Moving Forward: The Northern Way

Strategic Direction for Transport

















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Preface

The Northern Way is a bold and visionary initiative to close the £30bn annual productivity gap between the three northern regions and rest of England. Through its Growth Strategy, the Northern Way has identified the vital role that enhancement and improvement of the North's transport system will play if this productivity gap is to be bridged. Improvements are the key to efficient labour markets, to giving good access to employment opportunities and to delivering the connectivity that a resurgent northern economy will require. Enhancements within the North's City Regions and between the City Regions are therefore needed, as are access improvements to the North's sea ports and airports and London. But we must also recognise in making the case for funding that there will be limits to how much public money can be invested in the North's transport network as well as the rate at which we can implement change. One of the North's key assets is also the quality of life it offers and protecting our natural and built environment is a vital component of maintaining this. As part of this, the North has to contribute to the nation's obligation to reduce emissions of greenhouse gases.

This is why we have developed the Northern Way's Strategic Direction for Transport. Firmly routed in evidence of how transport supports economic growth, it sets out the interventions needed to maximise such growth, while at the same time seeking to minimise the impact of transport on the environment. It puts forward innovative proposals to raise additional finance to support transport investment in the North while at the same time ensuring that available transport capacity is put to the most productive use.

This Strategic Direction has been endorsed by the Northern Way's Transport Compact and its Steering Group. It establishes the framework within which the Northern Way will work with Government, national agencies and its regional partners over the years to come.

We can be confident that the Strategic Direction will have impact. It is striking that the focus in Sir Rod Eddington's Transport Study - on connectivity within and between City Regions, and with key international gateways - mirrors our own assessments and priorities in the Strategic Direction. We can also see that the first schemes being taken towards final approval for Productivity Transport Innovation Funding are building on the evidence that the Northern Way has been developing and the early win transport projects that the Northern Way is helping kick start.

Finally I would like to thank John Jarvis and his team for their work over the first year of the Northern Transport Compact in helping to put this Strategic Direction in place.

David Begg Chair, Northern Way Transport Compact



Executive Summary

Introduction

The Northern Way Growth Strategy Moving Forward: The Northern Way sets out how, by growing the North's economy faster, the £30bn output gap between the North and England average will be bridged over a 25 year period. It builds upon the three Regional Economic Strategies and Regional Spatial Strategies.

Transport has been identified as a top priority for the Northern Way. Three transport investment priorities have been identified:

- To improve surface access to the North's airports.
- To improve access to the North's sea ports.
- To improve links within and between the North's City Regions.

The Strategic Direction supplies the evidence for the most appropriate transport interventions in terms of productivity gains. It addresses questions of timescales, priorities and the coherence of the policy mix, looking ahe-ad over a 20 to 30 year time horizon. It underpins the transport elements of the Northern Way's submission to the Government's 2007 Comprehensive Spending Review.



The Strategic Direction

Productivity growth will increase the demand for transport as more people are in work and also as a result of increasing business activity. Without countervailing measures, the trend of longer trips associated with increased personal wealth will continue. Congestion around the North's cities is set to increase. Committed interventions along with the application of currently available management measures will mitigate the impacts of this growth, but only for a decade or so.

Improved transport provision within the City Regions will be necessary to cater sustainably for increased commuting, especially to city centres. Targeted transport provision will also be needed, focussed on helping to resolve worklessness or supporting regeneration initiatives. However, the Northern Way's work also shows that improving links between the North's City Regions offers greater potential agglomeration benefits than that offered by improving transport within the City Regions. Improving transport between the City Regions also offers the potential for more balanced growth across the North, while only addressing transport within the City Regions raises the possibility of increasing the differentiation between the stronger and weaker City Regions. Our evidence therefore points to the need for a well-balanced approach to improvements both within and between City Regions.

There is clear evidence of the importance of access to international gateways for the growth sectors of the North's economy. Improved rail access to Manchester Airport and integration of the North's airports with local transport networks are required, along with rail gauge and capacity enhancements to the major northern ports.

The proximity of London is a major asset to the North. It provides access to world city functions and acts as a global gateway. Growth in productivity will both require and generate demand for enhanced connectivity with London. We wish to work closely with the Department for Transport and national agencies to enhance the capacity and speed of north-south links.

The evidence we have examined has led us to define a Strategic Direction for transport in the North to support productivity growth that includes:

- Support for proposals from the City Regions that are shown to have a clear economic rationale and are demonstrated to be deliverable.
- A focus on the Trans-Pennine Corridor which will support growth in the largest City Region economies and will also benefit the wider North.
- A continuous motorway standard link from Newcastle to the South.

- Comprehensive application of current network and demand management measures in the short to medium term to get the very best from existing routes and lock in the benefits of committed and additional targeted development of the road and rail networks, including implementation of travel plans, behavioural change methods, Active Traffic Management by the Highways Agency, and strengthened integration of land use and transport planning.
- Best use of public transport provision through a pan-Northern smartcard, building on local initiatives, and the promotion of better mapping and information provision.
- · Support for a reformed system of bus partnership and regulation designed to meet the needs of a wider customer base, including those who transfer from private car, which is properly integrated with other modes.
- A rail rolling stock strategy that addresses capacity and quality to meet commuter demand into our growing City Regions.
- Strategic park and ride, using rail, bus and light rail as appropriate and importantly interfacing with the strategic road network.
- Work with the Government to investigate road user charging for the strategic road network, anticipating the wider powers the Secretary of State is considering and with a stipulation that revenues are retained within the northern economy and that it supports the North's productivity growth.
- Investment to be geographically focused, designed inter alia to resolve the rail capacity constraints on the trans-Pennine routes; the Manchester Hub (including for access to Manchester Airport); to the major northern ports; and with longer term road enhancement priorities to be re-assessed in the light of a potential road user charging environment.
- The improvement in the longer term of transport connections to London and to Heathrow Airport.

Delivery

The strategy looks ahead over the next twenty to thirty years. We are looking to work with Government through the Comprehensive Spending Review and beyond to secure the necessary commitment to investment. The planning process is such that it will be a decade hence before the most transformational elements of the Strategic Direction start to be implemented. However, there are plenty of opportunities to achieve visible and worthwhile progress in the interim, and the work necessary to deliver the longer term improvements cannot be delayed.

By supporting early win transport projects and the development of the evidence base for transport priorities, £20m from the Northern Way Growth Fund has already proved successful in facilitating and fostering partnership working across the North.

The Fund, however, has a limited life span (to March 2008) and limited funding. Successor funding to be used to support discretionary transport expenditure on short term capital projects along with the development of medium and longer term solutions is needed to continue this work.

