The Future of Freight Questioned by Several European Railways

François Batisse

Unlike passenger rail traffic, whose growth is guaranteed thanks to the success of high speed, the prospects for freight have become such a source of concern for most railways that its very existence may be called into question if it does not manage to stem falling market share. This is certainly the case at French National Railways (SNCF), which wants to reverse freight’s current downward trend and raise volumes by 10% per annum to double current levels by 2010. Indeed, while the overall volume of all freight modes throughout the world doubles every 20 to 30 years, rail freight has dropped by 25% in the last 25 years in the West and by as much as 50% in Eastern Europe. This is due to structural changes involving less and less heavy goods and a greater variety of smaller added-value items, favouring transport by other modes, especially road transport. Accordingly, in Western Europe, rail’s share of the freight market has dwindled by almost 1% each year to just 14% compared to 30% two or three decades ago. This trend contrasts sharply with the good growth in rail freight in the USA during the same period where volume has increased by more than half with a market share of around 40%.

Some European railways staged temporary recoveries until the service quality began to drop due to lack of sufficient investment in traction and track capacities. There have been many attempts at reorganizing and improving services with very mixed results, making managers even more conscious of the need to take adequate measures to meet customers’ expectations and stabilize rail’s market share. To achieve this goal, rail freight volumes would have to double by 2015–20. This ambitious target is officially supported by the EU as well as some other states anxious to tilt the balance of freight traffic in favour of rail with a view to cutting road congestion. Switzerland has been the first country in Europe to actually encourage transfer of freight from road to rail by levying heavy tolls on trucks crossing the Alps. The Austrians are embarking on a similar strategy, while the Germans are also thinking in terms of a road tax (see pp.28–37 of this issue).

Throughout Europe, people are becoming more aware of the need to boost rail freight as a means of preserving the environment against damage caused by the flood of heavy vehicles streaming through major cities and the Alps and Pyrenees. The public and politicians are beginning to share the viewpoint of railway managers in calling for rail freight to be granted a level playing field with road transport.

Recent Recovery after Two Decades in Doldrums

The most striking feature of European rail freight volumes at the beginning of the new millennium has been an encouraging 10% upswing in sharp contrast to the two previous decades. In fact, the 2.2% and 3.1% downward trend in 1998 and 1999, respectively, came after a 3% recovery in 1997 following a 5.7% drop in 1996 and even larger falls in 1993 and 1994 that had caused serious doubts about the future of freight transport altogether outside main lines. The upswing this year is all the more significant in that it has occurred on practically every network, with an even sharper increase in Eastern Europe (+12%) than in Western Europe (+8%). A 20% growth in international traffic at the beginning of 2000 coupled with a 10% rise in combined transport highlights these two sectors as the locomotive of recovery.

Waning Rail Traffic and Dwindling Rail Modal Share

The 2%–3% annual growth in international trade over the last two decades has never really been reflected in European rail traffic, which has kept losing ground in absolute terms. The European Commission has pointed out that a similar change had already decreased rail’s modal share to 14% in 1999, or half its market share of the 1970s. Moreover, the prospect for rail freight market share is just 10% between 2005 and 2010 compared to 70% for road and 20% for inland water transport. This has happened because roads and shipping have benefited from considerable investment and low tariffs. For example, in France, while rail freight stagnated, inland water traffic increased by 10% in both 1998 and 1999 and road freight increased by 4.2% in 1997 and 2.5% in 1998.

The total freight carried by all 17 networks of the Community of European Railways (CER) fell from over 300 billion tonne-km in 1975 to 237 billion tonne-km in 1999. SNCF’s record of 74 billion tonne-km in 1974 dropped to 50 billion tonne-km in 1993 but has recovered to 54 billion tonne-km since 1998. Railways in Germany carried 120 billion tonne-km before German reunification falling to a low of 68 billion tonne-km in 1996 before partly recovering to 71.5 billion tonne-km in 1999. In fact, the UK is the only European country where rail freight has stopped contracting and has even shown signs of recovering market share since British Rail privatization. English, Welsh and Scottish Railways (EWS), the new freight subsidiary of Wisconsin Central, an American regional railway, has increased freight by one third in 5 years. Although the volume is just 18 billion tonne-km with a market share of around 6%, supporters of rail freight liberalization have applauded the increase.

International traffic is the leading sector and will soon account for one half of European rail freight as a result of growth that has seen only one hiccup in 1999 before resuming an upward trend with an increase of over 16% in 2000. The other particularly active sector is combined...
Rail Traffic Statistics of UIC European Railways January to December 1999

-Provisional results-

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**Source:** UIC

The percentages and totals are based on figures that have not been rounded off.

