



SLEEPERS UNCOUPLED

MARKET TRENDS IN EUROPEAN SLEEPER SERVICES

REPORT

20 FEBRUARY 2012



Photographs in this report courtesy of Mark Smith of Seat61.com <http://www.seat61.com>

1 Background

JMP has been appointed by HITRANS to undertake a review of the operational characteristics of European sleeper services to help inform their submission to Transport Scotland's Rail 2014 Consultation document.

The requirements of the study were set out clearly in the brief. In summary it was to investigate the provision of rail overnight and sleeping car services across Europe by studying a wide range of operations both internal and cross-border and to categorise them by, amongst other factors;

- Ownership, financial and operator characteristics;
- Rolling stock and operational characteristics;
- Track and station access arrangements and charges;
- Service characteristics – facilities, service patterns, seasonality etc;
- Customer interface – ticketing, booking arrangements etc;
- Integration with other modes and security /border crossing arrangements.



The above was to be couched within an overview of current trends and an assessment of future developments in overnight and sleeper service across continental Europe.

This Document

This document covers the latter and sets out a range of key market, operational and

commercial characteristics and trends in European rail sleeper operations.

A further report entitled **Case Studies** contains a tabulation of all current sleeper services operating across Europe, classifying them by operational type and characteristic. This classification has then been used to identify appropriate service types for more detailed review in a series of five case studies.



2 Market Trends

Journey time compared to daytime travel

Daytime rail intercity timings in several major EU countries have declined significantly since the 1970s. French Railways first introduced high speed trains using conventional electric locos operating at 125mph from Paris to Toulouse on the existing line from 1966 – and saw immediate passenger growth. After testing in the 1960s, West Germany introduced 125 mph operation of existing electrically-hauled express trains in 1977. 125mph diesel powered High Speed Trains entered service in Britain in 1976, with major reductions in journey times on existing main lines.

These shorter daytime journey speeds have caused a long term decline for domestic overnight journeys of 300-500 miles in Western Europe since the 1970s; the development of high speed rail has accelerated this trend further. Not only this, the higher average speeds have enabled more mileage to be run with existing train fleets, resulting in increased frequencies on many intercity routes.

These trends are only slowly reaching outer eastern Europe, where overnight services

more closely resemble their western equivalents of 20 years ago. Lower train speeds continue to prevail, in part as a means of maximising freight capacity, though the introduction of borders where none previously existed can induce delays for through services. This is in direct contrast to the EU Schengen area, where border controls have been all but abandoned, enabling faster journey times.

Growth of high speed rail networks

Japan led the world by opening the first dedicated high speed line in 1964. European railways followed the Japanese experience closely, and since the opening of the first French high speed line in 1981, a network of high speed lines has been built in several geographically large countries (France, Germany, Italy and Spain). Subsequently international connections have been created between these networks, together with links to smaller neighbouring countries (e.g. Belgium, Netherlands and UK)

Continued growth of high speed networks is likely with construction underway in France,

Austria, Spain, Germany and further lines planned in these countries plus the UK, Denmark and Norway.

The introduction of high speed rail has accelerated the decline of overnight trains on the domestic networks. Notable examples include Paris to Lyon journey times reduced from 3 hours 45 minutes to under 2 hours, and Madrid to Seville turning a 6 hours 30 minute journey into one of 2 hours 30 minutes. More frequent services combined with time savings have significantly increased rail market share; the routes highlighted above offered more than a third more journeys, causing reductions in the number of air passengers. The air share of travel between Paris and Lyon dropped from 31% of the total to 7% in the first three years of TGV operation; between Madrid and Seville the numbers fell from 40% to 13%.

Impact of high speed rail on overnight services

Shorter daytime journeys have therefore eaten into the market for sleeping car trains. This is probably most marked in France, where the number of overnight trains has been reduced from around 40 pairs of domestic trains in 1992, to just six daily pairs of services (see Case Study Report Introduction for more details). As an example, of seven services between northern France and Marseilles/Nice, only the Strasbourg-Nice and the Paris-Nice *Train Bleu* remain in daily operation. For the latter service its journey time of 11.5 hours is double that of the five daytime TGVs; the 0737 arrival time in Paris beats the 0536 TGV from Marseille by just 75 minutes.