This complements parallel proposals in the Northern Way's submission to the Comprehensive Spending Review to drive innovation, improve skills and raise employment, improve the quality of our places and strengthen devolution at all levels.



1. The Issue

The Northern Way Growth Strategy identifies transport as a top priority

- 1.1 The Northern Way Growth Strategy Moving Forward: The Northern Way sets out how, by growing the North's economy faster, the £30bn output gap between the North and the English average will be bridged over a 25 year period. It builds upon the three Regional Economic Strategies and Regional Spatial Strategies.
- 1.2 Transport has been identified as a top priority for the Northern Way. Three transport investment priorities have been identified:
 - To improve surface access to the North's airports.
 - To improve access to the North's sea ports.
 - To improve links within and between the North's city-regions.
- 1.3 The Strategic Direction for Transport supplies the evidence for the most appropriate interventions in terms of productivity gains. In particular:
 - It addresses questions of timescales, priorities and the coherence of the policy mix, looking ahead over a 20 to 30 year time horizon.
 - It underpins the transport elements of the Northern Way's submission to the 2007 Comprehensive Spending Review¹.
 - It provides a way forward for the enhancement and management of national and inter-regional transport networks in the North.
 - · It complements City Region led initiatives.
 - It sets out how the key Northern Way policy aims of better connections within and between the City Regions, to ports and airports for access to the global economy and better links to London and the rest of the country can be attained.
 - It is designed to be totally aligned with government policies and ambitions and to help secure the funding needed for transport infrastructure investment at the pannorthern regional and City Region levels.
 - It is also designed to help facilitate delivery by relevant national, regional, and more local agencies.



Transport constraints and economic growth in the North

- 1.4 The evidence collected across the three northern regions shows that congestion will grow, with the motorway network in particular expected to experience a serious deterioration², once the beneficial effects of the various known management systems (such as the Highway Agency's Active Traffic Management), the impact of behavioural change approaches and targeted capacity enhancements that may be introduced over the next few years have worked through^{3 4}.
- 1.5 These problems of congestion are widespread and are at their most severe where the national motorway network combines the functions of handling longer distance travel and meeting the needs of the North's resurgent City Regions⁵. This is where traffic volumes are at their greatest. The inefficiency of extended and unpredictable journey times adversely affects business connectivity and movement of goods, and also acts as a brake on some of the types of land-use developments that the three regions need to achieve economic growth. Transport deficiencies are already acting as a direct constraint to growth in the North⁶.
- 1.6 Of course, not all development needs to be served (directly, or even indirectly) by the strategic road network. But the over-arching objective set for the Northern Way to close the output gap means that the Northern economies have to continue the process of adjustment to the requirements of a world market, with investment in new developments in science, technology, business services and industry all expected to feature. If the North cannot offer development opportunities on the ground, the market will look elsewhere. Access to markets and external transport links are important for the private sector⁷. There is also clear evidence of the importance of access to international gateways for growth sectors in the Northern economy⁸. And growing the Northern economy will also both require and generate demand for enhanced connectivity to London⁹.
- 1.7 While the North's public transport networks are well suited to catering for commuting and other trips to town and city centres, currently in the morning and evening peaks the North's rail network experiences on-train overcrowding. There is limited capacity to introduce new rail services for passengers to important destinations such as Manchester Airport, or for freight trains to the North's ports. The quality of the North's bus network is generally poor, especially when compared with London.
- 1.8 The Northern Way transport investment priorities are designed to address these challenges; to overcome the limitations on development the North already faces; and to create the opportunities for exceptional growth based on a high and improving quality of life across the City Regions and beyond.

Enhancing the North's quality of life goes hand in hand with growing productivity

- 1.9 Individual City Region Development Programmes support the continued renaissance of city centres and to meet their growing labour markets, appropriate improvements in public transport are well-suited. As their economies strengthen, once again city centres are becoming the preferred location for commercial office and mixed use developments¹⁰. But even with the renaissance of urban living in the North, each City Region faces the prospect, as its economic base adapts and grows, of wider commuting catchments¹¹. Higher value jobs command higher salaries, wider choices of residential location and hence longer commutes¹².
- 1.10 A key factor in the Northern Way Growth Strategy is to ensure that the North is the chosen location for private sector investors. Quality of life is a factor in this choice¹³, and the need to ensure that the North's transport system and pattern of development is sustainable and achieves environmental objectives is therefore also an important element in the Strategic Direction for Transport. On top of this, to achieve our growth objectives we must change the link between economic growth and closing of the £30bn output gap, and the growth in car-based transport demand. The Strategic Direction must also support the Government's national and international commitments to the environment by encouraging and facilitating a more sustainable pattern of land-use development. This means a requirement for measures designed to support lessening the need to travel, especially by car.
- 1.11 Already the labour and housing markets of the City Regions overlap and this is expected to become more so, fuelled by economic growth and the increases in personal income, and the increased locational choices that this will bring. Business markets overlap too and economic growth will further increase this. This creates both a challenge and an opportunity. For economic growth to be maximised we must be able to cater for the travel growth in a way which meets both travel needs and is economically, financially and environmentally sustainable, and protects and enhances the quality of life the North offers. The opportunity arises through the strengthening City Region economies creating a northern critical mass that will accelerate growth further.

2. The Strategic Direction

The Northern Way's Strategic Direction for Transport has short, medium and longer term components. The short term extends to 2011 and is congruent with the second Local Transport Plan period, the medium term is to 2016 and is the same as the period covered by the current Regional Funding Allocations. The longer term is from 2016 onwards.

In the short term, schemes and programmes are largely committed, but some discretionary funding is available for example through the Northern Way Growth Fund and in particular the Productivity arm of the Department for Transport's (DfT's) Transport Innovation Fund. It is important, however, to look ahead to ensure that shorter term initiatives will build successfully towards sustainable, long term objectives, and that investments made in the short term do not become redundant in the longer term. The Strategic Direction therefore builds on the work done through the three regional spatial and economic strategies and the eight City Regions in the North. Its focus is on meeting the Northern Way Growth Strategy; it concentrates on those measures that will directly uplift the North's productivity.

This entails improving transport conditions within the City Regions and between them; it also means improving the connections to the key gateways to the global economy - the ports and airports (both within and outside the North) and London, recognising its economic importance as a world city.