* Not including data not available on some railways

**Mo**
- Number of months

**Pv**
- Freight traffic including empty privately owned wagons

**Data not available**

1) FS - 1999-00 Method change
2) OFF - Only consignments invoiced are included in the freight figures. In addition, changed accounting system used in 1999
3) NSB - International traffic - changes in data capture procedures

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transport, which also dropped temporarily in 1999, but then picked up at a growth rate of over 10%.

The general drop in national freight traffic on all networks except the British coupled with stagnant conventional freight traffic requires radical measures as advocated by public authorities and shippers. Most states as well as the European Commission are considering liberalization in order to prevent rail freight from being squeezed out of the market altogether and many rail freight customers do not want to see the loss of an environment-friendly transport mode that is especially suited to some types of freight.

**Harbingers of Change**

The recent British upswing in rail demand has spread to most European networks since late 1999 and is supporting a number of initiatives that herald change, including:

- Cooperation between railways on specific points such as international corridors as the forerunner of a future trans-European rail freight network
- Merger of rail freight businesses by neighbouring railways
- Customer and operator agreements
- Investment in technology
- Legislation and taxation to divert road traffic to rail

BELIFRET, a creation of the Belgian, French, Italian and Luxembourg railways, is the first north–south international rail freight corridor in Europe and has been operating between Antwerp (Belgium) and Gioia Tauro (Southern Italy) via Brussels, Luxembourg, Lyons and Turin since 31 January 1998. The corridor was opened based on the European Commission’s desire to cut rail freight transit times and the trip from Antwerp to Milano takes just 24 hours (3 hours less than the regular transit time) at an average speed of 55 km/h. A ‘one-stop-shop’ based in Luxembourg handles customer enquiries. In 2 years, 2000 locomotives have hauled 29,000 wagons carrying 1.1 million tonnes of freight along this freight corridor to pioneer the future trans-European rail freight network (Réseau transeuropéen de fret ferroviaire—RTEFF) advocated by the
The American example of network mergers has contributed to the planned mergers of the freight businesses of Deutsche Bahn AG (DB AG) and Netherlands Railways (NS) on one hand, and Swiss Federal Railways (CFF/SBB/FFS) and Italian Railways (FS) on the other—plans favouring autonomy and concentration that effectively carry almost half the total rail freight in Western Europe. The practicalities of implementing these mergers are very complex—negotiations broke down once and were then resumed. The ‘splitting up’ of the CFF/SBB/FFS, which seems the most advanced merger, is still in progress with separation of passenger and freight, and of train drivers between two new passenger and one freight company starting on 1 December 1999.

The agreement between DB AG, SNCF, Spanish National Railways (RENFE) and Portuguese Railways (CP) in early 2000 to improve handling of international freight on all four networks has already led SNCF and DB AG to sign a declaration of intent on 23 June concerning creation of a company and joint office to handle freight products. The agreement by Belgian National Railways (SNCB/NMBS) and Stora Enso, a Swedish paper producer, has made the Belgian port of Zeebrugge the continental rail freight hub for carriage of 1 million tonnes of paper and pulp as part of a fully-integrated logistics chain that will replace 30,000 trucks with 18,000 freight wagons. On 29 March 2000, SNCF guaranteed a service regularity rate of 95% to three combined-transport operators on main lines from Paris to Avignon, Marseilles and Toulouse if freight volumes increased by 20% (200,000 tonnes) over distances from 700 to 800 km.

The introduction of the American bimodal RoadRailer in France and Germany, the adoption of AMTECH (an American automatic wagon identification system), and the start of Germany’s Cargo Sprinter service in the Netherlands are evidence of shrewd technical choices cutting across borders.

The most encouraging signs of a reversal in European rail freight’s downward trend have mostly come from Switzerland and Austria where new transport policies will motivate transalpine traffic to change from road to rail using fiscal and legal measures as well as new high-capacity freight-dedicated railway lines. Political options are much more conservative in the rest of Europe although the new orientation favouring rail investment could herald a new era of ways and means aimed specifically at developing freight locomotives, wagons, terminals, lines, etc. This would be in complete contrast to the decades of European rail investment in new high-speed passenger lines when nobody was interested in freight.

