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WHITE PAPER

**A STRATEGY FOR REVITALISING THE COMMUNITY'S  
RAILWAYS**

(presented by the Commission)



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## EXECUTIVE SUMMARY

### A STRATEGY FOR REVITALISING THE COMMUNITY'S RAILWAYS

1. The railways could do much to sustain mobility in the next century. However, while unease is growing about the negative effects of transport, rail's market share still declines. The main reason is dissatisfaction with the price and quality of rail transport, despite encouraging examples of new services. Rail is felt not to respond to market changes or customers' needs, as other modes do.
2. In fact the railways have been largely insulated from market forces. Governments have a certain responsibility in that they often did not allow sufficient managerial independence and imposed obligations without compensating fully for the costs involved; they also failed to set clear financial objectives but subsidised losses or let debt pile up. The railways were spared difficult decisions, but this ill prepared their long term future.
3. A new kind of railway is needed. It should be first and foremost a business, with management independent and free to exploit opportunities, but answerable for failure. For this it should have sound finances, unencumbered by the burden of the past. It should be exposed to market forces in an appropriate form which should also lead to a greater involvement of the private sector. A clear division of responsibilities is required between the State and the railways, particularly for public services. A partnership is needed between the Community, Member States, the railways and their staff to create such a new railway. As part of this initiative, action at the Community level is urgently needed in the following areas.

#### 4. *Finances*

Member States must fulfil their obligations to relieve the railways of debt and improve their finances; the Commission will report on progress made. The Member States must also create a sound financial basis, by linking aid to restructuring programmes. The Commission will apply Community rules on State aids so as to progressively move the railways towards viability.

#### 5. *Market forces*

The extension of access rights to infrastructure would allow new railway enterprises to enter the market. Last year the Commission tabled a proposal to allow open access for all freight and for international passenger services. This proposal is a critical element of the strategy for revitalising the railways and it is therefore essential that it should be rapidly adopted. To help ensure that access rights are effective, it will propose the separation of infrastructure management and transport operations into distinct business units. It is now urgent to improve conditions for international freight transport, so the Commission will promote the establishment of trans-European rail freeways, with open access and simplified arrangements. Market forces should also be introduced into domestic passenger transport. This must be done in such a way as to respect network benefits and bolster the provision of public services. Consequently, the Commission will study the best practical ways of introducing market forces and will then make proposals.

6. *Public services*

The Commission is strongly in favour of better public transport. The State has a legitimate right to ensure the provision of public services in transport, which Community law clearly recognises. There is, however, great dissatisfaction with these services. It is necessary to improve quality and value for money, for which a clear definition of responsibilities is essential. The Commission will propose the generalisation of public service contracts between the State and transport operators. As with domestic passenger transport in general, it will first study the practical issues of introducing market forces and will, in due course, make the necessary proposals.

7. *Integration of national systems*

The railways developed on national lines, which resulted in difficulties in operating across frontiers, inadequate planning of infrastructure and fragmentation both of the supply industry and of research. While progress has been made, integration is far from complete. The Commission is proposing measures to promote interoperability for conventional rail, advance technical harmonisation to help create a single market for railway equipment and to strengthen railway research. These measures are also necessary to ensure that rail can contribute fully to a European intermodal transport system.

8. *Social aspects*

Railway staff are naturally concerned that restructuring may cause loss of jobs. This is natural, although a competitive sector is the only way to secure future employment. It has to be pointed out that without restructuring massive job losses would occur, both in the railways and the supply industries. Personnel policies including substantial programmes to retrain redundant workers are required. These are primarily the responsibility of the Member States but contributions from the European Social Fund should be carefully considered.

## SECTION I - A NEW KIND OF RAILWAY IS NEEDED

1. The European Commission believes that railways should play a much greater role in tackling the transport challenges facing the Community, as we move towards the new century. Urgent action is required to revitalise the sector, so that it performs better and more fully satisfies the demands of our society. For this, Europe needs a new kind of railway.
2. Everyone is aware of increasing congestion, environmental problems, traffic noise, and the growing opposition to the unchecked development of new road infrastructure. At the same time both citizens and industry need reliable, safe, cheap and fast transport. This is the major transport challenge facing us at the end of the twentieth century. The social impact of transport, both of goods or passengers, can be significantly reduced if greater use is made of rail rather than road. It is paradoxical that, when many of the problems that rail could help solve are increasing, its share of transport markets continues to decline.
3. It is against this widely recognised background, that the Community has developed the railway element of its overall transport policy. The Community's needs can be expressed in numerous ways : for instance the railways should be more efficient, customer oriented, and attractive to users, but less expensive and requiring less subsidy. The goal should be to make rail as attractive to use as other means of transport.
4. The Commission believes that the further introduction of market forces is the most effective means of creating a railway that can compete with other modes of transport. This must be done in a manner, however, that bolsters the railways' essential role in providing public services, to ensure adequate mobility for society in general. It will require efforts from all stakeholders and implies that the Community and the Member States provide the required framework, while the railways themselves radically improve services and raise efficiency.
5. At the moment many railways are largely insulated from market forces. If people do not use them, the trains are less full and the State makes up the losses. In future the railways must behave much more like normal businesses, that endeavour to satisfy their customer's requirements in the knowledge that, if they fail to do so, some one else will and they will lose the business. This is the fundamental change to be achieved, and the consequences for transport could be immense.
6. If all the relevant interests can act together to create the right climate, the railways will be in a position to respond to opportunities and improve performance in numerous ways. What is required is a framework that fosters initiatives and allows creative responses to business opportunities. The method will vary and is for individual managements to decide, but the result will be more efficient and productive railways. Some railways may focus entirely on their core business of operating trains; others may choose to enter into partnerships, for example with road hauliers or logistics companies and offer door-to-door intermodal services. Some may operate across Europe providing seamless services, while others may concentrate on local services. However if they are to survive, all railways must focus on what their customers want and on how they can satisfy these needs. An example of this development is the introduction of efficient and regular shuttle services on cross-border routes, which has generally resulted in shifting significant quantities of goods from road to rail.

7. A number of factors point towards significant opportunities opening for rail. Further enlargement of the Community toward East and Central Europe will provide considerable opportunities to expand the role of rail. In the late 1990's, many of these countries still have more extensive rail networks offering opportunities for freight delivery and collection. This and the consolidation of the single market may lead to the lengthening of journey distances so increasing the attractiveness of rail.
8. One of the major challenges facing the Community and its neighbours is the issue of trans-Alpine traffic. The expansion of the Community has had a major impact on traffic flows through this natural barrier between Northern and Southern Europe. There are a limited number of routes through the Alps and the growth in trade is putting these under increasing pressure. The Alpine environment is particularly sensitive to the effects of pollution; a comprehensive strategy to alleviate the problems of the region would probably give rail a greater role in carrying transit traffic.
9. In short, rail has characteristics which could make it an increasingly attractive form of transport in Europe. In recent decades it has declined in importance and has failed to adapt sufficiently to changing markets. Many possibilities already exist for improving and developing services, and new areas of opportunity may open up. To meet these challenges, the Community needs a new kind of railway. The Commission's purpose in putting forward the proposals contained in this White Paper is to create the conditions at Community level for the major adaptations needed.

## SECTION II - WHY RAIL IS IN TROUBLE

### Decline of rail

10. Rail transport began in the first half of the nineteenth century and rose to be the primary means of transport by the beginning of this century. Then the advent of motor vehicles powered by internal combustion engines began to eat into that dominance. Since the end of the Second World War, the role played by rail in the transport market has been in constant decline and now, in the closing years of the twentieth century, rail's share of the passenger market is no more than 6% and that of the freight market 16%.
11. Between 1970 and 1994 passenger transport by rail grew by 25% from 216 to around 270 billion passenger/kilometres a year. However the overall market doubled in the same time, and the use of private cars more than doubled, rising by 120%. Over the same period freight traffic lost half its market share decreasing from 283 to 220 billion tonne kilometres while the freight market expanded by nearly 70%, and road freight increased by almost 150%. Of course global figures only tell half the story because rail is a major force in some areas and does not compete in others; moreover, recent trends in the Member States are to a certain degree diverging. Annex 1 gives an overview of developments in rail and its share of the transport market over the past decades.
12. Where do these general developments lead? If recent trends are extrapolated for the next ten years, the railways' share of the passenger market would fall from 6 to 4%, although the absolute quantity of traffic might rise slightly. The railways' share of the freight market would drop from 16 to 9%, with volumes remaining approximately static. Moreover, decline in market share needs to be seen in the light of a predicted expansion in passenger transport of 40% and freight traffic by 30% over the same period. Indeed, a greater drop cannot be excluded, as diminishing flows could trigger a vicious circle. This means that there is a real possibility that rail could disappear altogether from large segments of the freight market.
13. Although only illustrations, these trends are alarming. They suggest serious increases in congestion, pollution and possibly accidents; they also suggest that increasingly the roads will carry traffic, including highly dangerous goods, which would be better kept well away from people. This is not to say that rail can solve all our transport problems. The railways cannot compete in some transport markets and, of course, railway infrastructure has limited capacity. Nevertheless rail transport can make a real contribution to sustainable mobility, which will be lost if present trends continue.
14. Rail transport risks entering a vicious circle, if it has not done so already. Contractions in service lead to reductions in traffic flows, both directly and indirectly, because of the loss of network benefits; for example, cutbacks in regional services can reduce traffic flows on the main links. This in turn pushes up costs for the remaining traffic; in rail transport this effect will be strong because the sector is capital intensive and has a high level of fixed costs. The result will be a continuing spiral of price increases and of diminishing traffic or of losses met by subsidy or debt. The pressures on government budgets will increasingly limit the scope for subsidy. Already many States are less willing to fund the losses of their railways than before.

15. The result would be severe cuts in service and the closure of much of the network, with catastrophic effects both on the rail sector and on its suppliers. Railway enterprises employ directly some 1.05 million people (1994) throughout the Community and the shut-down of large parts of the network would cause many to lose their jobs. The effects on the supply industry would be similar as they would lose large markets.