We also place an emphasis on:

- · Using information technology and other new systems both to ensure that users can get the very best out of the transport system on offer and to provide a realistic alternative to travel for journeys that electronic communication renders literally out-moded.
- Capacity building for the areas of greatest growth in a resurgent northern economy.
- · Exploration of delivery mechanisms that allow for the channelling of funds raised from the use of transport in the North to flow efficiently into the development and implementation of targeted investments.



Transport improvements are needed within and between City Regions

- 2.1 Analysis by the Department for Transport (DfT)¹⁴ suggests that the largest contribution that transport enhancement can make to productivity gain is through the reduction of the generalised journey time experienced by business travellers and freight traffic. On the whole, this is already assessed in conventional cost benefit analysis as a contribution to the overall benefits of a proposal¹⁵. Its contribution is largest for road schemes that lead to journey time improvements for high volumes of business travel and freight traffic, namely proposals for the motorway and trunk road network. However, the degree to which the motorway and trunk road network can be enhanced is limited on grounds of affordability, local and global environmental sustainability and the capacity of the local (feeder) road network to accommodate additional traffic. Rail's overall mode share and its share of business traffic increases with travel distance. Reducing journey times for longer distance rail travel offers significant potential for productivity gain.
- 2.2 Research published by the DfT¹⁶ has identified other ways that enhancements to the transport system can contribute to growth in productivity and that are not currently included within the established cost benefit analysis framework. The largest of these benefits that are not currently explicitly considered in conventional cost benefit analysis are what are known as agglomeration benefits¹⁷.
- 2.3 Agglomeration benefits arise through firms becoming more productive as a result of being closer or more accessible to other firms, workers and markets. Agglomeration is a type of economy of scale which means firms face lower unit costs in accessing skills, suppliers, knowledge and markets as a result of being located near clusters. Transport directly influences agglomeration through determining the costs of access.
- 2.4 The North's eight City Regions are in relatively close proximity. Labour markets and business catchments overlap¹⁸ and offer an opportunity to create a critical mass as a counter-weight to the London economy, but only if there is the reality of a coherent transport system that enables businesses to flourish beyond and between traditional city boundaries. The Leeds Manchester corridor has been identified elsewhere¹⁹, for example, as a prime candidate for the realisation in practice of the benefits of agglomeration.
- 2.5 Given that agglomeration benefits have the potential to lead to significant productivity gain, but are not currently taken into account when developing transport strategies and programmes, the Northern Way has investigated the North's potential to gain such benefits. This work shows that the highest agglomeration benefits achievable from transport investment are, indeed, to be had in the Leeds and Manchester City Regions²⁰. Shown in Figure 2.1 is a measure of the potential for agglomeration benefit in the North. The potential is not a measure of the impact of any particular scheme or proposal, rather it is a measure of the agglomeration GVA (Gross Value Added) impact that could occur if there were a uniform reduction in transport costs across the North²¹.

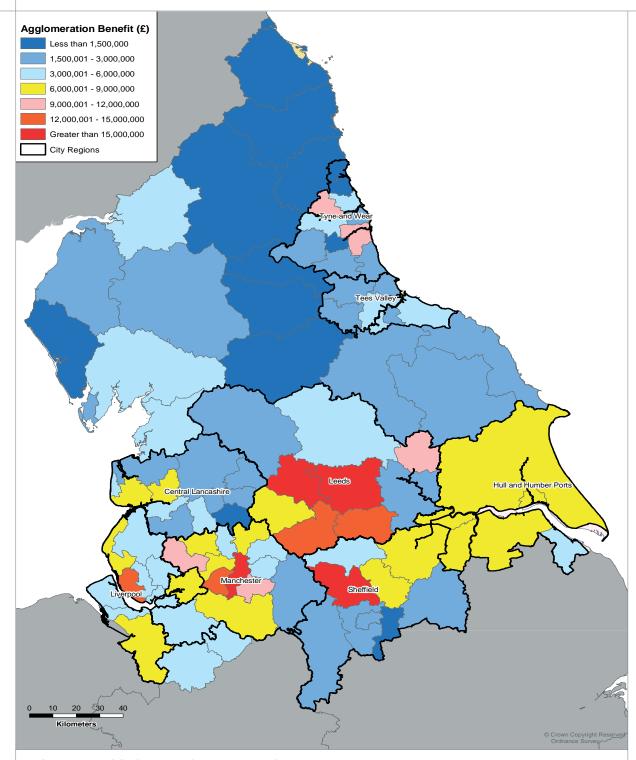


FIGURE 2.1; AGGLOMERATION BENEFIT POTENTIAL

Notes: Figure shows the results of a simulation of agglomeration benefits given a pan Northern reduction of generalised cost of 5%. Calculations are an application of the DfT's formula for agglomeration benefits as set out in their Wider Economic Benefits paper²

- 2.6 Both intra- and inter- City Region savings in travel costs are beneficial and have the potential to create substantial agglomeration benefits. The agglomeration benefit simulation shows that reducing travel costs between City Regions has greater potential to generate agglomeration benefits than reducing travel costs within City Regions. The largest agglomeration benefits would arise by reducing travel costs between the North's City Regions, and between the North and London.
- effect of reducing transport costs within the City Regions compared with the impact of reducing transport costs for travel between City Regions. This involves the application of a simulation model which considers the interaction between transport supply and its use, the patterns of land-use development, business formation, population and the labour market²³. Reducing travel costs *within* City Regions benefits the strongest economies, but at the expense of the weaker ones. The model suggests that, on its own, an intra- City Region focussed approach has the potential to result in increased differentiation between the stronger and weaker economies of the North. In comparison, reducing transport costs *between* the City Regions spreads benefits and results in what appears to be a more sustainable distribution of economic growth and benefits.
- 2.8 This research, however, should *not* be interpreted to say that there is no need to invest in improving transport links within City Regions. City Region authorities face a range of transport-related problems and issues. Transport investment needs will be identified to support a range of goals, which could be environmentally or safety driven for example, as well as those related to issues of poor local accessibility, often associated with problems of worklessness or urban regeneration. Also, if City Regions in general and city centres in particular, are to be the engines of future economic growth there will be a need to increase the capacity of transport networks to cater sustainably for the increased movement of goods and people that such growth will bring. Finally, and returning directly to the issue of productivity, the Northern Way's analysis shows that enhancement to networks within City Regions can bring substantial and worthwhile productivity gains, over and above those currently considered in conventional cost benefit analysis²⁴.