The remaining services have tended to concentrate on routes not directly served by high speed lines, including cross-country journeys. Notably this includes journeys to the south west (e.g. Paris – Toulouse and to the Spanish border) where daytime journeys are still comparable.

International sleeper services have in some places been directly replaced by high speed trains (e.g. Paris – Amsterdam) but in many cases the connections made possible by using one or more high speed trains has rendered previous overnight international services unprofitable. An example of this could be

services from Brussels to Berlin, previously served by the Paris – Berlin sleeper service; this has now been re-routed in France, avoiding Brussels to enter central Germany (although note that an increase in track access charges quoted by the Belgium operator SNCB may have been an important factor in this decision – possibly part of a general trend towards pricing off ‘unattractive’ services from the national operators network (see text box opposite and in Section 3 ‘Commercial Factors’).

Similarly, the opening of the Channel Tunnel has, albeit over a decade later and arguably as equally affected by changes in access fees (see text box in Section 3), eliminated the network of overnight trains from Ostend, which once offered connections by ship to and from the UK.

Competition from other transport modes

The growth of the EU motorway network has greatly increased the number of journeys by car. This has been most marked in eastern Europe, where there were few motorways prior to 1989; rail share of modal split has declined in all of the post-communist EU countries.

The development of the EU’s trunk road networks has also encouraged coach operations on many corridors.

Commercial Impact of HSR or Just Different Operator Approaches?

There would appear to be a distinction to be made between routes such as Paris-Amsterdam, Paris-Marseille, Paris-Zurich where faster daytime journeys of just 3-4 hours have made sleeper trains redundant, and routes such as Nice-Rome, Zurich-Rome, Brussels-Milan where the convenient direct overnight trains have vanished but there is no reasonable high-speed alternative. Nice-Rome is now an awkward 9-hour journey on a series of separate trains which cannot even be booked all in one place. In this case, a combination of budget airline competition, unprofitability, Trenitalia/SNCF inter-railway politics and an apparent lack of interest by Trenitalia in night trains as opposed to the new Frecciarossa high speed trains may have been as significant in the decision. One might ask why sleeper trains aren't needed Nice-Rome or Zurich-Rome (discontinued by Trenitalia) when they apparently are needed and are profitable on the Munich-Rome and Vienna-Rome routes, where they are run by DB and OBB, who do seem to believe in such trains. Whether there's a night train or not available for your journey seems to depend as much if not more on the focus of the relevant operator than actual need or market conditions.

This has been particularly notable in the international sector, where EU-wide rules are often more liberal than those prevailing for domestic travel. While Eurolines is the most prominent operator of international services, with a wide range of destinations, frequency is generally low (less than daily is common).

Many routes run overnight, while others offer considerable networks (almost exclusively overnight) between Germany/Austria and the more recent accessions to the EU, including the Baltic states and Romania.

Intra-EU liberalisation of airline services has led to the growth of low cost airlines (led by Ryanair and Easyjet) but with a range of similar regionally focussed operators covering between them the entire EU. The combination of journey times normally taking no more than 3 hours and low fares has resulted in short haul air growing substantially over the last 20 years.

Some of the journeys made have transferred from rail, although increased freedom of movement (attributable to such reasons as the removal of communist-era travel restrictions; introduction of the EU Schengen area; economic migration; and increased leisure time) mean many of the journeys made are new. The advent of low cost airlines has also led to the established airlines making major changes to their pricing structures in response to competition.