### **Causes of decline**

16. There are many reasons for the decline of the railway sector over the last half century. Perhaps the most important was the rise of other modes that offered more flexible and less expensive transport : buses, lorries and the private car. Citizens and businesses increasingly turned to road transport, which led to the construction of road networks to meet this demand. At the same time traditional, heavy industries whose products were transported by rail declined in importance. The railways did not find new freight markets to compensate for this loss, offering services often considered inflexible, unreliable and expensive, even in the sectors where they could be competitive.
17. As road transport has become more efficient and cheaper, the fact that the price of transport often does not reflect all costs sufficiently has become increasingly important. The prices paid by individual users do not sufficiently reflect external costs such as those of congestion, pollution and accidents. These costs are often higher for road transport than for other modes, so that the conditions of competition favour road and work against more environmentally friendly modes. This issue was discussed in more detail in the Commission's Green Paper "Towards fair and efficient pricing in transport"<sup>1</sup>. While this is an important issue, it is an illusion that charging for the external costs of transport would in itself be sufficient to lead to a resurgence of interest in rail. Cost is certainly one consideration when making a transport choice, but there are many others such as speed, reliability and flexibility of service.
18. The railways have even lost out in one market where they should be in a powerful position, long distance freight. One reason, among others, is that they are organised along national lines. In fact, there is no internal market in rail services at the Community level. Article 10 of Directive 91/440/EEC<sup>2</sup> granting access to the infrastructure everywhere in the Union currently only applies to international groupings and companies providing combined transport services. Moreover, there is a whole series of regulatory and administrative obstacles. This situation prevents competition from new operators and frustrates the organisation of seamless international services. Reliability, flexibility and speed disappoint customers - on major shuttle services inland from ports, average speeds are often not above 20 kilometres an hour. The comparison with international road freight is stark, where consignments travel in a vehicle which readily crosses frontiers and are frequently in one person's care from collection to delivery, resulting in clear responsibility and good quality of service.

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<sup>1</sup> "Towards fair and efficient pricing in transport". COM(95)691, 20.12.95.

<sup>2</sup> Council Directive of 29th July 1991 on the development of the Community's railways. (91/440/EEC) O.J. No. L 237, 24.8.91.

19. Management of the railways must bear a large degree of responsibility for the decline which has taken place. However, relations between the State and the railways have been a prime cause of the disappointments of rail transport. States have usually denied railway enterprises the freedom of a commercial business. As well as political interference for immediate ends, the authorities have tended to require the maintenance of very uneconomic services. Railway investment has often been inadequate or misdirected, and so a consequent burden on finances. Governments have compensated with large subsidies that met losses without being directed to a particular objective such as the improvement of efficiency. In addition financial objectives were often confused.
20. Another reason for decline was the inadequate adaptation of the rail network to new patterns of economic activity and urbanisation and the consequent changes in traffic flows. While the capacity and quality of infrastructure did not properly meet new needs, little used infrastructure was kept open and became a burden on finances. Although major investments have been made in recent years and others are planned, there was little attempt to improve railway infrastructure as the motorway networks were built; this helped worsen the imbalance between modes.

### **A new kind of railway**

21. To overcome these weakness and to exploit future opportunities, the Community needs a new kind of railway. It should be first and foremost a business. It should have the independence and resources to compete. It should be free of the burdens of the past. Market forces should be further introduced in an appropriate way. The division of responsibilities between the State and the railways should be clarified, particularly for public services. National railway systems should be brought together. It is clear that this requires major efforts from all stakeholders : management, workers, Member States and the supply industry. As part of this partnership for change, the Community should provide a modernised regulatory framework, as well as measures for integrating national systems at European level. Consequently, the Community itself should act in five main areas : finances, introduction of market forces, public services, the integration of national systems and social policy, its ideas and proposals are set out in the next five sections.

## SECTION III - FINANCES

### Long standing problems

22. Sound finances are essential if railway enterprises are to be transformed; they are a condition of independent and dynamic management, as Directive 91/440/EEC on the development of the Community's railways clearly recognises. The traditional financial organisation of the railways, however, would have hastened their decline, even if everything else had worked in their favour. State support met deficits but was not focused on clear objectives. Financial objectives were obscure and incentives to management lacking; commercial pressures did not work to check deficits and borrowing as they should do. Allocation of costs and revenue was inadequate; it was often hard to tell whether a service made or lost money. Investment, although on a large scale, often did not meet business needs and was a drain on finances. Borrowing was usually limited by ceilings on borrowing by the public sector but, paradoxically, was often less constrained by the credit-worthiness of the borrower.
23. At the same time, the State imposed obligations, directly or indirectly without necessarily defining them clearly or compensating the railways fully and directly. Most obligations concerned transport in the public interest; some served wider aims, such as employment, social welfare and regional development. Railways were also expected to buy equipment from national suppliers not on the wider market, which raised costs considerably. Progress, however, has been made in clarifying the financial responsibilities of the State and of the railways. The Community has built up a body of legislation concerning railway finances<sup>3</sup>, and some Member States have done much to clarify and improve railway finances. Nevertheless, the financial organisation of much rail transport remains very confused and is a serious obstacle to the improvement of services and efficiency.

### Recent trends

24. It is interesting to look at some recent trends, although general indicators hide wide differences of performance. To begin with revenue, both passenger and freight receipts have declined steadily over a long period. While this follows the fall in freight and the stagnation of passenger traffic, it is also caused by a dramatic decline in yields, that is revenue per passenger or tonne kilometre. Receipts from the farebox presently amount to around 65% of total operating revenue. As might be expected, operating subsidies increased, although they seem to have fallen in the last few years.

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<sup>3</sup> Council Directive 91/440/EEC op.cit.

Council Regulation (EEC) n° 1191/69 of 26th June 1969 (OJ L156, 28.06.1969) as amended by Council Regulation (EEC) n° 1893/91 of 20 June 1991 (OJ L169, 29.06.1991) on action by Member States concerning the obligations inherent in the concept of a public service in transport by rail, road and inland waterway.

Regulation (EEC) No. 1192/69 of the Council of 26th June 1969 on common rules for the normalisation of the accounts of railway undertakings. O.J. L156, 28.6.69.

Regulation (EEC) No. 1107/70 of the Council of 4th June 1970 on the granting of aids for transport by rail, road and inland waterway. O.J. L130, 15.6.70.

25. Staff costs declined as a proportion of operating costs in the 1980's, but have increased since 1990 and currently represent around 63% of total operating costs. While there has been a considerable reduction in staff numbers this has been offset by increasing costs per employee. Another trend is the growing capital intensity of the railways. In the mid 1980's two units of capital generated one unit output; in 1994 more than three units were required. The capital base of the railways was expanded to finance this. Railway debts have increased significantly in the 1990's although they have fallen as a proportion of total capital, because governments injected capital. In parallel with the general rise in debt, interest charges rose as a share of operating revenue to around 15%, contributing to losses.

### **Basic principles**

26. For the railways to flourish, clear financial objectives and a proper division of responsibilities between the State and the railways are essential; and for successful restructuring, the burden of past debt must be lifted. The railways must have a financial structure that allows effective, independent management as in other sectors, but must also take much greater responsibility for their financial situation. Railway finances should be organised according to these basic principles :

- Member States should relieve railways of the burdens of the past;
- the railways should be run on a commercial basis;
- Member States should pay full compensation for public services and exceptional social costs.

With the exception of this compensation and support for specific infrastructure investment (see § 31), the railways should finance their operations without transfers from the State.

27. These principles flow from Community rules on railway financing (see § 23). If fully applied and tightened where necessary, they would provide a sound framework for restoring the financial health of the railways. However the main actors are the State and the railways. States have to face up to their responsibilities in relieving past debts, creating a sound structure for the future and compensating for the services they obtain from the railways. The railways themselves must reduce costs radically and improve their financial management, for instance, through precise allocation of costs and revenues.

### **Specific policies**

28. The railways cannot face the challenges of the future, encumbered by past debt. Regulation 1107/70 allows Member States to give financial assistance for various purposes, including the repayment of loans without prior notification. From 1st January 1993 when Directive 91/440/EEC came into force, Articles 77, 92 and 93 apply. Indeed, this Directive imposes an obligation on Member States to help reduce debt to a level that does not impede sound financial management and to improve railway finances.

However, it seems that this obligation has not been put into practice equally across the Community. Beginning in 1997, the Commission intends to report at regular intervals on the progress made by the Member States in reducing debt and in improving railway finances. Here, the Commission will take account of the fact that certain Member States which aim to meet the convergence criteria for Economic and Monetary Union may wish to modulate the reduction of debt over time.

29. The Member States are also obliged to help reduce recent debt, that accumulated since 1993. However, State aid for this purpose and to meet operating losses is subject to the State Aid Rules of the Treaty, as Directive 91/440/EEC clearly states : Member States have to notify aid to the Commission and obtain authorization. Community rules on State aid do not allow them to relieve or guarantee such debts, inject capital or meet operating deficits indefinitely and without conditions. This would not be the way to progress towards sound finances and greater competitiveness. The Commission will only authorise such State aid if it is in accordance with the Treaty, in particular Article 92. In practice a necessary, but not necessarily a sufficient, condition of authorisation would be a restructuring programme, in accordance with the Community guidelines<sup>4</sup>. Its aim would be a progressive move towards viability within a reasonable period; it would set clear objectives and contain concrete measures to raise revenue and to reduce costs. Moreover, the Commission will develop more specific rules and guidelines, if appropriate.
30. The application of the State aid rules would under certain conditions not affect compensation that Member States pay for the provision of public services (see section V). If these public services are provided on the basis of contracts following a transparent and non-discriminatory allocation procedure, the corresponding compensation is not State Aid but payment for a transport service. In any case compensation which do not fulfil these requirements are, for the time being, exempt (on the basis of Regulation 1192/69 on the normalisation of the accounts of railway undertakings) from any notification pursuant to the State Aid rules. Moreover, compensation must also be paid for exceptional social costs only borne by railway undertakings, such as early retirement and specific welfare allowances. These costs have declined since this Regulation was introduced in 1969. The Commission will assess its implementation and its relevance to present circumstances.
31. General responsibility for promoting the development of railway infrastructure remains with the Member States. For major new projects there is growing interest in involving private capital. But while interested in the possibilities, private developers are often deterred from investing alone, because social and private benefits diverge and returns are low and uncertain. Public/private partnerships are therefore a promising way to finance large infrastructure projects, particularly the priority TENs projects endorsed by the European Council in Essen. It is the Commission's practice to authorise public investment in infrastructure, so long as it is equally accessible under the same non-discriminatory conditions and does not distort competition. In the short term, it is legitimate for States to finance investment in railway infrastructure so as to compensate for unpaid external costs in the road sector or to meet non-transport objectives, such as regional development, as long as these conditions are met.

