
Rail in the City Regions

Final Report to the Passenger Transport Executive Group
March 2004





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Rail in the City Regions

Executive Summary

City Regions

1. *JMP Consulting, supported by independent consultant Reg Harman and the Institute for Transport Studies at Leeds University has been commissioned by the Passenger Transport Executive Group to prepare a report on the UK's City Regions and the role that rail plays in supporting them.*
2. *Our major regional cities are home to over 13 million people and they play a crucial role in the economy of the UK. There is evidence from other countries around the world that demonstrate how strong regional cities support their capital city and add more power to the national economy.*
3. *Our City Regions depend upon their public transport systems, which in our largest conurbations are planned, although not operated by, a Passenger Transport Authority (PTA) and Executive (PTE). With 137 million rail trips per year in the PTE areas, almost twice the number carried by inter-city operators, rail is an important part of that public transport mix.*
4. *In fact the story of rail in the PTE areas has been one of major successes. Investment over the last twenty years has brought with it significant growth in passenger numbers – with the use of some networks doubling.*
5. *This report shows that these rail networks are hugely important to our City Regions. In these conurbations rail is often a major mode; indeed for some types of travel it will be the dominant mode. As such, rail's success or failure, growth or decline, has great ramifications.*
6. *We demonstrate the pivotal role that rail plays in terms of its contribution towards achieving key government Public Service Agreement (PSA) objectives on:*
 - *the economy;*
 - *social inclusion;*
 - *environment, safety and health;*
 - *integration*

The Economy

7. *Rail is already vital to the successful functioning of our major city economies. Over 30% of the trips in the morning peak into central Glasgow are by rail and underground. In Birmingham the figure is 17%. Without their rail networks these cities would be unable to function.*
8. *Rail contributes to the performance of the regional economies by providing the high quality, high capacity means of access which enables the necessary agglomeration of*

skills and knowledge in core city centre services of administration, commerce, industry and tertiary education

9. *As the City Regions increasingly focus on knowledge based employment the trend is expected to be towards more long distance commuting. This has been seen in Leeds where investment in the lines stretching out of the conurbation to Ilkley and Skipton has been rewarded with growth as high as 19% per year. Peak period modal shares to Leeds city centre from stations north of Shipley on the Skipton line are as high as 75%. Looking to the future, economic predictions for Leeds show that the labour force residing within the city will only be able to fill 20% of the extra jobs that the economy will generate over the next ten years. If the Leeds economy is to fulfill its economic ambitions rail will be essential in providing the access to this wider market of employees. Similar situations are being evidenced in all of the City Regions.*
10. *PTEs have been very successful in facilitating and encouraging this. In the West Midlands a long-term investment strategy for the Cross City Line through Birmingham has resulted in a high frequency 'turn-up-and-go' commuter service that is the busiest route in the region. Initiatives such as this by the PTE and its partners have resulted in a 25% increase in patronage on local services in the conurbation since 1997.*
11. *Traditional economic appraisal which looks at the question of value in terms primarily of user benefits (as a proxy for accessibility) almost certainly understates the full contribution that rail makes to our regional economies. However, even this partial analysis indicates that for one of the smaller PTE rail networks, South Yorkshire, rail services are delivering around £1.75 of benefit for every pound of subsidy.*

Social Inclusion – Access to Opportunity

12. *Railways in the City Regions play an important role in providing:*
 - *access to jobs and education;*
 - *lower cost and a widened area of search for employment;*
 - *access to opportunities for a wide section of the community;*
 - *increased provision for disabled passengers*
13. *The PTEs have actively pursued measures that address the problems of social exclusion. In Merseyside, surveys at a number of new stations have shown how effective they can be in widening access to work and education opportunities. At Lea Green station in Merseyside a survey of people using the station showed that over 20% of them had been able to take up a job offer as a consequence of the station being built. At Wavertree Technology Park station, 74% of passengers were using the station to get to work or to a place of education and over 10% of these were new job opportunities that they were able to access as a result of the station. Most successful of all, was Brunswick station which resulted directly in 120 people being able to take up new job opportunities.*
14. *In the East Midlands, the Robin Hood railway line has been very successful in widening the journey-to-work horizons in the former coalfields of Nottinghamshire. Over 3,500 passengers a day use the service and forty percent of all work trips on the service had not been made prior to the line being opened.*
15. *Railways in the regional cities are not solely the domain of the middle classes. They are used by a much broader spectrum of society than is the case in the south east. The Robin Hood Line has an equal balance in its weekday passenger profile between people from manual and professional backgrounds. At weekends, ABC1 households account for only 38% of users.*

16. *Most of these social inclusion activities have a very strong 'fit' with the policy objectives of local, regional and central government and are absolutely fundamental to the achievement of equitable access to opportunity.*
17. *However, in crude financial terms they could be seen as poor value for money, bringing in some cases, relatively little additional revenue to the rail network and providing further ammunition to those who consider urban rail in the conurbations to be a poor use of public funding.*

Sustainability

18. *The chief contribution that urban rail can make to the sustainability of our major cities is through facilitating forms of development that are not car dependent and by reducing car congestion.*
19. *Analysis of the interaction between rail demand and road congestion in West Yorkshire indicates that every 1% reduction in local rail service use adds between £1.7 million and £2 million cost per year in terms of road congestion. Declining performance of urban and regional rail service levels would clearly increase the risk of this happening.*
20. *The environmental benefits of rail are important in supporting the sustainability agenda. Nationally, rail contributes less than 1% of the UK emissions of carbon monoxide, oxides of nitrogen, volatile organic compounds and fine particles. Rail is also a considerably safer mode than car to travel by. The Health and Safety Executive estimate that it is six times safer for every passenger kilometre traveled.*
21. *However a key challenge is to address the cost implications of railway procedures whose costs significantly outweigh their potential safety benefits. There is a clear inequity between the safety standards applied to the railways and those to road. A level playing field in standards, and the application of these standards, is required.*
22. *Tackling personal safety concerns on the railways has been shown to pay dividends. A comprehensive safety and design scheme developed by Centro and the rail industry with the local community at Lea Hall, a previously run down station in Birmingham, resulted in a 26% increase in rail use. Other examples from around the country show what can be achieved with targeted investment.*

Integration

23. *We show how a coherent rail development policy for our urban areas can demonstrate a high level of consistency with, and support for, a wide range of central government PSA objectives. A key issue is the extent to which consistency can be achieved between the strategy for rail investment and the urban and regional spatial planning frameworks. There are concerns that the SRA's Regional Planning Assessment framework proposals, whilst well intentioned, could fail to take due account of existing statutory land use procedures.*
24. *We have looked at experience elsewhere in Europe and closer to home in Scotland, Wales and in Merseyside. These case studies show that where planning powers, and crucially, funding, have been devolved to a more local level, they have been successful in developing rail services that are more attuned to the achievement of the objectives of local and national government.*

Lessons from Europe

25. *We have reviewed five European cities' rail systems. These cities differ widely, by geography and development patterns, regulatory system, public authority structures and cultures. But there are several aspects which are common to them all and which combine to ensure that suburban and regional rail services play a strong role in the economic and social fabric of the cities:*
- *railway services are operated and marketed as an integral part of the public transport system for the city and its catchment region; usually this coordination is managed by a conurbation public transport body;*
 - *rail services provide for the longer distances, enabling the city to play a valuable role for everyone in its catchment region; but, through integration into the public transport network, they also offer a high capacity trunk element for short travel sections within the city;*
 - *the development of railway services is guided strongly by the city/regional transport strategy, itself complementing a city spatial development strategy which focuses residential development around the main suburban lines and encourages building new stations or increasing capacity to match new land use development sites;*
 - *investment in new and improved infrastructure, and in new trains follows the agreed strategies; most of the infrastructure investment will be funded by national government and regional authority, often on a shared basis;*
 - *the regional authority has a strong measure of responsibility for developing regional rail services under some form of contract with national government; this forms the basis for the national investment funding indicated.*

Value for Money

26. *However, in the UK we have seen that the costs of providing current levels of urban rail services have been enormously inflated by the industry structure. The immediate consequence of the introduction of new accounting procedures at the time of privatisation was a five fold increase in the level of subsidy required to operate the South Yorkshire network for example. In Strathclyde, revenue support increased three fold.*
27. *Although the costs of operating the new franchises subsequently fell, a £2 billion increase in the cost of maintaining and renewing the network infrastructure between 2000 and 2003 has resulted in all of the regional franchises seeking additional funding from the SRA. Overall the cost of supporting the railways has increased by 150% over this period.*
28. *In this environment, the railways in the PTE areas, where income can never cover these costs due to a combination of low fares and relatively short journeys, have been the subject of close scrutiny, with doubt expressed about their value for money.*
29. *This report shows that when we look at the full range of benefits it is apparent that urban rail is providing value for money, even in the restricted sense of a cost benefit appraisal that does not capture many of the key policy objectives.*

30. *The case studies in this report have demonstrated that:*

- *the subsidy per head figures are potentially misleading;*
- *cost allocation decisions taken at the time of privatisation have severely affected the perceived value for money of supporting and developing PTE networks;*
- *the opaqueness of the cost and revenue allocations perpetuate the view that rail services in the City Regions provide poor value for money;*
- *even accepting the post-privatisation cost allocations, the benefits per pound of subsidy are in fact as high as in the south east and higher than inter-city;*
- *in many areas the potential for passenger growth per pound of investment will be higher in the City Regions than in the south east;*
- *but the costs of delivering these benefits have risen substantially – some of the reasons for this are as a result of the structure put in place for the railways at privatisation.*

Recommendations

31. *In outlining the considerable range of benefits that rail can bring we have also identified some major issues and concerns. There are clearly problems that arise as a result of the current structure of the rail industry, primarily a legacy of the structure set up at privatisation of the railways.*

32. *Two themes emerge from our review:*

- *the need for **simplification** and greater **transparency** of the current structures and financial flows within the industry;*
- *the potential benefits of **devolving responsibility** and powers to a more local level.*

General Recommendation 1: Simplification and Greater Transparency

33. *The structures set up under privatisation and which have evolved over recent years have resulted in a number of leading agencies – DfT, SRA, ORR, Network Rail – with no one party responsible for the network of services and infrastructure which the passenger sees as an integrated entity. Fragmentation of the industry has led to a lack of clear policy direction, overall strategy and specification.*

34. *Responsibilities for actions are held by a diverse number of players who sometimes appear to be pursuing different agendas. This manifests itself at the planning level in a lack of decision making or in apparently contradictory decisions being taken. At an operational level the contractual nature of the relationships between different parties has led to considerable pressure on costs.*

35. *We have identified a range of issues relating to the attribution of costs and subsidy. The lack of transparency is a major barrier to taking rational decisions on investment and funding priorities. Greater transparency is an absolute pre-requisite for a new approach.*

36. *Simplification, in order to provide clear organisational and hence industry leadership is in our view an essential element of any change. It needs to result in:*
- *effective overall control of strategy and cost;*
 - *simplified and transparent arrangements for service delivery;*
 - *clearer links between national, regional and local objectives;*
 - *elimination of unnecessary interfaces; and*
 - *clearer accountability.*
37. *A highly simplified structure might see a single 'delivery agency' taking responsibility for delivery of the planning, service delivery and infrastructure management. In practice it may be undesirable, impractical or unnecessary, for this degree of restructuring to occur. It is possible that many of the principles of simplification and greater transparency can be achieved by making changes to the roles of the individual existing organisations. The recently announced review of the rail industry needs to address the means by which any reorganisation is achieved.*
38. *A critical measure of success of a new structure will be the degree to which the SRA and Network Rail can be brought closer together to ensure that the management and policy development of the railway operations and the infrastructure act in a unified and consistent manner.*
39. *Whatever roles are subsequently ascribed to the different organisations a key recommendation is for greater clarity between the **planning and funding of:***
- *the strategic national rail network; and*
 - *the networks that serve our City Regions.*
40. *The former must be carried out at a national level; the latter should be carried out a more local level (PTE or Regional). While at first sight this may appear to add complexity, rather than simplify, it is more a case of ensuring that the PTEs have the appropriate powers to deliver their remit for integrated transport.*
41. *Franchising of rail services has encouraged innovation in **service delivery** and should be retained. However, the franchises require simplification into a smaller number and need to be reviewed in the City Regions to reflect the travel to work boundaries. It may be appropriate for some PTEs to become franchising authorities in a similar manner to Merseytravel.*
42. *The retention of a, (modified), franchising process implies that the principle of separation of infrastructure and operation of services should be retained, although there may be specific areas such as Merseyside where a strong case for establishing a pilot area can be made.*
43. *This implies that for the purposes of **network operation and management**, Network Rail should be retained in broadly its current format. However, there needs to be a much closer relationship between the SRA, as planning agency, and Network Rail as infrastructure managers.*

44. Key requirements are:

- a reduction in the risk averse approach that results in enhancement projects being dropped for fear of the impact on network performance;
- better integration of the roles in planning and delivering, renewals, maintenance and enhancements to achieve cost reductions;
- a streamlining of the management of safety to eliminate what the ORR identify as the factors which add to the costs of maintenance and enhancement of the network.

45. Turning to the **funding of infrastructure** it is clear that the concept of access charges looks increasingly irrelevant.

46. The current approach is a major source of distortion and distraction in assessing the true cost and value of urban rail services. Abolition of the fixed element of the track access charges and the 'money-go-round' is recommended. The money-go-round should be replaced with block payments (grants) to Network Rail who would be charged with delivering a railway fit for purpose.

47. 'Fit for purpose' should be defined by standards set for each type of railway – local, urban and inter-regional/ inter-city. These standards should set a defined base level of provision from which enhancements could be agreed, procured and financed.

48. Enhancements should be procured and financed locally (for local and urban networks) and nationally for inter urban. The funding for these enhancements should be based on achieving LTP and wider policy objectives.

49. The marginal element of the track access charges should, however, be retained to reflect the marginal costs that franchised train operators, freight train operators and open access operators impose on the network.

General Recommendation 2: Devolving Responsibility

50. As indicated above, the approach would benefit considerably from devolving powers and responsibilities to the appropriate regional or PTE body.

51. Our second set of general recommendations is therefore based on a regionalised framework for planning and investment powers, with the SRA or 'planning agency' retaining these functions for the strategic network.

52. The framework could include:

- rail and bus services franchised under a Regional Transport Authority, (RTA) or PTE planning and investment framework, enabling the provision of a single integrated network of bus, rail and light rail services for the City Regions;
- the management, maintenance and development of stations and car parks by PTEs or RTA;
- the definition of appropriate areas of influence – for example some PTEs could exercise powers under the 1968 Transport Act to extend their areas by up to 25 miles to develop sensible networks;
- longer term commitments for PTE funding through the LTP.

53. *Such an approach would provide the PTEs or Regional Transport Authorities with greater influence over the infrastructure, enabling them to work closely with Network Rail/ 'delivery agency' to deliver efficiency improvements. This would enable the PTE/RTA to reinvest efficiency savings in rail for the benefit of public transport locally and provide greater PTE control over quality.*
54. *The potential scope ranges from the 'Merseyrail approach' whereby the PTE becomes the franchise authority through to the establishing regional authorities set up as trusts or public sector franchises.*
55. *The absolute pre-requisite of such an approach is that funding is devolved to match the powers and responsibilities required to properly develop the local network. An initial step would be to allow local transport authorities greater freedom to spend LTP funds on local rail schemes which exceed £5m.*
56. *There is significant overcrowding at peak times on many PTE rail networks. There are also concerns about low quality rolling stock on a significant proportion of non-electric routes.*
57. *Although additional and replacement rolling stock can often be justified through cost benefit analysis it is still proving extremely difficult to secure that additional capacity because the revenue generated by additional rolling stock does not cover its capital and running costs. In part, this reflects the characteristics of worldwide public transport investment. However, it also results from the ROSCO charging structures. The cost of leasing rolling stock from the ROSCOs is high and there is lack of competition.*
58. *There are a number of ways in which this could be addressed.*
59. *There should be a more determinist national strategy for rolling stock – with a medium and long-term plan for rolling stock, including new train fleets and associated cascades. Better value for money could also be secured through selective intervention by the planning agency in rolling stock purchase -including the option of purchasing trains direct.*
60. *If PTEs have more of a stake in their local rail services then there is the potential for PTEs to be more proactive in securing the additional rolling stock needed. PTEs retain the power to lease and purchase trains direct. If LTP funding was made available for rail spending then this could be used to purchase additional rolling stock.*

Contents

1.	Introduction	1
	The Economies of our City Regions.....	1
	Core Cities and City Regions	2
	European Context	3
	The Role of Rail in the City Regions	6
	National Rail Context	6
	The SRA Perspective.....	7
	The Rest of this Report	8
2.	Rail in the City Regions.....	9
	Background –the PTEs	9
	Rail in the PTE Areas – an Overview	10
	West Midlands.....	12
	Rail Services	13
	South Yorkshire.....	15
	Rail Services	16
	West Yorkshire.....	17
	Rail Services	18
	Tyne and Wear.....	19
	Rail Services	20
	Greater Manchester	21
	Rail Services	22
	Merseyside.....	23
	Rail Services	24
	Strathclyde	25
	Rail Services	26
	Other Major Conurbations.....	27
	Summary.....	29
3.	Key Challenge – The Economy.....	30
	Government Objectives.....	30
	UK Competitiveness and Core Cities	31
	The Role of Rail in the Urban Economy	31
	Commuting.....	32
	Rail and the City Centre Retail Core	34
	Links Between Centres	35
	Regeneration.....	36
	Valuing the Benefits	37
	Summary.....	40
4.	Key Challenge – Social Polarisation and Access to Opportunity ..	41
	Relevant Government Objectives for Social Inclusion	41
	Equality of Access in Urban Areas.....	42
	Access to Employment.....	43
	Social and Cultural Ties	45
	Access for All	47
	People on Low Incomes and Concessionary Travel	48
	Summary.....	51
5.	Key Challenge –Sustainability & the Environment	52
	Government PSA Objectives on the Environment	52
	Planning and Development Policies.....	53
	Road Decongestion.....	54
	Air Quality and Climate Change	55

	Safety	56
	Personal Security	57
	Summary	59
6.	Key Challenge – Integration and Governance	61
	Modal Integration	61
	Policy Integration.....	62
	Integration with Planning Policies –the RPA Process	65
	Experience Elsewhere	67
	The UK Experience with Regionalisation	69
	Summary	70
7.	What Can be Achieved?	72
	PTE Aspirations	72
	West Midlands.....	73
	South Yorkshire.....	74
	West Yorkshire.....	77
	Greater Manchester	78
	Tyne & Wear	79
	Strathclyde	80
	Merseyside.....	81
	Quantifying the Benefits	84
8.	Barriers to Delivery - The High Cost of Rail	86
	Financial Support to the Railways.....	86
	The PSO and a Deficit Financing Approach	87
	Modern Equivalent Asset Value - A mechanism for Fully Funding the Railways? ..	88
	Declining Franchise Payments.....	89
	The Rise in Costs Post Hatfield	90
	Cost Attribution.....	92
	Impact on Investment.....	94
	Making Choices.....	95
	The Value Arising from the Existing Network.....	96
	Lowering the Cost of Current Network – SRA Options	97
	Prioritising Infrastructure Expenditure	97
	Buses not Trains – the Bustitution Debate	98
	Light Rail Conversion	100
	Road Pricing – the Implications for Rail	102
	Conclusions.....	103
9.	Summary & Recommendations	104
	Summary	104
	The Economy	104
	Social Inclusion – Access to Opportunity	105
	Sustainability	105
	Integration	106
	Value for Money	107
	Recommendations	108
	Simplification and Greater Transparency	109
	Devolving Responsibility	111
	Further Research	113

Introduction

The Economies of our City Regions

- 1.1 This report is about City Regions and the role that rail plays in supporting them.
- 1.2 Our major regional cities play a crucial role in the economy of the UK and yet there has been a persistent and widening gap between the best and worst performing parts of the country as successive governments have sought to address the issues of a ‘two-speed economy’.
- 1.3 There is, however, growing evidence that a strong regional economy is a benefit to ‘UK plc’ and that measures to achieve stronger economic performance of the regions don’t have to be at the expense of London and the South East. Far from it. Evidence from other countries around the world demonstrates how strong regional cities can add more power to the UK’s economy and actually assist London in furthering its unique global city role. For example, major investment in the railways of Paris and Madrid have formed part of the same policy strands that have brought about large increases in quality, capacity and integration for the French and Spanish regional city networks (e.g. Nord-Pas-de-Calais and Lille, Catalonia and Barcelona).
- 1.4 The major conurbations outside London are the home to around 13 million people, or a little over one fifth of the population of Britain. To put this in context this is nearly the same population in total as the Netherlands and over half as large again as the total for Sweden and Switzerland. Their distribution is shown in Table 1.1.

Table 1.1 Population Statistics for the Major City Regions

City	City Population [million]	Conurbation population [million]	PTE area
Birmingham	0.98	2.55	West Midlands
Liverpool	0.44	1.36	Merseyside
Manchester	0.39	2.48	Greater Manchester
Sheffield	0.51	1.27	South Yorkshire
Leeds	0.72	2.08	West Yorkshire
Newcastle upon Tyne	0.26	1.08	Tyne & Wear
Glasgow	0.58	2.21	Strathclyde

- 1.5 Together, the regions within which they lie contributed £280bn to national income in 2001, with the main cities generating some £82bn (36%) of this (Table 1.2).

Table 1.2 Regional and City 2001 Gross Value Added (GVA) £ billion¹

Regions	GVA	Major Conurbations	GVA
North East	27.7	Newcastle	10.0
North West	87.6	Greater Manchester	25.0
		Liverpool	5.9
Yorkshire and the Humber	61.9	Leeds	12.1
		Sheffield	6.5
West Midlands	68.8	Birmingham	15.1
South West	63.6	Bristol	7.5
Total	279.6		82.1

Core Cities and City Regions

- 1.6 The Core Cities initiative is a Europe-wide programme which reflects the growing importance of these regional cities and identifies the necessary conditions for supporting their development.
- 1.7 Britain's major cities face a number of problems and challenges. A recent report by the European Institute for Urban Affairs (EIUA)² notes that policy makers have in recent years tended to treat these problems as highly localised (as in inner areas) or as narrow vertical concerns (such as education). This has obscured many of the real problems of the city, which need to be examined at the level of the City Region. The Core Cities group argue that unless policy is developed at the City Region level then the provincial cities of Britain cannot be expected to play the role they should play as regional economic motors, and Britain as a whole will continue to suffer from economic under-performance and social polarisation.
- 1.8 A key to understanding the role of Core Cities is that while they and their regions are socially and economically interdependent, City Regions exist at different scales. Those based around the Core Cities are among the UK's largest.
- 1.9 The report sets out the main policy challenges faced by the Core Cities which we outline in the following paragraphs.
- 1.10 The first key challenge is of creating a **Knowledge Based Economy**, something that is vital to the UK's ability to compete in a world economy where many locations have far lower production costs. Transport and communications linkages are seen as vital components of the package of attributes that need to be in place to ensure that cities remain competitive.

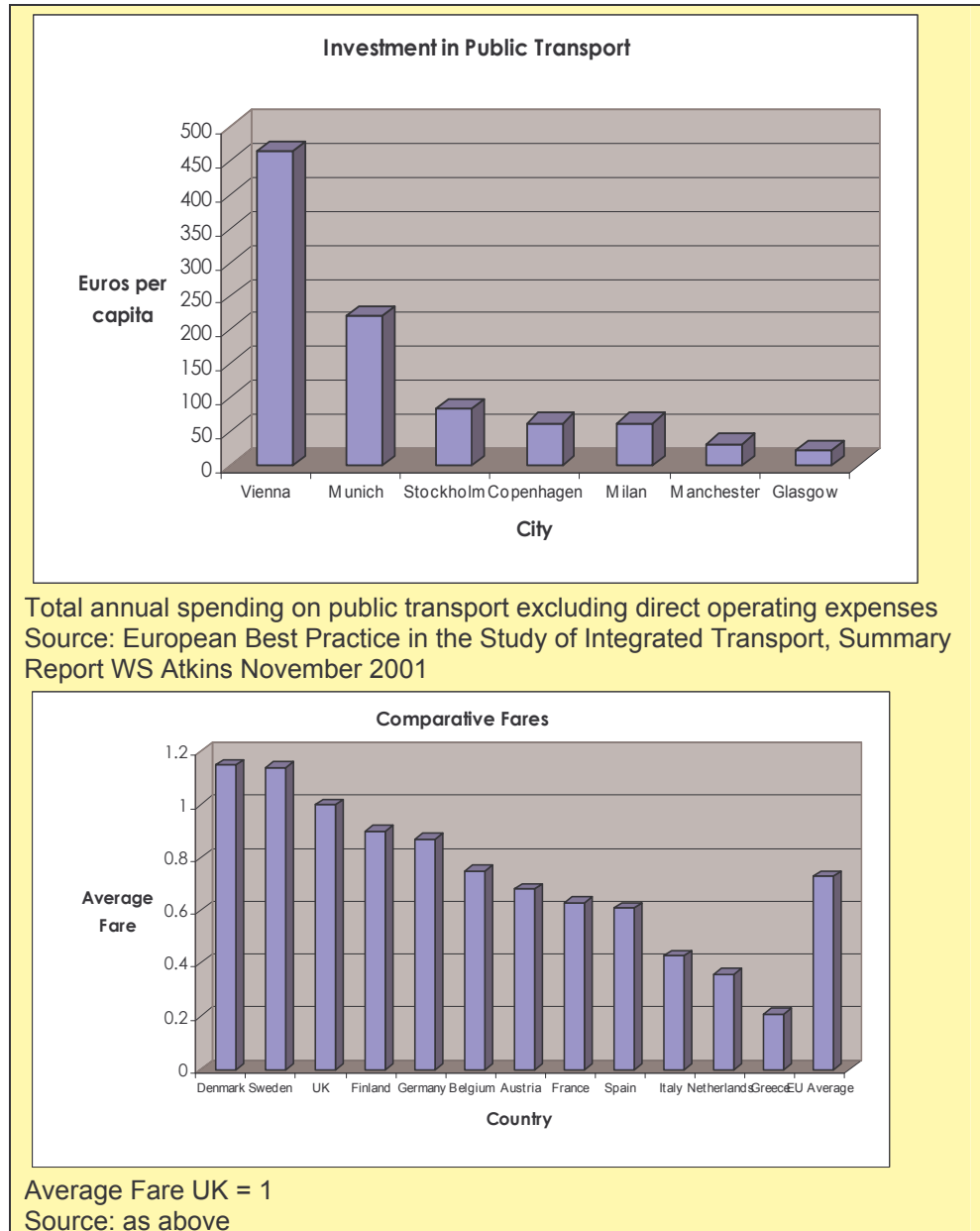
¹ www.statistics.gov.uk/downloads/theme_economy/NUTS3_Tables1to15.xls

² Urban Renaissance Characteristics of EU Non-Capital Cities, European Institute for Urban Affairs on behalf of the Core Cities Working Group 2003.

- 1.11 A further challenge is **Social Polarisation**. It is clear that Core Cities carry a significant social burden for their regions. They include higher risks of social polarisation, homelessness, crime and racial conflict. The current dynamics of Core Cities and their City Regions are, according to the EIU report authors, inexorably leading to greater polarisation, as city centres provide higher order business services and knowledge-based work with cultural, shopping and leisure activities aimed at the more affluent. Meanwhile the traditional manufacturing functions of the city are being pushed outwards, leaving fewer jobs for the less skilled and manual workers, resulting in high unemployment among these groups.
- 1.12 A third key issue is **Sustainability**. The Core Cities all face considerable environmental problems, both arising from the current concentration of polluting activities, especially due to car use, and from a legacy of industrialisation and abandonment of inner urban sites. The future sustainability of the UK depends upon the Core Cities taking a key role in absorbing future housing and employment growth, whilst transferring more of the transport burden back onto public transport. Further moves towards a decentralised and car-based economy would work against both a policy of sustainability and against the revival of the cities.
- 1.13 The final issue is one of **Governance** and arises from the difficulties of meeting the previous challenges across a fragmented City Region. Not only is there a need to see joined-up governance across the different policy domains outlined above, but also a need to ensure that the different areas within a City Region are linked and integrated within a holistic and unified strategy.
- 1.14 The importance of tackling these challenges in a holistic way that cuts across the sectoral boundaries of government departments is quite clear. This is a theme that we will return to throughout this report.

European Context

- 1.15 In order to gain an understanding of how our regions and cities and their planning, investment and transport provision could operate we have used a number of European case studies throughout this report. These need to be put in context.
- 1.16 Britain is highly dependent upon the private car for its mobility and as the following graphs indicate, investment levels in our major cities have historically been lower and public transport fares higher, than those of our major economic competitors.



1.17 Recent research for the Scottish Executive across a number of European countries seems to indicate that a few key factors tend to influence the success of city transport policy and planning (see box over the page).

Delivering Transport Policy - Best Practice – The Research Evidence

Research carried out by Colin Buchanan and Partners for the Scottish Executive has identified factors that are important when trying to achieve best practice in delivering transport policy. Questionnaire surveys and interviews carried out throughout Europe's transport organisations have identified three key factors on which achieving best practice is dependent.

- The first and most apparent factor is money and a willingness to spend it, along with a ready source. Whether this money comes from income tax or central government this money is essential to both improving infrastructure and subsidising fares.
- Secondly, policies, such as those that restrict car users or set aside land for public transport development, have also shown to be important when trying to attain best practice. But these policies are not always responsible for a mode shift away from car use.
- The existence of regional structures aimed at controlling public transport is the third factor identified in this study. Regional structures can play an important role in integrated transport services, franchising and investment. But this is not to suggest that simply having a regional structure in place will immediately lead to best practice being achieved but it is an important part of the process.

These are not the only factors identified by the research; there are of course others, (which we identify later in this report). However they were acknowledged as being the most important when trying to achieve best practice in delivering transport policies.

1.18 Large cities in other countries of Western Europe also tend to have more developed suburban railway systems. These typically form part of an integrated transport system, the development of which is closely related to the land use planning and regeneration aims of the city and its conurbation. This applies on a similar basis to:

- ◆ the Trains Express Regionaux (TER) in Lille and other French cities;
- ◆ the Schnellbahnen (S-Bahn) networks serving cities in Germany, Austria and Switzerland (most of these developed through construction of an underground rail link across the city centre);
- ◆ the Catalonian services through Barcelona;
- ◆ the regional networks in Milan and Turin.

1.19 In all these cases the underlying purpose has been to convert former regional rail passenger services into a network of lines operating throughout most of the day, easily accessible and well marketed as part of the city's structure.

- 1.20 They serve a wide range of activities, from daily work journeys (including inner urban residents) and business trips across the conurbation to scattered leisure trips and mass movement to large sporting and cultural events. They are an essential component of a close-knit and vibrant economy and society, drawing together the city itself and its catchment area. In addition, by providing a generally more even and continuous traffic pattern, their development enables erstwhile isolated suburban railway lines to operate with much greater overall efficiency and a wider range of purposes, offering a better return on public funding.

The Role of Rail in the City Regions

- 1.21 Although in many ways it is more easily identified in continental Europe our conurbations also depend on public transport. This is not just rail, although with 137m rail trips in the PTE areas³, almost twice the number carried by inter-city operators, rail is an important part of that transport mix. Across the day public transport may represent only about a quarter of all trips in the conurbations, but in the peak hours often as many as half the trips into our major cities are by public transport. In cities such as Glasgow, a third of the peak hour trips are by rail. More people come into Glasgow by rail than by bus. In Birmingham and Leeds, the figures are well in excess of the average - 17% and 10% - in the peak hours. The most critical feature though, and something that is quite different from the situation in London and the South East is that many of those people have a choice of mode.
- 1.22 People's choice in using rail is often not to use the car. The consequences of carrying those thousands of people by car instead of rail would, as we show later in this report, result in a very adverse impact on the economies of the conurbations and on the UK economy as a whole. Rail is therefore, a critical component of the functioning of our conurbations.

National Rail Context

- 1.23 While this may seem self evident, it needs to be set in the context of a rapid rise in scepticism as to the merit of the national rail network, a view which has emerged and gained strength following the long term disruption to the network in the aftermath of the Hatfield train crash in 2000, the collapse of Railtrack and the rapid rise in the costs in funding the rail network.
- 1.24 This has perhaps only been possible by what Phil Goodwin⁴ Professor of Transport Policy at University College London, has described as the collapse of a policy consensus, "which had slowly emerged in UK transport planning over several decades, that the role of railways should, can, and will increase in importance and scale".