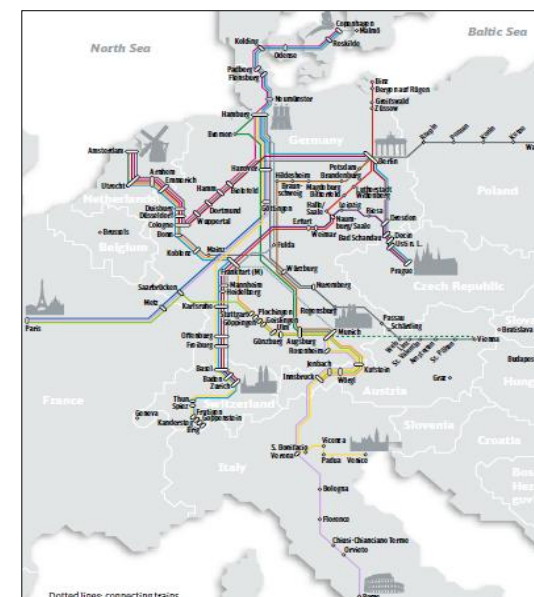
However, a more recent trend has been to restrict airport opening hours, on environmental grounds. The introduction of overnight curfews may reduce the ability for airlines to offer early morning departures or late evening arrivals, which may restore a competitive edge to some sleeper services.

Rail response to competitive factors

Whilst outright abandonment of some services has taken place, others have looked to a better quality product, both in terms of the product on offer and better marketing. There has been a greater concentration on routes with year-round flows over longer distances.

In particular, post 1991, Germany found itself at the centre of the European rail network, instead of a north-western outpost. German state operator DB set up City Night Line AG (CNL) in conjunction with Swiss Railways (SBB) and Austrian Railways (OBB) in 1995, to offer an obvious unified network over distances (800-1600km) that were differentiated from both daytime trains and also increasingly low cost airlines; a largely new fleet of coaches was obtained in the period 1995 to 2005.

In 1999, CNL was absorbed as a wholly owned subsidiary of DB, although both SBB and OBB continue to act as contractors and facilitators for CNL services (as do others). Since January 2010, CNL has been part of DB's Autozug (Motor Rail) subsidiary. The network has continued to evolve, with some routes withdrawn (e.g. Amsterdam to Milan) and others added.



(reproduced below from CNL rail brochure)

Elsewhere, Italy has added hotel-level facilities to some trains, and some new flows, such as Moscow-Nice, have been developed, aimed specifically at a higher end clientele.

Conversely, France has not only reduced its network, but has eliminated sleeping cars for internal journeys, now relying on couchettes with lower servicing costs.

A trend towards polarisation of the service level offer?

The Germans have invested in the top end of their product offering, with new 'Comfortline' sleeping cars with modern facilities and en suite showers built in 2007, whereas the French have done the exact opposite, doing away with all the top-end sleeping-cars on their network and running all their overnight trains with cheaper couchettes. So who is right? Is the market in France so different to that in Germany? Are Nice-Paris businessmen happy with a 5 1/2 hour daytime journey by TGV or an overnight journey in a shared couchette? The 'Espace Privatif' offer for sole occupancy of a 1st class couchette compartment is not bookable online, it's poorly marketed and often not understood by Rail Europe or even SNCF staff when asked.

The approach adopted by Renfe for their Elipsos brand tends to support the German view of the future and it is understood that future 'trainhotels' for their services are being built with all-en suite 1 and 2 bed sleepers plus reclining seats, with no shared 4-bed sleepers (albeit potentially leaving a gap in the market for families who wish to travel together).

Mark Smith of Seat61.com has observed this general trend as well; *"it's a trend I've seen develop with visitors to my own website: In the 'old days' it was easy to fill the cheap tourist sleepers, harder to get upmarket travellers out of then glamorous and expensive planes to fill the 2-berth and 1-berth sleepers. This has apparently reversed, budget airline competition making it harder to fill the shared 4-berths with price-sensitive passengers, whilst it's now easy to fill the 2-berth Preferente and Gran Clase sleepers with affluent people who want a more civilised alternative to the stress and decidedly unglamorous 'herd' experience of modern flying"*

3 Commercial factors

Legal basis

EU law requires that international services are either run commercially i.e. without public funding, or where this is either not possible, or politically desirable, that they are tendered on an EU-wide basis to offer prospective operators the chance to run them at optimum (not always lowest) cost to the tenderer (which is normally a transport authority or Government body). Some EU countries (e.g. Sweden, Germany and Austria) have opened their markets to permit commercial operation of long distance domestic services as well. Small numbers of overnight services are now operated on this basis (e.g. Malmo – Storlien and Malmo-Berlin, where French company Veolia operates on its own or with partners (the Berlin service)).