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<sup>4</sup> Community guidelines on State Aid for rescuing and restructuring firms in difficulty (O.J. C 368, 23.12.1994)

However, it is true that this practice does not necessarily resolve all problems of distortion of competition, notably those arising from different rules being applied in different Member States to the various modes of transport. Moreover, in the long run, the Commission believes that in all modes of transport users should pay the full cost of infrastructure. The Commission will carry out a study on charging for infrastructure costs, in order to define further common principles (see § 51).

### **Summary of proposals**

- 32. The Commission will report at regular intervals on the progress made by the Member States in reducing debt and improving finances, beginning in 1997.**

**In the case of debts accumulated since 1993 and of current losses, the Commission will only authorise State aids, if they are in accordance with the Treaty, (in practice linked to a restructuring programme whose aim is a phased move towards viability); it will develop specific rules and guidelines as required.**

**The Commission will assess the implementation of Community legislation on the normalisation of railway accounts and its relevance to present circumstances.**

**Common pricing principles to be elaborated by the Commission should ensure that no distortions of intermodal competition occur.**

## SECTION IV - INTRODUCING MARKET FORCES INTO RAIL

33. The further introduction of market forces is a key element of the proposed strategy to revitalise rail transport. It would give management and workers incentives to reduce costs, improve service quality and develop new products and markets. At present such incentives are generally limited and acting on them often does not give significant financial benefits to the railways. The best practical way to introduce market forces is likely to differ from one part of the railway system to another, and to evolve over time as the railway market integrates at the European level.

### Access rights in freight and international passenger transport

34. The railway sector badly needs new capital and enterprises to revitalise services. Open access to railway infrastructure would allow the entry of new operators offering new and better services; this competition would stimulate established operators to improve their performance, as has happened when other public enterprises have been exposed to competition. Open access would also allow transport enterprises to develop the services needed in an area without frontiers and to find new markets. At present a rail transport service is generally the sum of national services; rarely does a single operator have responsibility for a whole international service from door to door or terminal to terminal. This segmentation is particularly serious in the case of freight, as the market increasingly demands seamless transport with full logistic support. Other modes can offer it; rail cannot.
35. Open access represents the application of the principle of freedom to provide services to the railway sector, though belatedly compared to other modes of transport. The Commission strongly believes in the implementation of this principle where appropriate, while accepting that it may be achieved by stages and take account of the particularities of a sector. In the case of the railways, the Community took a first step with Directive 91/440/EEC, on the development of the Community's railways. This created the right of access for groupings of railway enterprises to operate international services between the Member States where the constituent enterprises are established and the right of enterprises offering international combined transport to operate throughout the Community. Moreover, Directive 91/440 has still not been fully implemented in a number of Member States (see Annex 2) and the Commission has consequently initiated infringement proceedings against six Member States.
36. However, the effectiveness of the access rights created by Directive 91/440 has been limited by the fact that the complementary Directives of 1995<sup>5</sup> clarifying conditions of access (licensing, capacity allocation and charging) will only have to be transposed as from June 1997, and also by the condition of belonging to an international group, except if providing combined transport. This means that, in the case of freight, an individual railway enterprise would not be able to develop a complete transport chain integrating international and domestic legs.

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<sup>5</sup> Council Directive 95/18/EC of 19th June 1995 on the licensing of railway undertakings. O.J. No. L 143, 27.6.95.

Council Directive 95/19/EC of 19th June 1995 on the allocation of railway infrastructure capacity and the charging of infrastructure fees. O.J. No. L143, 27.6.95.

Since 1991, moreover, the railways have continued to lose market share, so the urgency of revitalisation remains as great as ever. Consequently, in July 1995 the Commission proposed the extension of access rights to all freight services, domestic and international, and for international passenger services, without the condition of forming a group<sup>6</sup>. These services can usually be operated on a commercial basis, so open access should attract new capital and enterprises. The Commission will press for the rapid adoption of its proposal<sup>7</sup>.

### **Rail Freight Freeways**

37. The Commission is committed to rapidly achieving completely open access for freight services. This will provide Community enterprises with the freedom to identify and exploit business opportunities, essential to halting the decline of rail's market share for freight. However, until that stage is reached, interim measures are needed to allow the potential of rail freight to be tapped. The existence of national railway companies, with different organisation and procedures, has hampered the development of this traffic. An advisory group of railway operators, transport companies and unions recommended to the Commission that it promote the creation of a number of trans-European rail freeways for freight<sup>8</sup>. The idea is that the Commission would encourage Member States to select a number of promising routes, after consulting infrastructure managers, railway enterprises and freight shippers. The infrastructure managers located along a given route would, together and at the same time, open access to the infrastructure for all freight services. They would jointly raise the priority given to the freight in the allocation of train paths and ensure that infrastructure charges were fair and attractive to freight operators. They would also reduce the minimum delay at frontiers caused by administrative procedures.
38. One-stop-shops would be created to handle demands for train paths as quickly as possible. Infrastructure managers would jointly market access to their infrastructure, with a common set of charges and conditions which must of course comply with Community law. They would work together to improve the flow of freight traffic and, in cooperation with railway enterprises, cut down the length of stops at frontiers to complete the railways' own procedures. It should be noted that as the freight freeways are meant to be set up quickly, as an interim measure, their creation would not prejudice long term decisions about infrastructure investment or technical specifications.

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<sup>6</sup> Communication from the Commission on the development of the Community's railways. COM(95)337 final of 19.7.95.

<sup>7</sup> In this context it should be recalled that the introduction of more competition should be seen in the intermodal context. As explained in some detail in this paper railways may need some support to restructure and to become commercially viable, and they may not be, for some time, able to cover all infrastructure costs if they are to compete with other transport modes. However that does not mean that rail transport should be protected from intermodal competition. That is why the Commission in its recent proposal to modify Council Regulation No. 684/92 on the international carriage of passengers by coach and bus, suggested to delete a safeguard, according to which Member States could forbid an international bus service if it could seriously affect a directly comparable rail service. This safeguard has, by the way, as far as the Commission is aware of, never been used in the past.

<sup>8</sup> The future of rail transport in Europe. Report of advisory group to Neil Kinnock, European Commissioner for transport. 19.6.96.

39. The creation of these freeways would have a wide range of benefits. Infrastructure managers would gain experience of collaboration which could lead to new thinking about infrastructure and its potential to provide different types of service, including the transport of dangerous goods. Open access should attract new operators and the single point of contact would vastly simplify obtaining train paths. The overall result will be an expansion of the total value of rail freight business with benefits for all operators. If Member States wish to arrest the decline of rail freight, they should rapidly act themselves and induce infrastructure managers to intensify their collaboration. There are of course practical difficulties to be overcome, but if tackled in a spirit of co-operation they should be soluble.
40. The Commission is keen to promote the early development of these freight freeways. It will circulate a detailed paper in the autumn of 1996 and will hold a conference in the near future, to which infrastructure managers and existing and potential rail operators would be invited, to discuss the establishment of such corridors. An illustrative map of the network of routes which could evolve is shown at fig 1 in the annex.

#### **Domestic passenger transport and exclusive rights**

41. The improvement of services is as important in domestic passenger transport, as in other segments of the market. Much of the public is dissatisfied with the service it receives. Punctuality and reliability are often found inadequate and standards of comfort poor; the image citizens have of rail transport, as of public transport as a whole, is often of something to be supported. This dissatisfaction is one reason why people use private cars even in congested cities. The relatively poor performance of railway enterprises is one cause of this dissatisfaction; public policy is another. States often fail to define clear priorities and leave the provision of these services to long established monopolies often without sufficiently clear objectives and nearly always without the stimulus of market forces.
42. The introduction of market forces could improve domestic passenger transport, just as it could international passenger or freight services. The question is the best way of achieving the aim. For some services, like those over longer distances, open access may be the best solution. It has the advantage of offering most scope to new operators, and of allowing full freedom to provide services in the spirit of the Treaty. However, it may not be an attractive solution for services operated on dense and highly used networks, like the urban and regional. Here the same infrastructure may be used for numerous services, raising complex issues of how to allocate train paths and share costs between different operators. Coordination is needed to optimise timetables and to maintain network benefits, like common information and ticketing systems. Much domestic transport, whether or not it is commercially viable, is treated as a public service. Better public services can be provided at lower cost by an exclusive concession that reduces risk and uncertainty for an operator (see Section V, § 58).
43. For such services, where open access is not desirable or feasible a more promising approach would be to maintain exclusive concessions. Market forces could be introduced by awarding them through a Community-wide tendering process; the tender would clearly specify the type of service required and the limits to the concessions.

Their exclusivity must not go beyond what is necessary to ensure the provision of the service, and so must be limited in time and space. These conditions have to be defined carefully and adapted to the specific characteristics of the railway sector.

44. The implementation of open tendering also raises many practical issues, for instance, the provision and ownership of rolling stock, the extent of cross subsidies, the maintenance of network benefits, access to facilities like maintenance and cleaning. Other questions include the exact definition of the activities to be tendered, the maintaining of adequate levels of investment and the introduction of effective incentives and penalties related to performance. The phasing of the different changes required is also an important issue. The Commission intends thoroughly to study the best practical ways of introducing market forces and will then make proposals.