³ Rail Industry Monitor 2003 (data refers to year 2001/2)

⁴ What Future for Rail in the 10 Year Plan for Transport, Phil Goodwin Report to All Parliamentary Group November 2003

- 1.25 The Ten Year Plan for Transport⁵, July 2000 proposed a programme of investment in which, for the first time, rail would have similar levels of funding as roads. This investment programme was forecast to produce rapid, unprecedented growth of 50% in rail passenger traffic and 80% in rail freight. Within months of publication of the Ten Year Plan Goodwin notes that the rail plans “were in serious trouble, triggered but not entirely caused by the Hatfield accident”. The Government’s hope that the greater share of investment would be privately funded came under pressure, with higher costs, higher required rates of return, and mounting capital debt: all this made for much greater difficulty in funding improvements than had been expected. The technical difficulty of implementing major improvements without causing excessive operational difficulties also mounted.
- 1.26 Although there is clear evidence that the demand for rail has remained buoyant and growing even through these difficulties – these arguments have been outweighed in public discussion by a growing dissatisfaction with progress. In December 2002, the DfT concluded that the Ten Year Plan would not be able to deliver some of its most important targets – not only for rail, but for road also.
- 1.27 By July 2003, Goodwin argues, there was a major crux in transport policy, which has been interpreted in two ways. On one side, there were arguments for a U-turn: to cut rail spending and expand the road programme. Some newspapers, academics, and interest groups have advocated a ‘new Beeching’, cutting public funding, the size of the rail network, and the scale of services operated. On the other side – and this seems to be the current Government view – the case for demand management, traffic restraint, and much more serious attention to the use of road pricing is reinforced as a necessary condition for traffic improvements. Yet, the effect of this on the strategy for rail has not been stated or considered. Goodwin argues that this is an important fault-line in the present transport debate.

The SRA Perspective

- 1.28 The Strategic Rail Authority (SRA) has recently published its own Case for Rail⁶ setting out a clear focus for prioritising on:
- ◆ fast, long distance services;
 - ◆ commuter services on busy corridors into London and our larger cities;
 - ◆ services to major airports;
 - ◆ rail freight services for regular high-volume flows.
- 1.29 With the escalation of costs referred to earlier this has led to a focus on controlling subsidy and keeping capital expenditure under control. This emphasis on value for money inevitably leads to a focus on schemes which can demonstrate their economic efficiency. In practice this tends to be the easily quantifiable measure of generalised journey times. The logical conclusion of this is that long distance inter-city services will show the best value for money performance, and indeed this is the conclusion the SRA has reached.

⁵ DETR 2000, Transport 2010: The 10 Year Plan

⁶ SRA, 2003 Everyone’s Railway

- 1.30 And yet, as we show throughout this report, the railways in our City Regions contribute to a much broader set of government policy objectives. The SRA's emphasis on a narrow sub-set of objectives could easily distort decisions on what is best for the City Regions.

The Rest of this Report

- 1.31 At the beginning of 2004 we face an unusual situation. The importance of developing our regional cities is recognised and endorsed by government. Efficient public transport networks are seen as a pre-requisite for making these cities work. Yet we have a political climate, popular opinion and an approach to investment which is arguably the least supportive of rail in the conurbations in the last decade.
- 1.32 This report seeks to examine these issues critically and re-state the case for rail in our City Regions. We begin in Chapter 2 by setting out the position with regard to rail in our major conurbations. We then turn in Chapters 3 to 6 to examine the contribution that urban rail makes to tackling the key challenges that City Regions face and show how these assist in the achievement of government objectives. We begin with Economic Competitiveness in Chapter 3, Social Inclusion in Chapter 4, Sustainability, Environment & Safety in Chapter 5 and Integration in Chapter 6. In Chapter 7 we outline what could be achieved with the rail networks in our City Regions.
- 1.33 Having outlined the benefits we turn in Chapter 8 to the issue of delivery, and in particular the rising costs of delivery, and consider whether there are ways in which the benefits of rail could be achieved more cost effectively. Our conclusions and key recommendations are set out in Chapter 9.
- 1.34 Throughout the report we use case studies to illustrate the points being made. We have also sought to demonstrate how rail policy contributes to the achievement of government Public Service Agreement (PSA) targets and the relevant government targets for the economy, for social inclusion and for sustainability are set out at the beginning of the appropriate chapter.

2. Rail in the City Regions

Background –the PTEs

- 2.1 Most of our major conurbations have a Passenger Transport Authority (PTA) and Executive (PTE) responsible for planning public transport. PTAs are made up of elected councillors from the constituent metropolitan districts while the PTEs are the organisations that implement the policies and decisions of the PTAs.
- 2.2 While the majority of the case studies and examples in this report are from the PTA/PTE areas, many of the lessons and issues are applicable across any of our major City Regions and we have included a number of case studies from other areas such as Cardiff, Nottingham and Bristol.

PTE Powers and Responsibilities

Passenger Transport Executives were established by the 1968 Transport Act to plan and develop public transport services in large metropolitan areas. They are responsible to Passenger Transport Authorities which are made up of elected representatives of their constituent district councils.

There are currently seven PTEs which collectively serve more than 13 million people in Greater Manchester, West Midlands, Strathclyde, Merseyside, West Yorkshire, South Yorkshire and Tyne and Wear.

Their main duties are to:

- produce the strategies for the development of local public transport networks;
- manage and plan local rail services (in partnership with the SRA);
- plan and fund socially necessary bus routes;
- work in partnership with private operators to improve bus services—for example through bus priority schemes;
- run concessionary travel schemes—including those for older, disabled and young people;
- invest in local public transport networks—including new rail and bus stations;
- develop and promote new public transport schemes—like light rail and guided bus networks;
- provide impartial and comprehensive public transport information services—including by phone and internet;
- manage and maintain bus and rail stations, bus stops and shelters.

In some cases PTEs are the operators of public transport, such as the Tyne and Wear Metro, Glasgow Subway and some ferry services. However, most public transport in PTE areas is operated by private companies.

- 2.3 The PTE's play a full and positive role in the development of local rail services consistent with the aims of Government policy. With a population of more than 13 million living within their areas the PTEs are in a position to make a major contribution to the achievement of national, as well as local, policy delivery targets. They regard their active involvement in the specification and management of franchises as a 'value added' activity enabling the SRA and PTEs to work in partnership with distinct roles. Although there are local variations, in general the PTEs view their involvement as:
- ◆ ensuring that the rail network plays an enhanced role in meeting local transport objectives as an integral part of the local and regional transport strategy;
 - ◆ building upon the value of past investment in the local rail network;
 - ◆ developing integration with other modes through their close links with bus and tram operators and the local highway authorities;
 - ◆ improving local public accountability of the franchisees, contributing to the SRA's aim of services that are responsive to passenger needs;
 - ◆ adding local policy 'weightings' in decision making processes, allowing Government policy to be more effectively implemented to meet local and regional needs.

Rail in the PTE Areas – an Overview

- 2.4 Across the national rail network there are significant variations in the market conditions for the franchises. The traffic patterns and economics of these differ widely. The former inter-city routes, for example, serve a relatively small number of stations with trains carrying large numbers of long distance passengers, generating high revenues. There are commercial pressures to maintain standards and any loss of quality may well reduce income. In contrast, the local urban rail services within PTE areas serve a large number of small stations, with more basically equipped trains carrying short distance low revenue passengers. Fares are kept low for transport policy reasons. As such, the services require subsidy.
- 2.5 With costs typically outstripping farebox revenue by a factor of 3 to 4 there is a concern amongst the PTEs that there is little commercial incentive for operators to maintain the high quality needed if they are to compete in attractiveness with the car. As there is no scope for a commercial return on investment, both renewals and upgrading, to enhance efficiency and quality of service, must be met from public funds.
- 2.6 This is important. It is clear from survey and research evidence that the PTE areas continue to be characterised by a highly competitive transport market. Rail does not have a role of 'carrier in the last resort' which could be argued is the case in the South East. Rail passengers often have genuine alternative travel choices. Car and bus and in some cases, LRT/Metro, are genuine 'competitors' to rail and many passengers do have a choice (particularly for off-peak travel). Research for Centro shows that only 28% of rail passengers in the Centro area were 'captive' to rail, that is, they believed that they had no other travel option. The equivalent figure for Merseyside is 30%.

PTE Powers and Responsibilities for Rail

Before privatisation

PTEs procured services under Section 20 of the 1968 Transport Act by agreement with British Rail. They purchased these services on the basis of marginal costs (for the passenger railway), with resources being costed on an outturn basis, and revenue risk fully carried by PTEs. Changes would be negotiated with the appropriate sector of BR e.g. Inter City, freight, according to primacy rules. Government allocated a Standard Spending Assessment (SSA) for PTE railways based largely on the route mileage of the network under PTE support.

PTEs made capital grants to BR for resources they wished to fund such as new stations. However, they were also able to fund track and signalling infrastructure through capital grants. Major schemes were also funded in this way such as Airedale/Wharfedale electrification.

At privatisation

The trains, stations and station facilities that PTEs had purchased were handed over to Railtrack and the rolling stock leasing companies (ROSCOs). The value of those assets is reimbursed to PTEs via an annual 'deed of assumption' payment from central government. The SRA are now intending to repay these Deeds of Assumption monies in full in the near future.

Since privatisation PTEs are party and co-signatories to franchise agreements. For their local rail networks PTEs produce statements which can specify service levels, quality requirements and fares regulation. The SRA has to include those specifications in the franchise agreement unless it considers that would compromise its wider national financial and strategic duties. The SRA also has to consult with the PTEs on any significant proposals for service changes. In case of a dispute between the SRA and the PTEs, either party can refer the matter to the Secretary of State for his decision.

As part of the first round of franchise agreements the PTEs secured the service levels that existed under BR, and also negotiated a series of improvements, including new rolling stock as well as new routes and stations. Some PTEs also chose to take the 'revenue risk' i.e. subject to national fares regulation, PTEs set rail fares in their areas.

PTEs also introduced a Service Quality Improvement Regime (SQUIRE) which through regular surveys of stations and trains, incentivises operators to properly maintain and clean stations and trains through a system of fines and bonuses.

PTEs still subsidise rail services in their areas. However the full costs of doing so are covered by a grant from the SRA. This has replaced the previous position under which central government provided funding through Special Rail Grant. The PTE has no ability to vary the subsidy payment to the franchisee. The franchisee also receives subsidy from the SRA for their specified services. Its chief outgoings are track access charges to Network Rail and train leasing payments to the ROSCOs.

Throughout this complex 'money-go-round' there is limited transparency and poor linkage between payment levels and the level and quality of the service delivered in return.

However, despite these problems PTEs continue to invest directly in additional rail services and facilities. They can do this through investing directly in stations and trains, and through providing additional support for additional services. Funding for this comes from their core budgets and through other sources, such as grants from the now suspended SRA Rail Passenger Partnership fund.

PTEs retain the power to purchase or lease rolling stock directly.

- 2.7 This combination of a genuine market for transport choices and yet a lack of market incentive to the TOCs make the PTE areas fundamentally different to any of the other rail sectors in the country. A decline in rail use as a consequence of declining quality standards would have little impact on the bottom line of the operator, but could seriously damage the ability of the PTE to meet its objectives.
- 2.8 And yet despite the similarity of characteristics the railways in the PTE areas apparently perform very differently, this is illustrated in the varying subsidy requirement for each PTE.

Table 2.1 Subsidy per Passenger Journey and Passenger Km - 2001/02⁷

PTE	Subsidy per Passenger Journey	Subsidy per Passenger km
Greater Manchester	£5.03	30p
South Yorkshire	£4.37	56p
West Yorkshire	£3.29	15p
Tyne & Wear	£2.44	14p
Merseyside	£1.99	20p
West Midlands	£1.12	n/a
Strathclyde	£1.71	10p
All PTE's	£2.20	16p

- 2.9 To gain an understanding of why this is the case we need to recognise the different economic, social and spatial characteristics of these conurbations.

West Midlands

- 2.10 The West Midlands region has a population of 5.3 million (2001 Census), of which 2.55 million lie within the PTE area. At the heart of this region is Birmingham, a city of one million people, providing a workplace for nearly 500,000 people. Central Birmingham acts as a strong focus for travel demand in the region, with over 50 services arriving at Birmingham New Street rail station in one hour in the morning peak⁸.
- 2.11 Outside of Birmingham, the Metropolitan area has another tier of centres, Coventry, Dudley, Solihull, Sutton Coldfield, Walsall, West Bromwich and Wolverhampton.
- 2.12 The West Midlands accounts for over a quarter of total UK manufacturing exports and the largest manufacturing output and concentration of employment of any urban area in the UK. These factors have contributed over the last decade to real economic growth in Gross Domestic Product (GDP) of around 29%. This has resulted in an additional 240,000 people in employment and a falling unemployment rate, down from 12% to below 5%.

⁷ Rail Industry Monitor except the Strathclyde figure which was supplied by SPT

⁸ Rail Planner, Travelinfo systems Winter 2004 timetable 0800-0900

- 2.13 Despite this economic growth, the West Midlands GDP remains at only around 92% of the overall UK and European average with manufacturing productivity levels the second lowest of the English regions. Congested road and rail systems are factors in this poor performance, which is due in part to the dispersed origins of industrial, employment and residential patterns leading to high car dependency. High traffic volumes are further exacerbated by large traffic generators like Birmingham International Airport and the National Exhibition centre.
- 2.14 Numerous parts of the West Midlands show some of the highest levels of deprivation in the country and there is evidence that the gap between households with and without employment is growing. Using the Index of Multiple Deprivation (IMD) 2000 scoring the West Midlands region has 52 of the 841 most deprived wards in England; this includes two of the most deprived wards in England, Aston at 27th and Sparkbrook at 33rd (out of 8,414 wards nationally). Many of these are inner-city localities and are well provided with local rail services.
- 2.15 The West Midlands has seen a steady growth in car ownership with household ownership of two or more cars doubling since the 1970's. Despite the growth in car ownership, nearly half of all households in Birmingham do not have a car. There are therefore a very large number of people who have a high dependency on public transport.

Rail Services

- 2.16 The development of the West Midlands rail network has been a considerable success story. As the hub of the national rail network, the West Midlands continues to fulfil a crucial role in the daily delivery of local, regional suburban, inter-regional and inter-city rail services. With Birmingham city centre undergoing a series of major retail, business and leisure redevelopments, the rail stations and New Street in particular, are right at the heart of the city.
- 2.17 The rail network is used by about 31 million passengers per year accounting for some 6% of local transport movements in the region. The role of rail within the centre of Birmingham and to a lesser extent, Coventry and Wolverhampton, is significant, catering for 18% of all trips to Birmingham during the morning peak period.
- 2.18 Like bus, rail patronage was on a steady decline until the mid 1990's when investment in new routes and services started to deliver an increase. Major initiatives such as the re-opening of the Jewellery Line and the introduction of Cross City services resulted in significant growth in the proportion of rail trips in the conurbation. During 1999 and 2000 the annual increase was 3.1% taking total usage to 26.5 million although this figure was affected by the opening of line one of the Midland Metro that transferred some 0.8million trips from rail. The Hatfield train crash and subsequent months of network disruption, reduced the 2000/01 total to 22.8 million, but rail use is again showing evidence of growth, now only being checked at peak times by local network capacity limitations.

West Midlands - Developing Cross City Services

The Cross City Line

The Cross City Line runs between Lichfield and Redditch through the centre of Birmingham via New Street station. It is a major success story, and the culmination of a twenty-year investment programme by Centro. The line was originally opened in the 1970s as a Cross City link after significant investment in new stations by Centro.

In response to a rapid growth in patronage the frequency on the Southern section of the line from Birmingham New Street to Redditch was further improved and services to Litchfield Trent Valley in the North re-introduced. The route was electrified in the mid-1990s and the life-expired diesel units replaced by Class 323 electric trains.

A key aim of West Midlands PTA (WMPTA) and Centro's Twenty Year Public Transport Strategy, published in 2000, is to develop "turn up and go" services on key public transport routes. Most of the stations on the Cross City Line were identified in this report as "High Demand" – priorities for such a service.

In September 2002, with Centro and SRA Rail Passenger Partnership funding, an all-day ten minute frequency service was established on the busiest part of route between Longbridge and New Street, along with further off peak improvements and the introduction of semi-fast trains to improve journey times. Centro also addressed the park and ride facilities on the route by investing £1.8million in three hundred additional spaces at Selly Oak station and a number of smaller improvements elsewhere.

The Cross City route is now the busiest local rail line in the West Midlands, representing about 40% of local rail movements in the area, contributing significantly to the economic renaissance of Birmingham city centre and helping to reduce traffic congestion.

The Jewellery Line

The Jewellery Line provides a further cross-city link that has been developed by Centro. It connects the Stourbridge line on the south west of Birmingham with the Solihull and Shirley lines to the southeast. In doing so it links services from Worcester and Kidderminster with those from Stratford and Leamington via Snow Hill station in the centre of Birmingham.

The four-mile line from Snow Hill to Smethwick was opened in September 1995 along with three new stations at the Jewellery Quarter, Hawthorns and Smethwick Galton Bridge. The total cost of the new line was £28.5million, largely funded by Centro and the European Union.

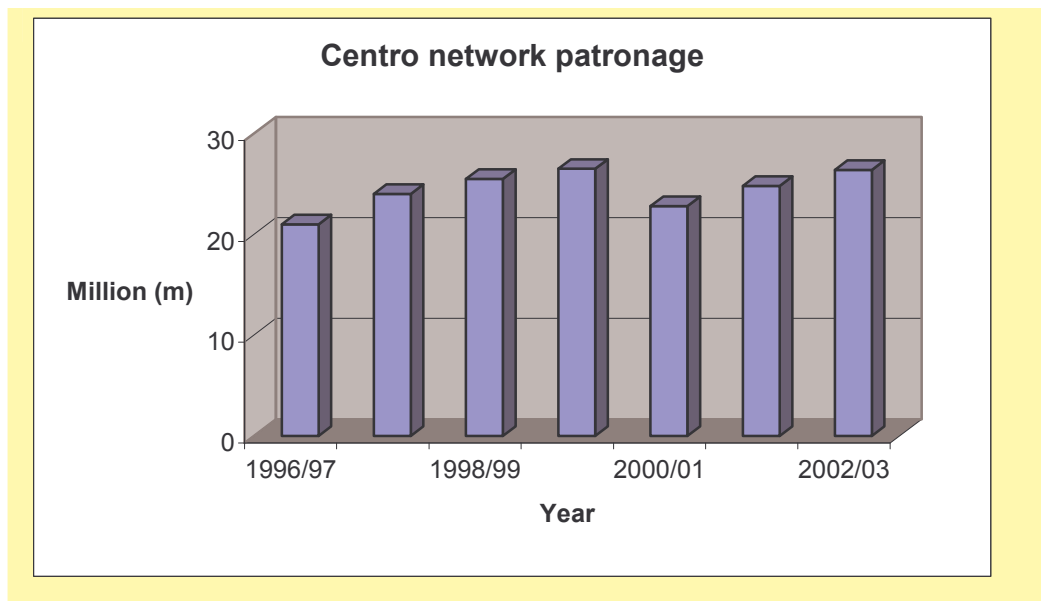
The Jewellery Line lies close to the M5/M6 interchange, providing an alternative for many commuters. Traffic problems at the regenerated Jewellery Quarter have been eased whilst Hawthorns station provides safe park and ride facilities from the M5 into the City Centre and also serves West Bromwich Albion's football stadium.

In addition to helping alleviate traffic congestion in the region, the new line has also helped to improve rail service reliability by diverting trains through Moor Street and Snow Hill and away from congested routes through Birmingham New Street.

The line has been very successful. The Jewellery Line After Survey reported that a quarter of boarders at the three new stations were conducting 'new' trips, 23% were transferring from bus and 11% from car. Over a third, 38%, felt that services had become more reliable.

Centro, 1996, Snow Hill Phase 2 – Jewellery Line After Survey.

2.19 It is estimated that there were 26.4 million rail passengers in the West Midlands in 2002/03. This represents a 6.4% increase over 2001/02. The chart below highlights the steady growth of rail patronage throughout the late 1990's and its recovery following the aftermath of the Hatfield crash.



West Midlands at a glance

Population	5.3 million (2.55 million in PTE area)
Core city	Birmingham
Districts	Coventry, Dudley, Solihull, Sutton Coldfield, Walsall, West Bromwich and Wolverhampton, and Merry Hill Centre
Conurbation wide unemployment	4.9% in 2001
Car ownership	34% of households have no car, 24% have 2+ cars
Existing rail patronage	26.4 million rail passengers in 2002/03

South Yorkshire

2.20 The South Yorkshire conurbation of around 1.3 million people incorporates 4 main centres, Barnsley, Doncaster, Rotherham and Sheffield. Sheffield has broadly twice the population of the others.

Table 2.2 District Populations for South Yorkshire⁹

District/Area	2000 Population (000's)	% of Population by District
Barnsley	228.1	18%
Doncaster	290.1	22%
Rotherham	253.2	19%
Sheffield	530.1	41%
SY Total	1301.5	100%

- 2.21 South Yorkshire is somewhat different to the other conurbations considered in this study in that the relationship between the region's Core City of Sheffield and the other centres is not one of economic and social dominance. Although Sheffield is home to 41% of the regions population, economically speaking Barnsley, Doncaster and Rotherham can also boast economies that are regenerating and have comparable employment statistics.
- 2.22 The unemployment rate in South Yorkshire of 4.1% is higher than the United Kingdom average of 3.4%. (2001/02 figures). Every district has seen a fall in the level of unemployment between 1999/00 and 2001/02, with the highest drops in South Yorkshire occurring in Doncaster and Rotherham, where the numbers fell by 30% indicating a local economy on the rise after many years of decline in the core mining and steel sectors.
- 2.23 Currently 33% of households in South Yorkshire do not own a car. The growth in car ownership of households with two or more cars rose by 89% between 1981 and 1996 whilst the number of households that had no access to a car fell by 22%. Almost two thirds of car owning households identify the car as their primary means of access to work.

Rail Services

- 2.24 The rail network is smaller than some of the other PTEs. However rail plays a key role in linking the four centres. These services provide a vital link for smaller ex-coliery and coalfield villages to the regional town and city centres. In this sense the railway plays a key role in promoting social inclusion within South Yorkshire.
- 2.25 During the late 1980s and early 1990s passenger journeys on the SYPTE network doubled (from 2 million to 4 million a year) following a programme of investment in stations, services and marketing.
- 2.26 Between 1997/98 and 2001/02 ridership broadly levelled out with a small fall from 4.4 million to 4.3 million - a 2% drop. Between 2000/01 and 2001/02 there was a 6% increase in patronage to 4.5million.

⁹ Source: University of Durham - NOMIS database

- 2.27 SYPTE and the four district councils of South Yorkshire and Yorkshire Forward see the role of local rail services as improving accessibility to the key regional and sub-regional centres, particularly for work trips. A more direct routing, higher commercial speeds and immunity from road congestion currently gives it an average journey time advantage over equivalent existing bus services and a potentially increasing advantage over car.
- 2.28 It therefore makes a real contribution to the PTE’s key aims of increasing mode choice, social inclusiveness and economic regeneration. All stakeholders are interested in making better use of the capacity of the rail network, but recognise that very significant additional capital expenditure at certain ‘pinch-points’ may be needed to achieve this. In particular, the need to improve the connectivity of Barnsley to the national network is recognised.
- 2.29 The role of an extended Supertram light rail network, as a more affordable alternative or complementary mode on certain corridors, is being investigated, as are options to improve bus services.

South Yorkshire at a glance

Population	1.3 million
Core City	Sheffield
Districts	Barnsley, Doncaster, Rotherham and Sheffield
Conurbation wide unemployment	4.1% in 2001
Car ownership	33% of households in South Yorkshire do not own a car; 24% have 2+ cars
Existing rail patronage	Patronage doubled during the 1980s. More recently it has stabilised. Currently (2002/3) 4.3 million rail passengers per year.

West Yorkshire

- 2.30 West Yorkshire has a population of 2.08 million and encompasses the five districts of Leeds, Bradford, Calderdale, Kirklees and Wakefield. Of these towns and cities, Leeds is designated as the Core City.
- 2.31 The region is swiftly growing in both economic and population terms. West Yorkshire was the only metropolitan area to experience population growth between 1981 and 1997 and further growth is forecast. Employment grew by 8% between 1988 and 1997 with Leeds contributing 44% of the region’s economic output and attracting a large workforce from outside the city itself.

- 2.32 The key business areas of Leeds are manufacturing, service industry, public sector, media, e-commerce and tourism, which have contributed to the generation of 47,000 net additional jobs between 1992 and 2002.¹⁰
- 2.33 Despite the economic success, car ownership is still relatively low but is growing rapidly. Currently, almost one third of residents in West Yorkshire do not own a car, but 54% travel to work by car contributing to a highly congested road network, particularly at peak times.

Rail Services

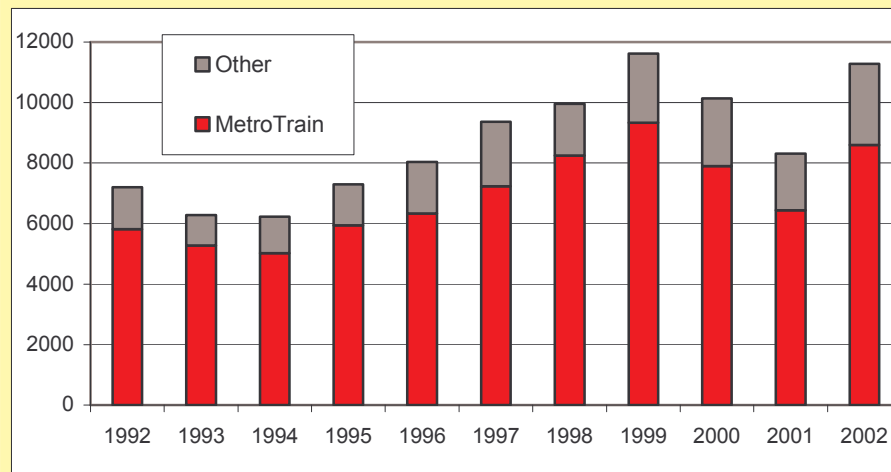
- 2.34 Heavy rail in West Yorkshire has been a considerable success story. An ambitious programme of enhanced services, new stations, new trains and an extensive marketing drive in the 1980s and 1990s contributed to a doubling of patronage. Linked in part to the economic growth of Leeds, peak time patronage growth has been particularly substantial.
- 2.35 Patronage on peak services to and from Leeds has increased by 57% over the last 10 years (growth in 2000 and 2001 was affected by the Leeds station regeneration and performance problems). Growth has been particularly strong, where there has been significant investment, for example on the Airedale/Wharfedale routes.

“There is no other competitive public transport alternative for many longer inter-urban peak time journeys in West Yorkshire. This is evident from the high rail travel share on Airedale and Wharfedale line corridors to Leeds. For example, rail modal share to Leeds City Centre from stations North of Shipley at peak times is 75%”¹¹

- 2.36 Major changes to the network infrastructure have been implemented during the last twenty years Metro funded a significant element of the electrification and re-signalling of the Airedale and Wharfedale Lines in the early 1990s. Electric train services to Ilkley, Skipton and Bradford commenced in 1995 with new high quality Class 333 units introduced on the routes in 2000 (see case study in Chapter 10). Signalling has been modernised throughout most of the network with centralised power control from York. Much track, bridge and tunnel renewal work has been undertaken.
- 2.37 The West Yorkshire local rail network now includes 65 stations with a significant number exhibiting modern facilities such as long line public address, CCTV, passenger information screens, high quality waiting accommodation, free parking, bus links and so on. A comprehensive programme of station improvements is continuing and, in co-operation with the local train operator, staffing has been reintroduced within the last four years at three stations with proposals for at least another four stations to be similarly treated.
- 2.38 Metro is currently working on a further programme of new station openings with five stations identified for early implementation, the first of which, Glasshoughton, is due to open in 2004.

¹⁰ Source; Leeds Economy Handbook

¹¹ Aire Valley Transportation Study 2001, Report of Surveys



AM Peak patronage Leeds passenger arrivals (0730-0900)

West Yorkshire at a glance

Population	2.08 million
Core City	Leeds
Districts	Leeds, Bradford, Calderdale, Kirklees and Wakefield
Conurbation wide employment	Employment grew by 8% between 1988 and 1997 with Leeds contributing 44% of output. Unemployment in 2001 was 3.6%, close to the national average of 3.4%
Car ownership	32% of residents in West Yorkshire do not own a car; 25% own 2+ cars
Existing rail patronage	Patronage on peak services to/from Leeds has increased by 57% over the last 10 years. In 2002/3 there were 17.4 million passengers

Tyne and Wear

2.39 Tyne and Wear has a population of 1.1 million, the smallest of the English Metropolitan Counties. It incorporates 5 districts, Gateshead, Newcastle, North Tyneside, South Tyneside and Sunderland, with Newcastle the Core City.

- 2.40 Forecasts show that the population of the Tyne and Wear region is projected to decrease by 5% between 1996 and 2016. The number of economically active adults is forecast to decrease. Conversely the number of retired people is forecast to increase. The knock on effects of this regional population profile is that a smaller economically active population means a smaller local tax base from which to support transport schemes.¹²
- 2.41 Unemployment in Tyne and Wear, at 4.7%, is above the UK national average. However Newcastle, in particular has seen employment growth in the retail, construction and public sectors, which has compensated for the decline in manufacturing, coal and traditional financial services the former mainstays of the economy. To attract and retain the regions economically active age group Newcastle and Gateshead are leading the way in regeneration initiatives.
- 2.42 Car ownership in Tyne and Wear is the lowest in any of the Metropolitan areas, with 42% of households not having access to a car in 2001. At 17% it also has the lowest proportion of households with two or more cars. However, forecasts project that household car ownership will increase such that 65% of households will own at least one car by 2016.

Rail Services

- 2.43 The major feature of Tyne and Wear's rail network is the extensive Metro system developed by the Tyne and Wear PTE (now named Nexus) in the 1970's. This was built using a combination of existing and disused railway lines; it recently expanded to Sunderland through joint running over a stretch of the National Rail network, where Metro trains complement Arriva Trains Northern services. The Metro carries the vast majority of rail based travel in Tyne and Wear with the Network Rail system concentrated on a relatively small number of routes.
- 2.44 The Tyne and Wear passenger rail network centres on Newcastle. Routes include the north-south East Coast main line and the east west Tyne Valley line connecting via the Newcastle-Sunderland line and the Durham Coast line to Teesside.
- 2.45 The East Coast main line carries primarily long distance services provided by Great North Eastern, Virgin Cross Country and the Transpennine services operated by First Group Keolis. These, combined with all station local services operated by Arriva Trains Northern (ATN) provide commuting opportunities into Newcastle. Overall, just over 2 million passengers travel to and from Tyne and Wear's main centres by these regional services.
- 2.46 Other service improvements that have been implemented in recent years include the introduction of direct services between Teesside and Tyneside using the East Coast main line (now being withdrawn at the SRA's behest because of capacity concerns on the ECML), a two hourly Transpennine services extended to Sunderland (also now being withdrawn) and the introduction of services to Manchester Airport.
- 2.47 The Tyne and Wear local network play an important feeder role to the main line network. Surveys by Nexus indicate that 47% of rail passengers on the Sunderland to Newcastle service transfer onto other national rail services.

¹² Tyne and Wear Local Transport Plan 2001-2006

Tyne and Wear at a glance

Population	1.1 million
Core City	Newcastle
Districts	Gateshead, Newcastle, North Tyneside, South Tyneside and Sunderland
Conurbation wide unemployment	4.7% in 2001
Car ownership	42% of households do not have access to a car – one of the highest levels of non car availability in the country; 17% have access to 2+ cars.
Existing rail patronage	2.2 million passengers per year travel to and from Tyne and Wear's main centres, 0.7 million on Nexus supported services

Greater Manchester

- 2.48 The Greater Manchester conurbation with a population of 2.48 million people is made up of the districts of Bolton, Bury, Oldham, Rochdale, Salford, Stockport, Tameside, Trafford and Wigan. Manchester is the Core City. The population of each district is outlined below.

Table 2.3 Population by District within Greater Manchester 2001

Area	Population (000s)	%
Bolton	261.3	10.5
Bury	180.7	7.3
Manchester	392.9	15.8
Oldham	217.5	8.7
Rochdale	205.2	8.3
Salford	215.9	8.7
Stockport	284.6	11.5
Tameside	213.1	8.6
Trafford	210.2	8.5
Wigan	301.5	12.1
Greater Manchester	2482.8	100

Source: ONS 2001 Mid-year estimate.

- 2.49 Although a number of centres within the conurbation are of similar size the levels of economic activity and economic performance are more varied.
- 2.50 Greater Manchester has a global reputation as a leading European centre. It is a regional centre for finance and business services, cultural and media industries, and higher education, with Manchester being home to the largest university campus in the UK. In addition, Manchester Airport is amongst the world's top twenty in terms of passenger throughput, with the current figure of 19 million passengers per year projected to rise to 40 million by 2015.

- 2.51 Greater Manchester experienced employment growth of 4.3% between 1998 and 2000, with 10% of the county's working population being employed in the central ward of Manchester¹³.
- 2.52 More people travel to work by car in Greater Manchester than in any other UK metropolitan area, and Manchester has the biggest metropolitan travel to work area outside London - over twice as big as Leeds.