Domestic services including overnight trains are also required by EU legislation to be tendered where they are not run for profit; implementation of this legislation has been severely delayed by some countries e.g. Italy, Belgium and France whilst interpretation and the practical implementation method varies between and within countries. Some domestic overnight services are operated on a

tendered/franchised basis; for most it is either currently unclear (e.g. France and Spain) or they are run for profit (e.g. Germany).

In France, the state appears to be funding (perhaps opaquely) the whole of the Intercités network, which includes overnight services.

Separation of track and train

EU legislation requires that train operations are separated from infrastructure provision. All EU countries except Slovenia have achieved this, although in many cases, a single holding company owns both subsidiary businesses. Sweden has gone one step further, and merged the rail business into a universal transport infrastructure company.

The vast majority of infrastructure providers now issue Network Management Statements, detailing the basis on which they do business, particularly in terms of timetabling and fees. In most cases, a proportion of the access charge is essentially a fixed fee, to cover the majority of infrastructure costs, accompanied by a smaller marginal fee proportional to train-kilometres operated and other services consumed.

Impact of EU Legislation – the Channel Tunnel & Ostend example:

We noted earlier the withdrawal of Ostend sleeper services following the opening of the Channel tunnel, however arguably, the main purpose of the Ostend trains was to serve Brussels, with serving London via the ferry connection at Ostend a secondary purpose. Indeed these sleeper trains continued to operate for a decade after the Tunnel opened, being discontinued by SNCB in 2003. Mark Smith of Seat61.com believes that the immediate reason they were discontinued was not so much the loss of revenue caused by the opening of the Channel Tunnel as the EU requiring one commercial entity to take full commercial responsibility for a whole international train, in contrast to the traditional method where each national operator ran it and bore the costs and received the revenue share for the section through its own territory. Following the implementation of this requirement SNCB was allocated the full costs and revenue for these trains, they were no longer subsidised in any way, the other railways started charging SNCB access fees for trains that would have been operated with a true marginal track/signalling cost close to zero and as the service wasn't a primary focus for the SNCB operation it was swiftly withdrawn.

This EU-mandated change in the way international trains are operated, coupled with a track access

regime in which trains with zero real marginal costs (as the track and signalling needed to be there for local trains anyway) are charged high access fees, appears to have had a major detrimental impact for many long distance night trains. It could be argued therefore that EU policy has actually worked against its own objective, in eliminating some international train links rather than promoting them as intended.

However, the scale and balance of these charges varies from country to country, in some cases reflecting how public subsidy may be applied to rail services (e.g. nationally versus regionally). Few set the marginal element as low as that of Network Rail.

Most providers have now joined RailNetEurope (www.rne.eu), an umbrella organisation for “European Rail Infrastructure Managers and Allocation Bodies to enable fast and easy access to European rail, as well as to increase the quality and efficiency of international rail traffic”. This is particularly pertinent for overnight services, as it offers co-ordinated timetabling across borders.

Open access operation

This principle of separation has opened up opportunities for third party operators running open access (passenger) services on the networks managed by national rail infrastructure managers.

There are now a few established open access passenger operations, and some are overnight

services. Veolia Transport is involved in the operation of open access passenger trains in both Sweden and Germany and from spring 2012, will replace Swedish Railways (SJ) in operating the Malmo – Berlin service operated in Germany as an open access service by GVG. Open access operator Arenaways in Italy ceased trading in 2011 after running limited passenger services in northern Italy; bureaucratic and regulatory problems largely caused by incumbent operator Trenitalia contributed to Arenaways' downfall. Arenaways had also provided traction for DB Autozug overnight car carrying trains as well as to freight operators.