### **Conditions of access**

45. Establishing rights of access is the first step; the second is to create the conditions that make them effective. As mentioned in § 36, the Community began this with the adoption last year of two Directives on licensing, capacity allocation and charging. They were intended to clarify how the access rights created by Directive 91/440/EC should be implemented, but not to settle all regulatory questions.
46. Major issues indeed remain to be tackled. The regulation of railway transport is particularly complex, covering licences, infrastructure charges, allocation of train paths, safety certificates for specific services, interoperability, technical standards, conformity assessment, working conditions and so on. It also depends on a number of actors : the Community, governments, public agencies, international bodies and, given a tradition of self regulation, the railway companies themselves. Certain issues particularly concern the Community, for instance infrastructure charges, allocation criteria for train paths and the independence of the allocation process, as well as the more technical questions discussed in Section VI).
47. Another question is that of the consistency of agreements between railway undertakings with Community law. They may wish, for instance, to form groupings to exploit the access rights created by Directive 91/440 (see § 35) or to cooperate in international combined transport. So far as the latter is concerned, the Commission has given an exemption under competition rules to cooperation agreements between railways (case IV-35 III, decision of 24.7.95, concerning two fiches of the Union Internationale des Chemins de Fer); It will report on the implementation of the decision by the end of 1997. The Commission will now examine whether clarification is needed of the scope for, and conditions of, exemptions for cooperation agreements between railways, for example in the area of wagon pools, and will take any measures needed.

### **Infrastructure costs and capacity : charges and allocation**

48. Infrastructure costs are a major element of total railway costs. The railway advisory group to Commissioner Kinnock considered that infrastructure costs were too high and that this was one of the factors which had contributed to rail's decline. Infrastructure owners are in a monopoly position vis-a-vis train operators and therefore mechanisms are needed to ensure that they have adequate incentives to improve efficiency and reduce costs.

This will become increasingly important as the railways move toward greater separation of infrastructure management and transport operations. The group also noted that the organisation of the body owning the infrastructure has implications for its ability to reduce costs.

49. Clear principles for infrastructure charges are necessary, if the new railway system is to work. With the separation of infrastructure management from transport operations, transactions between the two sides of the railway system have to be explicit and transparent. Different systems have already emerged in the Community. For instance, the Federal Republic of Germany and the United Kingdom intend completely to recover costs, while the Netherlands and Spain allow the use of infrastructure free of charge, at any rate for a transitional period. The immediate question is whether these divergences will make the entry of new operators more difficult and make some corridors more expensive to use than others, even if costs are similar. The latter situation could be problematic from a transport and internal market point of view. The Commission will evaluate whether further harmonised rules need to be introduced at an EU level. Where the infrastructure owner does not charge for access but the State reimburses the costs, the actual cost of providing rail services will be less clear and pressure to reduce infrastructure costs will be correspondingly reduced.
50. However, charging for transport infrastructure is also a major issue in the common transport policy as a whole. The central theme of the Commission's Green Paper "Towards Fair and Efficient Pricing in Transport" is that, as far as possible, charges should reflect both direct and external marginal costs, should recover all these costs and should be linked to the costs caused by users. This is the long term objective towards which policy should be directed. In the short term, it is legitimate for States to finance investment in railway infrastructure so as to compensate for unpaid external costs in the road sector or to meet non-transport objectives, such as regional development, so long as this financing does not create unacceptable distortions of competition. The competition problems that could arise, both within and across modes, are an important reason for the Commission to carry out a study on charging, in order to define further common principles.
51. This study on an overall approach to infrastructure charging, would have to reconcile some conflicting aims. For example charges need to take account of the unpaid costs of road transport, but be high enough to give incentives to reduce infrastructure costs. A choice has to be made between channelling public support directly to the operators of public services or using it to reduce infrastructure costs. And fixed prices possibly covering marginal costs have to be reconciled with negotiated charges reflecting scarce capacity and congestion.
52. Even with sophisticated charging systems, the administrative allocation of capacity would naturally continue. This is because immensely complex timetables worked out by the railways need stability and certainty to work. Both operators and infrastructure managers require continuity to commit large resources; this will still be so even with a wider introduction of market forces. While accepting this need for administrative allocation, the Commission has two concerns. First, timetabling must be sufficiently open and flexible to allow new entrants to obtain train paths. It welcomes the railways' own initiative to modernise the timetabling process. Second, principles for allocation and for charging should be consistent : for instance charges should be higher for services given priority on congested lines.

Further criteria for allocation should therefore be developed as well as principles for charges. When the Commission has completed the necessary preparatory studies, it will propose further principles both for infrastructure charges and for allocating capacity.

### **Independence of allocation process**

53. If all transport operators are to enjoy access to infrastructure on fair terms, sole and final responsibility for allocating paths cannot be left to a body that operates transport services itself. The conflict of interest is obvious; an undertaking cannot at the same time be both a competitor and the judge determining access to any relevant market. Articles 86 and 90(1) of the Treaty would prevent a railway enterprise in a dominant position from determining what other parties are its competitors. While the railways should continue themselves to work out timetables, an immensely complicated task involving thousands of train paths, an independent body should supervise the process and have the final say in the case of disagreement. The Commission will ensure that Community principles are respected, when it comes to the transposal of Directive 95/19/EC on the allocation of infrastructure capacity and the charging of infrastructure fees. It will also evaluate whether the provisions laid down in this Directive are sufficient to guarantee independence and will make proposals to strengthen the allocation process, where appropriate. The existence of an independent appeal mechanism or the absence of apparent discriminatory behaviour are not sufficient to rule out an infringement of Articles 86 and 90(1) of the Treaty.
54. Even with independent regulatory bodies, however, new operators may still face practical difficulties in obtaining access to infrastructure managed by an integrated railway. In fact an integrated railway is not in the business of marketing infrastructure services and may not be organised to do so effectively; its prime aim is to produce and sell its own services. The Commission therefore believes that a modification of Directive 91/440/EC to require the creation of two distinct business units with separate management and balance sheets is required, when Member States maintain integrated railway companies.
55. In order to resolve the problems of allocating infrastructure and of generally integrating national railway systems several options need to be examined. One could be the creation of a European Railway Agency, as proposed by the advisory group to the Commissioner for transport (see § 38). This would address directly the difficulties caused by the existence of national bodies, some of whose functions have an essential European dimension. These include the supervision of allocation of infrastructure capacity, another technical harmonisation and safety rules to advance interoperability and the creation of a single market for railway equipment (see Section VI). A European Railway Agency could make a valuable contribution. While clearly a major undertaking, the Commission believes that the proposal merits careful study, in particular regarding its technical and institutional aspects.

## Summary of proposals

- 56. The Commission maintains its proposal of July 1995 to modify Directive 91/440/EEC so as to extend access rights to railway infrastructure for all freight and for international passenger services. It will press for its adoption as soon as possible.**

**In the case of domestic passenger transport, the Commission will study the best practical ways of introducing market forces and will then make proposals.**

**The Commission will propose modification of Community legislation to require the separation of infrastructure management and transport operations into distinct business units, with separate management and balance sheets.**

**The Commission will promote the rapid creation of a number of trans-European rail freeways for freight. It will publish a detailed paper in the autumn and organise a conference in the near future.**

**The Commission will study further principles for infrastructure charging and capacity allocation, and will in due course make proposals.**

**The Commission will study various options for the improvement of the institutional framework for future railway development (including the setting up of a European Railway Agency).**

**The Commission will examine whether clarification is needed of the scope for, and conditions of, exemptions for cooperation agreements between railways and will take any measures needed.**

## SECTION V - PUBLIC SERVICE IN RAIL TRANSPORT

### Importance of public service in transport to the Community

57. Services in the general interest are a key element in the European economic and social model; in the case of transport this is reflected in Article 77 of the Treaty which refers to certain obligations inherent in the concept of a public service. Objectives are to offer citizens mobility with continuity and quality of services, and contribute to sustainable development, social cohesion and regional balance. In all Member States, authorities intervene at a certain point in the market, for example to introduce regulated tariffs or to ensure regular railway services with sufficient coverage of the national territory. These are services which are not provided, or not to the same extent, by a transport undertaking when it only considers its own commercial interests.
58. The Commission consistently attaches the greatest importance to the provision of public services in railway passenger transport, in the interest of users and to meet the wider aims of the community as a whole. This approach was once more underlined in the Green Paper on the Citizens' Network<sup>9</sup>. In supporting public services in the railways, however, there is a great need to obtain better value for public money and more efficient services. The policy envisaged by the Commission aims at the improvement of transparency in financial relations between the State and transport undertakings, as well as the introduction of an element of market forces, to stimulate the modernisation of public services.
59. In this context, it is sometimes thought that public service and efficiency are contradictory, although they are rather complementary : improved efficiency will benefit the quality and quantity of public services, and public services improve the efficiency of the market. Indeed, the introduction of public services allows for correction of the market's failure to take account of social values, so that a transport undertaking takes on activities of general interest which it would not assume if considering only its own commercial interests.
60. Historical, legal and cultural disparities exist between Member States concerning the concept and organisation of public services in rail transport. A proposal to improve the efficiency of public services must naturally respect the principle of subsidiarity. It must allow each Member State authority to decide on the organisation, level and definition of a public service as long as Community principles are respected. Moreover, the Treaty does not prejudice national rules on property ownership and allows the provision of public services by either public or private undertakings, even in a competitive environment.

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<sup>9</sup> The Citizen's Network. COM(95) 601 final of 29.11.95.