The new transport policies in Switzerland and Austria seek to transfer transalpine traffic from road to rail by building high-capacity tracks for piggybacking trucks on wagons through long tunnels under the Alps. Since a 50-km transalpine tunnel would probably cost as much as the Seikan Tunnel between Honshu and Hokkaido, public funding is being considered because private capital is reluctant to invest in such projects.

In Switzerland, 55% of the cost of building four tunnels totalling some 100 km in length and completion of the Rail 2000 network modernization will come from the Proportional Heavy Vehicles Tax (RPLP) on heavy goods road traffic. Basically, a heavy truck will have to pay almost €200 (€1=US$0.95) to cover the 300 km through Switzerland piggybacked on a rail wagon. The remaining 45% of the costs will come from loans and current existing taxation.

In Austria, EU legislation is blocking a new tax aimed specifically at heavy trucks, meaning that the general budget will foot the transport bill. Pollution is already being controlled by a system of ‘ecopoints’ and emission taxes.
and vehicle authorization for trucks meeting anti-pollution standards. Various other measures aim to divert road traffic to rail, especially financial aid to combined rail-road transport, and the recent Austrian Federal Railways (ÖBB) major order for 225 electric locomotives, which bears witness to the network’s intention to become one of the four or five leading centres of rail freight in Europe. These Swiss and Austrian initiatives have aroused interest across Europe although there has been no pan-European agreement on how to revitalize freight so far—the European Parliament wants to liberalize rail, while the several Transport Ministers including France are opposed to total removal of monopolies. However railways throughout Europe have begun (with government agreement) to change their investment plans significantly in order to provide freight with more rolling stock, locomotives, stations and staff. They are particularly looking to avoid a return to the times when rail freight was lost or refused and freight trains were systematically diverted into sidings for reasons that are no longer valid, such as traditional precedence of passenger trains, delays caused by late engines or drivers, shortage of freight paths, lack of specific wagons requested by customers, etc.

Germany created a fleet of freight-specific locomotives as early as 1994 with the passing of the mythical universal locomotive meeting the traction needs of all passenger trains before handling freight—if there were any spare locos. The first freight locomotive fleet dates to the 1997 delivery of 195 Class 152 locomotives to DB AG. Similarly, in 1998, SNCF ordered 120 AC/DC freight locomotives and adapted the last 30 universal locomotives to freight needs until a recent order for another 120 diesel units. Assigning traction units directly to freight has now become standard practice, although the proportion is still insufficient.

The recent link-up with ERMEWA, a wagon leasing business that owns 18,000 wagons, will improve provision of wagons on SNCF and other networks, which had previously ceased wagon ownership and had left wagon management to customers and subsidiaries. A €105 million loan from the European Investment Bank (EIB) to AAE Wagon Finance will enable AAE Cargo, the leading European hirer, to allocate €350 million to modernization and purchase of 7000 wagons. Germany has undertaken a great deal of research into dedicated freight lines and establishment of several thousand kilometers of such lines is a strong
possibility. Réseau Ferré de France (RFF), which is responsible for the French railway infrastructure, has set out a pragmatic and determined rail freight policy involving improvement of line sections, removal of blackspots, and skirting of bottlenecks and congestion zones. The customers’ favourite topic is improvement of services to and from the biggest European ports, explaining the Betuwe Railfreight Line (BRL) work to link Rotterdam with Germany, the decision to build a second line to Antwerp, Holland’s agreement to reopen the so-called Steel Rhine to Antwerp, the speeding up of plans to overhaul services to and from Le Havre, modernization of dock lines in Dunkirk, Barcelona, Genoa, etc.

**Doubts and Unknown Quantities**

The reality of the marked upswing in freight traffic on some European railways since early 2000 must be contrasted with the many shortcomings of rail freight services, customer dissatisfaction, lack of transparency and deterioration in business performance. In France, SNCF had to admit yet again that it was unable to meet the sudden upswing in freight demand at the beginning of summer when passenger traffic reaches a peak. Out of 1300 freight trains each day, about 250 arrived late or failed to arrive on the expected day due to cancellation for lack of a locomotive, driver, or path. The press pointed out that despite a 9% recovery in rail freight during the first half year, SNCF was still losing market share to road freight and that since 1999 it has carried only 17% of freight compared with 57% in 1960. There is even a prospect of French rail freight disappearing altogether within 15 years unless there is a sudden recovery.

Observers of European transport point to the shortcomings of combined transport despite state aid as well as railways’ inability to replace lorries when the Mont Blanc road tunnel was closed or when the storm in December 1999 led to a huge rise in demand for transport of construction lumber. Similarly, loaders in big harbours are always demanding acceptable rolling stock and delivery times. At a time when public–private partnership still remains a myth, the difficult financial position of railways leads to repeated scaling down of investments in rolling stock and infrastructure needed to restore freight to previous levels.