Open access (daytime) operation in Europe will grow during 2012; in Austria operator Westbahn has started operation between Vienna and Salzburg; in the Czech Republic Regiojet (owned by coach operator Student Agency) started running Prague to Ostrava services in 2011 and will extend these to Slovakia in 2012; in Germany new operator HKX plans to run Cologne to Hamburg and in Italy the world's first high speed open access start-up company NTV hopes to launch Turin-Milan-Rome-Naples services in Spring 2012.

Seasonality

Most of the principal routes shown in the table are daily, or operate on a standard frequency. There are some routes that operate seasonally e.g. for summer holiday peak traffic to coastal

resorts e.g. Binz, on the Baltic coast of Germany; Split, on the Adriatic coast of Croatia; or Constanta, on the Romanian Black Sea coast. These are generally marginal operations, by extending existing services into the day, and reducing turn-round times.

In addition there are also overnight trains operated for winter sports by a variety of operators; SNCF runs trains only at peak ski weekends from Paris to Gap and return, whilst from Belgium and the Netherlands a chartered weekend *Treski* sleeper service to Austria has operated for several years, with operation shared amongst several operators including Belgian State Railways. However, such operation tends to leave rolling stock standing idle for much of the time, and the remaining routes often use older carriages for this reason.

Safety and security

Theft from passengers whilst asleep has been a problem for many European rail operators, especially on routes with frequent stops during the night. Most operators have overcome the problem through a mixture of requiring passengers to have reservations, restricting access to platforms, removing most public stops during the night time part of the journey, and by making on train staff responsible for security and aware it is their responsibility.

Following a series of attacks on passengers in 1999, French Railways increased on-train

security and required all passengers to have reservations – an apparent consequence of the resulting higher operating costs was the removal of some routes and of all sleeping coaches – replaced in part by the Lunea couchette product.

On board, enhanced security measures now include CCTV in some train corridors, keycards for compartment access, chains on compartment doors, and locks that cannot be operated from outside, even by staff.



'Sharing with strangers'.

The current ScotRail operation allows sharing of compartments by (same-sex) strangers unlike the UK's First Great Western on their 'Night Riviera' sleeper train. Historically, with single-berth sleepers prohibitively expensive except for business travellers and overnight travel a familiar part of daily life, people were used to sharing with other passengers without adverse comment, much as they do these days on an overnight long haul flight. Today, people are much less familiar with overnight travel and frequently express a concern about 'sharing with strangers'.

Many ferry companies have reacted by ending the long-standing ability to book inexpensive individual berths in shared compartments, requiring travellers to book the whole cabin or not travel at all. In some cases, (e.g. DFDS Seaways) this has effectively doubled the cost of travel for a solo traveller who now needs to pay for two berths when they really only need one. In other cases (such as Stena Line) pricing has been adjusted to make solo travel more affordable than twice the price of sharing (in Stena's case, one travel ticket plus £29 for a single cabin Harwich to Hoek van Holland, versus two travel tickets plus £43 for a double cabin).

On the rails, in the UK First Great Western has abolished the sale of individual berths in shared compartments, but has adjusted pricing to make single occupancy more affordable. Similarly, City Night Line now allows single occupancy from 139 euros, compared to 79 euros sharing a 3-berth or from 99 euros sharing a 2-berth. Historically, a single-berth sleeper might have cost over 220 euros, and still does on some routes such as

Thello's Paris-Venice train, or on Elipsos.

Notably, City Night Line tried to abolish sharing in sleeping-cars a few years ago, but after a year or two's experience reversed its decision - though we are not clear as to what prompted them to do this.

An interesting parallel trend has been that that only a 2nd class ticket is now required for 2-person occupancy on many routes (instead of 1st class, as was historically the case), such as Prague-Krakow or Budapest-Bucharest. Indeed only a 2nd class ticket is now required for a double or single on City Night Line, unless it's a deluxe compartment. This may indicate that even 'regular' 2nd class passengers now expect sole use of a 2-berth (i.e. without having to share a couchette compartment or 3-bed sleeper) for a price that is nevertheless still competitive with other modes.