## Improvements to the Community framework

61. Community regulations on "action by Member States concerning the obligations inherent in the concept of a public service in transport by rail, road and inland waterway"<sup>10</sup> already exist. In these, the general rule is that Member States have the right to obtain rail transport services in the public interest, as long as they compensate transport operators for the financial burden involved. However, urban, suburban and regional services can be excluded and the regulations continue to allow the imposing of public service obligations. This means that a railway is compelled to provide a service that in practice may not be transparently defined nor fairly remunerated; it lacks a clearly defined working environment, which confuses objectives and undermines managerial initiatives. Moreover, contract or not, there is no obligation to open tenders, so operators do not face competition and Member States are not sure of paying the minimum price set by the market.
62. The Commission considers that the current organisation is not transparent nor efficient enough to achieve the objective of a high quality, efficient, public service. It envisages two major improvements. The first would involve moving from a mixed system of obligations imposed by the State and of public service contracts, to the application of contracts negotiated between the State and the railway operator to all types of public service, including the urban, suburban and regional. They would clearly specify both the service to be provided and the compensation to be paid. The financial contribution from the public authority, would be explicit and transparent compensation for the burden of providing non-commercial services. The payment would be agreed by the Member State and the railway undertaking for a certain period of time when signing the contract. In this way, responsibility for costs and losses would be transferred to the railway, stimulating it to improve efficiency. Each Member State would have responsibility for defining public services, in particular in terms of quality, continuity, regularity, capacity, accessibility and tariffs applied.
63. Second, market forces should be introduced into the operation of services. This is one of the key issues that the Commission will address in its study on introducing market forces to domestic passenger transport and in its subsequent proposals on the subject. (see § 42 to 45 above).

### Summary of Proposals

- 64. The Commission will make proposals to generalise the use of public service contracts agreed by the State and the transport operator, as opposed to the imposition of obligations on transport operators.**

**As with domestic passenger transport in general, the Commission will study the best practical ways of introducing market forces into public services and will then make proposals.**

<sup>10</sup> Council Regulation (EEC) n° 1191/69 as amended by Council Regulation (EEC) n° 1893/91 op.cit.

## SECTION VI - INTEGRATION OF NATIONAL SYSTEMS

65. The railways developed over a long period of time to meet national needs. They were, and usually are, operated by national companies whose prime concern is the domestic market. Operating rules and technical standards are largely defined at national level, so that procedures diverge and a huge, diverse stock of infrastructure and rolling stock exists. This has caused a fragmentation of both the railway system and the supply industry, a fragmentation that still exists. It is one reason for the failure of the railways to raise their performance as rival modes have in recent decades. Differences in technical standards and operating rules have complicated interoperability and helped split the supply industry into a set of national companies serving national markets; research has also suffered from fragmentation for much the same reason. This is not to say that the Community is at square one in integrating railway systems; progress has been made in some areas, while major problems remain in others.

### Single market for railway equipment

66. Just as the railways developed on a national basis so did their supply industries. Historically many railway companies built their own rolling stock, though there were also private builders. The change to diesel and electric locomotives encouraged greater use of the latter; as a matter of convenience and national policy, equipment was usually purchased from manufacturers in the same country. However the railways often continued to design equipment, having considerable expertise, large design departments and a strong engineering culture; they also closely defined the specifications for manufacturers to follow. Only in recent years has there been a move to performance specifications with the transfer of confidence and of expertise that this implies. Also the railway supply industry has been consolidating across national borders, leading to the emergence of some large European companies less identified with particular national railways. However there is still segmentation into national markets served by local suppliers, which has frustrated competition and raised costs.
67. Under the single market programme, the Community in 1993 adopted a Directive on public procurement in the water, energy, transport and telecommunications sectors<sup>11</sup>. This legislation both laid down the principle of non-discrimination between suppliers and set procedures for open tenders. Nevertheless, procurement by railway enterprises remains very much on national lines. The Commission therefore intends to follow closely the impact of the Directive and to continue the definition of European specifications, to serve as references in contract documents. Competition rules are also relevant here. In markets where railway undertakings occupy a dominant position as purchasers of goods or services, Article 86 forbids them to practise any discrimination between suppliers in the various Member States.

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<sup>11</sup> Council Directive 93/38/EEC of 14th June 1993 coordinating the procurement procedures of entities operating in the water, energy, transport and telecommunications sector. O.J. L199 19.8.93.

68. For conventional and light rail, the Commission has, as a first step, mandated the European standardisation bodies to propose standards. These would cover, among other things, rolling stock and infrastructure components, the testing of vehicles, aerodynamics, fire protection, electrical safety and electro-magnetic compatibility. The first standards are expected to be implemented in 1998 as European standards and to serve as references in contract documents for public procurement; the implementation of the other standards would follow over a period of several years.
69. In July 1996, the Commission's proposal for a directive on the interoperability of high speed rail<sup>12</sup> was adopted. This will create a process for setting mandatory technical specifications that both serve as references for public procurement and permit interoperability and contribute to the creation of a single market; it also provides for independent assessment of conformity. Certain of these specifications will be extended to conventional rail as the two systems are not separate and distinct; material developed for one can be used for the other. The Directive represents an important step towards an integrated market.
70. The Commission will now adapt , with the full involvement of the railways and the supply industry, the relevant parts of the process for furthering interoperability in high speed rail to conventional rail. Moreover, the Commission will continue to examine the technical measures necessary to improve accessibility for disabled and elderly people, technical harmonisation in this area leading to better quality services for passengers. This harmonisation would cover rolling stock, stations and the interface between the two.
71. Drafting and adopting specifications is one exercise; assessing conformity with them is another. In the past the railways themselves were largely responsible for both setting requirements and certifying conformity, a practice that is no longer acceptable. Following the Directive on the interoperability of high speed rail, Member States will select independent bodies to carry out the procedures for the assessment of conformity and of suitability for use. Such bodies are being established in the Member States and their work could progressively be extended to conventional and light rail.

### **Interoperability**

72. The fragmentation of the railways also means that interoperability did not come automatically. Great efforts were needed to reduce the regulatory, technical and operational differences that could prevent trains circulating freely without stopping at frontiers. Some obstacles remain, as recognised by the Maastricht Treaty which sets the objective of promoting interoperability.

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<sup>12</sup> Council Directive on the interoperability of the European high speed train network.

73. This is not to deny that some progress has already been made. Railways have certain agreements on technical harmonisation to facilitate international services. Thanks to these, passenger carriages and freight wagons can move between the countries of Europe; the need to change from one train to another at frontiers disappeared long ago<sup>13</sup>. The Directive on the interoperability of high speed rail will establish a process for setting technical specifications to allow interoperability on the high speed network. In conventional rail, the major differences that remain are between electrical systems, signalling, operational rules, and the qualifications, linguistic included, of train crews. The result is that railways regularly change locomotives and crews at frontiers. There are also differences in structure and loading gauge, that can affect combined transport (see § 81).
74. In assessing the need for greater interoperability in conventional rail, a major question is the value of time saved by not stopping at frontiers. A selective approach is necessary, based on a careful assessment of the routes and services that would gain competitiveness through interoperability. As a first step, the Commission intends to examine the scope for increasing interoperability on major international routes in cost-effective ways, It will also consider the use of TENs funds to support projects involving several railways.
75. Another consideration is that there are different means to interoperability. For instance, there is a choice between changing the power supply to a common voltage and employing multi-current locomotives, which is common practice. Careful assessment is needed of where further technical harmonisation would be justified, as large investments would be involved, particularly for adapting infrastructure. Common specifications are nevertheless essential in some areas, in particular command-control and traffic management systems; here the European Rail Traffic Management System, when operational, should provide the basis for compatible systems in future.
76. Finally, in the case of freight, long delays at frontiers are caused by customs, veterinary and phyto-sanitary controls and by the railways' own procedures for handing over trains, both within the Community and at external frontiers. The railways' procedures involve the transfer and verification of information about wagons and their loads, which could be sped up through integrated information systems. International organisations have done valuable work on administrative problems specific to frontier posts; further work remains to be done on the time taken for the railways' own procedures, based on best practice. The Commission will urgently tackle the question of how best to eliminate these delays, in consultation with the relevant international bodies.

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<sup>13</sup> Because of differences in track gauge, special arrangements are needed at the frontiers between France and Spain, Finland and Sweden, and between Central Europe and the Baltic republics and the CIS countries.

## **Infrastructure**

77. The Community is already working on an ambitious policy to tie national transport infrastructure together into trans-European networks. In 1996 guidelines for the trans-European networks were adopted. For rail, the first priority is to complete the high speed network and in particular realize the priority projects endorsed by the European Council at Essen. The emphasis so far has been on passenger transport and greater attention must now be paid to freight. This traffic has been in continuous decline for decades, and deficiencies in infrastructure have been among the causes. Infrastructure must be good enough to allow radical improvements in quality and the development of new services. The revision of the TENs guidelines which will take place before 1 July 1999 in accordance with Article 21 of the guidelines as adopted by the Council and the EP on 17 July 1996, will be the occasion to reconsider how railway infrastructure can be adapted to meet changing patterns of economic activity and the resulting traffic flows.
78. Concentration of traffic is important because of the high fixed costs of rail transport. This could be encouraged by a better integration of freight transport into land-use planning. For instance more freight villages could be developed and heavy users of transport concentrated near terminals with adequate facilities for changing cargoes between modes; this could especially benefit wagon-load traffic. It is also important to exploit the full scope for intermodal transport. A proper network of terminals is necessary to ensure the interface between modes (for passenger as well as for freight transport). The Commission will examine this in a Communication on promoting intermodality to be published at the end of 1996. A different question is how to ensure that dangerous goods are transported by rail; their carriage by road is growing despite the risk, even over longer distances.
79. Bottlenecks at particular locations are more likely to handicap freight traffic than general shortage of capacity. The Commission will identify bottlenecks and consider how best to eliminate them; according to circumstances the solution could be major infrastructure works, limited improvements, different methods of operation and better train management, including the extension of the European Rail Traffic Management System to conventional lines.
80. Differences in structure gauge limit possibilities for combined transport, in particular the movement of large containers and of full height road vehicles along major routes. When there is an adequate market for such transport, increases in gauge could be considered. While large scale rebuilding of infrastructure is too costly to be feasible, selective improvements in the right places could give disproportionate benefits. They could also allow the better exploitation of the new connections built or planned to a large gauge, such as the Channel and trans-Alpine tunnels and the Store Belt crossing. This is another issue to be considered in the subsequent revision of the TENs guidelines, stipulated in Article 21 of the Decision of the European Parliament and the Council " sur les orientations communautaires pour le développement du Réseau Transeuropéen de Transport", of July 1996.