Combined transport is freight’s driving force on European railways. It accounts for 25% of SNCF freight but just 12% of revenue.

Pan-European combined transport operator Intercontainer has exceeded the 1 million TEU level for 2 years although its traffic fell by 14% in 1999.
French Plans for a European Freight Network
(Proposals for capacity and performance improvement)

Source: RFF
Limitations and Shortcomings of Rail Freight

Despite considerable financial support for combined transport by European states, combined-transport professionals blame railways for lack of reliability while accusing terminal managers of being unable to handle bottlenecks. As a consequence, in 1999, combined transport in Europe fell by an unprecedented 6%. Pan-European operator Intercontainer–Interfrigo (ICF) saw traffic fall by 14% and turnover by 15%, which led to a layoff of 25% of the workforce and the sale of 14% of its rolling stock in order to achieve a profit of €4.7 million, or little more than 1% of sales. SNCF had to commit to a service regularity rate of 95% before combined transport operators would agree to increase freight volumes by 20% on three main lines, creating an increase of just 1% in the total volume of combined transport in France. German operator Roos Spedition would like five daily services to improve to the extent that the sale of 14% of its rolling stock in order to achieve a profit of €4.7 million, or little more than 1% of sales. SNCF was vehemently criticized for not being able to meet the demand of lumber consignors to Belgium when demand shot up following the 1999 storm. French customers were especially taken aback when SNCF announced it would not accept any freight traffic between 28 July and 5 August in order to give priority to passenger traffic. The French customer relations department had been caught unawares by an emerging concern about rail freight. As a consequence, in 1999, combined transport in Europe fell by an unprecedented 6%. Pan-European operator Intercontainer–Interfrigo (ICF) saw traffic fall by 14% and turnover by 15%, which led to a layoff of 25% of the workforce and the sale of 14% of its rolling stock in order to achieve a profit of €4.7 million, or little more than 1% of sales. SNCF had to commit to a service regularity rate of 95% before combined transport operators would agree to increase freight volumes by 20% on three main lines, creating an increase of just 1% in the total volume of combined transport in France. German operator Roos Spedition would like five daily services to improve to the extent that the sale of 14% of its rolling stock in order to achieve a profit of €4.7 million, or little more than 1% of sales. SNCF was vehemently criticized for not being able to meet the demand of lumber consignors to Belgium when demand shot up following the 1999 storm. French customers were especially taken aback when SNCF announced it would not accept any freight traffic between 28 July and 5 August in order to give priority to passenger traffic. The French customer relations department had been caught unawares by an emerging concern about rail freight.

Customer Discontent at Ports

Unlike the new confidence in the Alpine regions, the upsurge in discontent among harbour-based customers in Europe as a whole represents a worrying sign of increasing distrust of rail. Maritime transport, especially containerized trade, is currently enjoying a period of real euphoria with an annual growth rate of almost 10% a year. However, the quality of service offered by rail in seaports has hardly improved at all. Road transport of consignments to and from harbours has no serious competitor unless river transport is possible. Local authorities would like to transfer freight from road to rail immediately to alleviate serious environmental damage in built-up areas around main ports, but this would require huge investments of money and time. Therefore, rail’s modal share at ports remains modest and customer relations are deteriorating, but there are some exceptions. In German ports, rail has held onto its 30% share of maritime containers thanks to preferential rates, whereas in Antwerp, the quality of rail services has improved to the extent that rail now holds 20% of the market. In northern France, port authorities complain that the only international rail corridor operating in Europe only serves Belgian harbours and that the new Transflandres train will link Lille with Antwerp and Rotterdam in a matter of hours. At Le Havre, which handles 1.3 million containers each year, rail only holds 10% of the traffic due to lack of adequate eastbound links—a deficiency in sharp contrast with the ambitions of Port 2000. In Rotterdam, the main European port handling 6 million containers, rail held only 5% of the market when a single non-electrified track served the port. The line has just been electrified and double-tracked but plans to build the freight-only BRL to Germany are in jeopardy due to the collapse of the public-private partnership project. None of 74 companies invited to participate financially has committed because nobody believes the apparently over-optimistic forecasts. However, road transport professionals advocate a ‘motorway line’ open 2 hours each night for 100 convoys of heavy vehicles carrying 2000 to 3000 containers. The efforts of SNCB/NMBS and the Antwerp Port Authority have made it the pre-eminent rail port in Europe with 20% of the freight handled by rail. A second through line to the port is to be built and the so-called Steel Rhine is to be reopened too.