Rail Services

- 2.53 Greater Manchester has a relatively extensive network, the largest in England outside of London. Routes converge upon a highly congested 'hub' between Manchester Piccadilly, Oxford Road and Victoria stations where local, regional and inter-regional services converge. The issue of lack of capacity in the Manchester hub is of regional and indeed national significance. It has a direct impact not just on Greater Manchester's aspirations for developing their network but also on Merseyside's plans.
- 2.54 Passenger journeys on local train services supported by GMPTC have grown over the last ten years from around 11 million passengers per year to 16.8 million, an increase of 53%. Over the same period there has been an even greater growth in the use of the Metrolink services (from 7.6 million to 18.3 million).
- 2.55 Passenger kilometres travelled by rail have grown substantially within Greater Manchester, from 208 million in 1991/2 to 282 million in 2002/3, a rise of 36%. This indicates that the average length of rail journeys in the conurbation is increasing.
- 2.56 However, whilst the northern half of the network (corridors to Bolton, Wigan, Rochdale, Oldham and Ashton) has seen growth of between 43% and 67% over this period, demand has been falling or static in the south (in the corridors to Marple, Glossop, Stockport, Irlam and Styal).
- 2.57 Our analysis for this study indicates that there are around 1.83 million people living within 2km of a local rail station in Greater Manchester. This compares with only 1.09 million in West Yorkshire, a network carrying broadly similar numbers of passengers per year. This would seem to confirm the view of GMPTC that the potential for growth in rail usage in the Manchester area is considerable.

¹³ Source; Greater Manchester Research, a strategic research and information service of the Association of Greater Manchester Authorities (AGMA)

- 2.58 It is, however, impossible to look at the rail network in Greater Manchester in isolation from Metrolink.
- 2.59 The current Metrolink network has 37 stations with a network of 39 route kilometres. In 2002/03 the system carried 18.8 million passengers and 167 million passenger kilometres. The original Metrolink lines consisted of two former heavy rail lines from Manchester-Bury and Manchester-Altrincham which were linked in 1992 by an on-street section through the city centre. Phase 2 saw the network further extended to Eccles via Salford Quays in 2000.
- 2.60 Proposals for Phase 3 will see new lines to Ashton-under-Lyne, Oldham and Rochdale and South Manchester/Manchester Airport. These extensions will more than double the size of the existing network to 95 kilometres and carry around 40-45 million passengers a year when complete.

Greater Manchester at a glance

Population	2.49 million
Core City	Manchester
Districts	Bolton, Bury, Oldham, Salford, Stockport, Tameside, Trafford, Wigan and Manchester
Conurbation wide unemployment	3.5% in 2001 – the lowest of any of the metropolitan areas
Car ownership	33% of households do not have access to a car; 24% have 2 + cars
Existing rail patronage	16.8 million in 2002/3

Merseyside

- 2.61 The population of Merseyside is 1.36 million. The conurbation includes Liverpool, Knowsley, Sefton, St Helens and Wirral (Table 2.4). Liverpool is the Core City.

Table 2.4 Population by District in Merseyside 2001

Area	Population (000s)	%
Liverpool	439.5	32
Knowsley	150.5	11
Sefton	282.9	21
St Helens	176.8	13
Wirral	312.2	23
Merseyside Total	1362.0	100

- 2.62 Merseyside's core city is Liverpool, which, from a legacy of industrial decline and social deprivation, has been growing rapidly in recent years. Amongst the Core Cities, Liverpool has had the second highest growth rate in job creation in the last five years, faster than the regional average.

- 2.63 While the city still has the highest unemployment levels in the North West Liverpool is expected to reach parity with the regional economic per capita GDP over the next five years.
- 2.64 Sitting at the centre of a City Region of 1.5 million people with a workforce of 700,000 Liverpool has a population of 0.44 million. The City contributes around 7% of the region's jobs and 7% of its Gross Valued Added (GVA).
- 2.65 Currently 38% of households do not own a car, indicating the high proportion of Merseyside's residents who are reliant on public transport.

Rail Services

- 2.66 Merseyrail is an electric urban rail system which feeds into an underground loop serving Liverpool City Centre. The 140 route kilometre network extends as far as Southport, Ormskirk, the Wirral, and Chester and is one of the most intensively used networks in the UK with over 780 trains on weekdays, and over 34 million passenger journeys a year. The service offers a genuine alternative to car travel to the major centres and 30% of Merseyside's population live within 800m walking distance of stations.
- 2.67 The total number of passengers travelling on the Merseyrail network increased from 29.6m in 1997/98 to 35.4m in 2002 before falling back slightly to 34.1m in 2003.

Table 2.5 Summary of Annual Usage of Merseyrail

	97/98	98/99	99/00	00/01	01/02	02/03	% Change 97/98 - 02/03
Passenger journeys (millions)	29.6	31.2	33.7	34.1	35.4	34.1	15.2
Passenger mileage (million miles)	187.4	195.5	207.8	207.5	215.9	209.0	11.5
Average journey length (miles)	6.3	6.28	6.17	6.09	6.10	6.13	-2.7

- 2.68 Investment since 1997 includes four new DDA compliant stations at Brunswick, Conway Park, Wavertree Technology Park and Lea Green, the revitalisation and upgrade of four existing stations to make them fully accessible, and extended and upgraded park and ride facilities at a number of stations. A rolling programme of new passenger facilities includes CCTV, passenger information, help points, secure cycle storage and so on.
- 2.69 Major proposals include a new interchange at Allerton to serve the airport and business park, a programme of new accessible trains, upgrading the underground stations and a programme of service enhancements across the network.

Merseyside at a glance

Population	1.36 million
Core City	Liverpool
Districts	Liverpool, Knowsley, Sefton, St Helens and Wirral
Conurbation wide employment	Liverpool employment is around 0.21 million jobs. Unemployment across Merseyside is 4.9% (2001)
Car ownership	38% of households do not own a car; 21% have 2+ cars
Existing rail patronage	The total number of passengers travelling on the Merseyrail network has increased from 29.6 million in 1997/98 to 34.1million in 2002/03

Strathclyde

- 2.70 The Strathclyde region has a population of 2.1 million of which Glasgow accounts for 578,000. Other districts and local authorities within Strathclyde include Argyll & Bute, East Ayrshire, East Dunbartonshire, East Renfrewshire, Inverclyde, North Ayrshire, North Lanarkshire, Renfrewshire, South Ayrshire, South Lanarkshire and West Dunbartonshire.
- 2.71 Of these areas Glasgow is the main centre. Employment in the city has grown by about 20,000 since 1999.
- 2.72 The explanation for Glasgow’s success in creating jobs can largely be attributed to its industrial structure, which is biased towards the faster-growing service sectors and away from manufacturing industries. The growth in employment has been amongst the largest experienced by any of the UK regional cities. However, the wider metropolitan area, (excluding the city), lost jobs over this period.
- 2.73 Unemployment rates are now at the lowest level in the city for a generation. However, they remain above the Scottish average and there are areas of high unemployment and social exclusion within the city. Inactivity rates are high with over 100,000 people economically inactive. Economic participation rates remain low, suggesting that many Glasgow residents have not been able to access new job opportunities. The high level of inactivity, in particular, acts as a brake on economic growth by restricting the city’s competitiveness and reducing the potential for new employment opportunities.
- 2.74 Car ownership in Strathclyde is indicated in the following table for each area.

Table 2.5 Car Ownership in Strathclyde

Area	Total Households (000s)	% of Households with no car	% of Households with one car
Argyll and Bute	39.0	28	47
East Ayrshire	50.3	33	44
East Dunbartonshire	42.2	21	45
East Renfrewshire	34.9	20	43
Glasgow	271.6	56	34
Inverclyde	36.7	43	40
North Ayrshire	58.7	36	44
North Lanarkshire	132.6	37	43
Renfrewshire	75.4	37	41
South Ayrshire	48.7	29	46
South Lanarkshire	126.5	32	43
West Dunbartonshire	40.8	43	41

Source: Scotland's Census Results 2001 Online (SCROL)

- 2.75 Glasgow has the highest percentage of households without access to a car, notably higher than any of the English metropolitan areas. Across the whole of Strathclyde region nearly 40% of the household population does not have access to a car suggesting a high dependency on public transport.

Rail Services

- 2.76 The network in Strathclyde is the largest outside London. It comprises 334 route miles over 15 routes and with 180 stations. Recent investment has seen the reopening of the Argyle line, the electrification of the Ayrshire coast routes, the reopening of 40 stations and the opening the North Lanarkshire line. The SPT network carries around 43 million passengers annually.
- 2.77 With a sustained policy commitment to investment in services and the network, Glasgow has achieved what the Director General of Strathclyde Passenger Transport (SPT) describes¹⁴ as a 'relatively benign' balance between public and private transport. Despite having 42% of Scotland's population and 42% of GDP, Strathclyde has only 33% of Scotland's road traffic (measured in vehicle kilometres).

¹⁴ Malcolm Reed paper to a conference on the Future of Scotland's Rail System, 27th February 2002

2.78 But it is rail’s contribution to allowing the city of Glasgow to function that is perhaps most significant. In the same speech the SPT Director General noted that:

“... without the contribution of the rail network in dealing with peak commuting, Glasgow could not function as a major business centre within its present urban form. I think it is also fair to say that the costs of making alternative provision would be insupportable.”

2.79 This statement exemplifies the fundamental role of rail for the economy of Strathclyde and Glasgow in particular.

2.80 Over the last decade SPT has initiated an award-winning programme of CCTV development across their network, invested heavily in new, accessible, rolling stock, introduced a programme of park and ride investment at key stations around Glasgow and is leading the reintroduction of services, and two new stations, on the Larkhall line in south east Glasgow.

Strathclyde at a glance

Population	2.2 million
Core City	Glasgow
Districts	Argyll & Bute, East Ayrshire, East Dunbartonshire, East Renfrewshire, Glasgow, Inverclyde, North Ayrshire, North Lanarkshire, Renfrewshire, South Ayrshire, South Lanarkshire and West Dunbartonshire
Conurbation wide employment	Employment in Glasgow has grown by about 20,000 since 1999. Unemployment is 4.6% (2001)
Car ownership	40% of households do not own a car. In Glasgow this rises to 56%
Existing rail patronage	43million passengers annually

Other Major Conurbations

2.81 The Core City initiative includes Bristol and Nottingham, which whilst not PTEs are significant conurbations where the local authorities have successfully developed their rail network. The same can also be said of Cardiff, (see text box).

2.82 **Bristol** is the hub of a City Region that encompasses the four authorities of Bristol, Bath and North East Somerset, North Somerset and South Gloucestershire. Over the last ten years the population of the City Region has grown faster than the UK average to nearly one million people. The City Region generates 24% of the South West’s GDP, has 24% of the region’s employment and 21% of the region’s 200,000 businesses.

- 2.83 The Bristol city region's rail network is relatively sparse but serves a significant proportion of the longer commuting routes, notably those from Bath (and West and North Wiltshire), Weston-Super-Mare, Yate (and Gloucester), and South Wales. Rail services are provided by a combination of longer distance inter-regional trains and local passenger services, often of a variable quality and with poor quality rolling stock. However, the region has been very successful in attracting Rail Passenger Partnership funding for a number of new local rail enhancement projects.

Cardiff & the Valleys

Cardiff is not a PTE area but its characteristics strongly resemble one. It has a dense centre, several neighbouring towns which form part of a conurbation or act as satellites. It is also served by a fairly extensive local rail system. The latter has built up to a significant level of activity, mostly on lines up the valleys. Many of the services run on lines affected by pit closures but which have been revitalised for local passenger movement.

This reflects a combination of local authority initiatives and positive efforts by local rail managers. In part this was probably aided by economic and social change, with the loss of coal mining and industry located up the valleys and the growth of the service sector in Cardiff itself. Almost all services are currently run by mid 1980s diesel multiple units, of classes 142/143 and 150 (with one or two leased sets of loco-hauled stock operating in the workday peaks). Various proposals have been considered for further development, including operation of part of the Valley lines as Light Rail, with services diverted to run through the centre of Cardiff.

The Cardiff Council Local Transport Plan, published in 2000, focuses primarily on enhancing heavy rail services, with improvements to track layout, signalling and also to rolling stock. However, the LTP also identifies three significant projects:

- radical improvements to service frequencies, with some lines (Taff Vale, Rhymney, Cardiff Bay) operating at 8 trains per hour frequency, others at 6 or 4 trains per hour (as against 1 or 2 per hour at present);
- conversion of the almost circular line from Coryton to Radyr via Queen Street and Central to Diesel Light Rail, operating at high frequency, perhaps with a link over the short distance between them to give a full circle: this would support denser residential development and new stations;
- further development of the network into a full light rail system.

So far no real changes have been brought into operation. However, the proposals for general enhancements and for the Coryton – Radyr loop are included in the May 2003 Transport Action Plan. The Action Plan also calls for investigation of LRT. This is now in hand, through a study commissioned by the Council.

- 2.84 **Nottingham** lies within the East Midlands and is one of three cities that make up the region's urban core. The population falling within the Nottingham City Council area is 267,000, but there are more than 750,000 residents living in the Greater Nottingham area. There the city provides 178,500 jobs.

- 2.85 Passenger rail services are currently provided by two rail operators within the Greater Nottingham area - Midland Mainline and Central Trains. Central Trains has recently improved services from Nottingham by increasing the frequency of trains to Birmingham.
- 2.86 The local authorities initiated the 'Robin Hood Line' between Nottingham and Worksop which was completed in May 1998. The line was reinstated in order to link the Mansfield area, which was particularly hard hit by the regional pit closures, with the economically prosperous centre of Nottingham. The service is sponsored by Nottinghamshire County Council, Nottingham City Council and Derbyshire County Council and by a 25% contribution from the Strategic Rail Authority. A regular hourly service is provided Monday to Saturday with additional services running at peak times. The service has been highly successful and attracts over 3,500 passengers per day. More details are contained in a case study in Chapter 4.
- 2.87 Across the City Region the level of service offered to local destinations is currently relatively low compared to other conurbations of a similar size, reflecting a history of limited rail provision. This makes the success of the Robin Hood line even more impressive.

Summary

- 2.88 Between them the local rail services in the PTE areas carry almost 140 million passengers per year. Major investment by the PTEs through the 1980's and 1990's, despite the uncertainties created by privatisation, has seen patronage on many of the networks double. In recent years the PTEs have mainly concentrated on investments that improve the quality of provision and meet social inclusion objectives. Many local authorities throughout Britain have also invested heavily in their rail services and a number of highly successful projects such as the Robin Hood Line have made major contributions towards achieving their wider policy objectives.

3. Key Challenge – The Economy

- 3.1 In the next few chapters we demonstrate how urban rail assists in addressing the key challenges outlined in Chapter 1 and show how, in doing so, it contributes towards achieving a range of government policy objectives.
- 3.2 We begin, in this chapter, with a discussion on the economy before considering the social inclusion agenda (Chapter 4) and the sustainability agenda (Chapter 5). Our assessment of the extent to which rail makes a direct contribution to these objectives from across the range of government departments is set out in the integration chapter, (Chapter 6).

Government Objectives

- 3.3 Public Service Agreements (PSA) were introduced by the government in 1998. In the foreword to the document¹⁵ outlining the government's proposed PSAs the Prime Minister stated;
- 3.4 *“The Public Service Agreements we are publishing here set out what we shall deliver in return for the extra resources provided in the Comprehensive Spending Review. For the first time we are setting targets right across the public services for the modernisation and reform we need to meet the testing demands of the future.....PSAs therefore show what people can expect for their money in the real world.”*
- 3.5 PSAs are clearly central to government policy. They provide an important indication of the objectives that public sector investment, such as rail funding, should be aiming to achieve. We have therefore set them out at the beginning of each of the following chapters, starting in this chapter with the PSA objectives for the economy.
- 3.6 Providing the conditions for a strong economy is a fundamental cornerstone of government policy. A review of the government PSA objectives and targets indicates the crossing cutting nature of this. There are several joint targets between departments with a broad remit for economic development.
- 3.7 Some of the most relevant are set out in the following table:

¹⁵ Public Services for the Future: Modernisation, Reform, Accountability. HM Government 1998

Govt Dept	PSA Objective	Performance Target
Treasury & DTI	IV: increase the productivity of the economy.	Demonstrate progress by 2006 on the Government's long-term objective of raising the rate of UK productivity growth over the economic cycle, improving competitiveness and narrowing the productivity gap with the US, France and Germany. Joint target with Treasury & DTI
Treasury, DTI & ODPM	IV: increase the productivity of the economy.	Make sustainable improvements in the economic performance of all English regions and over the long term reduce the persistent gap in growth rates between the regions, defining measures to improve performance and reporting progress against these measures by 2006. Joint target with Treasury ODPM and DTI
DWP	II: promote work as the best form of welfare for people of working age, while protecting the position of those in greatest need.	Demonstrate progress by Spring 2006 on increasing the employment rate and reducing the unemployment rate over the economic cycle. Joint target with HM Treasury.

UK Competitiveness and Core Cities

- 3.8 Government regional policy is focused on strengthening the building blocks for growth in each region and exploiting indigenous strengths, relying on a central role for major cities and their surrounding hinterland¹⁶.
- 3.9 These major cities are drivers of our regional economies. Recent research has identified that major cities in Britain are experiencing significant employment growth, together with rising house prices and a reversal of previous trends of population decline.¹⁷

The Role of Rail in the Urban Economy

- 3.10 With a combined Gross Value Added of £280 billion (Table 1.2) the regional economies play a major role in the UK economy. Urban rail networks support this in a number of ways, most obviously in terms of;
 - ◆ commuting;
 - ◆ links between urban centres;
 - ◆ supporting retail centres;
 - ◆ assisting regeneration.

¹⁶ Productivity in the UK: the regional dimension, by HM Treasury

¹⁷ (Urban Renaissance Characteristics of EU Non-Capital Cities, by the European Institute for Urban Affairs, on behalf of the Core Cities Working Group, 2003

Commuting

- 3.11 The links between transport provision and economic performance are complex but in simplistic terms the key benefit of transport is that it enables people and goods to get to where they need to be. With the growth of knowledge based economies the emphasis has swung towards the movement of people as city centres have become the locations that provide the necessary interaction of people, goods, services, skills and knowledge.

Manchester: Knowledge Capital

The aims of the Manchester Knowledge Capital, are set out in their prospectus, and are repeated below. They provide a good indication of the type of initiative being developed by the Core Cities.

“To become a Knowledge Capital, cities must have world-class higher education; knowledge and skills in the local workforce; innovation and creativity; diversity; bold city leadership and the ability to channel and communicate knowledge effectively.

Manchester: Knowledge Capital provides a unifying focus to the national urban renaissance and competitiveness agendas, and an inclusive opportunity to realise the full economic potential of the key knowledge assets of other Northern Core Cities and their city-regions. Manchester’s status will increase business growth and has the potential to deliver 100,000 new jobs for the North West. As a consequence, ensuring local communities are able to fully access the job opportunities created by the Knowledge Capital will be vital in maximizing the city’s intellectual capacity.

The success of the city is closely linked to that of the region and therefore maximising connectivity through investment in state of the art, integrated transport solutions is critical. Advanced connectivity and knowledge management would enable Manchester to be inclusive of its region in a unique way not possible for most capitals. Professional expertise, marketing, logistics and research support services must be near at hand and available on demand for entrepreneurs and knowledge-based businesses.

Improvements and increased investment in the heavy rail infrastructure would enable a significant additional competitive advantage to be gained for the Transpennine economy as a whole by developing strategic partnership actions with Leeds, Liverpool and Sheffield. By together driving forward intellectual collaboration across Higher Education Institutions, enhancing international connectivity through improved access to Manchester Airport and building complementary business infrastructure, niche markets and specialisms, there is the potential to create a Northern hub of expertise and innovation to rival the best in the world”.

The ability of local stakeholders to determine specific regional and sub-regional strategies and capital and revenue expenditure priorities on transport would enable real choice to be realised in support of greater competitiveness. The potential for the North West to become a pilot area for such an approach is something that is being explored further with national government and other partners, including the PTEs.

3.12 Hence offering access to labour markets is a key requirement. With extensive networks, such as in Glasgow, rail can deliver a very significant proportion of commuting capacity (Table 3.1 below).

Table 3.1 Trips to Glasgow City Centre (morning peak -%)

Mode	Glasgow City Centre
Rail and Underground	31
Bus	28
Car	41
Total	100

3.13 Rail’s unique feature is its ability to provide the capacity to enable businesses to assemble large and diverse workforces from beyond the boundaries of the city (see Leeds workforce box).

Leeds - Servicing the Predicted Growth in the Workforce

Of the 2 million employees in the Yorkshire and the Humber region, 44% work in West Yorkshire. Within the sub-region, Leeds is the major driver of economic growth accounting for 40% of the West Yorkshire GDP. Between 1991 and 2001, employment in Leeds grew by 22% and the net increase in jobs was greater than any other major British city. Over the last 10 years, there has been an 11.6% increase in employment in Leeds equivalent to 44,300 additional jobs. Forecasts from Cambridge Econometrics indicate that over the next 10 years:

- there will be a further 7.4% increase in employment in Leeds;
- an additional 31,300 jobs will be created;
- the local labour market will only grow by 6,100.

The chart shows how the predicted growth in Leeds compares to the region and the whole of the UK. Leeds will be a major driver for the growth of the region, but the local labour market will only be able to supply 20% of the employees implying a significant increase in commuting into the city. A 20% growth in car commuting is not a practical or sustainable option. Bus will play a role within the urban area but the bulk of the growth from outside of Leeds needs to be accommodated on the rail network.

Region	1993-2003 Increase (%)	2003-2013 Increase (%)
Leeds	~11.6	7.4
Y&H	~5.5	~4.5
UK	~10.5	~5.0

- 3.14 This 'clustering' of knowledge-based sectors in our regional cities is having major impacts across the wider City Regions and on the national economy as a whole. There are numerous examples of the consolidation of smaller regional businesses into larger operations within the Core Cities, the legal sector in Birmingham being one such example. There are also many examples throughout the metropolitan areas where service sector firms are increasingly able to operate on a national basis from a regional base. In this case the legal sector in Leeds is a prime example.
- 3.15 These trends have important implications for the national economy if they result in a slow down of the South East migration of the workforce. By taking some of the heat off London, whilst dispersing wealth into the regions, they have both regional and national implications. However, if these trends are to be continued they will be highly reliant on the provision of fast and reliable strategic rail services. The alternatives to providing these rail services are stark:
- ◆ we will have to attempt to accommodate the growth through car commuting;
 - ◆ or accommodate growth through dispersal of jobs away from the centre.
- 3.16 The latter would be wholly contrary to the cluster concept, but neither option is a viable or sustainable way forward.

Cost of Congestion in the West Midlands

The Confederation of British Industry has estimated that congestion is costing the businesses of the West Midlands somewhere between £2bn and £2.3bn per year.

More generally the CBI report 'Is Transport Holding the UK Back?' (CBI 2003) reports that their survey of senior business people shows that over 85% believe that investment decisions are influenced by the quality of transport and 70% believe the UK transport system to be poor.

Rail and the City Centre Retail Core

- 3.17 All of the major cities in Britain are actively pursuing programmes to revitalise and strengthen their traditional retail core in the city centres. Greater Manchester PTE surveys have indicated that a very high proportion of shopping in Manchester is undertaken by people who are already in the city for work purposes rather than people making separate trips into the city.
- 3.18 With rail providing an increasing proportion of the commuting traffic into the centre of Manchester (up 71% between 1997 and 2002¹⁸) the retail sector is therefore highly reliant on rail.
- 3.19 What emerges from this is that improvements (or deterioration) in rail commuting services will have an impact not just on the performance of those businesses that are reliant on a commuter workforce but also on the city centre retail sector.

¹⁸ GMTU Annual Report 2003

3.20 In the West Midlands the economic strategy for revitalising the centre of Birmingham has been highly successful with the rail network playing a key role. Indeed the strategy has been so successful there are now real fears that without further investment in capacity Birmingham New Street will be unable to cope with the growth in the number of passengers (see Case Study Box).

Birmingham: Impact of Retail Development in the City Centre

Birmingham is England's second city and across its centre retail and economic developments continue apace. The Mailbox shopping complex is now well established and Birmingham New Street Station offers a convenient link to this facility. In addition the new Bull Ring retail development also served by New Street Station (400 yards away), has recently opened and brought with it an associated £7m regeneration of the nearby Moor Street Station. It is estimated the Bullring will also attract 30 million extra shoppers to the city in 2004 and already there is evidence of a significant increase in rail use at New Street and Moor Street.

Day	Passengers
Mon - Fri	307,500 (61,500 per day)
Saturday	48,000
Sunday	15,000

17% of peak period commuters into Birmingham use the local rail network. This equates to a combined weekly ridership of approximately 370,500, a rise of 30,500 from 2000/01.

Growth forecasts to 2020 for passengers alighting at Birmingham stations lie in the range of 62% to 104% for peak hour services and 122% to 165% for off-peak. The latter reflecting the substantial growth in shopping and leisure activity in the city centre.

The majority of rail travellers arrive in the city via the much maligned New Street Station, which is at, or close to, absolute capacity. Predictions from the SRA and Network Rail suggest that the success of the Bull Ring development, other retail developments and general economic growth could force regular station closures during peak times by 2005 because of overcrowding. As passenger numbers continue to grow, operational safety can only be maintained by partial or total closure of the station, until funding for enhancements becomes available. This demonstrates the urgent need for a rail station to match the city's regeneration of the past 15 years.

* Note: Forecasts relate to the planned 50% increase in Birmingham retail floor space.

Links Between Centres

3.21 The role of rail in providing fast and reliable inter-urban connections between the major regional cities and to/from London is well documented. The particular advantages of rail in providing fast city centre to city centre access and offering the ability to conduct business whilst on the move are set out in some detail in documents such as Everyone's Railway, *ibid*.

- 3.22 Research for Yorkshire Forward¹⁹ estimated that the value to Yorkshire and Humber of the links to London provided by the East Coast main line is in the region of £98million per year.
- 3.23 What is clear is that rail is a vital component of the performance of regional cities providing access to clients, markets and colleagues in other locations. Rail enables businesses in city centres to obtain a competitive advantage over out-of-centre locations.
- 3.24 In general these links tend to be provided by inter-city type services but similar functions are played out within the conurbations by regional and local rail services. A key feature of our major City Regions is their diversity of form. In South Yorkshire for example we have already noted the poly-centric nature of the area. Here the rail links between individual centres such as Rotherham, Doncaster, Barnsley and Sheffield are increasingly important to the way that the economy of South Yorkshire is developing. Consequently the provision of fast high quality rail links between these centres is a key priority for SYPTE.
- 3.25 These are common priorities in many other European cities. An important feature of the high frequency and heavily integrated Dutch railway network (see Utrecht Case Study box in Chapter 6) is the way it provides for anywhere to anywhere movement by public transport.

Regeneration

- 3.26 Regeneration has been a major feature over the last ten years in many of the City Region's economic prospectuses, whether in Glasgow, Liverpool, Sheffield or elsewhere. New or improved rail links can help promote urban regeneration and in most major conurbations rail development has featured in a number of ways.
- 3.27 These range from investing in improvements to rail stations in run down inner city areas (see Levenshulme text box) to opening up new rail services (the Robin Hood Line in Nottinghamshire, featured in Chapter 4).

¹⁹ Economic Value of the ECML to the Yorkshire and Humber Region, Halcrow Group for Yorkshire Forward 2002

Levenshulme Station. An Inner-City Station Success Story

Levenshulme is an area of Manchester that has a socially and culturally diverse population, recently benefiting from SRB funding. Its location close to the city centre means it has major congestion problems. The train station was a neglected element within the overall regeneration package for the area.

The 'Friends of Levenshulme Station' (FOLS) began in late 2002 aided by GMPTTE who employed a consultant to help in its early formation. The aim of FOLS is to contribute to the development of the station, its environs and to promote its importance to the local community. Both Network Rail and First North Western supported GMPTTE at meetings giving the group a direct point of contact and encouraging good relations.

The support of the local media, especially that of the local community radio station 'ALL FM' was helpful in reaching a large audience. Extensive publicity ensured that early meetings for businesses and residents were very well attended.

At the outset the station was in a dilapidated condition but in its first year the Group successfully campaigned for improved infrastructure, facilities and services.

Two local primary schools and a high school were involved in designing and developing art work for displaying in and around the station environment. The many early successes at the station have helped to maintain the group's momentum, showing clear benefits from the high level of community involvement that is evident in the station's ongoing development and design.

- 3.28 Stations and services can be developed or enhanced to provide access to job opportunities, (discussed further in Chapter 4), and rail stations, of course, are increasingly being seen as the most appropriate location for major employment or retail development. As a consequence they are often seen in regeneration terms as key gateways. An interesting example of the latter is in South Yorkshire where all of the main four centres have regeneration plans which feature investment to improve their 'gateway' rail stations.

Valuing the Benefits

- 3.29 Conventional appraisal explicitly presumes that time savings (as measures of accessibility) provide the 'correct' measure of the impact on the economy. This only holds true if there are no market distortions and clearly there are many distortions in the economies of urban areas. Recent government guidance on the appraisal of major transport schemes recognises that there may be situations where valuing the benefits of a scheme purely on standard cost benefit criteria (of which time savings are normally the largest component of benefit), may not necessarily provide an accurate valuation of the scheme.

- 3.30 In the governments guidance on the preparation of Economic Impact Reports they identify a number of lines of enquiry for assessing the wider economic impacts of a transport investment of which the major ones are likely to be:
- ◆ the contribution towards regional economic development strategy;
 - ◆ increased access for business to a suitable workforce;
 - ◆ improved access for workers to suitable job opportunities;
 - ◆ the potential for inward investment.
- 3.31 It is not the role of this report to attempt this sort of quantification – but we have considered these areas in our case studies (such as the Scottish IBM case study below) in this and subsequent chapters. Whilst recognising that it is likely to be an underestimate, for the reasons mentioned above, we have been able to make an estimate of the transport economic efficiency benefits of rail in the conurbations.

Enhancing Access to Employment in Silicon Glen

An Initiative by SPT and IBM

Background

During the 1990's 'Silicon Glen' in Strathclyde became an important new source of employment in the region. In 1998, one of the largest employers, IBM, set up a new call centre operation to take calls from across Europe. This increased the workforce at the existing manufacturing facility from 2,500 to around 3,000 staff.

Most of the manufacturing workforce lives locally, however call centre staff are required to speak at least one foreign language and this meant that most of the call centre posts are filled by overseas graduates who tend to live in the Glasgow city centre area.

To attract staff and encourage them to travel to the site by rail SPT and IBM jointly developed a discounted IBM staff monthly season ticket pass, costing £70 from Glasgow Central and £55 from Paisley Gilmour Street – a discount of 25% on the normal fares.

Results

The trial IBM staff discount offer commenced in February 1999 and was scheduled to run for a trial period of 6 months ending in August 1999. However, performance figures were very encouraging with overall passenger journeys on the contra-peak Glasgow/Paisley Gilmour Street to IBM flows **up by an average of over 150%** when compared with the pre IBM staff discount figures.

Following the very encouraging uptake the scheme has been extended to a further 32 origin stations offering a fare that encompasses an add-on fare to the discounted fares from Central and Paisley Street.

Latest available performance figures show substantial further improvement on the uptake of the extended scheme with an average **1,200 additional passenger journeys being made per four weekly period** since its introduction in September 2000.

There have also been benefits in relation to the environment and reducing road congestion. Prior to the introduction of the scheme the majority of the IBM staff had been travelling to work either as single car drivers or by car sharing. However, the success of the scheme has introduced many new passengers to travel on the electrified rail route between Glasgow and Wemyss Bay.

- 3.32 In the South Yorkshire example below a model developed in the South and West Yorkshire Multi Modal Study (SWYMMS) has been used to test the impact of closing the local rail services.
- 3.33 In the scenario tested it is assumed that local rail services are terminated at stations immediately before they enter the supported rail network. Travellers have the opportunity to change destination, mode of travel and route.
- 3.34 The test results showed that 28% of existing local rail users continue to use the local rail service (outside of the South Yorkshire boundary), whilst 20% switch to other and long distance rail services. Of those changing mode, 42% switch to bus and 10% to car.
- 3.35 The test results for a single year (2006) have been assessed using the government’s Transport User Benefits Assessment (TUBA) model. Removing support for the South Yorkshire local rail network will save £20 million per year in net franchise costs and indirect tax revenue but will increase generalised travel costs for consumers and businesses by £35million per year - a net cost to society of £15 million per year.
- 3.36 In summary, the South Yorkshire rail network provides a substantial benefit to its users and to businesses. Despite reliability and comfort problems for many journeys it is either faster than the alternative, or is the only available option. Far from removing support, SYPTTE wish to see further investment, on a large scale, to improve the service and capitalise on its advantage over road-based modes.