Luxury Trains

Several luxury touring trains exist worldwide – the basis of operation is normally a fixed route either weekly, or less often, with off train sightseeing excursions and occasionally accommodation/some meals. Whilst these trains (examples are *The Royal Scotsman* in the UK, *The Palace on Wheels* in India or *Rovos Rail* in South Africa) have sleeping accommodation this is as a substitute for a luxury hotel – and often the train's schedule is arranged so it is not moving at night to ensure guests get some sleep! These luxury trains should not be confused with overnight trains

which are primarily designed to transport people from A to B; one possible exception that does include both luxury and transport is the *Blue Train* in South Africa, but this runs less than daily and is primarily used by well heeled tourists – there being no other accommodation onboard.



Car carrying trains

Most sleeper trains do not convey car carrying wagons. In Europe such wagons are bigger than any that could be used in the UK due to the larger loading gauge on main routes (and therefore can carry 10 – 12 cars each). Some operators offer car carrying wagons on the end of day time trains (e.g. in Austria from Vienna to Bregenz). Italian operator Trenitalia withdrew all its domestic car carrying trains in January 2012.

In Germany DB offers a wide range of *Autozug* car carrying overnight trains to international destinations; these serve motor-rail terminals in major German cities (sometimes part of existing major stations e.g. Düsseldorf Hbf or Hamburg Altona and sometimes at less well used suburban stations e.g. Berlin Wannsee or Frankfurt, Neu Isenburg). The destinations served are mostly at least 1000km away from where the trains start (they do not normally pick up intermediate passengers) and include south western France, northern Italy and Croatia. DB runs these trains for passengers originating in Germany although motorists from neighbouring countries can and do make use of them too. DB has reduced the number of *Autozug* trains and removed some destinations e.g. Avignon (France) completely for summer 2012.

4 Operational factors

Coaching stock

The International Union of Railways (UIC) has long set standards for interoperability of locomotives and rolling stock across borders. Consequently, the vast majority of sleeping coaches can be coupled together whatever their origin.

Specialist stock, either full sleeper vehicles or more basic couchettes, is now often complemented by modern overnight seating coaches e.g. with some Euronight (EN) and CityNightLine (CNL) trains featuring more spacious reclining seats, and which are not normally used in daytime. In Eastern Europe, the distinction between daytime and night time stock can be more complex, with some trains using couchette stock (with beds etc locked away) for seated daytime travel, while ordinary day coaches are often used to provide seating accommodation on overnight trains.

Several operators have invested in new sleeper rolling stock in recent years; DB subsidiary CNL has bought both single and double deck coaches made in Germany and Austria. Polish and Romanian manufacturers have built new vehicles for Polish, Romanian and Belarus Railways in the last five years.



Russian Railways has 200 new sleeper coaches on order from Siemens suitable for use in the EU and Russia and meeting all current safety standards; these will be built in Vienna and Tver (Russia) in 2012-13.

Refurbishment of existing stock is also common. Whilst this may be limited to refreshing the décor, more extensive work has been undertaken, particularly to improve standards on trains of eastern European operators. Refurbishments and new-builds have frequently included the addition of deluxe compartments with en suite toilet/shower. OBB have rebuilt their 1978-1981 T2S cars with two deluxe compartments, Trenitalia have built Excelsior cars and rebuilt some existing cars

with several deluxe compartments, and new builds for Poland and the Czech Republic have included several deluxe compartments.

However, it is worth noting that the deluxe en suite compartments have usually been in addition to the regular compartments with washbasin, rather than replacing them as a new standard.

Commuter/local coaches added to overnight trains

In many central European countries additional coaches are added to overnight trains either at the beginning or end of the journey to accommodate late night / early morning travellers on the route to or from the eventual destination (e.g. between Salzburg and Vienna). These additional vehicles may not be subject to compulsory reservation and often are physically locked and so separated from the overnight part of the train they are hitching a ride with. Similar arrangements applied in the UK prior to the introduction of modern DMUs on the West Highland Line.

