in the UK, France and Japan (where, excepting France, standard hourly patterns exist on most busier routes), as this simplifies timetable production.

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## Diagram glossary

- ATOC** (UK) Association of Train Operating Companies – industry body involved in the allocation of revenue and protection of network benefits.
- BAA** (UK) British Airports Authority – the owner of London Heathrow airport, who also own the infrastructure of the Heathrow Express rail link and are an Open Access operator over Railtrack into London Paddington.
- BEV** (Ger.) Bundeseseisenbahnvermögen – National Railway Fund. The employer of former DB staff with civil service status, who are hired back to DB or the franchised operator of regional services. Also the main railway funding body.
- BR** (UK) British Rail – former state owned railway. The privatised operators are now referred to as National Rail.
- Canton** (Switz.) Regional equivalent level of government.
- CFF** (Switz.) Chemins de Fer Federaux – Swiss Federal Railways (French)
- DB** (Ger) Deutsche Bahn – state railway, now organised as a group of companies running track, stations and trains.
- DBGGrG** (Ger) Gesetz uber die Grundung einer Deutschen Bahn Aktiengesellschaft (Law to found Deutsche Bahn AG, 1993) – Set up DB as a commercial organisation.
- DTRL** (UK) Department of Transport, Regions and Local Government
- FFS** (Switz.) Ferrovie Federali Svizzere – Swiss Federal Railways (Italian)
- IMC2, IMC2000** (UK) Infrastructure Maintenance Contract –new type of maintenance contract in which cost savings and overruns are shared.
- Infracos** (UK) Infrastructure Companies – franchised operators of parts of the London Underground infrastructure, some of which carries national network trains.
- JNR** (Jpn.) Japan National Railway – the former unified state railway
- JR** (Jpn.) Japan Railway – name of the six regional railway companies formed from JNR – East, Central and West (of Honshu), Hokkaido, Shikoku and Kyushu.
- Land** (Ger.) A German state within the federation
- LCR** (UK) London & Continental Railways – an infrastructure company
- MVW** (Neth.) Ministerie van Verkeer en Waterstaat – Ministry of Transport and Waterways.
- NS** (Neth.) Nederlandse Spoorwegen – the Netherlands state railway.
- ORCATS** (UK) Operational Research Computer Allocation of Tickets to Services – software used to allocate revenue received by each operator on a route, or from tickets bought for journeys on two or more operators' services.
- PTE** (UK) Passenger Transport Executive – specifies and funds local train services out of local taxes. Seven of these cover the largest urban areas (West Midlands, Greater Manchester, Merseyside, South Yorkshire, West Yorkshire, Tyne & Wear, and Strathclyde)
- RegG** (Ger) Regionalisierungsgesetz (Regionalisation Law, 1993) – established franchising system for local train services.
- RFF** (Fr) Reseau Ferre de France – literally “French Railway Network”, the French infrastructure operator.
- ROSCO** (UK) Rolling Stock Company – a leasing company providing rolling stock to train operators, whose franchises are too short to justify their own investment in the train fleet.
- RT1A** (UK) Obsolete (but still active in some parts of the country) type of maintenance contract based on minimising costs
- SBB** (Switz.) Schweizer Bundesbahn – Swiss Federal Railways (German)
- SNCF** (Fr) Societe National de Chemins de Fer Francais – the French state railway.
- SRA** (UK) Strategic Rail Authority
- TER** (Fr) Train Express Regional – SNCF division operating trains in the various French regions.
- TfL** (UK) Transport for London - a new body overseeing public transport in Greater London. Railway influence is limited to the operation of multitmodal ticketing, but it may also assume a PTE role in specifying and funding local rail services.
- TGV** (Fr) Train a Grande Vitesse – The French high speed network
- TOC** (UK) Train Operating Company – term used to refer to one of the 25 franchised train operators formed out of British Rail operating units. Open Access operators typically run new services started after privatisation.