TUBA Outputs (All Values in £000s) - Full Assignment				South Yorkshire Test
Consumer				Source: Information Note 2, “South Yorkshire Rail Service Reduction Test”, MVA, August 2003
User Benefits	Total	Highway	Public Transport	
Travel Time	- 32998	-815	- 32183	
Vehicle Operating Costs	-382	-382		
User Charges	2315		2315	
NET CONSUMER BENEFITS (1)	-31065	- 1197	-29868	
Business				
User Benefits	Total	Highway Personal	Freight Public Transport Personal	
Travel Time	- 1526	- 627	- 129	
Vehicle Operating Costs	-89	-41	-48	
User Charges	23		23	
SUBTOTAL	- 1592	-668	- 177	
Private Sector Provider Impacts	Total	Highway	Public Transport	
Revenue	- 2804		-2804	
SUBTOTAL	- 2804		-2804	
NET BUSINESS IMPACT (2)	-4396			
Net Present Value of Benefits	-35461			
Public Accounts				
Gross Franchise Payments	26600			
Performance incentives	- 1300			
Revenue impacts	- 5100			
Indirect Tax Revenues	467			
NET IMPACT	20667			

- 3.37 The SYPTE network is a small network and one of the apparently more highly supported ones but it achieves a benefit of around £35m (excluding any environmental or health benefits) against a revenue support of £20m. This indicates a benefit of around:
- ◆ £1.75 per £1 of subsidy.
- 3.38 Thus, although the subsidy level of £4.37 per passenger journey appears high, the benefits are in the region of £8 per journey.
- 3.39 However, this presupposes that the current subsidy figure is a realistic assessment of the net costs of operating the SYPTE services. In the last year before privatisation, subsidy was only £5m (see Chapter 8 for more details). Assessed against that cost base the benefit per £ of subsidy would be nearer to £7.
- 3.40 We discuss the issue of cost escalation and cost attribution in Chapter 8.

Summary

- 3.41 City Regions are crucial elements of the national economy. Rail contributes to their economic performance by enabling clusters of knowledge-based skills in the city centres. This is possible because of its ability to provide quick and frequent access for substantial numbers of people across a large area.
- 3.42 As well as providing access to a larger workforce than would otherwise be possible, rail also facilitates business by linking the centres *within* the City Regions. Furthermore, in many cases the main rail stations are providing the catalyst for regeneration and renewal of the Core City central areas.
- 3.43 Traditional approaches to economic appraisal do not fully reflect this role. The question of 'value' is addressed primarily in terms of time savings which are taken as a proxy measure of improved accessibility. However, our case study of South Yorkshire has shown that, even with this partial analysis, the economic benefits derived from the local rail network are significantly greater than the costs of providing the services.
- 3.44 South Yorkshire is one of the least extensive PTE rail networks, and one of the more expensive, (in terms of passengers carried). And yet it exhibits a positive benefit to cost ratio. Furthermore, we noted that this has been achieved against a level of financial support that increased approximately four fold after privatisation. Costs that are closer to their pre-privatisation level would improve this economic rationale still further.

4. Key Challenge – Social Polarisation and Access to Opportunity

4.1 Social polarisation is the second of the key challenges facing our City Regions that were identified in Chapter 1.

Relevant Government Objectives for Social Inclusion

4.2 Providing for greater equality of opportunity is also an important cornerstone of national government policy as evidenced by the various departmental objectives set out below.

Govt Dept	PSA Objective	Performance Target
DWP	II: promote work as the best form of welfare for people of working age, while protecting the position of those in greatest need.	Over the three years to Spring 2006, increase the employment rates of disadvantaged areas and groups, taking account of the economic cycle, lone parents, ethnic minorities, people aged 50 and over, those with the lowest qualifications, and the 30 local authority districts with the poorest initial labour market position, and significantly reduce the difference between their employment rates and the overall rate.
DWP	IV: improve rights and opportunities for disabled people in a fair and inclusive society.	In the three years to 2006, increase the employment rate of people with disabilities, taking account of the economic cycle, and significantly reduce the difference between their employment rate and the overall rate. Work to improve the rights of disabled people and to remove barriers to their participation in society.
ODPM	I: work with the full range of Government Departments and policies to raise the levels of social inclusion, neighbourhood renewal and regional prosperity.	Make sustainable improvements in the economic performance of all English regions and over the long term reduce the persistent gap in growth rates between the regions, defining measures to improve performance and reporting progress against these measures by 2006. Joint target with HM Treasury and DTI.
ODPM	III: deliver effective programmes to help raise the quality of life for all in urban areas and other communities	
Treasury	VI: expand economic and employment opportunities for all.	Demonstrate progress by Spring 2006 on increasing the employment rate and reducing the unemployment rate over the economic cycle. Joint target with DWP

4.3 The links between transport and social exclusion are complex. Problems with transport can prevent people from accessing key local services or activities, such as jobs, learning, healthcare, food shopping and leisure, thereby reinforcing social exclusion. Government has identified tackling these problems as a major priority in the recently published report by the Social Exclusion Unit on transport and social exclusion.²⁰

²⁰ Making the Connections: final report on transport and social exclusion, Social Exclusion Unit, ODPM, 2003

- 4.4 Public health organisations increasingly recognise the importance of transport in relation to public health, and the health benefits of walking, cycling and use of rail and bus instead of the car.²¹

Equality of Access in Urban Areas

- 4.5 The main city areas include a high proportion of the more disadvantaged individuals and groups in society. These people are typically identified as living in inner city areas or on large public (housing association) residential developments. A particular factor of urban poverty is that it often concerns discrete neighbourhoods, so that 'rich' areas and 'poor' areas can be clearly identified from statistical and other evidence.
- 4.6 Many of the people in these poorer areas suffer from 'multiple deprivation', i.e. they do not merely lack a sufficient income to maintain some modest quality of life, they also have other associated problems (e.g. poorer health, lower education and skills levels, more fragmented families), and the areas in question tend not to have available a range of commercial and public facilities. Access to these services is frequently a fundamental issue.
- 4.7 The 1998 Transport White Paper, which set government transport policies to meet the broad objective of sustainability, was entitled 'Accessibility for All.' It focused on transport which would improve the quality of life and quality of movement for everyone, so as to improve accessibility across the social and income ranges. However, concerns subsequently emerged that this objective was not being properly achieved, and the Social Exclusion Unit study, (ibid), made a number of recommendations to improve this. Key amongst these was that accessibility planning must be built into Local Transport Plans.
- 4.8 Debates following the SEU report have focused on bus travel as forming the principal means of travel for deprived people. Rail travel is seen as providing mostly for wealthier groups, for commuting to office jobs, travelling long distances on business and reaching city centre leisure activities. Of course rail travel does gain a substantial part of its market from such groups, but the image of 'rail for the rich and bus for the poor' is fundamentally wrong. Indeed it can be argued that it conflicts directly with the policy thrust of the 1998 White Paper, for two reasons:
- ◆ poorer groups may be lower total users of rail, but there are sectors of rail service where they are significant users (see box on Robin Hood Line later in this section); the rail services in question are fundamental to their access to jobs, education and leisure;
 - ◆ the core aim remains the integration of public transport services. In the City Regions, where residential areas, city and district centres and bus and rail services are concentrated, it is in principle easier to use more than one mode.

²¹ (Response to the South East Regional Transport Strategy, South East England Public Health Observatory, 2003)

- 4.9 Improved public transport access for everyone within city areas thus means improvement to all modes, not just one at the expense of the other. Poorer groups will certainly benefit from a general improvement to the service quality and coverage of bus services, and the low priority accorded to bus development in national policy may even have been a factor in reduced accessibility. However, improving accessibility requires improvement to all public transport services. Rail (and light rail) offers fast mass access along those corridors it serves, and thus its retention and improvement must form an element in accessibility planning.
- 4.10 It is at present uncertain what projects will emerge from the accessibility planning exercise, and indeed how the planning process will add to the existing development and implementation mechanisms in the LTP process. In preparing LTPs, the PTEs and neighbouring Local Transport Authorities have established sound structures and relationships for consulting on transport policies and programmes and for their implementation. Accessibility planning will require a wider focus to address transport provision in relation to activity patterns, the needs of key interest groups and locations.
- 4.11 It is likely that the system of Local Strategic Partnerships (LSPs), which government is developing across the country, will provide the coordinating point for much of this, but what is clear is that solving problems of multiple deprivation will almost certainly call for a number of combined solutions. Local travel is likely to prove a crucial one.

Access to Employment

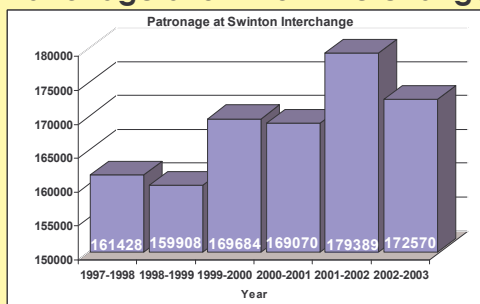
- 4.12 Where PTEs have developed or improved rail stations to enhance access to employment opportunities there have been some very positive results. The broad conclusion is that rail is particularly effective at enhancing the size of the affordable search area for work because the low fares in PTE areas enable people to travel further to reach work. This is clearly important when one considers the SEU finding that two out of five job seekers cite lack of transport as a barrier to getting a job and one in four state that cost of transport was a problem in seeking work.
- 4.13 The text boxes below describe the results of initiatives in Merseyside and at Swinton station in South Yorkshire.
- 4.14 The Swinton scheme involved investing in a substantial upgrade of an existing station and providing a low fare high quality bus link to the Manvers employment park from Swinton station. The rail network provided the access to Swinton from areas of high unemployment across South Yorkshire (see accompanying map). The bus link then distributed people arriving at the station around the employment park. The whole scheme demonstrated how both bus and rail can be used to their best advantage to provide solutions to social exclusion problems when planned in an integrated way.

Case Study: Swinton South Yorkshire

South Yorkshire’s Dearne Valley was hit hard by the decline of heavy industry in the 1990s but has been revitalised by a new employment park at Manvers. Public transport links to this site were poor and thus a dedicated rail-bus shuttle service for workers and jobseekers was installed by SYPTE and partners to run from the rebuilt Swinton bus/rail Interchange.

The service runs every 20 minutes between 6.30am and 11pm, costing 20p for a single fare. In its first month over 10,000 people used it and in 2002 the Swinton won the ‘Best Rural Interchange’ award. The figures in the graph below demonstrate the success of the Interchange in attracting new patrons.

Patronage at Swinton Interchange



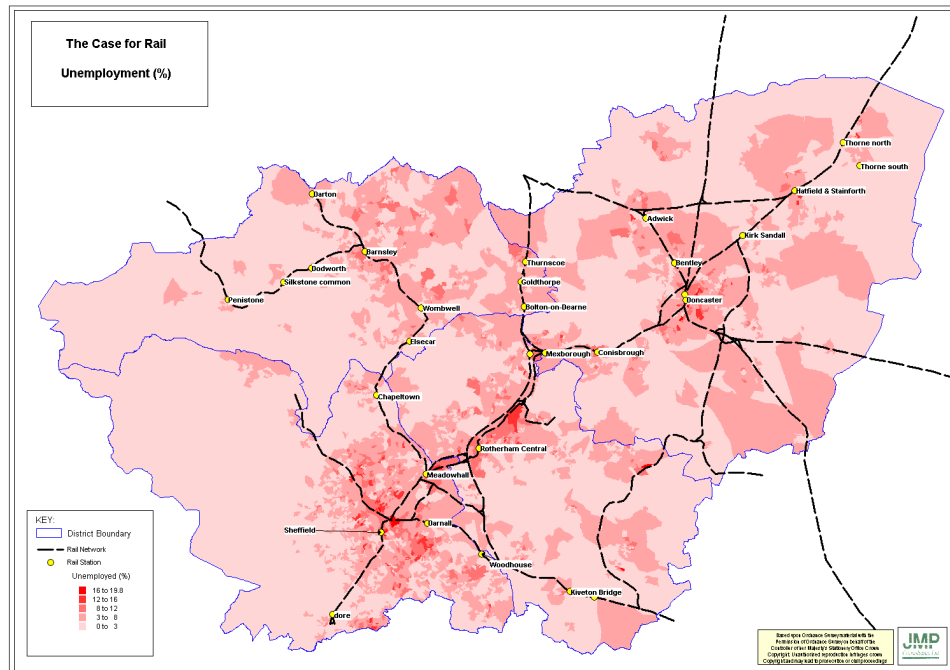
SYPTE see the role of local rail services as improving accessibility to the key regional and sub-regional centres particularly for work trips. Rail’s more direct routing, higher speeds and immunity from road congestion give it an average advantage over bus services. Rail also has an advantage over the car, as illustrated in the table below. With appropriate investment rail has the potential to really contribute to the SYPTE’s key aims of mode choice, social inclusion and economic regeneration.

Comparative journey times:

Station pairs		Local rail			Local Bus			Car
		Frequency /hr	Changes Mean	Times Mins	Frequency /hr	Changes Mean	Times Mins	Times Mins
Sheffield	Swinton	4	0	20	3	1	35	24

However, whilst all the local stakeholders aspire to better use of the rail network’s capacity, significant additional capital expenditure is needed to achieve this. The Swinton Interchange stands as a good example of what can be achieved by such investment.

- 4.15 The extent to which the rail network serves the areas of highest unemployment in South Yorkshire is illustrated in the following map.



- 4.16 In Merseyside similar issues were tackled through the construction of three new stations developed under a programme to improve accessibility to work and educational opportunities (see example box over the page).

Social and Cultural Ties

- 4.17 Rail also has a particular role to play in terms of social cohesion. Birmingham is a good example of a city with a large number of visitors coming to visit friends and relatives.
- 4.18 A survey by the local Tourist Board²² found that almost 900,000 people a year visited Birmingham for this reason. As a quarter of all non-business visitors (half a million visitors per year) came to Birmingham by train, it is likely that a large proportion of these who came to visit friends and relatives travelled by train.
- 4.19 In fact the total number of people visiting friends and family in Birmingham by rail is likely to be even larger than these figures suggest, as this particular survey excluded day visitors.

²² Source: Heart of England Tourist Board, tourism economic impact assessment 1996-7

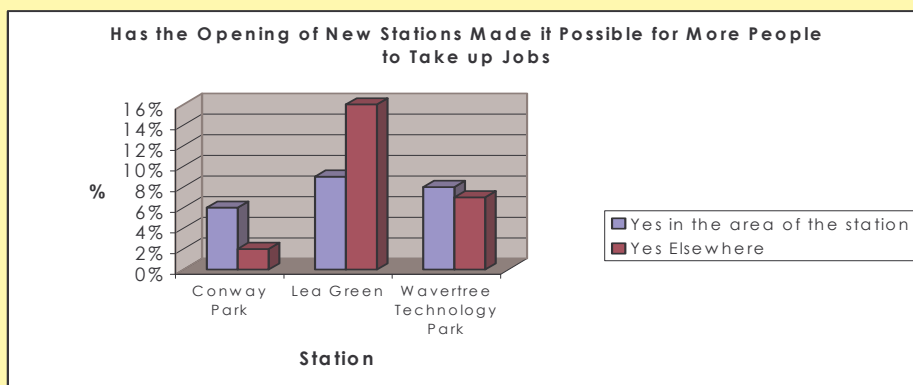
Access to Employment - Merseyside Experience with New Stations

The opening of three new rail stations in Merseyside - Conway Park, Wavertree Technology Park and Lea Green, has shown that rail can play an important role in helping people find employment.

The new **Conway Park** train station in Birkenhead was opened as part of a regeneration programme for the area while **Wavertree Technology Park**, was identified as a high priority because of its large catchment area.

Lea Green station is slightly different to the other two. Situated between the stations of Rainhill and St Helens, Lea Green station has approximately 3,000 households in the surrounding area, 31% of whom do not own a car. The opening of this new station has presented the local community with the opportunity to travel further to find employment giving access to Sherdley Park and St Helens.

Results

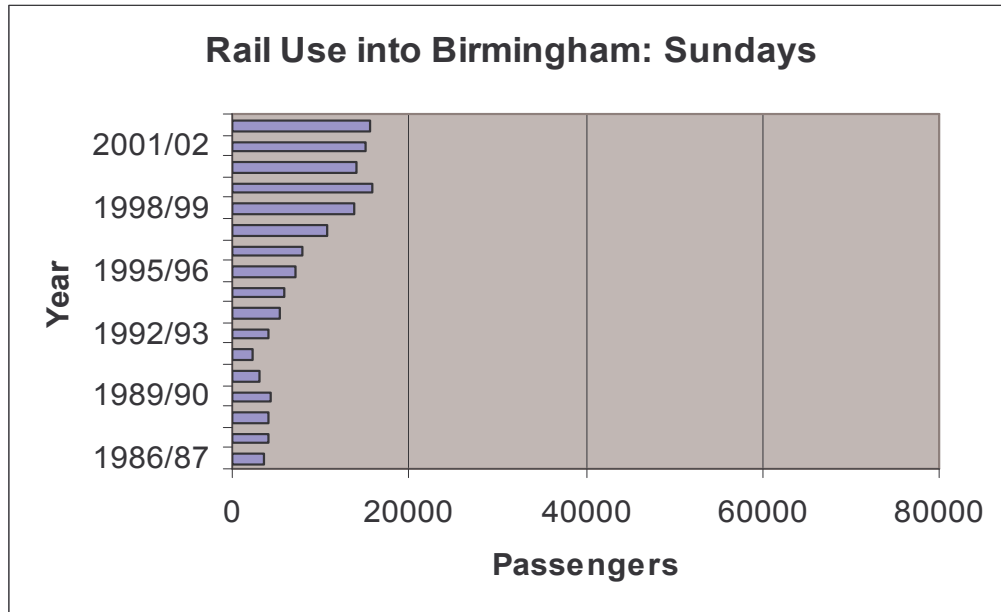


Studies carried out at all three of these sites on behalf of Merseytravel identified that they have each had a positive impact on employment in the area. The surveys asked whether the opening of a new rail station had made it possible for them to take a job. The results show that each of the three stations has had a positive effect on employment, not only in the area directly surrounding the station but also further a field due to improved transport links. At Lea Green, **16 of the respondents (over 20% of those surveyed) stated that the provision of the station had enabled them to take up a job offer**; at Wavertree the figure was over 10%. These stations have built upon Merseytravel's previous success at Brunswick station, which opened in 1998, where 120 people were able to take up a job offer as a result of the station being provided.

The surveys have also identified that these stations are being used primarily for the purposes of transporting people to and from their workplaces and to places of education which boosts the regeneration process in socially deprived areas.

	To/from Usual Workplace	To/from Place of Education
Conway Park	40%	9%
Lea Green	55%	10%
Wavertree Technology Park	70%	4%

- 4.20 With families being increasingly dispersed around the country visiting friends and relatives by rail is an important element of social inclusion, for the one third of households in the country who don't have access to a car. This type of travel is also an important component of tourism travel to our urban conurbations, bringing benefits to the economy of the cities visited.
- 4.21 The graph below of rail use to Birmingham on Sundays shows how this off-peak rail travel has grown in recent years. Some of this growth will of course also reflect the development of Sunday shop opening as well as leisure, recreational travel and trips to visit friends and relatives.



Access for All

- 4.22 As noted earlier, rail in the urban conurbations is used by a more diverse cross section of the population than might be expected from national statistics. This is because nationally quoted figures tend to be based on passenger miles. These are skewed by the large volumes of relatively wealthy inter-city and south east commuters travelling longer distances than are travelled in the metropolitan areas.
- 4.23 Evidence from surveys by Centro and Greater Manchester suggests that across a typical week rail is used by a broad mix of society – be it class, age or gender. There are variations across the conurbations, and at times of the day, but a key attribute of rail is that it is socially inclusive in a way that the car is not.

Case Study: The Robin Hood Line

During the 1980s the west Nottinghamshire/northeast Derbyshire coalfield was suffering from severe economic, social and environmental problems as it was hard hit by heavy industry decline. There had been long-standing plans to reinstate a passenger service in this area and these were taken forward as the Robin Hood Line, providing a 52-kilometre link from Nottingham to Worksop via Mansfield.

It is generally argued that investment in the rail network disproportionately benefits the middle classes as the majority of passengers fall into social grades AB and C1. The simple reason for this is that the majority of rail trips are made by commuters, who because they work are much more likely to fall into the higher social bands. What is all too frequently missed in statistical analysis of rail patronage are the significant numbers of off-peak (particularly weekend) rail passengers from social grades C2, D and E. This significance is demonstrated in the table below, which shows that only 38% of Saturday trips on the Robin Hood Line are made by ABC1 households.

Socio-economic category	All respondents (%)	Saturday (%)
Professional	1	1
Managerial/technical	32	23
Skilled non-manual	21	14
Sub-total non-manual	54%	38%
Skilled manual	12	18
Partly skilled	7	12
Unskilled	9	12
Sub-total manual	28%	42%
Unemployed	3	2
Retired	13	16
Other	2	2
Sub-total	18%	20%

The Robin Hood Line is considered to have been a resounding success in **generating approximately 3,500 users per day** with 40% of all work trips currently made from coalfields stations not having been made prior to the opening of the railway. The railway has widened journey-to-work horizons in the coalfields communities and furthermore has directly encouraged inward investment at some locations, most notably, Sutton Parkway.

People on Low Incomes and Concessionary Travel

4.24 As already noted, PTE areas contain significant areas of deprivation and low car ownership. For example:

- ◆ nearly half of all households in Birmingham do not have a car;²³
- ◆ 12 of the 26 wards in Newcastle are in the 10% most deprived in England;²⁴
- ◆ in Leeds, an area with a population the size of a London borough is characterised by multiple deprivation²⁵.


²³ West Midlands Local Transport Plan 2003

²⁴ Newcastle and the North East: a city region of the future, a draft prospectus, Core Cities 2003

²⁵ Leeds: The Business City, the Leeds initiative, June 2003

- 4.25 For the 31% of households in the PTE areas who do not have access to a car, rail is the only realistic alternative for journeys over a few miles in length. With bus only being suitable for journeys of a few miles we can see that without good and affordable rail links many of the citizens living within our City Regions would be excluded from the opportunities available to them.
- 4.26 There is a strong correlation between income and car ownership and around two thirds of those households whose earnings lie in the lowest 20% category do not have access to a car.
- 4.27 PTEs have taken an active role in providing targeted discounted fares. The most common concessionary fares schemes are for low income groups such as pensioners, young people and people with disabilities. Research for the Centro scheme which offers free travel to pensioners has shown the wide cross sectoral benefits that it brings. The direct impacts of the scheme were that around 80% of the trips by rail and bus were made by people on an income of less than £100 per week. The scheme was also estimated to save around 94,500 car journeys a week. The wider impacts were assessed as being significant benefits to the health and social services as a result of promoting greater independence.
- 4.28 Specific schemes for unemployed people include West Yorkshire’s Metro Rover which for £5 allows unrestricted half fare rail and bus travel throughout West Yorkshire and the Nexus New Deal scheme (case study box below).

Nexus - New Deal Travel Scheme



New Deal Traveltickets are valid on Metro, Ferry, Buses and ARRIVA Trains Northern services between Sunderland and Blaydon.

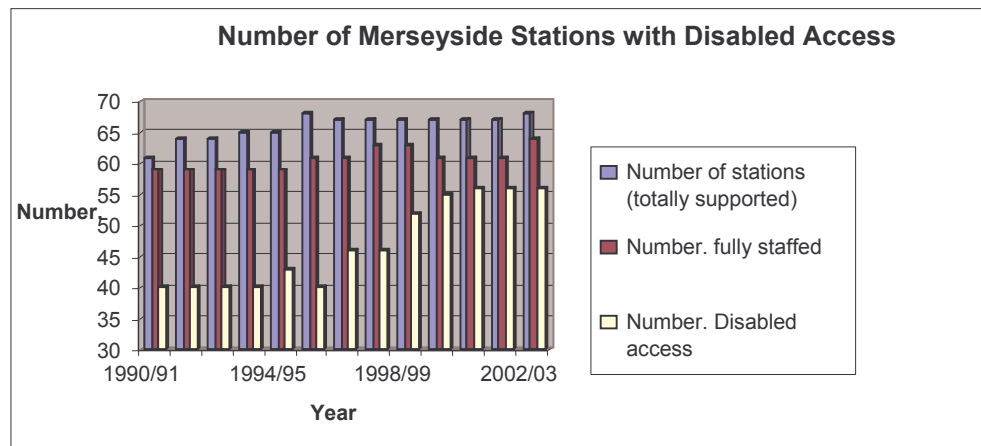
In the Tyne and Wear area people participating in the Government's New Deal Programme are entitled to purchase a discounted Network Travelticket upon presentation of their ID card (supplied by the Employment Service). The discount is worth 40% of the standard ticket price.

	All-day tickets		*Off-peak tickets	
	1 week	4 weeks	1 week	4 weeks
2 Zones in a row	£6.70	£23.40	£5.40	£19.10
3 Zones	£7.70	£27.10	£6.20	£21.60
All Zones	£9.30	£32.70	£7.40	£25.90

- 4.29 Government figures indicate that 20% of the adult population has at least one form of disability and that one in four households includes a disabled person. A significant proportion of the population therefore risks being excluded from the rail system if appropriate facilities are not provided. This is before one considers the other groups in society who would benefit – people with small children, the temporarily disabled (through injury or accident) and the increasing proportion of elderly people in society. Developing more accessible services makes sense for transport policy reasons, since these people will otherwise tend to travel by car, as well as for the basic equity principle that all people should have equal opportunity to use the rail network.

- 4.30 The PTEs have been active in their commitment to programmes to increase the provision of accessible infrastructure at stations. Merseytravel for example has a programme for introducing height adjustable ticket machines, is specifying level platform edges in the new Merseyrail franchise and has been actively involved with train operators in new rolling stock accessibility testing. A number of recent station rebuilds, at Aintree, Bootle Strand, Old Roan to full DDA compliance have been undertaken and they are continuing to pursue a policy of installing lifts in new stations or rebuilt stations in preference to ramps. As part of this process Merseytravel developed a standard lift design which is expected to help reduce the cost of implementing this policy.

- 4.31 All the PTEs are actively involved in increasing the number of stations that are accessible by disabled people. The growth in the number of accessible stations in the Centro area is shown in the graph below. Figures from Centro indicate that over 80% of the supported stations in the Centro network now have access for disabled people. In Merseyside, wheelchair users only have to give one hours notice to travel on Merseyrail compared with 24 hours elsewhere on the rail network.



Summary

- 4.32 Railways in the PTE areas play an important role in achieving social inclusion objectives. They do this through:
- ◆ providing access to work and education opportunities, by enabling individuals to widen their area of search for opportunities (and enabling employers to broaden their labour catchment area);
 - ◆ PTEs further support this by reducing the direct cost of using rail through a range of ticketing initiatives;
 - ◆ providing access to friends and family and a range of other cultural and leisure opportunities that would otherwise be unavailable to a wide section of the community;
 - ◆ increasing and improving the quality of provision for disabled passengers.
- 4.33 The key issue is that while these social inclusion investments have a very close fit with government and local policy objectives they often cost significant sums of money while bringing in only a fraction of the revenue of purely commercial investments.
- 4.34 As a consequence they are a crucial element of policy achievement but they tend to reinforce and in some cases exacerbate the image of a high cost/poor return railway.
- 4.35 Furthermore, this line of argument tends to imply that railways with low passenger kilometres/ low revenue are of low importance and hence of low value to the rail user. This is not the case. On the contrary for someone on a low income the cost of a local rail ticket to reach an essential facility may be proportionately as significant as the fare for a longer distance commute by a well-paid professional worker. Lower wage workers have less control over their time and earn less for it. They are more pressured for their time. Hence, a shorter journey for them may be as much a commitment as the 40 minute trip by the professional worker.

5. Key Challenge –Sustainability & the Environment

5.1 The third key challenge for our City Regions is sustainability. Our cities and conurbations face considerable environmental problems especially due to car use and also from the abandonment of inner urban sites. The Core Cities group make the point that the future sustainability of the UK depends upon the Core Cities taking a key role in absorbing future housing and employment growth, whilst “transferring more of the transport burden back onto public transport.” Further moves towards a decentralised and car-based economy would work against both a policy of sustainability and against their economic revival.

Government PSA Objectives on the Environment

5.2 Government objectives relating to the environment and safety are set out below.

Govt Dept	PSA Objective	Performance Target
DEFRA	I: protect and improve the rural, urban, marine and global environment, and lead integration of these with other policies across Government and internationally.	Improve the environment and the sustainable use of natural resources, including through the use of energy saving technologies, to help reduce greenhouse gas emissions by 12.5% from 1990 levels and moving towards a 20% reduction in carbon dioxide emissions by 2010.
DEFRA & DfT	VI: protect the public's interest in relation to environmental impacts and health, and ensure high standards of animal health and welfare.	Improve air quality by meeting our National Air Quality Strategy objectives for carbon monoxide, lead, nitrogen dioxide, particles, sulphur dioxide, benzene and 1-3 butadiene. Joint target with DfT
DTI	III: fair competitive markets.	Ensure the UK ranks in the top 3 most competitive energy markets in the EU and G7 in each year, whilst on course to maintain energy security, to achieve fuel poverty objectives; and (Joint target with DEFRA) improve the environment and the sustainable use of natural resources, including through the use of energy saving technologies, to help to reduce greenhouse gas emissions by 12.5% from 1990 levels and moving towards a 20% reduction in carbon dioxide emissions by 2010.
DfT	I: reliable, safe and secure transport for everyone which respects the environment.	Reduce congestion on the inter-urban trunk road network and in large urban areas in England below 2000 levels by 2010.
DfT	I: reliable, safe and secure transport for everyone which respects the environment.	Secure improvements in rail punctuality and reliability with a 50% increase in rail use in Great Britain from 2000 levels by 2010.
DfT	I: reliable, safe and secure transport for everyone which respects the environment.	Reduce the number of people killed or seriously injured in Great Britain in road accidents by 40%, and the number of children killed or seriously injured by 50%, by 2010 compared with the average for 1994-98, tackling the significantly higher incidence in disadvantaged communities.
ODPM	III: deliver effective programmes to help raise the quality of life for all in urban areas and other communities.	Achieve a better balance between housing availability and the demand for housing in all English regions while protecting valuable countryside around our towns, cities and in the greenbelt - and the sustainability of existing towns and cities - through specific measures to be set out in the Service Delivery Agreement.

- 5.3 Underpinning it all in our major cities and conurbations is the debate about their sustainability - the means by which they function and the ways in which they become more liveable. There is a complex range of issues at stake here – but some key defining measures are:
- ◆ sustainable forms of land use development;
 - ◆ road congestion;
 - ◆ air quality;
 - ◆ safety; and
 - ◆ personal security.
- 5.4 While acknowledging the economic and social trends that are focusing the power of the City Regions on their centres (and the potential economic competitiveness benefits that can ensue) these are of course precisely the areas where road congestion is worst, threatening the operational viability of these centres. These are also the areas that have some of the most significant environmental problems not least with air quality. High volume rail services offer the means to enable the cities to function and provide the greatest levels of potential environmental relief from the private car.

Planning and Development Policies

- 5.5 Rail can, as we have already noted, support city centres to become attractive places in which to live and work, as well as develop as leisure and tourism destinations. Indeed 'Urban Renaissance' is a Government policy priority.²⁶
- 5.6 However, if implementation of spatial planning policies in the key fields of housing, economic activity, leisure and environment rely to any extent on development of suitable rail services and infrastructure, then failure to achieve those services and infrastructure will weaken the effectiveness of those policies and perhaps lead to inefficiencies in the application of both public and private resources.
- 5.7 The extent to which this happens will vary, and there is limited evidence on the topic. Suitable transport is generally seen as a necessary but not a sufficient component: i.e. adequate public transport is essential although developments also need to be well planned, built and managed. But failing to provide suitable transport may cause the developments not to achieve their potential. There is a strong belief among many business interests that this represents a grave problem for UK business (see box over).

²⁶ Urban White Paper: Our Towns and Cities: The Future, by DTLR in 2001

UK Businesses – Views on our Major Cities

According to the Annual Survey by OMIS UK cities are rated most poorly on the following factors:

- **Public transport infrastructure / services (76% rate as poor/very poor);**
- Road transport infrastructure (64% poor/very poor);
- Costs (26% poor/very poor);
- Planning policies / other public regulation (10% poor/very poor);
- Crime (8% poor/very poor)

Leeds is ranked Britain's Best City in this year's survey on the basis of the match between its location attributes and employers' needs. However, many local respondents - while still believing the city to be attractive to business - are far from satisfied with the city's current performance. Over 40% express dissatisfaction with one or more key aspects of the city, but principally with the local transport infrastructure and its inability to service the significant employment growth that has taken place in the centre of Leeds in recent years. Poor bus services, inefficient use of resources, lack of public services on key traffic corridors, lack of sustained investment, overcrowding, unattractive conditions for walking or cycling and general lack of capacity are all familiar themes, but seem to have greater resonance with employers in Leeds.

Source: Britain's Best Cities 2003/4, 7th UK Annual Survey, OMIS

Road Decongestion

- 5.8 Traffic congestion in our urban areas lies very much at the heart of this issue. Congestion is repeatedly shown to be the number one transport problem in Britain²⁷ and the expectation is that it will get worse – official forecasts from the 10 Year Plan suggest growth of anywhere between 11% and 32% by 2010. Congestion has, as we have already noted, economic as well as environmental implications.
- 5.9 Levels of congestion in the Core Cities are potentially particularly susceptible to deterioration in rail performance, (see West Yorkshire case study results in Chapter 8), because of the generally high levels of car availability for rail commuters. The box below highlights the high proportion of rail passengers who had the option to use a car for their journey to Leeds and provides a simple indication of the scale of additional car traffic that could result if they attempted to exercise that option.