Traction/locomotives

As most European sleeper services operate between the major cities most European overnight services are operated using electric locomotives. For cross border services these locomotives are often changed at borders due to electrical voltage changes. The increasing availability of multi-voltage locomotives equipped with multiple safety systems means that border stops for loco changes are now becoming less common. Austrian Railways Class 1116 (Siemens ES64 U2) locos now routinely work overnight (and daytime) services between Munich (Germany) and Budapest (Hungary). DB has previously run *Autozug* overnight trains from Hamburg to Rijeka (Croatia) using a single multi-voltage multi system electric loco (Class 189 Siemens ES64 U4) but as such locomotives are very expensive, it is often cheaper to use traction provided by the local rail operator.

Historically, overnight and other international services have been run under agreements between the State Railways concerned; in the liberalised cross border market this is beginning to change. Italian national operator Trenitalia has chosen to opt out of previous agreements with most neighbouring rail operators, and in some cases, refusing to provide locomotives or coaching stock. The result has been both the removal of some international links (Italy to Slovenia and almost all Trenitalia trains to Austria), but has also

prompted the start of new services operated by neighbouring national rail companies, and increasingly, by new private open access traction providers too (primarily for freight, but willing to haul overnight or daytime passenger trains). The trend for third party traction suppliers to work with both new and established passenger service operators is likely to continue to grow (e.g. DB are currently evaluating alternative traction providers in the Czech Republic for both day and night international services). The Trenitalia / Veolia *Thello* joint venture operating Venice – Paris overnight trains since December 2011 uses locomotives provided by *Akiem* in France (*Akiem* is a subsidiary of Trenitalia's previous partner company for these trains i.e. SNCF!). *Thello* plans to expand in 2012 launching Paris – Rome services in June (replacing the now-ended Artesia joint operation by SNCF and Trenitalia). Daytime services between Milan and Lyon are also planned.

Several of the daily sleeper services running elsewhere in Europe use diesel traction, normally on secondary routes providing a direct overnight connection to towns and cities at the end of the rail network (egs Bodo in Norway, Hummene in Slovakia and La Coruna in Spain). Some of these services attach sleeper coaches to daytime trains at one end of the journey.

A rare example of a sleeping coach being attached to a train worked by a multiple unit is the through Kiev to Vienna (via Bratislava) coach which was removed from the Kiev – Budapest overnight service at Chop and then worked by a loco over the border to Cierna nad Tisou 3 kms away in Slovakia. From there to Kosice it was attached to the rear of an EMU worked service; possible as the EMUs used had conventional buffing gear and staff to perform the shunt/attachment are based in the area for freight work. Since the December 2011 timetable change the sleeper coach is attached to a loco operated train in at least one direction.

Shunting of stock where portion working takes place is normally achieved with the train engine, but elsewhere another locomotive may be used. Increasingly, separation of passenger and freight operations has reduced the availability of spare locomotives, although there have been instances where a third-party provider has been used. Except for Spanish Talgo stock, there appears to be no case of using a driving trailer (for shunting or other operations), though German practice in particular allows trains to be propelled over longer distances than in the UK.

Signalling/control

Overnight services in Europe use the national rail networks and require no additional signalling or control systems when compared to other passenger services. The variety of differing systems in use results in locomotive and /or crew changes being necessary at some but not all national borders (see Traction/Locomotives above).

Border/Immigration controls

Within the EU Schengen area border controls have been removed (although they can be reinstated temporarily in exceptional circumstances), and as a result, on-board immigration controls on most European overnight trains are now history.

The procedure for non Schengen countries (or crossing in or out of the Schengen area) is normally that sleeping car attendants collect passports and hand these to immigration officers; only when they wish to speak to an individual is that person woken up (assuming the border crossing is in the middle of the night). Alternatively immigration authorities may insist that all passengers are awake and carry their own passports; in practice this normally only happens in non EU former Yugoslav Republics and countries formerly in the USSR.

At non-Schengen eastern European borders, customs may undertake a detailed

examination of the train and passengers' luggage, as smuggling by train (eg of cigarettes) is common. This is usually on-board and does not require passengers to leave the train.