We need to enhance access to Global Gateways in the North and the rest of the Country

- 2.9 Connections to airports are very important for business and inward tourism. Investment in improvements between the City Regions also needs to improve access to airports, especially to Manchester Airport, the North's premier international airport²⁵. This will involve investment in the rail network in Greater Manchester and the Manchester Rail Hub in particular. As well as benefiting the Manchester City Region, this will also benefit the surrounding City Regions.
- 2.10 Connections to London and Heathrow are also a critical issue for business and inbound tourism to the North. Demand growth over the West Coast Main Line is such that further investment in schemes to enhance capacity, beyond the scheme in hand along the Trent Valley will be needed to obtain the full regional benefit of reliable rail freight and increased frequencies of passenger services²⁶. The East Coast Main Line and Midland Main Line also have finite capacity to cater for growth in demand for passenger movements between the North's City Regions and to London, as well as for freight. Additional capacity will be required.
- 2.11 There is preliminary evidence available on the wider economic benefits of high speed links between the North and London (and Heathrow and the Channel Tunnel via the high speed link due for completion in 2007)²⁷. It shows that the agglomeration benefits would be very significant indeed: larger than those that could flow from the series of schemes under consideration in London²⁸. The Northern Way supports the development of the case for measures which will increase the capacity and speed of rail links between the North's City Regions, and between the North and London, Heathrow and the Channel Tunnel. Because of the very substantial wider economic benefits it would bring, including the opportunities it ought to create for improving the use of the local rail networks (by removing express services) a north-south high speed fixed link should be considered for the longer term, as should more immediate proposals to enhance the established network. It will be important to consider the synergies between alternative proposals for the rail network and other elements of the Strategic Direction, especially any locally or nationally promoted road user charging initiatives.



Managing demand is at the heart of the strategy

- 2.12 The Strategic Direction embraces a comprehensive approach to demand management, without which new development across the North will suffer from planning restrictions induced by transport capacity limitations. In the short and medium term this will use technology such as Active Traffic Management alongside the completion of the Highways Agency's Targeted Programme of Improvements. It will also involve the development of a smartcard system across the North, building on local schemes and offering the benefit of wider applicability; the adoption of pan-northern park and ride strategies designed to interface with the strategic highway network complementing local schemes; along with the promotion of better mapping and information. It must also involve a bus system designed to meet the needs of a much wider customer base and capable of proper integration with other modes, which in turn suggest the need for a reformed system of bus partnership and regulation.
- 2.13 This approach can deliver a number of short and medium term wins. But its essential characteristic is to use the economy of scale that the North represents, taking the three regions together, to work towards systems and approaches that become more efficient and less expensive than if they are introduced at a local level only and thereby also help avoid an attendant risk of confusion at boundaries.
- **2.14** In summary, strategy features related to managing demand are:
 - The adoption of a pan-northern smartcard system for using transport services, building on the success of local schemes and offering the benefit of wider applicability29.
 - The creation of a network-based strategic highway management system for the North designed to inform drivers through the evolving in-vehicle technologies and through signing systems of optimum routes and times of travel reflecting known and real-time traffic conditions³⁰.
 - The creation of a northern public transport network and easy to comprehend map, drawing on the expertise of the PTEs and with the aim of achieving the legibility and comprehension of the London Underground map for travel in and around the North³¹.
 - The adoption of strategic park and ride strategies, developed from the perspective of road users, embracing private sector investment and using rail, bus and light rail modes as appropriate, and designed to interface with the strategic road network, complementing more locally devised schemes to improve access to the public transport network.
 - A bus system designed to meet the needs of a wider customer base, including those who transfer from private car, properly integrated with the other modes of transport³² with appropriate reform to the systems of bus partnership and regulation.
 - The systematic adoption across the North of corporate and personalised travel planning or incentivised at the corporate level through the planning system.

The role of road user charging must be considered

- 2.15 Better management of the transport network is essential for the North which is, through its leading reinvigorated City Regions, embarking on sustained growth and rising economic output³³. While methods that encourage a change of behaviour are valuable³⁴, for these economies to be truly successful, it is recognised that in the longer term more radical measures such as pricing will become necessary to help manage travel demand and to ensure that traffic levels do not get out of hand³⁵.
- 2.16 Government has so far sought to lead the way by encouraging local authorities to be innovative and adopt road user charging schemes to tackle the congestion problems on the road network primarily by application at an individual city level. Greater Manchester and Tyne and Wear as well as Durham, as recipients of pumppriming funds from the congestion-arm of the Transport Innovation Fund, are working with Government to explore fiscal restraint measures as part of a wider transport package. The Northern Way fully endorses these City Regional and local initiatives but it is also clear that approaches based on individual local authority areas are hard to adopt in practice. The major northern cities do not offer the overwhelming market dominance over neighbouring centres that London (where, in the central area, road user charging has been applied) enjoys. It is more difficult to conceive of schemes that will work on a City Region wide basis if the pioneers have no master plan to work to36. As generally recognised, there also has to be a commensurate opportunity to bring about a very rapid visible improvement, or a copper-bottomed commitment to improve the public transport alternatives.
- 2.17 The most critical congestion problems are likely to be in any event over sections of the motorway network which are the responsibility of the Highways Agency and not local authorities. Individual city authorities might be able to adopt London-style central area pricing schemes, but the core congestion problem in the City Regions impacting on the growth of northern productivity would remain on an over-stretched strategic highway network.

We wish to work with Government to develop a Road User Charging proposal that benefits the North

- 2.18 The Northern Way therefore proposes to be at the forefront, by planning to work with Government to investigate road user charging for the strategic road network. This is fully intended to complement the work being led by the Department for Transport and those local authorities in the North in receipt of Congestion TIF pump-priming funds, and the application of the anticipated powers that the Secreatary of State for Transport may seek to facilitate the adoption of more widely-based schemes. As part of its support for the development of implementation proposals for this Strategic Direction, the Northern Way will consider supporting financially the investigation of road user charging and the potential benefits for growth in northern productivity.
- 2.19 Early consideration by the North about how road user charging could be applied is critical if the North is to influence the shape of road pricing and how it might be of benefit to northern economic growth. Deferral will in all likelihood mean that the North may have road user charging applied but as part of a national scheme not necessarily well designed to meet the needs of the North and the nature of growing congestion in the North, or to unlock the problems of frustrated development that the North already experiences³⁷. It may also mean that the chance would be lost for the North to have technology developed and applied on a large-scale basis for the first time, which in itself could generate employment in the North.
- 2.20 To be effective, a congestion-targeted road user charging scheme in the North, would impose additional charges on road users, as would be the case elsewhere. Some people would switch, as a consequence, their time of travel to times of day when a lesser charge or no charge applied. Others (evidence suggests a smaller proportion) would be dissuaded from the journey. Traffic conditions on the road network especially in peak periods would ease³⁸. The North would have at its disposal the only effective tool available to manage its critical transport arteries.
- **2.21** Four important points arise and these will form our starting point for a dialogue with Government. These relate to:
 - Fiscal neutrality and funding the Northern Way proposes to work with Government to investigate an innovative solution that returns the money raised through road user charges to the individuals and businesses incurring them and into investment in transport in the North.
 - Investment any introduction of road user charging requires complementary investment.
 - Highway network investment re-prioritisation road user charging offers the
 prospect of being able to manage the beneficial effects of highway expansion
 schemes. But it also offers another way to achieve the same effect (of less
 congestion) that these schemes provide in the short term. This allows a
 reconsideration of highway improvement priorities.
 - Managing the use of the overall network there will be a concern about the effects of traffic displaced from the primary road network onto less suitable local roads.