West Yorkshire – Road Decongestion

Research on three lines in West Yorkshire shows that 60% to 70% passengers travelling between any station pair had the option of a car for their journey²⁸. At Selby, a North Yorkshire railhead for Leeds, 86% of rail users had a car available for their journey. Assuming 75% of those passengers travelling into Leeds travelled by car instead, at average car occupancies, this would equate to nearly 10,000 additional car journeys into Leeds at peak times.

The benefits are not just confined to Leeds. Rail services carry significant numbers of passengers into the key centres of Bradford, Huddersfield, Halifax and Wakefield.

²⁷ CFIT 2002, Fact Sheet 11 Public Attitude to Transport Survey

²⁸ Harrogate Line Route Strategy, Faber Maunsell 2003

- 5.10 Although the focus of congestion and environmental relief is rightly on peak period traffic, rail can also contribute at other times by playing to its strengths of offering high capacity when large numbers of people are travelling to a single destination as Merseytravel have demonstrated with a range of services offered to major events, see text box below.

Modal Shift and Major Events

The Grand National is one of Britain’s largest sporting events. Merseytravel has successfully promoted a range of measures to enable people to access the event by public transport. In 2003 45% of attendees arrived at Aintree by rail and the percentage arriving by rail is increasing year on year. In conjunction with the growth in overall attendance at the event, this has resulted in an annual increase of over 22% in the number of passengers travelling to the event by rail.

Source; Merseytravel

- 5.11 Nevertheless even relatively modest changes in rail service provision can have a significant impact on road congestion levels. We have undertaken a number of model tests for this study in conjunction with Leeds University’s Institute for Transport Studies using a West Yorkshire rail forecasting model originally developed for Metro. One set of tests involved increasing the average travel time on all local services, a simple proxy for worsening reliability or slower rail speeds as a consequence of lower maintenance standards, and then assessing the impact on road congestion as a consequence of the transfer from rail to other modes. More details of the model and approach are contained in chapter 8 but the results for these tests are shown in table 5.1 below.

Table 5.1 West Yorkshire – Congestion Costs Arising from a Transfer from Rail

Percentage Decrease in Rail Use	Additional Road Congestion Cost in 2015 (£m pa)
15%	27
30%	52

- 5.12 These tests would imply that every 1% reduction in rail demand in West Yorkshire results in somewhere between £1.7m and £2.0m per annum cost of additional congestion on local roads.
- 5.13 With continuing levels of poor reliability on the rail network this is clearly an area of considerable concern.

Air Quality and Climate Change

- 5.14 The impacts and costs considered so far are primarily the economic value of road congestion in terms of the increase in journey time, additional car operating costs and road accidents. The findings support the conclusions from the various estimates of the economic impact of congestion noted in Chapter 3. However the environmental implications of increased road traffic and hence road congestion are, of course, equally significant.

- 5.15 The 'green credentials' of rail have been widely discussed and debated, and some of the key arguments are outlined in the SRA report Everyone's Railway (previous reference). In summary, rail is more energy efficient than road transport. As such it produces less carbon dioxide, the main component of greenhouse gases, and significantly less carbon monoxide (CO), oxides of nitrogen (NOx) and volatile organic compounds (VOC).
- 5.16 Overall rail produces less than 1% of the UK emissions of CO, NOx and VOC and fine particles (PM10) compared to 69%, 43%, 36% and 20% respectively for each of these by car. Even allowing for the dominance of car in modal split terms it is clear that there is a strong environmental case for rail and with continued investment in newer and cleaner rolling stock this case will become even more compelling over time.

Case Study: Birmingham and Air Pollution

Dangerously high pollution levels will soon hit Birmingham unless road congestion is eased. Areas of the city that are particularly at risk include those with adjacent rail corridors such as Selly Oak (around the Bristol Road), the Aston Express Way, M6 corridor and the Stratford Road. Inevitably the majority of these areas are amongst the most deprived parts of the Midlands, where local residents are among the unhealthiest and most vulnerable in the region.

Transport now accounts for 25 per cent of all greenhouse gas emissions most of which is from road traffic and aviation, and this source is growing faster than that from any other sector. Then there are also the health impacts of road traffic pollution. High temperatures in 2003 led to summer smog breaching health standards at several places in the Midlands for five days in a row, with some areas reporting a large increase of patients with chest problems admitted to hospital.

Further investment in Birmingham's rail network would enable capacity increases that may encourage a modal shift from road transport, thus enabling a reduction in road traffic emissions and improvements in air quality.

Safety

- 5.17 As with air quality, the safety aspects of rail have also been well debated and scrutinised and it is not the intention of this report to re-open this discussion. What is very clear is that despite the high profile accorded by the media to rail accidents, the facts show undisputedly that rail is far safer than travelling by car (six times safer for every passenger kilometre travelled according to the Health and Safety Executive²⁹). However, the costs of maintaining this level of safety have been rising (box below).

²⁹ Health & Safety Executive 2003, How Safe are the Railways?

ORR Interim Review

The Regulators interim review on cost drivers associated with safety procedures identified a number of key messages:

- there had been 1500 changes to Railway Group Standards since 1999;
- the greatest impact on costs from standard changes were as a result of
 - reducing risk to staff working on tracks;
 - enhanced track inspection & maintenance regimes;
- There has been an increasingly prescriptive approach to compliance with standards.

The Regulator concluded that Network Rail's procedures contributed to 'very significant increases in maintenance and renewal costs.' His comments concerned:

- overly rigid application of standards;
- over specification to meet 'minimum' standards;
- blanket application of some standards resulting in costs which are disproportionate to the safety benefits in terms of risk reduction;
- continual re-specification of projects due to changes in standards;
- renewal of assets based on age rather than condition & capability.

- 5.18 Considerable effort and investment continues to be poured into the rail industry to improve safety still further and undoubtedly a very strong safety culture exists. These measures do, however, come at a significant cost. Concern has been raised³⁰ that the cost implications could have the perverse effect of resulting in more people travelling by car – an inherently less safe mode. This would arise if they were forced into travelling by road as a consequence of either fare increases to fund the investment costs of safety or because of a failure to fund investments that would encourage more rail use (e.g. new stations or services). We return to this in more detail in Chapter 8.

Safety – An Equity Issue?

Comparisons of safety between road and rail always start from the premise that we expect rail to provide the very highest standards of safety and that road [car] safety is moving in the right direction, albeit relatively slowly. If we applied to road travel the same targets for casualties per km travelled, and imposed the same rigorous approach to enforcing them, then the costs of car travel [in terms of cash and of personal freedoms] would almost certainly rise very significantly. We choose as a nation not to do so and hence the cost of rail safety becomes a direct cost to rail travel for which there is no comparable cost when using the car. There is a further equity issue here, identified in the Social Exclusion Report (previous reference), that children from poorer areas have a far higher road casualty rate.

Personal Security

- 5.19 Personal security is now widely recognised as a major impediment to travelling by public transport generally and rail specifically. People who don't use rail, particularly vulnerable groups, women, the elderly and ethnic minorities, regularly state that it is fear for their personal security that is the major reason for not using rail and whilst the statistics do not necessarily back this up (there is only one reported crime per 19,000 rail trips)³¹ it is the perception that is equally significant as a barrier to achieving more rail use.

³⁰ CFIT Fact sheet 10 The Implementation of Rail Safety Measure

³¹ At the Leading Edge a public transport good practice guide, Jonathan Bray Associates for Transport 2000

- 5.20 Although regular rail users tend to feel more secure than non-users, or infrequent users, research by the British Transport Police shows that this drops off significantly at night time, with 86% of those surveyed feeling safe at day time, but only 30% at night time.

Strathclyde Passenger Transport – Security and Customer Care

Background

An important factor limiting the use of the rail system is the fear of crime experienced by passengers, both at stations and on trains. Park and ride schemes will be unsuccessful if potential users are discouraged through fear of car theft or damage. Vandalism and loitering at stations is another major problem. Strathclyde Passenger Transport (SPT) recognised these issues as a particular problem affecting its rail network, which covers a geographically wide area with many stations both unstaffed and isolated. Working with Scotrail and a number of technology providers, SPT has provided an innovative approach to improve security and customer care.

Closed-Circuit Television (CCTV) has been installed at 118 stations with in total more than 1500 cameras, forming the largest CCTV network in Europe. SPT aims to increase this network to cover all its 181 stations. SPT's CCTV network makes use of Digital Video Storage and Transmission technology which allows pictures to be transmitted over standard telephone lines and avoids the requirement for a prohibitively expensive dedicated link to each station across the network.

The CCTV network is monitored from a central control point, the recently opened Strathclyde Customer Service Centre, which comprises a purpose built control room along with video viewing and editing rooms. The Centre also has a direct link to the British Transport Police Headquarters with the ability to transfer images and control of cameras.

Further technology improvements will enable the use of high capacity phone lines, allowing up to 64 cameras per line, useful for larger stations and car parks. Hard disk storage has also removed the need for time consuming data retrieval from video tape.

Results

The system has provided a number of other significant benefits. Each platform and waiting room has a "help point" which gives passengers a direct audio link to the control centre providing an interactive customer service at unmanned stations. At other stations where telephone provision was deemed too expensive the help points can even be used to relay messages to relatives or to order taxis.

Long Line Public Address systems and operators have also been transferred to the control centre as it was found that the level of information provided by the CCTV system allowed for **improved quality and coordination of information**.

SPT has also trialled the use of on-train CCTV systems and found benefits in a **reduction of crime and antisocial behaviour**. Funding was received from the Scottish Executive in 2001 for installation of a digital system which will be fitted to a variety of train types, allowing wide network coverage.

SPT's approach to passenger security and customer care through the investment, currently over £4M, in CCTV has given reassurance to passengers with a consequential **increase in usage and revenue**. For example, **car parks** at Hamilton West, Shettleston, Croy, Bishopton and Patterton **were previously sparsely used but are now regularly full**.

The audio link has also proved beneficial, on occasions being used to call ambulances from the control room to passengers requiring attention at unstaffed stations

- 5.21 In response, the DfT and the rail industry has introduced a Secure Stations accreditation scheme which sets minimum standards of design and operation of stations, station car parks and their approaches. Some PTEs are now going much further. All the PTEs operate a station quality incentive regime with their local franchisees aimed, at the minimum, at maintaining and preferably enhancing, features of the station environment such as lighting, removal of graffiti etc which effect perceptions of personal security.
- 5.22 All Merseytravel adopted stations have a continuous staff presence and officers at the PTE claim there is a noticeable difference in terms of lower levels of crime and vandalism between these stations and the handful of stations in Merseyside that are not staffed. Centro in conjunction with Central Trains has targeted particular problem stations with a coordinated package of investment measures in conjunction with local communities with impressive results (see Lea Hall text box).
- 5.23 In accordance with the approach adopted for stations, attention is now turning towards developing a 'Secure Trains' accreditation scheme.

Case Study: Lea Hall Station

Background

Lea Hall Railway Station, on the Birmingham to Coventry line, is located in an area dominated by council housing and used to be a focal point for anti-social behaviour by local youths. Before its £1m refurbishment in 1998 by Centro, the station suffered widespread graffiti and vandalism and the station building was destroyed in a fire.

It was decided that the best way to safeguard the station's future would be through involving the local community in its redevelopment. This was done by asking them to help develop designs for the art features, working with Collective Art Noise (CAN), an organisation who had much experience of working with West Midlands' communities. CAN consulted members of local youth groups as well as residents, bus and rail users to see what they would like done and they came up with a 'day and night' theme that was incorporated into the whole station design. Other work included a new booking office and car park, new bus stops, improved CCTV, lighting, fencing and landscaping.

Results

Crime at the station is now **down** and passenger numbers are up, with a **26% increase in usage** in the six months following re-opening and 32% of survey respondents making more journeys. Furthermore, surveys indicate that a significant proportion of station users are new to rail and would recommend the service to their friends. This is seen as evidence that the new layout and security measures have been a real driver in increasing rail patronage at the station.

- 5.24 The PTEs strongly believe that having a staff presence on board a train is a major passenger benefit and they would like to see train design reflect this. Relatively simple measures such as having intermediate door controls (or indeed full Driver Only Operation) would improve the ability for staff to be visible on board a train, ensure that the conductor can carry out a variety of customer duties whilst minimising conflicts with service operation and revenue protection.

Summary

- 5.25 In summary the principal contribution that urban rail can make to the sustainability of our major cities is through:
- ◆ facilitating forms of development that are not car dependent;
 - ◆ reducing car congestion.

- 5.26 Declining performance of urban and regional rail service levels would put this at risk.
- 5.27 The safety and environmental (air quality, greenhouse gases & noise) benefits of rail are important in supporting these factors – rail is up to six times safer per kilometre travelled than car and is notably more energy efficient.
- 5.28 Significant challenges remain however. One of these is improving the personal security of rail users. Examples from around the country show that significant growth in rail use can be achieved with targeted investment to improve the environment and security of our urban rail networks.

6. Key Challenge – Integration and Governance

- 6.1 The Core Cities initiative describes the final challenge to the city regions as being one of governance. By this we mean meeting the three challenges of economic development, social inclusion and sustainability across a fragmented City Region and with fragmented governance across the different policy areas.
- 6.2 This challenge is clearly reflected in the government's own 'Integration' objective in their New Approach to Transport Appraisal (NATA) framework.

Modal Integration

- 6.3 When thinking about public transport the term 'integration' is often thought of as being solely about achieving integration between the modes. This is clearly an important area in the context of rail in the conurbations. Indeed it is something that the PTEs are particularly focused on achieving as it offers the means to extend the coverage of the rail network to a greater proportion of the urban population through such measures as bus/ rail interchange, pedestrian/cycle and rail interchanges and integrated ticketing schemes.
- 6.4 Swinton in South Yorkshire (Chapter 4) is a good example of what can be achieved through rail/bus integration. It provides a much wider job-search catchment area for employees and a wider potential labour market for employers by combining the journey time advantage of rail with the direct accessibility of a feeder bus to a dispersed low density employment site.

Case study – Copenhagen An Example of Successful Integration

Copenhagen (Kobnhavn) is the capital of Denmark. The metropolitan conurbation has a population of 1.7 million. Responsibility for provision of common public services across the conurbation are in the hands of the Greater Copenhagen Development Corporation (HUR). This includes public transport, for which the coordinating body is Hovedstadsomradets Trafikselskab (HT – Greater Copenhagen Transport Authority), a subsidiary body of HUR. HT coordinates the entire bus network, and also manages a common fares system for all modes, including rail. This includes a range of tickets which enables any journey to be made by several modes, with transfers. HUR is responsible for providing revenue support for non-commercial services.

Suburban services on the main part of the rail system in the HT area are provided by DSB S/tog (S-Train), a subsidiary of the national railway operator DSB. Provision is under the terms of a five year agreement between DSB S/tog and the Ministry of Transport, which sets service levels, punctuality and other conditions. Revenue and other income meets 63% of operating costs, and 37% comes from revenue subsidy, paid by the Government. The electrified S-Train network has ten defined routes, each operating at 20 minute intervals throughout the day, with 10 minute intervals at peak times. This gives very high frequencies on the core section through the city. A few lines extend to more remote parts of the region. The original trains dating from the 1960s and 1970s are now being completely replaced by a new fleet of 112 high powered articulated units, intended to bring much enhanced performance and quality of travel.

Four more lines to the north of the region, formerly operated in coordinated fashion by local companies have now been merged into HL, a subsidiary of HUR, which owns all the infrastructure and trains. They are now operated by Lokalbanen, a further subsidiary of HUR and are fully integrated with the HT bus and ticketing system.

6.5 In West Yorkshire the development of Menston station as a mini interchange has been complemented by the introduction of a connecting bus service which has linked the small town of Otley three miles away in to the successful Wharfedale commuter rail service to Leeds and Bradford. The aim of this scheme is to focus initiatives on the whole journey from door to door, turning the station into an interchange hub where transfer from car or bus or cycle can be as quick and easy as possible.

Policy Integration

6.6 However, the principal focus in this section is upon the integration of policy. Central government does have a number of PSA objectives that are principally about policy integration. Those highlighted below are focused on the cross-cutting nature of sustainable development and social inclusion.

Govt Dept	PSA Objective	Performance Target
DEFRA	I: protect and improve the rural, urban, marine and global environment, and lead integration of these with other policies across Government and internationally.	1. Promote sustainable development across Government and the country as a whole as measured by achieving positive trends in the Government's headline indicators of sustainable development.
ODPM	I: work with the full range of Government Departments and policies to raise the levels of social inclusion, neighbourhood renewal and regional prosperity.	1. Promote better policy integration nationally, regionally and locally; in particular to work with departments to help them meet their PSA floor targets for neighbourhood renewal and social inclusion.

6.7 Arguably the best indication of the role that urban and regional rail services plays in terms of achieving integration of government policy objectives is to assess the degree of achievement across the economic, social inclusion, and sustainability policy fields. Table 6.1 summarises the objectives outlined at the beginning of this and the three preceding chapters and assesses the extent to which development of the urban rail network is consistent with or supportive of their achievement.

6.8 It is clear from this table that there is indeed a high degree of consistency across a range of government objectives.

Table 6.1 Urban Rail's Contribution to Integrated PSA Targets Achievement

Govt Dept	PSA Objective	Performance Target	Urban Rail Contribution
DTI & Treasury	Economy I: productivity. IV: successful enterprise and business.	Demonstrate progress by 2006 on the Government's long-term objective of raising the rate of UK productivity growth over the economic cycle, improving competitiveness and narrowing the productivity gap with the US, France and Germany. Joint target with DTI & HM Treasury	√√
DTI & Treasury	II: promote work as the best form of welfare for people of working age, while protecting the position of those in greatest need.	Make sustainable improvements in the economic performance of all English regions and over the long term reduce the persistent gap in growth rates between the regions, defining measures to improve performance and reporting progress against these measures by 2006. Joint target with ODPM and HM Treasury	√√√
DWP	III: work with the full range of Government Departments and policies to raise the levels of social inclusion, neighbourhood renewal and regional prosperity.	Demonstrate progress by Spring 2006 on increasing the employment rate and reducing the unemployment rate over the economic cycle. Joint target with HM Treasury.	√
ODPM	Social Inclusion I: work with the full range of Government Departments and policies to raise the levels of social inclusion, neighbourhood renewal and regional prosperity.	Make sustainable improvements in the economic performance of all English regions and over the long term reduce the persistent gap in growth rates between the regions, defining measures to improve performance and reporting progress against these measures by 2006. Joint target with HM Treasury and DTI.	√√√
ODPM	II: deliver effective programmes to help raise the quality of life for all in urban areas and other communities		√√√
DWP	III: promote work as the best form of welfare for people of working age, while protecting the position of those in greatest need.	Over the three years to Spring 2006, increase the employment rates of disadvantaged areas and groups, taking account of the economic cycle lone parents, ethnic minorities, people aged 50 and over, those with the lowest qualifications, and the 30 local authority districts with the poorest initial labour market position, and significantly reduce the difference between their employment rates and the overall rate.	√√
DWP	IV: improve rights and opportunities for disabled people in a fair and inclusive society.	In the three years to 2006, increase the employment rate of people with disabilities, taking account of the economic cycle, and significantly reduce the difference between their employment rate and the overall rate. Work to improve the rights of disabled people and to remove barriers to their participation in society.	√
Treasury	VI: expand economic and employment opportunities for all.	Demonstrate progress by Spring 2006 on increasing the employment rate and reducing the unemployment rate over the economic cycle. Joint target with DWP	√

DTI	Environment & Sustainability III: fair competitive markets.	Ensure the UK ranks in the top 3 most competitive energy markets in the EU and G7 in each year, whilst on course to maintain energy security, to achieve fuel poverty objectives; and (Joint target with DEFRA) improve the environment and the sustainable use of natural resources, including through the use of energy saving technologies, to help to reduce greenhouse gas emissions by 12.5% from 1990 levels and moving towards a 20% reduction in carbon dioxide emissions by 2010.	✓
DEFRA	I: protect and improve the rural, urban, marine and global environment, and lead integration of these with other policies across Government and internationally.	Improve the environment and the sustainable use of natural resources, including through the use of energy saving technologies, to help reduce greenhouse gas emissions by 12.5% from 1990 levels and moving towards a 20% reduction in carbon dioxide emissions by 2010.	✓✓
DEFRA	VI: protect the public's interest in relation to environmental impacts and health, and ensure high standards of animal health and welfare.	Improve air quality by meeting our National Air Quality Strategy objectives for carbon monoxide, lead, nitrogen dioxide, particles, sulphur dioxide, benzene and 1-3 butadiene. Joint target with DfT	✓✓✓
DfT	I: reliable, safe and secure transport for everyone which respects the environment.	Reduce congestion on the inter-urban trunk road network and in large urban areas in England below 2000 levels by 2010.	✓✓✓
DfT	I: reliable, safe and secure transport for everyone which respects the environment.	Secure improvements in rail punctuality and reliability with a 50% increase in rail use in Great Britain from 2000 levels by 2010.	✓✓✓
DfT	I: reliable, safe and secure transport for everyone which respects the environment.	Reduce the number of people killed or seriously injured in Great Britain in road accidents by 40%, and the number of children killed or seriously injured by 50%, by 2010 compared with the average for 1994-98, tackling the significantly higher incidence in disadvantaged communities.	✓✓
ODPM	III: deliver effective programmes to help raise the quality of life for all in urban areas and other communities.	Achieve a better balance between housing availability and the demand for housing in all English regions while protecting valuable countryside around our towns, cities and in the greenbelt - and the sustainability of existing towns and cities - through specific measures to be set out in the Service Delivery Agreement.	✓✓
DEFRA	Integration		
DEFRA	I: protect and improve the rural, urban, marine and global environment, and lead integration of these with other policies across Government and internationally.	Promote sustainable development across Government and the country as a whole as measured by achieving positive trends in the Government's headline indicators of sustainable development.	✓✓✓
ODPM	I: work with the full range of Government Departments and policies to raise the levels of social inclusion, neighbourhood renewal and regional prosperity.	Promote better policy integration nationally, regionally and locally; in particular to work with departments to help them meet their PSA floor targets for neighbourhood renewal and social inclusion.	✓✓✓
	Key: ✓ consistent with objective ✓✓✓ Highly supportive of objective	✓✓ supportive of objective	

Integration with Planning Policies –the RPA Process

- 6.9 As evidenced by table 6.1 and the discussion in the previous chapter it is arguably the successful integration of rail with land use planning that will have the biggest single impact on the development of our city regions.
- 6.10 A criticism to date of the SRA's approach to planning has been its lack of a mechanism to reflect and incorporate regional and city planning frameworks. This includes both transport planning and also spatial planning: the two are now closely linked in the best instances, especially for most of the PTE areas. The SRA has evolved its planning processes and its staffing in the last year or so to address this matter. It will now carry out a series of regional planning assessments (RPAs).³²

Utrecht: An Example of Integrated Land Use and Transport Planning

Utrecht forms the 'fourth city' of the Netherlands 'Randstad' (now formally referred to as the Delta Metropolis). It forms a major crossroads for rail and road routes between Amsterdam, The Hague and Rotterdam and the rest of the Netherlands. Utrecht is the centre of a 'transport area' and a 'planning area', in combination with adjacent catchment area towns.

Utrecht has seen significant growth in population and employment over recent decades, associated with advanced technology, service industries and administrative functions. The Province strategic plan, ('Streekplan'), published in 1994 and updated in 2003, designated growth both within the city itself and in adjacent settlements, to be focused around rail-based transit systems, including upgraded local NS passenger services. The complementary Province Transport Plan (2003) identifies the important role of NS services to enhance accessibility and quality of movement across the province, and for links to the other main cities of the Randstad.

Expansion of the national rail system remains a feature of current national transport policies. NS operates the main passenger network, while infrastructure management and development is in the hands of Prorail. Investment in new infrastructure is financed by a national infrastructure fund.

The aim is to provide a standard daytime frequency of six trains per hour – effectively a 'turn up and go' service. The level of passenger train capacity continues to increase: during the period 2002-2005 the number of seats available across the fleet will be increased by 10,000 a year. A significant number of new stations are being upgraded and new ones built. These coordinated programmes aim at increasing the choice and quality of travel throughout the Netherlands, especially by public transport integrated with non-motorised modes, and reducing the environmental impact of transport.

Utrecht Centraal station has seen major redevelopment in recent years, to accommodate substantially increased office and shopping areas integral with the adjacent city centre; and to act as a key transport interchange, linking national rail services with local rail, tram and bus services. Further development is planned by Prorail, in cooperation with the City, so that it can function as a key interchange on the Dutch high speed link to Germany.

Railway investment and service provision around Utrecht is geared to achieving close integration between land use planning and transport, and between national railways and local public transport. Government firmly coordinates the policies and programmes of the key bodies, including Utrecht City (for development planning, transport and housing at local and conurbation level), Utrecht Province (for strategic planning, and for transport development outside the City), NS (for national rail passenger services) and Prorail (for rail infrastructure management and expansion). Government also ensures the provision of adequate public funding to achieve their accepted policies.

³² Regional Planning Assessment (SRA, 2003)

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- 6.11 The RPAs will “provide a level of planning below the Strategic Plan”, and are intended inter alia to:
- ◆ form a basis for planning rail services over the medium to long term (5-20 years);
 - ◆ ensure that plans for the railway reflect policies and priorities in spatial development plans for the English Regions, London, Wales and Scotland;
 - ◆ inform SRA input to spatial strategies.
- 6.12 They will provide a focus for SRA action in:
- ◆ forming a framework for Route Utilisation Studies (RUS) and the prioritisation of infrastructure projects;
 - ◆ guiding the further development of franchise specifications.
- 6.13 As such, they are clearly an important key to service development and provision.
- 6.14 Essentially the RPAs will form a stage in the development of the Utilisation Strategies which are at the heart of the SRA’s approach to planning. This is aimed much more at using the capacity which already exists. Although capacity enhancements form an important element in the planning work, the overall situation is one of constrained funding focused on the current network. The RPAs will follow this approach.
- 6.15 This is made particularly clear in Appendix I of the SRA document, which emphasises that all options for development will be reviewed by “*sifting against ... value for money and deliverability criteria*”. The results will be set out in a Core Scenario, which must be “*realistic and deliverable within its likely funding constraints*”. The process also includes the possibility of a Progressive Scenario “*requiring a higher level of resources than is currently available*” – but this will only be put forward “*if appropriate*”. In other words, the RPAs will be cash-limited, and largely defined by the SRA’s judgement.
- 6.16 It is also clear that value judgements will be applied by the SRA in the processes of evaluating the regional and other spatial planning documents. The aim of addressing the various documents includes the phrase “*reflect where appropriate the policies and priorities*”. This could be interpreted as meaning that no real attempt will be made to consider the implications for railway operations and infrastructure of all proposals set out in the spatial and other planning documents.
- 6.17 This poses a very serious question that we alluded to earlier. If implementation of spatial planning policies in the key fields of housing, economic activity, leisure and environment rely to any extent on development of suitable rail services and infrastructure, then failure to achieve those services and infrastructure will weaken the effectiveness of those policies.
- 6.18 This should form a crucial issue for government. If spatial planning is meant to provide a firm basis for achievement of national policies at regional and local level (as the present government apparently believes), then the plans formulated need to be an obligation on all relevant agencies for their achievement, including the SRA.

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- 6.19 This does not necessarily mean that such agencies will be able to meet all proposals set out in the planning documents: but they should be required to assess them all, and clearly engage with government and the planning bodies over the extent to which they can implement them and the issues which concern them.
- 6.20 If proposals in spatial planning documents are genuinely unrealistic or very poorly established (and there is no reason to suppose that any plan which has undergone formal public inquiry contains such elements), then such engagement becomes even more important, in order to pull together the aims and expertise of all bodies. The SRA's processes for the RPAs clearly see the spatial planning bodies as a source of information and experience but not as bodies whose plans should guide theirs.
- 6.21 The RPAs will be prepared over the next two years. Of particular interest to the main conurbations, those for the North East and North West are scheduled to be completed by summer 2004 and for the West Midlands by autumn 2004. However, that for Yorkshire & Humber only scheduled for completion by winter 2005, when the overall process is also expected to complete its first round. The new Northern franchise will be well established by then, and thus there will probably be less pressure on the SRA to develop significant new infrastructure (even if any were included in the relevant RPAs) for some years.
- 6.22 The process is intended to involve stakeholders, including regional and local planning and transport interests. This is set out in Appendix II to the SRA document, which refers to engaging stakeholders throughout, so that "*their ideas, aspirations and experiences can be taken into account*". The Appendix defines establishment of a Core Reference Group, with whom discussions will take place at three specific points, including consultation on the options.
- 6.23 However, the final RPA (both the Core Scenario and the Progressive Scenario if there is one) will **not** be subject to further consultation.

Experience Elsewhere

- 6.24 The planning framework in which rail operates is often quite different in mainland Europe, with a much stronger emphasis placed on ensuring that transport and land use planning act in tandem, see case study box over the page.

Planning Framework for Rail Investment - European Experience

While the PTEs have firm public transport plans, and are co-signatories in rail franchises affecting their areas, railway investment in British cities is heavily dependent upon government.

This reflects two main factors:

- the levels of funds available to both the SRA and the PTEs are controlled by Government and are heavily constrained in relation to the potential needs and opportunities identified in the PTE strategies;
- the PTEs do not have strong comprehensive powers to determine investment, their own funding priorities being subject to annual judgement on their LTPs (drawn up jointly with their metropolitan districts).

This situation contrasts with that prevailing in most of the rest of western Europe. Although the constitutional structures and cultural positions differ widely between different countries, certain commonalities of approach exist across the main nations:

At **national** level there is;

- a transport strategy, adopted by the parliament, linked to a strategy for spatial and regional planning;
- far higher public funding for transport, especially on infrastructure, reflecting Government priorities.

At **regional** level the public authorities are elected regional bodies, who have:

- responsibility for drawing up transport strategies, which are strongly coordinated with spatial planning;
- full executive powers to implement these strategies;
- substantial funding resources, for investment and for service development and support;
- responsibility for regional public transport franchises, rail as well as bus.

At **local authority** level all local authorities (municipalities / districts) have responsibilities for spatial planning and transport, and the main cities have substantial powers and funds for implementing their strategies.

Coordinated and well focused action in the often large and complex conurbations is made more straightforward as there are:

- clear structures for working relationships between national, regional, and local authorities, often through a form of contract reflecting approved plans;
- strong links between spatial (land use) planning and transport planning, at all levels, with mechanisms and processes to link them;
- broadly equitable principles for funding rail, road and waterway infrastructure.

Two features serve to ensure that development of public transport, including rail, is carried out in a way that uses resources efficiently to serve the city, its catchments and the people who live in them:

- much higher densities of residential development, and more concentration of commercial premises city and district centres; in both cases with rail / metro / light rail as a key focus;
- fully integrated public transport services, in terms of operations, ticketing, and information, with public authorities primarily responsible for this.

The UK Experience with Regionalisation

- 6.25 We don't however, have to look too far afield to find examples where devolved powers and funding and a more localised emphasis on planning and investment has brought demonstrable improvements.
- 6.26 In Scotland, the Scottish Executive has taken a pro-active stance on rail, seeing that an effective rail network has an important role to play in contributing to the Executive's three over-arching objectives of a strong economy, an inclusive society and a clean environment. The Executive will shortly take full funding responsibility for the Scotrail franchise under the terms of the devolution settlement. Scottish Ministers issued directions and guidance to the Strategic Rail Authority in June 2002, setting out service priorities for the next Scottish passenger rail franchise and the Executive is working with the SRA, Strathclyde Passenger Transport Executive and other partners to re-let the franchise when the current franchise expires in 2004.
- 6.27 The last few years have seen SPT, the Scottish Executive and local authorities (often in the form of sub-regional groupings) pursue a number of ambitious rail development programmes, including the introduction of enhanced service levels on several routes in Strathclyde and the Edinburgh Crossrail project. Plans for new services include rail links to Edinburgh and Glasgow airports, re-opening the Stirling to Alloa route and linking the Bathgate branch to Airdrie to create a new through route between Glasgow and Edinburgh.
- 6.28 In Wales, the National Assembly for Wales has fewer powers, but has nevertheless been instrumental in encouraging and supporting rail development. Major regeneration initiatives in the areas affected by the decline of the steel industry have seen the NAFW take the lead with local authorities in pursuing and funding works to re-open the railway to Ebbw Vale to provide access to local residents to the buoyant job market further down the valley in Cardiff.
- 6.29 Both the Scottish Executive and the NAFW, albeit to a lesser extent because of their more limited powers, have pursued an expansionist agenda for regional rail. The situation in Scotland and Wales therefore contrasts quite starkly with the situation in England where expansion is clearly not currently on the SRA agenda. In England it has been the PTEs and local authorities who have continued to pursue network development aspirations, albeit with limited powers and funding.
- 6.30 However, in Merseyside the PTE has gone further than anywhere else in Britain to date and taken on responsibility for their local rail franchise giving them much greater influence over the specification and operation of their local services.
- 6.31 Early indications are that this is proving to be very successful (see text box over the page).

Merseytravel - A Local Franchising Authority

In July 2003 responsibility for the Merseyrail electric network was transferred from the Strategic Rail Authority to Merseytravel. At the same time Merseytravel signed a new 25 year franchise with Ned Railways and SERCO to operate the system.