## Safety

81. The Commissioner's advisory group noted that, in comparison with the road sector, rail was subject to onerous safety obligations. The group considered that, in determining requirements, the cost and benefits were sometimes not adequately considered and that rail safety investment decisions were based on a much higher maximum value of a life saved than for road. The different cost implications for these modes could adversely affect the safety of the transport system as a whole. Differing safety requirements between Member States also hamper rail in competing for international traffic. In view of these factors the group recommended that the Community should work toward development of common safety appraisal techniques and a probability based safety regime. The Commission will study the possibilities for action in this area.

## Noise reduction

82. The public's main criticism of rail transport is excessive noise and there is considerable opposition in many areas to the expansion of infrastructure capacity. Greater efforts are needed to reduce noise if the expansion of rail transport is to be widely accepted. Some Member States are beginning national regulation of noise, but this could hamper the free circulation of trains and set back a single market for railway equipment. It is important, therefore, to develop a Community approach to the reduction of railway noise.
83. Noise abatement has long been an important subject of research, supported by the railway industry and by the Community. In parallel to supporting research efforts, the Commission, in cooperation with the interested parties and international organisations, will assess the policy instruments for reducing noise. Among the possibilities are economic instruments such as variable infrastructure charges differentiated according to the noise level of wagons, legislation on emission limits, negotiated agreements between the railway sector and the Community on targets for noise reduction and measures to ensure good maintenance of equipment already in use. The assessment, to be launched after public discussion on the forthcoming Green Paper on future noise policy, will look at the possibilities of using a mix of these instruments.

## Research

84. A forward looking innovation strategy is crucial for a competitive railway industry. Innovation should bring dramatic improvements in business and operational performance, including cost, service quality and reliability, and flexibility of operation. The Community research programme has a major role to play here. It can provide a framework for the coordination of hitherto separate research activities in the Member States and for the creation of the critical mass needed for major demonstration projects, so reducing the lead-time between research and introduction to Community markets.
85. The Community's Fourth Framework Programme aims at promoting research and development activities in a wide range of areas. A significant number of specific programmes within the Framework Programme address R&D issues of relevance to the railway sector. These include both generic technologies and sector specific technologies. The latter are mainly addressed by both the Telematics Applications and the Transport Research programmes.

The Telematics Applications Programme should lead to a significant deployment of transport telematics that promotes transportation services, including multimodal aspects. The Transport Research Programme aims at integrating socio-economic research and technological activities. These programmes include both field trials and full-scale demonstration projects focused on network interconnection and interoperability, that are designed to establish the feasibility of new technologies and the conditions for their successful deployment.

86. Community research work is already providing a decisive contribution to the implementation of major policy goals. A particular example is the European Rail Traffic Management System (ERTMS). Its purpose is to create a harmonised command control and traffic management system that can be applied throughout Europe. Once introduced it would not only improve safety and interoperability, but also reduce operating costs and improve management of infrastructure and of fleets. Moreover ERTMS is the first step towards the integration of traffic and infrastructure management with customer services. The work should also lead to Community specifications, to be included in the Directive on the interoperability of high speed rail, these would help open up procurement markets and so reduce costs.
87. To get best value from the Community's R&D activities, the Commission instituted in 1995 the concept of Task Forces. One of these addresses the theme : "Trains and Railway Systems of the Future". Its main purpose is to bring together the major players in the railway sector to formulate a technology acquisition strategy. Priorities have been identified in areas such as high speed transport, urban transport, traffic management, freight transport and railway equipment production a major objective being heavily to cut costs. Future activities could include both the completion of the longer term projects already initiated under the Fourth Framework Programme, and the development of an approach that reconciles socio-economic studies on transport policy with technical activities; work should evolve from promoting intermodality and interoperability and accessibility for the disabled, to fully integrating railways in the global transport system. Main target areas for research would include quality of service, enhanced efficiency, safety and human aspects, and environmental sustainability.

## Summary of proposals

**88. The Commission will continue to support standardisation for conventional and light rail. It will study how relevant aspects of the technical harmonisation process for high speed rail might be adapted to conventional rail.**

**The Commission will continue to examine the technical measures necessary to improve accessibility for disabled and elderly people.**

**The Commission will examine the scope for improving interoperability on major international routes in cost-effective ways. It will consider the use of TENs funds to support projects involving several railways.**

**In the case of freight traffic, the Commission will study how to eliminate delays at frontiers caused by administrative controls and the railways' own procedures, in consultation with the relevant international bodies.**

**The Commission will publish a communication on the promotion of intermodality at the end of 1996.**

**In the future, the Commission will assess the improvements to infrastructure needed to develop freight transport and will make any required proposals for the revision of the TENs guidelines.**

**The Commission will assess policy instruments to reduce railway noise, in the context of general Community policy on noise.**

**The Commission will promote synergies between the different Community and national R&D programmes, consultation procedures in which the Task Force will play a major role.**

**For calls for proposals under the Transport Research Programme, the Commission will emphasise socio-economic study proposals to support the transition from national to Europe-wide railway systems.**

**The Commission will continue to promote demonstration projects in priority technical areas, in particular, the continuation of ERTMS activities and full-scale validation tests.**

**The Commission will urgently tackle the question of how best to eliminate long delays at intra-Community and external borders in consultation with the relevant international bodies.**

## SECTION VII - SOCIAL ASPECTS

89. There is great concern among railway staff about the social implications of restructuring, above all the possible loss of jobs. This is easy to understand, as the railways will have to change enormously in the years ahead, if they are to compete with other modes, and as employment has already fallen heavily. Indeed it declined by over one third in ten years, from 1.55 million in 1985 to 1.05 million in 1994. Such a decline is dramatic in itself and is a particular shock to a sector that traditionally gave life-long employment, with well-established career patterns.
90. Community policy towards the railways may be fuelling the debate about loss of jobs. It is feared that opening access and allowing competition from new entrants would cause employment to fall both in the established railway companies and in the sector as a whole. This would be due to new operators requiring less employees to do the same job and under less pressure to maintain employment as the established companies. In the Commission's opinion, this view is understandable but ignores four essential points.
91. First, the drop in railway jobs over the last ten years took place before the access rights created by Directive 91/440/EEC came into effect. Consequently it was not caused by Community policy. The causes were rather a rise in productivity, stagnant demand for rail transport as competition from other modes grew ever stronger, and pressure on the public funds available to support public services and to finance losses. Second, the trends which caused employment to decline over the last ten years, will almost certainly continue over the next ten years. As argued earlier, competition from road transport is far more likely to increase than fall. Concern about its negative effects may grow but this will not be the salvation of the railways. Third, technical innovation will continue to reduce the need for labour in the sector. Fourth budgetary constraints are far more likely to tighten than loosen, particularly with economic and monetary union.
92. This being so, only a dramatic rise in performance will guarantee the long-term future of rail transport and of employment. The aim of Community policy, as explained in this White Paper, is to bring about such a change. Failure to act will inevitably cause further deterioration in the position of the railways on the transport market, and could jeopardise their presence in major segments. Vigorous action to restore competitiveness is the only way to stable employment; although jobs in the railways will be less numerous in future, they should be more secure in a healthy industry. Moreover, a certain number of jobs will be created when new entrants find and exploit new markets.
93. To make the railways competitive, removing the burden of surplus manpower is essential, but is only one aspect of employment policy. It is also necessary to reorganize the patterns of work so that employees become more productive. This means, for instance, new and simpler organisational structures, wider delegation of decision-making, greater initiative for junior management and workers, more flexibility and an end to restrictive practices. It also means large investments in technologies and training. Such changes are being made in large firms throughout the world, in particular, those changing from a system of assured market and strict command structures to one where markets have to be found and exploited and enterprises have to adapt very rapidly.

However, the Commission is clear that these changes must not lead to unacceptable working conditions and is willing, where necessary, to ensure the harmonisation of working conditions and training and certification requirements for personnel.

94. Some personnel may be redeployed to new activities, for example to relations with customers, travel information, security and assisting disabled and elderly passengers; appropriate training will be required for these occupations. However, redundancies will be inescapable. Imaginative policies, backed by adequate resources, will be needed to retrain and adapt redundant workers to new activities. The prime responsibility naturally lies with the Member States who, despite pressure on their budgets, should realise the long-term benefits for both transport and for public expenditure of not skimping money for necessary measures to retrain railway workers.
95. Moreover, the possibility of a contribution from the European Social Fund should be examined. The Commission would consider favourably projects aimed at facilitating the redeployment of redundant workers through training schemes. Under the current programming cycle (1994-1999) Member States have the possibility to launch a new series of calls for projects for the period 1997-1999; railway companies could consult the authority responsible for the European Social Fund within each Member State to check the possibility of financial support. Moreover a specific Community initiative, ADAPT, could also be used to facilitate adaptation to structural change, although funds are limited. A trans-national initiative, ADAPT allows a project, such as a training programme, to be submitted for approval at a national level by a railway undertaking, provided that it is associated with a similar project in at least two other Member States.
96. The Commission will examine the possibilities the European Social Fund can offer in the future for facilitating the adaptation required by industrial restructuring for example in the railways.
97. The Commission also considers that measures are needed to organise working time in the railways in order to improve working conditions and ensure the health and safety of workers. While general principles should apply to all sectors, particular measures have to take account of the specific nature of different industries.

Since 1993 the social partners in the railway sector have worked together for a solution, and the Commission is encouraged by recent positive developments in the Joint Committee on Railways. The Commission will monitor the situation to see if the social partners can agree on adequate health and safety protection as regards working time in the sector. This subject will be dealt with in more detail in the forthcoming White Paper on the sectors and activities excluded from Directive 93/104 on working time, including transport.

**Summary of proposals**

**98. The Commission will examine the possibilities the European Social Fund can offer in the future for facilitating the adaptation required by industrial restructuring for example in the railways.**

**The Commission will publish a White Paper on the sectors (including rail) which were excluded from Directive 93/104 on working time.**

## **SECTION VIII - SYNTHESIS AND TIMETABLE FOR ACTION**

99. A new kind of railway is needed which should first and foremost be a business. This requires an ambitious strategy. For it to succeed, all parties must work together and take difficult decisions : the Community, the Member States, the railways, their staff and the supply industry. Major adjustments will be necessary, which may prove hard to accept; for example railway enterprises may have competition from within the sector, and staff may suffer further losses of jobs. However, continuing the status-quo does not guarantee security, rather the opposite. The railways would continue their decline, putting more jobs at risk. It is vital to accelerate the process of adaptation. All parties have delayed change for too long and policies need time to make an impact; meanwhile, competition from other modes will relentlessly continue. While the Member States and the railways themselves must take the greater part of the measures needed, the Community must act in its areas of responsibility.