Information Technology can help us make best use of the North's transport networks

2.22 There is not, any more, a need to drive to a supermarket to shop there. Continued developments in IT will further increase flexibility in working hours and location for what were traditionally nine until five office-based workers. Wider programmes supporting technology and innovation to allow such opportunities will need to be identified, developed and then applied. But there also must be a means of getting people around the North more quickly³⁹ and reliably, and in comfort and safety. A road user charging regime could contribute to this but on its own it will not be sufficient. There also has to be investment to achieve this, not least because of the economic growth expected in the City Regions and the potential that this offers to closing the North's output gap.

Investment to support the North's growth

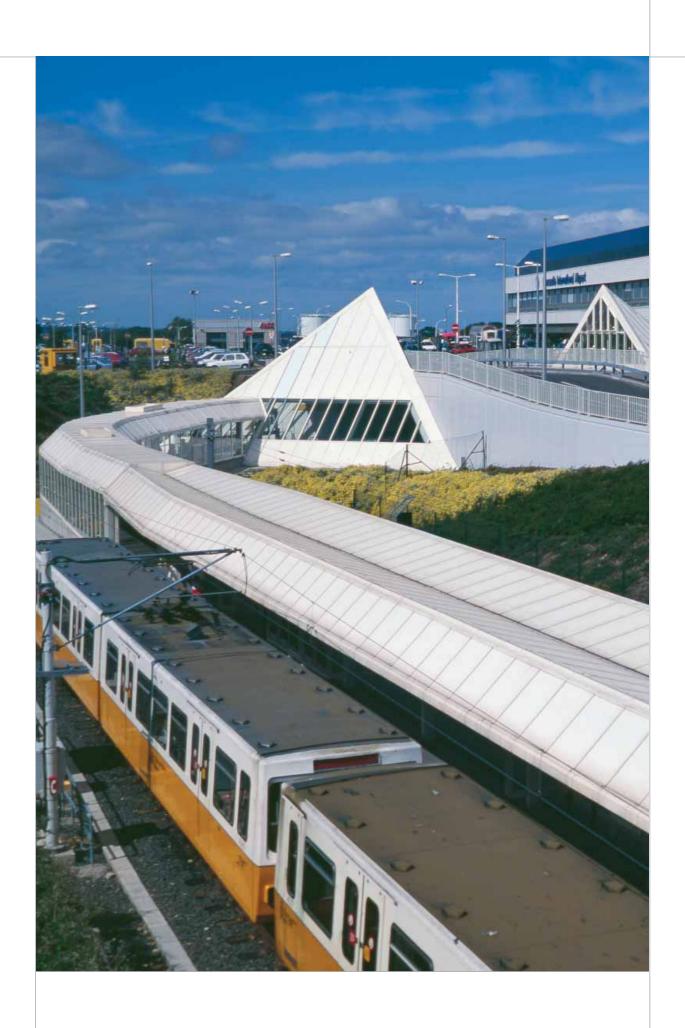
- 2.23 The Strategic Direction, first of all, supports transport priorities in the emerging City Region Development Programmes because the City Regions are the North's economic powerhouses, subject to an explicit demonstration of their value for money in supporting productivity growth and the credibility of their delivery mechanisms.
- 2.24 In the short to medium term, the emphasis with the rail passenger network will be on capacity expansion to be achieved through train lengthening and securing new replacements for life-expired rolling stock. The rail network across the North is remarkably comprehensive (although with some long-standing constraints). It is therefore possible to achieve a substantial improvement in travel conditions and offer capacity for growth without the need for new infrastructure simply by lengthening existing trains which, on local services, are generally operated in a short (2/3 car) formation. A strategic approach should be adopted to train lengthening and the phased replacement of the North's fleet of older rolling stock.
- **2.25** The Strategic Direction further provides for highly targeted investment in transport capability and capacity. It provides for a step-change in the quality and capacity of the rail network across the Pennines between Leeds (and Sheffield and Hull and the North East) and Manchester and its airport (and through to Liverpool and Central Lancashire), both by making best use of existing capacity and in time through the creation of a new connection that can benefit both person travel and freight. This will be essential in the long term to allow the expansion of the City Regions and will also provide the fast, reliable and efficient connections between the key growth centres needed to fashion a viable alternative to investment in London/the South Fast.

- 2.26 One option for the longer term would be for the new trans-Pennine rail link to form an integral part of a national high-speed network in the longer term. The latter will offer a means of addressing the locational disadvantage of the North in terms of access to markets, to the world financial centre that is tantalisingly close (London) and to key international gateways (airports and ports), with greatest improvement in terms of shorter journey times being experienced by the North East.
- 2.27 This investment in trans-Pennine capacity and capability is designed to foster the complementary expansion of Leeds and Manchester but it will also benefit the wider north and all of its City Regions for whom the congestion and lack of network coherence in the Manchester area in particular is a constraint on improving accessibility between City Regions and to airports and ports. It will also offer a transformation of the connectivity of Sheffield to Manchester, which is currently by far the slowest of the northern inter City Region connections⁴⁰.
- 2.28 Integral to the strategy is targeted investment across the North in the strategic road network and rail network to address the most significant congestion bottlenecks experienced by people and goods, along with development of the City Regions' public transport networks to cater for both the increased volume of commuting and the longer travel distances that economic growth is anticipated to create. As part of this, the Strategic Direction envisages that the medium term highway investment programme will improve journey time reliability on the M62 and ensure that there is a continuous motorway connection from Newcastle to Yorkshire and London (whether as the A1(M) or – as would have greater potential impact – with an M1 notation).