Merseyrail is now the most punctual and reliable railway after the Isle of Wight line and the operator and Merseytravel attribute their good performance to a combination of factors:

- a sophisticated, long-term, franchise agreement which incentivises Merseyrail to perform and provides the right framework for a stable partnership to develop between Merseytravel and Nedrail / Serco;
- local management and control of the network replacing remote control from London;
- attention to detail, with a host of measures introduced to target specific reliability problems (for example much improved maintenance of the rolling stock), some of which was inherited from the previous franchisee.

As well as improved performance, the 25 year franchise deal means:

- all existing trains to be refurbished to a high standard (a process which is already underway);
- more stations to be transformed, including the underground stations in central Liverpool;
- fares capped to the rate of inflation for the length of the franchise.

Despite the improvements in performance, the majority of the delays on Merseyrail are still attributable to Network Rail and are therefore outside Merseytravel's control.

Merseytravel is now in discussion with Government about the potential to take control of the infrastructure to create the first vertically integrated major rail operation since privatisation. Under the proposals responsibility for the network would transfer from Network Rail to the PTE for one Euro. Merseytravel would then set up a joint venture 'InfraCo' with Serco/ Nedrail to maintain and renew the infrastructure. Network Rail's train operational responsibilities, like train control and signalling would pass to Merseyrail, enabling the InfraCo to work solely on maintenance and renewal, and the train operator to introduce more efficient integrated management.

Summary

- 6.32 A coherent rail development policy for our urban areas can demonstrate a high level of consistency with, and support for, a wide range of central government objectives.
- 6.33 A key issue is the extent to which consistency can be achieved between the strategy for rail investment and the urban and regional landuse planning frameworks.
- 6.34 There are serious concerns that the SRA's Regional Planning Assessment framework proposals, whilst well intentioned, could fail to accord sufficient weight to existing statutory landuse procedures.

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- 6.35 Experience in Europe and closer to home in Scotland and in Merseyside where planning powers, and crucially, funding, have been devolved to a more local level provides evidence that this has been successful in developing rail services that are more attuned to the achievement of the objectives of local and national government.

7. What Can be Achieved?

7.1 Having set out the range of benefits that regional and urban rail currently brings we turn in this section to outline what more could be achieved with a firm commitment to develop our urban rail networks.

7.2 In doing so we have set out the broad vision for rail that each of the PTEs has for its network. This is not a 'shopping list' of schemes but a statement of what the PTEs believe the future should look like. We have also included a number of examples of what has been achieved elsewhere in Europe with transport networks similar to our own City Region networks.

PTE Aspirations

7.3 Typical components of PTE plans for the development of their local rail networks include:

- ◆ 'turn up and go' frequencies;
- ◆ new trains, stations and routes - which in many cases involves reopening or upgrading existing lines;
- ◆ improved security at existing stations;
- ◆ new park and ride stations and integrated multi-modal interchange facilities;
- ◆ integrated ticketing, including multi-modal smartcards, between rail, bus and light rail;
- ◆ tram and train track-sharing to forge links between light and heavy rail (with tram providing on-street access to city centres).

7.4 However, much of what is achievable in the UK, particularly in Merseyside, Greater Manchester and Yorkshire is dependant upon nationally significant rail projects including the East Coast and West Coast route enhancements and Trans Pennine upgrades.

7.5 These policy aims are very similar in form and purpose to those being implemented by major cities in mainland Europe, such as Barcelona, Köln and Lille.

7.6 The Köln example, (case study box over the page), is particularly pertinent. It is an industrial heartland area which shares many characteristics with our PTE areas. The West Midlands would be perhaps our closest equivalent. In the City Region around Köln the regional authority has successfully developed an integrated network between buses, trams, S-bahn, inter-regional express services. Tickets, timetables and fare structures are all fully integrated enabling passengers to travel easily around the region by a combination of public transport modes.

Case study – Cologne (Köln)

The city of Cologne has a population of one million, but the city's transport network (run by a subsidiary of the city owned public works corporation) covers an area with 1.3 million people. The Cologne system in turn forms part of the Rhein-Sieg Transport Joint Authority (Verkehrsbund Rhein-Sieg, VRS) which covers a region with a total population of 3.2 million people. This region includes the neighbouring city of Bonn, the smaller cities of Leverkusen and Monheim, and a number of districts.

All these authorities are active members of VRS, which was set up in 1996. VRS is responsible for integrated ticketing, tariff structures and timetabling for all public transport in its region. This includes light rail, tramways and buses, and also rail services run by the national rail operator deutsche Bahn AG (DBAG), through its regional passenger subsidiary DB-Regio.

In all there are 22 DB services within the VRS region. This includes three cross-city regional routes, providing links to main areas in the VRS region, and to Düsseldorf to the north; and three City-bahn lines, the latter providing frequent links between Cologne and Gummersbach, Horren and Eiskirchen, all local centres within the VRS region.

DB-Regio operates 1000 trains a day over the VRS network and the smaller neighbouring Aachen Joint Authority (AVV), a total network of 649 route kilometres. The services carry 66 million passengers a year.

Most lines are electrified. Services are provided mostly by older locomotive hauled stock, but DB-Regio is investing in large numbers of new electric multiple-units for city and regional services across Germany, and these are taking over some of the Cologne services; some units are double-deck, to offer more seating capacity. They are intended to bring increased levels of performance and comfort. New diesel multiple units are also being introduced on the few non-electric lines.

Infrastructure and services are managed and developed by DBAG subsidiaries DB-Netz and DB-Stations-Services respectively.

Much of the support funding for DB services comes from the Federal Government. The Lander and the cities also provide significant funds for investment and service development; most regional and local investments are co-funded. The projects and programmes are developed and evaluated through the city and Lander transport strategies, in close cooperation with DBAG.

Responsibility for local rail services in Germany is gradually being transferred to cities and districts. Duren in the VRS area was an early example itself. DB transferred two run-down local branches to the district authority which has since built up travel and service levels on them very substantially, through integration with bus services and local activities; it also has integrated ticketing for the area and beyond within the framework set by VRS.

West Midlands

- 7.7 The WMPTA / Centro 20-Year Public Transport Strategy sets out a 20 year vision for public transport. As part of the 'Network West Midlands' vision for 2019, rail lines with forecast demand in excess of 2,000 passengers in the morning peak have been designated for 'turn-up-and-go' frequencies of at least every 10 minutes.

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- 7.8 It is intended that this should allow for high frequencies at all main stations through a combination of stopping, semi-fast and fast services.
- 7.9 The West Midlands rail network is at the heart of the UK rail network and is characterised by routes where local services have to share tracks with Inter-City, Regional and freight services. This is a major constraining factor on developing local services. The West Midlands Area Multi-Modal study therefore identified the need for a segregated 'Regional Express Rail Network, (RER) as the long term solution for delivering improved local services. This would offer a system similar to the regional rail networks operating with such success in some German, Swiss and other cities, across Paris and throughout the Randstad (capital region) in the Netherlands. While this would require significant investment in additional infrastructure to allow local services to operate separately from other services it would be of major benefit, not just for local passengers, but for the national rail network as a whole.
- 7.10 Centro successfully introduced a 10 minute 'turn up and go' service frequency on the busy Cross City rail line in September 2002 (Chapter 2), and following some changes in January 2003 to improve performance, this is operating at a good level of reliability and is popular with passengers who now do not have to worry about consulting a timetable. The introduction of this service means that 16 of the busiest stations in the West Midlands now enjoy a six train per hour service during the weekday daytime period.
- 7.11 Centro is focusing on providing additional Park and Ride capacity as a key way to encourage additional rail use. There is strong evidence that there is considerable suppressed demand due to existing car parks being over-subscribed. Many car parks are full by 0800, meaning that later peak and off-peak users are unable to drive to stations, and are therefore choosing not to use the train. For example, at Centro's biggest car park at Stourbridge Junction the 450 spaces are full by 08:00.
- 7.12 A major expansion scheme is currently underway to provide a further 400 spaces in early 2005. A concern, however, is that if Centro expands car parks to meet the demand then train capacity may not be able to cope with the additional passengers generated. However, being able to generate significantly more off-peak users, (critical to off-setting the peak costs and thus improving the overall economics of the network), will be dependent on being able to provide them with a car parking space.

South Yorkshire

- 7.13 SYPTE and the four district councils of South Yorkshire and Yorkshire Forward see the role of local rail services as improving accessibility to the key regional and sub-regional centres particularly for work trips, whilst enhancing Doncaster and Sheffield's role as Gateways to South Yorkshire.
- 7.14 Their vision for South Yorkshire is of a network of services that provide high quality frequent, fast and reliable links between the four urban areas of Barnsley, Sheffield, Rotherham and Doncaster.

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- 7.15 A key priority is to improve the poor level of connectivity of **Barnsley** to the national rail network. The SYPTE proposal is to achieve this by the introduction of a twice-hourly 'Yorkshire Express' service between Sheffield and Leeds. This would significantly reduce travel times on the Barnsley line as well link Barnsley more effectively into the national network.
- 7.16 **Sheffield** station and the routes directly north and south of the station are critical to the success of the development of the South Yorkshire rail network. There is limited scope to achieve any additional capacity by incremental investment. The realisation of the Yorkshire Express may require very significant additional capital expenditure at certain 'pinch-points' to the north, at Meadowhall, and to the immediate approaches to Sheffield station. South of the station, improvements to the Dore junction however, could facilitate an extension of the service as far as Chesterfield or Nottingham.
- 7.17 At the station itself, plans involve relocating the existing depot and maintenance activities to allow a rationalisation of the platforms and improve reliability and capacity.
- 7.18 The key point is that Sheffield, in a similar manner to Birmingham and Manchester, will require a significant level of investment in order to unlock additional capacity to achieve a worthwhile enhancement in service provision. And, like the other two cities mentioned, these are schemes of national significance because of their impact on inter-city, freight and inter-regional services.
- 7.19 **Doncaster**, lying on the East Coast main line has better links to the national rail network than much of the rest of South Yorkshire. Immediate plans are for the further development and enhancement of Doncaster station into a new multi-modal interchange. In the medium term the proposed development of Fittingley Airport as a regional airport has led to the investigation of the potential for semi-fast rail services from the main population centres in South and West Yorkshire to the airport. However this has significant capacity implications for the Doncaster area rail network and the solutions will need to be seen in the context of the SRA proposals for the East Coast main line.
- 7.20 In **Rotherham**, the principle aim is to improving Rotherham's connectivity to the regional and national network. The current single track link from the Midland main line to Rotherham Central creates major capacity and journey time constraints on this part of the network. Options under consideration include;
- ◆ a twin track alignment to create capacity for regional services;
 - ◆ additional parkway stations on the Midland main line at Rotherham Parkgate and/ or Masborough;
 - ◆ the extension of the South Yorkshire Supertram to Rotherham.
- 7.21 The role of Supertram, as a more affordable alternative or complementary mode has also been considered on other corridors, as are options to provide improved bus services to retain and build the public transport market.

Case Study – Lille

The Lille Metropole conurbation shares a number of similar characteristics with South Yorkshire. Both areas have focused on economic regeneration following the decline of their traditional heavy industries; they are both poly-centric in nature, with the main city being approximately twice as large as the three other cities within the conurbation.

Lille is the administrative and economic centre of the Nord Pas de Calais Region of France. It forms the major component of a conurbation which includes the small cities of Tourcoing and Roubaix and the new city of Villeneuve d'Ascq. Together with 83 much smaller municipalities they comprise the conurbation of Lille, now recognized and marketed as the Lille Metropole. The conurbation has a population of 1.1 million people, half of whom live in Lille itself.

Responsibility for common services across the conurbation lies with the Communauté Urbaine de Lille (CUDL), a body representing all 87 municipalities. These responsibilities include strategic planning and transport planning. The latest Schema Directeur (strategic plan) for the Metropole incorporates clear policies on transport, which include the aim of doubling the proportion of travel on public transport, from 8% to 15%. This is largely to be achieved through the integrated transport network of metro, tramway and buses operated on long term franchise by Transports Metropole (Transpole). However, it also foresees a contribution by rail.

Following the Haenel report of 1996, the Regional Councils were awarded full responsibility for regional and local rail services. Increased levels of government funding support (1.5 billion Euros a year, twice the amount formerly granted to SNCF for regional and local services) is provided to the regions. The regions are required to commission the services from SNCF as the national train operator. Nord Pas de Calais have been active in the development of rail services linking Lille with the other main cities of the Region since the mid 1980s, as well as local services on other axes. They have supported, through contract agreements, a significant increase in service provision which has been rewarded with a similar level of growth in passengers. Lille now has the second highest level of commuting in France after Paris.

The Region has, in common with other French regions, taken increasing responsibility for provision of trains. In recent years Nord Pas de Calais has received 33 new double deck 2-car electric multiple units, out of a national fleet of 80; SNCF met 30% of the cost for these, the Region 70%. The Region has also supported the introduction of six 4-car double deck units. A further 16 new 3-car double deck electric units are on order (part of a major order by SNCF of trains for regional services). These new units are replacing older trains and also allowing an increase in the capacity and quality of the regional passenger services.

The Region is also supporting local operation of high speed trains (TGVs) to provide a handful of fast links between Lille and other cities, complementing the regional stopping services. These use the marginal time of TGV sets available between long distance services, running over the high speed lines crossing the region.

West Yorkshire

- 7.22 The West Yorkshire LTP includes a target for rail patronage growth of 40% which was set in the context of the high levels of patronage growth achieved in the initial years of the franchise. Since then, overall growth has been affected by a number of factors including major disruption during the regeneration of Leeds station, driver shortages and industrial action. Passenger numbers have now started to increase again, but further growth, (and achievement of targets), is constrained by the lack of investment in additional capacity.
- 7.23 As part of the LTP, Metro has developed a twenty-year rail strategy, RailPlan 5 which sets out the vision for improvements in performance, integration, rolling stock, accessibility, safety and passenger facilities. It also contains aspirations for service and network development, including thirty potential sites for new stations.
- 7.24 Further work³³ has been undertaken on two specific development scenarios:
- ◆ a set of minor capacity enhancements – primarily platform lengthening (13 stations) and new rolling stock (20-25 vehicles) to extract the maximum benefit from the existing network – this scenario is estimated to be able to achieve growth of around 75% by 2015;
 - ◆ an enhanced capacity scenario including service enhancements to obtain 15 minute turn up and go frequencies on key commuter routes such as those to Ilkley and enhanced service frequency on all main corridors to Leeds. Longer term options include possible conversion to light rail on one or two routes, and new routes (light or heavy rail) to serve the airport.
- 7.25 The regeneration of Leeds station created the potential for increased services into this major regional hub but this has now highlighted capacity issues elsewhere in the network. Although new services are not physically restrained by capacity issues at Leeds they can have performance impacts on existing services. To fully maximise the investment in Leeds station, a timetable recast and further investment to alleviate these pinch points is required.
- 7.26 In the short term Metro is pursuing improvements that can be delivered within existing capacity constraints such as further rolling stock to lengthen trains and investment in station facilities, staffing and information. Following the success of the comprehensive investment package in the Airedale and Wharfedale lines consideration is also being given to the measures required to replicate this success on other important medium distance Leeds commuter links such as the route between Harrogate and Leeds.
- 7.27 Links to neighbouring City Regions are an important element of the Metro vision. They aim to improve peak services to other major regional centres particularly Manchester, Manchester Airport and Sheffield. A Leeds - Manchester service every 15 minutes with a reduced journey time to 45 minutes, improved reliability and higher quality rolling stock are seen as an essential development between the two cities.

³³ Potential for rail demand growth in West Yorkshire, Steer Davies Gleave, 2002

Greater Manchester

- 7.28 The GMPTE rail network has a vital contribution to make to the sustainable growth of Greater Manchester, due to its unique characteristics:
- ◆ it moves substantial numbers of people on main transport corridors cleanly and efficiently thus reducing road congestion;
 - ◆ it provides the spine of the transport network into which buses, trams, cars, bikes and pedestrians can feed;
 - ◆ it has proven that it has the potential to be an attractive alternative to the car for journeys to and from main centres.
- 7.29 The future investment strategy for the rail network in Manchester also has major implications across the whole of the North West. Addressing the capacity constraints of the 'Manchester Hub' is the major priority for the entire North West regional rail network as it currently acts as a constraint not just to Manchester services but across to services in Merseyside, Cheshire, Lancashire and the Transpennine network. Together with Manchester airport, NWRA, NWDA and Merseytravel, GMPTE is spearheading the North West Rail Investment Campaign to lobby government for greater investment in the 'Manchester Hub.'
- 7.30 GMPTE has a vision for the future Greater Manchester rail network, which is built upon a number of targets.
- 7.31 The first is a **3 to 4 fold increase in patronage** on local and regional services and a **50% increase in rail passenger kilometres**. This will involve:
- ◆ greater segregation of local, long distance and freight services in order to reduce conflicts and improve reliability;
 - ◆ upgrading local services to provide a frequency and service quality similar to that experienced on the Metrolink system;
 - ◆ achieving reliable and frequent (4 trains per hour) services in a clock face pattern on suburban routes, and to London, Birmingham, Liverpool, Preston, Leeds and Sheffield.
- 7.32 The high frequency and high quality of service are designed to make rail more competitive with car across a City Region where some corridors currently have comparatively low levels of road congestion. Experience at stations such as Woodlands and Stretford following the conversion of the Altrincham line to a high frequency Metrolink service was that very substantial levels of patronage growth can be achieved.
- 7.33 The tram-train concept is being considered as one means of achieving some of these objectives. This involves light and heavy rail services sharing a track although there are a number of issues to be resolved, not least capacity and reliability concerns.
- 7.34 The Greater Manchester Strategic Rail study showed that as a result of historic under investment in the local rail network present day rail improvements often score poorly in value for money terms. The PTE are determined to ensure that the possibility of further light rail or tram-train investment in the future in Manchester is not used as a justification by government for failing to invest in the heavy rail network in the short to medium term.

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- 7.35 **An 80% increase in rail freight** – in terms of freight management the need to access terminals without using the central Manchester network is the main priority. This will provide greater operational flexibility and reliability to freight operators and reduce impacts on passenger services.
- 7.36 **Better links to airports** - access to Manchester airport through the proposed Western Rail Link will eventually provide dedicated direct access from Liverpool, north Wales and other potential locations on the West Coast main line. There is also an aspiration for an Eastern Airport Link. This can only be achieved through an increase in capacity between Stockport and Manchester. Although expensive, this increase in capacity would provide greatly enhanced flexibility in terms of services that could use it. It would also serve the key interchange at Stockport.
- 7.37 **Better integration** with buses, trams, taxis, cycles, walking and cars - improved integration with other forms of public transport could be achieved through a number of high quality interchanges across the county (Wigan, Bolton, Salford, Crescent, Rochdale, Stockport and Manchester Airport). These stations will act as gateways to the district centres and are seen as vital to the commercial sustainability of the area. In addition, there is a need to improve the quality of stations across the county focusing on aspects which act as deterrents to rail travel.
- 7.38 **Improved accessibility** - particularly for those with disability and mobility problems. GMPTA/E are committed to working with the rail industry to ensure that an accessible local rail network can be established in Greater Manchester. Furthermore, there is a desire to achieve the introduction of a constant brand across stations in Greater Manchester (colour schemes, signage, style and position of facilities) as it has been found that people with impairments find comfort and reassurance in a familiar setting. This should be combined with improved safety and security at all stages of the rail journey, through developing targeted improvements to lighting, the design of walking routes and waiting areas, CCTV and a staff presence.

Tyne & Wear

- 7.39 There are three broad priorities outlined in the Nexus strategy document “Towards 2016” and the Local Transport Plans for Tyne and Wear and Durham. These are:
- ◆ to pursue ‘Project Orpheus’ – a major development of the existing Metro system;
 - ◆ to enhance existing non-Metro rail services;
 - ◆ to open up new passenger services on under-utilised freight lines.
- 7.40 The planning for **Project Orpheus** is currently underway but is expected to recommend a series of light rail extensions to the existing Metro network to provide greater coverage of the Tyne and Wear area. The project is likely to be based on the concept of light rail vehicles capable of both street running and sharing track with Metro rolling stock. It is hoped that expansion of the Metro network will release capacity on the heavy rail network.

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- 7.41 On the **current heavy rail network** there is an aspiration for a high speed, (under one hour), high quality, service to link the sub regional centres of Middlesbrough, (Teesside), and Newcastle, (Tyne and Wear). The proposal for a Tees Tyne Express between the region's two main centres would involve upgrading the Stillington Line between Teesside and the East Coast main line.
- 7.42 Also on a north-south axis the strategy aims to address inadequate long distance rail links along the Durham Coast route which serves Sunderland, Hartlepool and Stockton, by encouraging train operators to divert some of their services from the East Coast main line; this would also address any capacity limitations between Newcastle and Darlington.
- 7.43 On an east-west axis the strategy is to enhance the Tyne Valley Line (Newcastle to Carlisle route). Improvements proposed in "Towards 2016" include a fast and frequent commuter service, and park and ride sites at Blaydon, Hexham and the MetroCentre. In the short term the provision of a new platform at the MetroCentre would address the problem of the currently limited service offered between Newcastle Centre and the MetroCentre (due to trains being unable to terminate and turn around at the MetroCentre). This would allow a shuttle service to run from Sunderland, Newcastle and Middlesbrough.
- 7.44 The current rail network around Tyne and Wear is under utilised. Part of the rail strategy for this area is to bring back into use closed or **freight only lines** for passenger services. This also links in the social inclusion agenda for the area through the opening of a number of new stations to provide access to previously isolated communities. However, there is recognition of the need to balance capacity to accommodate potential future growth in freight activity in the area and to maintain existing long distance passenger services to the area such as the Transpennine and London to Edinburgh services.
- 7.45 Other plans for the region include:
- ◆ the Ashington, Blyth and Tyne freight line reopening for passenger services to provide access to job opportunities in Newcastle and North Tyneside for residents of South East Northumberland;
 - ◆ a new link from the East Coast main line to Newcastle International airport to provide a half hourly link to the airport;
 - ◆ the Leamside³⁴ line reopening – addressing social exclusion issues by incorporating new stations in Durham County coalfields communities to provide a sustainable alternative to the car for people seeking jobs in Tyne and Wear.

Strathclyde

- 7.46 West central Scotland has the largest suburban passenger railway outside London. Strathclyde PTE's current set of aspirations aim to build on their success in developing this network (Chapter 2) to meet the current and future travel demands in the conurbation. One of the constraints in the region has been capacity limitations arising from a number of sections of single track and key junctions which are operating at or above a capacity which can ensure reliability.

³⁴ This scheme was originally conceived as a low cost passenger service 'add-on' to Railtrack's proposed re-opening of the Leamside line as a freight diversionary route. However, the freight route proposal now appears to have been shelved and the proposals for a passenger scheme will need to be revisited.

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- 7.47 The local network is complimented by Glasgow Central and Queen Street acting as major hubs for the inter-urban rail network. There is however a cross city gap between these two stations and local services would benefit from a route connecting north and south. This Cross City link would free up capacity at both Queen Street and Glasgow Central, enabling a step change in service provision by allowing a wider range of new services to be developed both south and north of the River Clyde.
- 7.48 The strategy for the region includes:
- ◆ 'turn up and go' frequencies of ten or fifteen minutes on services in the Glasgow conurbation and fast services of at least two per hour on the rest of the network;
 - ◆ Sunday services on all routes;
 - ◆ last trains to run after midnight;
 - ◆ an integrated customer information centre linked to CCTV at all stations (Chapter 5);
 - ◆ improved interchange, an expansion of parking and further development and promotion of multi modal tickets;
 - ◆ the Cross City link described earlier;
 - ◆ increased capacity on key corridors, including Glasgow to Ayr, Glasgow to Kilmarnock, Glasgow to East Kilbride and Glasgow to Croy;
 - ◆ new services including the Strathbungo link and reopening the rail link between Larkhall to Hamilton combined with a passenger link between Anniesland and Maryhill;
 - ◆ a direct link to Glasgow airport, (the busiest of Scotland's international airports).

Merseyside

- 7.49 The railway network is a key asset of Merseyside, the local system provides a network covering 140 km with 80 supported stations, Lime Street station provides a focal point for local services as well as acting as the regional and national Gateway.
- 7.50 The key elements of the Merseyside transport strategy relating to rail are:
- ◆ relaunching the local rail network with new rolling stock to get the best use out of the existing network;
 - ◆ the development of an integrated information system;
 - ◆ comprehensive and integrated ticketing;
 - ◆ accessible and easy to use interchanges;
 - ◆ a comprehensive park and ride strategy.

Case study – Barcelona

Barcelona is the capital city of the Catalunya Region of Spain. The city has a population of 1.6 million, while the total metropolitan area has 2.7 million.

Transport across the conurbation is controlled by the Entitat Metropolitana del Transport (EMT). EMT owns and directs the metro and the municipal buses, and coordinates tariffs and ticketing across all modes.

The Metropolitan Transport Authority (ATM), a consortium of Catalunya Regional Council, Barcelona City Council and EMT, is responsible for planning and infrastructure development for transport across the region. Its current infrastructure plan, Vision 2010, gives considerable priority to railway development, including urban services (metro and FGC) and suburban and regional rail services.

The main objective of Vision 21 is that the forecast growth in travel, up by 21% between 2001 and 2010, will be entirely accommodated on railways, to achieve better access across the conurbation while keeping down the impact of car travel, especially in the densely built up city.

Suburban services are run by the national operator RENFE, through its suburban services division (Cercanias). The main conurbation network has four lines, covering in all 451 kilometres and 112 stations. Three of these operate at high frequencies, with a train every 6/7 minutes during the peak periods. The services operate across the city centre, on two parallel lines, with stations under the central square (Praca de Catalunya) and the business areas, also providing interchange with the metro and FGC services. Within the conurbation ticketing is fully integrated with the metro, FGC and buses.

Services are operated by about 170 3-car electric multiple units, including some double-deck. Older units are being replaced by more modern or new stock. All lines are electrified.

Some development of infrastructure is also in hand. The 1990-1998 RENFE investment strategy included Pta 10.9 billion for suburban services (one seventh of the entire RENFE investment budget); of this Pta 5.75 was for the capital Madrid but Pta 3.45 was for Barcelona, indicating the importance placed on the city's rail development. EIB long term loans have also been secured for Madrid and Barcelona suburban rail investment.

Some rail services (partly metro style, partly regional) are run by the regional operator FGC on two groups of lines to the west. These are being extended, and services upgraded with new trains. Of FGC's costs 61% are met by commercial income, mostly fares revenue, 39% by subsidy grant; of this half each comes from national and regional governments.

7.51 The strategy for Merseyside involves proposals to:

- ◆ improve existing services;
- ◆ improve links to neighbouring regional centres and to / from London;
- ◆ improve interchanges;
- ◆ improve links to the airport and;
- ◆ facilitate network enhancements.

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- 7.52 Under the terms of the new 25 year franchise deal Merseytravel are able to ensure the continuation of their strategy for the enhancement of existing local services and stations. Specifically:
- ◆ all existing trains will be refurbished (a process which is already underway);
 - ◆ a large scale station modernisation and refurbishment programme which will include the underground stations in central Liverpool;
 - ◆ the introduction of more late night services to reflect developments in Liverpool city centre;
 - ◆ fares will be capped to the rate of inflation for the length of the franchise.
- 7.53 Improving links to other regional centres is another key aim of the strategy. A priority is to improve Transpennine rail routes to increase capacity for passenger and freight services to provide better links with Manchester, Leeds and beyond. As noted in the Greater Manchester review, one of the key constraints to this is the lack of capacity at Manchester Piccadilly where the West Coast main line services and south Manchester services conflict with the Transpennine services at the entrance to Manchester Piccadilly station. The Mersey Belt Linkages Study was tasked with looking at the transport interactions between Greater Manchester, Merseyside and the Wirral. It concluded that a programme of rail infrastructure capacity enhancements and station developments at key strategic locations was required to unlock the potential of the rail network linking Merseyside and Greater Manchester.
- 7.54 Besides the Transpennine routes the other key strategic links that Merseytravel see as vital to the economic success of the area, and hence a focus for enhancement, are the services to London and to Glasgow, both via the West Coast main line.
- 7.55 Within Merseyside, Merseytravel are committed to the development of a network of major passenger interchanges. A key scheme in the strategy is Liverpool South Parkway. This major interchange between local, inter-regional and inter-city trains and local bus services, performs a dual role as a central component of Liverpool Airport's surface access strategy and as an integral element of the plans for south Liverpool's regeneration. As the name implies, Liverpool South Parkway will also include a large park and ride facility. Airport access will be provided through a dedicated shuttle service from the station. As the Airport expands, opportunities to use Liverpool South Parkway to link the airport into longer distance and inter-regional services will be developed.
- 7.56 Merseytravel also has ambitious plans to develop the Merseyrail network, including extending the electrified network and reopening lines to Bootle and Aintree. Other longer term re-openings under consideration include St Helen Junction to St Helens Central to provide direct links between Manchester and the centre of St Helens and the Burscough Curves to enable direct services between Southport and Preston.

Quantifying the Benefits

- 7.57 All of the proposals that we have outlined in this chapter reflect the outcome of, in many cases, years of analysis and investigation by the individual PTEs to help them identify their key priorities for rail development. They are the schemes that they believe will best help them meet their region's economic, sustainability, and social inclusion objectives.
- 7.58 We have noted throughout this report that elsewhere in Europe the development of railway services is guided strongly by the city/regional transport strategy, itself complementing a spatial development strategy. Investment in new and improved infrastructure and in new trains then follows these agreed strategies. Most of the infrastructure investment will be funded by national government and regional authority, often on an agreed shared basis.
- 7.59 However, in this country these mechanisms do not exist. Individual schemes within the strategy require their own economic justification if they are to obtain funding. In these circumstances a key question that arises is; are any of the aspirations outlined in this chapter likely to be worthwhile?
- 7.60 Adopting a typical European approach to the assessment of their contribution to regional spatial planning, economic development and sustainability objectives the answer is likely to be "yes."
- 7.61 Assessed against the narrower 'value for money' framework that underpins the government's New Approach to Transport Appraisal, (NATA), framework it is likely to be hard to 'make a case' for some of the major investments, unless a much broader assessment of their contribution is recognised within the decision making framework.
- 7.62 Nevertheless, our case studies throughout this report have highlighted that many of the investments in urban rail services have performed extremely well.
- 7.63 To provide a quantified example of what can be achieved, we have taken the two West Yorkshire strategy development scenarios outlined earlier. The box below indicates that the scale of benefit that can be achieved with relatively modest levels of investment is very significant.

Potential Benefits from Investment - West Yorkshire Strategy Tests

Metro commissioned Steer Davies Gleave in 2002 to prepare a forecasting model to test a number of broad strategy scenarios (described earlier in this chapter). We have taken the outputs of that work and asked Leeds University's Institute for Transport Studies to prepare initial indications of the economic and environmental benefits that each strategy scenario would bring.

Three scenarios were developed for Metro:

- A Do-nothing scenario – where there is no investment in capacity or enhancement projects but growth in demand continues until the point at which overcrowding occurs. This scenario is forecast to grow current levels of ridership by around 30%, (most of the growth being off-peak as there is little peak capacity available), by 2015.
- A Do-minimum scenario – which incorporates a set of relatively easily achievable capacity enhancements – primarily platform lengthening (13 stations) and new rolling stock (20-25 vehicles) to extract the maximum benefit from the existing network. This scenario is forecast to be able to achieve growth of up to 80% by 2015, with more of the growth being possible at peak times because of the extra capacity provided.
- A Do-something scenario - offering enhanced capacity including service enhancements to obtain 15 minute turn-up-and-go frequencies on key commuter routes, such as those to Ilkley, enhanced service frequency on all main corridors to Leeds and a number of new stations. This is forecast to approximately double the number of rail passengers from current levels.

The analysis by the Institute for Transport Studies applied economic values (derived from previous research into the valuation of environmental and congestion impacts)³⁵ to the changes in rail, car and bus passenger kilometres to produce estimates of the benefits to rail users, other travellers, and government.