### **Finances**

100. The railways will only have independent and dynamic management, if their finances are sound. This is a pre-condition of successful reorganisation. The railways should tighten their financial management; with, for instance, clearer allocation of costs and revenues. The Member States must put railways on the path to financial viability, by relieving them of the burden of past debt; the Commission will report regularly on progress made. They must also create a sound basis for the future, by setting clear objectives and linking relief of recent debt and support for operating losses to restructuring programmes. The Commission will ensure the application of Community rules on railway finances and on State aids, which should guide the new financial structure of the railways and progressively move them towards viability.

### **Introduction of market forces**

101. Access rights to railway infrastructure would attract new capital and enterprise; competition would also stimulate established operators to improve performance. The Community has taken a first step by creating limited access rights for international traffic. Last year the Commission proposed their extension to all freight traffic and to international passenger services; it will press for the adoption of this proposal. To help ensure the effectiveness of access rights, the Commission will propose the separation of infrastructure management and transport operations into distinct business units; it will also study further general principles for capacity allocation and infrastructure charges. However, action is urgently needed to encourage international rail freight transport, where there is great potential but strong dissatisfaction with existing services. Anticipating legislative changes, the Commission will promote the creation of international rail freight freeways, with immediate open access and the right conditions to attract freight transporters.
102. Introducing market forces could also benefit domestic passenger services. This must be done in such a way as to respect network benefits and bolster the provision of public services in which rail transport plays an important role. The Commission will study the best practical way of introducing market forces and will in due course make proposals.

### **Public services**

103. The Commission is strongly in favour of better public transport, an essential aim of transport policy. The State acting on behalf of the general public has a legitimate right to ensure the provision of public services in transport, which Community law clearly recognises. There is great dissatisfaction, however, with the quality and organisation of public service and the value obtained from public money. To increase transparency, clarify responsibilities and ensure full compensation for the financial burden of providing services, the Commission will propose the generalisation of public service contracts between the State and transport undertakings. Further introduction of market forces could also improve the quality of public service and reduce their cost. As with domestic passenger transport in general, the Commission will study the best practical ways of introducing market forces and will then make proposals.

### **Integration of national systems**

104. The railways developed on national lines over a century and a half. This resulted in difficulties in operating across frontiers, inadequate planning of cross-border infrastructure and fragmentation of the supply industry and of research activities. Although some progress has been made in breaking down national barriers, a desirable degree of integration is still far-off. To achieve it, the Community, the Member States, international organisations, the railways and the supply industry must cooperate closely, building on existing work and extending it as required. The Commission is proposing measures to promote interoperability for conventional rail, advance technical harmonisation to help create a single market for railway equipment and to strengthen railway research.

### **Social aspects**

105. Railway staff are naturally concerned about the social implications of competition and restructuring. There has already been a heavy loss of jobs, quite unrelated to Community policy. The Commission realises that, to become competitive, the railways may need to significantly reduce their workforces. However it is clear that, if the railways do not become competitive, they will lose markets and have to reduce employment even more. The greatest threat to employment comes from under-performance. Personnel policies, including substantial programmes to retrain redundant workers, backed by adequate resources, are needed. This is primarily the responsibility of the Member States. However, contributions from the European Social Fund must be carefully considered.

### **The wider policy**

106. The white paper has concentrated on railway policy, but other aspects of the Community transport policy should create more equal conditions for rail to compete for business. Rail transport will only fulfil its potential if it can form part of a strategy for developing intermodal solutions to transport problems. The aim is to ensure that the railways can exploit their comparative advantages and Community policy should contribute in two ways.

First, it should support the physical interconnection between modes (intermodal terminals) and the development of intermodal system and the launching of pilot projects for intermodal services. The transport research programme in future should put greater emphasis on intermodal issues. The extension of the programme of pilot actions for combined transport (PACT), proposed by the Commission, would give impetus to the launching of new services.

107. Second, the transport policy should encourage sustainable mobility and greater transport efficiency including, where appropriate, a better balance between modes. The Commission has recently presented two important Green Papers. First the "Citizens' Network", about collective transport that offers a real alternative to the private car. Second, "Towards fair and efficient pricing in transport", which concerns the inclusion of all costs, direct and, social, in the price paid by users. The Commission is following these Green Papers with proposals. It has recently proposed a Directive on vehicle taxes, tolls and user charges imposed on heavy goods vehicles (the so-called "Euro-vignette" Directive<sup>14</sup>).
108. Other initiatives are also relevant. Guidelines for the trans-European networks have been adopted, as has the Directive on the interoperability of high speed rail. The proposed approximation of legislation on the transport of dangerous goods by rail should facilitate such transport. So, while the present White Paper focuses on railway policy, the common transport policy in general should help develop the environment necessary for a competitive rail sector.
109. The Commission realises that the provision of a framework at the European level is only one of the building blocks for revitalising the Community's railways. A partnership with the management, workers, supply industries and Member States is essential for a railway renaissance to be generated. The Commission recognises that the required changes are fundamental and that whilst the Community's role is important, significant adjustments will have to be undertaken by all parties involved. It is also clear that implementing these changes amounts to an enormous cultural revolution. However, complacency is not an option: rail has to change if it is to survive as a major transport mode into the next century. It is on this basis that the Commission is tabling the attached programme of action to be carried out at Community level. The Commission calls on all involved to contribute to this initiative and take complementary action so that rail will be able to play a valuable role in Europe's transport system.

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<sup>14</sup> COM(96) 331 final adopted on 10.7.96.

## TIMETABLE FOR ACTION

Over the next two to three years, the Commission will concentrate on these activities:

### until end 1996

- promote the creation of rail freight freeways with immediate open access;
- publish a Communication on the promotion of intermodality;

### until end 1997

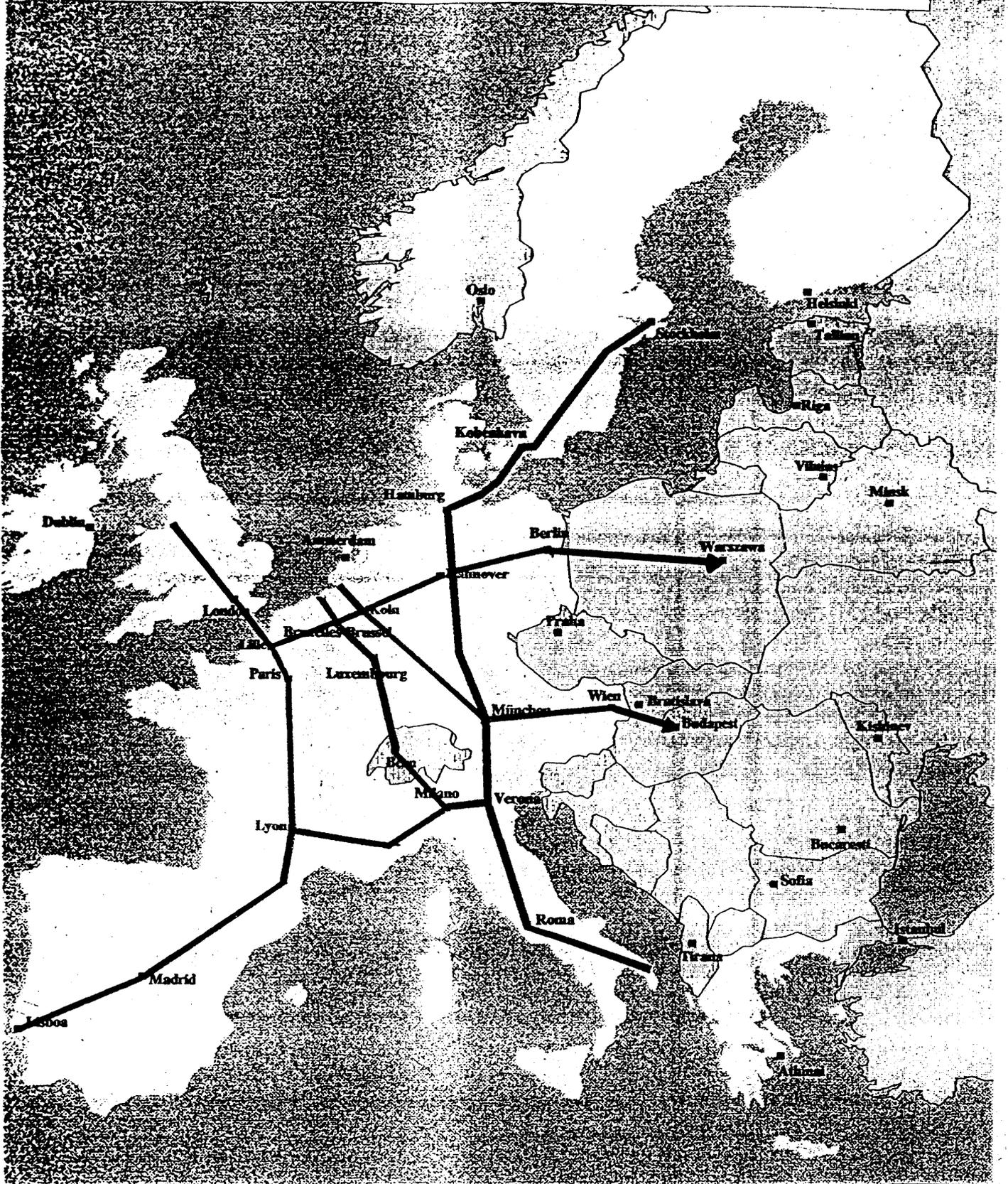
- report on the progress made by Member States in reducing debt and improving finances;
- propose modification of Community legislation to require the separation of infrastructure management and transport operations into distinct business units;
- study the best practical ways of introducing market forces into domestic passenger transport, including public service;
- study further general principles for infrastructure charges and capacity allocation;
- in the case of freight traffic, study how to eliminate delays at frontiers caused by administrative controls and the railways' own procedures, in consultation with the relevant international bodies;
- promote synergies between the different Community and national R&D programmes;
- publish a White Paper on the sectors (including rail) which were excluded from Directive 93/104 on working time.
- examine whether clarification is needed of the scope for, and conditions of exemptions for cooperation agreements between railways and will take any measures needed.