Summary – The Strategic Direction for Transport

- · Support for proposals from the City Regions that are shown to have a clear economic rationale and are demonstrated to be deliverable.
- A focus on the trans-Pennine Corridor which will support growth in the largest city-region economies and will also benefit the wider North.
- A continuous motorway standard link from Newcastle to the South.
- · Comprehensive application of current network and demand management measures in the short to medium term to get the very best from existing routes and lock in the benefits of committed and additional targeted development of the road and rail networks, including implementation of travel plans, behavioural change methods, Active Traffic Management by the Highways Agency, and strengthened integration of land use and transport planning.
- Best use of public transport provision through a pan-Northern smartcard, building on local initiatives, and the promotion of better mapping and information provision.
- Support for a reformed system of bus partnership and regulation designed to meet the needs of a wider customer base, including those who transfer from private car, which is properly integrated with other modes.
- A rail rolling stock strategy that addresses capacity and quality to meet commuter demand into our growing City Regions.
- Strategic park and ride, using rail, bus and light rail as appropriate and importantly interfacing with the strategic road network.
- Work with the Government to investigate road user charging for the strategic road network, anticipating the wider powers the Secretary of State is considering and with a stipulation that revenues are retained within the northern economy and that it supports the North's productivity growth.
- Investment to be geographically focused, designed inter alia to resolve the rail capacity constraints on the trans-Pennine routes; the Manchester Hub (including for access to Manchester Airport); to the major northern ports (Humber, Tees and Mersey); and with longer term road enhancement priorities to be re-assessed in the light of a potential road user charging environment.
- The improvement in the longer term of connections to London and to Heathrow Airport.



A Need for Partnership Working

3.1 Delivery of schemes and proposals that will contribute to the Strategic Direction for Transport will necessarily require local government, regional bodies, national agencies and central government to work in partnership. The Northern Way has already been successful in establishing the Northern Transport Compact to advise the Northern Way Steering Group on pan-northern transport priorities.

The Northern Way Growth Fund has been a success

- 3.2 By supporting early win transport projects and the development of the evidence base for transport priorities, £20m from the Northern Way Growth Fund is proving successful in facilitating and fostering partnership working across the North.
- 3.3 The Fund, however, has a limited life span (to March 2008). A successor to the Fund, to be used to support discretionary transport expenditure on short term capital projects along with the development of medium and longer term solutions should continue this work.

A new Northern Way Transport Development Fund is needed

- 3.4 As part of the Northern Way's submission to the 2007 Comprehensive Spending Review it has been proposed that a Northern Way Transport Development Fund is assembled to make this happen. In particular the fund will:
 - Support early win projects that help deliver the Strategic Direction.
 - Develop the business case for our longer term proposals aimed at Productivity Transport Innovation Fund (TIF) that do not have a natural lead agency within the North.
 - Support the investigation of road user charging and the potential benefits for growth in northern productivity.
 - Develop northern evidence into key future policy reviews.

Partnership working will deliver the Northern Way's Strategic Direction for Transport

- 3.5 Much of the Strategic Direction will be delivered by national bodies and agencies. We anticipate that the Department for Transport will lead the development and then the implementation of road user charging proposals. The Highways Agency and Network Rail will both have key roles delivering enhancements to the strategic road network and the rail network. The private sector will expand the North's ports, airports and rail freight interchanges, as well as being partners in the delivery of bus and rail services, and in the operation of the road network. Indeed, the Strategic Direction offers many opportunities for businesses in the North. Many elements of the Strategic Direction will be for the City Regions to implement, in partnership with their neighbouring City Regions and with national agencies.
- 3.6 Already within the five of the eight northern City Regions which have metropolitan districts at their core, the passenger transport executives and the established mechanisms for development and delivery of their single local transport plans provide delivery mechanisms (which can be developed as required). There may, however, be limits to what can be achieved through partnership. This is in part because the resources and powers of a partnership are limited by the resources and powers of its constituent members.
- 3.7 In the short term, this could perhaps become most apparent in the three northern City Regions which are not centred on metropolitan districts and where, the ability to develop and then implement larger and/or cross local authority boundary proposals (and especially public transport ones) is more constrained by both financial and human resources, as well as statutory remit. In the medium and longer term, with no single agency to lead the implementation of this Strategic Direction, such constraints are likely to become apparent pan-regionally. The Growth Fund and its successor settlement can help overcome these barriers in the short term, but in the medium to long term, if productivity gains are to be maximised a new institutional arrangement would appear to be necessary to facilitate the cross-boundary and intra-agency working that will be required and to manage the receipts from the charging mechanism which are returned to the transport sector.



4. Benefits

Introduction

- 4.1 The Northern Way's Strategy Direction for Transport has short, medium and longer term components. The short term extends to 2011 and is congruent with the second Local Transport Plan period, the medium term is to 2016 and is the same as the period covered by the current Regional Funding Allocations. The longer term is from 2016 onwards.
- 4.2 In the short term, schemes and programmes are largely committed, but some discretionary funding is available for example through the Northern Way Growth Fund and in particular the Productivity arm of the Department for Transport's (DfT's) Transport Innovation Fund. It is important, however, to look ahead to ensure that shorter term initiatives will build successfully towards sustainable, long-term objectives, and that investments made in the short term do not become redundant in the longer term. The Strategic Direction therefore builds on the work done through the three regional spatial and economic strategies and the eight City Regions in the North. Its focus is on meeting the Northern Way Growth Strategy; it concentrates on those measures that will directly uplift the North's productivity.
- 4.3 This entails improving transport conditions within the City Regions and between them; it also means improving the connections to the key gateways to the global economy the ports and airports (both within and outside the North) and London, recognising its economic importance as a world city.
- **4.4** We also place an emphasis on:
 - Using information technology and other new systems both to ensure that users
 can get the very best out of the transport system on offer and to provide a
 realistic alternative to travel for journeys that electronic communication renders
 literally out-moded.
 - Capacity building for the areas of greatest growth in a resurgent northern economy.
 - Exploration of delivery mechanisms that allow for the channelling of funds raised from the use of transport in the North to flow efficiently into the development and implementation of targeted investments.

Short term (to 2011)

- 4.5 Over the next five years to 2011, much of the transport expenditure in the North is committed and the scope for additional discretionary spending is limited. The limited investment that will occur must be set within the context of the longer term strategy, either paving the way for its medium and long term elements or delivering early wins.
- 4.6 There will be a need to develop the details of the interventions for medium and long term implementation and for delivery agencies to gain powers and approvals for projects.
- 4.7 Application of the Northern Way Growth Fund to support the construction of a third platform at Manchester Airport's rail station and rail capacity enhancements to lines serving the North's ports (and in the case of the latter, bolstered by Productivity TIF monies) will produce early wins.
- 4.8 In general, the emphasis with the rail passenger network will be on capacity expansion to be achieved through train lengthening and securing new replacements for life-expired rolling stock.
- 4.9 There are other opportunities too, for example transforming bus-based public transport systems in the City Regions. However, when compared with the gap to be closed (and even if additional monies can be made available), it must be accepted that the short term productivity gains will be relatively small.