Their analysis showed that, compared to the Do-nothing;

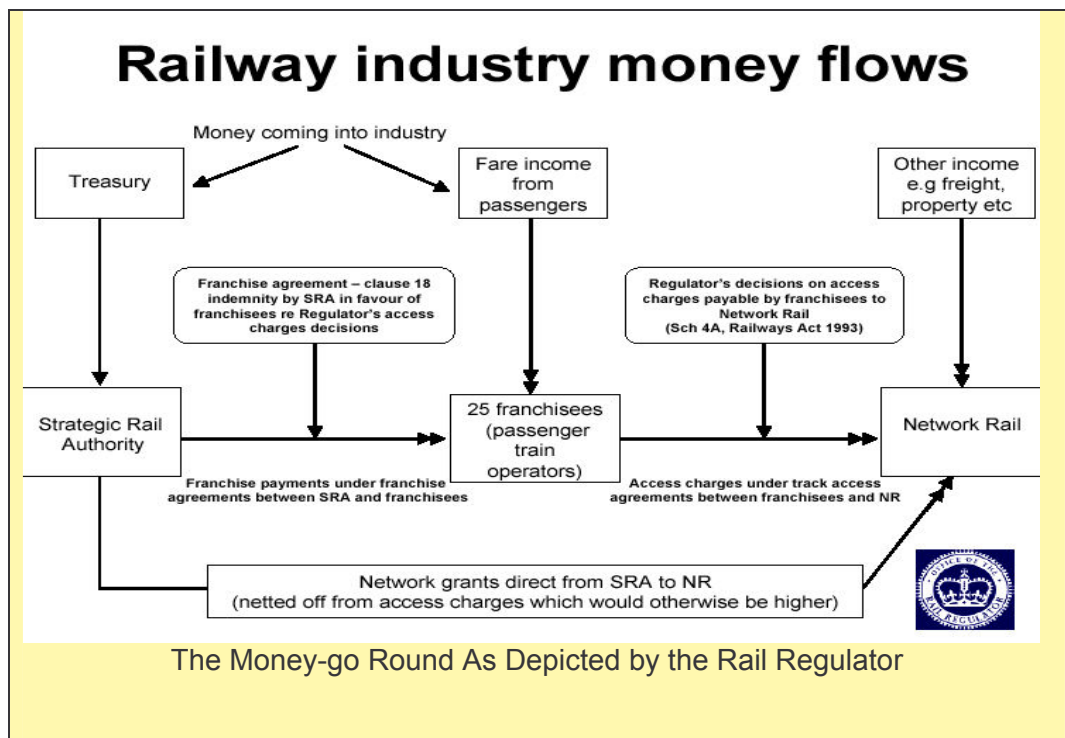
- the Do-minimum scenario generated benefits worth £44 million per year in 2015;
- the Do-something scenario generated benefits worth £68 million per year in 2015.

³⁵ Institute for Transport Studies and AEA Technology Environment 1998; Surface Transport Costs and Charges

8. Barriers to Delivery - The High Cost of Rail

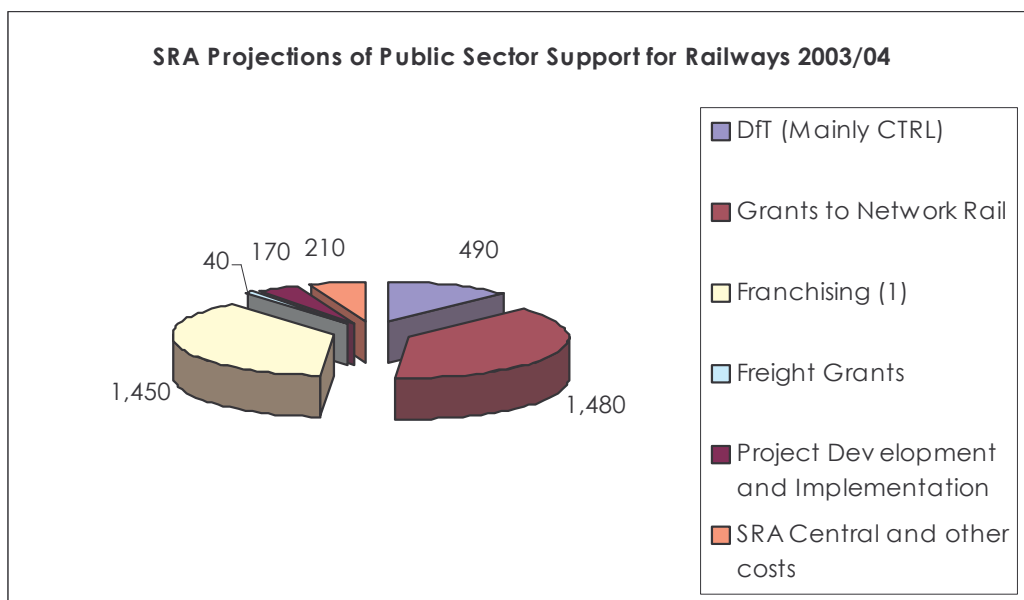
Financial Support to the Railways

- 8.1 The recent history of the costs of operating and funding our national rail network has been extensively debated but is arguably little understood. This is perhaps unsurprising given the labyrinthine nature of the funding regime.
- 8.2 The diagram below, drawn from the Office of the Rail Regulator, shows the 'money-go-round' of flows of funding between the main parties. This is largely the structure set up at the time of the privatisation of the railways with the exception of the direct grants from the SRA to Network Rail which was introduced in 2001/2. The principle of the money-go-round is that Network Rail's charges for operating, maintaining and renewing the infrastructure are paid for by the train operators in the form of an access charge. The train operators in turn receive their income from a combination of franchise payments from the SRA (funded in the first place by the Treasury) and from fare income from passengers.
- 8.3 In fact even the diagram below is a simplification of the full money-go-round. Not shown are the rolling stock leasing companies (ROSCOs) to whom the franchise holders pay annual charges to lease their rolling stock. Also not shown are the PTEs who pay a Metropolitan Rail Grant (funded by the Treasury) to the franchise holders for the services operated in their areas.
- 8.4 Given the complexity of the process it is perhaps little wonder that it is particularly difficult to identify what has been happening to the costs of supporting rail services.



8.5 The current level of support for this financial year is circa £3.8 billion consisting of the components shown in Figure 8.1. Of these the largest (at £1.48 billion) is in the form of grants to Network Rail. Next largest, at £1.45 billion is the cost of procuring the franchised train operators services.

Figure 8.1 SRA Projections of Public Sector Support 2003/04



8.6 A significant proportion of the costs of operating the rail franchises are accounted for by the charges levied by Network Rail for access to the track and infrastructure. As a consequence a significant proportion of the franchising support is also going to Network Rail through the franchisee. In the case of Scotrail for example the track access charge payments were equivalent to around 85%³⁶ of their support from the SRA.

8.7 It is clear that the costs of infrastructure support are a major component of the costs of the railway.

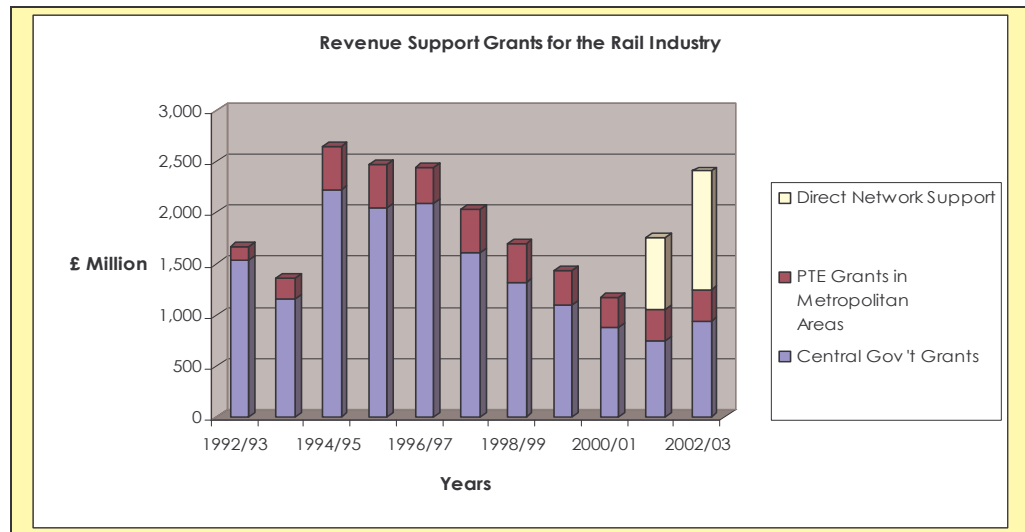
The PSO and a Deficit Financing Approach

8.8 To put this in context, and understand why this is the case, it is helpful to review the recent history of spending on the railways, illustrated in Figure 8.2.

8.9 Prior to the funding regime set up in 1994/5 as a precursor to privatisation the railways were, in effect, supported on a 'deficit financing' basis through the Public Service Obligation (PSO) grant. Although the PSO was supposed to purchase an agreed level of service provision and provide a degree of stability for the planning of the provision of rail services, in practice it varied wildly from year to year depending particularly upon the performance of the economy, which has a significant impact on rail travel especially to London.

³⁶ TAS Publications, Rail Industry Monitor 2003

Fig 8.2 Revenue Support for Passenger Services 1991/2 to 2002/3



8.10 In the last year before privatisation 1993/4 the economy had come out of recession and the revenue support to passenger services was £1.36 billion³⁷ in 2002/3 prices. This included £0.21 billion paid as a Metropolitan Rail Grant, (MRG), to the PTEs for support for rail services in their areas.

Modern Equivalent Asset Value - A mechanism for Fully Funding the Railways?

8.11 Under the regime set up as part of the 1993 Railways Act, operators have to pay an access charge for use of the national railway system, now managed by Network Rail, but at that time by Railtrack. The access charge is set to meet nearly the full costs of providing the system, including renewals and investment. The costs of leasing rolling stock were set in a similar manner.

8.12 The aim was to provide sufficient finance to Railtrack and the train leasing companies to enable them to fully fund investment in upgrading and modernisation. This was an important step forward in the eyes of many commentators as it meant for the first time that the railways would have sufficient funding to develop a medium and long term renewal and investment programme.

An Unfair Burden?

“It is widely argued that the rail network has suffered from dramatic under-investment over a long period and that, in comparison, the highway network is in far better working order. This means that to achieve a defined “level of service” is likely to cost much more on rail than on road, leaving aside arguments that safety requirements for the rail network are very much more onerous. This could lead to a vicious circle where the comparative disrepair of the rail network will make highway improvements appear better value for money, thus exacerbating the disparity.”³⁸

³⁷ Department for Transport Bulletin of Public Transport Statistics 2003

³⁸ Steer Davies Gleave, The Case for Rail, Transport 2000, 2002

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- 8.13 The consequences of this approach however, were that in 1994/5, the first year of the new regime, total revenue support increased to £2.65 billion, (again in 2002/3 prices), an increase of 95%. The MRG component of this increased to £0.43 billion (an increase of 105%).
- 8.14 The Modern Equivalent Asset Value (MEAV) approach was applied to all aspects of the railway, not just infrastructure. The costs of rolling stock (which had to be leased from one of three rolling stock leasing companies) were set at their estimated MEAV. As a consequence the cost of leasing a thirty year old train offering a poor standard of facilities was set at a similar level to a new train with the latest facilities.

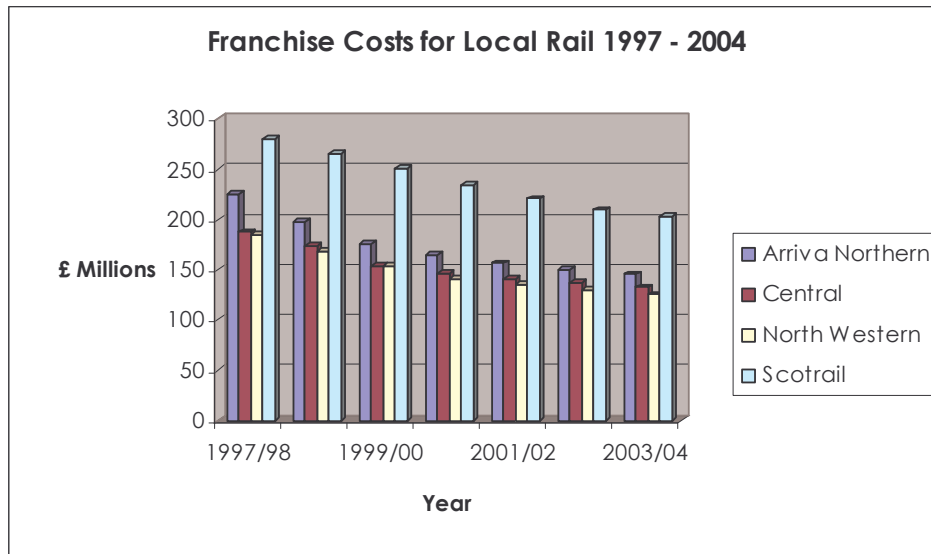
The ROSCOS & the PTE networks

Prior to privatisation PTEs paid basic depreciation and maintenance charges for rolling stock, but paying ROSCO lease charges has now transformed (adversely) the economics of obtaining additional rolling stock for growth. Given the annual lease and maintenance cost for a single carriage is around £100-150k per annum, and the maximum income that carriage might typically be expected to generate in a PTE area is £50k (as it would only be needed for a single journey in each peak), providing for any growth requires significant additional subsidy. This is different to the situation facing train operators in the south east of England where the rolling stock charges are similar, but due to longer journeys and higher fares the rolling stock costs can be covered by income generated.

Declining Franchise Payments

- 8.15 The other crucial element of the new system was that the individual franchises were let on a fixed ceiling price basis. The subsidy requirement for each franchise was forecast to fall in all cases over the life of the franchise, (Figure 8.3).
- 8.16 The risk that the combination of revenue from passengers plus the government support payments would be insufficient to meet the cost of operating the services would therefore fall on the franchisee rather than government (as was previously the case under the PSO arrangement).
- 8.17 The level of support duly fell significantly from £2.65billion in 1994/5 to £1.18 billion in 2000/1, of which the MRG was £0.29billion.
- 8.18 Overall government spend had been reduced by over 50%, (although it is worth noting that in the PTE areas it only fell by 30% as these franchises had fewer opportunities to significantly increase revenues).
- 8.19 Thus by 2000/1 support levels were lower in real terms than in the last year before the new regime.

Figure 8.3 Regional TOC Franchise Projected Subsidy Profiles



The Rise in Costs Post Hatfield

- 8.20 However, the aftermath of the post-Hatfield infrastructure review and the collapse of Railtrack signalled a massive change in the finances of the railways.
- 8.21 By 2002/3 just two years later, overall support had risen to £1.24 billion (£0.31 billion of MRG). In addition a further £0.8 billion of grants were paid directly to Railtrack/ Network Rail giving a total spend of £2.04 billion. This compared to £1.18 billion in 2000/1 a rise of 73% in two years.
- 8.22 The 2003/4 equivalent figure (as noted from Figure 8.1) is estimated at £2.93bn, thus direct support to the railway has increased by almost 150% in three years.

Cost of Installing a Passenger Shelter: Rail v Bus

A recurring concern for Local Authorities and PTEs is that relatively simple infrastructure appears to cost more when it is built for the railway.

Costs quoted to Metro for a 'three bay by one bay' passenger shelter to be installed on an existing platform were £7,200, excluding contingencies to cover legal/regulatory/site supervision costs and professional fees.

Installing a similar shelter besides the highway for bus passengers typically costs £1,200.

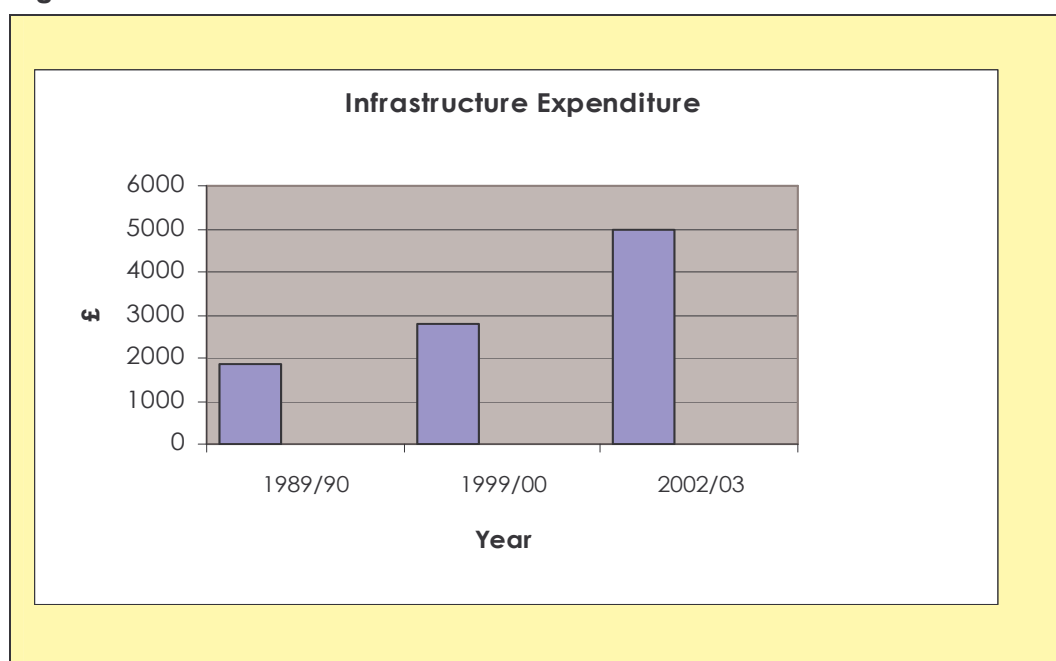
Source: Metro

8.23 The causes of this rise in costs are many and various, but chief amongst them are:

- ◆ the Hatfield and other crashes in the London area which led to revised Health & Safety requirements across the whole railway system;
- ◆ a realisation that Railtrack had not been achieving the necessary level of renewal of the infrastructure;
- ◆ upon taking over, Network Rail developed a major programme of track renewals, significantly increasing their annual costs for maintaining the system;
- ◆ these changes highlighted the higher costs of undertaking such work through the use of outsourced contractors rather than doing the work in-house;
- ◆ whilst the contractors, having perceived the greater risks in engaging in such work post-Hatfield, increased their charges.

8.24 Figure 8.4 shows the impact of this, with infrastructure maintenance and renewal costs increasing to almost £5 billion per year in 2002/3 compared to just under £3 billion in 1999/00. By way of comparison the equivalent figure in 1989/90 was just under £2 billion.

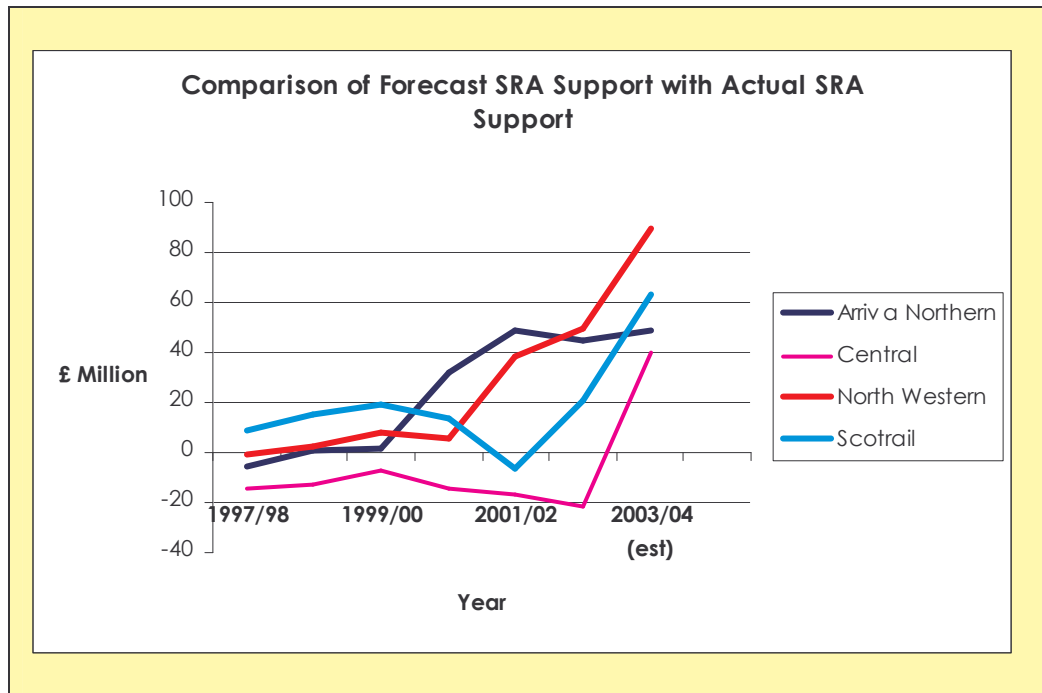
Figure 8.4. The Rise in Infrastructure Costs



8.25 Coupled with a slowdown, and in some cases fall, in passenger revenues as a consequence of the infrastructure disruption a rapid increase in overall franchise costs has arisen.

8.26 The impact on the train operating companies operating services in the PTE areas is illustrated by comparing their franchise forecasts with their actual requirements for subsidy (Figure 8.5). A figure below zero indicates that the franchise required less support than it was forecast to need. Above zero indicates that it required more support than expected.

Figure 8.5 Comparison of Forecast with Actual SRA Support Levels



- 8.27 While Scotrail has needed extra support for most of the period and Central Trains received less than forecast for the first six years of their franchises, the major change has occurred in the last three years, with the two northern England franchises in particular requiring substantially more grant support to remain in business and Central expected to do so from this year.

Cost Attribution

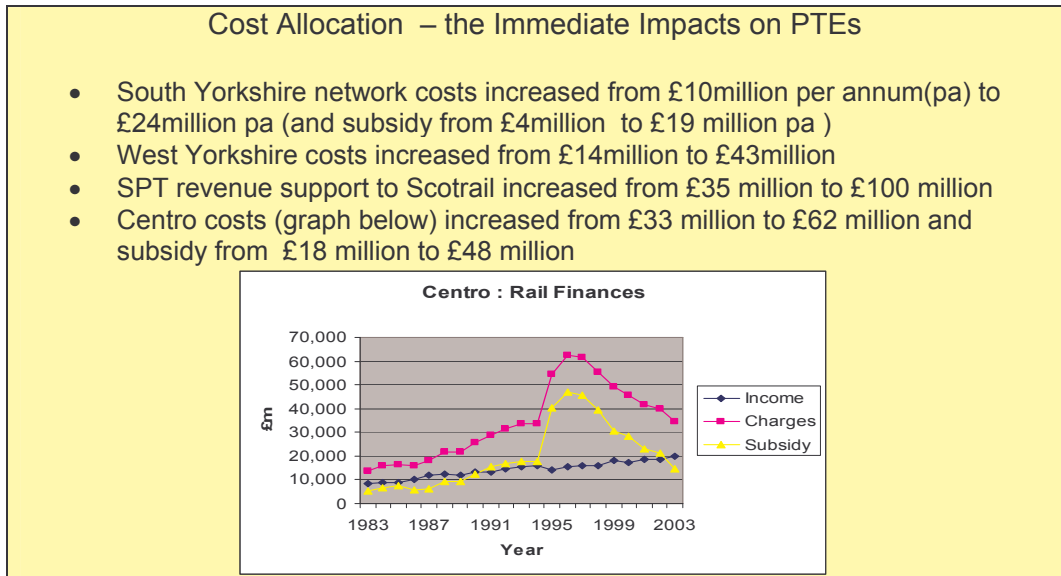
- 8.28 At privatisation there was another significant accounting change associated with the introduction of the MEAV approach. Previously the three main passenger businesses each took prime responsibility for managing part of the infrastructure, so that its running costs formed part of their business costs; in consequence the track use costs formed a relatively small element in total running costs.
- 8.29 Each route had a designated 'prime user' sector which took responsibility for the majority of the infrastructure costs. The secondary users (often the local regional services) then paid the additional marginal costs of wear and tear caused by their services. The allocated infrastructure costs for many local services were, as a consequence, often relatively low.
- 8.30 With the introduction of MEAV all services were allocated a proportion of the total costs. As a consequence the accounted costs for supporting local rail services (Figure 8.5) rose significantly with the creation of the new franchises under the 1993 Act, even though the actual services provided did not change significantly. This can be seen most clearly from the graph of Centro support payments over the last two decades and the table for South Yorkshire (Table 8.1).

Table 8. 1 South Yorkshire PTE Area Rail Costs and Revenues 1992-2002

Year ending March	Baseline Operating costs	Station/Track access	Total Costs	Revenue	Subsidy
	(£m)	(£m)	(£m)	(£m)	(£m)
1992	9	0	9	3.91	5
1993	10	0	10	4.27	6
1994	10	0	10	4.51	5
1995	10	0	10	5.53	4
1996	12	12	24	4.95	19
1997	12	13	24	4.44	20
1998	n.a.	n.a.	25	4.93	20
1999	n.a.	n.a.	23	5.23	17
2000	n.a.	n.a.	21	5.50	15
2001	n.a.	n.a.	18	5.33	13
2002	n.a.	n.a.	24	5.22	19

Sources: BR Section 20 claims and CAPRI database
 Note: First year of Northern Franchise = 1996/7

- 8.31 In effect the level of subsidy required to operate the South Yorkshire network more than quadrupled from £4m pa in 1995 to £19m pa in 1996.
- 8.32 The converse of this allocation of costs on to local services was that the cost allocation to the former inter-city network made these routes look particularly attractive and apparently profitable³⁹.



- 8.33 In these costs and charges, the PTEs have very little influence. While they are co-signatories to the relevant franchise agreements PTEs have little say in operations and thus cannot influence the main cost factors in any meaningful way. As railway costs are now rising significantly, the PTEs face either higher payments for the services they have or reduced service levels.

³⁹ nb this is now expected to change with the announcement by the ORR of higher track access charges for the next five years –resulting in some currently profitable inter-city routes requiring subsidy in the future. It does **not** however, address the issue of whether the allocation between rural, local urban and intercity services was equitable in the first place.

- 8.34 The PTE Metropolitan Rail Grant is in fact a very blunt instrument. It merely represents a 'pass through' of Treasury funds via the PTEs to the train operators (and on to Network Rail). The PTEs cannot influence how the MRG is spent beyond the broad statement of service levels outlined in the Section 34 agreement between them and the SRA at the beginning of the franchise.
- 8.35 In particular it doesn't provide the right mechanisms for PTEs to press to improve their local railways finances since any 'savings' are recycled back to DfT/Treasury with no guarantee that the savings will be used to improve provision in the PTE area.

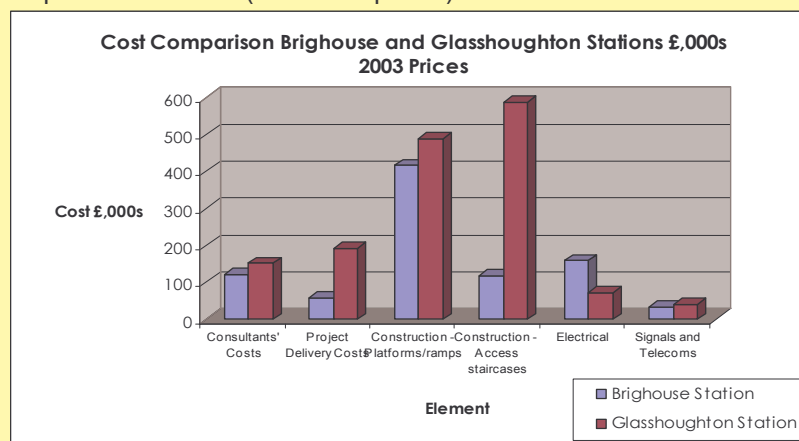
Impact on Investment

- 8.36 The sharply rising costs have also restrained railway investment. The SRA issued its first full Strategic Plan in 2002, identifying a range of investment projects. In 2003 it published a revised Strategic Plan, which effectively halved the investment intended, in view of the rise in project costs.
- 8.37 The principle of both plans was to focus investment on trunk routes and the South East, and no funds could be identified over at least the next decade for projects proposed by the Government's Multi Modal Studies. The changing situation has also led to the SRA withdrawing for the time being of the Rail Passenger Partnership grants, removing an important source of funds for improving both service quality and operating efficiency at a local level.

Comparison of the Costs of Glasshoughton and Brighouse Rail Stations

Brighouse station was opened by Metro in 2000 on the re-opened Halifax to Huddersfield route. Glasshoughton is another Metro-led and funded station near Pontefract to the south of Leeds. Brighouse station cost just over £1m in 2002/3 prices and Glasshoughton £1.7m (both excluding their car parks).

The two stations are very similar in design and layout – two platforms with shelters and passenger security and information facilities, although the access and staircase provision was simpler at Brighouse than Glasshoughton. The graph below shows the main components of costs (at current prices).



The particularly large increases are the platforms/ramp construction, the design and management consultancy charges and the project delivery costs. Metro can identify few mitigating factors for the cost increases other than the increasingly complex arrangements imposed on rail schemes (see box on ORR Interim Review in Chapter 5)

Making Choices

- 8.38 Faced with this rapid escalation of costs and the consequences on their budgets the SRA have been looking at a range of cost reduction measures. A particular focus has been on the apparent lack of value offered by some services, mainly in PTE areas
- 8.39 A recurring theme, outlined by SRA Chairman Richard Bowker at the Second Northern Rail Summit, Manchester 21st Nov 2003, is that the high level of subsidy for routes within the Northern rail franchise (77% of the train operators income comes from the taxpayer, 23% from the farebox)⁴⁰ means that hard choices on where to focus limited resources will be required.
- 8.40 This analysis is intriguing as the presentation at the Northern Rail Summit also showed a route-by-route support allocation – information which has not previously been shared. However, it does beg many questions as to how the costs, revenues and subsidy levels are allocated.
- 8.41 We are not in a position to analyse this partial information but we would note the previous concerns about the attribution. However, the key risk is that the analysis appears to be aimed at demonstrating the folly of investment in routes such as these, and yet as we have demonstrated throughout this report, the rewards from investing in apparently run down facilities can be particularly high.
- 8.42 The results of a comprehensive investment in the Airedale and Wharfedale lines to the north west of Leeds are a prime example of what can be achieved (case study box below).

⁴⁰ Reported in Rail magazine Issue 476, December 10th 2003

The Value of Investment Airedale/ Wharfedale Lines

Background

Investment on the Airedale and Wharfedale routes was characterised by incremental improvements in the 1980s including new stations at Steeton & Silsden, Saltaire, Crossflatts, Frizinghall together with some service frequency improvements.

An electrification and infrastructure enhancement scheme completed in 1995 resulted in a major route enhancement with new signalling, re-modelled junctions, improved speeds, and higher capacity trains. At this time a standard half hourly pattern service was introduced on all legs of the service (with additional peak enhancements). The investment in the electrification scheme has been complemented by further investment in:

- Introduction of long line public address and passenger information displays covering all stations;
- Re-introduction of staff and ticket offices at Ilkley, Guiseley and Menston;
- Refurbishment of ticket offices and waiting rooms at Shipley and Keighley;
- Car park extensions at Ilkley, Burley in Wharfedale, Menston, Guiseley, Shipley, Crossflatts and Steeton & Silsden;
- Creation of a public transport interchange at Menston with a bus link to Otley;
- New waiting shelters at stations;
- Introduction of state-of-the-art Class 333 trains in 2000;
- Introduction of an additional carriage to make Class 333 trains into 4-car sets (together with platform extensions).

Results of the Investment

In the initial years of the current franchise, MetroTrain services on the routes have seen passenger growth of 19% per annum, significantly higher than the West Yorkshire average of 6% p.a. Mode share to Leeds City Centre and Bradford City Centres from the Airedale line North of Shipley is 75% and 33% at peak times respectively.⁴¹

- 8.43 Similar impacts have been seen with the Cross City line in Birmingham (case study Chapter 2).
- 8.44 The key point, perhaps, is that far from being a justification for seeking to defer expenditure, the reality is that investment in rail in our Core Cities may offer a much higher potential for passenger growth per pound of investment than in the south.

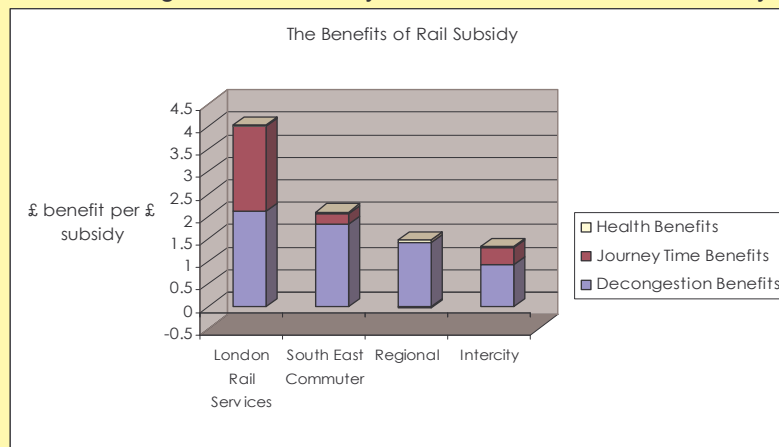
The Value Arising from the Existing Network

- 8.45 Setting aside for the moment the arguments about the cost base on which the subsidy figures per head are calculated, the socio-economic benefits of this subsidy are substantial.

⁴¹ Aire Valley Transportation Study, Report of Surveys, 2001

Estimating the Value of Subsidy

Work undertaken by Steer Davies Gleave for TfL⁴² estimated the socio-economic benefits arising from the subsidy to different sectors of the railway.



This work was focused on London and the South East and took the whole of the regional network rather than our focus on the conurbation networks. As such it estimated very few journey time benefits from regional rail (as rural and inter urban regional road speeds tend to be higher than rail). Even allowing for this the benefit per pound of subsidy for the regional network exceeds that of inter-city. However, we have noted that in the major city regions with high levels of congestion rail will provide more benefits. The analysis reported in Chapter 3 of the South Yorkshire network showed that the benefit per pound of subsidy was £1.75. This broadly matches the figures calculated for the South East Commuter network. As South Yorkshire is one of the smallest and most costly, (per passenger), of the PTE networks to support it seems highly likely that most of the PTE networks are delivering higher levels of benefit per pound of subsidy than the South East commuter network.