### until end 1998

- develop rules and guidelines, as required, for linking the authorization of State aid to restructuring programmes;
- propose modification of Community legislation on public service obligations to generalise public service contracts;
- make proposals on the introduction of market forces into domestic passenger transport, including public services;
- propose general principles for infrastructure charges and capacity allocation;

- assess implementation of Community legislation on normalisation of railway accounts and its relevance to present circumstances;
- continue the process of standardisation for conventional and light rail;
- study how relevant aspects of the technical harmonisation process for high speed rail might be adapted to conventional rail;
- examine technical measures needed to increase accessibility for the disabled and the elderly;
- examine the scope for improving interoperability on major international routes in cost-effective ways and consider the use of TENs funds to support projects involving several railways;
- in the revision of the TENs guidelines, assess the improvements needed to infrastructure to facilitate freight transport and make recommendations;
- investigate instruments for reducing railway noise, in the context of general Community policy on noise;
- in calls for proposal under the Transport Research Programme, emphasise socio-economic study proposals to support the transition from national to Europe-wide systems;
- promote demonstration projects in priority technical areas, in particular the continuation of ERTMS activities and full-scale validation tests;
- examine the possibilities the European Social Fund can offer in the future for facilitating the adaptation required by industrial restructuring for example in the railways.
- study various options for the improvement of the institutional framework for future rail development (including the setting up of a European Railway Agency).

**Fig 1. SOME EXAMPLES OF POSSIBLE TRANS-EUROPEAN RAIL FREIGHT FREEWAYS**



**ANNEX I/1 - E.U. RAILWAYS' BASIC DATA**

		Employees 1994	Route (km) 1994	Passenger traffic (passenger-km)		Freight traffic (tonne-km)		Traffic Units per employee <sup>1</sup> 1994	Traffic receipts per employee (real ECU) <sup>2</sup> 1994	Asset Intensity <sup>3</sup> 1994
				95 million	95/85 (%)	95 million	95/85 (%)			
BR	UK	118,066	16,564	29,801	-1,5	13,797	-14,0	351.2	29.9	1.46
CFL	L	3,289	275	-	-	529	-11,7	296.4	36.5	0.93
CH	H	12,006	2,474	1,568	-9,5	306	-58,0	143.5	4.6	5.56
CIE	IRL	11,219	1,947	1,328	+29,8	575	-4,3	163.0	35.0	1.1
CP	P	14,270	2,699	4,809	-16,0	2,020	+68,9	486.0	12.2	3.19
DB	D	327,076	41,401	60,514	-7,1	69,483	-42,3	403.0	37.8	-
DSB	DK	20,044	2,349	4,818	+6,0	1,984	+1,3	380.5	35.3	5.22
FS	I	140,249	16,002	49,700	+32,9	22,243	+32,0	490.4	26.4	7.23
NS	NL	26,561	2,757	13,977	+55,2	3,097	-5,3	648.0	37.4	1.36
ÖBB	A	63,867	5,636	9,625	+32,0	13,715	+21,5	355.9	20.2	3.02
RENFE	E	41,137	12,641	15,330	-4,1	9,605	-15,9	569.7	21.3	3.75
SJ+BV	S	21,856	9,661	6,219	-5,6	18,523	+6,9	1143.6	43.9	2.06
SNCB	B	42,729	3,396	6,757	+2,8	7,307	-11,7	379.4	17.4	1.08
SNCF	F	185,690	32,275	55,222	-10,8	47,953	-17,9	578.5	33.7	2.58
VR	FI	17,368	5,880	3,184	-1,2	9,559	+18,5	752.2	29.5	2.02
Total	EU	1,045,427	155,962	262,858	+2,5	220,692	-20,1			

Source : Union Internationale des Chemins de Fer - Mercer Management Consulting

<sup>1</sup> Traffic units per employee = (Passenger KM + Ton Km)/employees

<sup>2</sup> Traffic receipts per employee = total traffic receipts (Mio ECUs 1994)/employees

<sup>3</sup> Asset Intensity = Total Capital (equity + debt)/total costs (including operating costs and debt interest).

Shows the number of units of capital needed for each unit of activity

N.B. : Values for BR include Railtrack.

**The accountancy systems differ from one undertaking to the other. Therefore comparisons between undertakings have to be interpreted with caution.**

ANNEX I/2 - RAILWAY DEBT IN 1994

		Railway debt million ECU	Railway debt/ GDP(%)	Public debt/ GDP(%)	Govt borrowing/ GDP(%)	Railway debt/ equity ratio <sup>1</sup> (%)
BR	UK	10.709 <sup>2</sup>	1.2	54.0	6.8	62 <sup>1</sup>
CFL	L	168	1.4	5.9	2.2	44
CH	H	937	1.1	110.4	12.1	48
CIE	IRL	323	0.7	91.1	2.0	58
CP	P	1,529	2.1	71.6	5.8	89
DB	D	5,795 <sup>3</sup>	0.3 <sup>3</sup>	50.4	2.5	28 <sup>3</sup>
DSB	DK	2,782	2.3	76.0	3.5	50
FS	I	42,067	4.9	125.6	9.0	51
NS	NL	2,807	1.0	77.6	3.2	36
ÖBB	A	2,892	1.7	65.0	4.4	28
RENFE	E	8,140	2.0	63.1	6.9	70
SJ+BV	S	1,958	1.2	79.9	10.8	73
SNCB	B	3,539	1.8	136.0	5.3	47
SNCF	F	28,731	2.6	48.4	5.8	78
VR	FI	166	0.2	59.4	6.3	14
Total	EU	112,543	1.8	71.2	5.5	54 <sup>2</sup>

Source :Mercer Management Consulting.

<sup>1</sup> Railway debt + (debt + equity).

<sup>2</sup> incl. Railtrack.

<sup>3</sup> after recapitalisation DB; 1993 debt DB: 33.788.

ANNEX I/3

EU 15 Freight Transport - (1000 million tonne-kilometres)

	Road	Rail	Inland Waterways	Pipelines	Total
1970	431	283	110	66	890
1975	526	259	103	79	969
1980	661	287	113	92	1153
1985	711	275	103	71	1161
1990	915	255	113	71	1355
1993	964	205	106	82	1358
1994	1061*	220	115	83	1479
1970-94	+ 146,2 %	- 22,3 %	+ 5,0 %	+ 25,6%	+ 65,5 %

sources: ECMT, UIC, DIW, national statistics, estimates \* change in time series in

Germany

Average Annual Growth Rate (%)

	Road	Rail	Inland Waterways	Pipelines	Total
1970-80	+ 4,3	+ 0,1	+ 0,3	+3,3	+ 2,6
1980-90	+ 3,3	- 1,1	+ 0,0	- 2,4	+ 1,6
1990-94	+ 3,8	- 3,7	+ 0,3	+ 3,7	+ 2,2
1970-94	+ 3,8%	- 1,1	+ 0,2	+ 0,9	+ 2,1

\* change in time series in Germany (a new survey method introduced in 1994 showing ca. 20% more road transport than old method) \*\* growth rate EU 15 without Germany

Modal Split (%)

	Road	Rail	Inland Waterways	Pipelines
1970	48,6	31,7	12,3	7,4
1975	54,5	26,7	10,6	8,2
1980	57,4	24,9	9,8	7,9
1985	61,3	23,7	8,9	6,1
1990	67,5	18,9	8,3	5,3
1994	71,7	14,9	7,7	5,6

ANNEX I/4

**EU 15 Passenger Transport**  
(1000 million passenger-kilometres)

	Car	Bus	Railways	Air	Total
1970	1569	262	216	43	2090
1975	1923	306	241	69	2539
1980	2292	341	253	96	2981
1985	2496	346	262	144	3242
1990	3146	359	274	204	3983
1993	3419	360	267	233	4279
1994	3482	363	270	254	4368
1970-94	+ 121,9 %	+ 38,6 %	+ 24,7 %	+ 490,7 %	+ 109 %

sources: ECMT, UIC, DIW, national statistics, estimates

**Average Annual Growth Rate (%)**

	Car	Bus	Railways	Air	Total
1970-80	+ 3,9	+ 2,7	+ 1,6	+ 8,4	+ 3,6
1980-90	+ 3,2	+ 0,5	+ 0,8	+ 7,8	+ 2,9
1990-94	+ 2,6	+ 0,2	- 0,4	+ 5,4	+ 2,3
1994	+ 1,8	+ 0,9	+ 1,2	+ 9,0	+ 2,1
1970-94	+ 3,4	+ 1,4	+ 0,9	+ 7,7	+ 3,1

**Modal Split (%)**

	Car	Bus	Railways	Air
1970	75,1	12,5	10,3	2,1
1975	75,8	12,0	9,5	2,7
1980	76,9	11,4	8,5	3,2
1985	77,0	10,5	8,1	4,4
1990	79,0	9,0	6,9	5,1
1994	79,7	8,3	6,2	5,8

## ANNEX II

### Implementation of Directive 91/440/EEC

*(as in July 1996)*

The following Member States have transposed Directive 91/440/EEC :

- Austria
- Denmark
- Finland
- France
- Germany
- Ireland
- Netherlands
- Sweden
- United Kingdom

The following Member States have only partially transposed the Directive :

- Belgium *(lacking access rights)*
- Italy *(lacking access rights)*
- Luxembourg *(lacking access rights)*
- Portugal *(lacking separation of infrastructure management and transport operations)*
- Spain *(lacking access rights)*

Greece has not notified transposal.

Infringement proceedings have been launched against the Member States that have not transposed completely.





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