Medium term (to 2016)

- 4.10 In the medium term, we anticipate the completion of much of the Highways Agency's existing Targeted Programme of Improvements to the North's strategic road network and enhancements to some of the City Region's public transport networks, as well as enhancement to the rail network to cater for an increased volume of freight, including inter-modal containers. The bulk of strategic road capacity enhancements as well as the widespread introduction of currently available management measures that the Strategic Direction needs will occur in the medium term. These will deliver benefits to movements both within and between the City Regions and in term of access to international gateways. They are, however, a stop-gap measure. If the productivity gap is to be closed these proposals are a necessary precursor to the delivery of the longer term strategy.
- 4.11 Nevertheless they have the potential to achieve some significant gains for the accessibility pattern of the wider north. The medium term highway investment programme will ensure that there is a continuous motorway connection from Newcastle to Yorkshire and London and there are improvements to the reliability of the M62.
- 4.12 Maximum productivity benefits will be realised by tailoring existing transport proposals within the forward planning system to maximise their contribution to productivity gain and to the longer term strategy. This could well mean that priorities will change, that new proposals will emerge and others may not proceed. To support this, we will revisit the prioritisation exercise already undertaken by the Northern Way in the light of this strategy and the evidence that underpins it. This work will show what can be gained within the broad expectation of funding levels for the North, largely from national road and rail programmes and Productivity TIF as well as what else could be gained from a reasonable and possible increase in such funds (potentially including anticipated revenue from any charging regime). This work should be completed early in 2007 and will be made available to Government.
- 4.13 It is necessary to consider the longer term to realise the truly transformational benefits that are needed if the Northern Way is to achieve its objective of closing the productivity gap. This is for three reasons: the time it takes to develop and implement the transport interventions that will be required, the limitations on short and medium term funding and, consequently, the requirement to generate additional investment through charging or other means. However, it is also the case that commitment to longer term development itself has a value for private sector developers who are themselves essentially engaged in forward planning decisions. Knowing that the public sector agencies have a reconciled and coherent plan will help them make the decisions necessary for Northern economic expansion.

Long term (from 2016)

- 4.14 The aim and the lasting legacy is for a principal road network that is well managed and offers reliable journey times. This would be in marked contrast to places elsewhere that fail to take this initiative or lag behind. There is no need, with the Strategic Direction, for living and working in the North to mean a future spent in traffic.
- **4.15** A less congested road network is good for the economy and excellent for the environment.
- 4.16 The new rail network would offer dramatically shortened journey times and much better journey time reliability. It would allow the expansion of the rail commuter networks of Manchester, Leeds, Sheffield and Liverpool and of Hull, Tees Valley, Tyne and Wear and Central Lancashire as the network is extended from its trans-Pennine core. It would also free up the existing network for more rail freight. In the longer term, a new high speed link to London would yield further major capacity gains as well as the advantages of much better connectivity into world markets for high speed service users.



- 4.17 This type of investment, across the Pennines, to address the inadequacies of the network in Manchester and, over longer distances, north-south will need to be closely integrated with the City Regions' networks to be effective. The aim is direct, fast, city centre to city centre travel, and a significant capacity increment. To derive full value from this, the notion has to be one of network, with the ability to travel quickly and safely between the many centres across the North, which themselves need a user-friendly comprehensive service to extend the benefits of the core enhancements. The strategic direction will facilitate urban public transport systems that support the economic growth of town and city centres.
- 4.18 A potential road user charging system would involve substantial levels of annual cash flows currently estimated at approximately £1-2bn per annum, and would have to be very securely handled. In an environment of overall fiscal neutrality for the North, part of this sum will potentially be available to fund the city-region transport infrastructure investments, as well as targeted investments across the North enabling them to be brought to fruition faster. Transformational productivity gains will be delivered, resulting in higher employment and a greater net contribution to the national economy. This in turn will substantially reduce the need for Government 'subsidy' for the North. It may also take some pressure off the south of the country where development carries higher costs for the public sector.



Notes and References

- ¹ See Comprehensive Spending Review The Northern Way http://www.thenorthernwayco.uk/downloaddoc.asp?id=240&page=189&skin=0
- ² Motorway and inter-urban road use continues to grow while traffic levels on other roads have grown at much slower rates; motorway traffic levels have grown by 30% in 10 years. See DfT (2006) *Traffic in Great Britain Q2 2006* published 10 August 2006. Analysis of the ITIS database undertaken by GMTU for the Greater Manchester road network shows that for the three hour morning peak (7-10), each vehicle mile on the conurbation's motorways takes 18% longer than if the same volume of traffic could travel at average off-peak speeds. This compares with 12% for the county's A and B roads.
- ³ There are no current plans to deal with traffic levels expected from 2016/21 onwards. Many current TPI proposals have a design life of less than 15 years.
- ⁴ It is the assessment of the Northern Way and the Highways Agency that even with these interventions, the strategic network will experience greater levels of stress in 2016 than now. For example, this will be acute on the M62 over much of its length. See M62 Route Action Plan, Halcrow for the Highways Agency and Northern Way.
- ⁵ There are eight city-regions in the North: Liverpool, Central Lancashire, Manchester, Sheffield, Leeds, Hull and the Humber Ports, the Tees Valley and Tyne & Wear. Each has their own City Region Development Programmes (CRDPs), produced by a partnership of local authorities, and economic and regeneration agencies. The CRDPs are available from the Northern Way's website: www.thenorthernway.co.uk
- ⁶ DfT is aware that this is a problem and is consulting on changes to the way in which the Highways Agency addresses development needs. It is proposed that no development will be permitted directly linked to the primary road network and that developers will have to demonstrate the existence of company travel plans and behavioural measures to win approvals. Meanwhile, One North East has commissioned a review of the current situation which it believes is already inhibiting economic regeneration, with sites around the A1 in Tyne and Wear and in the Tees Valley being seen as currently stalled.
- ⁷ Healey and Baker, European Cities Monitor 2002, (cited in ODPM, Competitive European Cities where do the core cities stand, 2004).
- ⁸ See, for example, the *State of the English Cities* report for ODPM (2006) and *Aviation, Core Cities and Regional Economic Development* Arup for the DfT (2003).
- ⁹ Research by Robson (CUPS, Manchester University) and Harding (SURF, Salford University) for NWDA.
- ¹⁰ See *Demand for Employment Land in Greater Manchester*, research undertaken by Arup (with Donaldsons) for Manchester Enterprises.
- ¹¹ Research by Robson (CUPS, Manchester University) and Harding (SURF, Salford University) for NWDA and research for the Northern Way has demonstrated the significant extent and overlap of City Region labour market catchments, and most notably those of the Manchester and Leeds City-regions.
- ¹² Evidence from the National Travel Survey shows that average commuting distances increase with household income. (As do business travel and other purpose trip lengths.) For a household with an income of £40,000 or greater, half of all commuting trips are over 10 miles and a quarter are over 25 miles. For households with an income of less than £20,000 only a third of commuting trips are greater than 10 miles.