Lowering the Cost of Current Network – SRA Options

- 8.46 Nevertheless the PTEs recognise that it is important not to allow the network to fossilise and they recognise that there are undoubtedly opportunities to review whether the current rail service is the most appropriate means for achieving the benefits outlined in the preceding chapters.
- 8.47 Some of the options that the SRA have outlined as worthy of consideration are;
- ◆ Prioritising infrastructure expenditure on key routes;
 - ◆ Substituting rail services with buses at quieter times of the day;
 - ◆ Conversion of urban services to Light Rail

Prioritising Infrastructure Expenditure

- 8.48 During the summer of 2003 the SRA consulted on their Specification of Network Outputs (SNO) document. The SNO proposed a two-tier system of maintenance standards, with priority going to improving services for London commuters and inter-city travellers. Under this proposal almost all of the PTE networks would have been designated as secondary routes.

⁴² London Rail Development, Socio-Economic Benefits Report. Steer Davies Gleave for Transport for London 2003

- 8.49 The concern raised by PTEs and other local authorities whose routes fell into this category was that this was likely to lead to a decline in maintenance quality and an increase in the number of temporary speed restrictions. This in turn would result in deterioration in reliability, longer journey times and poorer ride quality.
- 8.50 As part of this research the team at Leeds University's Institute for Transport Studies looked at what the implications of the performance deterioration could be on the West Yorkshire network (case study box below).

Case Study – Impact of Lower Maintenance Standards in West Yorkshire

This analysis adopted the same appraisal parameters and West Yorkshire rail forecasting model used for the scenario testing described in Chapter 7. It builds upon work that the Institute for Transport Studies, (ITS), had undertaken previously for Arriva Trains Northern to derive demand elasticities to reflect the impact on demand of the disruption caused by the rebuilding of Leeds station.

The tests that we have run for this report involved building in an 'unreliability' factor to the generalised journey times of all local services on each individual route in the West Yorkshire network. This provided a simple proxy for worsening reliability, or slower rail speeds, as a consequence of lower maintenance standards. The impact on rail users, car and bus travellers, transport operators and government were valued in the same way as the scenario testing, using values derived from previous ITS research (Ibid).

The results of the tests have been summarised here in terms of two average increases in journey time for rail passengers.

With an average increase in journey time of just 10% there would be economic and environmental disbenefits of over £21m per year in 2015. With a 20% increase, the disbenefits within West Yorkshire would exceed £38m per year.

Impact Area	£m 2015	
	Test 1 Average Journey Time Increases by 10%	Test 2 Average Journey Time Increases by 20%
Environment & safety	- 0.8	-1.5
Travellers (rail, car and bus)	-13.9	-25.1
Operators	-7.5	-13.8
Government (car and bus tax)	1.0	1.8
Total	-21.3	-38.7

Buses not Trains – the Bustitution Debate

- 8.51 The possibility of 'bustitution,' replacing train services with buses, is very rarely far from the debate on the future of regional rail. Although it tends to be raised more frequently for rural and semi-rural branch lines there are undoubtedly some routes within the City Regions which currently see particularly poor cost recovery ratios (the proportion of costs covered by revenue). As such there is an obvious attraction to the idea that these passengers could be carried by a bus at less cost than operating a train.

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- 8.52 There are a number of sets of issues here. The first set surrounds the definition of cost. As we have shown, a large proportion of the costs of operating a railway are for infrastructure. Because of a lack of transparency we do not know what the costs truly are line by line, or route by route. During the 1980's the chairman of the then British Railways Board was charged with examining the possibility of bustitution. A route was examined on which, in round terms, the costs seemed to be £2 million and the revenue seemed to be £400,000, ergo a saving of £1.6 million could come out of bustitution of that route. However, when the costs were analysed and the residual costs were allocated, the case for bustitution collapsed. This was because a lot of the costs are in fact 'inescapable' - bridges and embankments for example, have to be maintained whether or not a train is operating over them.
- 8.53 Recognising this factor the SRA has made the point that, rather than complete closure of a service, simply replacing the operation of the train at lightly used times of the day, with a bus, may be a cost-effective solution.
- 8.54 The second set of issues relates to the relative attractiveness of a bus service as an alternative to rail. These include longer journey times by road than rail, (see for example the Swinton Interchange case study in Chapter 4), poorer ride quality, limitations on luggage carrying capacity and the general perception that buses are a less attractive and less permanent option than rail.
- 8.55 To provide an indication of the potential impact on rail users and people travelling by other modes, the Institute for Transport Studies has looked at one of the more lightly used services in West Yorkshire (case study box below).

Case study - West Yorkshire Test Results

Using the model and appraisal parameters described in the other West Yorkshire tests ITS looked at the impact of substituting **off-peak** services on one of the most lightly used services in West Yorkshire with a bus service. The bus was assumed to operate to the same hourly frequency as the train service.

Following a review of experience of other bus substitutions the following assumptions about passenger responses to the substitution were built into the appraisal:

- 17% of off-peak passengers would switch to peak period services;
- of the remainder – 84% would switch to the bus service and 16% would stop making the journey.

The test indicated that the disbenefits to rail users would be in the region of £600,000 per annum and the impacts on the environment and safety would be a further £80,000 per annum.

It was not possible to derive an estimate of the impact on the operator due to lack of information on their costs. However, with many of the expenses, such as the leasing charge for the train unit, being determined by the peak period provision and the typical cost of providing a bus service being in the region of £25 per hour, it is considered highly unlikely that the annual savings would offset the disbenefits identified.

- 8.56 If the results of this case study are transferable to other lightly used urban rail services it would not appear to support the view that bus substitution is likely to be a sensible policy to pursue.

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- 8.57 Perhaps the more pertinent view is that the approach taken to ‘failing’ branch lines like the, now extremely successful, German Regiobahn (case study box Köln, Chapter 7), is probably the more striking lesson for the UK. Instead of looking at a failing line and proposing closure or ‘bustitution’, we need to start asking why it is failing and how we can turn it around. If the political will and investment are put in place and local support harnessed, as the German experience shows, the results can be remarkable.

Light Rail Conversion

- 8.58 Intrinsically, the idea of converting existing rail routes to Light Rail Transit (LRT) is an attractive one. LRT can offer better city centre penetration, higher frequencies and often a higher quality of vehicle and station/ halt. The success of the Manchester Metrolink which now carries more passengers than the local services on the heavy rail network are testimony to this.
- 8.59 There are already several examples of local rail lines, mostly in urban areas, being taken over by LRT operations. In recent times they include the two principal lines of Manchester Metrolink and the Wimbledon – Croydon West line now operated by Croydon Tramlink. Before them, in the 1970’s, there was the conversion of rail in Tyne and Wear into the Metro. Redundant formations have also been used: notably for the Midland Metro and for parts of the eastern sections of Croydon Tramlink.

Examples of LRT and Metro Conversion in England

Some centres (Newcastle, Manchester, Sheffield, Birmingham and Croydon for example) rely on various forms of LRT to a significant extent. Characteristically such systems are able to operate profitably, once the capital expenditure has been accounted for, in stark contrast to “heavy” rail, which requires significant subsidy*

In Tyne and Wear, Nexus quote a net cost of 30p for each Metro journey in 2001. Equivalent costs for their local rail services were £2.44 per journey.

On completion of the Sunderland Direct extension of their metro service in 2002 passenger numbers in the corridor increased from 2.1m to 4.2m pa.

[*Greater Manchester PTE as quoted in Modern Railways September 2003]

- 8.60 The Strategic Rail Authority has now identified this approach as a valuable step in its development of local railway lines. Light rail conversion is seen as a potentially useful tool to make better use of assets currently carrying local rail services with high costs, poor performance and poor patronage, and where provision of enhanced ‘heavy’ rail services would be, in relative terms, very expensive and possibly poor value for money. Development of LRT might take any one of three forms:
- ◆ conversion from heavy rail – the approach adopted for the first two Manchester Metrolink lines; this would provide far better local passenger services on the lines converted, and also free up capacity at junctions and terminals where the replaced local rail services used to run;
 - ◆ parallel development (as has been developed for the northern part of Nottingham Express Transit);
 - ◆ track sharing (as on the Sunderland extension of the Tyne-Wear Metro); using the existing rail lines while allowing other rail services to continue operating, thus making very efficient use of the existing infrastructure.

Light Rail – An Intrinsicly Lower Cost Mode?

Where do the cost differences lie between heavy rail and light rail?

- The approach to maintenance – both contractual and structural; the key point being that maintenance is under the direct control of the operator unlike the current arrangements for heavy rail;
- Lower costs of operation - including line of sight running (which reduces the complexity and hence cost of signalling);
- Lower overheads –as new organisations LRT operating companies are able to be more streamlined and less bureaucratic;
- Free use of the road infrastructure - LRT can include the use of road infrastructure but is not charged the costs of its renewal;
- LRT permits a 'capital for subsidy' swap – underpinning much of the above is the fact that new LRT systems tend to feature higher levels of capital expenditure on high quality infrastructure and vehicles to obtain lower on-going maintenance and operational costs.

The conclusion is that there are some key efficiency characteristics associated with the creation of a new entity whose operational, infrastructure and vehicle specification will be designed from the outset to be efficient and cost effective.

8.61 The SRA's approach is clearly based on two principles, both of which are central to its remit of providing improved railway services at better value for money. On a positive note, it supports, and indeed encourages, the development of LRT where this offers a better service and it places great importance on developing schemes as part of an integrated strategy. But it also places considerable – perhaps dominant – weight on saving costs. This includes three main elements of the LRT system's design and operation:

- ◆ it should not reduce net income to the railway system, it should preferably enhance it;
- ◆ it should not have any negative impact on railway system capacity, it should preferably improve it;
- ◆ it should not require any new capital involvement for Network Rail (unless this has very clear financial benefits); preferably it should save railway upgrades where these would otherwise be needed.

Case Study – Conversion of Cardiff Rail Network to LRT

The Valley Lines rail network (described in chapter 2) have been highly successful in regenerating the former mining communities in the valleys to the north and west of Cardiff and in so doing have made a major contribution to the economic success of Cardiff.

Cardiff Council are now trying to accelerate their success to date, (achieved largely within existing operating and resource constraints) to provide a more modern 'European style' system operating at much higher frequencies.

Their plan is to convert the existing (non-electrified) lines to diesel Light Rail Vehicle (LRV) operation, using vehicles similar to those seen across Europe and used for many years on the Dublin DART network. A light rail loop within the centre of Cardiff would allow much better penetration of the city centre.

By offering much higher frequencies most of the characteristics of a 'conventional' LRT can be achieved. However, to achieve this would require very significant infrastructure works. The services round the loop would also run on parts of the current Network Rail system, passing through some key junctions. These works would have to be done in conjunction with the current railway development, presumably within the RPA / RUS process.

While it has been suggested that light rail forms a valid alternative for local (urban) railway development, the Cardiff example suggests that conversion to LRT may well require heavy investment which would have in good part to come from railway sources. Thus they could form as much of a cost factor as enhancing the railway in its current form.

- 8.62 These mean that the SRA is effectively requiring PTEs and other local transport authorities to take complete responsibility for the LRT services and assets. Effectively the SRA appears to expect that development of any LRT system would effectively involve indemnification of SRA and the railway providers against any risk of net loss on the basis indicated above. The SRA is doubtful about how far the current PFI approach required for LRT system development can work in this context (the industry itself is posing questions over the level of risk which the private sector is currently expected to take on).

Road Pricing – the Implications for Rail

- 8.63 All of the previous discussion on rail presupposes that the policy framework remains broadly unchanged. However, there is a strong case for arguing that over the lifetime of these network developments some form of charging for road use may be introduced by government. Most commentators would say that reducing traffic congestion by charging cars provides a very large new potential market of public transport users.
- 8.64 However, according to Goodwin, (earlier reference) the potential effect may have been greatly underestimated in rail planning. Any movement towards road user charging will transform the possibilities of growth in public transport use, especially where the initial market is small. So assured knowledge that this is the future would have a bigger effect on the possibilities of raising large amounts of private investment than any deal that any public authority could ever negotiate. Goodwin argues that the moment the financial markets believe that charging car use its full external costs will really happen; there will be no shortage of private investment funds for public transport expansion.

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- 8.65 He goes on to note that the political reality is that charging cars without good public transport will be politically dangerous. The transport planning reality is that investing in public transport without controlling traffic will produce poor value for money. And, the economic reality is that if rail fares elasticities are also high enough to have an appreciable effect on demand, raising money from passengers without the support of transfers of passengers from car due to road pricing, will be that much more difficult.
- 8.66 Overall Goodwin concludes that it is clear that a sensible pricing system on roads would radically transform the economics of railways.

Conclusions

- 8.67 There are a number of key conclusions that emerge from this analysis:
- ◆ the subsidy /head figures are potentially misleading;
 - ◆ cost allocation decisions taken at the time of privatisation have severely affected the perceived value for money of supporting and developing PTE networks;
 - ◆ the opaqueness of the cost and revenue allocations perpetuates the view that rail services in the City Regions provide poor value for money;
 - ◆ even accepting the post-privatisation cost allocations, the benefits per pound of subsidy are in fact as high as in the South East and higher than intercity;
 - ◆ in many areas we consider that the potential for passenger growth per pound of investment will be higher in the City Regions than in the south east;
 - ◆ the benefits per pound of subsidy are highly positive because urban rail is a major contributor to the economy and overall functioning of our City Regions;
 - ◆ but the costs of delivering benefits have risen substantially – some of the reasons for this are as a result of the structure put in place for the railways at privatisation;
 - ◆ LRT conversion may well be an attractive option, but the scope for achieving it in many locations appears relatively limited;
 - ◆ partial bus substitution is unlikely to be the answer;
 - ◆ a two tier maintenance strategy could result in very high levels of economic disbenefit;
 - ◆ but the economics for expansion, rather than contraction, of rail networks in the City Regions could be transformed by a more appropriate approach to charging for the use of our roads.

9. Summary & Recommendations

Summary

- 9.1 This report has shown that rail is hugely important to our City Regions, which in turn are vital components for the efficient operation of the UK economy, and to the sustainability of our environment and way of life. In these conurbations rail is often a major mode, indeed for some types of travel it will be the dominant mode, and as such, rail's success or failure, growth or decline, has great ramifications.
- 9.2 What is clear is the pivotal role that rail plays in terms of its contribution towards achieving the key government Public Service Agreement (PSA) objectives on:
- ◆ the economy;
 - ◆ social inclusion;
 - ◆ environment, safety and health;
 - ◆ integration.

The Economy

- 9.3 Rail is already vital to the successful functioning of our major city economies. Over 30% of the trips in the morning peak into central Glasgow are by rail and underground. In Birmingham the figure is 17%. Without their rail networks these cities would be unable to function.
- 9.4 Rail contributes to the performance of the regional economies by providing the high quality, high capacity means of access which enables the necessary agglomeration of skills and knowledge in core city centre services of administration, commerce, industry and tertiary education
- 9.5 As the City Regions increasingly focus on knowledge based employment the trend is expected to be towards more long distance commuting. This has been seen in Leeds where investment in the lines stretching out of the conurbation to Ilkley and Skipton has been rewarded with growth as high as 19% per year. Peak period modal shares to Leeds city centre from stations north of Shipley on the Skipton line are as high as 75%. Looking to the future, economic predictions for Leeds show that the labour force residing within the city will only be able to fill 20% of the extra jobs that the economy will generate over the next ten years. If the Leeds economy is to fulfil its economic ambitions rail will be essential in providing the access to this wider market of employees. Similar situations are being evidenced in all of the City Regions.
- 9.6 PTEs have been very successful in facilitating and encouraging this. In the West Midlands a long-term investment strategy for the Cross City Line through Birmingham has resulted in a high frequency 'turn-up-and-go' commuter service that is the busiest route in the region. Initiatives such as this by the PTE and its partners have resulted in a 25% increase in patronage on local services in the conurbation since 1997.

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- 9.7 Traditional economic appraisal which looks at the question of value in terms primarily of user benefits (as a proxy for accessibility) almost certainly understates the full contribution that rail makes to our regional economies. However, even this partial analysis indicates that for one of the smaller PTE rail networks, South Yorkshire, rail services are delivering around £1.75 of benefit for every pound of subsidy.

Social Inclusion – Access to Opportunity

- 9.8 Railways in the City Regions play an important role in providing:
- ◆ access to jobs and education;
 - ◆ lower cost and a widened area of search for employment;
 - ◆ access to opportunities for a wide section of the community;
 - ◆ increased provision for disabled passengers.
- 9.9 The PTEs have actively pursued measures that address the problems of social exclusion. In Merseyside, surveys at a number of new stations have shown how effective they can be in widening access to work and education opportunities. At Lea Green station in Merseyside a survey of people using the station showed that over 20% of them had been able to take up a job offer as a consequence of the station being built. At Wavertree Technology Park station, 74% of passengers were using the station to get to work or to a place of education and over 10% of these were new job opportunities that they were able to access as a result of the station. Most successful of all, was Brunswick station, which resulted directly in 120 people being able to take up new job opportunities.
- 9.10 In the East Midlands, the Robin Hood railway line has been very successful in widening the journey-to-work horizons in the former coalfields of Nottinghamshire. Over 3,500 passengers a day use the service and forty percent of all work trips on the service had not been made prior to the line being opened.
- 9.11 Railways in the regional cities are not solely the domain of the middle classes. They are used by a much broader spectrum of society than is the case in the southeast. The Robin Hood Line has an equal balance in its weekday passenger profile between people from manual and professional backgrounds. At weekends, ABC1 household account for only 38% of users.
- 9.12 Most of these social inclusion activities have a very strong 'fit' with the policy objectives of local, regional and central government and are absolutely fundamental to the achievement of equitable access to opportunity.
- 9.13 However, in crude financial terms they could be seen as poor value for money, bringing in some cases, relatively little additional revenue to the rail network and providing further ammunition to those who consider urban rail in the conurbations to be a poor use of public funding.

Sustainability

- 9.14 The chief contribution that urban rail can make to the sustainability of our major cities is through facilitating forms of development that are not car dependent and by reducing car congestion.

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- 9.15 Analysis of the interaction between rail demand and road congestion in West Yorkshire indicates that every 1% reduction in local rail service use adds between £1.7 million and £2 million cost per year in terms of road congestion. Declining performance of urban and regional rail service levels would clearly increase the risk of this happening.
- 9.16 The environmental, (air quality, greenhouse gases & noise), benefits of rail are important in supporting the sustainability agenda. Nationally, rail contributes less than 1% of the UK emissions of carbon monoxide, oxides of nitrogen, volatile organic compounds and fine particles. Rail is also a considerably safer mode than car to travel by. The Health and Safety Executive estimate that it is six times safer for every passenger kilometre travelled.
- 9.17 However a key challenge is to address the cost implications of railway procedures whose costs significantly outweigh their potential safety benefits. There is a clear inequity between the safety standards applied to the railways and those to road. A level playing field in standards, and the application of these standards, is required.
- 9.18 Tackling personal safety concerns on the railways has been shown to pay dividends. A comprehensive safety and design scheme developed by Centro and the rail industry with the local community at Lea Hall, a previously run down station in Birmingham, resulted in a 26% increase in rail use. Other examples from around the country show what can be achieved with targeted investment.

Integration

- 9.19 We show how a coherent rail development policy for our urban areas can demonstrate a high level of consistency with, and support for, a wide range of central government PSA objectives. A key issue is the extent to which consistency can be achieved between the strategy for rail investment and the urban and regional spatial planning frameworks. There are concerns that the SRA's Regional Planning Assessment framework proposals, whilst well intentioned, could fail to take due account of existing statutory land use procedures.
- 9.20 We have looked at experience elsewhere in Europe and closer to home in Scotland, Wales and in Merseyside. These case studies show that where planning powers, and crucially, funding, have been devolved to a more local level, within a structure that allows consistent and focused development, they have been successful in developing rail services that are more attuned to the achievement of the objectives of local and national government.

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- 9.21 We have reviewed five European cities' rail systems. These cities differ widely, by geography and development patterns, regulatory system, public authority structures and cultures. But there are several aspects which are common to them all and which combine to ensure that suburban and regional rail services play a strong role in the economic and social fabric of the cities:
- ◆ railway services are operated and marketed as an integral part of the public transport system for the city and its catchment region; usually this coordination is managed by a conurbation public transport body;
 - ◆ rail services provide for the longer distances, enabling the city to play a valuable role for everyone in its catchment region; but, through integration into the public transport network, they also offer a high capacity trunk element for short travel sections within the city;
 - ◆ the development of railway services is guided strongly by the city / regional transport strategy, itself complementing a city spatial development strategy which focuses residential development around the main suburban lines and encourages building new stations or increasing capacity to match new land use development sites;
 - ◆ investment in new and improved infrastructure and in new trains follows the agreed strategies; most of the infrastructure investment will be funded by national government and regional authority, often on a shared basis;
 - ◆ the regional authority has a strong measure of responsibility for developing regional rail services under some form of contract with national government; this forms the basis for the national investment funding indicated.

Value for Money

- 9.22 However, in the UK we have seen that the costs of providing current levels of urban rail services have been enormously inflated by the industry structure. The immediate consequence of the introduction of new accounting procedures at the time of privatisation was a five-fold increase in the level of subsidy required to operate the South Yorkshire network for example. In Strathclyde, revenue support increased three fold.
- 9.23 Although the costs of operating the new franchises subsequently fell, a £2 billion increase in the cost of maintaining and renewing the network infrastructure between 2000 and 2003 has resulted in all of the regional franchises seeking additional funding from the SRA. Overall the cost of supporting the railways has increased by 150% over this period.
- 9.24 In this environment, the railways in the PTE areas, where income can never cover these costs due to a combination of low fares and relatively short journeys, have been the subject of close scrutiny, with doubt expressed about their value for money.
- 9.25 This report shows that when we look at the full range of benefits it is apparent that urban rail is providing value for money, even in the restricted sense of a cost benefit appraisal that does not capture many of the key policy objectives.

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- 9.26 The case studies in this report have demonstrated that:
- ◆ the subsidy per head figures are potentially misleading;
 - ◆ cost allocation decisions taken at the time of privatisation have severely affected the perceived value for money of supporting and developing PTE networks;
 - ◆ the opaqueness of the cost and revenue allocations perpetuate the view that rail services in the City Regions provide poor value for money;
 - ◆ even accepting the post-privatisation cost allocations, the benefits per pound of subsidy are in fact as high as in the south east and higher than inter-city;
 - ◆ in many areas the potential for passenger growth per pound of investment will be higher in the City Regions than in the south east;
 - ◆ but the costs of delivering these benefits have risen substantially – some of the reasons for this are as a result of the structure put in place for the railways at privatisation.

Recommendations

- 9.27 In outlining the considerable range of benefits that rail can bring, and the vital role that it plays in sustaining our City Regions, we have also identified some major issues and concerns here. There are clearly problems that arise as a result of the current structure of the rail industry, primarily a legacy of the structure set up at privatisation of the railways.
- 9.28 If the structure is indeed one of the problems then before proposing yet more change and turmoil upon the rail industry it is important that we have a clear vision of what we would be expecting to get from revising it.
- 9.29 Our research leads us to conclude that a new approach needs to achieve the following:
- ◆ a more cost effective, less bureaucratic & more responsive railway;
 - ◆ the delivery of a more reliable railway;
 - ◆ a railway that can accommodate current and forecast growth;
 - ◆ rail investment which is tied more directly to the achievement of objectives that overcome the key challenges facing our City Regions, namely economic development, sustainability & the reduction of social polarisation.
- 9.30 Two themes emerge from our review:
- ◆ the need for simplification of the current structures and organisations and greater transparency of the financial flows within the industry;
 - ◆ the potential benefits of devolving responsibility and powers to a more local level.
- 9.31 We have also identified a number of areas where further research is required to inform the debate. We discuss each of these in turn.

Simplification and Greater Transparency

- 9.32 The structures initially set up under privatisation and which have evolved over recent years have resulted in a number of leading agencies – DfT, SRA, ORR, Network Rail – with no one party responsible for the network of services and infrastructure which the passenger sees as an integrated entity. Fragmentation of the industry has led to a lack of clear policy direction, overall strategy and specification.
- 9.33 Responsibilities for actions are held by a diverse number of players who can sometimes appear to be pursuing different agendas. This manifests itself at the planning and policy level in a lack of decision making or in apparently contradictory decisions on policy being taken. At an operational level the contractual nature of the relationships between different parties has led to considerable pressure on costs.
- 9.34 As has been apparent throughout this report, there are a range of issues relating to the attribution of costs and subsidy. The lack of transparency at anything below the franchise level, (or at the PTE level within the PTE areas), is a major barrier to taking rational decisions on investment and funding priorities. **Greater transparency** is an absolute pre-requisite for a new approach therefore.
- 9.35 The number of players in the industry, the contractual nature of their relationships with each other and the need for all parties to make a commercial return, (with the exception of Network Rail's position as a not-for-profit organisation), are recognised as being one of the major sources of additional costs. There is therefore a case for looking at all of the components of the new structure (franchisees, Network Rail, the ORR, the SRA and the ROSCOs).
- 9.36 **Simplification**, to provide clear organisational and hence industry leadership, is in our view an essential element of any change. It needs to result in:
- ◆ effective overall control of strategy and cost;
 - ◆ simplified and transparent arrangements for service delivery;
 - ◆ clearer links between national, regional and local objectives;
 - ◆ elimination of unnecessary interfaces; and
 - ◆ clearer accountability.
- 9.37 Our recommendation is that there needs to be a more streamlined delivery 'agency' to implement government policy on the railways.
- 9.38 'Delivery' covers the key tasks of:
- ◆ **planning** (currently the responsibility of the SRA but also involving DfT, the ORR, Network Rail and the PTEs);
 - ◆ **service delivery** (currently the responsibility of the SRA through the franchising mechanism, but also influenced by Network Rail);
 - ◆ **infrastructure operation** and management (currently the responsibility of Network Rail with the ORR setting their budget);
 - ◆ **funding of infrastructure** (currently a combination of track access charges set by the ORR and direct funding from the SRA).

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- 9.39 A highly simplified structure might see a single ‘agency’ taking responsibility for all of these functions. In practice it may be undesirable or unnecessary for this degree of restructuring to occur and that many of the principles of simplification and greater transparency can be achieved by making changes to the roles of the individual existing organisations.
- 9.40 As far as **planning** is concerned there needs to be greater clarity in the role between the planning and funding of the strategic national rail network comprising European, domestic inter-city and key inter-regional routes, which must be carried out at a national level (by the SRA) and the planning of the networks that serve our City Regions which should be carried out a more local level –often the PTE level. While at first sight this may appear to add complexity, rather than simplify, it is more a case of ensuring that the PTEs have the appropriate powers to deliver their remit for integrated transport. We return to this shortly.
- 9.41 The franchising of rail services should be retained as the basic mechanism for the **delivery of services**. Franchising rail services has enabled best value to be demonstrated and has drawn in innovation on service delivery. In their areas, PTEs adopt a similar approach to other services and it is consistent with their aims for reform of bus services. However, the franchises require simplification into a smaller number (as per current SRA policy) and need to be reviewed over time in the City Regions to reflect the fact that Travel To Work Areas are often much greater than the administrative boundaries of the PTEs.
- 9.42 It may be appropriate for some PTEs to become franchising authorities in a similar manner to Merseytravel. We return to this shortly. It may also be the case that franchises should not necessarily be seen as solely commercial (plc) franchises – other forms that have been successful elsewhere, such as public sector franchises or companies limited by guarantee should be explored.
- 9.43 The retention of a, (modified), franchising process implies that the principle of separation of infrastructure and operation of services should be retained, beyond one or two very specific self contained areas such as Merseyside where a strong case for establishing it as a pilot area can be made. This implies that for the purposes of **network operation and management**, Network Rail should be retained in broadly its current format.
- 9.44 Again, this could conceivably be as part of the overall ‘delivery agency’ but the critical thing is that there needs to be a much closer relationship and clearer lines of responsibility with the SRA as planning agency and Network Rail as infrastructure managers.

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- 9.45 Key requirements are that the structure results in:
- ◆ a reduction in the risk averse approach that currently results in Network Rail blocking rail network enhancement projects for fear of the impact on network performance;
 - ◆ better integration of the roles of planning and undertaking, renewals and maintenance and enhancements to achieve a reduction in the cost of infrastructure provision;
 - ◆ a streamlining of the management of safety to eliminate what the ORR have identified as the increasing number of interfaces, and risk averse approach which is further adding to the costs of maintenance and enhancement of the network.
- 9.46 Turning to the **funding of infrastructure** it is clear that the concept of access charges which sits as the very heart of the money-go-round (Chapter 8) looks increasingly irrelevant now that the DfT and the SRA have introduced the concept of direct funding for infrastructure maintenance and renewal.
- 9.47 The current approach is a major source of distortion and distraction in assessing the true cost and value of urban rail services. Abolition of the fixed element of the track access charges and the 'money-go-round' is recommended. The money-go-round should be replaced with block payments (grants) to Network Rail who would be charged with delivering a railway fit for purpose.
- 9.48 'Fit for purpose' should be defined by standards set for each type of railway – local, urban and inter-regional/ inter-city. These standards should set a defined base level of provision from which enhancements could be agreed, procured and financed.
- 9.49 Enhancements should be procured and financed locally (for local and urban networks) and nationally for inter urban. The funding for these enhancements should be based on achieving LTP and wider policy objectives.
- 9.50 The marginal element of the track access charges should, however, be retained to reflect the marginal costs that franchised train operators, freight train operators and open access operators impose on the network.

Devolving Responsibility

- 9.51 As we indicated above the approach would benefit considerably from devolving powers and responsibilities to the appropriate regional or PTE body. We have noted throughout this report that across Europe this appears to offer the potential for solutions that are more closely allied to regional and city planning processes.
- 9.52 Our second set of general recommendations is therefore based on a regionalised framework for planning and investment powers with the SRA or 'planning agency' retaining these functions for the inter-city and inter-regional network.

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- 9.53 The framework could include:
- ◆ rail and bus services franchised under a Regional Transport Authority, (RTA) or PTE planning and investment framework, enabling the provision of a single integrated network of bus, rail and light rail services for the city regions perhaps through the use of Quality Contract powers available through the Transport Act 2000;
 - ◆ the management, maintenance and development of stations and car parks by PTEs or RTA;
 - ◆ the definition of appropriate areas of influence – for example some PTEs could exercise powers under the 1968 Transport Act to extend their areas by up to 25 miles to develop sensible networks;
 - ◆ longer term commitments for PTE funding through the LTP.
- 9.54 Such an approach would provide the PTEs or Regional Transport Authorities with greater influence over the infrastructure enabling them to work closely with the Network Rail/‘delivery agency’ to deliver efficiency improvements. This would provide a mechanism for enabling the PTE/RTA to reinvest efficiency savings in rail for benefit of public transport locally. Similarly it can provide, in combination with the operation of local stations, the mechanism for greater PTE control over quality.
- 9.55 The potential scope ranges from the ‘Merseyrail approach’ whereby the PTE becomes the franchise authority through to regional authorities set up as trusts or public sector franchises
- 9.56 The absolute pre-requisite of such an approach would be that funding would have to be devolved to match the powers and responsibilities required to properly develop the local network. An initial step would be to allow local transport authorities greater freedom to spend LTP funds on local rail schemes that exceed £5m.
- 9.57 There is significant overcrowding at peak times on many PTE rail networks. There are also concerns about low quality rolling stock on a significant proportion of non-electric routes.
- 9.58 Although additional and replacement rolling stock can often be justified through cost benefit analysis it is still proving extremely difficult to secure that additional capacity because the revenue generated by additional rolling stock does not cover its capital and running costs. In part, this reflects the characteristics of worldwide public transport investment. However, it also results from the ROSCO charging structures. The cost of leasing rolling stock from the ROSCOs is high and there is lack of competition.
- 9.59 There are a number of ways in which this could be addressed.
- 9.60 There should be a more determinist national strategy for rolling stock – with a medium and long-term plan for rolling stock, including new train fleets and associated cascades. Better value for money could also be secured through selective intervention by the planning agency in rolling stock purchase -including the option of purchasing trains direct.

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- 9.61 If PTEs have more of a stake in their local rail services then there is the potential for PTEs to be more proactive in securing the additional rolling stock needed. PTEs retain the power to lease and purchase trains direct. If LTP funding was made available for rail spending then this could be used to purchase additional rolling stock.

Further Research

- 9.62 Throughout the report we have noted areas where further research is required to address some of the issues that arise and are inadequately understood when considering the future for rail in the City Regions. These include:
- ◆ reviewing standard forecasting and appraisal mechanisms to reflect that investment in rail in urban areas can bring benefits well above those predicted by 'accepted' rail demand forecasting tools;
 - ◆ research into the longer term growth potential for rail in urban areas to better understand the potential for untapped demand (to resolve the apparent paradox of growing demand for rail even whilst it has been 'in crisis');
 - ◆ research into better understanding of the links between the regional economy and rail;
 - ◆ research into the effects of road user charging and how it could affect the economics and funding potential of rail.

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