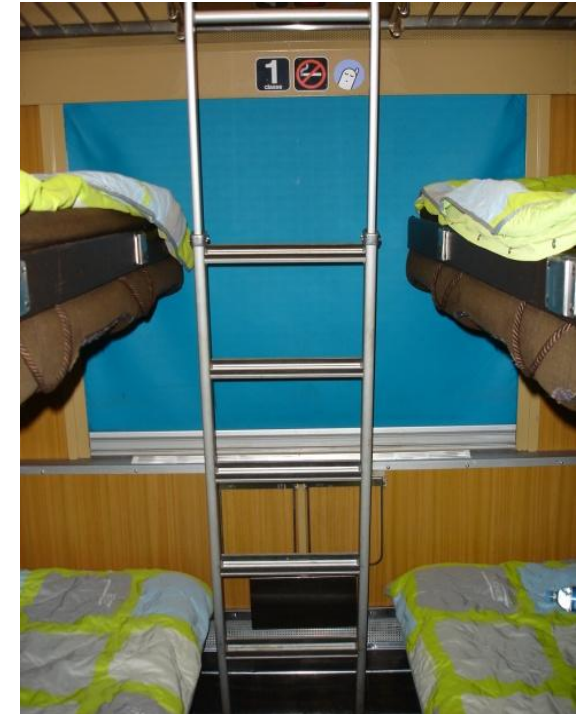
Safety / fire prevention

Following serious fires on sleeper trains e.g. Taunton 1978 and Nancy (France) 2002 fire prevention has become much more important in designing new sleeper coaches (and refits for existing ones). Safety instructions are now routinely provided onboard most European sleeper trains.

Servicing and maintenance

Most major international operators e.g. DB/CNL or Austrian Railways carry out major servicing of the vehicles used at a base depot in their "home" country. Light maintenance and servicing (i.e. water re-filling and toilet emptying for modern vehicles with retention toilets) is normally carried out at the destination end of the route, often by the partner "foreign" railway operator. It is clear that in some cases bedding etc is removed and replaced by fresh clean bedding, whilst in other cases used bedding is stored onboard and replaced by fresh pre packed bedding that has been stored on the train; the variety of servicing arrangements probably reflects the variety of commercial arrangements in place ranging from traditional intra railway company agreements to international operators e.g. CNL

or *Thello*. Access to depots is often part of open access contracts although this is not a legal right in all cases.



5 The Future

The conventional sleeping car train, with a fairly basic offering, is likely to continue to decline. This will especially be the case where daytime journeys are speeded up, either by new high speed lines or by the improvement of existing lines. Shorter-distance journeys in eastern Europe and the Balkans could be especially vulnerable to the latter, while the continued move to fixed formation multiple-unit trains will reduce the ability to provide through coaches attached to day trains e.g. in the Czech Republic.

Tendering of non-commercial services could make the costs of overnight trains more transparent, depending on how they are packaged with other services. For such specialist trains, there may be a growth in the Swedish model of a state-owned rolling stock company leasing coaches (and locomotives) to a successful tenderer, or to an open access operator.

The liberalisation of coach travel within many EU states could reduce passenger numbers at the lower end of the market i.e. overnight seated accommodation. Conversely, any moves to make air travel more expensive could see a modal switch to rail.



A clearer separation between different quality offerings will polarise the market between the hotel-level operation (See for example the Elipsos Dining car above), with at least some en-suite facilities in sleeping cars, and the “rolling youth hostel” which will continue to make use of basic couchettes (opposite).

In terms of fares and tariff operators have increasingly moved away from a system of kilometric tariffs for open tickets with a supplement added for a couchette or sleeper, towards 'global' fares applied specifically to the relevant sleeper train for a given journey, inclusive of sleeper or couchette. They have typically added an element of yield-

management with dynamic pricing and we would expect this trend to continue.



We can envisage better marketing for incoming tourists (many of whom are English-speaking from North America and Australasia) with integration into travel industry booking systems, much as RENFE announced in January 2012.

Meanwhile, specialist open access providers may hire locomotives and rolling stock from others to operate niche market services while utilisation of rolling stock will improve, with most trains running at least six nights a week.

Contents Amendments Record

This document has been issued and amended as follows:

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Draft		1	APB	02/02/2012
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