Uncertain European Transport Policy Focused on Passengers

Apart from a consensus on the necessity for technical interoperability of railways, there is no present agreement between EU member states on a common transport policy, other than a general call to delay any binding decisions. Liberalization supporters stress the impossibility of monopoly railways meeting even the slightest increase in demand. As a result, on 5
July 2000, the European Parliament voted to liberalize rail freight by 2005 and passenger services by 2010. Conversely, railway monopolists, including most railway unions, view liberalization as too hurried—a view shared by most of the Council of Ministers of Transport and the Transport Commissioner who deprecates the haste of European MPs.

France, which chaired the EU until the end of the second half of 2000, is leading the opponents of liberalization. Therefore, no change is expected now except for the compromise on 28 March 2000 over the benefits of a trans-European freight network that would favor cooperation between old-style railways. Pending a delayed solution to the debate over a common transport policy, national and regional authorities—notably in Sweden, Germany and the Netherlands—have been granting a limited number of operating concessions for handling freight services to private operators as well as authorizations for service of private trains on national or regional lines. Although this only accounts for one or two percentage points in market share (5% in Germany), the process has been triggered and any retreat seems unlikely.

Freight—Europe’s Poor Relation?

When all is said and done, despite the realization that transfer of freight from road to rail has major benefits for the environment, the continuing focus of the media, public opinion, politicians and railway managers on passenger traffic remains the main obstacle to satisfactory growth of European rail freight in the future. In fact freight seems doomed to remain rail’s ‘poor relation’ in Europe—a sharp contrast with the American, Australian and South African contexts. Transport professionals realize that freight does not vote so it is still of little interest to most politicians. Major investment programmes remain focused on passengers whether in the shape of high-speed or regional services. Admittedly, freight always appears in forecasts, but plans are always scaled down at the last minute. In France, 420 locomotives—including 300 electric—are needed for freight to make up for lost time. However, new

Rail freight through ports is growing too slowly according to port authorities. Rail’s market share is 20% in Antwerp and 30% in German ports, compared to just 5% in Rotterdam, the biggest European port. (SNCF)
orders are down to 120 diesel units to replace units that have been in use for over 35 years, but there are no qualms about ordering 22 TGV Duplexes. In the Netherlands, the BRL is constantly being questioned while a billion euros are earmarked to improve six passenger stations22.
The question of rail freight’s future in Europe is therefore the order of the day. The only solution might well be a revolution along the lines of the TGV as stated by the Chairman of the European Parliament Transport Commission.

**Chance of European Rail Freight Revolution?**

The very latest news from European railways suggests signs of a coming freight revolution as follows:

- The consensus around refusing any initiative leading to freight liberalization is breaking down because nearly half of trains for combined transport operators will no longer be running late—ICF has entrusted 20 trains a week to a private operator from Malmö in Sweden to the German border whilst Switzerland’s Hupac is doing likewise between Cologne in Germany and Rome23; the French operator TAB is offering services from Paris to Milan thanks to the participation of the Vivendi Group that holds the Connex passenger franchise in Britain.
- The number of bimodal traffic RoadRailers between Germany and Italy will rise from 500 to 1000.
- The Steel Rhine line between Antwerp and Germany has been reopened after 9 years of Dutch obstruction.
- Railways in Britain carried 18.4 billion tonne-km of rail freight in 1999—a record compared to the last two decades.

Thus, these first signs of freight progress seem to herald a new future for European rail freight almost 10 years after EU Directive 91/440 EEC. At least, the very first signs of that revolution appeared on 22 November 2000 when the Ministers of Transport and the European Parliament came to a compromise aiming at liberalizing rail freight carried on European main lines.

**Notes**

2. Fret Magazine SNCF, Juin–Juillet 2000, Quelles orientations pour le fret?
7. SNCF, B Cargo News, Juin 2000, BELIFRET.
11. SNCF, B Cargo News, Mars 2000, Stora Enso, Chaîne logistique sur mesure à l’échelle mondiale.
16. Le Monde, 18 Juillet 2000, La SNCF ne peut pas faire face à l’explosion du trafic marchandises.
18. La Vie du Rail, 23 Août 2000, La SNCF a-t-elle café sur le transport du bois?
19. La Vie du Rail, 12 Juillet 2000, La SNCF prête à indemniser ses clients.

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