- ¹³ 18% of service industries state that quality of life for employees is 'absolutely essential' when deciding where to locate their business. (European Cities Monitor. Cushman and Wakefield Healey and Baker, 2005).
- ¹⁴ Generalised journey time is a weighted combination of all attributes of a journey, so for a public transport trip it includes access to and from the stop/station, in vehicle time as well as the fare paid. It also can include the perceived costs of in-vehicle crowding and unreliability. For a road journey it is a weighted combination of in-vehicle time, fuel and other charges, as well as journey unreliability.
- ¹⁵ Although improvements to journey time reliability are currently not included.
- ¹⁶ Transport, Wider Economic Benefits and Impacts on GDP.
- ¹⁷ State of the English Cities ODPM 2006.
- ¹⁸ SURF/CUPS research for NWDA (op. cit.).
- ¹⁹ SURF/CUPS research for NWDA (op. cit.) or *A Framework for City Regions*, Marvin et al for ODPM (2006).
- ²⁰ As reported in summary below in Table 1. See also *Strengthening the Evidence-Base of key Economic and Spatial Strategies in the North West* by SURF, CUPS, IPEG and Salford GIS, NWDA, 2006, for evidence of the strength of the Manchester and Leeds economies including the degree of overlap between them and the trends in GVA since 1995.
- ²¹ Agglomeration Simulation Exercise, November 2006, Steer Davies Gleave for the Northern Way.
- ²² By application of the DfT's formula for the calculation of agglomeration benefits and considering the impact on the effective density of employment of generalised cost changes. Steer Davies Gleave research for the Northern Way (op cit.).
- ²³ The model is a system dynamics model and is a development of an earlier model developed and applied for a DfT research study on transport and business location. The model covers South and West Yorkshire (the Sheffield and Leeds city-regions). See *Model Development and Results for Northern Way using the South and West Yorkshire Dynamic Model*, Steer Davies Gleave (2006).
- ²⁴ Steer Davies Gleave research for the Northern Way (op. cit.).
- ²⁵ See Notes 5, 6 and 7.
- ²⁶ The Modernisation of the West Coast Main Line, National Audit Office, November 2006. This report suggests that growth in a passenger and freight volumes on WCML will result in it not being able to sustain current growth levels beyond 2015-2020.
- ²⁷ Prepared for the Northern Way by Steer Davies Gleave using the Department for Transport method of assessment and elasticities, October 2006.
- ²⁸ These agglomeration benefits are additional to the benefits that have already been assessed in studies such as that by Atkins and others for the Strategic Rail Authority.
- ²⁹ Steer Davies Gleave smartcard case study for the Northern Way.

- ³⁰ The Highways Agency sets out a range of action points including providing real time information on traffic conditions using electronic signs, radio and other in-vehicle technology (*Better Value from Busy Roads* Highways Agency Economy Strategic Plan).
- ³¹ For an overview of the conventional transport benefits of improved passenger information, passenger facilities and network legibility see Chapter 8 of TRL593, *The Demand for Public Transport: A Practical Guide* ("The Black Book").
- ³²Qualitative research exploring the perception of bus service quality and function undertaken by Steer Davies Gleave for Travel West Midlands shows that there are minimum quality thresholds that have to be reached to make bus services attractive to non captive users and that the perception of quality of bus services is determined by the weakest element.
- ³³ Without the impact of Northern Way initiatives, GVA growth in the ten years to 2016 is 2.7% pa for Greater Manchester South, 2.2% for Leeds and 2.3% and 2.4% for Tyneside and Sunderland respectively. Source: Regional Forecasts analysis for the Northern Way.
- ³⁴ Evidence suggests that perhaps up to a 15% reduction in traffic levels is achievable through the use of demand management and behaviour change programmes if comprehensively applied. But the cost effectiveness of these strategies on their own in the longer term is not yet known, and in event, the rate of economic growth and of increased levels of business and social contact that a buoyant economy generates will exceed this reduction over a period of a few years. See Cairns S, Sloman L, Newson C, Anable J & Goodwin P (2004), *Smarter Choices: Changing the Way We Travel.*
- ³⁵ The benefits from this approach are well-understood: see, for example, Glaister and Graham, *Transport Pricing and Investment in England* Summary Report May 2003.
- ³⁶ DfT has published background research and a road pricing feasibility study. It has produced guidance on the modelling and appraisal of pricing schemes as part of the Congestion Transport Innovation Fund initiative.
- ³⁷ Government is reported as intending to seek the powers needed for a nationally-based scheme in 2007. Opposition parties may take a different view on the way in which road users should be exposed to greater levels of taxation, with both Conservative and Liberal Democrat Parties favouring higher fuel taxes and increased vehicle duties/taxes to reflect the perceived need to tackle the level of greenhouse gas emissions from the transport sector; all the major parties appear to be resolved to increase charges (taxes) on road use.
- ³⁸ In London, reductions in congestion inside the charging zone over the whole period since the introduction of the scheme now average 26 percent. Typical delay values in the charging zone in 2005 were 1.8 minutes per kilometre, compared with 2.3 minutes per kilometre for representative conditions before the introduction of charging in 2002. (*Central London Congestion Charging: Impacts Monitoring, Fourth Annual Report*, June 2006, Transport for London).
- ³⁹ Reductions in generalised cost from time savings result in wider economic benefits.
- ⁴⁰ Drivetime analysis undertaken by Steer Davies Gleave shows that the average journey speed between Manchester and Sheffield is just 49 kph. to travel 61km. This compares with a Manchester to Leeds average speed of 79 kph for 69km. Unsurprisingly, there is much less integration of the Sheffield, compared to the Leeds, labour forces with the employment opportunities in Manchester.

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